APPENDIX A2

PROJECT SPECIFICATIONS
CITY OF SEATTLE
Seattle
City Light

IMPROVEMENT OF: TERMINAL 117 ADJACENT STREETS CLEANUP & STORMWATER INFRASTRUCTURE

SPEC. No.: 3567
FUNDED BY: SCL and DOE
PW#: 2014-012
ORDINANCE #: 124349

ADVERTISE: September 17, 2014
BIDS OPEN: October 8, 2014
SEATTLE, WASHINGTON
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City of Seattle

TERMINAL 117 ADJACENT STREETS CLEANUP & STORMWATER INFRASTRUCTURE

Bid Opening: October 8, 2014 at 2:00 P.M.

Ordinance 124349

PW# 2014-012

PROJECT LOCATION: This Project is located in the South Park Neighborhood of Seattle, Washington, adjacent to Terminal 117 (8660 Dallas Avenue S.). The Site consists of portions of the 8500 thru 8700 blocks of Dallas Avenue S., the 8600 block of 16th Avenue S., the 8600 block of 17th Avenue S., and the 1400 through 1700 blocks of S. Donovan Street.

PROJECT DESCRIPTION: This Project consists of the following elements of Work: Excavation and disposal of approximately 11,900 cubic yards of PCB contaminated soils; removal and replacement of pavement, sidewalks, and curb in the right of way; installation of approximately 1,700 linear feet of storm water pipe in the right of way; installation of approximately 200 linear feet of outfall storm water pipe that discharges into the Lower Duwamish Waterway; installation of biofiltration units and bioretention swales in the right of way; construction of soldier piles and geoweb piles; site restoration, landscaping, and planting.

ESTIMATE: The Engineer's Estimate for this Project is $5,500,000.

PRE-BID MEETING: An optional pre-bid meeting will be held on Thursday, September 25, 2014, at 10:30am at Seattle Municipal Tower, 700 Fifth Avenue, Suite 4070, Seattle, WA 98104. All those that wish to bid on the project are encouraged to attend.

NOTICE TO BIDDERS: This Project is being performed under an Administrative Settlement Agreement and Order on Consent (Settlement Agreement) between the City of Seattle (Owner) and the U.S. Environmental Protection Agency (EPA) to perform a non-time-critical early action cleanup within the Lower Duwamish Waterway (LDW) Superfund site. The removal will be conducted under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (1986; SARA) as administered by the EPA. All applicable Federal, State, and local regulations shall be adhered to by the Contractor.

SCHEDULE CONSTRAINT: All outfall construction work shall occur between June and August 2015 as allowed by the U.S. Fish and Wildlife Service, National Marine Fisheries, and the Muckleshoot Tribe; reference Section 1-08.3(2) for more details.

For purposes of the Inclusion Plan, this is considered a Roadway type of project with a Past Performance of 14% WMBE utilization rates based on completed projects. For questions on the Inclusion Plan please contact Miguel Beltran at Miguel.beltran@seattle.gov or 206-684-4525. Back-up contact is Forrest Gillette at Forrest.gillette@seattle.gov or 206-684-3081.

OBTAINING BID DOCUMENTS: Contract Documents, contacts and Bid instructions are available at https://www.ebidexchange.com/seattle.
The City of Seattle
Department of Finance and Administrative Services
Project Manual for

TERMINAL 117 ADJACENT STREETS CLEANUP & STORMWATER INFRASTRUCTURE

As Authorized by Ordinance No. 124349
Funding Source: SCL

Prepared by
Seattle Public Utilities
For
Seattle City Light

Approved: _______________________
General Manager and Chief Executive Officer Date

APPROVED FOR ADVERTISING
NANCY LOCKE
City Purchasing and Contracting Services


BY: _______________________
For City Purchasing and Contracting Services Director

Rev 4-29-11
CERTIFICATION

The technical material and data contained in this document were prepared under the supervision and direction of the undersigned, whose seals, as Professional Engineers and Registered Landscape Architects, licensed to practice as such, are affixed below.

Prepared by Eric L. Pilcher, P.E.
Sections 1-07.5(2), 1-07.5(3) – 1-07.5(6), 1-07.15(2), 1-07.30(2), 1-07.30(6), 1-07.30(7), 1-07.31 – 1-07.35, 1-10.2(5)D, 2-02.3(3)A, 2-02.3(3)D, 2-02.3(3)F, 2-02.3(9), 2-04.1(2), 2-04.3(1)A, 2-08.3(1), 2-10.2(1), 2-10.2(2)A, 8-01.3(2)C, 8-01.3(9)B, 8-01.3(16), 8-11, 9-00.8, and 9-14.1(1)

Prepared by Erik Davido, P.E.
Sections 1-07.15(2), 2-04.3, 7-01.3(4), 7-05.3(2)G, 7-05.4, 7-05.5, 7-08.3(5), 7-17.2(1), 7-17.2(4), 7-17.3(1)B1, 7-17.3(2)B3, 7-21.1, 7-21.2, 7-21.3(1)A, 7-21.3(1)B, 7-21.3(3) – 7.21.3(9), 7-21.4, 7-21.5, 7-23, 9-14.1(5), and 9-14.2

Prepared by Steven Lee Gray, P.E.
Sections 2-10.2(4), 2-10.3(6), 7-17.3(1)D, 7-17.3(4), 9-03.19, and 9-05.5(6)
Prepared by James A. Brennan, R.L.A.—
Sections 6-02, 8-02.3(2)F, 8-02.3(6)D, 8-02.3(18)D, 8-02.3(26) — 8-02.3(29), 8-03, 9-03.3,

Prepared by C. Chevy Chase, P.E., S.E.—
Section 6-12

Prepared by John E. Zipper, P.E.—
Section 8-05
TERMINAL 117 ADJACENT STREETS CLEANUP & STORMWATER INFRASTRUCTURE

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Project Attachments/Figures/Tables

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Attachment 1-07.17-A   PSE Gas Lines
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City Forms
Social Equity Form
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Competent Person Evaluation
Seattle King County Waste Characterization Form and Instructions
Payment and Performance Bond
Supplemental Bidder Responsibility Criteria Form
Construction Contracts Teaming 360 Review
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Subcontractor Payment Report
Contractor’s Shop Drawing Review and Approval Request
Project Labor List - Contractor
Substitution Request Form
Request For Approval Of Material Sources
Seattle City Light Spill Notifications Procedures
Recycling and Disposal Information
HMA Mix Design Submittal Form
Deficient Contractor Performance Evaluation Report
Public Works Prevailing Wage Certification & Subcontractor List
Request for Information/Design Clarification/Variation Request
Submittal Transmittal and Response
Construction Stormwater Pollution Prevention (CSWPP) Inspection Form
Wage Rates
State Prevailing Wage Rates

Addenda and Modifications

Note: Drawings under separate cover.
INSTRUCTIONS TO BIDDERS  
SECTION 0-01.1  
TERMINAL 117 ADJACENT STREETS CLEANUP & STORMWATER INFRASTRUCTURE  

I. GENERAL  

This Contract will be administered by the Director of the Seattle City Light, subject to the approval and acceptance of the Director of Finance and Administrative Services. ANY QUESTIONS REGARDING THIS PROJECT SHOULD BE DIRECTED TO THE FOLLOWING:

Before Bid Opening:  
Ryan Brady  
Contracts Section  
Seattle Public Utilities  
700 5th Avenue, Suite 4900  
P.O. Box 34018  
Seattle, Washington  98124-4018  
Phone (206) 684-3617  
Fax (206) 684-8581  
Email: ryan.brady@seattle.gov  

After Bid Opening and Before Execution:  
Judy Keefe  
City Purchasing and Contracting Services  
Judy.Keefe@seattle.gov  
206-684-8032  

After Execution:  
Roger Culleton  
Construction Management Division  
Seattle City Light  
700 5th Avenue, Suite 3200  
P.O. Box 34023  
Seattle, Washington  98124-4023  
Phone (206) 386-0094  
Email:roger.culleton@seattle.gov  

Inclusion Plan:  All questions on the Inclusion Plan shall be directed to Miguel Beltran at Miguel.beltran@seattle.gov or 206-684-4525. If he is out of the office, the back-up contact is Forrest Gillette at Forrest.gillette@seattle.gov or 206-684-3081.

II. BID OPENING  

The authorized Bid Form shall be submitted as specified in Section 1-02.9(1). In accordance with Section 1-02.12, Bids will be opened and read orally in:

City Purchasing & Contracting Services  
City of Seattle Department of Finance and Administrative Services  
Seattle Municipal Tower, Suite 4112  
700 Fifth Avenue  
Seattle, Washington 98104  
Telephone (206) 684-0444,  

immediately after 2:00 p.m. on the following date:

OCTOBER 8, 2014  

Rev 01-05-2012
III. TIME OF COMPLETION

Work shall begin immediately on the Notice To Proceed Date in the Written Notice from the Engineer, Seattle City Light, and after the date of such notice shall be completed within the following period per Section 3 of the Agreement:

280 WORKING DAYS

Reference Section 1-08.3(2) for project schedule constraints.

The Owner will issue a suspension of work during the USEPA review of the RAWP submittals. Reference Section 1-08.6 for more details.

IV. LIQUIDATED DAMAGES

If the successful Contractor fails to complete Work within the time set forth above, he shall be charged Liquidated Damages per Section 4 of the Agreement Form.

If the Work is not Substantially Complete within the Contract Time, the Contractor shall pay to the Owner, as Liquidated Damages, the sum of $3,525 for each Working Day that the Work has not achieved Substantial Completion exclusive of those days where the Engineer has granted an extension of time.

After Substantial Completion, for each Working Day that the Contractor fails to achieve Physical Completion within the Contract Time, the Contractor shall pay to the Owner, as Liquidated Damages, the sum of $1,600 for each Working Day that the Work has not achieved Physical Completion exclusive of those days wherefore the Engineer has granted an extension of time.

See Section 1-08.9 for additional details.

V. SOILS INFORMATION

Refer to Section 1-02.4(2) in the Project Manual for information about any geotechnical report, soil boring data, or soil sample test data accumulated by the Engineer.

VI. ITEMS OF INTEREST TO BIDDERS

Inclusion Plan………………………………………………………………1-02.9(4), 1-02.13, 1-03.1(4), 1-07.11(2)

Certified Minority & Women's Business Participation..........1-07.11(2)
1. The authorized Bid Form must be submitted to:

**Physical Address:**
City Purchasing & Contracting Services  
City of Seattle Department of Finance and Administrative Services  
Seattle Municipal Tower, Suite 4112  
700 Fifth Avenue  
Seattle, Washington 98104

**Mailing Address:**
City Purchasing & Contracting Services  
City of Seattle Department of Finance and Administrative Services  
P.O. Box 94687  
Seattle, Washington 98124-4687

by 2:00 p.m. on the date designated for receipt of Bids in the Advertisement for Bids.

If sending by courier (UPS, FedEx, etc.) the physical street address must be used. If mailing by regular US mail, the Post Office Box must be used. Bidders are responsible for ensuring that the proper Zip code is used. The City of Seattle will not be responsible for a late bid.

2. With regard to Section 0-01.3(1) BID:
   a. Have you enclosed with your Bid the Bid Guaranty for not less than 5% of the maximum Bid amount that could be awarded including retail sales tax?
   b. Have you Bid on all items including Additives, Alternates, and Deductives (when indicated)?

3. With regard to Section 0-01.3(2) DECLARATION:
   a. Have you provided all information requested?
   b. Has the official authorized to represent the Bidder signed the declaration?
   c. Have you acknowledged all addenda?

**ALL OF THE ABOVE ITEMS MUST BE COMPLETED OR YOUR BID MAY BE DECLARED NON-RESPONSIVE.**

4. With regard to Section 0-01.4 INCLUSION PLAN:
   a. Have you completed the Inclusion Plan? This form must be submitted with your bid if the Owner has estimated the Project will cost over $300,000. The Inclusion Plan is a condition of Award for this Contract.

**ALL OF THE ABOVE ITEMS MUST BE COMPLETED OR YOUR BID MAY BE DECLARED NON-RESPONSIVE.**

5. With regard to Section 0-01.5 BIDDER/SUBCONTRACTOR LIST:

Have you completed and signed the Bidder/Subcontractor List? This list is required to be submitted if the Owner has estimated the Project will cost $1,000,000 or more.

**FAILURE TO COMPLETE, SIGN, AND SUBMIT THE BIDDER/SUBCONTRACTOR LIST WITHIN ONE HOUR AFTER BID OPENING WILL RESULT IN THE BID BEING DECLARED NON-RESPONSIVE.**
6. With regard to Section **1-02.2 SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA:**

   The Supplemental Bidder Responsibility Criteria Form and any additional documentation shall be submitted to CPCS within three (3) Business Days of receipt of request. See Section 1-02.2.

   **FAILURE TO COMPLETE, SIGN, AND SUBMIT THE ABOVE BY THE REQUIRED DEADLINE MAY RESULT IN THE BIDDER BEING DECLARED NOT RESPONSIBLE**
The Bid Form can be found as a separate document at: https://www.ebidexchange.com/seattle
The Inclusion Plan can be found at: https://www.ebidexchange.com/seattle as part of the Bid Form.
The Bidder Subcontractor List can be found at: https://www.ebidexchange.com/seattle as part of the Bid Form.
CONTRACT REQUIREMENTS
This agreement by and between the Director of Finance and Administrative Services, acting on behalf of The City of Seattle, a municipal corporation of the State of Washington, hereinafter referred to as the Owner, and [Contractor Name], hereinafter referred to as the Contractor, witnesseth that in accordance with the terms and conditions of Contract PW# 2014-012 awarded the ________________ day of ________________, 20___ the parties agree as follows:

SECTION 1. That the Contractor shall do or cause to be done all Work and shall furnish or cause to be furnished all tools, Materials, Equipment, Supplies and labor necessary to improve TERMINAL 117 ADJACENT STREETS CLEANUP & STORMWATER INFRASTRUCTURE as ordered by Ordinance No.124349 in all respects, in accordance with and as described in the Contract now on file in the office of the Engineer for the following Awarded Contract Price:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Bid</td>
<td>$ __________</td>
</tr>
<tr>
<td>State Sales Tax</td>
<td>$ N/A</td>
</tr>
<tr>
<td>Awarded Contract Price</td>
<td>$ __________</td>
</tr>
</tbody>
</table>

The Contractor shall provide and bear the expense of all Equipment, Material, Supplies, 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, except such as are mentioned in the Contract furnished by the Owner.

SECTION 2. The parties shall be bound by the Constitution and Laws of the State of Washington and the Charter, Ordinances, Rules and Regulations of the City of Seattle and by all applicable federal laws and government regulations, which provisions are incorporated by reference herein.

For the convenience of the parties of this Contract it is mutually agreed that any claims or causes of action which the Contractor has against the Owner arising from this Contract shall be brought within 180 calendar days from the Completion Date of the Contract. It is further agreed by the parties that any such claims, disputes, or causes of action which cannot be resolved pursuant to the procedures set forth in the Contract Documents shall be brought only in the Superior Court of King County. The parties understand and agree that the Contractor's failure to bring suit within the time period provided shall be a complete bar to any such claims or causes of action.
SECTION 3. The Contractor shall begin the Work of the Contract on the Notice to Proceed Date stated in the Notice to Proceed issued to said Contractor by the Engineer, and to carry said Work on regularly and without interruption thereafter (unless the Engineer shall otherwise, in writing, specifically direct) with such forces as to complete said Work in a manner acceptable to the Engineer within

280 WORKING DAYS

after such notice to begin Work; the time of beginning, rate of progress, and time of completion being essential and material provisions of the Contract.

SECTION 4. If the Work is not Substantially Complete within the Contract Time, the Contractor shall pay to the Owner, as Liquidated Damages, the sum of $3,525 for each Working Day that the Work has not achieved Substantial Completion exclusive of those days where the Engineer has granted an extension of time.

After Substantial Completion, for each Working Day that the Contractor fails to achieve Physical Completion within the Contract Time, the Contractor shall pay to the Owner, as Liquidated Damages, the sum of $1,600 for each Working Day that the Work has not achieved Physical Completion exclusive of those days where the Engineer has granted an extension of time.

The Owner and the Contractor agree that establishing the precise amount of actual damage incurred by the Owner due to delay would be difficult to determine. The Contractor hereby agrees the amounts set forth as Liquidated Damages are reasonable amounts and are not a penalty.

SECTION 5. The Owner agrees to employ the Contractor to complete the Work in accordance with the Contract and agrees to pay for the same according to the schedule of Bid item prices listed in the Bid Form, at the time and in the manner and upon the conditions provided for in the Contract.

The Contractor shall inform all Subcontractors who work on the Improvement named in Section 1 of this Agreement of the manner and method of payment and the manner and method of measuring or computing the quantities of subcontracted work.

SECTION 6. In accordance with Chapter 39.12 RCW, the City Charter, and the Project Manual, the Contractor shall pay, or cause to be paid to persons employed on or in connection with this Work, not less than the prevailing rate of wage for an hour's work specified for the labor performed.

SECTION 7. The Contractor on behalf of his or her heirs, executors, administrators, successors, and assigns, does hereby agree to the full performance of all the covenants to which the Contractor is obligated under the terms of the Contract.

SECTION 8. It is further provided that no liability shall attach to the Owner by reason of entering into this Contract except as expressly provided herein.

SECTION 9. If the Contractor violates any material covenant or provision of this Contract the Owner may: withhold payment due on any work done under the Contract until the Contractor complies with the Contract; order that the Work be stopped, terminate the Contract, debar the Contractor in accordance with SMC 20.70.
Contractor shall declare option for management of statutory retained percentage of this Contract by checking applicable box below.

- [ ] Contractor elects to submit a bond in lieu of retained funds.

- [ ] Contractor hereby elects to have the retained percentage of this Contract held in a non-interest bearing fund by The City of Seattle until sixty (60) days following the Completion Date.

- [ ] Contractor hereby elects to have The City of Seattle invest the retained percentage of the Contract from time to time as such retained percentage accrues and in accordance with RCW 60.28.011, .021 and .051. Contractor hereby designates:

  Name of Financial Institution

  Street Address, City, State, Zip Code

  City, State, Zip Code of Financial Institution

as the repository for the escrow of said funds. Contractor hereby further agrees to be fully responsible for payment of all costs or fees incurred as a result of placing said retained percentage in escrow and investing it as authorized by statute. The City of Seattle shall not be liable in any way for any cost or fees in connection therewith.

IN WITNESS WHEREOF, the Owner has caused these presents to be signed by the designee of Director of Finance and Administrative Services; and the Contractor has hereunto affirmed his or her signature.

THE CITY OF SEATTLE
Director of Finance and Administrative Services

By ____________________________ Date __________________________
Director, City Purchasing and Contracting Services

CONTRACTOR

____________________________
Business name

By ____________________________ Date __________________________
Title ___________________________
0-02.2 AMENDMENTS AND SPECIAL PROVISIONS

0-02.3 PLANS, DRAWINGS AND SPECIFICATIONS (6-13-11)

The Work shall be performed in accordance with these amendments and Special Provisions together with the provisions, insofar as they are applicable, of the following documents:

1. The Engineering Drawing Sheets 1 through 84.

2. The City of Seattle Standard Plans and Standard Specifications, which are comprised of:
   c. City of Seattle Traffic Control Manual for In-Street Work, 2005 edition, which supplements and is to be utilized in conjunction with the 2009 edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)," as published by the U.S. Department of Transportation, Washington, D.C.

3. The terms and conditions of such permits, agreements, ordinances, regulations, instructions and requirements as may be included in the appendix or otherwise attached hereto.

4. The protocols described within the Removal Action Design Report, and its appendices.


0-02.4 LOCATION OF PROJECT (6-13-11)

This Project is in the South Park Neighborhood of Seattle, Washington, adjacent to Terminal 117 (8660 Dallas Avenue S.). The Site consists of portions of the 8500 thru 8700 blocks of Dallas Avenue S., the 8600 block of 16th Avenue S., the 8600 block of 17th Avenue S., and the 1400 thru 1700 blocks of S. Donovan Street.

0-02.5 NATURE OF IMPROVEMENT (6-13-11)

This Project consists of the following elements of Work: Excavation and disposal of approximately 11,900 cubic yards of PCB contaminated soils; removal and replacement of pavement, sidewalks, and curb in the right of way; installation of approximately 1,700 linear feet of storm water pipe in the right of way; installation of approximately 200 linear feet of outfall storm water pipe that discharges into the Lower Duwamish Waterway; installation of biofiltration units and bioretention swales in the right of way; construction of soldier piles and geoweb piles; site restoration, landscaping, and planting.
DIVISION 1
GENERAL REQUIREMENTS

SECTION 1-01 DEFINITIONS AND TERMS

1-01.2(1) ASSOCIATIONS AND MISCELLANEOUS (10-01-13)

Replace “PCSD – Purchasing and Contracting Services Division” with “CPCS – City Purchasing and Contracting Services” in all instances.

Supplement this Section with the following:

CERCLA  Comprehensive Environmental Response, Compensation, and Liability Act
NIOSH  National Institute for Occupational Safety and Health
PPE  Personal Protective Equipment
RCRA  Resource Conservation and Recovery Act
TSCA  Toxic Substances Control Act
USDOT  United States Department of Transportation

1-01.3 DEFINITIONS (8-22-11)

Delete the definition for “Affirmative Efforts” and replace with the following:

AFFIRMATIVE EFFORTS
Documented, good faith efforts to contact and employ women and minorities and to solicit and contract with Women and Minority Businesses (WMBEs) as documented in the Inclusion Plan form.

Delete the definition for “Construction Outreach Plan” and replace with the following:

CONSTRUCTION INCLUSION PLAN
The Owner-provided form used by the Contractor to document Affirmative Efforts. Replace all references to Outreach Plan with Inclusion Plan.

Add the following definitions:

CONTRACT BOND
Replace “Contract Bond” with “Payment and Performance Bond” in all instances.

EXCLUSION ZONE
Location within the Project Site in which workers or the public may be exposed to Contaminated Material(s) and shall be barricaded to prevent unauthorized entry.

HAZARDOUS MATERIAL(S)
A substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, or property when transported in commerce, and which has been so designated pursuant to the Hazardous Materials Transportation Act, 49 U.S.C. Section 1801 et seq. The term includes materials designated as hazardous materials under the provisions of 49 CFR 172, Sections 101 and 102, and materials that meet the defining criteria for hazard classes and divisions in 49 CFR 173. USEPA designated hazardous wastes are also hazardous materials.
PROCESS WATER
For the purposes of this contract, any water that comes in contact with uncured concrete or water generated by tire wash facilities, equipment/personnel decontamination activities, or concrete saw cutting, shall be considered process water.

SOLID WASTE(S)
All putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

UNACCEPTABLE MATERIAL(S)
Soil, material, debris, etc. that does not meet the criteria of Contaminated Material or dangerous waste, but is otherwise not geotechnically suitable to be spoiled, abandoned, buried or otherwise left within the project site.

SECTION 1-02  BID PROCEDURES AND CONDITIONS

1-02.2 SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA (6-13-11)

Delete this Section in its entirety and replace with the following:

The supplemental Bidder responsibility criteria are contained herein, in Section 1-03.1(4), the Supplemental Bidder Responsibility Criteria Form, and in any additional forms contained in the Appendix.

1. Submission and Evaluation of the Criteria Form

The apparent low Bidder shall submit the Form and any additional documentation to CPCS within three (3) Business Days of receipt of request or as otherwise acceptable to CPCS. The documentation shall sufficiently demonstrate, in the sole judgment of the Owner, that the Bidder meets the supplemental responsibility criteria. The Bidder may provide any additional information the Bidder believes demonstrates the experience necessary to satisfy the City's Bidder responsibility criteria. The Owner may consider this additional information in evaluating the Bidder. The Owner reserves the right to request further documentation as needed to assess Bidder responsibility. The Owner reserves the right to request the documentation from other Bidders.

The basis for evaluation of the Bidder's responsibility under the supplemental criteria shall be the Bidder's responses and any documents or facts obtained by the Owner whether from Bidder or third parties which any reasonable Owner would rely on for determining responsibility, including but not limited to: (a) financial, historical, or operational data; (b) information obtained directly by the Owner from owners for whom the Bidder has worked, or other public agencies or private entities; and (c) any additional information obtained by the Owner which is believed to be relevant to the matter. In addition to contacting bonding companies, the Owner reserves the right to request financial statements from the Bidder to ensure that the Bidder has sufficient financing and financial capacity for the project.

2. Project-Specific Work Experience

The Bidder shall document in Part B of the Form and on the required attachment that the Bidder and the Bidder's Personnel have "successfully completed" projects of a similar type, size, and scope as required by the specifications and Form for this project; have appropriate equipment available and experience operating such equipment; and have available capacity to take on the work of the project.

It is the Bidder's responsibility to verify that the reference information provided (names and phone numbers) is current. If the Project Manager is unable to contact the individuals in order to verify Bidder or Subcontractor experience, the related experience may not be considered by the Project Manager.
A. **Work Completed.** Provide a list of all construction contracts completed which are similar in type, size and scope of work to this project as required by the Form and any attached Work Experience Form. The Owner will evaluate it based on the criteria listed on the Form and in the specification.

For the purposes of meeting this criterion, the Owner has determined that “similar size and scope to this project” means projects that have the following characteristics:

1. Successfully completed at least two (2) environmental cleanup projects within the last five (5) years with the following elements:
   a. An initial contract value of at least $1,000,000.
   b. Excavation and disposal of a minimum of 10,000 cubic yards of Subtitle “D” and 5,000 cubic yards of Subtitle “C” Contaminated Material(s).
   c. Performed and completed under EPA oversight or State order.

B. **Personnel.**

1. **Project Manager**

   The Bidder shall identify a Project Manager who shall provide management and direction to the Bidder’s personnel assigned to the project and shall have overall responsibility for executing the work in compliance with the contract.

   The candidate shall have been in the role of Project Manager on at least two successful projects in the last five years of similar size and scope as described in paragraph A-1, above.

   In addition, the candidate shall have current 40-hour OSHA Hazardous Waste Operations training and 8-hour OSHA Site Supervisor training under 29 CFR 1910.120.

2. **Superintendent**

   The Bidder shall identify a Superintendent who shall be responsible for overseeing all work activities associated with the Contract and who shall not be the same person as the Project Manager.

   The candidate shall have been in the role of Superintendent on at least two projects successful projects in the last five years of similar size and scope as described in paragraph A-1, above.

   In addition, the candidate shall have current 40-hour OSHA Hazardous Waste Operations training and 8-hour OSHA Site Supervisor training under 29 CFR 1910.120.

3. **Site Safety and Health Supervisor**

   The Bidder shall identify a Site Health and Safety Supervisor who shall ensure that operations are performed in compliance with federal, state, local, and site-specific health and safety regulations and requirements, and shall not be the same person as the Superintendent. The Site Safety and Health Supervisor may be assigned other duties.

   The candidate shall have been in the role of Safety and Health Supervisor on at least two successful projects in the last five years of similar size and scope as described in paragraph A-1, above.
In addition, the candidate shall meet the following minimum requirements:

a. Experience in industrial hygiene such as an Industrial Hygienist certified by the American Industrial Hygiene Association who is qualified by experience and training in hazardous waste operations in accordance with applicable laws.

b. Have current 40-hour OSHA Hazardous Waste Operations training and 8-hour OSHA Site Supervisor training under 29 CFR 1910.120.

By submitting the information required on the form regarding Bidder’s personnel, the Bidder certifies that it shall assign such personnel to the Project. In the event it becomes necessary for the Bidder to substitute personnel during the life of the Contract, the following provisions apply:

a. Prior to substituting a new Project Manager, Superintendent, or Site Safety and Health Supervisor the Contractor must submit qualifications for the new personnel which meet the criteria provided in the supplemental bidder qualifications specifications for the Engineer’s or Owner’s approval.

b. The Engineer or Owner may suspend the project if the Contractor substitutes a Supervisor or Project Manager without the Engineer’s or Owner’s approval. The Contractor shall be fully liable for the additional costs resulting from the suspension of work and no adjustments in Contract time resulting from the suspension of work will be allowed.

3. Compliance History, Social Equity Compliance, and Legal Criteria

For the Bidder to be considered responsible under each criteria requiring a “Yes” or “No” answer, the Bidder shall either have a history of compliance or shall provide an explanation acceptable to the Owner of any extenuating circumstances that contributed to the Bidder’s non-compliance. The criteria apply to the Bidder, personnel listed, and any former companies identified in Part A. A “yes” may not automatically mean that a Bidder is considered not responsible, but the burden is on the bidder to demonstrate that they should be considered responsible.

4. Failure to Disclose or False Information

Failure to disclose information requested on the Form or attachments or the submission of false or misleading information may result in the Owner taking the following actions:

a. Rejection of the Bidder’s bid under 1-02.14
b. Revocation of the contract award;
c. Termination of the contract under 1-08.10;
d. Proceeding with debarment under 1-08.10(8) and SMC 20.70.

1-02.4 EXAMINATION OF BID DOCUMENTS AND PROJECT SITE

1-02.4(1) GENERAL [3] (1-18-07)

Supplement this Section with the following:

An optional pre-bid site meeting will be held on Thursday, September 25, 2014, at 10:30am at Seattle Municipal Tower, 700 Fifth Avenue, Suite 4070, Seattle, WA 98124-5042.
The following subsurface investigation reports and documents are available online at http://www.ebidexchange.com/seattle:

1. Site Characterization Data Report, South Park Soil Remediation Project (Integral 2006)
2. Pre-excavation Confirmation Sampling Results, Adjacent Streets Area (Integral 2013)
3. Predicted Groundwater Mounding Related to Stormwater Infiltration Events for Bioretention Facilities on Dallas Ave S and 17th Ave S (Integral 2014)
5. Geotechnical Basis of Design Report, Sediment and Upland Areas (Jacobs 2012)
7. Geotechnical Memorandum, Dallas Avenue South Drainage Project, Subsurface Infiltration Recommendations (Seattle 2014a)
8. Dallas Avenue Drainage Project, Slope Stability Analysis for Proposed Port of Seattle Slopes (Seattle 2013)
9. Dallas Avenue Drainage Project, Geotechnical Recommendations for New Outfall and Related Items (Seattle 2014b)
12. Geotechnical Data Report, South Donovan Street Slope Restoration (ZGA 2014a)

Any correction or changes to a Bid must be initialed, and are considered valid changes that are bound by the signature on the Bid Form.

The Bidder/Subcontractor List may be submitted at the addresses listed in Section 1-02.9(1), faxed to (206) 684-4511, or by submitting a signed PDF version of the form to Judy.Keefe@Seattle.gov. Clearly mark the Project Name and Bidder’s name to ensure the form is routed correctly.
1-02.9(4) OUTREACH PLAN (1-5-12)

Delete this Title and Section and replace with the following:

1-02.9(4) INCLUSION PLAN

For all public works projects having an Engineer’s Estimate of $300,000.00 or more, all Bidders shall complete and submit the Inclusion Plan, Section 0-01.4, with the Bid. Failure to submit a completed Inclusion Plan as required on the Plan will result in a determination that the Bid is non-responsive and the Bid will be rejected. The Bidder’s completed Inclusion Plan will be awarded points based on how well the Inclusion Plan demonstrates the Bidder’s commitment to make affirmative efforts to establish and meet reasonably achievable goals for WMBE utilization. In order to be considered responsive, the Bidder’s Inclusion Plan must receive at least the minimum number of points as detailed on the Plan to be considered responsive.

For purposes of the Inclusion Plan, this is considered a Roadway type of project with a Past Performance of 14% WMBE utilization rates based on completed projects.

1-02.13 IRREGULAR BIDS (8-22-11)

Replace Item 1.i. with the following:

   i. The Inclusion Plan is not submitted with the Bid when required.

Add to Item 2.h:

   h. The Inclusion Plan does not receive the minimum score as identified in the Plan to be considered responsive when submitted with the Bid when required.

1-02.14 DISQUALIFICATION OF BIDDERS (8-22-11)

Delete item 1.k. and make it reserved

SECTION 1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 CONSIDERATION OF BIDS

1-03.1(2)A RECIPROCAL PREFERENCE FOR RESIDENT CONTRACTORS (New Section) (3-26-12)

A nonresident Contractor is a Contractor who does not have a physical office located in Washington at the time of bidding and is from a state that provides a percentage bid preference to its resident contractors bidding on public works contracts per RCW 39.04.380. The state of residence for a nonresident contractor is the state in which the contractor was incorporated or, if not a corporation, the state where the contractor’s business entity was formed.

For a public works Bid received from a nonresident contractor from a state that provides an in-state percentage bidding preference, a Comparable Percentage Disadvantage (CPD) will be applied to the bid of that nonresident contractor. The CPD is the in-state contractor percentage advantage provided by the contractor’s home state.

For the purpose of determining the successful bidder, multiply the nonresident contractor’s Bid amount by the CPD. The bid amount shall be the total of the Base Bid and all selected Additives, Alternates, or Deductives to be awarded. The CPD shall be added to the nonresident contractor’s bid amount which equates to the nonresident disadvantaged total. The nonresident disadvantage total shall be compared to the resident contractor’s bid amount. The Bidder with the lowest total shall be the successful bidder. See example below:
<table>
<thead>
<tr>
<th>Alaska nonresident contractor bid amount</th>
<th>$100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiplied by the Alaska CPD (5%) x 0.05</td>
<td>$5,000</td>
</tr>
<tr>
<td>New nonresident disadvantaged total</td>
<td>$105,000</td>
</tr>
</tbody>
</table>

If the $105,000 makes the Alaska Bidder’s Bid higher than a Washington resident contractor’s Bid (if the resident contractor’s Bid was $103,000), then the Washington resident contractor would be the apparent low bidder and the Contract awarded for the $103,000.

If the $105,000 Bid is still lower than the other Bids, the Alaska Bidder would be the apparent low bidder. The Contract would be awarded for the amount of the original bid amount of $100,000. The CPD is only used for the determination of the low bidder.

1-03.1(3) CLAIM OF ERROR (8-1-12)
Replace the PCSD phone number listed with the following:
Telephone (206) 684-0444

1-03.1(4) PRE-AWARD INFORMATION (8-22-11)
Replace Item 5. with the following:
5. Inclusion Plan: The apparent low Bidder shall comply with SMC 20.42 and RCW 35.22.650 pertaining to women and minority employment and subcontracting. The apparent low Bidder’s Bid responsiveness will be evaluated based on the Inclusion Plan (Section 0-01.4) submitted with its Bid as required in Section 1-02.9(4). See Section 1-07.11(2) for more information and reporting requirements.

1-03.2 AWARD OF CONTRACT (1-5-12)
Replace the second paragraph with the following:
The Owner will endeavor to Award the Contract within sixty (60) days after the Bid Opening Date. If the Contract is not awarded within that 60-day period, a Bidder may choose to withdraw their bid in writing at any time on or after the sixty (60) days. All Bids shall otherwise continue to be eligible for consideration until the City Awards the Contract.

1-03.7 PROTESTS (8-1-12)
Under Mailing Address replace the PCSD phone number and email listed with the following:
Telephone (206) 684-0444
Judy.Keefe@Seattle.Gov

SECTION 1-04 SCOPE OF WORK

1-04.4 CHANGES (10-16-00)
Supplement this Section with the following:
For this project, the Owner has a policy for the administration of cost reduction alternatives proposed by the Contractor. The Contractor may submit proposals for changing the Drawings, Specifications, or other requirements of the Contract. These proposals must reduce the cost or time required for construction of the Work. When determined appropriate by the Engineer, the Contractor will be allowed to share the savings. Cost Reduction Incentive Proposals shall meet the requirements of Section 1-04.12. The Owner’s decision to accept or reject the Contractor’s proposal shall be final and shall not be subject to the dispute and claims procedures of Section 1-04.5 or otherwise subject to any litigation.
1-04.5(2) DISPUTE (8-22-11)

Replace Item 5. with the following:

5. The Contractor may request an extension of time to furnish additional written information. The Engineer will determine if such additional information would be helpful and if the Engineer determines it would be helpful, the Engineer will specify a reasonable extension of time. Any extension must be approved in writing by the Engineer.

1-04.5(3) CLAIMS (8-22-11)

Replace Item 11), second sentence with the following:

The Engineer may require the basis of any of these amounts.

Replace item, 11), c., 1) with the following:

1) Where the equipment is Contractor owned through outright ownership or through a long-term lease, the Contractor shall document the Contractor’s actual internal bid rates (Bid rates are the equipment rates used by the Contractor or Subcontractors for bidding and project cost tracking; these rates typically exclude labor for operation; if an operator is included in a Bid rate, it should be indicated as such).

1-04.7 DIFFERING SITE CONDITIONS – “CHANGED CONDITIONS”

Supplement this Section with the following:

As noted in Section 1-07.30, the present site conditions include Contaminated Material(s) and TSCA waste(s), as well as a varied quantity of debris. If encountered, such material shall not be categorized as a “changed condition.”

1-04.9 USE OF BUILDING OR STRUCTURES

Supplement this Section with the following:

The Owner is in the process of obtaining an access agreement with Seattle Parks and Recreation for the purpose of construction staging and field offices on their property northwest of the intersection of 14th Avenue S and Dallas Avenue S (see Figure 1-04.9-1 in the Appendix).

1-04.10 USE OF MATERIALS FOUND ON THE PROJECT SITE

Supplement this Section with the following:

None of the soil excavated from the Project Site shall be reused as select material.

1-04.12 VALUE ENGINEERING COST REDUCTION INCENTIVE (New Section) (10-16-00)

After Award the Contractor may develop and submit proposals that will effect a substantial reduction in the cost of the project. To merit consideration the proposal shall not:

1) Extend the Contract Time;
2) Vary from the design criteria, Specifications, or construction methods in the Contract such that the change constitutes a new undertaking;
3) Impair the essential functions and characteristics of the project including, but not limited to, service life, economy of operation, ease of maintenance, desired appearance, structural system, and safety standards;
(4) Be based solely on reducing Contract delivery periods, completion periods, or eliminating requirements of public law;
(5) Be similar to a change in the Contract made for this project by the Engineer at the time the Contractor’s proposal is submitted; or
(6) Be based on ideas similar to those in the Standard Specifications, Standard Plans, or Special Provisions adopted by the Engineer after advertisement of this Contract.

The Engineer reserves the right to make the changes referenced in (5) and (6) above without compensation to the Contractor pursuant to this Section. Inquiries regarding the design criteria that apply to this Project will be answered by the Engineer.

Each cost reduction proposal shall contain, as a minimum, the following information:

(a) A statement that the proposal is submitted as a value engineering cost reduction proposal;
(b) A description of the differences between the existing Contract requirements and the proposed change, the comparative advantages and disadvantages of each and the effect the proposal will have on the performance of the facility being constructed;
(c) An analysis and itemization of the requirements of the Contract that will be changed if the proposal is accepted and a recommendation on how to make each change;
(d) An itemized and detailed cost comparison of the existing Contract requirements to the proposed change;
(e) An estimate of the total reduction in costs that will result if the proposal is accepted; and
(f) The date by which the Engineer must accept the proposal in whole or part.

When cost reduction proposals involve design changes in structural, civil, electrical, mechanical, or other engineering disciplines, the design and plans shall be prepared by (or under the direction of) a Professional Engineer registered in the state of Washington pursuant to Title 18 RCW in accordance with the requirements of Section 1-05.3(12). The cost reduction proposal and plans shall bear the signature and seal of the Professional Engineer. Proposed changes in structural details shall be accompanied by engineering calculations and drawings in sufficient detail to provide for adequate evaluation.

The Contractor’s cost to develop and implement an acceptable cost reduction proposal shall include development and implementation costs of involved Subcontractors. These costs shall include value incentive payments to Subcontractors when such costs clearly pertain to the cost reduction proposal and are incurred, paid or accrued in the performance of a subcontract under this Contract. However, no Subcontractor payment or accrual will be permitted, either as a part of the Contractor’s development or implementation costs or otherwise, to reduce the Owner’s share.

The Contractor shall submit the proposal to the Engineer with sufficient lead time to permit evaluation by the Engineer. The Engineer shall not be liable for delays in acting on or failing to act upon a cost reduction proposal. Such delays shall not extend the Contract Time unless authorized in writing by the Engineer.

The Contractor shall continue to do the Work according to the requirements of the Contract until a Change Order incorporating the cost reduction proposal is executed. If a Change Order is not issued by the desired date stated in the Contractor’s cost reduction proposal, or a subsequent date specified in writing by the Contractor, the cost reduction proposal shall be deemed rejected.

The Engineer will be the sole judge of the acceptability of a cost reduction proposal and of the estimated net cost savings to adopt all or any part of the proposal. In arriving at the estimated net savings, costs incurred by the Engineer and the Engineer’s consultants in processing, evaluating and implementing the cost reduction proposal will be deducted from the total reduction in the Contractor’s performance costs resulting from the proposal. Also the cost of any performance guaranties or bonds that may be required by the Owner to implement the proposal shall be deducted. The Contractor shall have the right to withdraw, in whole or in part, a proposal before acceptance of the proposal by the Engineer.

When a cost reduction proposal is accepted, in whole or in part, the Engineer will issue a Change Order implementing it. The Change Order will:

1. Reference the cost reduction proposal.
2. Specify the changes to the Contract.
3. Show the estimated net savings.
4. Show the cost of performing the work attributable to the cost reduction proposal.
5. Show deductions for the Engineer’s costs (including those of the Engineer’s consultants) incurred in processing, evaluating, and implementing the cost reduction proposal.
6. Provide that the Contractor be paid 50% of estimated net savings.
7. Grant the Owner the right to use all or any part of a cost reduction proposal, submitted by the Contractor, for general use on other contracts of the Owner without further obligation or compensation of any kind to the Contractor.

Payment via the Change Order shall be full compensation to the Contractor for developing the cost reduction proposal, completing the work pursuant to the Change Order, and every claim by the Contractor for any extra payment or extension of time with respect to the work described therein, including delays to the overall Project.

The basis and frequency of payment for work done pursuant to the Change Order shall be as provided in Section 1-09.9(1). Partial payments of the Contractor’s 50% share of the estimated net savings will be made once each month based on the Engineer’s monthly estimate of the percentage of Change Order work done that month. Payments will continue until the Change Order work has been completed and accepted by the Engineer.

SECTION 1-05 CONTROL OF WORK

1-05.3 SUBMITTALS

1-05.3(5) EARLY SUBMITTALS (8-15-14)

Delete this Section and replace with the following:

The following shall be submitted prior to or at the preconstruction conference:

1. Preliminary CPM schedule; see Section 1-08.3
2. Initial Submittal Control Document; see Section 1-05.3(4)
3. List of waste, recycle and disposal sites; see Section 1-07.3
4. Signed "Transfer of Coverage for Construction Stormwater General Permit" form, when applicable (see Section 1-07.15).
5. Social Equity Plan (including Apprenticeship Utilization Plan), as applicable; see Section 1-07.11(2)A.
6. Import material sites; see Section 2-10.2(2)A
7. The name, contact information, and qualifications for the Quality Control Representative; see Section 1-07.34(1).
8. The names, contact information, and qualifications for the Water Treatment Plant Project Manager and Water Treatment Plant Operator; see Section 1-07.15(2)A.
9. The names, contact information, assigned roles, and qualifications of any subcontractors that the Contractor plans to utilize to perform the Work.

When required by the Contract Documents, the following shall be submitted and approved by the Engineer prior to mobilization onto the Project Site:

1) Construction Stormwater and Erosion Control Plan (CSECP); see Section 8-01
2) Tree, Vegetation, and Soil Protection Plan (TVSPP); see Section 8-01
3) Spill Plan (SP); see Sections 1-07.15(1) and 8-01
4) Health and Safety Plan; see Sections 1-07.1(2) and 1-07.31
5) SDOT Street Use Permit and approved Traffic Control Plan; see Sections 1-07.6 and 1-10.
6) All Contractor-provided project plans and information identified in the Removal Action Work Plan (RAWP); see Section 1-07.35(1)
7) Proof of 40-hour training under 29 CFR 1910.120 (OSHA, HAZWOPER) and WAC 296-843-200 training for site workers and supervisory personnel who are authorized by the Contractor to engage in work associated with Contaminated Material(s) including, but not limited to, outfall piping and shoring installation personnel. In addition, for onsite
supervisory personnel, submit current certification of OSHA HAZWOPER and WAC 296-843-200 onsite management or supervisor training and American Red Cross first aid and cardiopulmonary resuscitation (CPR) training.

1-05.12 COMPLETION

Delete this Section and Title and replace with the following:

1-05.12 COMPLETION AND CONTRACT CLOSE OUT (8-15-2014)

1. After the Physical Completion Date is established and after all obligations of the Contract, other than retainage release have been completed, the Engineer will submit an acceptance package and supporting documents to CPCS per Section 1-09.9(4)A.

2. On behalf of the City, CPCS will establish the contract Completion Date, submit the Notification of Completion to the state agencies, and publish notice of the Completion Date per Section 1-09.9(4)B.

3. After all legal requirements are met, retainage will be released according to the priority and process under RCW 60.28 and Section 1-09.9(4)C.

1-05.13 SUPERINTENDENTS, LABOR, AND EQUIPMENT

1-05.13(1) GENERAL

Supplement this Section with the following:

The Project Manager shall, at a minimum, be physically present at weekly meetings.

The Superintendent, or Owner approved alternate, shall be physically present at the Project Site whenever work is in progress, except as approved by the Owner, and shall be responsible for all construction and construction-related activities at the Project Site.

1-05.13(2) CONTRACTOR/SUBCONTRACTOR PERFORMANCE EVALUATION PROGRAM

Delete this Title and Section and replace with the following:

1-05.13(2) PERFORMANCE (8-15-14)

The full Construction Contracts Teaming 360 Review Form and the Deficient Contractor Performance Evaluation Program and Form are located in the Appendix of the Project Manual.

1. The 360 Review

A Teaming 360 Review process and form is required for all projects with an engineer’s estimate of $1,000,000 or more. This form and process will be utilized by the City for other projects if the City has determined that it may prove beneficial to the City and Contractor.

The 360 Review is intended to:

a. Support collaborative communications on City construction projects; and
b. Share information at preconstruction, project midpoint, and project physical completion to team and facilitate a quality construction experience for both the Owner and the Contractor.

The 360 Review is provided for communication and collaboration, not for determinations of responsibility, debarment or performance. If a Contractor’s performance is so significantly below standards as to be deficient, follow Subsection 2 below.

2. Contractor Deficient Performance Evaluation
If the administering department determines that the Contractor’s performance during the construction of the Project is so significantly below City standards as to be deficient, the department will follow the Deficient Contractor Performance Evaluation Program and Form. If the deficiency is regarding the Contractor’s compliance with social equity requirements during the Project, the evaluation will be provided by the City Purchasing and Contracting Services on a separate Deficient Contractor’s Performance Evaluation Form.

The Contractor’s Deficient Performance Evaluation Program is intended to:

a. Provide the City with a rational basis when determining Bidder responsibility in awarding future Work; and
b. Provide a history and an assessment of a Contractor’s performance on prior City Contracts for use in debarment proceedings as authorized by SMC 20.70.050

1-05.14 COOPERATION WITH OTHER CONTRACTORS

Supplement this Section with the following:

The Contractor is advised that other contractors and utility agencies will be performing work in the vicinity of this Contract. At this time the Owner anticipates the Contractor will need to initiate frequent coordination with the following projects (points of contact included):

1. **Site 23 & 25 Restoration:** This project will be executed by the Port of Seattle and will involve grading and plant installation within the Terminal 117 property at 8660 Dallas Avenue S., et al. Access to and from the site will be from Dallas Avenue S. near 17th Avenue S. Point of Contact is Ticson Mach, Port of Seattle Project Manager, (206) 787-3815 or email: Mach.T@portseattle.org.

2. **Dallas Crossing:** This project will be executed by Seattle City Light and involve the construction of two new monopoles having reinforced concrete foundations measuring 8 to 10 feet in diameter by approximately 50 feet deep within the Dallas Avenue S. right-of-way between 14th Avenue S. and 17th Avenue S. Point of Contact is Mary Junttila, SCL Project Manager, (206) 684-3825 or email: mary.junttila@seattle.gov.

3. **Sewage Backup Prevention Project:** This project will be executed by Seattle Public Utilities and involve the installation of replacement combined sewer lines under 14th Avenue South, between South Concord and South Donovan, and west under Donovan to 12th Avenue South. Point of Contact is Jason Sharpley, SPU Program Manager, (206) 615-0030 or email: jason.sharpley@seattle.gov.

SECTION 1-06 CONTROL OF MATERIALS

1-06.1(C) MATERIALS WITHOUT SUBSTITUTION (6-13-11)

Supplement this Section with the following:

For this project, the following Specification Section(s) contain a Material, equipment, or equipment assembly where no substitution, or "approved equal", is allowed:

1) Section 7-23 Filterra Catch Basin
1-06.2 SAMPLES AND TESTS FOR ACCEPTANCE OF MATERIALS (8-15-14)

In the second sentence replace Section 1-03.1(4) 6) a) with Section 1-03.1(4) 8) a).

Supplement this Section with the following:

Additional material testing criteria is provided in Section 1-07.34(3)C.

1-06.5 REQUIREMENTS FOR TESTING AND TEST RESULTS FROM PRIVATE LABORATORIES AND INDIVIDUALS

Supplement this Section with the following:

Additional requirements for analytical chemistry testing laboratories are provided in Section 1-07.34(3)A.

SECTION 1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.3 MANAGEMENT AND DISPOSAL OF WASTE

1-07.3(1) GENERAL

Delete the last paragraph and replace with the following:

The Contractor shall dispose all Contaminated Material(s) in compliance with the CERCLA Off-Site Policy (40 CFR 300.440, Procedures for Planning and Implementing Off-Site Response Actions). Determination of acceptability for waste sites and their use will be subject to review by the Owner and USEPA as per Section 1-07.3(2).

Waste shall not be transported and disposed until facilities have been verified acceptable by the Owner and USEPA as per Section 1.07.3(2). The Owner reserves the right to reject any disposal facility.

1-07.3(2) SUBMITTALS

Delete the second paragraph and replace with the following:

The submittal shall identify each disposal site and recycle site, including name, address, phone number, and applicable USEPA/RCRA ID number, the estimated quantities, and type of material to be disposed or recycled at each site. The list shall include backup facilities in the event that preferred facilities do not meet USEPA or Owner acceptability. The list shall also identify the proposed transporter, including name, address, phone number, and applicable EPA/State ID number to be used for each type of waste or recyclable material and applicable licenses that may be necessary for transporting the identified or characterized waste. The submittal shall specifically identify any Contaminated Material(s) that the Contractor proposes to dispose.

Delete the fourth paragraph and replace with the following:

Should additional or alternate disposal and recycle sites, and transporters become necessary during the life of the Contract Time, the locations and information for each additional site, and qualifications and licenses of transporters, shall be submitted to the Engineer for approval at least 15 Working Days prior to their use.

Supplement this Section with the following:

The Contractor shall submit a Waste Transportation and Disposal Plan for inclusion as part of the RAWP required in Section 1-07.35(1)H.
1-07.3(4) RECYCLABLE MATERIALS (3-17-14)

Delete this section replace with the following:

1-07.3(4) RECYCLABLE MATERIALS

The City of Seattle requires the recycling of readily recyclable construction and demolition waste materials per SMC 21.36.089 and subsequent SPU Director's Rules related to construction materials disposal bans. In 2014 such materials include concrete, bricks, asphalt paving, metal (ferrous and non-ferrous), cardboard, and new construction gypsum scrap. In 2015 the materials targeted for recycling will include not only those listed previously but also plastic film wrap, carpet, unpainted and untreated wood, and tear-off asphalt roofing shingles.

Any revenue obtained or expense incurred by the Contractor for recycling shall be the Contractor’s alone. Materials identified in the Contract as salvage materials are excluded from the provisions of this Section.

All material to be recycled shall be free of soil to the maximum extent feasible. The Contractor shall remove soil adhering to materials to be recycled (e.g., demolished concrete) to attain a clean surface, in a manner consistent with the requirements of the approved recycling facility. If it is impractical to remove soil from recyclable materials, the materials shall be commingled with the soil and disposed at an approved facility. Material shall be approved by the Engineer prior to reuse or recycle.

1-07.5(2) WATER QUALITY

Delete Paragraph 6, Sub-section [3] “Discharging Ground Water” and replace with the following:

[3] Discharging Groundwater: When groundwater is encountered in an excavation, it shall be handled in accordance with Section 1-07.15(2)D – Discharge to the Combined Sewer.

Delete Paragraph 6, Sub-section [4] “Turbid Water Treatment Before Discharge” and replace with the following:

[4] Turbid Water Treatment Before Discharging: All construction water, as defined in Section 1-07.15(2), shall be discharged to combined sewer in accordance with the Owner obtained King County Discharge Authorization (Attachment 1-07.6-A of the Appendix). Only emergency releases of non-contact stormwater shall be allowed to discharge to the Lower Duwamish Waterway. In the event of an emergency release of non-contact stormwater, the Owner will perform testing, monitoring, and reporting required to verify that water discharged from the site meets water quality requirements as described in Section 1-07.15(2)E – Discharge to the Lower Duwamish Waterway prior to discharge.

1-07.5(3) AIR QUALITY

Supplement this Section with the following:

The Contractor shall implement best management practices to ensure that no visible dust is emitted at the site perimeter or within the neighborhood. These best management practices shall be described in the Contractor’s Pollution Control, Preservation and Mitigation Plan as described in Section 1-07.35(1)G and shall include, but not be limited to:

- Implementing worksite controls such as ceasing excavation during weather events that produce visible dust or limiting open excavations to one manageable area at one time
- Using water sprays to suppress dust and containing water where appropriate
- Cleaning vehicles leaving work zones to remove dirt or dust from wheel treads and exterior
- Containerizing TSCA Waste(s) and Dangerous Waste(s), pursuant to Section 1-07.30(6), to prevent the escape of materials.
- Provide a minimum of 12-inches of freeboard for all other waste (not designated as TSCA Waste or Dangerous Waste) truckloads to prevent the escape of dust-bearing materials.
In addition to limiting visible dust, implement the following air emission policies:

- Limit engine idle times to 5 minutes for all construction equipment and worker vehicles that are not actively engaged in construction or transportation activities (see Section 1-07.35(1)D).
- Limit worker smoking to designated areas.

1-07.5(4) NOISE POLLUTION

Supplement this Section with the following:

SMC Chapter 25.08 sets limits on construction site noise within residential areas. Specifically, the allowable sound level is based on SMC 25.08.410, which sets a 60 decibel (dB(A)) limit for industrial related noise generation (i.e., construction activities) adjacent to residential properties, based on a time-varying A-weighted equivalent constant sound level (Leq) of 1 minute for a constant sound source or 1 hour for a non-continuous sound source. SMC 25.08.425 allows a 25 dB(A) increase for construction activities at distances of up to 50 feet, making the maximum permissible Leq 85 dB(A) between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and between 9 a.m. and 7 p.m. on weekends and legal holidays.

In addition, noise generated by impact equipment (e.g., pavement breakers and jackhammers) may exceed Leq 85 dB(A) for any 1-hour period between 8:00 a.m. and 5:00 p.m. on weekdays, and between 9 a.m. and 5 p.m. on weekends and legal holidays. The allowable increase for impact equipment is on a sliding scale based on length of time in use. The following limits are imposed:

- Leq 90 dBA for continuous use
- Leq 93 dBA for 30 minutes each hour
- Leq 96 dBA for 15 minutes each hour
- Leq 99 dBA for 7.5 minutes each hour.

Leq 50 dBA at distances of up to 50 feet is the maximum permissible for all other time periods (i.e., 7:00 p.m. to 7:00 a.m. on weekdays and 7:00 p.m. to 9:00 a.m. on weekends and legal holidays).

Restrict noise-generating construction activities to between 7:00 a.m. and 7:00 p.m. on weekdays unless approval is granted by the Engineer. Modifications to this schedule may be made to accommodate special circumstances as agreed to by the Engineer (e.g., outfall construction during low tides).

During the initial operation of each excessive noise generating construction activity (e.g., pavement demolition, pile driving, Vactor excavation) use a hand-held meter to record noise levels and verify that they are within the noise ordinance limits. Once a baseline has been established, noise monitoring may be suspended with approval of the Engineer.

1-07.5(6) ARCHAEOLOGICAL AND HISTORIC PRESERVATION

Delete this Section and replace with the following:

Should the Contractor discover during any construction activity or in any other way discover any artifacts, skeletal remains, or other archaeological resources (as defined under RCW 27.53.040) at the Project Site, it shall be the responsibility of the Contractor to both immediately cease construction activity at the discovery site and surrounding area, and promptly notify the Engineer. In the event that human skeletal remains are discovered, in accordance with RCWs 68.50.645, 27.44.055, and 68.60.055, the Contractor shall also notify the county coroner and local law enforcement.

If ordered by the Engineer, the Contractor shall suspend construction activity that, in the opinion of the Engineer, would be in violation of State Law. Suspension of this construction activity shall remain in effect until the Engineer has obtained permission to proceed from the State Historic Preservation Officer or from other authority.

The Contractor and all Subcontractors shall comply with regulations regarding archaeological resources including, but not limited to the following:

Archaeological Sites and Resources (RCW 27.53)
Indian Graves and Records (RCW 27.44)
Archaeological Site Public Disclosure Exemption (RCW 42.56.300)
Discovery of Human Remains (RCW 27.44)
Archaeological Excavation and Removal Permit (WAC 25-48)
Abandoned and Historic Cemeteries and Historic Graves (RCW 68.60)
SEPA Environmental and Historic Preservation Policies (SMC 25.05.660-.675)

The Contractor shall review Chapters 5 and 6 of the Archaeological Monitoring and Inadvertent Discovery Plan (Historical Research Associates, December 2013) which is located in the Appendix. The Contractor shall provide access, assistance, and coordination with the Owner’s archaeologist for the duration of the monitoring period.

1-07.6 PERMITS

1-07.6(1) CONTRACTOR OBTAINED PERMITS (6-13-11)

Supplement this Section with the following:

The Contractor shall obtain and pay all fees for a street use permit from:

City of Seattle
Seattle Department of Transportation
Street Use Division
700 Fifth Avenue, Suite 2300
P.O. Box 34996
Seattle, Washington 98124-4996

Permit fees will be charged to the Contractor, comprised of a base permitting fee and mapping surcharge, plus a variable charge depending on the street designation, area occupied, and length of time occupied. All other fees associated with the Permit (including inspection fees) will be charged to the Contractor. Copies of sample worksheets for calculating the fee are included in the Appendix. Contact the following personnel for further information concerning this permit:

SDOT Permits Counter Email: SDOTPermits@seattle.gov
Hours: M-W, F 8-5, Thurs, 10:30-5

Information on SDOT Street Use permits can be found at the Street Use, permit link at www.seattle.gov/transportation.

The Contractor shall obtain and pay all fees for all necessary permits related to temporary utility connections and services (e.g., SPU hydrant use permits, SCL electrical permits).

Pursuant to CERCLA section 121(e)(1), the following permits are not required; however, the Contractor shall be responsible for meeting any substantive requirements as may be applicable:

a. Seattle DPD Grading/Building Permit
b. Seattle DPD Demolition permit
c. Puget Sound Clean Air Agency (PSCAA) permit
d. NPDES Construction Stormwater General Permit
e. Department of Ecology underground storage tank removal permit.
1-07.6(2) OWNER OBTAINED PERMITS (6-13-11)

Supplement this Section with the following:

The Owner has obtained or will obtain the following permits, authorizations, agreements, or easements:

1. Industrial Discharge Authorization (King County; Attachment 1-07.6-A)
2. Permanent Easement and Construction Access Agreement for Discharge Pipe (Port of Seattle; Attachment 1-07.6-B)
3. Construction Access Agreement for grading (Boeing; Attachment 1-07.6-C)
4. Construction Access Agreement for tree removal (1445 S. Cloverdale Street; Attachment 1-07.6-D)

The Owner has ensured that the design meets the substantive requirements of the Street Improvement Permit (SIP) for street restoration (http://www.seattle.gov/transportation/stuse_sip.htm), the substantive requirements of the Joint Aquatic Resource Permit Application (JARPA; RADR, Appendix H) and King County (King County Surface Water Design Manual, 2009) for the stormwater outfall. Since the substantive requirements have been followed the Owner does not have to obtain these permits.

1-07.9 WAGES

1-07.9(2) PAYROLL REPORTS (10-01-13)

Delete the first two paragraphs and replace with the following:

1-07.9(2) PAYROLL REPORTS

Payroll reports for the Contractor, every Subcontractor, and all other individuals or firms required to pay prevailing wages for Work performed shall be submitted weekly via an on-line reporting portal http://www.lcptracker.net. The Contractor shall be responsible for approving electronically the payrolls submitted by all Subcontractors. Payroll reports shall contain the following information:

1. Name and residence address of each worker.
2. Last four digits of Social Security number of each worker.
3. Classification of work performed by each worker. The classification must be specific and match the classification categories listed in the applicable wage schedule.
4. Total number of hours employed each day.
5. Total number of hours employed during the payroll period.
6. Straight time and overtime hourly rate of wages paid to each worker.
7. Total or gross amount earned by each worker.
8. Deductions for Medical Aid, FICA, federal withholding tax, and any other deductions taken.
9. Net amount paid each worker.
10. Contractor’s (or Subcontractor’s) name and address.
11. All days during the pay period.
12. Date of final day of pay period.
13. Whether fringe benefits were paid to each worker as part of the hourly wage rate or whether fringe benefits were paid into an approved plan, fund, or program; and the hourly rate of fringe benefits paid, if any.

For federally-funded projects payrolls may be submitted on federal payroll form WH-347 (or equivalent), which may be obtained by contacting the Government Printing Office’s toll free number (866) 512-1800, 7:30 AM to 4:30 PM Eastern Time, or by accessing their web-site at http://bookstore.gpo.gov.
1-07.9(7) REQUIRED DOCUMENTS

Delete this Section and replace with the following:

1-07.9(7) REQUIRED DOCUMENTS (8-22-11)

1. Before payment is made by the Owner of any sums due under this Contract, the Contractor and each Subcontractor regardless of tier shall have a "Statement of Intent to Pay Prevailing Wages" (form F700-029-000), approved by L&I. Wage rates listed on an approved Statement of Intent to Pay Prevailing Wages may not meet federal prevailing wage requirements.

2. Each progress estimate submitted for payment shall include the following statement: "I certify that the prevailing wages have been paid in accordance with the pre-filed Statement(s) of Intent to Pay Prevailing Wages on file with the City Purchasing and Contracting Services Division of the Department of Finance and Administrative Services. This statement covers the following period: ____________ (month/day/year) to ____________ (month/day/year)."

This statement shall be completed and signed by an authorized representative of the Contractor prior to payment of any voucher pursuant to RCW 39.12.040. This statement shall be attached to each progress estimate submitted to the Engineer for payment, certifying that the Statements of Intent to Pay Prevailing Wages have been approved by L&I and that prevailing wages have been paid in accordance with the previously filed Statement of Intent to Pay Prevailing Wages as specified in the first paragraph of Section 1-07.9(7), or the estimate will not be paid.

3. Upon completion of the Work and before any funds retained under RCW Chapter 60.28 can be released to the Contractor, the Contractor and each Subcontractor regardless of tier shall have an "Affidavit of Wages Paid" (form L700-007-000) approved by L&I. These forms, along with other requirements outlined in Section 1.09.9(2), shall be submitted by the Contractor to PCSD before any funds retained under RCW 60.28.011 will be released to the Contractor.

4. The Contractor or Subcontractor, as applicable, shall be responsible for payment of fees for each "Statement of Intent to Pay Prevailing Wages" and "Affidavit of Wages Paid" and shall submit all forms directly to L&I for approval. The cost of these fees shall be included in the Bid item prices that comprise this Contract. "Intent" and "Affidavit" forms may be obtained from the Department of Labor and Industries at the following website:

1-07.11 SOCIAL EQUITY IN CONTRACTING (8-22-11)

Delete the Section and Replace with the following:

1-07.11 SOCIAL EQUITY IN CONTRACTING

The City provides assistance to contractors that desire to bid on, or have been awarded a City contract, to comply with equal opportunity, non-discrimination, Affirmative Efforts, and Apprenticeship provisions. Should a contractor desire assistance or information in recruiting, tutoring, and training or otherwise preparing potential employees and Subcontractors, a contractor may contact CPCS at 206-684-0444. For projects with an Engineer's Estimate of $2,000,000.00 or more, the Contractor shall name a person or firm that has been qualified by the City to act as the Bidder's WMBE Expert for Affirmative Efforts.

Any questions, reports, or other submittals regarding the requirements of this Section shall be directed to:

City Purchasing and Contracting Services (CPCS)
City of Seattle, Department of Finance and Administrative Services
Telephone (206) 684-0444
1-07.11(1) EQUAL BENEFITS (8-1-12)
Replace the PCSD phone number listed in the second paragraph with the following:
Telephone (206) 684-0444

1-07.11(2) WOMEN AND MINORITY BUSINESSES AND NON-DISCRIMINATION REQUIREMENTS
Supplement this Section with the following:
In addition to the City of Seattle requirements, this project is subject to State of Washington Department of Ecology Local Toxics Control grant requirements. Per grant requirements, all bidders shall agree to solicit and recruit, to the extent possible, certified minority-owned (MBE) and women-owned (WBE) businesses in purchases and contracts associated with this project. All bidders should take following steps, when possible, in any procurement associated with this project.

1. Include qualified minority and women’s businesses on solicitation lists.
2. Assure that qualified minority and women’s businesses are solicited whenever they are potential resources of services or supplies.
3. Divide the total requirements, when economically feasible, into smaller tasks or quantities, to permit maximum participation by qualified minority and women’s businesses.
4. Establish delivery schedules, where work requirements permit, which will encourage participation of qualified minority and women’s businesses.
5. Use the services and assistance of the State Office of Minority and Women’s Business Enterprises (OMWBE) and the Office of Minority Business Enterprises of the U.S. Department of Commerce, as appropriate.

1-07.11(2)A AFFIRMATIVE EFFORTS (10-01-13)
Delete the Section and Replace with the following:

1-07.11(2)A AFFIRMATIVE EFFORTS
The Contractor shall utilize Affirmative Efforts to solicit and contract with women and minority businesses on subcontracting and supply opportunities within the Contract scope of work. The Contractor agrees to such efforts as a condition of the Contract.

1. Affirmative Efforts shall include efforts to achieve the activities specified in the Inclusion Plan the Contractor submitted in accordance with Section 1-02.9(4). This Inclusion Plan is a part of the Contract. The Contractor shall be solely responsible for any efforts made and costs incurred to meet such WMBE Goals.

2. Reporting Requirements:
   a. If applicable, the Contractor shall submit an Inclusion Plan as indicated in Section 1-02.9(4).
   b. If applicable, the Contractor shall submit a Social Equity Plan no later than the preconstruction conference.
      1) The first Subcontractor Payment Report shall be submitted no later than the 15th of the first month after the date specified in the Notice to Proceed.
      2) Subsequent monthly Subcontractor Payment Reports shall be submitted by the 15th day of every month thereafter. When no work is performed during a reporting period, the Contractor shall submit monthly report(s) indicating that no work was performed.
3) The last Subcontractor Payment Report shall be marked as “Final” and shall be due no later than 30 Days after the Physical Completion Date. The final report shall list the name of and dollar amount paid to each Subcontractor and Supplier utilized by the Contractor. The Owner will not establish the Completion Date until the completed final Subcontractor Payment Report Form has been received.

4) A sample of the form is included in the Appendix section of the Project Manual but this form is submitted through an online reporting website listed above.

5) The Contractor shall require each Subcontractor and Supplier to register on the City’s Business Registration website, if not currently registered (this is a one-time registration process for each Subcontractor and Supplier): http://www2.ci.seattle.wa.us/VendorRegistration/ Contractors may use this website to look up whether the Subcontractors or Suppliers are registered or not. The Subcontractors and Suppliers shall register themselves.

3. Changes to named Subcontractors or Suppliers:
   a. A named Subcontractor (also applies to Suppliers) includes any WMBE Subcontractor or Supplier named on the Inclusion Plan’s WMBE Contract Log as a Subcontractor with whom the Bidder would Contract if awarded the Contract.
   b. Any named Subcontractor that the Contractor wishes to substitute during the course of the project must have the Project Manager consent through a change order and a demonstrated “good cause.” “Good cause” shall include the following:
      1) Failure of the Subcontractor to execute a written contract after a reasonable period of time.
      2) Bankruptcy of the Subcontractor.
      3) Failure of the Subcontractor to provide the required bond.
      4) The Subcontractor is unable to perform the work because they are debarred, not properly licensed, does not meet the subcontractor approval criteria, or in some other way is ineligible to work.
      5) Failure of the Subcontractor to comply with a requirement of law applicable to subcontracting.
      6) The death or disability of the Subcontractor (if the Subcontractor is an individual)
      7) Dissolution of the Subcontractor (if the Subcontractor is a corporation or partnership).
      8) If there is a series of failures by the Subcontractor to perform in accordance with previous contracts.
      9) Failure or refusal of the Subcontractor to perform the work.
   c. If the Contractor is making a change to a named WMBE Subcontractor, then the Contractor shall use good faith efforts to recruit another WMBE Subcontractor to do the Work.

1-07.11(3) EMPLOYMENT NON-DISCRIMINATION REQUIREMENTS (8-22-11)

In the fourth paragraph, delete the last sentence.

1-07.11(4) RECORDS (8-22-11)

Delete and replace the first sentence with the following:

The Contractor shall furnish to the Department of Finance and Administrative Services upon request and on such form as may be provided, evidence of compliance with SMC 20.42, including the Inclusion Plan.

1-07.11(5) APPRENTICE UTILIZATION REPORT AND EEO REPORTING (10-01-13)

Delete and replace the Title with the following:

1-07.11(5) APPRENTICE UTILIZATION
1-07.11(5)E QUARTERLY EEO/APPRENTICE UTILIZATION REPORT (10-01-13)

Delete and replace the Title and Section with the following:

1-07.11(5)E APPRENTICE UTILIZATION REPORTING

The Contractor and every Subcontractor shall submit a profile for each worker into LCP Tracker (through an online portal www.LCPTracker.net) including but not limited to gender, ethnicity, and apprenticeship status of each worker.

The Contractor shall submit such other information as may be requested by the Owner to verify compliance with the apprentice utilization requirements of the Contract. The Owner reserves the right to add, delete, or change as necessary the information required by the Contract.

1-07.15 TEMPORARY CONSTRUCTION STORMWATER POLLUTION PREVENTION

1-07.15(2) WATER HANDLING DURING CONSTRUCTION (New Section)

1-07.15(2)A GENERAL

This Section covers the work necessary to design, install, operate, maintain, monitor, relocate, and remove treatment and storage systems for the control of Site Water within the project area. Site Water encompasses all water encountered for the duration of the project, including non-contact stormwater from undisturbed and stabilized areas and construction water. Construction water includes remediation stormwater (either from active or non-active stage), process water, and dewatering liquids. These terms are further defined below.

The Contractor shall be responsible for collection, treatment, storage, and testing all water generated during construction activities. The Contractor shall keep excavations free of stormwater and shall control surface runoff to prevent entry or collection of water in excavations, other isolated areas of the site, and from coming in contact with potentially Contaminated Materials to the extent possible. Site water, including construction water shall not be allowed to flow onto Terminal 117, adjacent properties or any other offsite area. The Contractor shall supply, operate, maintain, and remove all pumps, hoses, and other equipment necessary to dewater the excavation. The Contractor shall supplement the existing water storage capacity (i.e., provide 50,000 gallons for a total of 140,000 gallons) such that the work schedule is not adversely impacted.

The Contractor shall identify a Water Treatment Plant Project Manager who shall be responsible for management of the Owner’s stormwater storage facility during construction and who shall not be the same person as the Superintendent. The Water Treatment Plant Project Manager shall oversee modifications made as necessary to store and treat construction water in accordance with the contract and the Owner’s discharge authorization with King County, and shall oversee all associated sampling, monitoring, and documentation. The Water Treatment Plant Project Manager shall be employed by the Contractor, or a subcontractor engaged by the Contractor, and shall have a minimum of five years of experience operating temporary water treatment plants on similar construction projects. The Water Treatment Plant Project Manager shall have current certification as a Washington State Certified Erosion and Sediment Control Lead. The Water Treatment Plant Project manager may be assigned other duties.

The Contractor shall also identify a Water Treatment Plant Operator who shall be responsible for operation and maintenance of the on-site water storage and treatment facility in accordance with the contract and the Owner’s discharge authorization with King County, and shall not be the same person as the Water Treatment Plant Project Manager. The Water Treatment Plant Operator shall be employed by the Contractor, or a subcontractor engaged by the Contractor, and shall have a minimum of two years of experience operating temporary water treatment plants on similar construction projects. The Water Treatment Plant Operator shall have current Certification as a Washington State Certified Erosion and Sediment Control Lead.

The Water Treatment Plant Operator may also serve as the Contractor’s Temporary Discharge Lead under Section 1-05.13(3)D and Temporary Dewatering Lead under Section 1-05.13(3)E, provided that all subsequent requirements are met.
In the event it becomes necessary for the Contractor to substitute personnel during the life of the Contract, the following provisions apply

a. Prior to substituting a new Water Treatment Plant Project Manager or Water Treatment Plant Operator, the Contractor must submit qualifications for the new personnel which meet the criteria provided in this specification.

b. The Engineer may suspend the project if the Contractor substitutes a Water Treatment Plant Project Manager or Water Treatment Plant Operator without the Engineer’s approval. The Contractor shall be fully liable for the additional costs resulting from the suspension of work and no adjustments in Contract time resulting from the suspension of work will be allowed.

Project Site water discharge requirements are summarized on Figure 1-07.15-1.

- Construction water is defined as any water encountered or generated from construction activities. This includes remediation stormwater (either from active or non-active stage), process water, and dewatering liquid. Construction water shall be treated and discharged to the combined sewer in accordance with the King County Discharge Authorization or hauled offsite to an approved water disposal facility. Construction water includes the following:
  - Active Stage Remediation Stormwater is defined as runoff from areas where contaminated soil removal is being performed and exposed soil has the potential to contribute contaminants of concern to the stormwater.
  - Non-Active Stage Remediation Stormwater is defined as runoff from areas where contaminated soil removal is complete and can no longer contribute contaminants of concern to stormwater runoff. Construction work may not be complete (e.g., final paving and planting), but contaminated soil will have been removed and replaced with clean fill.
  - Process Water is defined as any water that is used for concrete saw cutting, comes in contact with uncured concrete, or is generated from equipment and/or personnel decontamination activities.
  - Dewatering Liquid is defined as groundwater encountered in open cuts and trenches, including the outfall trench.
- Non-Contact Stormwater is defined as stormwater runoff from portions of the Project Site that have not yet been disturbed (e.g., existing paved streets) or which have been restored to "stabilized" conditions following removal of contaminated soil. Non-contact stormwater shall be discharged to the combined sewer in accordance with the King County Discharge Authorization provisions for Non-Active Stage discharges.

Water that does not meet the King County Discharge Authorization provisions after treatment shall be hauled to an approved water disposal facility. The Contractor shall not allow runoff to enter any of the permanent stormwater treatment facilities (vegetated depression, bioretention cells and Filterra® Catch Basin units) to be constructed under this contract until the site is stabilized and approval is granted by the Engineer.

The Contractor shall collect, store, and test all water generated from the Project Site prior to commissioning of the outfall pipe in accordance with the requirements of this section. Commissioning is dependent on substantial completion (site stabilization) with the exception of the decommissioning of the tanks at 17th Avenue S. and S. Donovan St. Modifications to the construction water treatment system may be allowed (e.g., eliminate the GAC treatment) if testing shows that runoff from completed areas meets the required discharge limits. Modifications to the treatment system must be approved by the Owner and King County. If a modification is requested, the Contractor shall provide an updated King County Construction Dewatering Permit Request Form to the Owner for submittal to King County.

\(^1\) “Stabilized” means that soil disturbing activities are complete and that permanent vegetative cover is established, or equivalent permanent stabilization measures (e.g., pavement, riprap, or geotextiles) have been placed, which will prevent erosion.
1-07.15(2)B SUBMITTALS

The Contractor shall submit a Site Water Management Plan describing how non-contact stormwater shall be handled, and how construction water shall be treated and disposed.

1. It is recommended that the Contractor consult with an equipment vendor specializing in construction water treatment issues and products to aid in preparing the plan or to contract with a vendor that specializes in providing construction water treatment services.

2. The Site Water Management Plan shall include detailed water management for each of the following major construction activities. Construction shall not begin until the appropriate plan has been reviewed and approved by the Owner, in consultation with EPA.
   a. Excavation and disposal of contaminated soil
   b. Trenching and installation of permanent stormwater collection and treatment facilities based on project sub-catchment areas
   c. Runoff from completed areas prior to commissioning of the outfall pipe
   d. Excavation and installation of the outfall to the Lower Duwamish Waterway.

3. The Owner has obtained a King County Discharge Authorization 4072-06 (Attachment 1-07.6-A) for discharges to the combined sewer. In support of the requirements of this permit, the Contractor provided Site Water Management Plan shall include:
   a. Site plan showing location of activities and processes generating construction water and undisturbed areas generating non-contact stormwater, dewater well(s) and pumps, piping, water treatment system, sample points, and point of discharge to the combined sewer system.
   b. Description and flow diagram of the treatment process, illustrating system piping, tanks, and control features. This diagram shall clearly illustrate how each waste stream will be treated, plumbed, and discharged to the sewer.
   c. Wastewater sources, quantity and chemical characteristics to be treated and tested.
   d. Design criteria and calculations for all major equipment, including but not limited to pipes, pumps, tanks, dosing pumps, filters, and mixers, verifying the suitability of the selected equipment per Section 1-07.15(2)C.
   e. Description of treatment process including the amount and kind of chemicals used in

Notes:

a. Non-Active Stage Remediation Stormwater refers to when contaminated soil removal is complete and therefore will not contribute PCBs to stormwater runoff, but construction work is ongoing.

b. Active Stage Remediation Stormwater refers to when contaminated soil removal is being performed and exposed soil could potentially contribute PCBs to stormwater.

c. Process Water is defined as any water that is used for concrete saw cutting, comes in contact with uncured concrete, or is generated from equipment and/or personnel decontamination activities.

d. Dewatering Liquid is defined as groundwater encountered in open cuts and trenches, including the outfall trench.

e. Non-Contact Stormwater is defined as stormwater runoff from undisturbed areas and stabilized areas within the project area, including existing paved streets, existing vegetated areas, and fully restored and stabilized areas following removal of contaminated soil. For the purposes of discharge to the combined sewer, non-contact stormwater is handled similarly to non-active stage remediation stormwater.
the treatment process (if applicable).

f. The general operations and the set points of all control features.

g. Sound engineering justification through the use of pilot plant data, results from other similar installations, and/or scientific evidence from the literature that indicates that the effluent from the proposed facility will meet applicable permit effluent limitations and/or pretreatment standards.

h. A discussion of the method of final sludge or solid waste disposal and testing.

i. Contingency actions to be taken if water volumes exceed the permitted daily discharge volumes specified in the permit. Note that exceeding the permitted daily discharge volume limitation is not an acceptable contingency.

4. Any modifications needed to address field conditions during operation of the system shall be submitted to the Engineer for approval prior to modifying the system.

5. The Site Water Management Plan must be approved by the Owner, in consultation with EPA, prior to start of construction activities and submitted to King County no later than 60 days prior to discharge of construction water to the combined sewer.

The Contractor shall submit a Construction Water Treatment Operations and Maintenance Plan for the construction water treatment system. The Plan shall include the following:

1. Pump curves: Manufacturer's catalog curve.

2. Installation and start-up procedures: Manufacturer's recommendations for installation, adjustment, calibration, and troubleshooting.

3. Operating procedures: Manufacturer's recommended step-by-step procedures for starting, operating, and stopping the equipment under specified modes of operation.

4. The general operations and set points for all control features.

5. Proof of treatment and details of system shakedown

6. Preventive maintenance procedures: Manufacturer's recommended steps and schedules for maintaining the equipment.

7. A list of spare parts available for this project and the address of the stored location.

8. Qualifications and resume(s) of personnel that will operate and maintain the treatment system.

9. Emergency contacts (name, work and 24-hr cell phone numbers, and address) for the treatment system operator/vendor

10. Contingency plans:
    a. For construction water management in case of treatment system failure.
    b. For treatment system improvements necessary to meet discharge requirements if existing treatment system fails to meet discharge requirement.

11. The Construction Water Treatment Operations and Maintenance Plan must be approved by the Owner, in consultation with EPA, prior to start of construction activities and submitted to King County no later than 60 days prior to discharge of construction water to the combined sewer. Discharges of construction water to combined sewer shall not begin until King County has conducted a pre-operative inspection of the treatment facilities and notified the Owner that discharges may begin.

The Contractor shall submit a Site Water Monitoring Plan that describes protocols to be employed for testing and analyzing site water discharges in accordance with Sections 1-07.15(2) D and 1-07.15(2) E. This plan shall be approved by the Owner, in consultation with EPA, prior to starting construction activities. The plan shall include a Quality Assurance Project Plan (QAPP), prepared in accordance with the requirements of USEPA's Guidance for Quality Assurance Plans (QA/G-5), and shall identify and detail the following:

1. Sampling frequency as necessary to comply with authorizations/permits.

2. Sampling methods: description of all sampling equipment and manufacturer's calibration and maintenance for any field monitoring equipment, and field sampling protocols, sample handling/preservation, quality assurance samples/procedures for samples that will be sent to an approved analytical laboratory for testing. All sampling shall be conducted in accordance with standard U.S. EPA and Washington State Department of Ecology (Ecology) protocols.

3. Description of all flow measuring equipment and a schedule for recording and reporting all flow measurements.
4. Names, qualifications, and resumes of all proposed sampling personnel.
5. Analytical laboratory: include name, address, and Ecology certification information for the laboratory. Laboratory must be certified by Ecology to perform the analyses required for this project.
6. Analytical tests: Include ASTM, EPA, Standard Methods, Ecology, or other regulatory standard designations. PCBs shall be analyzed using Method 8082A with a detection limit of 0.01 µg/L.
7. Data reporting protocols: turnaround times, data reporting formats.
8. The contracted analytical laboratory shall provide a duplicate set of results directly to the Engineer at the same time the information is provided to the Contractor.
9. The Engineer may direct the Contractor to complete additional sampling and analysis if the sampling protocols outlined in the Contractor’s approved plan are not followed, at no additional expense to the Owner.
10. The Contractor shall provide updates to the plan during the course of the project if work conditions encountered at the site require additional sampling and testing.
11. The Site Water Monitoring Plan may be consolidated with the Sampling and Analysis Plan described in Section 1-07.34(6)B.

1-07.15(2)C DESIGN REQUIREMENTS

The Contractor shall design, supplement, operate, and maintain a temporary construction water storage and treatment system onsite for the duration of the project. Design of the treatment system shall meet the discharge limits specified in Section 1-07.15(2)D. Design of the treatment system shall accommodate site water discharge conditions and characteristics for all site construction activities. The treatment system shall include monitoring equipment to continuously measure and record the effluent discharge rate.

The Contractor shall evaluate and design the treatment system to include the following:
1. Potential pollutant loading from construction activities.
2. Design flow rates/plant capacity:
   a. Stormwater runoff volume for the 2-year/24 hour rainfall event (nominal volume of 140,000 gallons).
   b. Stormwater runoff rate for the 2-year/24 hour rainfall event (nominal peak flow rate of 500 gallons per minute under existing conditions for the entire site; this peak flow may be mitigated through sequencing of the work).
   c. Dewatering liquids from right-of-way excavations (nominal volume of 20,000 gallons).
   d. Dewatering liquids from outfall trench excavation (nominal volume of 20,000 gallons).
3. Chemical usage, including capability of automatic flow and turbidity paced chemical addition, if necessary.
4. Design parameters associated with each unit process.
5. Method(s) of maintaining system, including removal and disposal of accumulated solids and backwash water.
6. Emergency power generator for operation of treatment plant during power failure.

The Contractor shall provide at a minimum, gravity settling, filtration, and granular activated carbon (GAC) treatment.

The Contractor shall provide temporary power to the treatment plant for the duration of the Contract. Primary power by diesel generator or other portable generator source is not allowed. The Contractor shall be responsible for obtaining any electrical permits associated with temporary power to the treatment plant.

The system shall be capable of being operated 24 hours per day during the entire duration of the field related activities for this project. The water treatment system shall be installed and operational prior to any disturbance of onsite soil.

The Contractor shall incorporate provisions for maintenance of the water treatment system.
1. The system shall be capable of being serviced while remaining operational by utilizing parallel systems where practical. System downtime for routine maintenance shall be limited to 1 hour during working hours unless prior approval is granted by the Engineer. Under no circumstances shall maintenance activities create a situation that could result in a release of Contaminated
Materials into the environment.

2. The Contractor shall identify spare parts needed to ensure the continuous operation of this system. Parts shall be available onsite or at a location within 15 miles of the project site. This requirement shall ensure that spare parts for the system, including but not limited to individual treatment components, pipe sections, fittings, couplings, controls, cables and all other appurtenances can be obtained within 1 hour of a malfunction or breakdown. The Contractor shall provide a list of spare parts available for this project and the address of the stored location to the Engineer as part of the Site Water Treatment Operations and Maintenance Plan submittal. This submittal shall include emergency contacts (name, work and 24-hr cell phone numbers, and address) for the treatment system operator/vendor.

3. Sediment and other solid material, filter backwash or other pollutants removed in the course of treatment shall be removed from the treatment system as necessary to prevent resuspension or reintroduction to the final effluent stream, sampled for waste characterization purposes, and disposed at an appropriate facility. Solids shall be tested and disposed in accordance with section 1-07.30(7).

The Contractor may use and augment the Owner’s existing stormwater tanks at 17th Avenue S. and S. Donovan Street (90,000 gallons total storage) for storage and testing prior to discharge to the combined sewer. A schematic of the existing tank system and operating requirements are provided in Attachment 1-07.15-A in the Appendix. Existing tank capacity is sufficient to contain stormwater runoff from the rights-of-way served by the temporary lift stations (at 17th Avenue S. and Dallas Avenue S. and at Dallas Avenue S. and S. Donovan Street) for a total rainfall amount of approximately 2.5 inches. All storage tanks shall be clearly labeled to identify their content (non-contact stormwater, non-active stage remediation stormwater, and active stage remediation stormwater/process water/dewatering liquids.

Note that the Owner has obtained an access agreement with the Port of Seattle (Port) to install a temporary hose across Terminal 117 to the Lower Duwamish Waterway for emergency discharges of non-contact stormwater only from the rights-of-way, if proven necessary during large storm events (Attachment 1-07.15-B in the Appendix). Any emergency discharges to the Lower Duwamish Waterway shall comply with the requirements of the Owner’s Access Agreement with the Port and discharge requirements of Section 1-07.15(2)E. Any discharge of construction waters to the Lower Duwamish Waterway is forbidden.

Contractor shall schedule activities and manage water so as to minimize accumulation of construction water greater than 140,000 gallons, thereby enabling the construction water to be treated and discharged in the combined sewer system, and minimize the potential need for emergency discharge of non-contact stormwater to the waterway.

1-07.15(2)D DISCHARGE TO THE COMBINED SEWER

All discharges to the combined sewer shall meet the project specific discharge limits specified in the King County Discharge Authorization 4072-06 (Attachment 1-07.6-A in the Appendix).

Table 1-07.15-1 Discharge limits specified in the Discharge Authorization with King County

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Instantaneous Maximum (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settleable solids (Imhoff Cone)a</td>
<td>7</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>10</td>
</tr>
<tr>
<td>Lower explosive limit b.c</td>
<td>c</td>
</tr>
<tr>
<td>PCBs, per Aroclor</td>
<td>0.00056</td>
</tr>
</tbody>
</table>

a. Units for settleable solids are mL/L.
b. Only required if operating criteria are exceeded.
c. At no time shall two successive readings on an explosive hazard meter at the point of discharge into the system (or at any point in the system) be more than five percent, nor any single reading be more than 10 percent of the lower explosive limit (LEL) of the meter.

Final authorization from King County is required prior to commencing project discharge to the combined sewer. Discharge to the sanitary sewer shall not begin until the King County has conducted a preoperative inspection of the pretreatment facilities and has sent written notification to the Engineer that discharges may begin. The Contractor shall inform the Engineer when the treatment system is ready for preoperative inspection. The Engineer will coordinate the preoperative inspection with King County and
inform the Contractor when authorization has been provided.

King County requires that each batch of treated construction water be tested prior to discharge to confirm that treated water meets the established discharge limits. The typical sequence for batch discharge involves 1) treatment, 2) storage, 3) testing, and 4) discharge upon satisfactory test results. Sampling frequency and monitoring parameters are provided in Attachment 1-07.6-A.

Non-contact stormwater shall be segregated from all other site water and may be discharged directly to the combined sewer. Non-contact stormwater shall be sampled and tested each month as required in the King County discharge authorization. Should PCB concentrations exceed 0.1 µg/L in any of the non-contact stormwater samples, the Contractor shall immediately notify the Engineer and take action(s) to improve site BMPs such as controlling dust emissions and trackout to control the releases of contaminants onto the adjacent streets.

When discharge to the combined sewer is authorized by the Engineer, treated water sampling shall occur in the presence of the Engineer in accordance with the Site Water Monitoring Plan described in Section 1-07.15(2)B.

The Contractor shall submit monitoring reports to the Engineer in accordance with the requirements of the King County Industrial Wastewater Discharge Authorization. Upon receipt of sampling results, the Engineer will review to confirm that the treated water complies with the King County discharge limits and any other conditions specified in the King County Discharge Authorization and forward the information to King County. After testing has confirmed that the discharge criteria are met, water may be discharged to the combined sewer. Discharges to the combined sewer shall meet the following flow requirements:

1. Approved discharge location to the combined sewer as identified on the Drawings.
2. Discharge only during dry conditions.
3. If discharge occurs within 24 hours of a rainfall event, check the conditions in the 12-inch combined sewer at MH078-126 located on S Donovan St between 12th Ave S and 14th Ave S. Do not release water to the sewer system if the system remains surcharged (i.e., water level in maintenance hole above the crown of the upstream pipe entering the maintenance hole) from an earlier rainfall event.
4. Maximum permitted discharge rate to the combined sewer is 35 gpm or 50,000 gpd.
5. Do not create surcharge conditions in the combined sewer system. Note that fully opening the main shutoff valve on the tanks when the tanks are full will cause the downstream system to surcharge.
6. Total discharge shall not exceed the amount allowed in the King County Discharge Authorization listed above. The Contractor shall provide a contingency plan to be implemented if discharges exceed the allowed maximum.

The Contractor shall record all field activities and observations in a field logbook. The field logbook shall be a bound document containing field observations and field monitoring data. Any changes that occur at the site (e.g., personnel, responsibilities, deviations from the SAP) and the reasons for these changes shall be documented in the field logbook. The Contractor’s Quality Control (QC) Representative is responsible for ensuring that the field logbook and all field data forms are correct. The following information shall be included in the field logbook:

7. Name of field sampler
8. Station name and location
9. Weather conditions
10. Date and time of sample collection and record of any field measurements (e.g., pH) as required by King County and the Site Water Monitoring Plan.
11. Observations made during monitoring, including weather conditions, complications, and other details associated with the monitoring effort.
12. Flow meter readings at both the start and the end of any discharge.

When not in compliance with water quality discharge limits specified in the Discharge Authorization, the Contractor shall immediately contact the Engineer and shall take immediate action(s) to achieve compliance by evaluating the treatment system for any problems and making necessary corrections, and/or implementing additional best management practices, improving maintenance of existing best management practices, or modifying construction methods. Additional actions the contractor shall
implement include but are not limited to:

13. Take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the non-compliance and correct the problem.
14. Collect a discharge sample and submit new data to the Engineer within one day of becoming aware of non-compliance. Conduct daily monitoring after a violation is documented until three consecutive daily samples show discharge is in compliance.
15. The Owner may collect monitoring samples in addition to those listed in these Specifications. If results from the sampling indicate a non-compliance event, the Engineer will immediately notify the Contractor.

If King County discharge limits cannot be met, Contractor may haul water to an Engineer-approved offsite location for disposal such as a decant facility or wastewater treatment plant. The Contractor shall provide transport and delivery of the water and all necessary profiling required by the accepted facility. The profile and identification of the facility shall be submitted to the Engineer for verification of off-site acceptability by EPA at least 15 Working Days prior to transport from the site.

1-07.15(2)E DISCHARGE TO THE LOWER DUWAMISH WATERWAY

Contractor shall take all actions necessary to avoid discharging to the waterway. However, in the event a large storm event or multiple back to back events exceed the capacity within the existing or supplemental storage tanks, emergency overflow of non-contact stormwater (only) to the Lower Duwamish Waterway will be permissible. Any discharge of construction waters to the Lower Duwamish Waterway is forbidden. The Contractor shall notify the Engineer as soon as it becomes aware that an emergency discharge of non-contact stormwater to the waterway may be necessary. Water discharged to the Lower Duwamish Waterway shall meet the requirements of the City’s existing NPDES MS4 permit and the substantive requirements of the State of Washington NPDES Construction Stormwater General Permit.

The Contractor shall measure the quantity of non-contract stormwater discharged using the storage system’s flow meter and record the volume in the field logbook. The Owner will sample emergency overflow effluent at the point of discharge to the waterway. The water will be tested for the parameters listed in Table 1-07.15-2. For informational purposes, the Owner will also submit samples for laboratory analysis of total PCBs (as Aroclors) and dissolved arsenic.

Table 1-07.15-2: Water Discharge Monitoring: Discharges to the Lower Duwamish Waterway.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Sheen</td>
<td>No visible sheen</td>
</tr>
<tr>
<td>pH</td>
<td>Between 6.5 and 8.5 standard units</td>
</tr>
<tr>
<td>Turbidity²</td>
<td>25 nephelometric turbidity units (NTU; maximum)</td>
</tr>
</tbody>
</table>

1. State of Washington Construction Stormwater General Permit benchmarks
2. The method detection level (MDL) for turbidity is 1 NTU using a turbidimeter and Method Number 180.1 from 40 CFR Part 136 or Standard Methods for the Examination of Water and Wastewater.

The Owner will record all sampling activities and observations in a field logbook. The field logbook will be a bound document containing field observations and field monitoring data. Any changes that occur at the site (e.g., personnel, responsibilities, deviations from the SAP) and the reasons for these changes will be documented in the field logbook. The Owner’s Quality Assurance (QA) Representative is responsible for ensuring that the field logbook and all field data forms are correct. The following information will be included in the field logbook:

16. Name of field sampler
   A. Station name and location
   B. Weather conditions
   C. Date and time of sample collection and record of any field measurements (e.g., pH, turbidity).
   D. Observations made during monitoring, including weather conditions, complications, and other details associated with the monitoring effort.
   E. Flow meter readings at both the start and the end of any discharge.

If the emergency discharge is found to be not within the range of sheen, turbidity or pH benchmarks listed in Table 1-07.15-2, the Contractor shall take immediate action(s) to correct the problem by implementing
additional best management practices (BMPs), improving maintenance of existing BMPs, and/or modifying construction methods.

The Owner may collect monitoring samples in addition to those listed in these Specifications. If results from the sampling indicate concentrations above those listed in Table 1-07.15-2, the Engineer will immediately notify the Contractor.

The Contractor shall be solely responsible for managing emergency discharges so as not to cause property or environmental damage.

Emergency discharges shall be managed in such a manner so as not to cause damage to public or private property or erosion of sediment along the banks of the Lower Duwamish Waterway.

1-07.15(2)G MONITORING INSTRUMENTS

In the event of an emergency discharge, the Owner will perform discharge monitoring using equipment meeting the requirements in Table 1-07.15-3. Acceptable manufacturer (Hydrolab, YSI, Hach, or similar).

Table 1-07.15-3: Instrumentation specifications.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
<th>Accuracy</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>0 – 14 units</td>
<td>±0.2 units</td>
<td>0.01 units</td>
</tr>
<tr>
<td>Turbidity</td>
<td>110 to 4,000 NTU</td>
<td>±2% of reading; ±3% if turbidity is 500 NTU or more</td>
<td>0.01 NTU on lowest range</td>
</tr>
</tbody>
</table>

1-07.15(2)H CONSTRUCTION MONITORING REPORTS

The Contractor shall submit monthly construction monitoring reports no later than the third day of each month. Reports shall include the items listed below:

1. Temporary water treatment system
   a. Description of any modifications to the treatment system or operating protocols with prior approval of the Engineer as required in this Section.
   b. Dates when maintenance is completed, including description of maintenance activity, quantity of material disposed, and location where material disposed.

2. Combined sewer discharge
   a. Daily log of peak discharge rate and volumes discharged, including monthly totals
   b. Sampling results and field notes as required in this section
   c. Laboratory reports
   d. Field measurements
   e. Discharge monitoring reports as required for the King County Discharge Authorization.

3. Discharges of non-contact stormwater to the Duwamish Waterway
   a. Daily log of peak discharge rate and volumes discharged, including monthly totals
   b. Sampling results and field notes as required in this section
   c. Laboratory reports
   d. Description of any modifications to BMPs or changes in construction activities to minimize the potential for any future discharges.

4. Off-site treatment and disposal
   a. Daily log of volume transported offsite, including monthly totals
   b. Sampling results and field notes as required by the disposal facility
   c. Laboratory reports.

The Engineer, jurisdictional agencies, and representatives from Ecology may:

1. Enter the construction site where a discharge is located or where any submittals are kept.
2. View and copy submittals.
3. Inspect any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required.
4. Sample or monitor any substances or parameters at any location for purposes of assuring Contract compliance.
1.07-15(2)I MEASUREMENT

Not applicable.

1.07-15(2)J PAYMENT

Costs for Water Handling, including all the requirements of Section 1-07.15(2), will be paid separately using the Bid item “Temporary Discharge Plan” in accordance with Section 8-01.5.

1-07.17 UTILITIES AND SIMILAR FACILITIES

1-07.17(1) GENERAL (8-15-14)

At the end of the 9th paragraph replace See Section 1-05.3(5) with See Section 1-05.3(6).

Supplement this Section with the following:

The Contractor shall pothole existing utilities as shown on the Drawings and Attachment 1-07.17-A in the Appendix. Potholing for gas facilities shall be performed with vacuum equipment. The Contractor shall provide potholing results to Engineer. If the Engineer determines that there is a conflict, the Contractor shall adjust proposed facilities as directed by the Engineer. All costs for the work to perform potholing shall be incidental to the cost of the excavation bid items.

1-07.17(1)A COORDINATION WITH PUGET SOUND ENERGY

Puget Sound Energy (PSE) owns and operates existing gas lines within the Project Site as indicated on the Drawings. The Contractor is to use extreme care and caution when working near these lines. The Contractor shall contact Glenn Huden with Puget Sound Energy (PSE) at 206.396.4159 a minimum of 3 Working Days in advance of excavating near the gas line. In the event of a damaged gas line contact PSE at 1-888-225-5773 to report the incident.

The PSE inspector must be notified when exposing the gas lines. The PSE inspector will monitor, inspect, and assist the Contractor regarding steps necessary to protect and support PSE facilities during undercrossing and trench excavation. When supports for the gas line are necessary the Contractor shall develop and submit for approval to the Engineer a support system plan for the PSE gas line that is stamped by a Professional Engineer licensed in the State of Washington.

All backfilling of PSE gas lines shall comply with the requirements listed below:

1. Sand Backfill for Gas Pipe
   a. All backfill for PSE gas pipe shall be Mineral Aggregate, Type 7.

2. Use of Controlled Density Fill
   a. In cases where approved controlled density fill (CDF) is used as backfill, initial backfill material shall be installed under, around, and over the pipeline as necessary to provide a minimum of 6 inches of separation between the pipeline and the CDF.

3. Compaction
   a. Except for control density fill and when water settling is permitted, all backfill material shall be consolidated using an appropriate mechanical compaction tool to achieve compaction in the trench line.
   b. When applicable, backfill shall be compacted according to the terms of the permits and right-of-way agreements.
   c. Where permits and right-of-way agreements do not apply, the following compaction levels shall be obtained:
i. Under existing paved areas or roadways, backfill above the pipe zone shall be compacted to 95% standard proctor density; and,

ii. In non-traffic areas, backfill above the pipe zone shall be compacted to 85% standard proctor density.

d. Care shall be taken when compacting backfill to prevent damage to the buried gas facilities and other underground lines and to protect the pipe and fittings from excessive external loads.

e. If necessary, hand tamp around the pipe.

f. When using portable powered hand-operated rammer/tamper equipment (such as “Bigfoot” or “Jumping Jack”), the soil directly above the gas pipeline shall not be compacted until there is at least a 12-inch lift of backfill material between the pipe and the surface to be compacted.

g. When using machine-mounted vibratory plates (such as a “Ho-Pac”), the soil directly above the gas pipeline shall not be compacted until there is at least a 24-inch lift of backfill material between the pipe and the surface to be compacted.

h. Service and other branch connections and points of transition between PE and steel shall be supported by well-compacted backfill.

i. Unless otherwise specified in the applicable permit or right-of-way agreement, the lift height after the initial lift is compacted shall be as follows:
   i. to 12 inches for portable powered hand-operated rammer/tamper equipment; and,
   ii. to 24 inches for machine-mounted vibratory plates.

j. If the trench is wide enough, the spaces to the sides of the pipe shall be compacted first.

k. When compacting a bell-hole, extra care shall be taken to ensure proper compaction is achieved in the corners of the excavation. If necessary, hand tamping or portable powered hand-operated equipment shall be used.

4. Supporting Exposed Gas Pipes

a. All PSE gas lines requiring support shall be supported per the General Requirements as defined by RCW 19.122.040

b. Each support used for an exposed pipeline must be made of a durable, noncombustible material, and must be designed and installed such that:
   i. Free expansion and contraction of the pipeline between supports or anchors is not restricted.
   ii. Movement of the pipeline does not cause disengagement of the support equipment.
   iii. Damage to the pipe and its coating is prevented where the pipe contacts the support or anchor.
   iv. When steel piping is supported or anchored, the pipe shall be insulated from the support or anchor.
   v. The temporary support or anchor shall be removed in its entirety without damage to the pipe and its coating.
   vi. Steel cables, steel chain, or any sharp object shall not be used to support natural gas piping.
c. Maximum spacing between pipe supports shall conform to the tables below.

### MAXIMUM SPACING BETWEEN PIPE SUPPORTS

#### FOR STEEL PIPE

<table>
<thead>
<tr>
<th>Nominal Pipe Size (in.)</th>
<th>Recommended Spacing (ft.)</th>
<th>Recommended Hanger Rod Size (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>½</td>
<td>6</td>
<td>3/8</td>
</tr>
<tr>
<td>¾</td>
<td>8</td>
<td>3/8</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>3/8</td>
</tr>
<tr>
<td>1-1/2</td>
<td>10</td>
<td>3/8</td>
</tr>
<tr>
<td>2</td>
<td>13</td>
<td>3/8</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>½</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>5/8</td>
</tr>
<tr>
<td>6</td>
<td>21</td>
<td>¾</td>
</tr>
<tr>
<td>8</td>
<td>24</td>
<td>¾</td>
</tr>
<tr>
<td>10</td>
<td>26</td>
<td>7/8</td>
</tr>
<tr>
<td>12</td>
<td>30</td>
<td>7/8</td>
</tr>
<tr>
<td>16</td>
<td>35</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>37</td>
<td>1**</td>
</tr>
<tr>
<td>20</td>
<td>39</td>
<td>1-1/4**</td>
</tr>
<tr>
<td>24</td>
<td>42</td>
<td>1-1/2**</td>
</tr>
</tbody>
</table>

** Or trapeze

### MAXIMUM SPACING BETWEEN PIPE SUPPORTS

#### FOR PE PIPE

<table>
<thead>
<tr>
<th>Nominal Pipe Size (in.)</th>
<th>Recommended Spacing (ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>½ CTS</td>
<td>5.5</td>
</tr>
<tr>
<td>1 CTS</td>
<td>6</td>
</tr>
<tr>
<td>1-1/4 IPS</td>
<td>7.5</td>
</tr>
<tr>
<td>2 IPS</td>
<td>10</td>
</tr>
<tr>
<td>3 IPS</td>
<td>12</td>
</tr>
<tr>
<td>4 IPS</td>
<td>12</td>
</tr>
<tr>
<td>6 IPS</td>
<td>14</td>
</tr>
<tr>
<td>8 IPS</td>
<td>16</td>
</tr>
</tbody>
</table>

NOTE: When necessary, additional supports may be used to avoid sag in PE pipe.

### 1-07.17(2)C CLEARANCES WITH ELECTRICAL DISTRIBUTION AND TRANSMISSION SYSTEMS

Supplement this Section with the following:

The Contractor shall design and install electrical pole bracing at locations indicated on the Drawings. The Contractor shall submit an engineered drawing, stamped and signed by a Professional Engineer, showing...
all electrical pole bracing to the Engineer for approval prior to excavation and backfill activities near electrical poles.

1-07.17(2)C.1 MEASUREMENT

Measurement for “Brace Electrical Pole” will be per each.

1-07.17(2)C.2 PAYMENT

Compensation for the cost necessary to complete the work described in Section 1-07.17(2)C will be made at the Bid item prices Bid only for the Bid items listed or referenced below:

1. “Brace Electrical Pole”, per each.

The Bid item price for “Brace Electrical Pole” shall include all costs for the work required to design, submit and gain approval for, coordinate, and install bracing for an electrical pole at the locations indicated on the Drawings.

1-07.18 INSURANCE

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

1-07.18 INSURANCE, INDEMNITY AND WORKER’S BENEFITS (8-15-14)

1-07.18(1) MINIMUM INSURANCE COVERAGES, LIMITS AND OTHER REQUIREMENTS

The insurance shall provide the minimum coverages and limits of liability and meet all other requirements as set forth herein. Providing evidence of coverage for these stated minimum limits of liability shall not relieve the Contractor, any subcontractor of any tier or any of their respective insurers from liability for claims in excess of such stated minimum limits of liability should higher limits of liability be placed.

If Work is subcontracted, applicable minimum coverages and limits of liability may be evidenced by any subcontractor under 1-07.18(5) provided that such insurance fully meets the applicable requirements set forth herein and must include the City of Seattle as Additional Insured as specified in 1-07.18(2).

1-07.18(1)A Commercial General Liability (CGL) insurance

CGL insurance shall include coverage for:
1. Premises/Operations
2. Products/Completed Operations
3. Personal/Advertising Injury
4. Contractual
5. Independent Contractors
6. Stop Gap (unless insured as Employers Liability under Part B. of a Workers Compensation Insurance Policy)
7. Per project aggregate per ISO CG 25 03 (Aggregate Limits of Insurance per Project) or Equivalent
8. Blasting (if explosives are used in the performance of the Work)

Such insurance must provide a minimum limit of liability of $1,000,000 each Occurrence Combined Single Limit Bodily Injury and Property Damage (CSL) except $1,000,000 each Offense Personal/Advertising Injury and $1,000,000 each Accident/ Disease - Policy Limit/ Disease - each Employee Stop Gap or Employers Liability.

1-07.18(1)B Automobile Liability Insurance

Automobile Liability for owned, non-owned, hired, and leased vehicles, as applicable, with a minimum limit of liability of $1,000,000 CSL. If pollutants are to be transported, MCS 90 and CA 99 48
endorsements are required on the Automobile Liability insurance policy unless the transportation pollution risk is covered under the Contractor’s Pollution Liability insurance policy.

1-07.18(1)C State of Washington Statutory Workers’ Compensation Insurance
The Contractor shall comply with Workers’ Compensation coverage as required by Title 51 RCW (Industrial Insurance).

1-07.18(1)D RESERVED
Delete this Section in its entirety and replace with the following:

1-07.18(1)D IN-TRANSIT POLLUTION LIABILITY INSURED (4-1-14)
CA 99 48 and MCS 90 endorsements are required on the Automobile Liability insurance policy unless in-transit pollution risk is covered under a Pollution Liability insurance policy.

1-07.18(1)E RESERVED
Delete this Section in its entirety and replace with the following:

1-07.18(1)E XCU AND SUBSIDENCE PERILS NOT EXCLUDED (4-1-14)
The Contractor’s CGL insurance shall not exclude perils generally known as XCU (Explosion, Collapse and Underground Property Damage), Subsidence, Absolute Earth Movement (except as respects earthquake peril only) or any equivalent peril.

1-07.18(1)F RESERVED
Delete this Section in its entirety and replace with the following:

1-07.18(1)F PRODUCTS AND COMPLETED OPERATIONS ADDITIONAL INSURED (4-1-14)
The Contractor’s CGL insurance shall include the Owner as an additional insured for Products and Completed Operations by providing additional insured status on the ISO CG 20 10 11 85 or CG 20 37 endorsement, or by an equivalent policy or endorsement provision. The Products and Completed Operations additional insured status for the Owner shall remain in effect for not less than three (3) years following the Physical Completion Date or Final Acceptance of the Work (as applicable) by the Owner.

1-07.18(1)G RESERVED
Delete this Section in its entirety and replace with the following:

1-07.18(1)G CONTRACTOR’S POLLUTION LIABILITY INSURANCE (4-1-14)
The Contractor shall provide a Pollution Liability policy for pollutants that are or may be remediated on or off site covering claims, including investigation, defense, or settlement costs and expenses that involve bodily injury and property damage (including natural resources damages and loss of use of tangible property that has not been physically injured) covering:
1. Pollution conditions caused or made worse by the Contractor, including clean-up costs for a newly caused condition or a historical condition that is made worse.
2. The vicarious liability of subcontractors of any tier.

Such Pollution Liability insurance shall provide a minimum limit of liability of $5,000,000 each claim with a minimum aggregate limit of 200% of the each claim limit. There shall be no requirement for a dedicated project aggregate limit provided that the Contractor shall (1) cause to be submitted to the City prior to the Notice to Proceed date with its insurance certification a written statement from its authorized insurance
representative that the full minimum aggregate limit is available and has not been impaired by any claims reserved on another project, and (2) thereafter, until the completion of the Work, the Contractor shall provide notice in writing to the City within ten (10) days of Contractor’s constructive knowledge of any pending or actual impairment of the aggregate limit. If in-Transit Pollution Liability is required but it is not provided under the Automobile Liability per 1-07.18(1)D, then the Contractor must provide evidence of transportation coverage under the Contractor’s Pollution Liability policy.

1-07.18(1)H RESERVED
Delete this Section in its entirety and replace with the following:

1-07.18(1)H UMBRELLA OR EXCESS LIABILITY INSURANCE (8-31-10)

The Contractor shall provide minimum Excess or Umbrella Liability coverage limits of $4,000,000 each occurrence in excess of the primary CGL and Automobile liability insurance limits specified in section 1-07.18(1)A and 1-07.18(1)B. The minimum total limits requirement of $5,000,000 may also be satisfied with primary CGL and/or Automobile liability insurance limits or any combination of primary and excess/umbrella limits.

1-07.18(1)L RESERVED
Delete this Section in its entirety and replace with the following:

1-07.18(1)L ARCHITECTS AND ENGINEERS PROFESSIONAL LIABILITY (8-31-10)

The Contractor and/or its Subcontractor and/or its design consultant shall provide evidence of Professional Liability insurance covering design-related professional errors and omissions. Such insurance must provide a minimum limit of liability of $2,000,000 each claim. If insurance is on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the Notice to Proceed Date.

1-07.18(2) GENERAL REQUIREMENTS (DO NOT APPLY TO STATE OF WASHINGTON STATUTORY WORKERS’ COMPENSATION INSURANCE)

1. The Contractor shall (1) not begin Work until evidence of insurance as required in section 1-07.18(5) has been delivered to and approved by the Owner, and (2) keep required insurance in force at all times during the term of the Contract. The term “insurance” herein shall include but not be limited to self-insurance, alternative risk transfer techniques, capital market solutions or any other form of risk financing.

2. Each insurer must either be (1) authorized to do business in the state of Washington and maintain A.M. Best’s ratings of A-: VII or higher, or (2) procured as surplus lines under the provisions of chapter 48.15 RCW (“Unauthorized Insurers”), except as may otherwise be approved by the Owner.

3. “The City of Seattle” and “The Boeing Company” shall be included as an additional insured for primary and non-contributory basis as respects insurance coverages specified in sections 1-07.18(1)A (CGL insurance), 1-07.18(1)B (Automobile Liability insurance) and, if required, 1-07.18(1)G (Contractor’s Pollution Liability Insurance). As respects CGL insurance, Automobile Liability, and Contractor’s Pollution Liability Insurance (if required), such additional insured status shall (1) be evidenced by an ISO endorsement form CG 20 10 or equivalent designated or blanket additional insured endorsement or policy language, (2) be primary and non-contributory as respects the Owner’s insurance, and (3) contain a “separation of insureds” provision. ISO endorsement form CG 20 12 or equivalent endorsement or blanket additional insured language limiting additional insured status to governmental permitting shall not satisfy the requirements of this paragraph. As respects section 1-07.18(1)B (Automobile Liability insurance), such additional insured
status shall (1) be evidenced by ISO endorsement form CA 20 48 or equivalent designated or blanket additional insured endorsement or policy language, (2) be primary and non-contributory as respects the Owner’s insurance, and (3) contain a “separation of insureds” provision.

4. Written notice of cancellation must be actually delivered or mailed to the Owner not less than thirty (30) days prior to the effective date of any cancellation, except for cancellation for nonpayment of premium, which notice shall be not less than ten (10) days prior to such date, unless a longer period of written notice is required under the provisions of Revised Code of Washington (RCW) 48.18.290 (“Cancellation by insurer.”).

Notice under this paragraph shall be issued to:

The City of Seattle
City Purchasing and Contracting Services Division
P.O. Box 94687
Seattle, WA 98124-4687

If sent by facsimile transmission, fax to (206) 684-4511; if emailed, send as a PDF or XLS format attachment to Judy.Keefe@Seattle.Gov

5. Failure on the part of the Contractor to maintain insurance as required shall constitute a material breach of contract, upon which Owner, after giving five (5) business days notice to the Contractor to correct, may immediately terminate the contract. At the sole discretion of the Owner, it may also procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Owner on demand, or at the sole discretion of the Owner, it may offset sums expended against funds due the Contractor.

6. Any self-insured retention (S.I.R.) in excess of $25,000 that is not “fronted” by an insurer must be disclosed and is subject to the Owner’s approval. Upon request by the Owner, the Contractor shall (1) furnish financial information that the Owner may reasonably require to assess the Contractor’s risk bearing capacity, and (2) provide a written statement that the Contractor will defend and indemnify the Owner against any claim within the Contractor’s S.I.R. at least to the same extent that coverage would be afforded to the Owner under the relevant insurance policy(ies) meeting the requirements stated herein. The cost of any payments for defense and indemnity falling within the S.I.R. shall be the responsibility of the Contractor.

7. The Contractor and/or any subcontractor of any tier shall comply with all of a railroad’s risk management requirements (including purchasing Railroad Protective Liability Insurance) before performing construction services work adjacent to or upon a railway’s right of way and/or property.

8. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the contract and no additional payment will be made.

1-07.18(3) SUBCONTRACTOR INSURANCE

Contractor shall contractually require that each subcontractor of every tier maintain at a minimum the insurance coverages specified in sections 1-07.18(1)A (CGL insurance) and 1-07.18(1)B (Automobile Liability insurance) and include the City of Seattle as an additional insured for primary and non-contributory limits of liability.

1-07.18(4) NO LIMITATION OF LIABILITY; ADDITIONAL INSURED

The limits of liability specified herein are minimum limits only. Such minimum limits of liability requirements shall not be construed to limit the liability of the Contractor, that of any subcontractor of any tier or of any of their respective insurers. Any provision in any Contractor or subcontractor insurance policy that limits available limits of liability to those specified in a written agreement or contract shall not
apply and all insurance policies, with the exception of Professional Liability and Workers Compensation, shall include the City of Seattle as an additional insured for primary and non-contributory limits of liability for the full valid and collectible limits of liability maintained by the Contractor or subcontractor, whether such limits are primary, excess, contingent or otherwise. This provision shall apply regardless of whether limits maintained by the Contractor are greater than those required by this Contract, and regardless of whether the certification of insurance provided by a subcontractor of any tier pursuant to section 1-07.18(3) specifies lower minimum limits than those specified for or maintained by the Contractor.

1-07.18(5) EVIDENCE OF INSURANCE (DOES NOT APPLY TO STATE OF WASHINGTON STATUTORY WORKERS’ COMPENSATION)

1. The Contractor shall deliver to the Owner certification of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. The certification of insurance must include the following:
   a. An ACORD certificate or equivalent form fully disclosing all coverages and limits of liability maintained.
   b. A copy of the additional insured endorsement or blanket additional insured language to the Commercial General Liability and (if required) Pollution Liability insurance documenting that the City of Seattle is an additional insured for primary and non-contributory limits of liability and (if required) Products and Completed Operations Additional Insured; a statement of additional insured status on an ACORD or other form of certificate of insurance will not satisfy this requirement.
   c. A copy of each policy’s declarations page and schedule of forms and endorsements.
   d. Any other policy language or endorsements that documents compliance with the requirements herein, including (if required) CA 99 48 and MCS-90 endorsements.
   e. An All Named Insured Endorsement is required if the Contractor’s name on the Acord, Declaration Page(s), or Schedule of Forms is different from the legal name of the Contractor on the Bid Form.

2. Should any insurance policy neither be issued nor delivered to the named insured Contractor at the time it delivers the signed Contract for the work, the Contractor shall deliver and maintain on file with the City binders of insurance evidencing compliance with the requirements herein. As soon as practicable after delivery of the policy(ies), the Contractor shall deliver the insurance certification specified in subparagraphs B., C. and D. above.

3. At any time upon the Owner’s request, the Contractor shall forward to the Owner a true and certified copy of any insurance policy(s).

4. Certification of insurance shall be issued to:
   The City of Seattle
   FAS City Purchasing and Contracting Services Division
   700 Fifth Avenue, Suite 4112
   P.O. Box 94687
   Seattle, WA 98124-4687

If sent by facsimile transmission, fax to (206) 684-4511; if emailed, send as a PDF or XLS format attachment to Judy.Keefe@Seattle.Gov.

1-07.18(6) RESERVED

1-07.18(7) RESERVED
1-07.18(8) INDEMNIFICATION

The Contractor shall defend, indemnify, and hold harmless the Owner and its officials, officers, employees, and agents from every claim, risk, loss, damage, demand, suit, action, judgment, and attorney's fee, and any other kind of expense:

1. On account of injury to or death of any and all persons, or on account of property damage of any kind, whether tangible or intangible, or loss of use resulting therefrom, arising out of or in any manner connected with the Work performed or to be performed under this Contract; or

2. Caused or occasioned by the presence of the Contractor's materials, equipment, vehicles, or other personal property upon or in proximity to the property of the Owner, or an official, officer, employee, or agent of the Contractor, a Subcontractor, or a supplier upon or in proximity to the property of the Owner, at any time before the Completion Date; or

3. Caused or occasioned by the Contractor's violation of any applicable law, regulation, or permit, or by the Contractor's breach of this Contract.

If the claim, suit, or action for injuries, death, or damage is caused by or results from the concurrent negligence of (a) the Contractor or its officers, agents, or employees and (b) the Owner or its officials, officers, agents, or employees, these indemnity provisions shall be valid and enforceable only to the extent of the Contractor's negligence.

The Contractor also shall defend, indemnify, and hold harmless any county, city, or district and the officials, officers, and employees of the county, city, or district connected with the Work within the limits of which county, city, or district the Work is being performed, all in the same manner and to the same extent as provided above for the protection of the Owner and the Owner's officials, officers, employees, and agents, provided that no retention of money due to the Contractor will be paid by the Owner except as provided in RCW 60.28, pending disposition of suits or claims for damages brought against the county, city, or district.

The Contractor assumes all risk of damage to its property, or injury to its officers, directors, agents, suppliers, subcontractors, or invitees, in or about the Project from any cause, and waives all claims against the Owner. The Contractor further waives, with respect to the Owner only, its immunity under Title 51 RCW, Industrial Insurance, or any other worker's compensation law.

The Contractor and the Owner acknowledge that the provisions of this Indemnification Section have been negotiated by them, that the Contractor considered these obligations of this Indemnification Section in preparing their Bid, and that the Contract Price reflects this negotiation.

Neither the requirement that the Contractor maintain insurance, nor the type or amount of any insurance maintained by the Contractor, shall be construed as waiving or limiting the Contractor's liability under this Indemnification section.

1-07.18(9) WORKER'S BENEFITS

The Contractor shall make all payments required for unemployment compensation under Title 50 RCW and for industrial insurance and medical aid required under Title 51 RCW. If any payment required by Title 50 or Title 51 is not made when due, the Owner may retain such payments from any money due the Contractor and pay the same into the appropriate fund.

For work on or adjacent to water, the Contractor shall be responsible for ensuring workers are covered under the Longshoremen's and Harbor Worker's Compensation Act administered by the U.S. Department of Labor, or the State Industrial Insurance coverage administered by the Washington State Department of Labor and Industries, or both coverages.

The Contractor shall include in the Bid, all costs for payment of unemployment compensation and for providing either or both of the insurance coverages. The Contractor will not be entitled to any additional payment for: (1) failure to include such costs, or (2) determinations made by the U.S. Department of Labor or the Washington State Department of Labor and Industries regarding the insurance coverage.
The Public Works Contract Division of the Department of Labor and Industries will provide the Contractor with applicable industrial insurance and medical aid classification and premium rates. The "Request for Release" form of the Department of Labor and Industries is also for the purpose of obtaining a release with respect to the payments of industrial insurance and medical aid premiums.

1-07.23 PUBLIC CONVENIENCE AND SAFETY

1-07.23(2) PEDESTRIAN CONTROL AND PROTECTION (3-17-14)

Delete the third paragraph through the end of the Section and replace with the following:

Where sidewalks are required to be closed by construction, an alternate walkway shall be provided, and to the extent reasonably feasible, the walkway should be ADA compliant including curb ramps and detectable warnings.

Where it is necessary to divert pedestrians into the roadway, barricading or channeling devices shall be provided to separate the pedestrian walkway from the adjacent vehicular traffic lane. At no time shall pedestrians be diverted into a portion of a street used concurrently by moving vehicular traffic.

At locations where adjacent alternate walkways cannot be provided, appropriate signs shall be posted at the limits of construction work zone, and in advance of the closure at the nearest crosswalk or intersection, to divert pedestrians to an alternate walkway.

Physical barricades, in accordance with the current version of the City of Seattle Traffic Control Manual and 2009 MUTCD, shall be installed to prevent people with visual impairments from inadvertently entering a Work area or closed construction area. Pedestrian access shall be maintained to all properties adjacent to the Work area.

1-07.28 NOTIFICATIONS RELATIVE TO CONTRACTOR’s ACTIVITIES (3-17-14)

3) City of Seattle – Signage, Parking Pay Stations, Parking Meters:

Delete the 3) a. first sentence and replace with the following:

a. Parking Meters, Parking Pay Stations, and sidewalk containing D-22 signage ("Pay R", "Pay L", "Pay H," and "Pay RL" signs and posts) and "numbered " base plates: ten (10) Working Days advance notice is required for the following:

4) Disruptions to, or service modification requests for METROKC Transit, and South Lake Union Streetcar service and facilities:

Delete and replace the Title and Section 4) with the following:

4) Disruptions to, or service modification requests for METROKC Transit, Streetcar service and facilities, or Sound Transit Link Light Rail service and facilities:

a. Contact the Construction Information Center (CIC) at 206-684-2732 or 206-684-2785 (for non-trolley requests) and 206-684-2792 (for trolley requests) or email construction.coord@kingcounty.gov or see the website at http://www.kingcounty.gov/transportation/kcdot/MetroTransit/Construction.aspx for the following:

1) For work resulting in temporary closure/relocation of a bus stop or for work within an area of a bus stop that will limit full access to it by coaches and pedestrians/passengers, three (3) Business Days advance notification is required.

2) For work resulting in Metro removing any transit facility structure including, but not limited to shelters, boards/kiosks and bus stop signs, fifteen (15) Business Days advance notification is required.
3) For work resulting in road closure on which buses operate that will require rerouting, ten (10) Business Days advance notification is requested while five (5) Business Days advance notification is required.

4) For work resulting in a full or partial road closure on which a streetcar operates that does not require overhead line deactivation or a shutdown to its track operation, a five (5) Business Days advance notification is required.

5) The request for assignment of diesel coaches for electric coaches on electric trolley routes on non-Business Days shall be made no later than ten (10) Business Days prior to the weekend requested (COB Monday two weeks prior). Metro will not grant diesel coach substitutions on Business Days. If line deactivation is required see b) below.

b. Contact METROKC at 206-263-6580 for overhead power wire requests as follows:
   1) Overhead power line modification or outage requests for an electric bus require ten (10) Business Days advance notification (by COB Monday two weeks prior). Request forms shall be submitted to Construction Information Center (email above). Trolley bus overhead deactivation is limited to weekends only (4:30 AM Saturday morning until 2:00 AM Monday morning).

   2) Overhead power line modification or outage requests for a streetcar require ten (10) Business Days advance notification (by COB ten days prior). Request forms shall be submitted to Construction Information Center (email above). Streetcar deactivations are limited to non-operational hours during periods when Streetcar staff are not testing cars or training new operators.

   3) When working within ten (10) feet of any electric bus or streetcar overhead power, ten (10) Business Days advance notification is required. It is the responsibility of the Contractor to adhere to Washington Administrative Code guidelines in regards to working within the vicinity of high voltage lines.

   4) Requests for overhead power line modification or outage may have an associated cost payable by the Contractor. In addition, outage requests for non-SDOT projects may be subject to a recently-legislated King County Trolley Ordinance Fee. The Contractor shall consult with MetroKC to determine costs and include such costs within the Bid. Requests may require additional information. Approval is dependent on METROKC Transit Power Distribution's ability to perform requests (some overhead power line modification requests may require more than ten (10) Business Days advance notification).

b. Contact METROKC at 206-263-6580 for overhead power wire requests as follows:
   1) Overhead power line modification or outage requests for an electric bus require ten (10) Business Days advance notification (by COB Monday two weeks prior). Request forms shall be submitted to Construction Information Center (email above). Trolley bus overhead deactivation is limited to weekends only (4:30 AM Saturday morning until 2:00 AM Monday morning).

   2) Overhead power line modification or outage requests for a streetcar require ten (10) Business Days advance notification (by COB ten days prior). Request forms shall be submitted to Construction Information Center (email above). Streetcar deactivations are limited to non-operational hours during periods when Streetcar staff are not testing cars or training new operators.

   3) When working within ten (10) feet of any electric bus or streetcar overhead power, ten (10) Business Days advance notification is required. It is the responsibility of the Contractor to adhere to Washington Administrative Code guidelines in regards to working within the vicinity of high voltage lines.

   4) Requests for overhead power line modification or outage may have an associated cost payable by the Contractor. In addition, outage requests for non-SDOT projects may be subject to a recently-legislated King County Trolley Ordinance Fee. The Contractor shall consult with MetroKC to determine costs and include such costs within the Bid. Requests may require additional information. Approval is dependent on METROKC Transit Power Distribution's ability to perform requests (some overhead power line modification requests may require more than ten (10) Business Days advance notification).

c. For Sound Transit Link Light Rail (Right of Way) and power outage requests, call 206-903-7696. If work affects both rail and busses, the Construction Information Center listed above under a. also needs to be notified.

7) Water Mains, Hydrants, Water Services, and Related Appurtenances

Delete 7)a.1) and replace with the following:

1) Within SPU Water Service Franchise Area: Seattle Public Utilities Water Operations (206-386-1800). Water Main shutdown notifications and advisories regarding fire hydrant status will be given to fire agencies by SPU Water Operations.

   a) All Work impacting Water Mains, water service or water service connection shall require a minimum of three (3) Working Days advance notice to the Engineer. The Engineer will plan and coordinate the shutdown with Water Operations.

   b) All Work requiring a shutdown of a Water Main, interruption of water service or restricting access to hydrants or valves shall require a minimum of five (5) Working Days advance notice to the Engineer. The Engineer will plan and coordinate the shutdown with Water Operations.

   c) All Work requiring Water Main shutdowns in commercial, industrial and critical service areas and in areas where over 5% of the population...
consists of a specific language group other than English shall require a minimum of seven (7) Working Days advance notice to the Engineer. The Engineer will plan and coordinate the shutdown with Water Operations.

d) All Work on pavement impacting castings and Structures connected to the water distribution or water transmission system shall require a minimum of five (5) Working Days advance notice to the Engineer. The Engineer will plan and coordinate with Water Operations.

8) Electrical Safety and Service within SCL Service Area:

Add new subsection d.:

d. Streetlight System Inspections: To schedule an inspection for streetlight systems, contact SCL at least ten (10) Days in advance.

10) Chemical, Oil, Hazardous Substance, or other Contaminant Spill or Discharge or Release:

Delete this subsection and replace with the following:

10) Chemical, Oil, Hazardous Substance, or other Contaminant Spill or Discharge or Release: When the Contractor first becomes aware of an environmental spill, discharge or release of: chemicals, oil, hazardous substances, Contaminated Material(s), Dangerous Waste(s), or TSCA Waste(s) the Contractor shall immediately notify:

a. The Engineer always and Seattle Public Utilities
b. If within SPU service area including watersheds (206) 386-1800, and

c. If into Lake Union, Ship Canal, or Puget Sound:
   1) U.S. Coast Guard (206) 217-6001) or the National Response Center, Washington, D.C. 1-800-424-8802 (operated 24 hours a Day), and
   2) Washington Department of Fish and Wildlife (425)-313-5660, and
   3) Seattle Harbor Patrol (206) 684-4071.

d. If into any side Sewer, sanitary Sewer or combined Sewer if within King County:
   1) King County Industrial Waste (206) 263-3000) Monday to Friday 8:00 AM to 5:00 PM, or
   2) West Point Treatment Plant (206) 263-3801 at all other times.

e. If into Storm Drain, sanitary Sewer, combined Sewer, side Sewer, rivers, streams, lakes:
   1) Washington State Department of Ecology (425) 649-7000, and
   2) If within Seattle, the Seattle Surface Water Quality Hotline (206) 684-7587, elsewhere the Sewer service as indicated in the Contract, as otherwise indicated in permit(s), or the agency having jurisdiction.

f. For flammable or hazardous materials: Seattle Fire Department 911.

13) Underground Utility Locator:

Delete and replace the phone numbers with:

811 (or 1-800-424-5555)

15) U.S. Postal Service Collection Boxes, Mail Receptacles, and other Structures:

Delete and replace the phone number with:

206-241-7061
18) Gas Main, Transmission line, and Service Lateral with the following:

Supplement with the following:
Reference Section 1-07.17(1)A for additional details regarding coordination with PSE when excavating near natural gas infrastructure.

20) Replacement Casting and Covers: For Puget Sound Energy (PSE) replacement

In the fourth paragraph, delete and replace the phone numbers with:
425-457-5777 or 1-888-321-7779

1-07.29 RESERVED (3-7-11)

Delete this Title and replace with the following new Title and Section:

1-07.29 FIELD OFFICE FOR THE ENGINEER’S STAFF [400 SF] (3-7-11) [4]

The Contractor shall provide a field office, a portable trailer for the use of the Engineer’s staff, within 5 Working Days from the Notice to Proceed Date. The field office shall be subject to the approval of the Engineer and shall be established at or prior to the pre-construction conference (see Section 1-08.1(2)A).

The field office shall meet the following requirements:

1. The field office shall be a minimum of 10 feet wide (measure on the exterior box dimension for portable trailer) with not less than 400 square feet of clear floor space, having at least one door, and a window area of not less than 60 square feet. The minimum height from floor to ceiling shall be 7 feet.

2. The field office shall have a solid and level floor with no holes, a weatherproof roof and shall be dust-proof, and weather-tight. The interior walls shall be covered with material suitable for displaying Contract plans and progress charts, etc. Windows including windows in the doors shall be provided with satisfactory shades, blinds, or other approved coverings.

3. The field office shall be strictly for the use of the Engineer’s staff.

4. The building or trailer furnished for the field office shall be in accordance with all applicable state and local codes and applicable WISHA requirements.

5. A Scrusher™ 3-sided boot and shoe cleaner or approved equal center mounted on a 24-inch long 2 x 8 (1-1/2” x 7-1/2”) board shall be provided for each field office entrance at locations as determined by the Engineer.

6. Portable Trailer (option):
   a. Windows shall open to allow ventilation. Doors and windows shall be provided with bug screens.
   b. To deter break-in and theft, window and door glass shall be protected with heavy security screens on metal frames bolted to the walls and doors. All doors shall have 2 locks each: one doorknob keyhole lock and 1 deadbolt cylinder lock, each with its own distinct key. The Contractor shall provide the number of sets of keys to the office as directed by the Engineer; minimum of 4 keys for each lock.
   c. The portable trailer field office shall be level and the structure shall be supported on blocks.
   d. If more than three (3) steps are required to enter the office, a floor-level landing of at least 12 square feet with railing shall be provided. Steps and landing shall be stable and slip resistant per Section 1-07.1(3).

Space within a Building (option):
   e. Windows shall open to allow ventilation or the building shall have a ventilation system satisfactory to the Engineer. Doors opening directly to the outside and windows that open shall have bug screens.
f. To deter break-in and theft, ground floor window(s) and door(s) with glass shall be protected with heavy security screens on metal frames bolted to the walls and doors, or have an alternate security that is satisfactory to the Engineer. All doors opening directly to the outside shall have 2 locks each: one doorknob keyhole lock and 1 deadbolt cylinder lock, each with its own distinct key or have an alternate security that is satisfactory to the Engineer. All other doors shall have locks with its own distinct key or have an alternate security that is satisfactory to the Engineer.

g. The Contractor shall provide the number of sets of keys to the office as directed by the Engineer; minimum of 4 keys (and access cards or codes if applicable) for each lock (or access door).

7. The Contractor shall be responsible for maintaining and cleaning the field office; repairing any damage to the structure, equipment and appurtenances; providing weekly janitorial services including supplying appropriate toilet room paper products; refilling applicable dispensers with drinking water cups, waterless hand cleaner with pumice, and paper towels; cleaning windows and sweeping floors; and emptying trash receptacles and recyclables, disposing trash, and relining trash receptacles and recyclables.

8. The office shall be furnished with the following furniture, equipment and appurtenances reasonably presentable, in good working order, and acceptable to the Engineer:
   a. Drafting table, 6 foot x 4 foot minimum, a "D size" plan drawer, soft pad covering entire top, locking tilt features [1 unit], and stools with back support [2 units];
   b. Drafting table lamp, swing arm type with 3 foot minimum reach, clamp for attachment to drafting table, at least one 100 watt bulb [1 unit];
   c. Executive chair with seat cushion, adjustable height seat, tilt back, arm rests, and floor wheels [3 units];
   d. Office desk, 30” x 60” minimum size, with at least 4 drawers which can be locked with key & one of which is set up for file folders, 2 sets of keys [2 units];
   e. Office table, 36” x 72” [2 units];
   f. Office chairs with seat & back cushion [8 units]
   g. Plan rack [1 unit]
   h. Four-drawer legal file steel cabinet with legal size folders and hanging folders, locking feature with 2 sets keys, and frame in each drawer to hold folders [1 unit];
   i. Electric pencil sharpener [1 unit];
   j. White board 2-1/2 feet by 4-1/2 feet minimum with 8 dry erase markers, 1 dry board eraser, and 16 ounces of dry broad cleaner [1 unit];
   k. Paper shredder: Type – strip cut, confetti, or x-cut; Capacity – can shred 5 to 7 sheets of paper at a time; Waste Bin – self-contained and attached to shredder; Throat Width – nine (9) inch minimum width; and must be capable of shredding paper clips and staples [1 unit]; and,
   l. Metal trash receptacles and recycle bins for paper, plastics and glass; with trash liner inserts and 100 extra trash liners [3 - 41 quart size units & 2 - 28 quart size units].

9. The office shall be furnished with the following computer support office equipment in good working order, and acceptable to the Engineer for the duration of the project:
   a. Color Scanner/Copier/Printer machine meeting the following minimum requirements:
      1) Copy Size: 11” x 17” max, (8.5” x 11” tray, 8.5” x 11” to 11” x 17” tray, 4” x 6” to 12” x 18” by pass tray)
      2) Automatic Duplexing (two-sided printing and copying);
      3) Automatic Document Feeder: Capacity 50 sheets, paper size 5.5” x 8.5” to 11” x 17”
      4) 30 pages per minute maximum printing speed B&W and color networked;
      5) Input Capacity: Standard 2-200 sheets + 50 sheet by pass tray
6) Output Capacity: Standard 200 sheets
7) Preset reduction to 50% and enlarge to 200% plus zoom in 1% increments;
8) Print Resolution: Up to 600 dpi;
9) Scan Resolution: Up to 600 dpi;
10) Scan Size, Maximum: 11 x 17 in (Automatic Document Feeder);
11) Scan to Email/desktop
12) Scan File Formats: JPEG, PDF;
13) Under-storage cabinet;
14) Floor wheels to accommodate service technician;
15) 100 sheets of each size 20 lb. bright paper with no more than 30% recycle post-consumer content;
16) Must be compatible with all computer equipment networking and internet equipment as applicable; and,
17) A repair and maintenance service contract with 4 hour service response on-site parts and labor;

b. The Contractor shall provide a commercial grade broadband internet access (DSL at 640k, or ISDN when DSL is not available) between the field office and an Internet Service Provider (ISP). The Contractor shall provide for 24 hour technical support and a local or 1-800 phone number to troubleshoot and maintain the broadband connectivity. The Contractor shall provide inside wiring to support a Local Area Network inside the field office and shall include a 4-plex jack to at least 5 workstations (desk or table locations to be addressed at the pre-construction conference). The Contractor shall provide necessary equipment to allow internet connectivity and shall be configured to allow VPN access from individual machines to the City of Seattle. The Contractor shall contact Seattle Information Technology at 206-684-8774 (206-684-4544 backup) at least 5 Working Days in advance for access to the Seattle internal network; and

c. 20-foot minimum length power cords with multiple plug-in surge protector for each of 5 computers with monitors, the Color Scanner/Copier/Printer, and 1 spare.

10. Electric power of sufficient capacity to operate an electric heater, air conditioner, internet access, all computers with monitors, calculators, and lights. Field office shall be provided with a minimum of 8 duplex convenience electrical outlets. The office shall be illuminated at the tables and desks. An outdoor light fixture with a 150 watt bulb or approved equal shall be installed to effectively light the area around the office facility.

After obtaining inspection and approval of the field office electrical system and the proposed temporary power connection hook-up from DPD, the Contractor shall provide a minimum 15 Working Days advance notice to Seattle City Light requesting a temporary power drop and connection. At and north of Denny Way, contact 206-615-0600, and south of Denny Way contact 206-386-4200. Generators (gas and diesel) for producing electrical power will not be allowed unless the Engineer permits such in writing.

11. Contractor shall provide drinking water with disposable cup dispenser filled with cups; drinking water with disposable cup dispenser shall be in accordance with all applicable state and local codes and applicable WISHA requirements.

12. Contractor shall provide sanitary facilities including a flushing toilet and wash basin both with running water within the office. For field trailers only, where sewer connections are not reasonably possible as determined by the Engineer, an alternative acceptable to the Engineer such as port-a-potties or portable restrooms may be provided. Toilet and handwashing facilities shall be in accordance with all applicable state and local codes and applicable WISHA requirements.

13. Contractor shall provide a waterless hand cleaner dispenser filled with waterless hand cleaner with pumice; and a paper towel dispenser filled with paper towels.

14. The Contractor shall arrange for and provide temporary water service, and shall arrange for and provide temporary waste discharge to a sanitary or combined Sewer unless other sanitary
disposal arrangements are arranged. Such provision may require excavation for installation and removal of temporary facilities including backfilling, temporary surface restoration, and other work as necessary.

15. The Contractor shall provide both local and long distance telephone service with three separate phone lines (a minimum of two for voice, one for internet access if applicable); each single line “touch tone” phones with Centraflex™ customized call management services including “call pickup, voice mail, and call forwarding”. Each installation shall include 25 foot long extension cord between phone jack and instrument or as deemed adequate by the Engineer to reach all workstations and table top surfaces.

16. The Contractor shall provide heating and air-conditioning of sufficient capacity to heat the office to 70 °F within 1 hour, and to cool the office 15 °F within 1 hour.

If the Contractor fails to provide a field office at the location on the date agreed to at the pre-construction conference, the Engineer will provide written notice of such and shall have the right to withhold payments necessary to cover the Owner’s costs for or to remedy in accordance with Section 109.9(3). If within 5 Working Days of the Engineer sending this written notice the Contractor has not provided the field office, then the Engineer will have the option to provide the field office. If the Engineer elects to provide the field office, the Engineer will give the Contractor a second written notice of such; will within three (3) Working Days of giving the second written notice provide the field office meeting the requirements specified in this Section 107.29; and will charge the Contractor by deducting from monies due or to become due the Contractor on progress payments, all costs associated with the field office as specified in this Section 107.29. Upon deliverance of the second written notice, the Contractor’s right to provide the field office shall be forfeited.

The field office, equipment, and appurtenances supplied by the Contractor shall revert to and be removed by the Contractor when the Engineer, via the written notice of Physical Completion to the Contractor, establishes the Physical Completion Date. If the Contractor removes, closes, or discontinues the services specified in this Section 107.29 prior to receiving the written notice of Physical Completion without first obtaining written approval from the Engineer, the Contractor will be charged Liquidated Damages in accordance with Section 108.9.

All costs for the work required to provide and maintain the field office including regular expenses for telephone, internet, electricity, etc.; incidental construction to accommodate; and, to procure all permits and licenses required for the field office to meet the requirements of this Section 107.29; shall be included in the lump sum Contract Price Bid for “Mobilization.” All costs for the work required to relocate the field office, if required, shall be considered incidental to the Bid item “Mobilization.”

1-07.30 DISCOVERIES OF CONTAMINATED MATERIAL(S), DANGEROUS WASTE(S) AND TSCA WASTE(S)

1-07.30(1) GENERAL

Delete the portion of the last sentence that states “…but not otherwise identified in Contract-related documents”.

1-07.30(2) PRESENT SITE CHARACTERIZATION

Delete this Section and replace with the following:

Section 102.4(2) includes a list of background documents that include characterization of Contaminated Material(s) and TSCA waste(s) within the project site. Limits and extents of the Contaminated Material(s) and TSCA waste(s) are identified on the Drawings. A varied quantity of debris may be encountered in the subsurface. This debris may include bricks, concrete, metal, glass, solidified or semi-solidified tar, buried drums or crushed containers containing tar-like material, drum remnants, and similar objects. When encountered, the Contractor shall remove subsurface debris to the limits of excavation, and handle and dispose the debris in the same manner as the Contaminated Material in which it was found.
1-07.30(5) PAYMENT

Delete this Section and replace with the following:

Costs for the work required under Section 1-07.30 will be paid for using the Bid item "Subtitle C Excavation, Loading, and Disposal" or Bid item "Subtitle D Excavation, Loading, and Disposal" as applicable and in accordance with Section 2-04.5.

1-07.30(6) WASTE PACKAGING (New Section)

The Contractor shall provide all of the materials and labor required for the packaging, labeling, marking, placarding, and transporting of TSCA wastes and Contaminated Material(s) not designated as TSCA waste or dangerous waste in conformance with all federal, state and local regulations. Details in this specification shall not be construed as establishing the limits of the Contractor's responsibility.

The Contractor shall directly load excavated soil and debris into containers or trucks. TSCA wastes shall be directly loaded into lined containers or trucks. No on-site stockpiling of excavated soil and debris will be authorized. The Contractor shall stabilize any soil exhibiting free liquids, as measured by the paint filter test (EPA Method 9095B), with Portland cement, polyacrylamide, cement kiln dust, fly ash, or similar stabilizing agents to absorb water. The Contractor shall describe the stabilizing agent to be used within the Clearing, Demolition, and Excavation Plan portion of the Removal Action Work Plan. See Section 1-07.35(1)J.

Contaminated Material(s) Not Designated as Dangerous Waste or TSCA Waste

1. This material(s) shall be transported with a minimum 12-inch freeboard within the City of Seattle. Contractor shall confirm requirements for covering loads if transporting materials outside of the city limits.

2. Packaging Certification - The Contractor shall provide written certification to the Owner that Contaminated Material(s) have been properly packaged, labeled, and marked in accordance with USDOT and EPA requirements prior to shipment of any material offsite.

TSCA Waste(s)

The following requirements apply to TSCA wastes:

1. **Packaging** – The Contractor shall provide bulk and non-bulk containers for packaging hazardous material(s) consistent with the authorizations referenced in the Hazardous Materials Table in 49 CFR 172.101, Column 8. Bulk and non-bulk packaging shall meet the corresponding specifications in 49 CFR 173, referenced in the Hazardous Materials Table, 49 CFR 172.101. Each packaging shall conform to the general packaging requirements of Subpart B of 49 CFR 173, to the requirements of 49 CFR 178 at the specified packaging group performance level, to the requirements of special provisions of column 7 of the Hazardous Materials Table in 49 CFR 172.101, and shall be compatible with the material to be packaged as required by 40 CFR 262. Other packaging-related materials such as materials used to cushion or fill voids in over-packed containers, etc. shall be provided. Contractor shall not use sorbent materials capable of reacting dangerously with, being decomposed by, or being ignited by the Contaminated Material(s) being packaged. Non-biodegradable sorbents shall be used to treat free liquids to be disposed in landfills, as specified in 40 CFR 264.314.

2. **Markings** – The Contractor shall provide markings for each Contaminated Material(s) package, freight container, and transport vehicle consistent with the requirements of 49 CFR 172, Subpart D, 40 CFR 262.32 (for hazardous waste), and 40 CFR 761.45 (for PCBs). Markings shall be capable of withstanding, without deterioration or substantial color change, a 180-day exposure to conditions reasonably expected to be encountered during container storage and transportation.

3. **Labels** – The Contractor shall provide primary and subsidiary labels for Contaminated Material(s) consistent with the requirements in the Hazardous Materials Table in 49 CFR 172.101, Column 6. Labels shall meet design specifications required by 49 CFR 172, Subpart E, including size, shape, color, printing, and symbol requirements. Labels shall be durable and weather resistant and capable of withstanding, without deterioration or substantial color change, a 180-day exposure to conditions reasonably expected to be encountered during container storage and transportation.
4. **Placards** – The Contractor shall provide primary and subsidiary placards for each offsite shipment of hazardous material(s), consistent with the requirements of 49 CFR 172, Subpart F. Placards shall be provided for each side and each end of bulk packaging, freight containers, transport vehicles, and railcars where required. Placards shall be plastic, metal, or other material capable of withstanding, without deterioration, a 30-day exposure to open weather conditions and shall meet design requirements specified in 49 CFR 172, Subpart F.

5. **Liners** – The Contractor shall line each container of excavated material designated as TSCA waste with a minimum 6 mil new, intact plastic liner. Contractor shall propose material type and method for overlapping or welding/closing seams if multiple liners are used. This proposal is subject to Owner approval.

6. No spillage or drainage from containers shall be allowed at any time during hauling off-site. The contractor shall transfer intact containers during offsite transloading (e.g., from truck to rail). Bulk soil and debris shall not be rehandled at an offsite location without prior approval granted by the Engineer. Containers shall not be overloaded and shall meet all applicable weight restrictions. Be advised that soils may generate free liquid during transport due to separation and settling. Hauling methods to address this possibility shall be included in the Waste Transportation and Disposal Plan.

1-07.30(7) **WASTE SHIPPING (New Section)**

**Contaminated Material(s) Not Designated as Dangerous Waste or TSCA Waste**

1. The Contractor shall prepare a bill of lading (Contractor Solid Waste Tracking Sheet) for each shipment of Contaminated Material(s) not designated as dangerous waste or TSCA waste. The bill of lading shall satisfy the requirements of 49 CFR 172, Subpart C and any applicable state or local law or regulation, and shall be submitted to the Owner for review and approval. An example bill of lading is included as Attachment 1-07.30-A in the Appendix. Any bill of lading that requires the shipper’s certification must be signed by an authorized representative of the Owner prior to any shipment leaving the site.

**TSCA Waste(s)**

17. **Packaging Certification** - The Contractor shall provide written certification to the Owner that TSCA material(s) have been properly packaged, labeled, and marked in accordance with USDOT and EPA requirements prior to shipment of any material offsite.

18. **Transport** – The Contractor shall transport all wastes in accordance with federal, state, and local and landfill requirements, including driver training, placarding, and use of shipping papers and waste manifests. All loads containing TSCA soils shall be containerized and transported following the requirements of 49 CFR 173 and 40 CFR 761.

19. Transportation - The Contractor shall use manifests for transporting hazardous waste(s) and TSCA waste(s) as required by 40 CFR 263 or any applicable state or local law or regulation. Contractor shall comply with all requirements in the USDOT referenced regulations in the 49 CFR series. Contractor shall acquire manifests in accordance with the hierarchy established in 40 CFR 262.21 and prepare hazardous waste manifests for each shipment of hazardous waste or TSCA waste shipped offsite. The Contractor shall prepare manifests in accordance with the instructions in 40 CFR 262, Subpart B, and any applicable state or local law or regulation. The Contractor shall submit manifests and waste profiles to the Owner for review and signature by the Engineer prior to any shipment leaving the site. Contractor shall prepare land disposal restriction notifications as required by 40 CFR 268 or any applicable state or local law or regulation for each shipment of hazardous waste or TSCA waste. The Contractor shall submit land disposal restriction notifications with the manifest to the Owner for review and approval prior to any shipment leaving the site.

20. Treatment and Disposal of TSCA Wastes - The Contractor shall transport hazardous waste(s) and TSCA waste(s) to an approved hazardous waste treatment, storage, or disposal facility (e.g., Subtitle C landfill) within 30 calendar days of the accumulation start date on each container. Contractor shall ensure that wastes are treated to meet land disposal treatment standards in 40 CFR 268 prior to land disposal.

21. The Contractor shall evaluate, in consultation with the Owner, whether the material is regulated as a hazardous waste in addition to being regulated as a hazardous material prior to shipping any
material offsite. This evaluation shall be done for the purpose of determining proper shipping
descriptions, marking requirements, etc., as described below.

22. Identification of Proper Shipping Names - The Contractor shall identify proper shipping names,
based on 49 CFR 172.101, for each hazardous material (including hazardous wastes and/or
TSCA wastes) to be shipped offsite. Proper shipping names shall be submitted to the Owner in
the form of draft shipping documents for review and approval prior to any material leaving the
site.

23. Hazardous Material Shipping Documents - The Contractor shall ensure that each shipment of
hazardous material, hazardous waste, dangerous waste, or TSCA waste sent offsite is
accompanied by properly completed uniform hazardous waste manifest (USEPA Form 8700-22,
Rev. 3-05).

24. The Contractor is responsible for complying with the emergency contact provisions in 49 CFR
172.604. Whenever the Contractor ships hazardous materials, contractor shall provide a 24-hour
emergency response contact and phone number of a contractor employee that is knowledgeable
about the hazardous materials being shipped and who has comprehensive emergency response
and incident mitigation information for that material, or has immediate access to a person who
possesses such knowledge and information. The phone shall be monitored at all times when the
hazardous materials are in transport including during storage incidental to transportation.
Contractor shall ensure that information regarding this emergency contact and phone number is
placed on all hazardous materials shipping documents. Contractor shall designate an emergency
coordinator and post the following information at areas in which hazardous waste(s) or TSCA
waste(s) is managed:

a. The name of the emergency coordinator.
b. Phone number by which the emergency coordinator can be contacted on a 24-hour basis.
c. The telephone number of the local fire department.
d. The location of fire extinguishers and spill control material.

1-07.31 HEALTH, SAFETY AND ENVIRONMENTAL PROVISIONS (New Section)

The Contractor shall prepare and implement a site-specific Construction Health and Safety Plan
(Construction HASP) for the work under this Contract. This plan shall be developed under the
supervision of a qualified health and safety person who has experience in contaminated soil removal, as
described in Section 1-07.34(1), part 4. The final plan, addendums and/or modifications shall be approved
and signed by a Certified Industrial Hygienist with qualifications as specified in Section 1-07.34(1). The
Construction HASP shall specifically address the presence of certain chemical constituents (i.e., PCBs)
above regulatory cleanup levels.

The Construction HASP shall present the health and safety requirements for the job site activities, and
the measures and procedures to be employed for protection of onsite personnel. The plan shall cover the
controls, work practices, PPE, and other health and safety requirements that shall be implemented by the
Contractor in connection with the removal action construction activities. The Construction HASP shall
comply with all requirements of Section 1-07.1(2) and this Section.

The Contractor shall assess the potential risks to onsite personnel and the environment and develop the
Construction HASP to safely execute the work under this Contract. The Construction HASP shall be
submitted to the Owner for review and general concurrence. The Owner’s review and concurrence with
the Construction HASP shall not in any way relieve the Contractor of its responsibility for health and
safety, nor shall the Owner’s concurrence be construed as limiting in any manner the Contractor’s
obligation to undertake actions necessary or required to establish and maintain safe working conditions at
the site, including conditions not related to hazardous materials, nor shall the Owner’s concurrence be
construed as establishing the Owner in a position of responsibility for implementation or administration of
the Construction HASP. The Construction HASP shall be submitted to EPA for review and general
concurrence as part of the RAWP.

At a minimum, the Construction HASP shall be at least as protective as the Owner’s Quality Assurance
HASP and include:

1. A description of the site activities to be performed.
2. A listing of hazardous substances known to be, or suspected of being, present at the site.
3. A description of the site chemical hazards (e.g., toxicity, flammability, stability, reactivity), including the nature of each chemical; its physical properties; Washington Industrial Safety and Health Act (WISHA), OSHA, or ACGIH standards, where established; and physical hazards (e.g., noise, heavy equipment, heat stress).

4. A map of the site showing the known and possible locations of the chemical substances, the proposed work activity locations, and evacuation routes.

5. General health and safety directives regarding onsite conduct, including levels of protection and contingency plans.

6. Site-specific health and safety directives for potentially hazardous activities. These directives shall specify the equipment and safety procedures to be used by personnel engaged in the work activities.

7. Establishment of the work area associated with potential contact with hazardous materials. Identify planned changes in boundaries during the work.

8. Requirements for PPE. Provide a list of health and safety equipment that shall be available onsite and required for intrusive site activities during the work under this Contract.

9. Personal decontamination facilities and procedures. Provide decontamination facilities for personnel, as necessary, for conformance with the health and safety plan.

10. Emergency procedures in case of hazardous waste spillage or exposure to personnel, personal injury, fire, explosion, etc. Include emergency telephone numbers and specific procedures for immediate removal to a hospital or doctor’s care of any person injured on the job site.

11. Field monitoring equipment and procedures. Describe when and how monitoring shall be performed (e.g., visual monitoring for airborne dust, noise monitoring), what data reporting procedures shall be used, and how the data shall be used onsite to determine appropriate PPE.

12. Names and responsibilities of personnel assigned to implement, administer, and supervise the HASP.

13. Names, firms, and staff positions of personnel authorized to work at the site.

14. An employee signature page on which each of the Contractor's employees whose activities involve contact with Contaminated Materials and each employee of each subcontractor of any tier whose activities involve contact with Contaminated Materials shall acknowledge receipt of the plan, an understanding of the plan, and an agreement to comply with plan provisions.

15. Recordkeeping requirements and all necessary reporting to cover the implementation of the Construction HASP.

16. Handling and disposal procedures for personal protective gear, decontamination residuals, and other potentially contaminated construction waste generated by the Contractor and other site personnel during the course of the work.

17. Response procedures in the event of discovery of suspected contamination (e.g., petroleum odors, staining, sheens, buried drums).

As conditions change or if new operations are to be performed, the Contractor shall modify, amend, or develop a new Construction HASP.

The Contractor shall comply with the Construction HASP for the duration of this Contract; shall coordinate with the Owner and with all of its subcontractors on health and safety matters; shall provide all necessary first-aid, safety, personal protective and decontamination equipment and facilities; and shall enforce the use of such equipment and facilities by its employees and its subcontractors of any tier.

The Contractor shall independently evaluate the physical and chemical hazards associated with the project work areas and the work under this Contract and develop a plan that adequately addresses these hazards in compliance with applicable local, state, and federal regulations.

The Contractor shall comply with, at a minimum, the provisions of 29 CFR 1910.120 (OSHA, Hazardous Waste Operations and Emergency Response) and 29 CFR 1926.65 (OSHA, Hazardous Waste Operations and Emergency Response [HAZWOPER] Safety and Health Regulations for Construction) and, WAC 296-155 (Washington State, Safety Standards for Construction), and the Construction HASP.
prepared for the work under this Contract.

The Contractor shall conduct all activities with appropriate precautions to avoid the risk of bodily harm to persons or the risk of damage to any property or the environment. Additionally, the Contractor shall exercise due caution when excavating and handling soil and construction water to minimize the potential health hazard to persons on the site, adjacent properties, and the general public. Contractor shall continuously inspect all work, materials, and equipment and be solely responsible for discovery, determination, and correction of any conditions that may involve such risks.

The Contractor shall supply all equipment, materials, and personnel necessary to meet the requirements of this Section and all applicable codes and regulations for safe handling and disposal of contaminated soil, demolition debris, and construction water.

The Contractor shall be responsible for the protection and health and safety of its personnel, subcontractors, and all authorized visitors to the job site, and shall conduct its activities in accordance with the project related HASPs (i.e., the Construction HASP, the QA HASP, and the Community HASP). The Contractor shall allow the use of decontamination facilities by all visitors, including the Owner, federal, and state personnel.

The Site Safety and Health Supervisor shall be responsible for health and safety issues from the start of the site activities through completion and shall be physically present at the Project Site whenever work is in progress. See Section 1-02.2 for the supplemental bidder responsibility criteria for the Site Safety and Health Supervisor position.

**1-07.31(1) HEALTH AND SAFETY**

The Contractor shall be responsible for overall control of the Project Site and all related health and safety measures during construction activities.

The Contractor shall conduct all site activities involving hazardous or potentially hazardous materials in accordance with the Construction HASP.

The Contractor shall designate a qualified representative (as defined in Section 1-07.34(1)) as Site Health and Safety Supervisor whose responsibility shall be health and safety oversight. The designated qualified health and safety representative or an authorized alternate shall be onsite at all times.

The Contractor shall provide health and safety training and require all subcontractors and Contractor-authorized visitors to have this training, as appropriate for the work to be conducted by these personnel. Contractor shall maintain documentation of this training in the project field office.

1. The Contractor shall provide appropriate PPE for the Contractor's employees, as specified in the Construction HASP, and require subcontractors to provide this equipment for their employees. The appropriate level of PPE for specific tasks shall be determined as described in the Construction HASP. If unanticipated hazards are identified that require a level of protection greater than Level D (defined below), Work shall be suspended and the Owner notified. The Contractor's Site Health and Safety Supervisor, in consultation with the Owner, shall determine what actions are required prior to restarting Work. Modified Level D protection shall be required for all personnel and visitors entering active work zones. Modified Level D PPE consists of the following:

   a. Hard hat
   b. Steel-toed boots
   c. Safety glasses
   d. Work clothes (long pants, shirts with sleeves)
   e. Work gloves
   f. High visibility reflective vests
   g. Hearing protection (as needed to prevent exposure exceeding 85 dB level)
   h. Personal flotation device (when performing overwater work)
   i. Steel toed rubber boots (when working with Contaminated Material(s))
   j. Nitrile gloves (when working with Contaminated Material(s))
   k. Plastic bags or waterproof covers for cell phones and cameras (when working with...
Contaminated Material(s))

I. Tyvek, taped off at the wrists and ankles (when working with Contaminated Material(s))

Additionally, the Contractor shall clearly display the company names of all Contractor and Subcontractor employees on their hard hat, safety vest, or shirt.

2. If the SSHS and Owner determine that based on encountered conditions additional protection is necessary, Level C PPE may be required. Level C PPE shall include protection from dust particulates and entrained heavy metals and shall consist of Level D protection with the following additions:

   a. Air purifying respirator, half-face or full-face (depending on required protection factor) with High Efficiency Particulate Air cartridges meeting NIOSH/Mine Safety and Health Administration Specifications. The presence of chemical vapors during activities may trigger the need for additional respiratory protection
   b. Disposable poly-coated chemically protective coveralls
   c. Disposable chemically resistant outer gloves (nitrile)
   d. Disposable chemically resistant inner gloves (nitrile)
   e. Chemically resistant, steel-toed, and steel-shanked boots (PVC, neoprene or nitrile), or outer booties.

Level C will be the maximum allowed level of PPE. If conditions immediately dangerous to life and health are encountered, the project area shall be evacuated until monitored site conditions return to levels safe for Level C PPE.

The Contractor shall provide a means of decontamination for the Contractor's employees, subcontractors, Owner, Engineer, federal and state agency representatives, and all site visitors and equipment that contact hazardous or potentially hazardous materials, in conformance with the requirements of Section 1-07.31(5).

The Contractor shall provide for the proper disposal of disposable PPE and equipment used by the Contractor's employees, subcontractors, Owner, Engineer, federal and state agency representatives, and all site visitors. Such disposal shall conform to all applicable federal and local hazardous waste disposal regulations. All waste material from the Contractor's onsite decontamination facilities shall be properly contained and disposed in accordance with federal, state and local laws and regulations.

The Contractor shall immediately notify the Engineer of an accident or injury and shall maintain accurate accident and injury reports. Reports shall be provided to the Engineer within 24 hours of the reported incident.

The Contractor shall provide proper illumination of construction activity, as necessary, to allow all workers and oversight personnel to safely execute their responsibilities and tasks.

The Contractor shall post the Construction HASP, emergency procedures, and first-aid procedures in the project field office.

The Contractor shall hold daily meetings, at the beginning of each shift and if conditions change, to review health and safety practices and procedures with the Contractor’s personnel and subcontractors. These meetings shall include discussions of the proper use of PPE.

The Contractor shall promptly notify the Owner of any regulatory agency reporting health and safety violations.

1-07.31(2) REGULATORY REQUIREMENTS AND APPLICABLE PUBLICATIONS

It is not the intent of the Owner to list and identify all applicable safety codes, standards, and/or regulations requiring compliance by the Contractor. The Contractor shall be responsible for identifying and determining all safety codes, standards, and regulations that are applicable to the work. These include, but are not limited to, the following:
2. 29 CFR 1926, Safety and Health Regulations for Construction.
3. 49.17 RCW, Washington Industrial Safety and Health Act.
4. WAC 296-24, General Safety and Health Standards.
5. WAC 296-155, Safety Standards for Construction.
7. American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values and Biological Exposure Indices for 1991-1992, or most recent version.

1-07.31(3) HAZARDOUS MATERIAL WORK

Hazardous materials work includes, but is not limited to, activities involving personnel or equipment in contact with contaminated or potentially contaminated soil or construction water. Such work includes, but is not limited to, excavating, handling, stockpiling, loading, transporting, and disposing of contaminated soil and debris; and any other intrusive activities in areas containing Contaminated Material. The Contractor shall be responsible for monitoring hazardous materials and conditions and determining when work involves hazardous materials and when conditions are present that require conformance with specified regulatory requirements. The Contractor shall be responsible for the planning and scheduling of hazardous material work with all other work under this Contract and shall conduct all hazardous material work in strict accordance with the Construction HASP.

The Contractor shall plan for and carry out all portions of the work that include contact or potential contact with existing contaminated site soil and groundwater with a minimum level of personal protection of Modified Level D as defined in 1-07.31(2) per applicable regulatory requirements. Higher levels of personal protection shall be implemented, if warranted by conditions or as specified in the Construction HASP.

1-07.31(4) EXCLUSION ZONES AND CONTAMINATION REDUCTION ZONES

Portions of the Project Site in which workers or the public may be exposed to Contaminated Material(s) shall be designated as Exclusion Zones and shall be barricaded to prevent unauthorized entry. These areas include all removal decision units, removal excavation units, and other removal areas to the target elevations indicated on the drawings, and the stormwater outfall trench within Port of Seattle property. The Contractor shall not allow persons to enter an Exclusion Zone without appropriate HAZWOPER training and PPE.

All personnel and equipment leaving an Exclusion Zone shall first pass through a Contamination Reduction Zone. Given the linear nature of the project Work, it is expected that Exclusion Zones and Contamination Reduction Zones shall be relocated and reestablished daily, or as otherwise necessary. These zones will be approved by the Owner prior to the start of each work day. Decontamination procedures shall be as specified in Section 1-07.31(5)A below.

The Contractor shall secure Exclusion Zones and contamination reduction zones with temporary security fencing and traffic control barriers at the end of each work day to ensure that the public is protected from inadvertently entering areas where they may be exposed to Contaminated Material(s).

1-07.31(5) DECONTAMINATION

1-07.31(5)A PERSONNEL DECONTAMINATION

The Contractor shall provide personal decontamination facilities that meet the requirements specified in the Construction HASP in accordance with Section 1-07.34(1)C. At a minimum, the Contractor shall provide the following:
1. a boot wash consisting of three tubs (i.e., initial, intermediate, and final rinse), scrub brush, cleanser (e.g., Simple Green or similar), and water spray
2. a lined trash receptacle for disposable PPE such as nitrile gloves, shoe covers and Tyvek (if required)
3. a portable hand-washing facility and appropriate supply of paper towels
4. waterproof signage detailing step-by-step decontamination procedures in a highly visible location within the Contamination Reduction Zone
5. training on appropriate decontamination procedures to all personnel, including workers, managers, and inspectors, who plan to enter the Exclusion Zone. No Exclusion Zone entry shall be permitted to personnel who have not been trained.

The Contractor shall dispose of boot wash water and replenish water spray water on a daily basis or as otherwise needed to provide clean wash water. Wash water shall be treated and discharged in accordance with Section 1-07.15(2). Decontamination facilities in the Contamination Reduction Zone shall be established and resupplied daily prior to performing work in the Exclusion Zone.

1-07.31(5)B EQUIPMENT/VEHICLE DECONTAMINATION

The Contractor shall provide equipment decontamination facilities that meet the requirements specified in the Pollution Control and Mitigation Plan in accordance with Section 1-07.34(1)G. Upon completion of the Work, and with the Owner’s approval, the contractor shall decontaminate and demobilize decontamination facilities. To the extent practical, the contractor shall limit equipment movements into and out of Exclusion Zones. Such movements may be minimized by adopting Work zone policies such as:

- Leaving excavation equipment (e.g., excavators, loaders) within the Exclusion Zone until it is no longer required.
- Establishing temporary loading zones adjacent to areas being excavated within the Exclusion Zones in such a manner that truck tires do not come in contact with excavated soil. To the extent practical, temporary loading zones shall be established in areas that have not previously been disturbed. Protective measures shall be taken to ensure that material spilled in temporary loading zones does not come in contact with the ground surface.

When transporting equipment from one Exclusion Zone to another, the contractor shall adequately decontaminate all equipment to ensure that residual material is not tracked out of the Exclusion Zone. The contractor shall fully decontaminate excavation equipment prior to removing it from the site. Decontamination wash water shall be collected for treatment and discharge in accordance with Section 1-07.15(2).

Any construction water storage tank that is converted from active stage remediation stormwater to non-active stage remediation stormwater or non-contact stormwater, or from non-active stage remediation stormwater to non-contact stormwater, shall be decontaminated prior to conversion. The interiors of the storage tanks shall be pressure washed. Wash water, and residual sediment shall be collected and disposed at an offsite disposal facility.

1-07.31(6) MATERIAL HANDLING AND DISPOSAL

1. The Contractor shall handle and dispose Contaminated Material(s) consistent with these specifications and directives issued by the Owner, and in conformance with all applicable federal, state, and local waste disposal regulations.
2. The Contractor shall contain Contaminated Material(s) within designated areas and shall not, at any time, place them directly on or otherwise allow them to contaminate the surface of designated uncontaminated areas, except as approved in writing by the Owner.
3. The Contractor shall transport Contaminated Material(s) from the point of removal to the point of temporary storage or loading in such a manner that Contaminated Material is not placed on and does not spill or fall on designated uncontaminated areas. Impervious liners and containment berm materials shall be provided and maintained. All temporary storage locations for Contaminated Materials shall be clearly staked and marked at all times.
4. The Contractor shall assist the Owner, as requested, to acquire samples and shall remove Contaminated Material(s) within the limits specified by the Owner, subject to contractual provisions related to changes in the scope of work.
1-07.31(7) MEASUREMENT
Measurement for “Safety and Health Program” will be by the lump sum.

1-07.31(8) PAYMENT
Compensation for the cost necessary to complete the work described in Section 1-07.31 will be made at the Bid item prices Bid only for the Bid items listed or referenced below:

1. “Safety and Health Program”, per lump sum.

The Bid item price for “Safety and Health Program” shall include all costs for the Work required by Section 1-07.31. Payments for “Safety and Health Program” will be pro-rated in equal monthly payments beginning in the month or pay period in which the Work begins and ending in the month or pay period in which the projected last Working Day occurs, not allowing for Work suspensions.

1-07.32 FIELD ENGINEERING (New Section)
The Contractor shall provide all materials, items, operations, and methods as necessary to perform the Work, including all materials, labor, equipment, and incidentals necessary to conduct proper surveys required to determine locations and elevations within the area of the Work.

The Contractor shall employ an independent Professional Land Surveyor (PLS) licensed in the State of Washington to perform topographic surveys for layout of the Work, to verify Contaminated Materials excavation depths and obtain final quantity for Contaminated Materials excavation volume, as stipulated in Section 1-07.32(2).

1-07.32(1) CONTRACTOR QUALIFICATIONS
The Contractor shall perform all survey, layout, and related work for progress surveys under the supervision of a PLS or Professional Engineer licensed in the State of Washington. All surveys shall be sealed by a PLS or Professional Engineer licensed in the State of Washington. The surveyor or engineer shall have at least five years of experience in computing earthwork quantities. Surveying or engineering field crew shall have current 40-hour HAZWOPPER certification.

1-07.32(2) INDEPENDENT SURVEYOR QUALIFICATIONS AND RESPONSIBILITIES
The Contractor shall retain an independent surveying firm responsible for conducting certain surveying, field engineering, and related reporting activities, as specified in this section. Contractor’s independent surveyor shall satisfy the following minimum qualification requirements:

1. Specified surveying and related field engineering and reporting shall be performed under the supervision of a PLS with current license in the State of Washington.
2. Surveying firm shall utilize, and be proficient in the use of, the survey equipment and methods specified in this section.

Contractor’s proposed independent surveying firm will be subject to review and approval by the Owner. The responsibilities of the Contractor’s independent surveyor shall include, but not be limited to, the following:

1. Verification of existing monuments, benchmarks, and control points established by the Engineer in accordance with Section 1-05.5.
2. Daily calibration and verification of survey system accuracy.
3. Excavation and backfill progress surveys and reporting.
4. Record document surveys of all completed Work.
5. Calculation of construction quantities for Contractor’s progress payment requests.
The Contractor shall be fully responsible for the coordination, scheduling, accuracy, and quality of the independent surveyor’s work. The independent surveyor shall coordinate with Contractor Quality Control Representative as necessary to fulfill project quality control requirements, in accordance with Section 1-07.34.

1-07.32(3) EXECUTION

The Contractor shall exercise care during the execution of the Work to minimize any disturbance to existing property and to landscaping in the areas surrounding the Project Site. Survey crews shall comply with all provisions of the Construction HASP when traversing into controlled or contaminated areas.

1. If the survey work provided by the Contractor does not meet the standards of the Owner, the Contractor shall remove upon the Owner’s written notice, the individual or individuals doing the survey work. Thereafter, either the Contractor shall find a replacement surveyor, or the survey work may be completed by the Owner at the Contractor’s expense. Costs for completing the survey work required by the Owner will be deducted from monies due or to become due the Contractor.

2. The Owner reserves the right to check all work laid out by the Contractor during the progress of the work, as deemed necessary to verify conformance with the Drawings and Specifications. The Contractor shall allow a reasonable time to permit such checks before completing the work. These checks will be made during the regular working hours.

1-07.32(3)A SURVEY CONTROL AND REFERENCE POINTS

The benchmark used for the design is noted on the Drawings and shall be used by the Contractor for establishing survey control points. For all surveys, the horizontal datum that shall be used by the Contractor is Washington State Plane Coordinate System NAD83 (1998 adjustment), North zone, U.S. feet. The vertical datum that shall be used for the Adjacent Streets removal and restoration and stormwater outfall is NAVD88, in U.S. feet.

The Contractor shall protect all survey control points prior to starting site work and shall preserve permanent reference points during construction. Site reference points shall not be relocated without prior written approval from the Owner.

The Contractor shall promptly report to the Owner the loss, damage, or destruction of any reference point or relocation required because of changes in grades or other reasons. Dislocated survey control points shall be replaced based on original survey control at no additional cost to the Owner. Replacement of dislocated survey control points shall be done by a land surveyor licensed in the State of Washington.

1-07.32(3)B INSPECTION

The Contractor shall verify locations of Project Site reference and survey control points prior to starting work. The Contractor shall promptly notify the Owner of any discrepancies discovered. In addition, the Contractor shall verify layouts prior to beginning excavations, utility trenching, and performing concrete work.

The Contractor shall perform excavation to the target elevations within each removal excavation unit (streets) and removal decision unit (planting strips), as indicated on the Drawings. After the excavations have been performed, the Contractor’s licensed surveyor shall record the final excavation elevations and shall provide written documentation within 24 hours certifying that the specified grades have been achieved. No backfill shall occur without the Engineer’s written approval.

1-07.32(3)C SURVEY REQUIREMENTS

The Contractor shall reference survey and site reference points to the provided control monuments and record locations of survey control points, with horizontal and vertical data, on Project Record Documents.

1. Topographic surveys shall be performed after excavation and backfill activities. These surveys
shall be completed on a grid, at intervals not to exceed 10 feet by 10 feet, including feature and
grade breaks, excavation corners, toe and top of slopes, from which a 0.5-foot contour map will
be required in an electronic format. The topographic surveys shall cover all areas within the limit
of work and extend at least 10 feet outside the limit of work, where practical.

2. All control surveys for elevation shall be +/-0.01 foot and, for horizontal, control angles shall be to
the nearest 20 seconds +/-10 seconds, and measured distances shall be to +/-0.01 foot.
All measurement surveys shall be within the following accuracies:
Horizontal: +/- 0.033 feet +1 ppm at 1 RMS (67% confidence level)
Vertical: +/- 0.066 feet +1 ppm at 1 RMS (67% confidence level)
RTK-GPS methods are acceptable during PDOP values of 7.0 or less and the utilization of a
Geoid model or site calibration. The RTK-GPS system shall be verified on at least 3 survey
control points near the limits of the site, established by differential leveling methods from a project
benchmark. Multi-path environments shall be avoided.
Range pole tips shall be equipped with a “topo shoe” or device to prevent the tip of the range pole
from penetrating the ground surface, or a conscious effort made to capture the ground surface
and prevent the tip of the range pole from sinking into the ground.

3. The Contractor shall provide all materials required to properly perform surveys, including but not
limited to: instruments, tapes, rods, measures, mounts and tripods, stakes and hubs, nails,
ribbons, other reference markers, and all else required. All material shall be of good professional
quality and in first-class condition.

4. All lasers, transits, and other instruments shall be calibrated and maintained in accurate
calibration throughout the execution of the work. Calibration certificates shall be submitted to the
Owner prior to the use of any instrument.

5. All materials and accessories (i.e., grade markers, stakes, pins, spikes, etc.) required for proper
location of grade points and line shall be provided by the Contractor. All marks given shall be
carefully preserved and, if destroyed or removed without the Owner’s approval, shall be reset at
no additional cost to the Owner.

1-07.32(3)D INDEPENDENT SURVEY EVENTS

The Contractor’s independent PLS shall perform topographic surveys as specified for the below listed
events during this Contract. These surveys will be used to verify that all Contract excavation depths and
restoration grades and thicknesses are being obtained as specified, and to determine pay volumes. The
areal coverage of independent surveys shall encompass the entire project area plus an additional area of
at least 10 feet beyond the outside perimeter of the Work. Each survey event shall be performed and
evaluated independently, for each excavation unit.

1. Post-Excavation and Sub-grade Surveys. Progress surveys for excavation and backfill activities
shall be completed using the equipment and methods specified in Section 1-07.32(3)C, and
elsewhere in this Section.
   a. The progress surveys shall include the following informational requirements:
      i. Survey point locations.
      ii. Applicable dates for excavation, backfill, and associated surveying activities.
      iii. All submittal requirements identified in Section 1-05.3(12).
   b. The Contractor shall conduct progress computations for any period for which progress
      payments are requested. For progress payments, excavation quantity calculations shall
      be prepared using a composite volumetric comparison of digital terrain models within
      Autodesk Civil 3D 2012 or compatible software, as approved by the Owner. Additionally,
      the Owner will make such computations as are necessary to verify the quantities of
      progress payments. Final measurement of excavation quantities will be made by the
      Owner and will be based on the Final Excavation Acceptance survey in accordance with
      Sections 2-04.4 and 2-04.5.
   c. The Contractor shall compare data derived from Post-Excavation Survey(s) to the
      Owner-provided baseline survey to verify required excavation depths and grades, and to
      compute the excavated quantities. If additional work is necessary to attain the required
      excavation depths and grades, additional excavations shall be performed and
      subsequent surveys shall be provided at no additional cost to the Owner.
   d. The data derived from survey(s) of the top of sub-grade shall be compared to the Post-
      Excavation Survey(s) to verify required sub-grade elevations and grades. If additional
work is necessary to attain required sub-grade elevations and grades, additional backfill shall be completed and subsequent surveys shall be provided at no additional cost to the Owner.

e. The Owner may conduct independent progress surveys for quality assurance purposes. The Owner will notify the Contractor if review of the survey data indicates a discrepancy between Contractor’s and the Owner’s progress survey, and the Owner may request that the Contractor re-survey the area(s) where discrepancies are present. Any re-surveying and associated re-work required due to surveying error(s) on the part of the Contractor or Contractor’s independent surveyor shall be performed at no additional cost to the Owner.

f. In the event that the Contractor’s or Owner’s progress surveys indicate that the Work is out of compliance with the Contract Documents, the Owner may direct the Contractor to adjust excavation and/or backfilling procedures, including mobilization of alternate equipment as needed to achieve the specified construction tolerances, at no additional expense to the Owner. Any re-surveying and associated re-work required due to Work that is out of compliance shall be performed at no additional cost to the Owner.

2. Record Document Survey. Upon completion of the Work, the contractor shall complete a final record document survey of the Work for inclusion in the construction report to be prepared by the Owner to the USEPA. This survey shall document the final accepted work.

a. The record document survey shall include a topographic survey of all final grades and finished site features within the project limits. A separate plan drawing shall also be prepared showing the final excavation grades within the work area.

b. The accuracy of the topographic survey shall be consistent with the surveying requirements of Section 1-07.32(3)C.

c. The record document survey shall include the location of all new and existing utilities within the project limits, as well as any appurtenances, pavements, and other site improvements installed or modified as part of the Work.

d. The record document survey shall include information on new and existing underground utilities including but not limited to; pipe invert elevations, material type, diameter, and slope; and rim and sump elevations for all stormwater structures.

e. The results of the record document survey shall be presented in the form of contour plan drawings with 0.5-ft contour intervals. The location of utilities, appurtenances, and other site improvements shall be clearly indicated with appropriate symbols. Toe and catch points shall be indicated for all slopes. Spot elevations shall be indicated in areas of limited topographic relief, as appropriate (i.e., minimum 10-ft by 10-ft grid), and at 5-ft intervals along curb lines. The associated survey data shall also be submitted to the Owner, in accordance with Section 1-07.32(4).

f. The data derived from this survey shall be used in preparing the As-Built Record Drawings in accordance with Section 1-05.3(14).

All independent surveys shall be performed by the same independent PLS and equipment, and use the same data processing and interpolation methods. In addition to the submittals specified in Section 1-07.32(4), the Owner reserves the right to request at any time copies of all other survey data, calculations, and supporting documentation generated by the independent surveyor in support of the Work.

1-07.32(4) SUBMITTALS

The Contractor shall submit a Survey Plan to the Engineer for review and acceptance in accordance with Section 1-07.35(1)E.

The Contractor shall submit progress surveys to the Engineer within 24 hours of completing the excavation or backfilling activity, as applicable. Record document surveys shall be submitted to the Owner within five Working Days of completing the final restoration.

A. Independent Surveys shall be prepared in accordance with Section 1-05.3(12) and include AutoCAD electronic file, plan view drawings with 0.5-ft contour intervals and spot elevations depicting high and low points plotted at 1 in. = 10 ft. The AutoCAD electronic file shall include a triangulated irregular network (TIN) based digital terrain model (DTM).
B. Surveyed point data shall be provided to the Owner in an ASCII-based text file containing easting, northing, and elevation (x, y, z) coordinates. Each data file shall include a descriptive header including, but not limited to: software and equipment information, client, project, horizontal and vertical datum, units, survey type, alignment, and stations surveyed.

The Contractor shall submit to the Owner copies of all field notes, computations, any records relating to the quantity survey or to the layout of the work in portable document format (PDF) within two Working Days of performing the survey field work, such that the Owner may conduct a detailed review of the survey methods and records. The Contractor shall be responsible for converting data and drawing files to a standard software version approved by the Owner (e.g., AutoCAD version 2012 or earlier).

The Contractor shall maintain onsite a complete, accurate log of control of survey work as it progresses, including shop drawings, and other documentation accurately depicting deviations from the Contract Documents. Upon completion of the Work, submit Record Document Survey/As-Built Record Documents to the Owner under the provisions of Section 1-05.3(13).

The Contractor shall keep updated survey field notes in a standard field book. These field notes shall include all survey work performed by the Contractor’s surveyor in establishing line, grade, and slopes for the construction work. Copies of these field notes shall be provided to the Owner upon request. The field books shall be submitted to the Owner upon physical completion of the Contract Work. The field books will become the property of the Owner.

1-07.32(5) MEASUREMENT

Measurement for “Field Engineering” will be by lump sum.

1-07.32(6) PAYMENT

Compensation for the cost necessary to complete the work described in Section 1-07.32 will be made at the Bid item prices Bid only for the Bid items listed or referenced below:

1. “Field Engineering”, per lump sum.

The Bid item price for “Field Engineering” shall include all costs for the work required to perform survey work and required submittals as specified.

1-07.33 RESERVED (New Section)

1-07.34 QUALITY CONTROL (New Section)

This section describes the quality control and independent testing requirements to be implemented by the Contractor. The Contractor shall be responsible for import material testing, wastewater testing, and waste material testing for disposal as required for successful completion of the Work.

1-07.34(1) CONTRACTOR PROJECT MANAGEMENT

The Contractor shall be responsible for project management and quality control and shall establish and maintain an effective quality control program. The quality control program shall consist of, but not be limited to, plans, procedures, and organization necessary to produce an end product that complies with the contract requirements. Quality Control documents shall identify project management, quality control organization personnel and sufficient numbers of additional qualified personnel to ensure worker safety and contract compliance.

The Owner reserves the right to reject proposed personnel, and to dismiss personnel who are not performing to the standards of the Contract.
The Contractor shall identify a **QC Representative** who shall be responsible for overall management of QC and have the authority to act in all QC matters for the Contractor and shall not be the same person as the Superintendent or Project Manager. The QC Representative shall be a Professional Engineer (P.E.) currently licensed by the State of Washington. The QC Representative shall be employed by the Contractor, or a consultant engaged by the Contractor, and shall have a minimum of five years of experience in related construction project quality control work and shall have had prior quality control experience on a project of similar size and scope to this project.

The QC Representative shall maintain a presence at the Project Site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The QC Representative shall report directly to the Contractor’s Project Manager and function as a liaison with the Owner and the Owner’s designee(s). Responsibilities of the QC Representative include, but are not limited to, the following:

a. Providing and maintaining an effective QC system for all construction tasks.
b. Coordinating QC monitoring and testing activities, and preparing construction submittals.
c. Monitoring QC activities to ensure conformance with authorized policies, procedures, and sound construction practices, as well as recommending improvements, as necessary.
d. Conducting weekly QC meetings and submitting the meeting minutes electronically to the Engineer, and the Contractor’s Project Manager.
e. Conducting other meetings with the construction team covering the requirements of the QC procedures, as appropriate.
f. Informing, identifying, and resolving non-conformances in accordance with the requirements of the QC procedures.
g. Recommending stop work, or re-performance, with concurrence of the Contractor’s Superintendent, of any nonconforming activity resulting from improper application of prescribed procedures.
h. Monitoring corrective action documentation for conditions adverse to quality, verifying implementation of corrective actions, tracking and analyzing corrective actions, and providing corrective action documentation upon completion.
i. Preparing and submitting electronically the daily QC reports to the Engineer, and the Contractor’s Project Manager.
j. The QC representative, or approved alternate, shall be physically present at the Project Site whenever work is in progress, except as otherwise acceptable to the Owner.

In the event it becomes necessary for the Contractor to substitute personnel during the life of the Contract, the following provisions apply:

a. Prior to substituting a new QC Representative, the Contractor must submit qualifications for the new personnel which meet the criteria provided in this specification.
b. The Engineer may suspend the project if the Contractor substitutes a QC Representative without the Engineer’s approval. The Contractor shall be fully liable for the additional costs resulting from the suspension of work and no adjustments in Contract time resulting from the suspension of work will be allowed.

In addition to the above staffing assignments, the Contractor shall provide staff for all other contractor roles identified in the specifications, as appropriate (e.g., construction stormwater and pollution prevention coordinator and other leads, as identified in Section 1-05.13(3)).

The Contractor shall provide adequate office space, filing systems, and other resources, as necessary, to maintain an effective and fully functional PM and QC organization. Complete records of all letters, material submittals, shop drawing submittals, schedules, and all other project documentation shall be maintained onsite by the Contractor’s QC Representative, and shall be available for inspection by the Owner at any time. The Contractor’s Superintendent, QC Representative, and Site Health and Safety Supervisor, or Owner approved alternates shall be on-site at all times that work is being performed. When it is necessary to make changes to the PM and QC staff, the QC Plan shall be revised to reflect the changes and submitted to the Owner for approval.
1-07.34(3) ANALYTICAL TESTING

This section describes analytical chemistry testing that shall be performed by the Contractor for (a) waste characterization prior to disposal and (b) acceptance of import material.

1-07.34(3)A TESTING LABORATORY

The Contractor shall subcontract with an independent, analytical laboratory, accredited by the National Environmental Laboratory Accreditation Program and Washington State Department of Ecology, to perform any additional waste characterization required by landfills or treatment and disposal facilities, and to perform required analysis of import materials, as described in the contract documents. The Owner reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set in the contract specifications and to check the laboratory technician’s testing procedures and techniques. Laboratories utilized for testing soils shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

The Owner reserves the right to utilize the Contractor’s control testing laboratory and equipment to make quality assurance tests and to check the Contractor’s testing procedures, techniques, and test results at no additional cost to the Owner.

Costs incidental to the transportation of samples or materials shall be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Owner shall be delivered to the laboratory designated by the Owner.

1-07.34(3)B CONTRACTOR ASSISTANCE

When requested by the Owner, the Contractor shall provide assistance as required to complete independent quality assurance inspection and testing. Such assistance shall include provision of access, and use of Contractor’s equipment, such as ladders, hoists, temporary lighting, temporary water supply and labor.

1-07.34(3)C ANALYTICAL CHEMISTRY REQUIREMENTS

1. Waste Characterization Samples – Soil. The Contractor shall coordinate with disposal facilities to determine if additional chemical analyses are required prior to disposal. If a disposal facility requires further sampling, only those tests required by the disposal facility shall be performed.

2. Waste Characterization Samples – Debris. All concrete, asphalt, wood (treated and untreated) and other debris from excavation and demolition, not suitable for reuse during site restoration, shall be taken off-site for disposal or recycling in accordance with Section 1-07.3. If the disposal facility requires sampling, only those tests required by the disposal facility shall be performed.

3. Waste Characterization Samples – Wastewater. Wastewater analytical sampling shall be performed as required by Section 1-07.15.

4. Import Materials Testing. Results of import material testing will be used by the Owner to determine suitability of all proposed import materials. The Contractor shall obtain the Owner’s approval for each import material prior to importing any materials to the site.

   A. The Contractor shall provide certification that the imported fill materials are obtained from a commercial source, or sources, permitted by the State of Washington.
   B. The Contractor shall not obtain import material(s) from industrial sites. The Contractor shall provide documentation of the source area land use and operation history to support the Owner’s determination of material suitability.
   C. The Contractor shall sample and perform physical and chemical testing of all proposed import materials (e.g., mineral aggregates, topsoil, mulch, compost, bioretention materials). Test certificates from suppliers may be accepted if they meet all of the requirements specified in this Section.
   D. The Contractor shall conduct one physical and chemical test for every 12,000 tons of each discrete material source and type delivered to the site for placement. The Owner may require additional tests if there is an observable variance in the provided material, such tests shall be performed at no additional cost to the Owner. Each sample shall be representative of the current production and stockpile being supplied to the site.
   E. Table 1-07.34-1 lists the acceptance criteria for each of the required chemical analytes. In
the event that proposed materials exceed one or more of the acceptance criteria in Table 1-07.34-1 the Owner will compare the analytes to state (MTCA) and federal (USEPA Regional Screening Levels) criteria in Table 1-07.34-2, for suitability on a case-by-case basis.

F. The Contractor shall monitor import materials to maintain consistent gradation and chemical requirements as specified. The Owner may conduct visual inspections at will and request additional testing if deemed necessary, such tests shall be performed at no additional cost to the Owner.

G. The Contractor shall conduct a Synthetic Precipitation Leaching Procedure test (U.S. EPA SW846 Method 1312) for every 250 tons of the bioretention soil and each component of the engineered soil media (rhyolite sand, zeolite, and granular activated carbon) delivered to the site. Material containing ≥5 ug/L dissolved copper shall be rejected.

The Contractor shall supply to the Owner copies of test certificates for materials or equipment from suppliers indicating that such material or equipment is in compliance with Contract requirements. When, in the opinion of the Owner, additional tests are required to confirm compliance with Contract requirements, such additional tests shall be carried out in a timely manner at no additional cost to the Owner.

1-07.34(4) DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. The work of subcontractors and suppliers shall be included in an acceptable form that includes, as a minimum, the following information:

1. Contractor/subcontractor and their area of responsibility.
2. Operating plant/equipment with hours worked, idle, or down for repair.
3. Work performed each day, giving location, description, and by whom.
4. Test and/or control activities performed with results and references to Contract Document requirements. Deficiencies shall be noted along with corrective action. Evaluation of progress surveys and independent surveys for attainment of specified lines and grades during dredging, excavation, and capping shall also be included.
5. Quantity of materials received at the Project Site with statement as to acceptability, storage, and reference to Contract Document requirements.
6. Submittal tracking log with contact references, review statuses, and dates.
7. Observations of offsite activities that may impact the work, including contingency plans and/or actions taken.
8. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
9. Any discovered conflicts within the Contract Documents and follow-up instructions received from the Owner.
10. Installation, inspections and maintenance of temporary erosion and sediment control BMPs.
11. Visitor log, including summary of any community feedback or public comments to be addressed by the Owner.

The Contractor shall submit these records to the Engineer in a daily QC report that includes a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include copies of test reports, copies of reports prepared by all subordinate quality control personnel, and a statement that equipment and materials incorporated in the work and workmanship comply with the Contract. The Contractor shall submit the daily QC report to the Engineer within 24 hours after the date covered by the report, in accordance with the submittal requirements of Section 1-07.34(6).

1-07.34(5) NOTIFICATION OF NONCOMPLIANCE

The Owner will notify the Contractor in writing of any detected noncompliance with the foregoing requirements. Such written notice, when delivered to the Contractor at the Project Site, will be deemed sufficient for the purpose of notification. The Contractor shall take immediate corrective action after receipt of such notice. If the Contractor fails or refuses to comply promptly, the Owner may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of this
time lost due to such stop orders shall be made the subject of claim for extension of time for excess costs or damages by the Contractor.

1-07.34(6) SUBMITTALS

The Contractor shall submit the following in accordance with Section 1-05.3.

1-07.34(6)A CONTRACTOR’S QUALITY CONTROL (QC) PLAN

The Contractor shall submit the Contractor’s QC plan in accordance with Section 1-07.35. The Contractor’s QC Plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Contractor’s QC Plan shall include, at a minimum, the following, to cover all construction operations, both onsite and offsite including work by subcontractors, fabricators, suppliers, and purchasing agents:

1. A description of the quality control organization, including a chart showing lines of authority. The staff shall include a Contractor’s QC Representative who shall report to the project superintendent.
2. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a QC function.
3. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 1-05.3 or as otherwise approved by the Owner.
4. Control, verification, and acceptance testing procedures for each specific task to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will require approval by the Owner.)
5. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall include documentation that identified deficiencies have been corrected.
6. Reporting procedures, including proposed reporting formats.

Owner acceptance of the Contractor’s QC plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during construction. The Owner reserves the right to require the Contractor to make changes in its Contractor’s QC Plan and operation, including removal of personnel, as necessary, to obtain the quality specified. After acceptance of the Contractor’s QC Plan, the Contractor shall notify the Owner, in writing of any proposed changes to the QC Plan. Proposed changes shall not be implemented without written acceptance by the Owner.

1-07.34(6)B SAMPLING AND ANALYSIS PLAN (SAP)

As part of the QC plan, the Contractor shall prepare a SAP that addresses any additional sampling and analysis of waste materials for disposal characterization (if required by a disposal facility) and import materials as required by the Contract. The SAP shall be a single document that contains two distinct elements: the Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP). The Owner has prepared a pre-design QAPP for waste characterization, and an FSP for import material testing. These documents will be provided by the Owner for the Contractor’s adaptation as necessary for additional waste characterization and import material testing. If the Contractor elects to prepare its own FSP and QAPP they shall at a minimum meet the same standards and requirements as the Owner-prepared pre-design QAPP and import material FSP. The SAP may be consolidated with the Site Water Monitoring Plan described in Section 1-07.15(2)B.

1. The SAP shall confirm the Contractor’s understanding of the contract requirements for chemical data QC, and shall describe procedures for field sampling and sample submittal for analysis, field chemical parameter measurement, data documentation, data assessment, and data reporting requirements. The SAP shall delineate the methods the Contractor intends to use to accomplish the chemical data QC items to assure accurate, precise, representative, complete, legally defensible, and comparable data. The SAP shall describe all chemical parameter measurements for all matrices for all phases of the contract. As a single interrelated document, the SAP shall be provided to field and laboratory personnel. The SAP shall clearly identify the independent
laboratories to be utilized by the Contractor. The SAP shall address all levels of the investigation with enough detail to be used as an audit guide for field and laboratory work.

2. The FSP shall contain necessary technical detail and direction for the field personnel to understand sampling and field measurement requirements. The FSP shall provide a comprehensive description and full detail for personnel to perform all on-site activities required to attain project data quality objectives, including: locations of samples, sampling procedures for on-site and off-site chemical analysis, summaries of analyses to be performed on samples, shipment of samples for off-site analyses, performance of on-site and off-site instrumental parameter measurements, instrument calibration procedures, data documentation, and reporting requirements.

3. The QAPP shall contain necessary technical detail and direction for field and laboratory personnel to understand project sample analysis, analytical methods, required detection limits, QC requirements, and data validation and reporting requirements. The QAPP shall be prepared in accordance with the requirements of USEPA’s Guidance for Quality Assurance Plans (QA/G-5).

1-07.34(6)C PRE-CONSTRUCTION TESTING REPORT

The Contractor shall submit a Pre-Construction Testing Report for chemical and physical analysis of import materials no later than 15 Working Days prior to the delivery of material to the site. The Pre-Construction Testing Report shall summarize the test procedures and results for the import material analysis. Results shall include, but are not limited to:

1. Documentation of field sample collection, sieve analysis, and physical test reports as required in Sections 1-06, 9-03 and 9-14; and chemical test reports for import material characterization as required in Section 1-07.34(3).
2. Certificates indicating that the commercial import material operation complies with applicable federal, state, and local regulations.
3. Qualifications, including all appropriate accreditations of the commercial testing laboratory and/or the Contractor’s testing facilities.
4. When repeated chemical analyses or physical testing of import materials is required according to the testing frequencies, addenda to the Pre-Construction Testing Report containing the above information shall be submitted no later than three Working Days prior to the commencement of material placement.

1-07.34(6)D WASTE CHARACTERIZATION TESTING REPORTS

Contractor shall submit Waste Characterization Testing Report(s) for chemical analysis of waste materials (if required by the disposal facility) and wastewater to the Owner and disposal facility no later than five Working Days prior to the proposed material shipment. The Waste Characterization Sampling Reports shall summarize the test procedures and results for the waste material or wastewater analysis. Results shall include, but are not limited to:

1. Documentation of field sample collection and chemical test reports for waste material or wastewater characterization.
2. The acceptance criteria for the permitted waste disposal facility, as applicable.
3. The qualifications including all appropriate accreditations of the commercial testing laboratory and/or the Contractor’s testing facilities

The Contactor shall provide a copy of the Owner’s signed waste generator profile form and Waste Characterization Testing Report to the disposal facility.

1-07.34(6)E DAILY QC REPORTS

Contractor shall submit daily QC reports of the records required in Section 1-07.34(4). Electronic copies shall be submitted to the Engineer in PDF. The reports shall include: a summary of the work performed by the Contractor; the equipment used; tabulated summaries of material volumes excavated, disposed, and placed; and the results of any quality control inspections, tests, or other monitoring activities. The reports shall also document any noncompliant conditions, communication of such conditions to the Engineer, and corrective actions implemented to attain compliance. Daily reports shall be submitted by end of shift on the following work day except that reports need not be submitted for days on which no
work was performed. At a minimum, one daily QC report shall be submitted for every seven consecutive calendar days of no work. All calendar days throughout the life of the Contract shall be accounted for. Daily QC reports shall be signed and dated by the Contractor’s QC Representative.

1-07.34(6) F CPM SCHEDULE

The Contractor shall prepare and submit baseline critical path management (CPM) schedule in accordance with Section 1-08.3(1)B2. The Contractor shall provide sufficient material, equipment, and labor, and necessary coordination among subcontractors, material, and other necessary entities, to meet the completion times in this, and any approved CPM schedule update(s). The Contractor shall provide monthly updates to the CPM schedule for review and acceptance in accordance with Section 1-08.3(1)B3. Updates to the CPM schedule shall reflect any changes in the proposed order of the Work, any construction delays, or other condition that affects the progress of the Work. The CPM schedule update(s) shall not conflict with any time and/or order-of-work requirements in the Contract.

The Owner will make no payment under this Contract until a CPM schedule has been submitted, reviewed and accepted by the Engineer. If the Engineer deems that the CPM schedule, or any CPM schedule update, is not acceptable, the Owner may withhold payment of progress estimates until an acceptable CPM schedule has been submitted by the Contractor.

The Contractor shall maintain the project’s CPM schedule during the duration of the Project so that an accurate indication of Project progress is available. When required by the Owner during the course of the Work, the Contractor shall submit to the Owner within five Working Days after the receipt of written notice, an electronic copy of the CPM schedule in effect at the time.

The Owner's review and acceptance of any CPM schedule shall not transfer any of the Contractor's responsibilities to the Owner. The Contractor shall be solely responsible for adjusting forces, equipment, materials, deliveries, staging, and Work schedules as necessary to ensure completion of the Work within the time(s) specified in the Contract.

The Contractor shall schedule Work activities to conform to the coordination notifications and review requirements of Section 1-07.28 and any other conditions of the Contract.

1-07.34(7) MEASUREMENT

Measurement for “Quality Control” will be by lump sum.

1-07.34(8) PAYMENT

Compensation for the cost necessary to complete the work described in Section 1-07.34 will be made at the Bid item prices Bid only for the Bid items listed or referenced below:

1. “Quality Control”, per lump sum.

The Bid item price for “Quality Control” shall include all costs for the quality control as specified to include all required submittals.

1-07.35 REMOVAL ACTION WORK PLAN (New Section)

The Contractor shall prepare and submit project plans and information described in this Section for inclusion in the Owner’s RAWP. The Contractor-provided content shall provide detailed and specific designs, procedures, methods, and layouts for accomplishment of the Work as specified and delineated in the Contract Documents. As required under the Administrative Settlement Agreement and Order on Consent for Removal Action Implementation, the RAWP and Contractor-provided content contained therein requires approval by the USEPA prior to commencement of the Site Work. The Contractor may mobilize and establish the staging area prior to RAWP approval, but no standby time will be paid for the period between early mobilization and RAWP approval.

The final approved RAWP documents shall supplement the Contract Documents during execution of the Work. The Contractor shall conduct all Work in accordance with the Contract Documents, and the final
USEPA approved RAWP (or approved portions of the RAWP). The RAWP is intended to ensure that site remediation shall meet all required cleanup levels, while being accomplished by means that are protective of worker safety and health, the public, and the environment. The RAWP shall demonstrate to the reviewing Governmental agencies that the Contractor is well prepared and capable of completing the site remediation on schedule and in accordance with the Contract.

The RAWP is a major submittal to USEPA and will become a reference document for verification that Work is proceeding in accordance with the contract requirements. It is therefore recommended that the Contractor allocate appropriate staff and resources for the preparation of the Contractor-provided content. Preparation of the Contractor-provided content shall be performed by or under the direct supervision of the Contractor's project management and quality control staff described in Section 1-07.34(1).

Construction will be permitted to begin only after Owner and USEPA approval of the final RAWP or Owner and USEPA approval of an interim RAWP applicable to the particular feature of the work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of the final RAWP or another interim plan containing the additional features of work to be started.

1-07.35(1) CONTRACTOR’S PROJECT PLANS

The Contractor-provided portions of the RAWP include the following project plans, schedules, and checklists:

1. Project Work Plan
2. Preliminary Critical Path Management (CPM) Schedule
3. Site-Specific Construction Health and Safety Plan
4. Green/Sustainable Removal Plan
5. Surveying (Field Engineering) Plan
6. Utility Protection Plan
7. Pollution Control, Preservation, and Mitigation Plan
8. Waste Transportation and Disposal Plan
9. Traffic Control Plan
10. Clearing, Demolition, and Excavation Plan
11. Contractor's Quality Control Plan
12. Site Restoration Plan
13. Construction Checklist

1-07.35(1)A PROJECT WORK PLAN

The Project Work Plan shall describe, in narrative form, the methods to be employed in the removal action, including equipment types, modes of operation, general schedules, sequence of activities, proposed personnel and subcontractors, disposal facilities and materials suppliers, and other aspects necessary to describe how and when the specified work will be performed. The plan shall be concise and written with sufficient detail to demonstrate the Contractor's understanding of the Work.

The Project Work Plan shall include sequencing plans showing locations of all temporary facilities and staging and access areas, including work areas, onsite equipment and material storage areas, loading areas, access and haul routes, site trailers, trash dumpsters, and temporary sanitary facilities. The sequencing plans shall also indicate the proposed location and dimensions of any area to be fenced and used by the Contractor, avenues of ingress/egress to the fenced area, details of the fence installation, office trailer, and employee parking areas. The sequencing plans shall also identify Exclusion and Contamination Reduction Zones, as defined in Section 1-07.3(5), and stabilized construction entrances and any areas to be graveled to prevent the tracking of mud and any decontamination areas throughout the duration of the project. The sequencing plans shall consider the access needs of local residences and businesses to ensure that access restrictions to private property are minimized, and include a preliminary schedule describing when access to each abutting property shall be restricted.

Copies of Owner obtained permits will be attached to the contract documents. The Project Work Plan shall identify any additional state and local permits required to perform construction activities (e.g., street use permits, hydrant permits, electrical permits) as described in Section 1-07.6, the responsible party for acquiring permits, and the schedule for their acquisition. Copies of all permit applications,
correspondence, and Contractor obtained permits shall be submitted to the Owner prior to proceeding with the work covered under said permits.

1-07.35(1)B PRELIMINARY CRITICAL PATH MANAGEMENT SCHEDULE

The Contractor shall prepare and submit a preliminary CPM schedule in accordance with Section 1-08.3(1).

1-07.35(1)C SITE-SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN

The Contractor shall prepare and implement a site-specific Construction HASP meeting the requirements of Section 1-07.31.

1-07.35(1)D GREEN/SUSTAINABLE REMEDIATION PLAN

The Contractor shall prepare a Green/Sustainable Remediation (GSR) Plan aimed at promoting sustainable technologies and practices for implementing the cleanup. The GSR Plan shall include a description of all of the GSR elements in the Contractor’s approach as outlined on the Drawings or in these technical specifications or independently proposed by the Contractor, including:

1. Methods for emission reduction controls and policies. At a minimum, this shall include:
   a. Use of cleaner fuels including ultra-low sulfur diesel, biodiesel and natural gas where practicable.
   b. Use of cleaner engines including non-road engines meeting Tier 3 or cleaner standards and on-road engines meeting 2006 on-highway Heavy Duty Engine Emission Standards or cleaner where practicable.
   c. O&M inspection schedules for equipment to maximize efficiency.
   d. Use of electrical power where possible for activities such as for water treatment and operation of support facilities.
   e. Idling time limit of 5 minutes before engines on trucks and equipment are put into use. Engines are permitted to idle longer than 5 minutes under the following circumstances:
      (1) Vehicles are stationary in traffic
      (2) It is necessary to operate auxiliary systems associated with the equipment
      (3) It is necessary to maintain safe operation of the truck or equipment (e.g., dump trucks being loaded)
      (4) It is necessary in the event of repair of the truck or equipment.

2. Methods for transportation minimization and green transportation. At a minimum, this shall include: Contractor offered incentives for use of public transportation or carpooling by site workers.

3. Methods of recycling, reuse, and waste minimization. At a minimum this shall include:
   a. Segregation and recycling of site demolition debris.
   b. Use of local and recycled materials when possible.
   c. Limiting the use of water in dust control by preventing over-watering or runoff.

4. Use of local materials and facilities.

5. Justification for any proposed approach that does not meet the GSR preferences identified within this Section.

6. Environmentally sustainable business practices. The Contractor shall be required to generate and manage construction-related documentation, including, but not limited to, document submittals, requests for information, correspondence, schedules, and Drawings. To the extent practicable, these submittals shall be provided electronically in accordance with Section 1-05.3(1)A.

1-07.35(1)E SURVEYING/FIELD ENGINEERING PLAN

The Contractor shall prepare and implement a Surveying Plan in accordance with the requirements of Section 1-07.32.

1-07.35(1)F UTILITY PROTECTION PLAN

The Contractor shall prepare a Utility Protection Plan describing the measures that shall be taken to field-locate and protect live utilities from construction activities, in accordance with Section 1-07.17.
1-07.35(1)G POLLUTION CONTROL, PRESERVATION, AND MITIGATION PLAN

The Contractor shall prepare and implement a Pollution Control, Preservation, and Mitigation Plan in accordance with the requirements of Sections 1-07.5 and 8-01. The Pollution Control, Preservation, and Mitigation Plan shall describe the Contractor's specific approaches to protect water quality and air quality (including dust control), prevent noise pollution, and preserve natural and archaeological resources. The Pollution Control, Preservation, and Mitigation Plan shall include the following sub-sections:

1. A Construction Stormwater and Erosion Control Plan (CSECP) that addresses the requirements of Sections 1-07.15 and 8-01.3(2)A
2. A Tree, Vegetation, and Soil Protection Plan (TVSPP) that addresses the requirements of Section 8-01.3(2)B
3. A Spill Plan (SP) that addresses the requirements of Sections 1-07.15(1) and 8-01.3(2)C
4. A Temporary Discharge and Dewatering Plan (TDP) that addresses the requirements of Sections 1-07.5(2), 2-08.3 and 8-01.3(2)D, including but not limited to the:
   a. Site Water Treatment System Plan as described in Section 1-07.15(2)B
   b. Site Water Treatment Operation and Maintenance Plan as described in Section 1-07.15(2)B
   c. Site Water Monitoring Plan as described in Section 1-07.15(2)B
5. An Air and Noise Monitoring Plan that addresses the requirements of Sections 1-07.5(3) and 1-07.5(4)

1-07.35(1)H WASTE TRANSPORTATION AND DISPOSAL PLAN

The Contractor shall prepare and implement a Waste Transportation and Disposal Plan describing the Contractor's procedures for complying with the packaging requirements of Section 1-07.30(6) and the shipping requirements of Section 1-07.30(7).

The plan shall address the handling, storage, transportation, and disposal of nonhazardous and hazardous wastes generated at the Project Site. The plan shall comply with regulations administered by USEPA, the U.S. Department of Transportation (USDOT), and the Washington State Department of Ecology (Ecology). The plan shall include the following:

1. A list of wastes that may be generated by the project. A proposed preferred recycling facility or disposal site and a proposed alternate site shall be identified for each waste stream. Estimated quantities and the type of material to be wasted or removed from the site. This includes but is not limited to any demolition debris which appears to be chemically treated or preserved, concrete, asphalt, metals, soil from excavation, and all other debris.
2. Text that addresses aspects of the Washington State Dangerous Waste regulations associated with chemically treated materials, which are potentially dangerous waste. If materials are to be reused under these regulatory provisions, the plan describing the proposed reuse of materials shall be submitted to the Owner for approval prior to the reuse or recycle. If the Contractor determines that the materials are a dangerous waste as defined by Chapter 173-303 WAC, the plan shall demonstrate the Contractor's compliance with all provisions for generators of dangerous waste. In addition, the Owner, as generator of the dangerous waste, shall retain approval responsibility and authority for the waste, which must be shipped using a Uniform Hazardous Waste Manifest (USEPA Form 8700-22, Rev. 3-05) signed by an authorized representative of the Owner.
3. Onsite management practices for Contaminated Material(s), including types and volumes of waste anticipated, inventory controls, and waste minimization methods.
4. Proposed onsite and offsite treatment, storage, and disposal methods and facilities. Dangerous waste(s) and TSCA waste(s) shall be disposed at an acceptable Subtitle C landfill. Contaminated Material(s) not designated as dangerous waste or TSCA waste shall be disposed at an acceptable Subtitle D landfill. Identify whether the proposed disposal site has an exclusion from the paint filter test requirement for material potentially containing free liquid.
5. Documentation as necessary to verify that facilities proposed for offsite disposal or recycling of hazardous and nonhazardous materials are in compliance with the CERCLA Off-Site Policy (40 CFR 300.440). Include USEPA ID / RCRA numbers, names, locations, and telephone numbers of all proposed disposal and recycling facilities and transporters. Include completed copies of an "Offsite Policy Certification Memo" provided as Attachment 1-07.35-A in the Appendix, or similar as approved by the Owner, for each offsite disposal or recycling facility.
6. Procedures for “cradle to grave” documentation of all wastes generated at the Project Site.

7. Certification that the waste shall be handled in accordance with all applicable RCRA Toxics Substances Control Act (TSCA), and Hazardous Materials Transportation Act (HMTA) laws and regulations.

8. A list of all subcontractors to be employed in transportation, verification of hazardous material endorsement, types of trucks, containers, liners to be used, inspection procedures prior to transport, and best management practices to avoid any leakage or spillage.

9. A description of all haul routes (including at least one alternate route), transfer facilities, estimated hours and days of operation, estimated number of trucks per day, and onsite traffic control measures.

10. A description and proposed sequencing of all sampling and analysis of any waste materials required by the landfill for disposal characterization.

11. Hauling methods to address the possibility of free liquid generated during transport due to separation and settling.

12. Designation of an emergency coordinator and posting of information. Contact information for the emergency coordinator shall be included in the plan and posted in areas where hazardous waste(s) or TSCA waste(s) shall be managed as described in Section 1-07.30(7).

The Contractor shall notify the Owner at least 15 Working Days in advance of any proposed changes to the operations outlined in the approved Waste Transportation and Disposal Plan prepared in accordance with Section 1-07.35(1)H. The Owner shall be notified at least 15 Working Days in advance of any proposed changes to the disposal or recycling sites in the approved Waste Transportation and Disposal Plan.

If materials are determined to be TSCA waste(s), they shall be packaged and shipped following all federal regulations (including but not limited to 40 CFR 761 and the 49 CFR series for USDOT requirements) and any applicable state or local law or regulation as specified in Section 1-07.30(6). If materials are determined to be Contaminated Material(s) not designated as dangerous waste or TSCA waste, they shall be shipped using a nonhazardous Contractor’s Solid Waste Tracking Sheet (bill of lading) provided as Attachment 1-07.30-A in the Appendix and described in Section 1-07.30(6), or similar as approved by the Owner.

1-07.35(1)I  TRAFFIC CONTROL PLAN

The Contractor shall prepare a Traffic Control Plan describing measures of protecting and controlling pedestrian and vehicular traffic during construction operations, in accordance with Sections 1-07.23, 1-07.35(1)A and 1-10.2(5).

The Traffic Control Plan shall include:

1. Any Street Use Permits required by SDOT; see Section 1-07.6.
2. Any traffic control issues on nearby rights-of-way (e.g., if temporary lane closures or traffic flaggers are needed for trucks entering and leaving the site).
3. Onsite traffic and pedestrian control measures, including coordination of haul routes.
4. All site access and security measures.
5. Provisions to maintain access to businesses and residents adjacent to where work is being performed. Include accommodations for emergency responders during all phases of the Work.

1-07.35(1)J  CLEARING, DEMOLITION, AND EXCAVATION PLAN

The Contractor shall prepare a Clearing, Demolition, and Excavation Plan describing the transportation, labor, materials, equipment and incidentals necessary to perform environmental excavation and associated handling of contaminated soils from the removal areas indicated on the Drawings. The Clearing, Demolition, and Excavation Plan shall include:

1. Procedures for clearing and mulching vegetation
2. Procedures for removal and recycling of asphalt and concrete pavements
3. Procedures for removing and/or abandoning utilities that will no longer remain in service
4. Excavation procedures and protocols to be followed for cuts in excess of 4 vertical feet
5. Procedures for excavation of soil on slopes steeper than 1.5H:1V (e.g., the S. Donovan Street median)
6. Procedures for implementing temporary shoring (e.g., S. Donovan Street adjacent to the Boeing Company)
7. Sequencing of outfall construction to limit tidal inundation within the outfall trench.

1-07.35(1)K CONTRACTOR’S QUALITY CONTROL PLAN

The Contractor shall prepare a Contractor’s Quality Control Plan in accordance with the requirements of Section 1-07.34(6)A. This includes the preparation of a SAP in accordance with Section 1-07.34(6)B.

1-07.35(1)L SITE RESTORATION PLAN

The Contractor shall prepare a Site Restoration Plan describing the transportation, labor, materials, equipment, and incidentals necessary to provide new stormwater infrastructure and restore the streets as indicated on the Drawings. The site restoration plan shall cover the following topics.

1. The proposed trench excavation and backfill methods, sequence, and procedures, including intertidal trench excavation, proposed trench stabilization methods, and proposed bedding and backfill placement methods. Include a schedule for trench excavation in relation to tidal cycles during outfall construction. Include type of equipment to be used as well as proposed means of maintaining trench grade prior to bedding and pipeline placement. If structural shoring is used, refer to the applicable sections of 2-04, 2-07, and 2-08.
2. Backfill and grading in accordance with Sections 2-9, 2-10, and 2-11.
4. Paving in accordance with Division 5.
5. Landscaping in accordance with Section 8-02.

1-07.35(1)M CONSTRUCTION CHECKLIST

The Contractor shall develop and submit a construction checklist based on requirements of the contract documents and include items required to be in place and operational prior to the start of any groundbreaking activities. The checklist shall be used as a general reminder of items to be completed before remediation begins and shall focus on required site controls and health and safety requirements necessary to begin work. This list shall not preclude the Contractor from meeting the detailed requirements of the contract documents.

1-07.35(2) SUBMITTAL SCHEDULE

1. The Contractor shall submit draft project plans and other information as specified in this Section, to the Owner for inclusion in the RAWP, within 20 Working Days from contract execution.
2. The Owner will incorporate the Contractor-provided content into the RAWP and provide draft review comments within 15 Working Days of receipt of the Contractor’s submittal.
3. The Contractor shall submit written responses to the Owner’s draft review comments within 5 Working Days following the receipt of the comments.
4. If deemed necessary by the Owner, the Owner will schedule a review conference within 5 Working Days of receipt of the Contractor’s written response. The purpose of the review conference will be to resolve any remaining comments on the Contractor-provided content and to reach agreement on the scope of required revisions and modifications to be incorporated in the revised draft RAWP. The Owner will notify the Contractor of the date and time of the conference.
5. The Contractor shall submit the revised draft RAWP elements to the Owner within 3 Working Days following the review conference (or receipt of additional Owner comments).
6. Upon acceptance, the Owner will submit the revised draft RAWP to USEPA. It is anticipated that USEPA may take up to 20 Working Days to perform their review.
7. Upon receipt of USEPA comments, the Contractor shall submit final revisions of the Contractor-provided RAWP elements to the Owner within 10 Working Days.
8. The Owner will review the Contractor’s revisions prior to resubmittal to USEPA. In the event of any further comments from either the Owner or USEPA, the Contractor shall address the remaining comments within 3 Working Days of their receipt.
1-07.35(3) **MEASUREMENT**

Measurement for "Removal Action Work Plan" will be by the lump sum.

1-07.35(4) **PAYMENT**

Compensation for the cost necessary to complete the work described in Section 1-07.35 will be made at the Bid item prices Bid only for the Bid items listed or referenced below:


The Bid item price for "Removal Action Work Plan" shall include all costs for the work required to create, assemble, and gain EPA approval of the RAWP as specified. The Bid item price shall include costs for providing the Project Work Plan, Preliminary Critical Path Management Schedule, Green/Sustainable Removal Plan, Utility Protection Plan, Pollution Control, Preservation, and Mitigation Plan, Waste and Disposal Plan, Clearing Demolition, and Excavation Plan, Site Restoration Plan, and Construction Checklist. All other plans are paid for separately as noted below.

Costs for the Site-Specific Safety and Health Plan will be paid separately using the Bid item "Safety and Health Program" in accordance with Section 1-07.31(8).

Costs for the Surveying Plan will be paid separately using the Bid item "Field Engineering" in accordance with Section 1-07.32(6).

Costs for the Quality Control Plan will be paid separately using the Bid item "Quality Control" in accordance with Section 1-07.34(8).

Costs for the Traffic Control Plan will be paid separately using the Bid item "Maintenance and Protection of Traffic Control Including Flagging" in accordance with Section 1-10.5.

**SECTION 1-08 PROSECUTION AND PROGRESS**

1-08.1 **PRELIMINARY AND ON-GOING MATTERS**

1-08.1(2A) **PRECONSTRUCTION CONFERENCE (8-15-14)**

Delete everything after item 8 of the second paragraph and replace with:

See section 1-05.3(5) for submittals due at the preconstruction conference.

After item 8, add the following new items:

9. To arrange for “type” of field office including features, location and delivery date.

10. To review the Social Equity Plan.

11. To start the 360 Review process for projects as applicable; see 1-05.13(2)

1-08.1(4) **HOURS OF WORK (8-22-11)**

Delete this Section and replace with the following:

**1-08.1(4) HOURS OF WORK**

The normal daily hours of Work shall be between 6:00 AM and 7:00 PM on any Working Day and shall consist of 8 hours, exclusive of a lunch period of not more than one hour. The normal work week shall not exceed 40 hours of Work. The normal hours of Work shall be established at the preconstruction conference or prior to the Contractor commencing the Work and shall not be changed or extended.
Permission to work other than the normal daily hours, normal work week, or Working Days may be given subject to certain conditions set forth by the Engineer in its sole discretion.

Permission to work outside normal hours of Work may be withdrawn at any time. The Contractor shall have no claim for damages or delay should such permission be withdrawn.

Any request to perform Work outside of normal hours of work or on Non-Working Days shall be submitted to the Engineer no later than noon on the Working Day prior to the Day that the Contractor is requesting permission to work.

1-08.1(5) REIMBURSEMENT FOR OVERTIME WORK OF EMPLOYEES OF OWNER (8-22-11)

Delete this Section and replace with the following:

1-08.1(5) REIMBURSEMENT FOR OVERTIME WORK OF EMPLOYEES OF OWNER

If the Contractor requests permission to work on a Saturday, Sunday or Holiday, or in excess of the established normal hours of Work described in Section 1-08.1(4) and the Engineer approves, then such Work shall be considered overtime Work. On all such overtime Work, the Contractor shall reimburse the Owner for each of the Owner's employees required to work overtime hours to support Contractor requested overtime on any project-related construction activity. The number of Owner employees, and the duration of their participation in supporting the Contractor's overtime Work is at the sole discretion of the Engineer.

The Contractor shall reimburse the Owner according to a table of overtime charges contained in the Project Manual. If no table of overtime charges is included in the Project Manual, the Contractor shall reimburse the Owner one hundred dollars per hour ($100.00/hr) for each Owner employee supporting the Contractor’s overtime Work.

The Contractor authorizes the Engineer to deduct the reimbursement required in the paragraph immediately above from any amount that might then be or thereafter become due or payable by the Owner to the Contractor under or by virtue of the Contract until such reimbursement has been recouped by the Owner.

1-08.3 CRITICAL PATH SCHEDULE AND SCHEDULE CONSTRAINTS

1-08.3(2) SCHEDULE CONSTRAINTS

Supplement this Section with the following:

6. Outfall Construction
   a. Construction on Port of Seattle property shall occur between June 1 and August 31 and shall meet the requirements of the construction access agreement.
   b. Construction within the intertidal zone (between the Mean Higher High Water elevation (MHHW) and the Mean Lower Low Water (MLLW) elevation) shall occur between June 15 and August 31.
   c. The Contractor shall maintain 2 feet of vertical separation between the bottom of the construction activity and the Duwamish River at all times.
   d. Construction shall occur during the daytime low tides as allowed by U.S. Fish and Wildlife Service/National Marine Fisheries and as agreed upon with the Muckleshoot Tribe. National Oceanic and Atmospheric Administration tidal predictions for the Lower Duwamish Waterway in year 2015 are provided as Attachment 1-08.3-A in the Appendix.
e. Trenching shall be sequenced such that no more than 30 linear feet of trench is subject to tidal inundation at any given time.

7. After final grading, and prior to landscaping, the Contractor shall allow 5 Working Days for installation of a foundation for future artwork, to be accomplished by others. See Section 8-02.3(1A) for more details.

8. Access to the Boeing property shall only be allowed between March 31, 2015 and October 31, 2015. See Attachment 1-07.6-C in the Appendix for the Construction Access Agreement with Boeing for more details.

9. Construction will not begin until the finalized Removal Action Work Plan (RAWP) is approved by the Owner and the USEPA. See Section 1.07.35 and Section 1-08.6 for details.

1-08.4 NOTICE TO PROCEED AND PROSECUTION OF THE WORK

Delete this Section and replace with the following:

1-08.4 NOTICE TO PROCEED AND PROSECUTION OF THE WORK (3-17-14)

Upon Execution of the Contract, the Contractor may proceed on submittals and procurement of Materials critical to project completion within Contract Time. The Contractor shall bear all risks for any Work begun prior to the Contract Execution Date. The Contractor shall not commence any other Work until the Notice to Proceed has been given by the Engineer. The Engineer may give a limited notice to proceed and authorize only a portion of the Work to commence. Notice to Proceed will be given after the Contract has been Executed and the Payment and Performance Bond and evidence of insurance have been approved and filed by the Owner.

The Contractor shall bear all risks for any Work begun prior to the Notice to Proceed except for submittals and procurement after execution of the Contract. Contract time shall begin on the Notice to Proceed Date.

The Contractor shall diligently pursue the Work to the Physical Completion Date within the time specified in the Contract. The Contractor shall not voluntarily shut down or slow Work operations without requesting and obtaining prior approval of the Engineer. Such approval shall not relieve the Contractor from the contractual obligation to complete the Work within the Contract Time.

1-08.6 SUSPENSION OF WORK

Supplement this Section with the following:

The Owner will issue a suspension of work following the Owner acceptance of the revised draft RAWP that will be sent to USEPA by the Owner for review. Reference the RAWP submittal schedule in Section 1-07.35(2) for details. The Owner will lift the suspension of work when comments are received from USEPA.

The Owner will issue a second suspension of work following the Owner’s acceptance of the finalized RAWP that will be sent to USEPA by the Owner for review. The Owner will lift this second suspension of work when approval, or further comments, are received from the USEPA.

The Owner will issue additional suspension of work for any further revisions that require Owner’s acceptance and subsequent Owner’s submittal to the USEPA for review. The Owner will lift any additional suspension of work when approval, or further comments, are received from the USEPA.
1-08.9 LIQUIDATED DAMAGES (6-13-11)

Supplement this Section with the following:

Liquidated Damages will be assessed in the amount of ninety dollars ($90.00) for each day after the day established for the complete set up of the field office for the Engineer’s use, and for each day the field office is removed or closed prior to the Physical Completion Date (see Section 1-07.29). These monies will be deducted from payment(s) due the Contractor. No deduction or payment of Liquidated Damages will release the Contractor from the Contractor’s obligation to provide the field office.

If the Engineer elects to provide the field office in accordance with Section 1-07.29, Liquidated Damage charges as specified herein will cease upon deliverance of the written notice to the Contractor.

SECTION 1-09 MEASUREMENT AND PAYMENT

1-09.4 EQUITABLE ADJUSTMENT FOR CHANGES

1-09.4(1) CHANGES IN CONTRACT WORK (4-20-12)

Delete this Section and replace with the following:

1-09.4(1) CHANGES IN CONTRACT WORK

**Prices:** The equitable adjustment provided for elsewhere in the Contract shall be determined by agreement between the Contractor and the Owner using:

1. Unit prices, or
2. Other agreed upon prices including lump sum.

The Contractor shall include in the agreed price(s), retail sales tax as required by Section 1-07.2. Payment shall include all costs for overhead and profit. If the parties cannot come to an agreement, the Owner shall determine the price.

**Lump Sum:** When payment is by lump sum the Contractor shall provide substantiation of the lump sum price in accordance with Section 1-09.3(2). On lump sum prices, overhead and profit markups shall be limited to the following:

1. On Work self-performed by the Contractor or Subcontractor, where the actual cost of the changed work is:

<table>
<thead>
<tr>
<th>Actual Cost of Self-Performed Work</th>
<th>Overhead and Profit markup for Contractor or Subcontractor performing the Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>$50,000 or less</td>
<td>20% of the total cost</td>
</tr>
<tr>
<td>greater than $50,000 up to $100,000</td>
<td>15% of the total cost</td>
</tr>
<tr>
<td>greater than $100,000</td>
<td>12% of the total cost</td>
</tr>
</tbody>
</table>

2. On Work performed by a Subcontractor, the markup rates listed below will apply to the Contractor and to each tier of Subcontractor.

<table>
<thead>
<tr>
<th>Subcontractor’s Cost (incl. markup per Table 1 above)</th>
<th>Overhead and Profit markup for Contractor (and Subcontractor, if work performed by lower-tier contractor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25,000 or less</td>
<td>10% of the total cost</td>
</tr>
<tr>
<td>Determine Equipment Cost Limitations:</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td></td>
</tr>
<tr>
<td>greater than $25,000 up to $100,000</td>
<td>8% of the total cost</td>
</tr>
<tr>
<td>greater than $100,000</td>
<td>5% of the total cost</td>
</tr>
</tbody>
</table>

Limitations: The following limitations shall apply in determining the amount of the equitable adjustment:

1. The equipment rates shall be actual cost but shall not exceed the rates set forth in the AGC/WSDOT Equipment Rental Agreement in effect at the time the Work is performed as referred to in Section 1-09.6, and

2. To the extent any delay or failure of performance was concurrently caused by the Owner and the Contractor as described in 1-08.8(4), the Contractor shall be entitled to a time extension for the period of delay, provided it make such a request pursuant to Section 1-08.8; however, the Contractor shall not be entitled to any adjustment in Contract price.

3. No claim for anticipated profits on deleted, terminated, or uncompleted Work will be allowed.

4. No claim for consequential damages of any kind will be allowed.

1-09.6 FORCE ACCOUNT

1-09.6(3) MATERIALS (8-15-14)

In the second sentence, replace "Materials" with "direct material costs"

1-09.9 PAYMENTS

1-09.9(1)A FINAL PROGRESS PAYMENT (New Section) (8-15-2014)

The Final Contract Price will be calculated based upon a final progress estimate made by the Engineer. The final progress payment will not be paid until the Contractor has submitted on the Owner-provided form a complete list of all Subcontractors of all tiers and Suppliers who worked on the project and information including but not limited to Subcontractor name, UBI Number, Intent and Affidavit Numbers, and total amount paid.

Acceptance by the Contractor of the final payment shall be and shall operate as a release to the Owner from the Contractor:

1. Of all claims and all liabilities of the Owner, other than claims in stated amounts which have been asserted pursuant to the Dispute and Claim Resolution process as described in Section 1-04.5;

2. For all things done or furnished in connection with the Work;

3. For every act and neglect by the Owner; and

4. For all other claims and liability relating to or arising out of the Work.

A payment (monthly, final, retainage, or otherwise) shall not:

1) Release the Contractor or the Contractor's Surety from any obligation required under the terms of the Contract or the Payment and Performance Bond; or

2) Preclude the Owner from recovering damages, setting penalties, or obtaining such other remedies as may be permitted by law.
1-09.9(4) FINAL PAYMENT

Delete this Section and replace with the following

1-09.9(4)A REQUEST FOR CONTRACT COMPLETION DATE (New Section) (8-15-14)

After the Physical Completion Date is established and after all obligations of the Contract other than retainage release have been completed, the Engineer will submit an acceptance package with supporting documents to CPCS requesting a Completion Date. In order for CPCS to declare the project complete, CPCS requires the following if not previously provided:

1. Documents that all work is completed:
   a. The State Notice of Completion (NOC) of Public Works Contract form (LNI form F215-038-000) filled out electronically by the administering department with as much information as possible (CPCS will submit the form);
   b. NTP, Substantial, and Physical Completion Notices with Dates;
   c. All Change Orders;
   d. All calculations of Liquidated Damages;
   e. All claims under 1-04.5 resolved and the Final Contract Price set;
   f. All permit conditions completed; and
   g. The 360 review is completed for all applicable projects; and
   h. All other requirements of the Work are met.

2. The Contractor shall furnish all documentation and reports electronically online, or via paper where allowed, as required by the Contract and required by law, necessary to allow the Owner to certify the Contract as complete. These include but are not limited to:
   a. List from the Contractor on the Owner-provided form of all Subcontractors of all tiers and Suppliers who worked on the project and information including but not limited to Subcontractor name, UBI Number, Intent and Affidavit Numbers, and total amount paid;
   b. The Contractor’s approved Affidavit of Wages Paid on file with L & I;
   c. Final Subcontractor Payment Report submitted online per Section 1-07.11(2)A;
   d. Audits per Section 1-04.5(6) Physical Completion;
   e. Material certifications per Section 1-06.3 if not provide by Physical Completion;
   f. Certified payrolls and prevailing wage statements per Section 1-07.9;
   g. All Apprenticeship Utilization Reports per Section 1-07.11(5), if applicable;
   h. If it is a federally-funded contract, all Federal final approvals have been received, and all final federal reports including training, EEO, and prevailing wage certified payrolls have been submitted; and any other federally-required reports; and
   i. Any other reports or documentation required.

1-09.9(4)B COMPLETION DATE (New Section)

CPCS will review the acceptance package and supporting documents to ensure all the obligations of the Contract are complete other than release of retainage.

CPCS will then:

1. Set the Completion Date and issue the Certificate of Completion;
2. Send the Notice of Completion of Public Work Contract to the state agencies as required by RCW 60.28.051;
3. Publish the Notice of the Completion Date and the deadline for filing liens and claims in the City’s Official Publication; and
4. Notify the Surety and the Contractor.

The Contractor agrees that establishment of the Completion Date shall not relieve the Contractor of the responsibility to indemnify, defend, and protect the Owner against any claim of loss resulting from the failure of the Contractor, a Subcontractor of any tier, or any other person who provides labor, Supplies, or provisions for carrying out the Work or for any payments required for unemployment compensation under Title 50 RCW or for industrial insurance and medical aid required under Title 51 RCW. The establishment of the Completion Date will not constitute acceptance of unauthorized Work or defective Work or Material.

Failure of the Contractor to perform any or all of the Contractor’s obligations under the Contract shall not bar the Owner from unilaterally certifying the Contract as complete.

1-09.9(4)C  RELEASE OF RETAINAGE (New Section)

Release of the retainage or retainage bond will be made following the Completion Date pursuant to the provisions of Chapters 39.12 RCW, 39.76 RCW, and 60.28 RCW provided all of the following conditions are met:

1. On Contracts totaling more than $35,000.00 (excluding tax), a release has been obtained from the Washington State Department of Revenue, the Employment Security Department, and the Department of Labor and Industries (RCW 60.28.051).
2. No claims, as provided by law, have been filed against the retainage (RCW 60.28.021).
3. The Owner has no claim against the Contractor for unpaid fees, taxes, or other amounts.

For retainage bonds, notification will be provided to the Surety and Contractor of the release of the retainage bond.

Retainage will be released as soon as practicable and no later than 10 Working Days after all legal requirements have been and met and retainage has been approved for release.

1-09.14  PROMPT PAYMENT TO SUBCONTRACTORS AND PERSONS SUPPLYING LABOR, MATERIALS AND SUPPLIES

Delete these Subsections and replace with the following:

1-09.14  PROMPT PAYMENT TO SUBCONTRACTORS AND PERSONS SUPPLYING LABOR, MATERIALS AND SUPPLIES (3-17-14)

1-09.14(1)  GENERAL

This Section requires every Contractor of any tier to pay every Subcontractor who is also a small business, within 30 Calendar Days of satisfactorily completed work and delivered materials. A Subcontractor who is also a small business is defined as those the Contractor has engaged by agreement to provide labor or materials for the project, including a person or persons, mechanic, Subcontractor, Supplier or Material person, when the Subcontractor is registered as a WMBE firm with the City of Seattle, is a business certified by the King County Small Business Concerns Program, or is certified by the State of Washington as a DBE or by the State of Washington as a WMBE firm.

Payment is considered made when mailed or personally delivered to the Contractor; an invoice is considered received when date-stamped or marked as delivered. If not date-stamped or marked as delivered, the invoice date shall be the date recorded by the Contractor.

Nothing in this Section negates the right or importance of Subcontractors filing a claim against the bond or retainage and otherwise protecting their legal rights.
1-09.14(2) PROGRESS PAYMENTS AND PROMPT PAYMENT TO SUBCONTRACTORS

The Contractor shall promptly pay, within thirty (30) Calendar Days, for invoiced work satisfactorily completed or materials delivered by a certified small business Subcontractor (defined as above as a Subcontractor who is a WMBE firm who is registered with the City of Seattle, a certified Small Business Concern by King County, or a DBE or a WMBE firm certified by the State of Washington) and no later than ten (10) Working Days of receipt of a progress payment from the Owner for all other work by Subcontractors which are not certified small businesses.

The Contractor of any tier shall pay such Subcontractor, less applicable retainage, for all work that the Contractor has found to meet the quality and performance agreed upon with the Subcontractor. This shall include payment for actual mobilization costs incurred. This shall also include work that has been directed to the Subcontractor when the price has been agreed to by the Owner, Contractor and Subcontractor, whether the Owner has provided payment or executed a Change Order to the Contractor. Amounts withheld are limited to the value of the portion of work that has not been satisfactorily completed, with a documented dispute as described in 1-09.14(3). Such withheld amount shall be no more than one hundred fifty percent of the disputed amount.

1-09.14(3) UNSATISFACTORY PERFORMANCE BY SUBCONTRACTOR

If any work or product is unsatisfactory and subject to withholding of payment, the Contractor shall provide written notification to the Subcontractor and Owner of corrective actions required by the Subcontractor. Such written notice shall be given as soon as practicable after work has been performed.

After the Subcontractor satisfactorily completes the corrections, the Contractor shall pay the Subcontractor within eight (8) Working Days the remaining amounts withheld, less retainage. Should a Contractor find work unsatisfactory without reasonable cause, fail to provide written notification within a reasonable time, or otherwise fail to meet the scheduled days herein, the Contractor may be found to be in breach of the contract by the Owner, subject to all remedies.

SECTION 1-10 TEMPORARY TRAFFIC CONTROL

1-10.2 TRAFFIC CONTROL MANAGEMENT

1-10.2(5)C GENERAL TRAFFIC CONTROL RESTRICTIONS (6-13-11)

Supplement this Section with the following:

The Traffic Control Plan shall be in accordance with the following street and lane closure restrictions:

Maintain local access at all times.

Add this new Section:

1-10.2(5)D EXCLUSION ZONES (New Section)

During working shifts, the Contractor shall be responsible for verifying that all persons entering the Exclusion Zone are authorized to do so and have been apprised of the site risks and operating procedures. Details regarding how the Contractor shall convey this information shall be included in the Traffic Control Plan. Specific topics that shall be conveyed to drivers and equipment operators prior to their entrance to the Exclusion Zone include:

1. Limiting engine idling time pursuant to the Green/Sustainable Remediation Plan; see Section 1.07.35(1)D.
2. Staying in the cab of the vehicle unless wearing appropriate PPE.
3. Refraining from eating, drinking, or smoking within the Exclusion Zone.
4. Adhering to personal contamination reduction procedures in the event that an operator must leave the vehicle while inside the Exclusion Zone.
5. Adhering to equipment contamination reduction procedures when leaving the Exclusion Zone.
6. Leaving windows raised on closed cab vehicles and adjusting the vehicle airflow to recirculate.
when in the Exclusion Zone.
7. Ensuring loads of Contaminated Material(s) not designated as dangerous waste or TSCA waste have a minimum of 12-inches freeboard prior to leaving the site.

The Contractor shall also provide signage at the Exclusion Zone entrance to convey the above information.

In the event that drivers and equipment operators are not adhering to the above protocols, the Owner will coordinate with the Contractor to modify its procedures. Modifications may include, but are not limited to, additional or more prominently displayed signage, replacing or adding additional spotters, and/or revised training procedures for drivers and operators.

1-10.3(1)C TRAFFIC CONTROL PEACE OFFICERS

In the sixth paragraph, delete everything after “showing the hours actually worked”.
DIVISION 2
EARTHWORK

SECTION 2-01 CLEARING GRUBBING AND ROADSIDE CLEANUP

2-01.3(2) GRUBBING

Replace the second paragraph with the following:

The Contractor shall remove all stumps, roots, foundations and planking embedded in the ground within the limits of Work described on the Drawings to a minimum depth of 2 feet below subgrade, 2 feet below existing ground level, or to limit of excavation, whichever is lowest. The Contractor shall dispose of grubbed materials in the same manner as Contaminated Material(s) per Section 1-07.3.

SECTION 2-02 REMOVE, ABANDON, OR RELOCATE STRUCTURES AND OBSTRUCTIONS

2-02.3(3)A REMOVE NON-RIGID PAVEMENT AND UNTREATED ROADWAY SURFACES

Supplement this Section with the following:

If removed asphalt cannot be sufficiently cleaned of soil for recycling, as determined by the Engineer, the Contractor shall dispose of the asphalt in the same manner as co-located Contaminated Material(s) per Section 1-07.3.

2-02.3(3)D REMOVE CATCH BASIN, SANDBOX, VALVE CHAMBER, MAINTENANCE HOLE, OR INLET

Supplement this Section with the following:

This work shall include removal of maintenance holes that contain temporary drainage pumping equipment. Contractor shall salvage stormwater pumps, flow meters and other equipment deemed salvageable by the Engineer in accordance with Section 2-02.3(7) FF. Contractor shall dispose of surplus material or debris in the same manner as co-located Contaminated Material(s) per Section 1-07.3.

2-02.3(3)F REMOVE SIDEWALK

Supplement this Section with the following:

If removed sidewalks cannot be sufficiently cleaned of soil for recycling, as determined by the Engineer, the Contractor shall dispose of the sidewalks in the same manner as co-located Contaminated Material(s) per Section 1-07.3.

2-02.3(9) STORMWATER STORAGE TANKS (New Section)

Following commissioning of the new stormwater outfall, the Contractor shall remove the existing stormwater storage tanks located on 17th Avenue S., south of S. Donovan Street. The tanks and any associated salvageable equipment that have contained stormwater runoff shall be decontaminated prior to removal. The interiors of the storage tanks shall be pressure washed. Wash, water, and residual sediment shall be collected and disposed at an offsite disposal facility.

Six of the storage tanks will be retained by the Owner. After pressure washing and decontamination of the tanks, the Contractor shall deliver six of the tanks to Seattle Public Utilities’ Lake Youngs water treatment facility at:

18015 SE Lake Youngs Rd
Renton, WA 98058
The Contractor shall contact Charles Oppelt at (206) 615-1314 a minimum of five Working Days prior to delivery to coordinate delivery details, including exact offloading location on the premises.

The remaining tanks and other salvageable appurtenances shall become the property of the Contractor.

2-02.4 MEASUREMENT

Supplement this Section with the following:

Measurement for “Remove Storage Tanks” will be by the lump sum.

2-02.5 PAYMENT

Supplement item 4 with the following:

Removal of curb shall be considered incidental to the Bid item “Remove Asphalt Pavement”.

Removal of fence gates shall be considered incidental to the Bid item “Remove Fence, Chain Link”.

Removal of guard rail posts shall be considered incidental to Bid item “Remove Beam Guard Rail”.

The Bid item price for “Remove Storage Tanks” shall include all costs for the work required to remove, transport, deliver, and offload the tanks, including removal of any associated piping, hoses, valves, controls, and other appurtenances. Bid item costs should also include the disposal of non-salvaged items, decontamination of salvaged items, including pressure washing of tank interiors, and disposal of wash water, and residual sediment.

SECTION 2-04 EXCAVATIONS

2-04.1 DESCRIPTION

2-04.1(1) GENERAL (2-8-13)

Replace the second paragraph of Section 2-04.1(1) with the following:

This work shall be done in reasonable close conformity with the lines, grades, and dimensions indicated on the Standard Plans, Drawings, or as established by the Engineer.

2-04.1(2) CLASSIFICATION

Delete this Section and replace with the following:

Excavations shall be classified as Subtitle C excavation or Subtitle D excavation.

Subtitle C Excavation shall consist of the removal and disposal of Dangerous Waste(s) or TSCA Waste(s) as defined in Section 1-01.3, including all co-located surface material (i.e., pavement). Subtitle C Excavation shall be disposed at an acceptable Subtitle C landfill.

Subtitle D Excavation shall consist of the removal and disposal of all excavation material to be removed from the project site not otherwise designated as Dangerous Waste or TSCA Waste as defined in Section 1-01.3. The Contractor shall dispose Subtitle D Excavation at an acceptable Subtitle D landfill.
2-04.3 CONSTRUCTION REQUIREMENTS

2-04.3(1)A STOCKPILING AND REUSE OF EXCAVATED MATERIAL

Supplement this Section with the following:

In general, the soil to be excavated from the Project Site contains Contaminated Material(s) and TSCA waste(s). The Contractor shall dispose all soil and debris at an acceptable Subtitle C or Subtitle D landfill, based on its classification, in accordance with the provisions in Section 1-07.3 and Section 2-04.1.

During excavation associated with the new stormwater outfall, the Contractor shall stockpile existing riprap. Material stockpiles shall be stabilized from erosion, protected with sediment trapping measures, and be located away from storm drain inlets, waterways, and drainage channels. Upon project completion, the stockpiled riprap shall be replaced to restore to previous conditions.

2-04.3(1)J OBJECTS ENCOUNTERED

Replace the first sentence of this Section with the following:

Objects encountered such as stumps, railroad ties, buried pavement, etc., encountered in the excavation shall be removed by the Contractor to a minimum depth of 2 feet below subgrade, 2 feet below existing ground level, or the limits of excavation, whichever is lowest, and dispose with co-located contaminated soil per Section 1-07.3.

2-04.3(6) UTILITY EXCAVATIONS

Supplement this Section with the following:

During utility excavation in the rights-of-way, the Contractor shall segregate and stockpile Mineral Aggregate above the soil cleanup elevation, if any, from material below the soil cleanup elevation. Mineral Aggregate above the soil cleanup elevation shall be used for trench backfill. Material below the soil cleanup elevation shall be disposed in the same manner as Subtitle D Excavation.

2-04.4 MEASUREMENT

Delete this Section and replace with the following:

Bid items of Work completed pursuant to the Contract will be measured as provided in Section 1-09.1, Measurement of Quantities, unless otherwise provided for by individual measurement paragraphs herein this Section.

Excavation will be measured by the ton as recorded on weight tickets generated from disposal facilities.

The Contractor shall submit post-extraction surveys prepared in accordance with Section 1-07.32(3)D with the weight tickets, indicating the locations that were excavated. Prior to authorization of payment, the Engineer will compare the post-exraction surveys to the design grades to verify that the excavation is not significantly beyond the neat lines. Excavation beyond the limits established, and excavation to remove and replace Material which has become unsuitable because of the Contractor’s neglect, negligence, or method of operation will be excluded from payment.

2-04.5 PAYMENT

Delete items 1 through 6 and replace with the following:

1. “Subtitle C Excavation, Loading, and Disposal”, per ton.

2. “Subtitle D Excavation, Loading, and Disposal”, per ton.

The Bid item prices for “Subtitle C Excavation, Loading, and Disposal” and “Subtitle D Excavation, Loading, and Disposal” shall include all the costs for the work described in Section 2-04 and not otherwise provided hereinafter. Costs shall include all costs for the work required for excavating, loading,
hauling, and disposing of the soil type (Subtitle C or Subtitle D) indicated on the Drawings.

Supplement item 7 with the following:

Costs associated with verifying utility locations by potholing shall be incidental to the cost of the excavation bid items.

Costs for structure excavation will be paid for under the Bid item for “Subtitle D Excavation, Loading, and Disposal” in accordance with item 2 of this Section.

Costs for utility excavation and bioretention area excavation below the soil cleanup elevation in the rights-of-way, and for outfall construction, will be paid separately using the Bid item “Subtitle D Excavation, Loading, and Disposal”.

SECTION 2-07 PROTECTIVE SYSTEMS

2-07.3 CONSTRUCTION REQUIREMENTS

2-07.3(1) GENERAL

Delete the second paragraph and replace with the following:

Protective systems for use in excavations more than 20 feet in depth and/or in the intertidal zone shall be designed by a registered professional engineer (see Section 1-05.3).

2-07.5 PAYMENT (2-08-13)

Delete the last paragraph of item 1, “Safety Systems in Trench Excavation, Minimum Bid =$0.80 per Square Foot”.

Revise the last paragraph of item 2, “Support and Safety Systems” to read:
There will be no separate or additional payment for “Support & Safety System” outside of the locations specified on the Drawings. No payment for “Safety Systems in Trench Excavation” will be made for locations where payment is made for “Support and Safety System.”

Delete the payment description for item 3, “Safety Systems in Structural Excavations” and replace with the following:

The Bid item price for “Safety Systems in Structural Excavations” shall include all costs for the work required to design, provide, construct, maintain and remove the safety system in the structural excavation at the designated locations indicated on the Drawings as specified in Section 2-07 and all costs for excavation, backfill and compaction beyond the neat lines as described in Section 2-04.

There will be no separate or additional payment for “Safety Systems in Structural Excavation” outside of the locations specified on the Drawings. No payment for “Safety Systems in Trench Excavation” will be made for locations where payment is made for “Safety Systems in Structural Excavation.”

SECTION 2-08 DEWATERING

2-08.3 CONSTRUCTION REQUIREMENTS

2-08.3(1) GENERAL REQUIREMENTS FOR DEWATERING

Supplement this Section with the following:

The Contractor shall treat, test, and discharge (or dispose) all groundwater collected from within right-of-way excavations in accordance with Section 1-07.15(2). Locations where groundwater may be encountered are indicated on Figure 2-08.3-1 in the Appendix.
The Contractor shall treat and discharge all groundwater collected during installation of the stormwater outfall in accordance with Section 1-07.5(2).

SECTION 2-09 SUBGRADE PREPARATION AND PROTECTION

2-09.1 DESCRIPTION (2-08-13)

Delete the first paragraph of this Section and replace with the following:

Section 2-09 describes Work consisting of preparation and protection of the subgrade for pavements, structures and utilities. All subgrade preparation Work shall be in accordance with the Contract and in close conformity with the lines, grades, and typical cross sections indicated on the Standard Plans, Drawings, or as established by the Engineer.

2-09.3 CONSTRUCTION REQUIREMENTS

2-09.3(2) SUBGRADE FOR ROADWAY SURFACING (2-08-13)

Delete Item 4 and Item 11 in the 1st paragraph of this Section and replace with the following:

4. Shape the entire subgrade to a uniform surface running true to the line, grade, and cross-section per the Contract Documents or as established by the Engineer.

11. Where normal crown sections are being constructed, stakes will be set at convenient offsets at intervals not to exceed 50 feet and at closer intervals where necessary, such as at street and alley intersections. It shall be the responsibility of the Contractor to set centerline grades which may be needed.

SECTION 2-10 BACKFILLING

2-10.2 MATERIALS

2-10.2(1) SELECTED MATERIAL

Delete this Section and replace with the following:

Material excavated from the Project Site shall not be reused as Selected Material and shall be disposed of as either Subtitle C or Subtitle D material as indicated on the Drawings.

2-10.2(2)A BORROW SITES

Supplement this Section with the following:

The chemical and physical properties of material from borrow sites must be approved by the Engineer prior to delivery to the Project Site in accordance with Sections 1-06 and 1-07.34(3).

2-10.2(4) BENTONITE-SOIL BACKFILL (New Section)

Where specified on the drawings, the Contractor shall provide bentonite-soil backfill. Bentonite-soil backfill materials shall meet the requirements of Section 9-03.19.

2-10.3 CONSTRUCTION REQUIREMENTS

2-10.3(8) BENTONITE-SOIL BACKFILL (New Section)

At least 10 Working Days in advance of outfall trenching, the Contractor shall submit information describing the qualifications of the crew with respect to placement of bentonite-soil backfill. The Contractor shall identify a qualified supervisor who shall provide oversight during backfill of the outfall trench. The qualified supervisor shall have successfully completed five projects involving the use,
testing, and control of bentonite-soil mixtures; the mixing methods required to properly mix the materials; and a thorough knowledge of construction equipment and material testing required for bentonite-soil mixtures.

The equipment for mixing the bentonite-soil material shall be capable of producing a well-graded uniform mix, and uniformly blending the soil particles with water, bentonite, and any other additive(s) that may be required.

After thoroughly mixing the bentonite with soil, the bentonite-soil mixture shall be hydrated to within 2 percent of the optimum moisture content for compaction of the material. Horizontal layers of the bentonite-soil mixture shall not exceed 6 inches in thickness prior to compaction. Each layer shall be compacted to not less than 90 percent of Modified Proctor Maximum Density. The upper 0.5 inch of each compacted lift shall be scarified prior to placement of loose soil for the next lift.

Bentonite-soil backfill shall be covered with a 6-inch compacted soil layer or plastic liner such as Visqueen immediately after compaction is completed to maintain the integrity and prevent the loss of moisture. Bentonite-soil backfill material shall be kept from freezing during and after placement.

2-10.4 MEASUREMENT

Supplement this Section with the following:

“Bentonite Amended Mineral Aggregate, Type 10” will be measured by the cubic yard based on the outfall pipe trench neatline.

2-10.5 PAYMENT

Supplement this Section with the following:

6. “Bentonite Amended Mineral Aggregate, Type 10”, per cubic yard.

The Bid item price for “Bentonite Amended Mineral Aggregate, Type 10” shall include all the costs for backfill of the outfall drainage pipe to include mixing, furnishing, hauling, stockpiling, placing, grading, compacting the backfill as specified.

SECTION 2-11 COMPACtion

2-11.1 DESCRIPTION (2-08-13)

Delete this Section and replace with the following:

Section 2-11 describes Work consisting of compacting material used for backfilling or filling for pavements, structures and utilities. All compaction Work shall be in accordance with the Contract and in close conformity with the lines, grades, and typical cross sections indicated on the Standard Plans, Drawings or as established by the Engineer.

SECTION 2-13 ROCK FACING

2-13.3 CONSTRUCTION REQUIREMENTS

2-13.3 (1) ROCK FACING

2-13.3(1)A GENERAL (2-08-13)

Delete this Section and replace with the following:

Rock facings for other than fire hydrant wall requirements per Standard Plan no. 313 shall be constructed, rebuilt, or relocated at the locations and to the limits indicated on the Drawings. Walls higher than 8 feet shall require a design by a Professional Engineer and shall be submitted to the Engineer in accordance
with Section 1-05.3. The subgrade elevation and location of the rock facing shall be as indicated on the Drawings or as established by the Engineer.
DIVISION 4
BASES

SECTION 4-01 MINERAL AGGREGATES

4-01.5 PAYMENT (2-08-13)

Replace this section with the following:

Unless included in other Bid items for payment, compensation for the cost necessary to complete the work described in Section 4-01 will be made at the Bid item prices Bid only for the Bid items listed or referenced as follows:

1. "Mineral Aggregate, (Type)", per ton.
2. "Mineral Aggregate, (Type)", per cubic yard.

The Bid item price for "Mineral Aggregate, (Type)" shall include all costs for the work required of furnishing, hauling, stockpiling, placing, grading, and compacting the Mineral Aggregate or accepted crushed substitute.

3. Other payment information.

Unless included in other Bid items for payment, the Bid item price for backfill for walls shall include all costs for the work required by the cubic yard in place as determined by the neat lines indicated on the Drawings or Standard Plans where indicated with the following exception the volume of pipes and Structures will be deducted; however, volumes of pipes 6 inch inside diameter or less, and other minor structural features each less than one cubic yard will not be deducted.

Unless included in other Bid items for payment, payment for backfill for foundations, and for drains other than behind a wall, shall include all costs for the work required by the cubic yard in place as determined by the neat lines indicated on the Drawings or the Standard Plans. Payment for minor and local quantities of backfill for drains surrounding weep holes of 1 cubic yard or less shall be included in the Bid item price for concrete in place per Section 6-02.5 and no separate or additional payment will be made.

Unless included in other Bid items for payment, payment for drainage filter layer behind rock facings will be by the Bid item "Mineral Aggregate, (Type)" by the ton (see Section 2-13.5).

Payment for approved changes in the Type of Mineral Aggregate from that specified will be in accordance with Section 1-04.4.
SECTION 5-04 HOT MIX ASPHALT (HMA) PAVEMENT

5-04.5 PAYMENT

Supplement item 8 with the following:

Costs for placement of asphalt thickened edge shall be incidental to and included in the applicable bid item prices for asphalt pavement and no separate or additional payment will be made.
DIVISION 6
STRUCTURES

SECTION 6-02 CEMENT CONCRETE STRUCTURES AND CEMENT CONCRETE FOR MISCELLANEOUS WORK

6-02.4 MEASUREMENT

Supplement this Section with the following:

Measurement for "Concrete Plank, (Length) Seat Wall", will be per each.

Measurement for "Plank Paving, (Thickness)" will be by the square yard.

6-02.5 PAYMENT

Supplement this Section with the following:

18. "Concrete Plank, (Length) Seat Wall", per each.

The Bid item price for the “Concrete Plank, 3 FT Long Seat Wall” shall include all costs for installing and placing concrete. Include all associated reinforcing bar, finishing, joints, and all other parts and labor required to construct seat wall as indicated on the Drawings.

19. “Plank Paving, (Thickness)” per square yard.

The Bid item price for “Plank Paving, (Thickness)” shall include all costs for the work required to furnish, install the concrete plank member in-place as indicated on the Drawings.

SECTION 6-12 SOLDIER PILE AND GEOWEB ANCHOR PILES (New Section)

6-12.1 DESCRIPTION

This Work consists of constructing soldier pile walls with timber lagging and GEOWEB anchor piles with hollow structural section (HSS) walers. Three options are provided for the GEOWEB pile size and shaft diameter. Contractor shall evaluate site conditions including overhead utilities and soil and groundwater conditions and choose the option appropriate for the site conditions and the Contractor’s means and methods for shaft excavation and pile installation.

6-12.2 MATERIALS

Materials shall meet the requirements of the following sections:

<table>
<thead>
<tr>
<th>Material</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled Density Fill</td>
<td>2-10.2(3)</td>
</tr>
<tr>
<td>Cement</td>
<td>9-01</td>
</tr>
<tr>
<td>Aggregates for Portland Cement Concrete</td>
<td>9-03.1</td>
</tr>
<tr>
<td>Gravel Backfill for Walls</td>
<td>9-03.12(2)</td>
</tr>
<tr>
<td>Timber Lagging</td>
<td>9-09.2</td>
</tr>
<tr>
<td>Soldier Piles</td>
<td>9-10.5</td>
</tr>
<tr>
<td>Concrete Curing Materials and Admixtures</td>
<td>9-23</td>
</tr>
<tr>
<td>Fly Ash</td>
<td>9-23.9</td>
</tr>
<tr>
<td>Water</td>
<td>9-25</td>
</tr>
</tbody>
</table>
6-12.3 CONSTRUCTION REQUIREMENTS

6-12.3(1) QUALITY ASSURANCE

The steel soldier piles shall be placed so that the centerline of the pile at the top is within 1 inch of the Plan location. The steel soldier pile shall be plumb, to within 0.5 percent of the length based on the total length of the pile.

Welding, repair welding, and welding inspection shall conform to the Section 6-03.3(25) requirements for welding, repair welding, and welding inspection for all other steel fabrication.

6-12.3(2) SUBMITTALS

The Contractor shall submit shop drawings as specified in Section 6-03.3(7) for all structural steel, including the steel soldier piles and walers to the Engineer for approval.

The Contractor shall submit four copies of a Shaft Installation Plan not less than 30 calendar days prior to the beginning of shaft construction. In preparing the submittal, the Contractor shall reference the available subsurface data provided in the Contract test hole boring logs and the geotechnical report(s) prepared for this project. At a minimum, this plan shall provide the following information:

1. An overall construction operation sequence and the sequence of shaft construction.
2. List, description, and capacities of proposed equipment including but not limited to cranes, drills, augers, bailing buckets, final cleaning equipment, and drilling units. The narrative shall describe why the equipment was selected, and describe equipment suitability to the anticipated site and subsurface conditions. The narrative shall include a project history of the drilling equipment demonstrating the successful use of the equipment on shafts of equal or greater size in similar soil/rock conditions.
3. Details of shaft excavation methods including proposed drilling methods, methods for cleanout of the shafts, disposal plan for excavated material and drilling slurry (if applicable), and a review of method suitability to the anticipated site and subsurface conditions.
4. Details of the method(s) to be used to ensure shaft stability (i.e., prevention of caving, bottom heave, etc. using temporary casing, slurry, or other means) during excavation and concrete placement. This shall include a review of method suitability to the anticipated site and subsurface conditions. If temporary casings are proposed, casing dimensions and detailed procedures for casing installation and removal shall be provided. If slurry is proposed, detailed procedures for mixing, using, maintaining, and disposing of the slurry shall be provided. A detailed mix design, and a discussion of its suitability to the anticipated subsurface conditions shall also be provided for the proposed slurry.
5. Details of soldier pile placement including internal support bracing and centralization methods.
6. Details of concrete placement including proposed operational procedures for pumping and/or tremie methods.
7. Details of the device used to prevent unauthorized entry into a shaft excavation.

Work shall not begin until the Engineer has approved the appropriate submittals in writing.

6-12.3(3) SHAFT EXCAVATION

Shafts shall be excavated to the required depth as indicated on the Drawings. The minimum diameter of the shaft shall be as indicated on the Drawings. The excavation shall be completed in a continuous operation using equipment capable of excavating through the type of material expected to be encountered.

The Contractor may use temporary telescoping casing to construct the shafts.

If the shaft excavation is stopped the shaft shall be secured by installation of a safety cover. It shall be the Contractor's responsibility to ensure the safety of the shaft and surrounding soil and the stability of the sidewalls. A temporary casing, slurry, or other methods specified in the shaft installation plan as approved by the Engineer shall be used if necessary to ensure such safety and stability.

Where caving in conditions are encountered, no further excavation will be allowed until the Contractor has
implemented the method to prevent ground caving as submitted in accordance with item 4 of the Shaft Installation Plan and as approved by the Engineer.

No more than 12 inches of loose or disturbed material shall be present at the bottom of the shaft just prior to concrete placement.

The excavated shaft shall be inspected and approved by the Engineer prior to proceeding with construction.

When obstructions are encountered, the Contractor shall notify the Engineer promptly. An obstruction is defined as a specific object (including, but not limited to, boulders, logs, and manmade objects) encountered during the shaft excavation operation that prevents or hinders the advance of the shaft excavation. When efforts to advance past the obstruction to the design shaft tip elevation result in the rate of advance of the shaft drilling equipment being significantly reduced relative to the rate of advance for the rest of the shaft excavation, the Contractor shall remove the obstruction under the provisions of Section 6-12.5. The method of removal of such obstructions and the continuation of excavation shall be as proposed by the Contractor in the Shaft Installation Plan and approved by the Engineer.

Excavation of shafts shall not commence until a minimum of 24 hours after the shaft backfill for the adjacent shafts has been placed.

The temporary casings for the shafts shall be removed as concrete shaft backfill is placed. A minimum 5-foot head of concrete shall be maintained inside the casing as it is removed to balance the soil and water pressure at the bottom of the casing. The casing shall be smooth.

6-12.3(4) INSTALLING SOLDIER PILES

Soldier piles, if spliced, shall conform to all requirements of Section 6-05.3(6).

The prefabricated steel soldier piles shall be lowered into the drilled shafts and secured in position.

Concrete cover over the soldier pile shall be a minimum of 2 inches thick.

The upper 4 feet of the steel GEOWEB piles and walers shall be shop painted after fabrication to the limits indicated on the Drawings with one coat of inorganic zinc primer and one top coat of epoxy paint. Application of the one coat of primer shall be not less than 2.5 mils dry film thickness. Application of epoxy paint shall be not less than 3.0 mils dry film thickness. Paint damaged by welding shear studs in place does not require repair.

6-12.3(5) BACKFILLING SHAFT

The excavated shaft shall be backfilled with either controlled density fill (CDF), pumpable lean concrete, or structural concrete as indicated on the Drawings and subject to the following requirements:

1. Shaft excavations shall be backfilled with pumpable lean concrete.
2. Pumpable lean concrete shall be a Contractor designed mix providing a minimum 28-day compressive strength of 50 psi. Acceptance of pumpable lean concrete shall conform to the acceptance requirements specified in Section 2-10.2(1).
3. A wet shaft is defined as a shaft where water is entering the excavation and remains present to a depth of 6 inches or more.
4. When the Drawings or test hole boring logs identify the presence of a water table at or above the elevation of the bottom of soldier pile shaft, the excavation shall be considered as wet, except as otherwise noted. Such a shaft may be considered a dry shaft provided the Contractor provides casing that is sufficiently sealed into competent soils such that water cannot enter the excavation.
5. Permanent GEOWEB piles shall be backfilled with structural concrete. Contractor shall provide a designed mix concrete Class 4000P and shall conform to the requirements specified in section 6-02.

Placement of the shaft backfill shall commence immediately after completing the shaft excavation and receiving the Engineer's approval of the excavation. Pumpable lean concrete shall be placed in one continuous operation to the top of the shaft. Vibration of shaft backfill is not required.
If water is not present, the shaft backfill shall be deposited by a method that prevents segregation of aggregates. The shaft backfill shall be placed such that the free-fall is vertical down the shaft without hitting the sides of the soldier pile or the excavated shaft. The Contractor's method for depositing the shaft backfill shall be specified in the Shaft Installation Plan and be approved by the Engineer prior to the placement of the shaft backfill.

If water is present, the shaft backfill shall be deposited in accordance with Section 6-02.3(6)B.

6-12.3(6) DESIGNING AND INSTALLING LAGGING

Lagging for soldier pile walls shall be No. 2 hemlock fir (HF#2) temporary lagging, defined as lagging that is in service as a structural member for a maximum of 36 months.

6-12.3(6)A TEMPORARY LAGGING

The Contractor shall submit the soldier pile wall lagging design shop drawings to the Engineer for approval. The submittal shall include, but not be limited to, the following:

1. Description of the material used for the lagging, including identification of applicable material specifications.
2. Installation method and sequence.
3. If the lagging material is to be removed a description of how the lagging is removed and a description of how, and with what material, the void left by the removal of lagging is to be filled.

Temporary lagging may be untreated timber conforming to the Section 9-09.2 requirements specified under Structures for timber lagging or another material selected by the Contractor.

Timber for temporary lagging shall conform to the minimum actual thickness specified in the table below for the soil type, exposed wall height, and lagging clear span as indicated on the Drawings.

Notwithstanding the requirements of Section 1-06.1, steel materials used by the Contractor as temporary lagging may be used (secondhand) provided that the use of such used (secondhand) steel materials shall be subject to visual inspection and approval by the Engineer. For used (secondhand) steel materials where the grade of steel cannot be positively identified, the design stresses for the steel shall conform to the Section 6-02.3(17)B requirements for salvaged steel, regardless of whether rivets are present or not.

6-12.3(6)B INSTALLING LAGGING

The excavation and removal of CDF and pumpable lean concrete for the lagging installation shall proceed in advance of the lagging and shall not begin until the CDF and pumpable lean concrete are of sufficient strength that the material remains in place during excavation and lagging installation. If the CDF or pumpable lean concrete separates from the soldier pile, or caves or spalls from around the soldier pile, the Contractor shall discontinue excavation and lagging installation operations until the CDF and pumpable lean concrete is completely set. The bottom of the excavation in front of the wall shall be level. Excavation shall conform to Section 2-04.

The bottom of excavation shall not be more than 4 feet below the bottom level of the lagging already installed, but in no case shall the depth of excavation beneath the bottom level of installed lagging be such to cause instability of the excavated face. Any caving that occurs during excavation shall be backfilled with free-draining material as approved by the Engineer.

The lagging shall be installed from the top of the soldier pile proceeding downward.

The lagging shall make direct contact with the soil. When and where lagging is not in full contact with the soil being retained, either the lagging shall be wedged back to create contact or the void shall be filled with a free-draining material as approved by the Engineer.

When utilizing lagging in fill situations, the backfill layers shall be placed in accordance with Section 2-04.3 except that all layers shall be compacted to 90 percent of maximum density.
6-12.3(7) WALER CONCRETE ENCASEMENT

Waler between GEOWEB piles shall be encased in structural concrete. Contractor shall provide a designed mix concrete Class 3000 and shall conform to the requirements specified in section 6-02.

6-12.4 MEASUREMENT

Measurement for “Soldier Piles” will be measured by the lump sum for all work necessary to provide soldier piles.

Measurement for “GEOWEB Piles” will be measured by the lump sum for all work necessary to provide GEOWEB Piles.

Measurement for “Timber Lagging (4x12 HF#2)” will be by the square foot area of lagging installed. The quantity will be computed based on the vertical dimension from the highest lagging elevation to the lowest lagging elevation between each pair of adjacent soldier piles as the height dimension and the center-to-center spacing of the soldier piles as the length dimension.

Measurement for “GEOWEB Waler (HSS 4.5 IN x 4.5 IN x 3/8 IN)” will be by the linear foot installed. The quantity will be computed based on the horizontal center-to-center spacing of the GEOWEB piles as the length dimension.

6-12.5 PAYMENT

Compensation for the cost necessary to complete the Work described in Section 6-12 will be made at the Bid item prices Bid only for the Bid items listed or referenced as follows:

1. “Soldier Piles”, per lump sum.

The Bid item price for “Soldier Piles” shall include all costs for installing soldier piles in-place to include shaft excavation, temporary casing if used, CDF, lean concrete, concrete Class 4000P, and all costs in connection with providing soldier pile assemblies, including fabricating and painting the pile assemblies, and field splicing and field trimming the soldier piles.

2. “GEOWEB Piles”, per lump sum.

The Bid item price for “GEOWEB Piles” shall include all costs for installing GEOWEB piles in-place to include shaft excavation, temporary casing if used, concrete Class 3000, and all costs in connection with providing GEOWEB pile assemblies, including fabricating and painting the pile assemblies, and field splicing and field trimming the soldier piles.


The Bid item price for “Timber Lagging (4x12 HF#2)” shall include all costs for installation of the timber lagging in-place to include design of temporary lagging, excavation required for installation, and filling voids behind the lagging with a free-draining material as approved by the Engineer.

4. “GEOWEB Waler (HSS 4.5 IN x 4.5 IN x 3/8 IN), per linear foot.

The Bid item price for “GEOWEB Waler HSS (4.5 IN x 4.5 IN x 3/8 IN)” shall include all costs for installing the walers in-place to include fabricating and painting the waler assemblies, mounting bolts, nuts, and washers, concrete Class 3000, excavation required for installation, backfill, waler concrete formwork, and field splicing and field trimming the walers.
DIVISION 7

STORM DRAIN, CULVERTS, SANITARY AND COMBINED SEWERS, WATER MAINS AND RELATED STRUCUTURES

SECTION 7-01 DRAINS

7-01.3 CONSTRUCTION REQUIREMENTS

7-01.3(4) FITTINGS (New Section)

When using fittings, maximum bends shall be twenty-two and one-half degrees (22.5°). Between each bend, a minimum one foot section of straight pipe shall be installed, or the bend shall have an equivalent manufactured sweep.

7-01.3(5) CLEANOUTS (New Section)

Refer to Section 7-19.

7-01.5 PAYMENT

Delete item 2 with no replacement.

Supplement item 5 with the following:

Costs for filter material will be paid separately using the Bid item Mineral Aggregate, Type 26 in accordance with Section 4-01.5.

SECTION 7-05 MAINTENANCE HOLES, CATCH BASINS, AND INLETS

7-05.3 CONSTRUCTION REQUIREMENTS

7-05.3(1) MAINTENANCE HOLE

7-05.3(1)G PRECAST CONES (2-08-13)

Replace the second sentence of the last paragraph with the following:

Handholds (steps) installed in leveling bricks or precast risers shall be modified to allow a minimum clear opening of 18 inches, measured at the shortest dimension, but the handhold shall be not less than 3 inches from the inside face of the wall per Standard Plan 232a and 232b.

7-05.3(1)Q LADDER, STEPS AND HANDHOLDS (2-08-13)

Replace the first sentence of the last paragraph with the following:

Where a flat slab is required in the construction of a maintenance hole, the handholds normally required in this area may either be installed in the slab itself, or installed between the slab and leveling bricks, provided that the overall distance to the upper handhold or step, or the distance between the upper handhold or step to the top of frame, is no more than 18 inches.

7-05.3(1)S CONNECTIONS TO EXISTING MAINTENANCE HOLES (2-08-13)

Replace the second and third sentences with the following:

All openings shall provide clearance around the outside circumference of the pipe as indicated on the Standard Plans. Upstream pipes penetrating the walls of maintenance holes shall be placed with the bell facing out.
7-05.3(2) CATCH BASINS AND INLETS

7-05.3(2)D INLET GRADE ADJUSTMENT (2-08-13)

Replace the second to last sentence of the first paragraph with the following:

Location of Inlet will be established by the Engineer.

7-05.3(2)G MODIFIED DEPTH CATCH BASINS (New Section)

Where noted on the Drawings, the Contractor shall provide modified catch basins for depths greater than those shown on the City of Seattle Standard Plans for Municipal Construction.

7-05.4 MEASUREMENT

Supplement this Section with the following:

Measurement for “Behind Curb Drainage Structure” will be by each.

Measurement for “Catch Basin, Type 240A, Modified with Shear Gate” will be by each.

Measurement for “Catch Basin, Type 240B, Modified with Extra Depth” will be by each.

Measurement for “Catch Basin, Type 241, Modified with Overflow Structure” will be by each.

Measurement for “Catch Basin, Type 241, Modified with Overflow Structure and Extra Depth” will be by each.

7-05.5 PAYMENT

Supplement item 8 with the following:

Costs for excavation below the soil cleanup elevation will be paid separately using the Bid item “Subtitle D Excavation, Loading, and Disposal” in accordance with Section 2-04.5.

Costs for backfill will be paid separately using the applicable Bid item for Mineral Aggregate in accordance with Section 4-01.5.

Supplement this Section with the following:


The Bid item price for “Behind Curb Drainage Structure” shall include all costs for the work required to furnish and install the behind curb drainage structure to finish grade to include backfill, adjustment brick and blocks, bedding, mortar, non-shrink grout, plaster, and castings as indicated on the Drawings.

10. “Catch Basin, Type 240A, Modified With Shear Gate”, per each.

The Bid item price for “Catch Basin, Type 240A, Modified, With Shear Gate” shall include all costs for the work required to furnish and install the catch basin including ladder, steps, shear gate, trap, backfill and compaction, adjustment brick and blocks, mortar, non-shrink grout, plaster, and castings as indicated on the Drawings.

11. “Catch Basin, Type 240B, Modified With Extra Depth”, per each.

The Bid item price for “Catch Basin, Type 240B, Modified With Extra Depth” shall include all costs for the work required to furnish and install the extra depth catch basin including, trap, backfill and compaction, adjustment brick and blocks, mortar, non-shrink grout, plaster, and castings as indicated on the Drawings.
12. “Catch Basin, Type 241, Modified With Overflow Structure”, per each.

The Bid item price for “Catch Basin, Type 241, Modified With Overflow Structure” shall include all costs for the work required to furnish and install the catch basin including, trap, adjustment brick and blocks, mortar, non-shrink grout, plaster, and castings as indicated on the Drawings.

13. “Catch Basin, Type 241, Modified with Overflow Structure and Extra Depth”, per each.

The Bid item price for “Catch Basin, Type 241, Modified with Overflow Structure and Extra Depth” shall include all costs for the work required to furnish and install the extra depth catch basin including, trap, adjustment brick and blocks, mortar, non-shrink grout, plaster, and castings as indicated on the Drawings.

SECTION 7-08 MISCELLANEOUS PIPE CONNECTIONS

7-08.3(5) INLET CONNECTIONS

Delete the first paragraph and replace with the following:

Inlet connections are pipe connections from drainage inlets to catch basins or other approved outlets. Inlet connections shall be installed upgrade from catch basin openings or other originations. Inlet connection slopes shall not be less than 2% nor more than 50% unless otherwise noted on the Drawings.

7-08.4 MEASUREMENT

Supplement this Section with the following:

Measurement for “Pipe, Bioretention Connection, (Material), (Size)” will be by the linear foot of pipe installed between the bioretention cell and the inside face of the catch basin or inlet as applicable.

7-08.5 PAYMENT

Supplement item 5 with the following:

Costs for excavation below the soil cleanup elevations will be paid separately using the Bid item “Subtitle D Excavation, Loading, and Disposal” in accordance with Section 2-04.5.

Costs for backfill will be paid separately using the applicable Bid item for Mineral Aggregate in accordance with Section 4-01.5.

Supplement this Section with the following:

6. “Pipe, Bioretention Connection, (Material), (Size)”, per linear foot

The Bid item price for Pipe, Bioretention Connection, (Material), (Size)” shall include all costs for the work required to furnish and install the pipe, including connections to catch basins or inlets, adjacent pipe, cleanouts and geosynthetic liner.

SECTION 7-17 STORM DRAINS AND SANITARY SEWERS

7-17.1 DESCRIPTION

Supplement this Section with the following:

The work also includes construction of an outfall pipe along an easement that crosses the Port of Seattle’s Terminal 117 property.
7-17.2 MATERIALS

7-17.2(1) GENERAL

Supplement this Section with the following:

Pipe Material used for Sanitary Sewers, combined Sewers, and Storm Drains shall be Ductile Iron in accordance with Section 9-05. The Storm sewer outfall pipe shall be HPDE meeting the requirements of Section 9-05.5(6).

7-17.2(4) MATERIAL HANDLING AND STORAGE (New Section)

The Contractor shall inspect the site and make all arrangements necessary for storage space and handling equipment prior to the delivery of equipment. Handle and support pipe according to manufacturer's recommendations during transportation, storage, assembly, and installation. Keep a copy of the manufacturer's instructions available at the construction site at all times and follow these instructions unless directed otherwise by the Engineer. All products furnished shall be packaged and/or protected against the effects of weather and the Contractor's operations.

Materials delivered to site shall be inspected for damage, unloaded, and stored with minimal handling. Materials shall not be stored directly on the ground. The inside of pipes and fittings shall be kept free of dirt and debris. Before, during, and after installation, plastic pipe and fittings shall be protected from any environment that would result in damage or deterioration to the material.

The Contractor shall provide all special lifting gear required for handling and installation. Materials shall be handled in a manner that ensures delivery to the trench in sound, undamaged condition. Under no circumstances, drop, skid, or roll against other pipe. Pipe shall be carried to the trench, not dragged. Damaged items shall be rejected and removed from the site by the Contractor. Acceptable limits for cuts, gouges, or scratches in HDPE pipe follow:

1) Outer Surface – Maximum allowable depth of cut, scratch, or gouge shall be 10 percent of wall thickness
2) Inner Surface – Free of all cuts, gouges, or scratches

7-17.3(1)B PIPE BEDDING

7-17.3(1)B1 GENERAL

Delete the second paragraph and replace with the following:

Bedding for rigid and flexible pipe shall be Class B.

7-17.3(1)D TRENCH PLUGS (New Section)

7-17.3(1)D1 GENERAL (New Section)

A low permeability trench plug shall be constructed to the lines, grades, and cross sections as indicated on the Drawings. The trench plug shall be keyed into the walls and base of the trench a minimum of 12-inches.

The trench plug material shall be a bentonite-soil mixture as defined in Section 9-03.19.

Backfilling shall be in accordance with Section 2-10.

Compaction shall be in accordance with Section 2-11.
7-17.3(2) INSTALLING SEWER PIPE

7-17.3(2)B PIPE INSTALLATION AND JOINTING

7-17.3(2)B3 HDPE BUTT FUSED JOINTS (New Section)

Sections of HDPE piping shall be joined by the butt fusion process into continuous lengths in accordance with ASTM F 2620. The equipment, joining method, and personnel performing the joining operations shall be acceptable to the piping manufacturer. Operators of the butt-fusion equipment shall have at least five years of experience and training with the equipment. The tensile strength of the joint shall not be less than the pipe.

7-17.3(4) CLEANING AND TESTING

Supplement this section with the following:

Leakage testing of the HDPE outfall pipe will not be required.

7-17.4 MEASUREMENT

Supplement this section with the following:

Measurement for “Trench Plug” will be per each.

7-17.5 PAYMENT

Supplement item 11 with the following:

Costs for excavation below the soil cleanup elevations will be paid separately using the Bid item "Subtitle D Excavation, Loading, and Disposal" in accordance with Section 2-04.5.

Costs for backfill will be paid separately using the applicable Bid item for Mineral Aggregate in accordance with Section 4-01.5.

Supplement this Section with the following:

12. “Trench Plug” per each.

The Bid Item price for “Trench Plug” shall include all costs for the work required to furnish and install the trench plug as specified and as indicated on the Drawings.

SECTION 7-19 SEWER CLEANOUTS

Delete this Title and replace with the following:

SECTION 7-19 SEWER AND STORM DRAIN CLEANOUTS

7-19.1 DESCRIPTION

Delete this Section and replace with the following:

Section 7-19 describes work consisting of the construction of sanitary sewer and storm drain cleanouts in accordance with Standard Plan no. 280 and no. 281 and as indicated in the Contract.
7-19.4 MEASUREMENT

Supplement this Section with the following:

Measurement for “Storm Drain Cleanout, (Type), (Size)” will begin at the wye branch and extend through the casting, as shown on Standard Plan no. 280.

Measurement for “Storm Drain Cleanout and Observation Port, (Type), (Size)” will begin at the wye branch and extend through the casting, as shown on Standard Plan no. 281.

7-19.5 PAYMENT

Supplement this Section with the following:

2. “Storm Drain Cleanout, (Type), (Size)” per each.

The Bid item price for “Storm Drain Cleanout, (Type), (Size)” shall include all costs for the work required for furnishing and installing the fittings, pipe, pipe bands, pipe plug, casting, and concrete collar.

3. “Storm Drain Cleanout and Observation Port, (Type), (Size)” per each.

The Bid item price for “Storm Drain Cleanout and Observation Port, (Type), (Size)” shall include all costs for the work required for furnishing and installing the fittings, pipe, pipe bands, pipe plug, casting, and concrete collar.

Costs for excavation will be paid separately using the Bid item “Subtitle D Excavation, Loading, and Disposal” in accordance with Section 2-04.5.

SECTION 7-21 BIORETENTION

7-21.1 DESCRIPTION

Supplement this Section with the following:

Section 7-21 describes work consisting of the installation of bioretention cells intended to receive surface water runoff for infiltration as indicated in the Contract, including bioretention cells and vegetated depression near the intersection of S Donovan Street and Dallas Avenue S.

7-21.2 MATERIALS

Supplement this Section with the following:

<table>
<thead>
<tr>
<th>Arborist Wood Chip Mulch</th>
<th>9-14.4(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtration Media for Bioretention</td>
<td>9-14.1(5)</td>
</tr>
<tr>
<td>Streambed Aggregate</td>
<td>9-03.3</td>
</tr>
<tr>
<td>Landscape Boulders</td>
<td>9-03.3</td>
</tr>
</tbody>
</table>

Concrete for presettling cells, concrete spillway and concrete channel shall be Class 3000.

The Geosynthetic Liner shall be Rufco 3010B, 30 mil polyethylene liner or approved equal.

Low Permeability Material shall be compacted till layer meeting the following requirements:

<table>
<thead>
<tr>
<th>Gradation</th>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-inch</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>4-inch</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>#4</td>
<td>70-100</td>
<td></td>
</tr>
<tr>
<td>#200</td>
<td>25 minimum</td>
<td></td>
</tr>
</tbody>
</table>
Material sources shall be approved in advance of use in the Work in accordance with the requirements of Section 1-06.

All materials shall be imported and shall meet the analytical testing requirements provided in Section 1-07.34(3).

7-21.3 CONSTRUCTION REQUIREMENTS

7-21.3(1) GENERAL

Delete this Section and replace with the following:

1. **Exclude Runoff From Cells Until Completion.** Runoff shall not be allowed to enter the bioretention cell in accordance with Sections 1-07.15 and 8-01, until authorization is given by the Engineer.

2. **Protect Mix From Water.** Bioretention Soil shall be protected from rainfall, surface runoff and other sources of added moisture at the Supplier's site, in covered conveyance, and at the Project Site until incorporated into the Work.

3. **Protect Subgrade and Exclude Heavy Equipment from Cells and Berms** per Sections 7-21.3(2)A2 and 7-21.3(2)A3. No heavy equipment shall operate within the cell or earth berm perimeter once bioretention cell excavation below existing grade has begun, including during contaminated soil removal, excavation, backfilling, tree pit preparation, mulching, or planting.

4. **Exclude Foreign Materials.** No Materials or substances other than the Bioretention Soil shall be mixed or dumped within the cell or earth berm area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations.

5. **Water Meter Adjustments.** Relocation and/or adjustments of water meters shall be coordinated per Section 7-15 Water Service Connection Transfers.

6. **Approved Testing Labs.** When the Contract specifies testing by a Contractor provided testing laboratory, the laboratory shall meet the requirements of Section 1-07.34(3)A. The testing laboratory shall be capable of performing all tests to the standards specified, and shall provide test results with an accompanying Manufacturer's Certificate of Compliance.

7-21.3(1)A SUBMITTALS FOR BIORETENTION SOIL MIX DESIGN

Delete this Section and replace with the following:

At least 10 Working Days prior to placement of Bioretention Soil, the Contractor shall submit to the Engineer the following in accordance with Section 1-05.3:

1. **Aggregate Analysis.** Grain size analysis results of the Mineral Aggregate for Bioretention Soil (Section 9-03.2(2)) performed by an independent laboratory in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils;

2. **Compost Analysis.** Quality analysis results for the compost for Bioretention Soil performed in accordance with STA standards, as specified in Section 9-14.4(8);

3. **Mix Analysis.** Organic content test results of the Bioretention Soil mix. Organic content test shall be performed in accordance with Testing Methods for the Examination of Compost and Composting (TMECC) 05.07A, “Loss-On-Ignition Organic Matter Method”;

4. **Mix Samples.** Two five (5) gallon samples of the Bioretention Soil mix, along with the following information:
   a. The Manufacturer's Certificate(s) of Compliance per Section 1-06.3 from the Supplier
      of the Bioretention Soil mix, and (if different) the Suppliers of the mineral aggregate
      and compost components, including their name(s) and address(es);
   b. A description of the equipment and methods to mix the mineral aggregate and
      compost to produce Bioretention Soil;

5. **Laboratory Information.** Include the following information about the testing laboratories:
   a. name of laboratory(ies) including contact person(s),
   b. address(es),
   c. phone contact(s),
   d. e-mail address(es);
   e. qualifications of laboratory and personnel including date of current certification by
      STA, ASTM, AASHTO, or approved equal.
7. Results of analytical chemistry testing of imported material in accordance with Section 1-07.34(3)C.

7-21.3(1)B SUBMITTALS FOR FILTRATION MEDIA FOR BIORETENTION (New Section)

At least 10 Working Days prior to placement of Filtration Media for Bioretention, the Contractor shall submit to the Engineer the following in accordance with Section 1-05.3:

1. Rhyolite sand material sieve analysis;
2. Zeolite analysis results for clinoptilolite content and cation exchange capacity;
3. Granular Activated Carbon analysis results for cation exchange capacity;
4. Zeolite material sieve analysis;
5. Granular Activated Carbon material sieve analysis;
6. Modified Proctor compaction testing of mixed Filtration Media for Bioretention, performed in accordance with ASTM D 1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort;
7. Mix Samples. Two five (5) gallon samples of the Filtration Media for Bioretention, along with the following information:
   a. The Manufacturer’s Certificate(s) of Compliance per Section 1-06.3 from the Supplier of the Filtration Media for Bioretention, and (if different) the Suppliers of the mineral aggregate and compost components, including their name(s) and address(es);
   b. A description of the equipment and methods to mix the mineral aggregate and compost to produce Filtration Media for Bioretention;
8. Provide the following information about the testing laboratory(ies):
   a. name of laboratory(ies) including contact person(s),
   b. address(es),
   c. phone contact(s),
   d. e-mail address(es);
   e. qualifications of laboratory and personnel including date of current certification by STA, ASTM, AASHTO, or approved equal.
9. Results of analytical chemistry testing of imported material in accordance with Section 1-07.34(3)C.

7-21.3(2)A GRADING AND PLACEMENT FOR BIORETENTION SOILS

Delete this Section and replace with the following:

7-21.3(2)A1 GENERAL (New Section)

1. **Authorization to Proceed.** The Contractor shall not start bioretention cell grading or placement until all areas of the Project Site draining to the bioretention cell have been stabilized and authorization is given by Engineer.
2. **Protection of Existing Trees.** Grading within Zone B of trees to be retained shall be in accordance with the Tree, Vegetation, and Soil Protection Plan (TVSPP) per Sections 1-07.16(2) and 8-01. The Contractor shall notify the Engineer of conflicts with tree protection standards and/or other site conditions prior to proceeding with the Work.
3. **Locate New Trees.** Locations and grading requirements to support new trees as a component of bioretention shall be field marked by the Engineer when identified as “field locate by the Engineer” on the Drawings. A minimum advance notice is required for Engineer to locate plantings per Section 8-02.3(5).

7-21.3(2)A2 EXCAVATION (New Section)

1. **Depth.** At the locations shown on the Drawings, bioretention cells shall be excavated to the depth necessary to accommodate the placement of Bioretention Soil and, if applicable, Mineral Aggregate Type 26 for discharge subbase gravel as shown on the Drawings. Where indicated on the Drawings or as directed by Engineer, the Contractor shall excavate to expose native alluvial soils, and backfill to the proposed bottom of the bioretention cell with Mineral Aggregate Type 26 for discharge subbase gravel.
Excavation shall be classified as Subtitle D Excavation in accordance with Section 2-04.

2. **Conditions.** Excavation within 6-inches of final native soil grade shall not be permitted if the Project Site soil is frozen, has standing water, or has been subjected to more than ½ inch of precipitation within 48 hours.

3. **Geotextile.** Where shown on the Drawings, the Contractor shall place Construction Geotextile for Separation in accordance with Section 2-15.

4. **Inspection Prior to Soil Placement.** The Contractor shall provide the Engineer the opportunity to inspect the excavation at least 1 Working day prior to placement of any Materials or subgrade soil scarification.

5. **Protection from Sediment.** After excavation to subgrade, if any sediment laden runoff has entered the cell prior to placement of Bioretention Soil, the sediment deposition shall be removed by overexcavating the cell by a 3-inch minimum and an additional 3-inches of Bioretention Soil shall be placed at the Contractor’s expense.

6. **Underdrain.** Where shown on the Drawings, the Contractor shall place underdrain pipe and Mineral Aggregate Filter Material in accordance with Section 7-01.

**7-21.3(2)A3 SUBGRADE (New Section)**

1. **Protection.** The Contractor shall protect the infiltrative capacity of the native soil in areas intended to receive surface water runoff for infiltration including bioretention cells and vegetated depression. The perimeter of the areas intended to receive surface water runoff for infiltration shall be fenced and protected as indicated on the Drawings. Heavy equipment, material storage and vehicles shall be excluded from the areas intended to receive surface water runoff for infiltration and adjacent slopes including during contaminated soil removal, excavation, backfilling, tree pit preparation, mulching, or planting.

2. **Scarification.** The Contractor shall scarify the surface of the subgrade to a minimum depth of 6 inches prior to placement of Bioretention Soil, Mineral Aggregate for discharge subbase gravel, or Filtration Media for Bioretention.

3. **Discharge Drainage Course.** Where shown on the Drawings, the Contractor shall place Mineral Aggregate Type 26 for discharge subbase gravel in loose lifts and hand rake Mineral Aggregate to final grade.

4. **Protection from Sediment.** After excavation or after placement of Mineral Aggregate for discharge subbase gravel or Filtration Media for Bioretention, if any sediment laden runoff has entered the cell prior to placement of Bioretention Soil, the sediment deposition shall be removed by excavating Mineral Aggregate in the cell by a 3-inch minimum and replacing it with clean Mineral Aggregate at the Contractor’s expense.

5. **Inspection by Engineer.** The Engineer will inspect the subgrade, and if the Engineer determines that the subgrade has been damaged, the Contractor shall remove any accumulation of fine material as directed by the Engineer, scarify the soil to a minimum depth of 12 inches or as directed by the Engineer, and compact the subgrade to 90 to 92 percent of the maximum dry density.

**7-21.3(2)A4 PLACEMENT OF BIORETENTION SOIL (New Section)**

1. **Acceptance of Mix Prior to Placement.** The Contractor shall not place Bioretention Soil until the Engineer has reviewed and confirmed the following:
   a. Soil mix delivery ticket(s). Delivery tickets shall show that the full delivered amount of Bioretention Soil matches the product type, volume and manufacturer named in the submittals.
   b. Visual match with submitted samples. Delivered product will be compared to the submitted 5-gallon sample, to verify that it matches the submitted sample. The Engineer may inspect any loads of Bioretention Soil on delivery and stop placement if the soil does not appear to match the submittals; and require sampling and testing of the delivered soil to determine that organic matter content is within the 4-8% target, and approximately equal to that of the approved submittal, before authorizing soil placement. All testing costs shall be the responsibility of the Contractor.

2. **Mix Moisture.** Bioretention Soil placement and consolidation shall not occur when the Bioretention Soil is excessively wet, as determined by the Engineer. There should be no visible free water in the material.

3. **Conditions.** Placing Bioretention Soil shall not be allowed if the area receiving
Bioretention Soil is frozen, excessively wet or saturated, or has been subjected to more than ½-inch of precipitation within 48-hours prior to placement. The Engineer will have final authority to determine if wet or saturated conditions exist.

4. **Scarify and Mix Layers.** The Contractor shall scarify and mix dissimilar layers at the interface between the layers as shown on the Drawings.

5. **Placement.** The Contractor shall place Bioretention Soil and Filtration Media for Bioretention, and, if indicated, Mineral Aggregate for discharge subbase gravel, loosely with a conveyor belt, unless otherwise approved by the Engineer, upon a prepared subgrade in accordance with these Specifications and in conformity with the lines, grades, depth, and typical cross-section shown on the Drawings or as established by the Engineer.

6. **Rake soil to final grade.**

7. **Consolidation.** Final soil depth shall be measured and verified only after the soil has been water consolidated, which requires filling the cell with water in a controlled manner, without creating any scour or erosion, to at least 1 inch of ponding. Allowing uncontrolled runoff from adjacent impervious areas to enter cell is not an acceptable method for consolidation. Repeat until final depth is achieved.

8. **Placement and Consolidation In Grass Areas.** Bioretention Soil specified for grass areas shall be placed in loose lifts. Bioretention Soil shall be compacted to a relative compaction of 85-90 percent of modified maximum dry density (ASTM D 1557), where slopes allow, as determined by the Engineer. Where Bioretention Soil is placed in the 2-foot road shoulder, it shall be compacted to a minimum relative compaction of 90 percent of modified maximum dry density (ASTM D 1557). Final soil depth shall be measured and verified only after the soil has been compacted.

9. **Inspection Prior to Planting.** After placement of Bioretention Soil, and before planting or mulching, the Contractor shall notify the Engineer at least 1 Working day in advance. The Engineer will perform compaction testing.

<table>
<thead>
<tr>
<th>Bioretention Cell Component</th>
<th>Relative Compaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom and side slopes planted</td>
<td>Water consolidation</td>
</tr>
<tr>
<td>Bottom and side slopes grassed</td>
<td>85-90 percent of modified dry density (ASTM D 1557), using roller or sprinkler.</td>
</tr>
<tr>
<td>2-foot road shoulder</td>
<td>90 percent of modified dry density (ASTM D 1557), using roller or late compaction.</td>
</tr>
<tr>
<td>7-foot radius around power poles</td>
<td>No requirement, existing soil untouched</td>
</tr>
<tr>
<td>Around water meters and over other utilities</td>
<td>Same as listed for areas above</td>
</tr>
</tbody>
</table>

7-21.3(2)A5 FINAL MULCHING AND PLANTING (NEW SECTION)

1. The cell shall be planted and mulched as shown on the Drawings.

2. **Inspection.** At least one Working Day prior to placement of compost or arborist wood chip mulch in each cell, as specified in the Drawing, the Contractor shall notify the Engineer to inspect the bioretention cell. If any sediment laden runoff has entered the cell, the Contractor shall remove the top 3 inches of Bioretention Soil and replace with Bioretention Soil per design, at the Contractor’s expense.

3. **Finished Grade.** Unless otherwise shown on the Drawings, the finished elevation shall be one (1) inch below walks, curbs, pavements and driveways, unless adjacent to a bermed area. Upon completion of finish grading Work, all excess Material shall be removed from the Project Site and disposed in accordance with the Contract Documents.

7-21.3(2)B GRADING FOR EARTH BERM

Delete this Section and replace with the following:

1. **Location.** At the locations shown on the Drawings, the Contractor shall construct earth berms in accordance with these Specifications and in conformity with the lines, grades, depth, and typical cross-section shown on the Drawings or as established by the Engineer.
2. **Materials.** Berm shall be constructed of imported Mineral Aggregate and Low Permeability Material as shown on the Drawings. All imported materials shall be tested in accordance with Section 1-07.34(3).

3. **Soil Placement.** The Contractor shall place imported Mineral Aggregate Type 17, Low Permeability Material, and Planting Soil as shown on the Drawings.

4. **Compaction.** The Contractor shall compact Mineral Aggregate Type 17 and Low Permeability Material to a maximum relative compaction of 95 percent of modified maximum dry density (ASTM D 1557). The Contractor shall place and compact Planting Soil in accordance with Section 8-02. The Contractor shall place Bioretention soil in accordance with Section 7-21.3(2)A4.

5. **Inspection Prior to Mulching.** Prior to the placement of arborist wood chip mulch, the Contractor shall notify the Engineer at least 1 Working Day in advance for approval of finished grading.

7-21.3(3) BIORETENTION SOIL PLACEMENT

Delete this Title and Section and replace with the following:

7-21.3(3) GEOSYNTHETIC LINER (New Section)

The Contractor shall submit shop drawings per Section 1-05.3. The shop drawings shall include dimensions, slope, joints and seams, piping penetrations, and methods for securing edges including details for fastening to concrete. All geosynthetic liner sections shall be inspected for flaws, tears, damage and other possible defects, prior to placement. The liner shall remain in a relaxed condition and shall not be installed under tension. Stretching of liner sections shall not be permitted, to fit areas where the liner is required. The liner panels shall be a continuous panel without seams at the bottom of the bioretention cell. Where shown on the Drawings, the geosynthetic liner shall be overlaid with non-woven construction geotextile with high survivability.

The panels shall be centered along the underdrain pipe alignment, wrapped up the sides of the trench, and secured in an anchor trench or other method approved by the Engineer. The liner shall not be folded over the top of the mineral aggregate. Joints and seams shall be formed at edges and at the ends of liner rolls and formed in accordance with the Manufacturer's recommendations. Pipe penetrations shall be formed and seamed with the geosynthetic liner material, and shall be clamped securely to the pipe using stainless steels clamps and neoprene gaskets.

Liners shall not be left exposed for greater than seven days. Underdrain trench material shall be placed within the seven day period after liner placement. Any excess liner shall be trimmed at the top of the underdrain trench.

7-21.3(4) PILOT INFILTRATION TEST (New Section)

Prior to Bioretention Cell construction, Contractor shall provide excavation, water, and equipment, materials and labor necessary to perform Pilot Infiltration Tests (PIT) as indicated on the Drawings in accordance with Appendix E – City of Seattle Modified Procedure for Conducting a Pilot Infiltration Test in Volume 3 – Stormwater Flow Control & Water Quality Treatment Technical Requirements Manual of the 2009 City of Seattle Stormwater Manual. The Contractor shall remove and dispose excavated material, which shall be classified as Subtitle D Excavation in accordance with Section 2-04. The Contractor shall backfill PIT excavation with Mineral Aggregate Type 17 and compact to 95 percent of the maximum density in accordance with Section 2-11. The Contractor shall coordinate with the Engineer and SPU geotechnical engineering staff for observation and measurements. SPU geotechnical engineering staff will provide measuring equipment, direct the test, observe and record the data, and collect samples as necessary.

7-21.3(5) STREAMBED AGGREGATE (New Section)

Streambed aggregate of the type indicated in the Contract shall be placed at the locations and to the dimensions and thicknesses indicated on the Drawings. Additional excavation and shaping may be required to accommodate streambed aggregate. Streambed aggregate shall conform to requirements of Section 9-03.3.
7-21.3(6) CONCRETE PRESETTLING CELL (New Section)

The Contractor shall submit shop drawings per Section 1-05.3. The Contractor shall provide concrete presettling cell(s) with concrete curbs as indicated on the Drawings. The necessary subgrade preparation and compaction required in the construction of concrete presettling pad shall meet the requirements of concrete sidewalk subgrade preparation set forth in Section 8-14.3(2).

7-21.3(7) CONCRETE CHANNEL (New Section)

The Contractor shall submit shop drawings per Section 1-05.3. The Contractor shall provide concrete channel(s) as indicated on the Drawings. The necessary subgrade preparation and compaction required in the construction of concrete channel shall meet the requirements of concrete sidewalk subgrade preparation set forth in Section 8-14.3(2).

7-21.3(8) LANDSCAPE BOULDERS (New Section)

The Contractor shall provide landscape boulders at the locations and to the dimensions indicated on the Drawings or as directed by the Engineer. Additional excavation and shaping may be required to accommodate the landscape boulders. Landscape boulders shall be placed in clusters as directed by the Engineer. The size of the boulders shall be as set forth in Section 9-03.3(2). Each cluster shall have at least one five-man or six-man boulder, which shall be placed on the opposite side of the presettling cell from where flow is introduced for flow dissipation, as directed by the Engineer.

7-21.3(9) CURB DRAIN OPENING AND CONCRETE SPILLWAY (New Section)

The Contractor shall submit shop drawings per Section 1-05.3. The Contractor shall provide Curb Drain Opening(s) and Concrete Spillway(s) as indicated on the Drawings. The necessary subgrade preparation and compaction required in the construction of cement concrete curb drain opening and concrete spillway shall meet the requirements concrete sidewalk subgrade preparation set forth in Section 8-14.3(2).

Cement concrete for concrete spillway shall be Class 3000.

7-21.4 MEASUREMENT

Supplement this Section with the following:

Measurement for “Filtration Media for Bioretention” will be by the cubic yard.

Measurement for “Curb Drain Opening and Concrete Spillway” will be by each.

Measurement for “Concrete Presettling Cell” will be by each.

Measurement for “Concrete Channel” will be by each.

Measurement for “Landscape Boulders” will be by the ton.

Measurement for "Pilot Infiltration Test" will be by each.

Measurement for “Streambed Aggregate (Type)” will be by the ton.

Measurement for “Low Permeability Material” will be by the ton.

Measurement for “Geosynthetic Liner” will be by the square yard for the ground surface area actually covered. No additional payment will be made for overlap.
7-21.5 PAYMENT

Delete item 2 with no replacement.

Supplement this Section with the following:

5. “Filtration Media for Bioretention” per cubic yard.

The Bid item price for “Filtration Media for Bioretention” shall include all costs for the work necessary to furnish, place, compact, grade, shape and mix Filtration Media for Bioretention.

6. “Curb Drain Opening and Concrete Spillway” per each.

The Bid item price for “Curb Drain Opening and Concrete Spillway” shall include all costs for the work required to construct the curb drain opening and concrete spillway in accordance with the Contract Documents.

7. “Concrete Presettling Cell” per each.

The Bid item price for “Concrete Presettling Cell” shall include all costs for the work required to construct the presettling cell in accordance with the Contract Documents.

8. “Concrete Channel” per each.

The Bid item price for “Concrete Channel” shall include all costs for the work required to construct the concrete channel in accordance with the Contract Documents.


The Bid item price for “Landscape Boulders” shall include all costs for the work required to furnish and install the landscape boulders in accordance with the Contract Documents.

10. “Pilot Infiltration Test” per each.

The Bid item price for “Pilot Infiltration Test” shall include all costs for the work required to perform the pilot infiltration test in accordance with the Contract Documents.

11. “Streambed Aggregate (Type)” per ton.

The Bid item price for “Streambed Aggregate” shall include all costs for the work required to furnish and install the streambed aggregate in accordance with the Contract Documents.

12. “Low Permeability Material” per ton.

The Bid item price for “Low Permeability Material” shall include all costs for the work required to install the “low permeability material” in accordance with the Contract Documents.

13. “Geosynthetic Liner” per square yard.

The Bid item price for “Geosynthetic Liner” shall include all costs for the work required to install the geosynthetic liner in accordance with the Contract Documents.

14. Other Payment Information.

Costs for excavation will be paid separately using the Bid item “Subtitle D Excavation, Loading, and Disposal” in accordance with Section 2-04.5.

Costs for a cleanout and a cleanout and observation port will be paid separately using the Bid items “Cleanout” and “Cleanout and Observation Port” in accordance with Section 7-19.5.
SECTION 7-23  FILTERRA CATCH BASIN (New Section)

7-23.1 DESCRIPTION

This Section describes work consisting of constructing Filterra Catch Basin (FTCB) in accordance with the Contract at locations indicated on the Drawings.

Work in trench excavations over 4 feet deep shall comply with Section 2-07 Protective Systems. The Filterra Catch Basin shall be supplied by

AMERICAST®
11352 Virginia Precast Rd
Ashland, VA 23005 (804/798-6068)

The Owner will not approve substitutions.

7-23.1(1) SUBMITTALS

Submit shop drawings for Filterra Catch Basin with filter cartridges and accessory equipment per Section 1-05.3. The shop drawings shall include principal dimensions, filter placement, location of piping, and unit foundation meeting the lines and grades of locations indicated on the Drawings.

Submit the Filterra Catch Basin Operation and Maintenance Manual per Section 1-05.3.

7-23.2 MATERIALS

7-23.2(1) INTERNAL COMPONENTS

The Contractor shall provide all internal components including concrete container, underdrain system, filter media, mulch, and underdrain stone, as specified on the Drawings, from the same manufacturer as the Filterra Catch Basin. The Filterra filter media shall be modified to include 10% Granular Activated Carbon by volume. Granular Activated Carbon shall meet the requirements of Section 9-14. Couplings shall meet the requirements of Section 7-17.3(2) F.

7-23.2(2) PLANT SELECTION

Planting selection shall consist of the Galaxy Magnolia species, per Filterra Plants for the Western Northwest Region (Hardy Zones 8-9) approved list. The contractor shall provide the plants for all Filterra units.

7-23.3 CONSTRUCTION REQUIREMENTS

The Contractor shall comply with the requirements for maintenance holes per Section 7-05.3(1) and the following:

1. Complete full landscaping, grass cover, final paving and street sweeping prior to allowing stormwater to enter the unit, to negate the chance of construction materials to contaminate the Filterra Catch Basin.
2. Take care during construction not to damage the protective throat and top plates.
3. Activation includes providing plant(s) and mulch layers as necessary.
4. Activation of the Filterra Catch Basin is performed only by the supplier.

7-23.4 MEASUREMENT

Measurement for the “Catch Basin, Filterra (Size), (Type)” will be per each.
7-23.5 PAYMENT

Compensation for the cost necessary to complete the work described in Section 7-23 shall be made at the Bid Item prices as follows:

1. “Catch Basin, Filterra (Size), (Type)”, per each

The Bid item price for “Catch Basin, Filterra (Size), (Type)” shall include all costs for the work required to furnish and install the Filterra unit complete and in place including excavation and backfill, outlet pipe to adjacent catch basin, fittings and couplings, vault, underdrain piping, underdrain, stone, filter media including Granular Activated Carbon, mulch, tree/shrub, tree grate, maintenance hole access cover and cast-in-place curb and swale.
DIVISION 8
MISCELLANEOUS CONSTRUCTION

SECTION 8-01 CONSTRUCTION STORMWATER POLLUTION PREVENTION

8-01.3 CONSTRUCTION REQUIREMENTS

8-01.3(1) GENERAL

Delete the first and second paragraphs and replace with the following:

Work involving construction stormwater pollution prevention within the City of Seattle limits shall comply
with this Section and Sections 1-05.13(3), 1-07.5, 1-07.15, and 1-07.35. Work involving erosion and
sedimentation control not within the City of Seattle limits (e.g., installation of stormwater outfall) shall also
comply with the requirements of King County. In the case of conflict, King County requirements will
prevail.

The substantive requirements of a National Pollutant Discharge Elimination System (NPDES)
construction stormwater general permit, including the Stormwater Pollution Prevention Plan (SWPPP) and
substantive local jurisdiction requirements shall be addressed in the Construction Stormwater and
Erosion Control Plan (CSECP) and the Temporary Discharge Plan (TDP).

8-01.3(2) CONSTRUCTION STORMWATER POLLUTION PREVENTION SUBMITTALS

8-01.3(2)C SPILL PLAN

Supplement this sixth paragraph with the following:

4. Excavating waterward of the ordinary high water mark (i.e., mean higher high water).

Supplement this Section with the following:

The Owner will monitor turbidity within the waterway during construction of the outfall. Turbidity within the
waterway near the outfall shall not exceed 5 nephelometric turbidity units (NTUs) above background at a
point 150 ft up-current of the outfall when background turbidity is 50 NTUs or less. If background turbidity
is greater than 50 NTUs, turbidity may not be increased by more than 10 percent above background.

In the event of a turbidity exceedance that is attributable to construction related activities, the Contractor
shall temporarily cease operations, modify operating procedures, and implement contingency best
management practices (BMPs) and controls, as necessary to achieve compliance. These BMPs shall
remain as the project standard for the duration of the project as long as the site circumstances are not
changed (e.g., type of construction activities, condition of the waterway, tidal influence, etc.).

8-01.3(2)D TEMPORARY DISCHARGE PLAN

Delete the third paragraph and replace with the following:

The TDP shall incorporate requirements limiting flow rate, quantity and quality of the proposed discharge,
record keeping and reporting to meet the following:

a. Substantive requirements of the NPDES construction general permit for discharge of
water related to construction of the new stormwater outfall. Refer to Section 1-07.5(2).
b. Requirements of the Owner’s King County Industrial Discharge Authorization for
discharge of water related to excavation, stormwater infrastructure, and restoration within
rights-of-way. Refer to Section 1-07.15(2).
c. The substantive requirements of any other applicable permits.
8-01.3(9)B ROAD STABILIZATION AND STABILIZED CONSTRUCTION ENTRANCE

Supplement this Section with the following:

The Contractor shall provide a stabilized construction access ramp from the public right-of-way to the new stormwater outfall. The ramp shall be removed and disposed at a Subtitle D landfill following completion of the outfall and stabilization of disturbed soil.

8-01.3(16) SWEEPING AND WASHING

Supplement this Section with the following:

All soil, debris, and other materials collected from sweeping shall be disposed in the same manner as Subtitle D Excavation. Wash water shall be collected, treated, and disposed as contact water to the combined sewer or shipped to an approved off-site disposal facility.

SECTION 8-01.4 MEASUREMENT

Supplement this Section with the following:

Measurement for "Construction Access Ramp – Permanent" will be by the lump sum.

SECTION 8-01.5 PAYMENT

Delete the sixth paragraph and replace with the following:

The Bid item price for Temporary Discharge Plan (TDP) shall also include all costs for the work required by the Water Treatment Project Plant Manager and Water Treatment Plant Operator and any other supporting staff as may be necessary. See Section 1-07.15(2)A for descriptions. In addition, the Bid item price shall include all work associated with Water Handling during Construction. See Section 1-07.15(2).

Supplement this Section with the following:


The Bid item price for “Construction Access Ramp -- Permanent” shall include all the costs to furnish and install the access ramp as indicated on the Drawings.

SECTION 8-02 LANDSCAPE CONSTRUCTION

8-02.3 CONSTRUCTION REQUIREMENTS

8-02.3(1) RESPONSIBILITY DURING CONSTRUCTION

8-02.3(1)A GENERAL

Supplement this Section the following:

After final grading but prior to landscaping, the Contractor shall coordinate with the Engineer to allow for the entry of a drill rig to install a foundation for a future artwork project. This foundation work will be accomplished by others (another contractor) and is separate from the work in this Contract. The Contractor shall assume this work by others will take five Working Days to accomplish and incorporate it into their schedule.
8-02.3(2)C  TOPSOIL TYPE B – (REUSED AND AMENDED SITE SOIL)

Delete this Section with No Replacement.

8-02.3(2)F  FUNGUS/MYCELIUM-ENHANCED SOIL (New Section)

See Drawings for the location and limits of the fungus/mycelium-enhanced soil. The Contractor shall incorporate arborist wood chips, other woody material, and mycorrhizal fungi inoculant into the bioretention soil medium at Bioretention Cell H2, Type 4.

Fungus/mycelium-enhanced soil shall be a 50/50 thoroughly blended mix of sandy loam soil in accordance with Section 9-14.1(4)A and arborist wood chip mulch in accordance with Section 9-14.4(5)A. There shall be no compost added to this blended mix. Total soil depth shall be 12 inches, applied in two, 6 inch deep lifts. Approved woody material such as sticks, branches, and small logs shall be applied to the top of each lift of fungus/mycelium-enhanced soil. Those small logs, sticks, and branches shall be no larger than 3 inches in diameter by 18 inches long and the woody material placed on the second lift at the finished surface shall be placed to achieve a natural appearance. Each lift shall be water-compacted by hand-irrigating the entire lift with a low-flowing application of water for not less 5 minutes and allowing the water to infiltrate or otherwise drain out of the cell and fungus/mycelium-enhanced soil before additional work in the cell is attempted.

Once the fungus/mycelium-enhanced soil and woody material have been placed, the Contractor shall plant the bioretention cell with specified plant materials and top the fungus/mycelium-enhanced soil and woody material with 3 inches of arborist wood chip mulch placed in and around the plant materials as indicated on the Drawings. After installation of fungus/mycelium-enhanced soil, woody material, plant materials, and finish mulch, the fungus/mycelium-enhanced soil shall then be inoculated with mycorrhizal inoculant in accordance with Section 9-14.4(11).

8-02.3(6)D  EMERGENTS (New Section)

Emergents shall be tubes or plugs of the species and size shown on the drawings. Planting holes for emergent plants shall be as shown on the drawings. All plastic, ties, and other container material shall be removed from the plant prior to planting. Backfill shall be gently tamped or compacted within the bioretention soil mix without voids around the roots, then covered with mulch, and watered immediately after planting.

8-02.3(18)D  EDGING, RECYCLED PLASTIC LUMBER (New Section)

The Contractor shall provide a 2” x 6” recycled plastic lumber edge between planting beds and seed areas as indicated on the Drawings.

Edging shall be secured as indicated on the Drawings.

The Contractor shall cut the edging to facilitate the shape of the planting bed edge and arrange the edging such that no individual timber length is less than 4 feet.

8-02.3(26)  BIKE RACK  (New Section)

The Contractor shall provide steel bike rack where shown in the Contract. Bike Rack shall be of the size, Material, and shape as indicated in the Contract.

Bike rack shall be surface mounted and anchored with stainless steel bolts to cement concrete as shown on the drawings. Bike rack shall be installed true to line and grade in a plumb position.

8-02.3(27)  HABITAT LOG (New Section)

The Contractor shall provide and install habitat logs as shown on the drawings. Habitat logs shall be as dimensioned on the drawings and of the species specified in 9-14.17. Engineer shall approve location of habitat logs prior to installation. Anchor logs as indicated on the Drawings.
8-02.3(28) HABITAT SNAG (New Section)

The Contractor shall provide and install habitat snags as shown on the drawings. Habitat snags shall be as dimensioned on the drawings and of the species specified in 9-14.17. Engineer shall approve location of habitat logs prior to installation. Anchor logs as indicated on the Drawings.

8-02.3(29) TREE IRRIGATION BAGS (New Section)

The Contractor shall provide and install tree water bags, with street trees. Tree water bag shall be made of green polyethylene with nylon webbing, black polypro straps and green nylon zippers. The water bag shall be UV stabilized to withstand exposure to sunlight.

A single bag shall fit a min. 1 inch to max. 4 inch caliper tree with branches at least 25” from the ground or higher. The opening for filling the bag shall fit a hose up to 3” diameter. The tree water bag shall have 2 water release points per bag. The water bag shall empty in approximately 5 to 9 hours.

**Installation of tree water bag:**
1. Place around tree trunk, with the zippers on uphill side of tree
2. Wrap both sides around trunk until zippers meet and zip together from bottom to top
3. Lift tag to expose fill opening at top of bag
4. Insert hose into fill opening and begin filling with water
5. Fill bag to 1/4 capacity
6. Gently lift up on straps at top of bag to expand bottom
7. Fill to desired level and let empty.

8-02.4 MEASUREMENT

Supplement this Section with the following:

Measurement for “Fungus/Mycelium Enhanced Soil” will be per square foot.

Measurement for “Emergent, Bottom Bioretention” will be per square foot.

Measurement for “Edging, Recycled Plastic Lumber” will be per linear foot and will be measured by the total length of panels installed in the field, measured parallel to the ground surface

Measurement for “Bike Rack” will be per each.

Measurement for “Habitat Log” will be per each.

Measurement for “Habitat Snag” will be per each.

Measurement for "Wildflower Seed" will be per square foot.

Measurement for “Tree Irrigation Bag” will be per each.

Measurement for “Bulbs” will be per each.

8-02.5 PAYMENT

Supplement item 19 with the following:

Costs for seed mix 1 will be paid separately using the Bid item “Construction Stormwater and Erosion Control Plan” in accordance with Section 8-01.5.
Supplement this Section with the following:

24. "Fungus/Mycelium Enhanced Soil", per square foot.

The Bid item price for "Fungus/Mycelium Enhanced Soil" shall include all costs for the work required to furnish and install the enhanced soil at locations indicated on the Drawings.

25. "Emergent, Bottom Bioretention", per square foot.

The Bid item price for "Emergent, Bottom Bioretention" shall include all costs for the work required to furnish, plant, fertilize, cultivate, mulch, stake, and maintain the size the emergent at locations indicated on the Drawings until the initial acceptance of the planting.


The Bid item price for "Edging, Recycled Plastic Lumber" shall include all costs for the work involved to install edging complete in place at locations indicated by the Engineer and as specified and as indicated on the Drawings.

25. "Bike Rack", per each.

The Bid item price for "Bike Rack" shall include all costs for the work required to furnish and install the specified bike rack, including the anchor bolts, as indicated on the Drawings.

26. "Habitat Log", per each.

The Bid item price for "Habitat Log (Type)" shall include all costs for the work required to furnish and install the habitat log as indicated on the Drawings.

27. "Habitat Snag", per each.

The Bid item price for "Habitat Snag" shall include all costs for the work required to furnish and install the habitat snag as indicated on the Drawings.

28. "Wildflower Seed", per square foot.

The Bid item price for "Wildflower Seed" shall include all costs for the work required to prepare the area, seed the area, and establish the area at wildflower seed locations indicated on the Drawings.

29. "Tree Irrigation Bag", per each.

The Bid item price for "Tree Irrigation Bag" shall include all costs for the work required to furnish, install, and re-fill the irrigation bags as specified until initial acceptance of the planting.

30. "Bulbs" per each.

The Bid item price for "Bulbs" shall include all the costs for the work required to furnish, plant, fertilize, cultivate, mulch, stake, and maintain the bulbs planted at locations indicated on the Drawings until the initial acceptance of the planting.

SECTION 8-03 IRRIGATION SYSTEM

8-03.2 MATERIALS

Supplement this Section with the following:

Yard hydrants per Section 9-15.7 (10)
8-03.3(6) INSTALLATION

Supplement this Section with the following:

Yard hydrants for irrigation water service shall be provided as indicated on the Drawings. Hydrants shall be installed plumb with concrete collar around pipe as shown on the Drawings. The Contractor shall install Schedule 80 PVC drainage nipple sized to match drain port as provided by the manufacturer. The nipple shall extend into the crushed rock.

SECTION 8-05 CELLULAR CONFINEMENT SYSTEM (New Section)

8-05.1 DESCRIPTION

This work shall consist of installing 6-inch and 8-inch nominal depth GEOWEB cellular confinement systems on the South Donovan Street slope from Station 20+25 to 24+49.

1. Tendons and GEOWEB anchor piles as specified in Section 6-12 shall be used to support the GEOWEB cellular confinement system on the slope from Station 20+25 to 21+53 and Station 22+85 to 24+49. The vertical extent of the cellular confinement system shall be from the bottom of the slope to the GEOWEB anchor pile waler as indicated on the Drawings.

2. ATRA Anchors shall be used to support the cellular confinement system on the slope from Station 21+53 to 22+85. The vertical extent of the cellular confinement system shall be from the bottom of the slope to the northern edge of the South Donovan Street east bound lane pavement as indicated on Drawings.

The Contractor shall evaluate site conditions including overhead utilities and soil and groundwater conditions. The Owner assumes that the work associated with the GEOWEB cellular confinement system indicated on the drawings can be performed within the height restrictions of the existing overhead utilities. If this is not possible the Owner will consider a change order to adjust the portions of the GEOWEB system supported by Tendons and Piles and ATRA Anchors.

8-05.2 MATERIALS

8-05.2(1) CELLULAR CONFINEMENT SYSTEM

The design was based on using GEOWEB with the listed performance requirements below, but the Owner may consider an approved equal.

Materials shall consist of GEOWEB® cellular confinement system components as presented below. Materials shall be furnished and installed per the manufacturer’s specifications, as indicated on the Drawings, and specified herein. Vendor contact information is:

Presto Geosystems, PO Box 2399, Appleton, Wisconsin 54912-2399.
Toll Free: (800) 548-3424. Phone: (920) 738-1328. Fax: (920) 738-1222.

1. GW30V perforated GEOWEB® cells shall have the following properties (Methods 1 & 2).
   A. Individual cells shall be uniform in size and shape when expanded.
   B. Cells shall be perforated with integral eye slots, as indicated on Drawings.
   C. Individual cell dimensions (nominal) shall be as follows.
      1) Length shall be 8.8 inches (224mm) ± 10%.
      2) Width shall be 10.2 inches (259 mm) ± 10%.
      3) Nominal area shall be 44.8 square inches (289 square centimeters) ± 1%.
   D. South Donovan Street Station 20+25 to 21+53: Nominal cell depth shall be 8 inches (200mm), as indicated on the Drawings.
   E. South Donovan Street Station 21+53 to 24+49: Nominal cell depth shall be 6 inches (150mm), as indicated on the Drawings.

2. Tendons shall have the following properties
   A. Material shall be bright, high-tenacity, industrial-continuous-filament, polyester yarn woven into a braid strap.
B. Elongation shall be 9 to 15 percent.
C. South Donovan Street Station 20+25 to 21+53: TP-93 Tendon with a minimum breaking strength of 2090lbf (9.30 KN).
D. South Donovan Street Station 22+85 to 24+49: TP-93 Tendon with a minimum break strength of 2090lbf (9.30 KN).

3. ATRA® Tendon Clips
   A. The ATRA Tendon clip is a molded, high-strength polyethylene devise with a locking member and post used to connect GW30V sections to tendons.

4. ATRA® Keys
   A. The ATRA Key shall be constructed of Polyethylene and provide a high-strength connection at GW30V interleaf and end-to-end connections.

5. ATRA® Stake Clips
   A. The ATRA Stake Clip is a molded, high-strength polyethylene devise available for standard 0.5 inch (No. 4) reinforcing bar. ATRA Stake Clips are installed as an end cap on standard reinforcing rods to form ATRA Anchors.

6. ATRA® Anchor for Tendon & GEOWEB pile supported system
   A. ATRA Anchors utilized by the Contractor to facilitate installation of the Tendon and GEOWEB pile supported system and are not used for permanent support of the GEOWEB system shall be as indicated in the approved Contractor’s GEOWEB Installation Plan Submittal 8-05.3(1).
   B. ATRA Anchors indicated in the Contractor’s GEOWEB Installation Plan Submittal 8.05.3(1) that will provide permanent support of the GEOWEB system shall meet the minimum requirements indicated in item 7 below for ATRA Anchors for ATRA Anchor supported system.

7. ATRA® Anchors for ATRA Anchor supported system
   A. The ATRA Anchors consist of an ATRA Stake Clip installed as an end cap on a standard 0.5 inch (no. 4) reinforcing bar.
   B. ATRA Anchor steel reinforcing bar lengths shall be a minimum of 36 inches as shown on the Drawings.
   C. ATRA Anchor steel reinforcing bars shall be hot dip galvanized in accordance with ASTM A767/767M, Class 2.

8-05.2(2) CELLULAR CONFINEMENT SYSTEM INFILL

Cellular confinement system infill shall consist of Topsoil Type A as specified in Section 9-14.1(1).

8-05.3 CONSTRUCTION REQUIREMENTS

8-05.3(1) SUBMITTALS

The Contractor shall submit four copies of a GEOWEB Installation Plan not less than 30 calendar days prior to the beginning of GEOWEB installation. This plan shall provide at least the following information:

1. An overall construction operation sequence and the sequence of GEOWEB, Tendon, Tendon Clip, and ATRA Anchor installation, as appropriate for the installation.
2. The plan shall address the connection of GEOWEB Tendons to the top of slope waler.
3. The plan shall address the installation of GEOWEB around existing surface features that could interfere with the installation of GEOWEB system including, but not limited to, power poles near Stations 21+52, 22+95, and 24+17, trees near Stations 22+95 and 23+13, and the sewer manhole near Station 22+79. The plan shall address the location of Tendons and ATRA Anchors, and end-to-end and side-to-side interleaf panel connections relative to the surface features. The plan shall include the use of additional anchorage including ATRA Anchors that may be needed to install GEOWEB around existing surface features per the Contractor’s submittal. If ATRA Anchors are used, the location and length of the anchors shall be specified.
4. Details of the method(s) to be used to place GEOWEB Infill.

Work shall not begin until the Engineer has approved the submittal.
8-05.3(2) EXAMINATION

The Contractor shall verify site conditions are as indicated on the Drawings. Notify the Engineer if site conditions are not acceptable. Do not begin preparation or installation until unacceptable conditions have been corrected.

The Contractor shall verify layout of structure is as indicated on the Drawings. Notify the Engineer if layout of structure is not acceptable. Do not begin preparation or installation until unacceptable conditions have been corrected.

8-05.3(3) DELIVERY, STORAGE, AND HANDLING

The Contractor shall deliver materials to site in Manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and Manufacturer.

The materials shall be stored in accordance with Manufacturer's instructions. The materials shall be protected from damage and out of direct sunlight.

The materials shall be delivered, unloaded and installed in a manner to prevent damage.

8-05.3(4) INSTALLATION OF CELLULAR CONFINEMENT SYSTEM

Prepare subgrade and install cellular confinement system in accordance with Manufacturer's recommendations and the Drawings.

On-site time for installation assistance by the Manufacturer's field representative shall be 2 day(s) with one trip. All travel and expense costs for Manufacturer's field representative installation assistance shall be included in the base bid price.

Sub Grade Preparation:

A. Excavate or fill foundation soils so top of installed section is flush with or slightly lower than adjacent terrain or final grade as indicated on the Drawings or as directed by the Engineer.

Section Anchorage (Tendon and GEOWEB Anchor Pile Support)

A. Anchorage requirements for the sections shall be as indicated on the Drawings and as directed by the Engineer.
   1) Position collapsed sections at the crest of the slope.

B. Anchorage with Tendons and Top of Slope Anchor System
   1) Preferred Method – Top of Slope Installation
      a. Position the collapsed sections at the crest of the slope.
      b. Measure and cut the tendon run lengths for each tendon location allowing extra length to connect to top of slope tendon anchor support system waler.
      c. Mark the tendons with a black permanent marker per the ATRA Tendon Clip locations indicated in the Plan.
      d. Thread the tendons through the unexpanded section.
      e. Starting from the first cell, count the number of cells to the next ATRA Tendon Clip location and repeat along that cell row.
      f. Repeat this procedure for each additional cell row Tendon/ATRA Tendon Clip run.
      g. With all the ATRA Tendon Clips placed in the section, thread the tendons through the I-slots in the unexpanded section.
      h. Locate the corresponding mark on the Tendon and position it in front of the cell wall. Hold the tendon and connect to the ATRA Tendon Clip. Refer to the Slope Installation Manual for ATRA Tendon Clip tie-off instructions.
      i. Repeat this process on each cell row Tendon/ATRA Tendon Clip run.
      j. Place the collapsed section tight to the top of slope tendon anchor support system waler and expand down the slope.
      k. Adjust the section (i.e. a shake or two of the expanded section works well for
(this) so that the section and tendons are uniformly taut.

l. Secure tendons to top of slope tendon anchorage system waler per Manufacturer’s Directions.
m. Terminate the bottom of the tendons with ATRA Tendon Clips.

2) Alternate Method – On Slope Installation
a. Position collapsed sections at the crest of the slope.
b. Feed precut lengths of specified tendon material through the I-slots in the cell walls before expanding individual sections into position. Number of tendons per section shall be per the Drawings. Leave the trailing length of the tendon on the upslope side of the section to allow for connection of the ATRA Tendon Clips.
c. Place the collapsed section tight against the top of slope tendon anchor support system waler and expand down the slope.
d. Install the ATRA Tendon Clips at the locations indicated on the Drawings.
e. Hold the tendon and attach to the ATRA Tendon Clips. Refer to the Slope Installation Manual for ATRA Tendon Clip tie-off instructions.
f. Adjust the section (i.e. a shake or two of the expanded section works well for this) so that the section and tendons are uniformly taut.
g. Secure tendons to top of slope tendon anchorage system waler per Manufacturer’s Directions.
h. Terminate the bottom of the tendons with ATRA Tendon Clips.

C. Tendon and ATRA Tendon Clip Locations
1) South Donovan Street Station 20+25 to 21+55: Install eight (8) TP-93 tendons per panel in cell numbers 1 through 8. Install ATRA Tendon Clips tied to Tendon at top of slope, every 6th cell down slope, and at bottom of slope.
2) South Donovan Street Station 21+50 to 24+49: Install six (6) TP-93 tendons per panel in cell numbers 1, 3, 4, 5, 6, and 8. Install ATRA Tendon Clips tied to Tendon at top of slope, every 6th cell down slope, and at bottom of slope.

Section Anchorage (ATRA Slope Anchor Support)

A. Anchorage requirements for the sections shall be as indicated on the Drawings and as directed by the Engineer.
B. ATRA Anchors shall be assembled by inserting the ATRA Stake Clip onto the reinforcing rod so that the end of the rod is flush with the top of the ATRA Anchor Clip. Prior to attaching the ATRA Anchor Clip, the end of the reinforcing bar shall be beveled and free from burrs.
C. Anchorage with ATRA Anchors
1) The collapsed section shall be positioned at the top of the slope.
2) ATRA Anchors shall be driven at the top of the slope to secure the sections in place against the north edge of the South Donovan Street Pavement and allow expansion of the sections into position on the slope.
3) After the sections are expanded as shown on the Drawings, ATRA Anchors shall be driven so the arm of the ATRA Stake Clip engages with the top of the cell wall.
4) Anchorage pattern shall be as shown on the Drawings.

Section Placement and Connection

A. Verify all sections are expanded uniformly to required dimensions and that outer cells of each section are correctly aligned. Interleaf or overlap edges of adjacent sections. Ensure upper surfaces of adjoining sections are flush at joint and adjoining cells are fully aligned at the cell wall slot.
B. Connect the sections with ATRA keys at each interleaf and end to end connection. Insert the ATRA key through the cell wall I-slot before inserting through the adjacent cell. Turn the ATRA key 90 degrees to lock the sections together.

Topsoil Infill Placement

A. Place Topsoil Type A as specified in Section 9-14.1(1) in expanded cells with suitable material handling equipment, such as a backhoe, front-end loader, conveyor, or crane-mounted skip.
B. Limit drop height to a maximum of 3 feet (1 m) to prevent panel distortion.
C. Fill sections from the crest of the slope to toe or in accordance with Engineer’s direction.
D. Infill material shall be free-flowing and not frozen when placed into the sections.
E. Evenly spread infill and tamp into place

8-05.4 MEASUREMENT

Bid items of Work completed pursuant to the Contract will be measured as provided in Section 1-09.1, Measurement of Quantities, unless otherwise provided for by individual measurement paragraphs herein this Section.

Measurement for "Cellular Confinement System, (Size), Tendon and Pile Supported" will be by the lump sum.

Measurement for "Cellular Confinement System, (Size), ATRA Anchor Supported" will be by the lump sum.

8-05.5 PAYMENT

Compensation for the cost necessary to complete the Work described in Section 8-05 will be made at the Bid item prices Bid only for the Bid items listed or referenced as follows:


The Bid item price for “Cellular Confinement System, (Size), Tendon and Pile Supported” shall include all costs for the work required to furnish and install as indicated on the Drawings and the Contractor’s GEOWEB Installation Plan, including but not limited to, GEOWEB panels, anchors, tendons, clips, reinforcing bars, and topsoil type A.

2. "Cellular Confinement System, (Size), ATRA Anchor Supported", per lump sum.

The Bid item price for “Cellular Confinement System, (Size), ATRA Anchor Supported” shall include all costs for the work required to furnish and install as indicated on the Drawings and the Contractor’s GEOWEB Installation Plan, including but not limited to, GEOWEB panels, anchors, clips, reinforcing bars, and topsoil type A.

SECTION 8-11 GUARDRAIL

8-11.4 MEASUREMENT

Supplement this Section with the following:

Measurement of “Guardrail, W-Beam, Type 31, with 11 FT Posts” will be by the linear foot measured along the line of the completed guardrail.

Measurement for “Guardrail, W-Beam, Type 31, Non-flared Terminal” will be per each and include all posts, blocks, and reflectorized markers.

8-11.5 PAYMENT

Supplement this Section with the following:

9. “Guardrail, W-Beam, Type 31, with 11 FT Posts”, per linear foot.

The Bid item price for “Guardrail, W-Beam, Type 31, with 11 FT Posts” shall include all costs for the work to furnish and install the guardrail complete in-place to include all posts, blocks, and splices.
10. “Guardrail, W-Beam, Type 31, Non-flared Terminal”, per each.

The Bid item price “Guardrail, W-Beam, Type 31, Non-flared Terminal” shall include all costs associated with the work required to furnish and install the guardrail terminal to include posts, blocks, and reflectorized markers.

SECTION 8-12 CHAIN LINK FENCE AND WIRE FENCE

8-12.1 DESCRIPTION (2-08-13)

Replace this Section with the following:

This Work shall consist of furnishing and constructing chain link fence and wire fence of the types specified in accordance with the Contract, in conformity with the Standard Plans 450a, 450b, and 450c; and at the locations, lines, and grades as indicated on Drawings or as established by the Engineer.

SECTION 8-14 CEMENT CONCRETE SIDEWALK

8-14.3 CONSTRUCTION REQUIREMENTS

8-14.3(6) THROUGH AND CONTRACTION JOINTS (2-08-13)

Replace the third through last Paragraphs with the following:

Through joints as indicated in the Standard Plans shall be 3/8-inch thick premolded joint filler. The joint filler width shall be cut to a width equal to the full depth of the concrete sidewalk plus 1/2-inch. When installed, the premolded joint filler shall be placed with top edge 1/8-inch below the finished surface of the concrete in a plane perpendicular to the surface and with the bottom edge embedded in the subgrade. All joints shall be in straight alignment, except where placed in curved locations as required by the Drawings.

Construction joints for sidewalks shall conform to the applicable requirements for through joints. Construction joints formed by placing a header board transversely across the subgrade shall be made at the end of each Day’s paving or when placing of concrete is discontinued for more than 45 minutes. The header board shall be located to conform to the spacing for the joints and shall be left in place until the placing is resumed. The header shall have a strip of premolded joint filler imbedded against the hardened concrete when paving is resumed.

8-14.3(7) CURB RAMP

8-14.3(7)A GENERAL (2-08-13)

Delete the 6th paragraph “Concrete for curb ramps…” and replace with the following:

Concrete for curb ramps shall not be overlaid or topped. The adjacent sidewalk “V” groove scoring pattern shall not extend into the ramp or sideway surfaces. The subgrade for curb ramps shall be graded and formed to provide a minimum concrete depth of 6 inches adjacent to the curb and tapering to a minimum depth of 3 1/2 inches at the back terminus.

8-14.3(7)C STANDARD CURB RAMP (2-08-13)

Delete the 4th paragraph “the course textured surface…” and replace with the following:

All curb ramp surfaces shall be brush finished parallel to the curb with the exception of the ramps for curb ramp no. 422b, which shall be brush finished perpendicular to the curb.
SECTION 8-15 RIPRAP

8-15.3(6) QUARRY SPALLS

Delete this Section and replace with the following:

The Contractor shall place quarry spalls in the locations indicated on the Drawings and in accordance with the Section 9-13.7, or as directed by the Engineer. The Contractor shall compact the quarry spalls in a manner approved by the Engineer.

SECTION 8-17 RESERVED

Delete this Title and Section and replace with the following:

8-17 SUPPORT WALL  (New Section)

Section 8-17 describes work consisting of constructing Portland cement or hydraulic cement concrete support walls at locations and in conformity with the lines, grades indicated on the Drawings.

8-17.2 MATERIALS

Materials shall meet the requirements of the following Sections:

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 4000 Cement Concrete</td>
<td>6-02</td>
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<tr>
<td>Mineral Aggregate</td>
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<tr>
<td>Reinforcing Steel</td>
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<tr>
<td>Geotextile</td>
<td>9-37</td>
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</tbody>
</table>

8-17.3 CONSTRUCTION REQUIREMENTS

8-17.3A SUPPORT WALL

Where indicated on the Drawings, the Contractor shall construct the support wall as indicated on Standard Plan No. 800.

After removal of forms, all lips and edgings shall be removed. Bolts or concrete ties shall be removed and the holes filled with 1:2 mortar and floated to an even uniform surface. If in the opinion of the Engineer an acceptable surface has been obtained, no further finishing shall be done. If, however, the surface is unacceptable, these surfaces shall be thoroughly washed with water and a 1:1 mortar applied with brush and completely worked into the small air holes and other crevices. After initial set, the surface shall be rubbed with a damp sack.

8-17.4 MEASUREMENT

Bid items of Work completed pursuant to the Contract will be measured as provided in Section 1-09.1 unless otherwise provided for herein.

Measurement for "Wall, Cement Concrete, Support, Type 800" will be per cubic yard of concrete based on the neat lines indicated on Standard Plan No. 800.
8-17.5 PAYMENT

Payment will be made in accordance with Section 1-04.1, for each of the following Bid items that are included in the Proposal:

1. “Wall, Cement Concrete, Support, Type 800”, per cubic yard.

The Bid item price for “Wall, Cement Concrete, Support, Type 800” shall include all costs for the work required to construct the wall as indicated on Standard Plan no. 800. Payment for disposal of materials, backfill, geotextile, and for reinforcing steel (including steel extending into pavement slab) for the support wall shall be considered incidental to this Bid item.

Costs for excavation will be paid separately using the Bid item “Subtitle D Excavation, Loading, and Disposal” in accordance with Section 2-04.5.
DIVISION 9
MATERIALS

SECTION 9-00 DEFINITIONS AND TESTS

9-00.8 ANALYTICAL CHEMISTRY (New Section)

The Contractor shall perform chemical testing for specific analytes in accordance with the analytical methods identified in Table 1-07.34-1. All analytical testing shall comply with the procedures described in Section 1-07.34(3).

SECTION 9-02 BITUMINOUS MATERIAL

9-02.1 ASPHALT MATERIAL

9-02.1(9) COAL TAR PITCH EMULSION (2-08-13)

Delete Section 9-02.1(9) in its entirety and replace with:

9-02.1(9) RESERVED

SECTION 9-03 AGGREGATES

9-03.3 STREAMBED AGGREGATE

9-03.3(2) GRADATIONS

Supplement this Section the following:

The size categories for landscape boulders shall be as follows:

<table>
<thead>
<tr>
<th>Size</th>
<th>Approx. Weight</th>
<th>Min. Approx. Dimensions</th>
<th>Approx. Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-man rock</td>
<td>900-1200 lbs.</td>
<td>16 inches</td>
<td>6.6 cf</td>
</tr>
<tr>
<td>Four-man rock</td>
<td>1300-2000 lbs.</td>
<td>18 inches</td>
<td>12.5 cf</td>
</tr>
<tr>
<td>Five-man rock</td>
<td>2000-4000 lbs.</td>
<td>24 inches</td>
<td>18.5 cf</td>
</tr>
<tr>
<td>Six-man rock</td>
<td>4100-6000 lbs.</td>
<td>30 inches</td>
<td>31 cf</td>
</tr>
</tbody>
</table>

9-03.9 AGGREGATES FOR BALLAST AND CRUSHED SURFACING

9-03.9(3) CRUSHED SURFACING

Delete Section Title and content and replace with the following:

9-03.9(3) CRUSHED ROCK (2-08-13)

Except as otherwise specified in the remainder of this Section, crushed rock shall be manufactured from ledge rock or talus and shall meet the grading, sand equivalent, and L. A. Abrasion requirements of Section 9-03.16 for Mineral Aggregate Type 1, Type 2, and Type 3.

Crushed rock shall have a Degradation Value of not less than 25 when tested in accordance with WSDOT Test Method T 113.

Crushed rock shall be a totally crushed Material with no naturally occurring faces and shall apply to Material retained on each sieve size No. 10 and above if that sieve retains more than 5 percent of the total sample. Crushed rock material retained on a No. 4 sieve shall contain not more than 0.15 percent by weight of wood waste.
9-03.19 BENTONITE SOIL MIXTURE (New Section)

9-03.19(1) GENERAL REQUIREMENTS (New Section)

The bentonite-soil mixture shall consist of a mixture of soil, bentonite, and water.

The soil shall meet the requirements of Section 9-03.12(5) for pit run sand, with the exception that the percent passing the #200 sieve shall be 5-10.

The bentonite shall be a natural, high swelling, free flowing, sodium montmorillonite bentonite, conforming to the most current edition of API Standard 13A. A copy of the test results from the bentonite manufacturer and a certificate of compliance stating that the bentonite complies with applicable standards shall be submitted to the Engineer.

Water shall conform to the requirements of Section 9-25.1. Heavily chlorinated water shall be avoided.

The bentonite-soil mixture blend shall be 10 percent bentonite to soil by dry weight. The blended material shall be mixed to achieve a relatively homogeneous bentonite-soil mixture, free from large lumps or pockets of fines, sand or gravel. The soil shall be reasonably dry at the time the bentonite is applied. Moisture content shall be checked per ASTM D 4959, ASTM D 4643, or ASTM D 2216. Soils having a moisture content which is wet of optimum shall be dried prior to bentonite application.

9-03.19(2) REFERENCES (New Section)

American Petroleum Institute (API)
- API STANDARD 13A Specifications for Oil-Well Drilling-Fluid Materials.

American Society of Testing and Materials (ASTM)
- ASTM D 2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D 4643 Standard Test Method for Determination of Water (Moisture) Content of Soil by Microwave Oven Heating
- ASTM D 4959 Standard Test Method for Determination of Water (Moisture) Content of Soil by Direct Heating

SECTION 9-05 STORM DRAIN AND SANITARY SEWER STRUCTURES, CULVERTS, AND CONDUITS

9-05.5(6) HIGH DENSITY POLYETHYLENE PIPING (New Section)

9-05.5(6)A GENERAL (New Section)

High density polyethylene (HDPE) stormwater piping shall conform to the requirements of AWWA C906. HDPE pipe shall be PE 3608 per ASTM F 412, shall conform to ASTM D 3350 with a Cell Classification of Class PE345434C, and shall be made to the dimensions and tolerances in ASTM F 714.

HDPE pipe material shall be listed by the Plastic Pipe Institute (PPI) in PPI TR-4 with a 73.4 degrees F hydrostatic design basis of 1,600 psi and a 140 degree F hydrostatic design basis of 800 psi. The PPI listing shall be in the name of the pipe manufacturer and shall be based on ASTM D 2837.

HDPE pipe shall have a nominal Ductile Iron Pipe Size (DIPS) outside diameter unless otherwise specified. The ratio of the outside diameter of the pipe to the thickness of the pipe wall is the Dimension Ratio (DR). HDPE pipe outside diameter shall be as indicated on the Drawings and be DR17 unless otherwise noted on the Drawings.

All HDPE pipe delivered and used shall be certified through the PPI Third Party Certification program and shall bear the Third Party Administered PPI seal. The Contractor shall submit product data for pipe,
fittings, and appurtenances in accordance with Section 2-13.1(2) Submittals. The Contractor shall submit Manufacture’s Certificates certifying that materials meet or exceed specified requirements. Marking on the pipe shall be in accordance with ASTM 714. HDPE pipe sections shall be joined by means of zero leak-rate butt fusion in accordance with ASTM F 2620 and as recommended by the pipe manufacturer. Pipe sections shall be minimum 40-foot lengths. Contractor shall submit a current certification for HDPE fusing for each individual designated to perform pipe fusing procedures on this project.

9-05.5(6)B REFERENCES (New Section)

The following list of publications form a part of this specification. The publications are referred to in the text by basic designation only. The most recent version of the reference applies.

American Water Works Association (AWWA):
- AWWA C 906 High Density Polyethylene (HDPE) Pressure Pipe and Fittings

American Society of Testing and Materials (ASTM):
- ASTM D 2837 Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials or Pressure Design Basis for Thermoplastic Pipe Products
- ASTM D 3350 Polyethylene Plastics Pipe and Fittings Materials
- ASTM F 412 Standard Terminology Relating to Plastic Piping Systems
- ASTM F 714 Standard Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter
- ASTM F 2620 Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings

Plastic Pipe Institute (PPI):
- PPI TR-4

SECTION 9-10 PILES

9-10.5 STEEL PILES

Delete this Section and replace with the following:

The material for steel piles and pile splices shall conform to ASTM A 36 or ASTM A 992, except the material for steel pipe piles and splices shall conform to the requirements of ASTM A 252, Grade 2. Steel soldier piles, and associated steel bars and plates, shall conform to ASTM A 36 or ASTM A 992, except as otherwise noted on the Drawings. All steel piles may be accepted by the Engineer based on the Manufacturer’s Certification of Compliance.

SECTION 9-14 EROSION AND LANDSCAPE MATERIALS

9-14.1 SOILS

9-14.1(1) TOPSOIL TYPE A – IMPORTED

Supplement this Section with the following:

Topsoil Type A shall meet the analytical testing requirements provided in Section 1-07.34(3).

9-14.1(2) TOPSOIL TYPE B – REUSED AMENDED SITE SOIL

Delete this Section with no Replacement.

9-14.1(3) BIORETENTION SOIL (09-19-13)

Delete this Section in its entirety and replace with the following:

1. **Procurement.** For Project Sites located within the City limits of Seattle; the Contractor shall
procure bioretention soil Materials from only approved sources as specified by the City of Seattle, City Purchasing and Contracting Services (http://www.seattle.gov/contracting/construction.htm).

2. **Mix Components.** Bioretention Soil shall be a well-blended mixture of Mineral Aggregate and compost measured on a volume basis. Bioretention Soil shall consist of approximately two parts fine compost (approximately 35 to 40 percent) by volume meeting the requirements of Section 9-14.4(9) and three parts Mineral Aggregate (approximately 60 to 65 percent), by volume meeting the requirements of Section 9-03.2(2). The mixture shall be well blended to produce a homogeneous mix, and have an organic matter content of 4% to 8% determined using the Loss on Ignition Method.

3. Bioretention soil shall meet the analytical testing requirements provided in Section 1-07.34(3).

### 9-14.1(4) PLANTING SOIL AND TURF AREA SOIL

#### 9-14.1(4)A PLANTING SOIL

Delete this Section and replace with the following:

1. **Mix.** Planting soil shall consist of a mix of 2 to 3 parts sandy loam and 1 part compost by volume. The resulting mix shall contain approximately 8-15% organic matter by weight, tested by loss on ignition method.

2. **Sandy Loam.** Shall be imported and shall be as defined by the U.S. Department of Agriculture Classification System and documented by particle size analysis performed by an accredited laboratory. The sandy loam fraction of mix shall be screened through a ½ inch mesh to remove rocks, plant parts, and other debris.

3. **Compost.** Compost used shall meet the definition of Compost in 9-14.4(8).

4. **Contaminants.** Sandy loam shall be free from: Material toxic to plant growth; visible seeds, rhizomes, or roots for any King County-listed noxious weeds or invasive root-propagating plants including, but not limited to horsetail, ivy, clematis, knotweed, etc.
   - a. Planting soil shall meet the analytical testing requirements provided in Sections 1-07.34(3) and this section.


#### 9-14.1(4)B TURF AREA SOIL

Delete this Section and replace with the following:

Turf Area Soil shall consist of 2 parts sand meeting the requirements below and 1 part compost by volume. The resulting mix shall contain approximately 4-6% organic matter by weight, test by loss on ignition testing.

1. Sand shall meet the following particle distribution.

<table>
<thead>
<tr>
<th>Screen Size</th>
<th>Percent retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8-inch</td>
<td>0</td>
</tr>
<tr>
<td>#4</td>
<td>&lt;3%</td>
</tr>
<tr>
<td>#6</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>#10</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>#18</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>#20</td>
<td></td>
</tr>
<tr>
<td>#30</td>
<td>25-50%</td>
</tr>
<tr>
<td>#35</td>
<td></td>
</tr>
<tr>
<td>#40</td>
<td>&gt;20%</td>
</tr>
<tr>
<td>#60</td>
<td></td>
</tr>
<tr>
<td>#100</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>
2. Compost shall meet the definition of Compost in 9-14.4(8) and be certified in compliance with the U.S. Composting Council STA program.

3. Testing and submittals shall comply with all provisions of 9-14.1

4. Turf Area Soil shall not contain any viable seeds or roots capable of sprouting of any King County-listed noxious weeds or invasive root-propagating plants including, but not limited to horsetail, ivy, clematis, knotweed. Soil found to contain these prohibited viable plant materials shall be removed and replaced at the Contractor’s expense.

Turf Area Soil shall meet the analytical testing requirements provided in Section 1-07.34(3).

9-14.1(5) FILTRATION MEDIA FOR BIORETENTION (New Section)

Filtration Media for Bioretention as specified for this project shall conform closely to the following mix percent by dry volume:

<table>
<thead>
<tr>
<th>Component</th>
<th>Mix Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhyolite sand</td>
<td>50%</td>
</tr>
<tr>
<td>Zeolite</td>
<td>30%</td>
</tr>
<tr>
<td>Granular activated carbon (GAC)</td>
<td>20%</td>
</tr>
</tbody>
</table>

* Pre-wash GAC prior to bringing onsite.

Mixed Media shall meet the following specifications:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total porosity</td>
<td>35-55%</td>
</tr>
<tr>
<td>Air-filled porosity</td>
<td>15-30%</td>
</tr>
<tr>
<td>Capillary porosity</td>
<td>15-25%</td>
</tr>
<tr>
<td>Saturated hydraulic conductivity</td>
<td>30 in/hr</td>
</tr>
</tbody>
</table>

Rhyolite Sand shall be free of stones, stumps, roots or other similar objects larger than 2 millimeters. Gradation shall be per ASTM D422:

<table>
<thead>
<tr>
<th>Nominal Sieve Opening (mm)</th>
<th>Standard Sieve Size</th>
<th>Percent Passing (by dry weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>#10</td>
<td>97-100%</td>
</tr>
<tr>
<td>1</td>
<td>#18</td>
<td>90-100%</td>
</tr>
<tr>
<td>0.25</td>
<td>#60</td>
<td>10-30%</td>
</tr>
<tr>
<td>0.149</td>
<td>#100</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>0.074</td>
<td>#200</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

Rhyolite sand shall be supplied by Golf Sands Inc, Las Vegas, Nevada; Organitec (div of International Biologics, Inc), Tempe, Arizona; or approved equal.

Zeolite shall meet the following specifications:

1. Free of stones, stumps, roots or other similar objects larger than 5 millimeters.
2. Clinoptilolite content: >75%
3. Cation exchange capacity (CEC): >=1 meq/gram (as ammonium-N)
4. 14 x 40 grain size distribution (standard sieve size)
5. Zeolite shall be supplied by Bear River Zeolite (a subsidiary of United States Antimony), Preston, Idaho; Organitec (div of International Biologics, Inc), Tempe, Arizona; or approved equal.

Granular Activated Carbon shall meet the following specifications:

1. Free of stones, stumps, roots or other similar objects larger than 5 millimeters.
2. Cation exchange capacity (CEC): >= 1 meq/gram (as ammonium-N)
3. 8 x 20 grain size distribution (standard sieve size)
4. Granular Activated Carbon shall be supplied by Manufacturers Minerals, Renton, WA; Organitec (div of International Biologics, Inc), Tempe, Arizona; or approved equal.

9-14.2 SEED

Supplement this Section with the following:

The Contractor shall protect seeded areas in the biofiltration swale from stormwater flows until vegetation is established.

9-14.4 MULCHES AND AMENDMENTS

9-14.4(5) ARBORIST WOOD CHIP MULCH (09-19-13)

Delete this Section in its entirety and replace with the following:

1. **Procurement.** For Project Sites located within the City limits of Seattle; the Contractor shall procure arborist wood chip mulch Materials from only approved sources as specified by the City of Seattle, City Purchasing and Contracting Services (http://www.seattle.gov/contracting/construction.htm).

2. **Quality.** Arborist Wood Chip Mulch (AWCM) shall be coarse ground wood chips (approximately 1/2" to 6" along the longest dimension) derived from the mechanical grinding or shredding of the above-ground portions of trees. It may contain wood, wood fiber, bark, branches, and leaves; but may not contain visible amounts of soil. It shall be free of weeds and weed seeds including but not limited to plants on the King County Noxious Weed list available at: www.kingcounty.gov/weeds, and shall be free of invasive plant portions capable of resprouting, including but not limited to horsetail, ivy, clematis, knotweed, etc. It may not contain more than 1/2% by weight of manufactured inert material (plastic, concrete, ceramics, metal, etc.).

3. **Gradation.** Arborist Wood Chip Mulch, when tested, shall meet the following loose volume gradation:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot;</td>
<td>Minimum 95</td>
</tr>
<tr>
<td>1&quot;</td>
<td>Minimum 70</td>
</tr>
<tr>
<td>5/8</td>
<td>Minimum 0</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>Minimum 0</td>
</tr>
</tbody>
</table>

No particles may be longer than eight inches.

4. **Submittals.** At the Engineer’s request, prior to delivery the Contractor shall provide the following:
   a. The source of the product and species of trees included in it;
   b. A sieve analysis verifying the product meets the above size gradation requirement;
   c. A 5 gallon sample of the product, for the Engineer’s approval.

9-14.4(9) COMPOSTED MATERIAL

Delete this Section in its entirety and replace with the following:

1. **Procurement.** For Project Sites located within the City limits of Seattle; the Contractor shall procure compost Materials from only approved sources as specified by the City of Seattle, City Purchasing and Contracting Services (http://www.seattle.gov/contracting/construction.htm).

2. **Quality.** Compost production and quality shall comply with Chapter 173-350 WAC, and meet the criteria below:

3. **Regulatory Standards.** Compost products shall be the result of the biological degradation and transformation of feedstocks as specified below, under controlled conditions designed to promote aerobic decomposition, per WAC 173-350-220, which is available at http://www.ecy.wa.gov/programs/swfa/compost
4. **Submittals.** The Contractor shall submit the following information to the Engineer for approval:
   a. A copy of the Solid Waste Handling Permit issued to the supplier by the Jurisdictional Health Department as per WAC 173-350 (Minimum Functional Standards for Solid Waste Handling).
   b. The Supplier shall verify in writing, and provide lab analyses that the Materials comply with the processes, testing, and standards specified in WAC 173-350 and these Specifications. An independent STA Program certified laboratory shall perform the analysis.
   c. A list of the feedstock by percentage present in the final compost product.
   d. A copy of the producer's current STA certification as issued by the U.S. Composting Council.
   e. Acceptance shall be based upon a satisfactory Test Report from an independent STA program certified laboratory and the sample(s) submitted to the Engineer.

5. **Testing Requirements.** The compost Supplier shall test all compost products within 90 Calendar Days prior to application, at the Suppliers expense. Samples shall be collected using the Seal of Testing Assurance (STA) sample collection protocol, available from the U.S. Composting Council, Phone: 631-737-4931, www.compostingcouncil.org. The sample shall be tested by an independent STA Program certified laboratory. A copy of the approved independent STA Program laboratory test report shall be submitted to the Engineer prior to initial application of the compost.

6. **Gradation.** Compost shall meet the following size gradations when tested in accordance with the U.S. Composting Council “Testing Methods for the Examination of Compost and Composting” (TMECC) Test Method 02.02-B, “Sample Sieving for Aggregate Size Classification”:
   a. **Fine Compost.** Fine Compost, typically used for soil amendment, shall meet the following gradation by dry weight:
      
      | Grade          | Min. | Max. |
      |----------------|------|------|
      | Percent passing 2" | 100% |      |
      | Percent passing 1" | 99%  | 100% |
      | Percent passing 5/8" | 90%  | 100% |
      | Percent passing 1/4" | 75%  | 100% |
   
   b. **Coarse Compost.** Coarse Compost, typically used for erosion control or surface mulching, shall meet the following gradation by dry weight:
      
      | Grade          | Min. | Max. |
      |----------------|------|------|
      | Percent passing 3" | 100% |      |
      | Percent passing 1" | 90%  | 100% |
      | Percent passing 3/4" | 70%  | 100% |
      | Percent passing 1/4" | 40%  | 60%  |

7. **pH.** The pH shall be between 6.0 and 8.5 when tested in accordance with TMECC 04.11-A; “1:5 Slurry pH”.

8. **Physical Contaminants.** Manufactured inert material (concrete, ceramics, metal, etc.) shall be less than 1.0 percent by weight as determined by TMECC 03.08-A "percent dry weight basis". Film plastics shall be 0.1% or less, by dry weight.

9. **Organic Content.** Minimum organic matter content shall be 40 percent by dry weight basis as determined by TMECC 05.07A; “Loss-On-Ignition Organic Matter Method”.

10. **Salinity.** Soluble salt contents shall be less than 5.0 mmhos/cm tested in accordance with TMECC 04.10-A; “1:5 Slurry Method, Mass Basis”.

11. **Maturity.** Maturity shall be greater than 80% in accordance with TMECC 05.05-A; “Germination and Vigor”. The Engineer may also evaluate compost for maturity using the Solvita Compost Maturity Test at time of delivery. Fine Compost shall score a number 6 or above on the Solvita Compost Maturity Test. Coarse Compost shall score a 5 or above on the Solvita Compost Maturity Test.

12. **Stability.** Stability shall be 7 or below in accordance with TMECC 05.08-B; “Carbon Dioxide Evolution Rate”.

13. **Feedstocks.** The compost product shall contain a minimum of 65 percent by volume from recycled plant waste as defined in WAC 173-350-100 as “Yard waste”, “Crop residues”, and “bulking agents”. A maximum of 35 percent by volume of post-consumer food waste as defined in WAC 173-350-100 may be substituted for recycled plant waste. A minimum of 10% food waste in compost is required. The Engineer may approve compost products containing up to 35%
biosolids or manure feedstocks for specific projects or soil blends, but these feedstocks are not allowed unless specified, and not allowed in compost used for bioretention soils.

14. **C:N.** Fine Compost shall have a carbon to nitrogen ratio of less than 25:1 as determined using TMECC 04.01 “Total Carbon” and TMECC 04.02D; “Total Kjeldhal Nitrogen”. The Engineer may specify a C:N ratio up to 35:1 for projects where the plants selected are entirely Puget Sound native species. Compost may be mixed with fir or hemlock bark meeting requirements of 9-14.4(3) to raise the C:N ratio above 25:1. Coarse Compost shall have a carbon to nitrogen ratio between 20:1 and 45:1.

**9-14.4(10) TESTING (New Section)**

All imported mulches and compost materials shall meet the analytic testing requirements provided in Section 1-07.34(3).

**9-14.4(11) MYCORRHIZA INOCULANT (New Section)**

All plants shall receive mycorrhizal inoculant, as described below.

Container plant material: The Contractor shall supplement all new container plant materials at time of planting, with a mycorrhiza inoculant. The mycorrhiza inoculant shall be mixed per the manufacturer’s recommendation, and applied prior to removing plants from their containers. Each container shall be flooded with the mycorrhiza inoculant solution to achieve a saturated root and soil mass.

Ball and Burlap plant material: The Contractor shall supplement all new ball and burlap (B&B) plant materials with a mycorrhiza inoculant. The mycorrhiza inoculant shall be mixed per the manufacturer's recommendation, and applied at the time of planting. The mycorrhizal solution shall be applied directly to the planting pit of each B&B plant. Just prior to backfilling, the Contractor shall spray or pour the solution directly on to the root ball to achieve a saturated root and soil mass.

In addition, the Contractor shall apply mycorrhizal inoculant as a soil drench to the fungus/mycelium-enhanced cell, Bioretention Cell H2 Type 4. The Contractor shall blend the mycorrhizal inoculant with clean water as per the manufacturer’s recommendation and apply it as a soil drench after all containerized and B&B plant materials have been installed in the bioretention cell and the 3-inch layer of arborist wood chip mulch has been applied. All areas with fungus/mycelium-enhanced soil shall be so treated to achieve the manufacturers recommend rate of application (volume or weight per unit of area). If the manufacturer does not provide a recommended rate of application, then the inoculant solution shall be applied as a soil drench to all areas of fungus/mycelium-enhanced soil to achieve a saturated root and soil mass within the bioretention cell.

Sources for mycorrhizal inoculant in order of general preference:
1. Mycogrow® Soluble Mycorrhizae (Item #HMSO1P from Fungi Perfecti)
2. MycoApply® Soluble Maxx® (from Mychorrhizal Applications, Inc.)
3. MYKE PRO NURSERY® WP – Mycorrhizal inoculant®
4. Bio-organics – Mycorrhizal Landscape Inoculant®
5. Or approved equal.

**9-14.11(A) EDGING, RECYCLED PLASTIC LUMBER (New Section)**

The Contractor shall provide a 2” x 6” recycled plastic lumber to edge between planting beds and seed areas as indicated on the Drawings. Color: Brown, as approved by the Engineer.

Approved sources:
1. Maxituf – as manufactured by Resco Plastics.
2. Select Force – as manufactured by Bedford technology and supplied by Structural Srchader Co. Sales LLC
3. Approved equal.
9-14.18 HABITAT FEATURES (New Section)

The Contractor shall provide Habitat Logs and Habitat Snags in non-motorized improvement areas and riparian zones where indicated on the Drawings. The Habitat Logs and Habitat Snags shall be fir, cedar or spruce as required, with bark intact. Trees removed as part of the project may be reused for Habitat Logs, as approved by the Engineer.

Habitat Logs shall be anchored as indicated on the Drawings. Habitat Snags shall be installed as indicated on the Drawings.

9-14.19 BIKE RACK (New Section)

Steel bike rack shall be surface mount of the size and dimensions indicated in the Contract.

Approved sources:
1. Urban Staple Rack (SDOT approved) – as manufactured by Urban Racks
2. Hoop Rack - as manufactured by American Bicycle Security Company
3. U Bike Rack – as manufactured by Madrax
4. Approved equal.

SECTION 9-15 IRRIGATION SYSTEM

9-15.12 GROUND HYDRANT (New Section)

Ground hydrants shall be 150 psi, brass mechanism with galvanized casing and casing guard, type ¾-inch inlet and ¾-inch hose connection, non-freeze, flush at grade installation with cover units where indicated on Drawings.

Approved sources:
1. Wade
2. Smith
3. Woodford
4. Zurn
5. MIFAB
6. Approved equal
Archaeological Monitoring and Inadvertent Discovery Plan for Phase 2, Adjacent Streets and Stormwater, Lower Duwamish Waterway Superfund Site, Terminal 117 Early Action Area, City of Seattle, King County, Washington

Submitted to:
Seattle City Light

Submitted by:
Historical Research Associates, Inc.
Lynn Compas, MA, RPA
Jennifer Gilpin, MA
Sylvia Tarman, BA

Seattle, Washington
December 2013
This report was prepared by HRA Principal Investigator Lynn Compas, MA, RPA, and Project Archaeologist Jennifer Gilpin, MA, who meet the Secretary of the Interior’s professional qualification standards for archaeology, and by Sylvia Tarman, B.A. This report is intended for the exclusive use of the Client and its representatives. It contains the procedures to follow for archaeological monitoring during ground disturbing activities, as well as procedures to follow regarding inadvertent discovery of cultural resources and human remains. It should not be considered to constitute project clearance with regard to the treatment of cultural resources or permission to proceed with the project described in lieu of review by the appropriate reviewing or permitting agency. This plan should be submitted to the appropriate state and local review agencies for their comments prior to the commencement of the project.
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1. Introduction

The Terminal 117 (T-117) site is an early action area (EAA) within the Lower Duwamish Waterway (LDW) Superfund site in Seattle, Washington. The City of Seattle (City) is conducting, under U.S. Environmental Protection Agency (EPA) oversight, a non-time critical removal action (NTCRA) to address contaminants of concern in the Adjacent Streets near the T-117 site. Historical Research Associates, Inc. (HRA), was contracted by Seattle City Light (SCL) to provide an archaeological monitoring plan and inadvertent discovery plan (IDP) for the Adjacent Streets and Stormwater, Lower Duwamish Waterway Superfund Site, T-117 EAA Project (Project), Phase 2 of the Termination Cleanup Project.

The Project is situated in Township 24 North, Range 4 East, Sections 37 and 42, Willamette Meridian, in the South Park Community of Seattle, in King County, Washington (Figure 1-1). This document is intended to serve as the monitoring plan and IDP for the Project. HRA recommends archaeological monitoring take place starting close to the interface between fill sediments and native alluvium or glacial till within the project area. If alluvium is encountered, archaeological monitoring should continue until the depth of excavation, due to the potential for buried archaeological materials. If glacial till is encountered directly below fill, the archaeologist should monitor to within a few feet below the interface.

Monitoring should occur in most if not all portions of the project area, as examination of geotechnical reports for the project area (Section 3.1) indicate that the depths of fill do not generally exceed the proposed excavation depths.

1.1 Project Description

During this Phase of the project, the City is proposing to remove and dispose of contaminated soils within the project area, which includes portions of 16th Avenue South, 17th Avenue South, Dallas Avenue South, and South Donovan Street. The City will install new utility infrastructure in these rights of way (ROWs), including new permanent stormwater infrastructure, bioretention utilities, filterra treatments units, and drainage basins. The City will also construct a new stormwater outfall pipe crossing the Port of Seattle’s property northeast from Dallas Avenue South. Excavation depths will range from 0.5 foot below surface (ftbs) in southern portions of the project area to at least 6 ftbs in northern and eastern portions of the project area (Integral Consulting 2013).
Figure 1-1. Project Area location map.
Figure 1-2. Project Area showing the location of proposed utility infrastructure.
1.2 Regulatory Context

Although the project is required to comply with a host of Washington State and Federal environmental laws, the project is being performed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The EPA, Region 10, serves as the lead agency. Therefore, the procedures herein are meant to comply with applicable Federal and State laws and regulations, particularly 36 CFR 800.13 of regulations implementing the National Historic Preservation Act of 1966, as amended; Title 27; the Native American Graves Protection and Repatriation Act (25 USV 2001 et seq. 43 CFR Pt. 10); and Revised Code of Washington (RCW) state laws, particularly RCW 27.44 regarding Indian Graves and Records.

1.3 Project Area

The project area is generally bounded by Dallas Avenue South to the north and east, South Donovan Street on the south, and 14th Avenue South on the west, but is more specifically defined as the ROWs of the streets shown in Figure 1-2 and the location of the proposed outfall pipe, which crosses unpaved Port of Seattle land.
2. Background Research

2.1 Research Methods and Materials Reviewed

HRA Research Archaeologist Sylvia Tarman conducted an archival record search for the project on December 2, 2013. Ms. Tarman searched the Department of Archaeology and Historic Preservation’s (DAHP) online database, the Washington Information System for Architectural and Archaeological Records Data (WISAARD), for archaeological site records, cultural resource survey reports, cemetery records, and for National Register of Historic Places (NRHP) and Washington Heritage Register (WHR) resources. The statewide predictive model also available on WISAARD was reviewed in order to assess the probability of archaeological resources within the project area.

HRA’s in-house library was used to obtain information on the environmental, archaeological, and historical context of the project area. Nineteenth-century maps from the United States Surveyor General (USSG) were reviewed for historic structures, sites, and features existing within the project area. These General Land Office (GLO) maps are available online at the U.S. Department of the Interior’s Bureau of Land Management website. Early twentieth century maps created by the Metsker Map Company, Kroll Map Company, and Sanborn Fire Insurance Company were also reviewed.

2.2 Previous Cultural Resources Studies

One cultural resource assessment has been conducted within the project area (Table 2-1); in 2011, Cultural Resource Consultants, Inc. (CRC), conducted a cultural resource assessment ahead of proposed sediment removal at the T-117 Early Action Area (Berger 2011). CRC’s project area was located directly north and northeast of Dallas Avenue, adjacent to the current project area, and its western extent encompasses the proposed outfall pipe. Contamination precluded subsurface survey, so CRC’s archaeologist walked pedestrian transects to conduct survey. No archaeological materials were identified, and no aboveground resources were recorded. CRC recommended subsurface investigations prior to construction, noting that this could take the form of test trenches or geotechnical borings monitored by an archaeologist (Berger 2011:15–17).

Seventeen additional cultural resource studies have been conducted within 1 mile (mi) of the project area (Table 2-1). Many of the cultural resource studies closest to the APE have been conducted in conjunction with rehabilitation activities on the South Park Bridge. HRA (2004) conducted an assessment of various possible rehabilitation activities and their impacts, and also identified...
numerous historic properties that could be affected by construction activities. In 2008, sites 45KI815, 45KI816, and 45KI817 were identified by a cultural resources survey conducted ahead of the South Park Bridge demolition project (ENTRIX and BOAS 2008).

Monitoring activities have occurred at the South Park Bridge in 2001, following an earthquake that required testing of the structural integrity of the bridge (Roedel and Larson 2001), and again in 2012, in the vicinity of 45KI815, where project activities exposed previously excavated shell middens (Minichillo 2012). HRA conducted testing and data recovery at Site 45KI815 as part of the South Park Bridge replacement project (Schultze et al. 2013; Silverman et al. 2010).

Other studies conducted near the APE include projects related to the historic Georgetown District and Georgetown Steamplant (Krafft and Wickwire 1997; Sullivan 2009; Zuccotti et al. 2008, 2012). Roedel et al. (2001), BOLA (2012), and Cooper (2013a) conducted studies on Boeing property that included documentation of numerous historic properties and Site 45KI1142. The remainder of the projects conducted in the project vicinity include a cell tower investigation (Cole 2001), archaeological monitoring of excavations for construction of a parking lot along the Duwamish River (Gilpin 2006), a cultural resource assessment for a traffic improvement project (Foutch et al. 2009), and a wharf replacement project (Kelley 2012).

Table 2-1. Previous Cultural Resources Studies within Approximately 1 mi of the Project Area.

<table>
<thead>
<tr>
<th>NADB #</th>
<th>Reference</th>
<th>Title</th>
<th>Within Project area</th>
<th>Distance to Project area</th>
<th>Identified Cultural Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1350146</td>
<td>Krafft and Wickwire 97</td>
<td>Historic Survey Property Report: Georgetown (Seattle, Washington), King County, Washington</td>
<td>No</td>
<td>~ 0.9 mi NNW of project area</td>
<td>Historic Georgetown District</td>
</tr>
<tr>
<td>1339898</td>
<td>Cole 2001</td>
<td>Heritage Resources Investigation of the South Park Cell #41982 Tower, King County, Washington</td>
<td>No</td>
<td>~ 0.5 mi SW of project area</td>
<td>None</td>
</tr>
<tr>
<td>1339904</td>
<td>Roedel 2001</td>
<td>Letter to Rhonda Straub Regarding Archaeological Resources Monitoring for the South Park Bridge Project, King County, Washington</td>
<td>No</td>
<td>&gt; 100 ft N of project area</td>
<td>Historic debris</td>
</tr>
<tr>
<td>1681071</td>
<td>Roedel et al. 2001</td>
<td>Draft Boeing Field Runway Safety Area Compliance Archaeological Resources and Traditional Cultural Places Assessment, King County, Washington</td>
<td>No</td>
<td>~ 1 mi N of project area</td>
<td>None</td>
</tr>
<tr>
<td>NADB #</td>
<td>Reference</td>
<td>Title</td>
<td>Within Project area</td>
<td>Distance to Project area</td>
<td>Identified Cultural Resources</td>
</tr>
<tr>
<td>--------</td>
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</tr>
<tr>
<td>134408</td>
<td>HRA 2004</td>
<td><em>South Park Bridge Project Cultural and Historical Resources Technical Report and Appendices, King County, Washington</em></td>
<td>No</td>
<td>&gt; 0.1 mi N of project area</td>
<td>Numerous historic buildings</td>
</tr>
<tr>
<td>1348322</td>
<td>Gilpin 2006</td>
<td><em>Archaeological Monitoring at 9229 E. Marginal Way, Tukwila, King County, Washington</em></td>
<td>No</td>
<td>~ 0.7 mi SE of project area</td>
<td>Historic debris</td>
</tr>
<tr>
<td>1351645</td>
<td>ENTRIX and BOAS 2008</td>
<td><em>Cultural Resources Surveys for the South Park Bridge Project. Final Cultural Resources Section 106 Technical Report</em></td>
<td>No</td>
<td>&lt; 400 ft NW of project area</td>
<td>45KI815, 45KI816, and 45KI817</td>
</tr>
<tr>
<td>1352098</td>
<td>Zuccotti et al. 2008</td>
<td><em>Cultural Resources Section 106 Technical Report Georgetown Steam Plant Flume Project – DAHP Log No. 030408 – EPA Slip 4 Early Action Area, Lower Duwamish Waterway Superfund Site, Seattle, King County, Washington</em></td>
<td>No</td>
<td>~ 0.9 mi NNW of project area</td>
<td>3 historic buildings</td>
</tr>
<tr>
<td>1353867</td>
<td>Fouth et al. 2009</td>
<td><em>Cultural Resources Study for the SR 99 Intelligent Transportation System Improvement Project, King County, Washington</em></td>
<td>No</td>
<td>~ 0.5 mi S of project area</td>
<td>1 historic overpass</td>
</tr>
<tr>
<td>1352347</td>
<td>Sullivan 2009</td>
<td><em>Georgetown Phase One Homes King County Sound Insulation Program Cultural Resource Survey Report, King County, Washington</em></td>
<td>No</td>
<td>~ 1 mi NW of project area</td>
<td>Numerous historic structures</td>
</tr>
<tr>
<td>No NADB</td>
<td>Silverman et al. 2010</td>
<td><em>45KI815 Archaeological Testing, South Park Bridge Replacement Project, FHWA Federal Aid Number DBP 1491(001), King County, Washington</em></td>
<td>No</td>
<td>&lt; 500 ft NW of project area</td>
<td>Tested shell midden at 45KI815; shell, faunal remains, bone and stone tools</td>
</tr>
<tr>
<td>1684300</td>
<td>Berger 2011</td>
<td><em>Cultural Resources Assessment of the Lower Duwamish Waterway Superfund Site Terminal</em></td>
<td>Yes</td>
<td>Within and adjacent to north portion of project area</td>
<td>No archaeological sites or register-eligible aboveground resources</td>
</tr>
<tr>
<td>NADB #</td>
<td>Reference</td>
<td>Title</td>
<td>Within Project area</td>
<td>Distance to Project area</td>
<td>Identified Cultural Resources</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>1682897</td>
<td>BOLA 2012</td>
<td>Historical Documentation King County International Airport/Boeing Field Seattle, King County, Washington</td>
<td>No</td>
<td>~ 0.4 mi NE of project area</td>
<td>Numerous historic structures</td>
</tr>
<tr>
<td>1682725</td>
<td>Kelley 2012</td>
<td>Cultural Resources Assessment for the Seattle Iron &amp; Metals Wharf Project, King County, Washington</td>
<td>No</td>
<td>~ 0.9 mi NW of project area</td>
<td>None</td>
</tr>
<tr>
<td>1682043</td>
<td>Minichillo 2012</td>
<td>Monitoring Memo 45KI815, South Park Bridge Project, King County, Washington</td>
<td>No</td>
<td>&gt; 100 ft NNW of project area</td>
<td>Re-exposed shell midden at 45KI815</td>
</tr>
<tr>
<td>1682021</td>
<td>Zuccotti et al. 2012</td>
<td>Results of Archaeological Monitoring for the Integral/Seattle City Light Georgetown Steam Plant Remediation Project, Seattle, King County, Washington</td>
<td>No</td>
<td>~ 1 mi N of the project area</td>
<td>Historic debris, historic architectural features</td>
</tr>
<tr>
<td>1683973</td>
<td>Cooper 2013</td>
<td>Archaeological Monitoring Program Synopsis Construction Season 1: Duwamish Sediment Other Area and Southwest Bank Corrective Measure and Habitat Project Boeing Plant 2, Seattle/Tukwila, King County, Washington</td>
<td>No</td>
<td>~ 0.5 mi NW of the project area</td>
<td>Historic wooden wagon wheel (45KI1142)</td>
</tr>
<tr>
<td>No</td>
<td>Schultze et al. 2013</td>
<td>45KI815 Archaeological Data Recovery, South Park Bridge Replacement Project, King County, Washington</td>
<td>No</td>
<td>&lt; 500 ft NW of project area</td>
<td>Data recovery on shell midden site at 45KI815; shell, faunal remains, bone and stone tools</td>
</tr>
</tbody>
</table>

### 2.3 Archaeological Sites

There are no previously recorded archaeological sites recorded within the project area; however, there are six recorded sites within approximately 1 mi of the project area. Sites 45KI815, 45KI816, and 45KI817 are in close proximity to the monitoring area, and include intact subsurface cultural materials, the upper levels of which were observed at 50 cm (45KI815), 24 cm (5KI816), and at 190 cm (5KI817) below ground surface. Precontact materials include shell middens, fire-modified rock (FMR), charcoal, and mammal, bird, and fish bone (Blukis Onat 2007a, 2007b, 2007c). Only Site
45KI815 has been deemed eligible for listing on the National Register, but this site is located within a few blocks northwest of the project area.

Site 45KI538 is the remnants of the Columbia and Puget Sound Railroad, which includes many extant structures (trestles, tunnels, etc.) and 7.5 mi of abandoned grade that was turned into a pedestrian trail (Hudson 1996). Site 45KI1142 is an isolated wooden wagon wheel discovered during dredging of the Duwamish River (Cooper 2013b). Site 45KI1149 consists of two rows of pilings that stretch along the edge of the Duwamish Waterway that was most likely a training/dike structure (Storey 2013).

Table 2-2. Archaeological Sites within Approximately 1 mi of the Project Area.

<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
<th>Site Type</th>
<th>Cultural Materials</th>
<th>NRHP Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>45KI538</td>
<td>~ 0.8 mi E of project area</td>
<td>Historic Railroad Properties</td>
<td>Columbia and Puget Sound Railroad remnants</td>
<td>Not Evaluated</td>
</tr>
<tr>
<td>45KI815</td>
<td>&lt; 400 ft NW of project area</td>
<td>Pre-Contact Shell Midden</td>
<td>Shell midden, FMR, charcoal, and bone</td>
<td>Eligible (NRHP and WHR)</td>
</tr>
<tr>
<td>45KI816</td>
<td>&lt; 900 ft NW of project area</td>
<td>Pre-Contact Camp, Pre-Contact Shell Midden</td>
<td>Shell midden, FMR, charcoal, and bone</td>
<td>Not Evaluated</td>
</tr>
<tr>
<td>45KI817</td>
<td>&lt; 900 ft NW of project area</td>
<td>Pre-Contact Camp</td>
<td>Charcoal, burned bone</td>
<td>Not Evaluated</td>
</tr>
<tr>
<td>45KI1142</td>
<td>~ 0.5 mi NW of project area</td>
<td>Historic Object</td>
<td>Wooden wagon wheel</td>
<td>Not Evaluated</td>
</tr>
<tr>
<td>45KI1149</td>
<td>~ 0.8 mi SE of project area</td>
<td>Historic Water Structures</td>
<td>Long row of wooden pilings</td>
<td>Not Evaluated</td>
</tr>
</tbody>
</table>
2.4 Historic Buildings, Structures and Objects

No historic period buildings, structure, and objects (BSOs) have been identified in the project area. Since the impacts of this project are entirely below the surface, there would be no impacts to architectural features adjacent to the project area; therefore, a record search was not conducted for BSOs adjacent to the area.

2.5 Historic-Period Maps

2.5.1 General Land Office Plats, United States Geological Survey Quadrangles

Nineteenth and twentieth-century plats compiled by the USSG (1863) and quadrangles compiled by the United States Geological Survey (USGS 1894, 1949), were reviewed for historic-period structures and buildings. No structures or features—other than roadways—were noted on the plats within the project area. Various structures in the vicinity of the project are noted in the South Park area on the 1894 quad, and the 1949 quad shows the Duwamish Waterway in its current configuration with various structures noted within the project area.

2.5.2 Atlases of King County, Washington

HRA examined the King County Atlases prepared by the Anderson, Kroll, and Metsker Map Companies (Anderson 1907; Kroll 1912, 1926; Metsker 1936). These maps show historic period development in the vicinity of the project area through increasingly divided plots, with different owners through time. Few features are shown to indicate the potential for subsurface remains in the project area, however. The 1912 and 1926 Kroll Maps show a roadway running along the west bank of the Duwamish River prior to its channelization, and by 1936 the Duwamish Waterway is only shown in its straightened course (Kroll 1912, 1926; Metsker 1936).

2.5.3 Sanborn Fire Insurance Maps (Sanborns)

Late nineteenth and early twentieth century Sanborn Fire Insurance Maps (Sanborns) were reviewed for historic-period resources in the project area. By the 1917 map, the road system is in place in the project area (Sanborn 1917). The 1917 and 1929 Sanborn maps show numerous residential structures, as well as oil tanks, houseboats, and the Duwamish Asphalt Manufacturing Co. dispersed along the western edge of the Duwamish Waterway; most of these features are outside of the project area (the road ROWs). However, on Sheet 1255 of the 1929 Sanborn, there is a small, one-story reinforced concrete two-roomed structure depicted in the approximate route of the proposed outfall pipeline (Sanborn 1929–1950). This structure is no longer extant.
2.6 Cemeteries

A monument and urn, containing the ashes of Jacob and Samuel Maple, stands on the Donation Land Claim at the entry to the Boeing Plant Administration Building (approx. 0.7 mi northeast of the project area). The cremated remains lie beneath a marker placed by their descendants in 1950 (DAHP 2013). No historic period cemeteries lie within or adjacent to the project area.

2.7 Ethnographic Period Native American Place-Names

The project area is in the traditional territory of the Duwamish and Snohomish subgroup of the Southern Coast Salish. The Southern Coast Salish was composed of two language groups, the Twana and the Lushootseed (further subdivided into Northern and Southern groups). The Duwamish and Snohomish are part of the Southern Lushootseed dialect group followed the general Southern Coast Salish subsistence and settlement pattern (Suttles and Lane 1990:486).

Several place names have been recorded in the close vicinity of the project area. Just northwest of the South Park Bridge (and probably within 0.1 mi of the project area), ethnographer T.T. Waterman recorded the place name h(ø)gʷalb meaning “abandoned” – this is the site of a former river channel and is in the close vicinity of archaeological sites 45KI815, 45KI816, and 45KI817. Another ethnographic place name located in the near vicinity of the project area isxʷapitcał, meaning “where one throws something,” for a wide flat near the head of the old river channel. This location is likely close to the northwest portion of the project area. A little farther west of the project area lays qiyawa'lapseł, meaning “eel’s throat,” for a place where there are three symmetrical knolls on an extensive flat on the west side of the river in South Park (ENTRIX and BOAS 2008:20-23; Hilbert et al. 2001:119-121).

Across the river from the project area was Xo'bxobti or “canoe paddles,” named as such because ash trees supplying the wood for paddles grew here. It is a flat on the east bank of the river. The location gʷaxʷaltxʷ (Lushootseed orthography) is the name for a small creek that entered the river and translated as “string house” or “untie the house.” It was perhaps located within 0.5 to 1 mi south of the project area (ENTRIX and BOAS 2008:20-23; Hilbert et al. 2001:127).

2.8 DAHP Predictive Model

DAHP’s predictive model is based on statewide information, using large-scale factors. Information on geology, soils, site types, and landforms, along with GLO maps, were used to establish or predict probabilities for prehistoric cultural resources throughout the state. DAHP’s model uses five categories for the predictions: Low Risk, Moderately Low Risk, Moderate Risk, High Risk, and Very
High Risk. The majority of the project area is categorized as High Risk, with a small area at the south edge of the project area categorized as Moderately Low Risk.
3. Environmental and Cultural Settings

Human land-use patterns would have been affected over time by environmental factors such as topography, climate, geology, fauna, and flora. The following sections provide a summary of the environmental and cultural background for the project vicinity. They present resources that could have been available during prehistoric and ethnographic times to groups traveling through, residing in, or using the project vicinity. This overview is intentionally brief, as several cultural resources reports have been written for the area and provide more detail on these topics. For more information the reader is referred to the following reports:

- *Cultural Resources Assessment of the Lower Duwamish Waterway Superfund Site Terminal* (Berger 2011)
- *45KI815 Archaeological Data Recovery, South Park Bridge Replacement Project, King County, Washington* (Schultze et al. 2013)
- *45KI815 Archaeological Testing, South Park Bridge Replacement Project, FHWA Federal Aid Number DBP 1491 (001), King County, Washington* (Silverman et al. 2010)
- *Final Cultural Resources Section 106 Technical Report, Cultural Resources Survey for the South Park Bridge Project* (Demuth et al. 2008)
- *Cultural Resources Study for the SR 99 Intelligent Transportation System Improvements Project* (Foutch et al. 2009)
- *South Park Bridge Project Cultural and Historical Resources Technical Report* (HRA 2004)

3.1 Topography and Geology

The project is situated within the Puget Trough physiographic province. The province extends south from the Canadian border to the confluence of the Willamette River and the Columbia River, and is bounded on the east by the Cascade Range, on the west by the Olympic Mountains, and by the Willamette Valley on the south (Franklin and Dyrness 1973; Troost and Stein 1995). A gently rolling terrain with elevations within 525 ft above mean sea level characterizes the Puget Trough.

Several episodes of ice sheet advances and retreats occurred during the Late Pleistocene, with the Vashon Stade of the Fraser Glaciation being the latest. The Cordilleran Ice Sheet covered Puget Sound approximately 14,000 years ago, carving and scouring the topography during advances and retreats. Glacial outwash materials consisting of porous gravels and sands, and hard till with pockets...
of silt and clay were deposited as the ice retreated (Booth et al. 2004; Franklin and Dyrness 1973). Floodwaters from the melting ice also influenced the landscape. The glacial activity caused large depressions in the topography of Puget Sound, which later formed bays, inlets, and fjords as the ice melted and sea levels rose (McKee 1972).

More specifically, the Project is located on the West Seattle Peninsula, within the Seattle Fault Zone (Baum et al. 2008:Plate 1). The project vicinity would have been affected by the episodes of glacial advance and retreat, and changes in sea level due to melting ice and isostatic rebound. Such factors have direct and significant implications for the existence, preservation, and visibility of archaeological remains within the Project (Whittaker and Stein 1992).

Specific soils mapped in the project vicinity include Vashon subglacial till, which is composed of very dense deposits of compact silt, sand, and subrounded and well-rounded gravel. Such materials were transported by glaciers and redeposited under the ice sheet. Vashon subglacial till is typically found on undulating, elongated surfaces, which are the product of glacial scouring (Baum et al. 2008:21).

Recent geotechnical investigation of the project area and vicinity indicate that the project area is covered with between 2 inches and almost 8 ft of fill, consisting of sand with silt and silty sands with varying amounts of gravel (Gibson and Clark 2013:4; ZGA 2013). Fill often contains “trace organics and debris,” the latter including “brick, metal, and asphalt materials” (Gibson and Clark 2013:4). This debris is potentially historic-period cultural material, but is likely to have been redeposited during the filling episodes. Fill containing such artifacts tended to be observed in the eastern and northern portions of the project area (Gibson and Clark 2013:Figure 1, Figures 3 through 12).

Fill sediments typically overlie alluvial deposits in the north and east portions of the project area. Alluvium consists of moist silty fine sands and fine sandy silts, underlain by black, fine to medium sands and extends to depths of 6.5 to 10 ft below surface, and in a few geotechnical test units overlies glacial till (dense, moist silty sand with gravel) (Gibson and Glark 2013:4–5). On South Donovan Street, at the southern edge of the project area, glacial till or till-like deposits more directly underlie the fill, and in turn overlie “Blakely formation” sediments which are pre-glacial sandstone and siltstone deposits (ZGA 2013:3–4).

3.2 Flora and Fauna

Following glacial retreat and the uplifting of landforms around Puget Sound and the Cascades, the newly exposed glacial sediments were likely barren of vegetation. Rapidly, between approximately 13,000 and 12,000 years ago, a much cooler and drier climate fostered and supported an ecosystem characterized by lodgepole pine (Pinus contorta), sedges (Cyperaceae sp.), sage (Artemisia), and a variety of grasses and herbs. After 12,000 years ago, the climate warmed while continuing to dry, and
Douglas fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), and red alder (*Alnus rubra*) joined the developing parkland forest. During this time, terrestrial mega-fauna, black-tailed deer (*Odocoileus hemionus*), and elk (or wapati, *Cervus elephus*) would have browsed on grasses, shrubs, and herbs in the newly emerging forest parkland. This warm, dry period lasted from approximately 12,000 to 7,000 years ago, with relatively high summer temperatures and more frequent summer droughts than in modern times. The Douglas fir and western hemlock would have altered the amount of light that breached the forest canopy, reducing foliage in the understory and opening up the forest more generally. Prairies were also more common due to drier climatic conditions (Barnosky et al. 1987; Brubaker 1991; Whitlock 1992).

By around 6,000 years ago, the climate of the region had cooled and moistened to levels comparable to today’s maritime regime, producing the current western hemlock vegetation zone. During the mid-1800s, prior to extensive Euroamerican settlement, Floodplain Forest communities dominated South Park’s landscape. Red alder and Oregon ash (*Fraxinus latifolia*) growth prevailed along the Duwamish Valley’s mainstem floodplain, though the habitat was diverse (Collins and Sheikh 2005:52–69). Western redcedar (*Thuja plicata*) and Douglas fir grew in abundance throughout the bottomlands. The main understory plants in wetland or riverine environments included horsetail (*Equisetum* sp.), salmonberry (*Rubus spectabilis*), bull rushes (*Scirpus* sp.), salal (*Gaultheria shallon*), and rose (*Rosa* sp.). Camas (*Camassia quamash*), wapato (*Sagittaria lancifolia*), and a host of edible berries were available in the upper Duwamish drainage prior to the 1900s, and all the tree species were used by the indigenous population (Collins and Sheikh 2005:22–27; ENTRIX and BOAS 2008:15; Franklin and Dyrness 1973; Suttles and Lane 1990:489).

Larger terrestrial mammals roaming the vicinity of the testing location would have included elk, deer, black bear (*Ursus americanus*), coyote (*Canis latrans*), and mountain lion (cougar, *Felis concolor*). Smaller mammals would have included snowshoe hare (*Lepus americanus*), red fox (*Vulpes vulpes*), and weasel (*Mustela frenata*) (Campbell 1981:42; Krukeberg 1991; Larrison 1967). Lacustrine and riverine faunal resources included beaver (*Castor canadensis*), otter (*Lutra canadensis*), and muskrat (*Ondatra zibethica*). Freshwater fish, such as trout, whitefish, and eels, were netted or fished (Campbell 1981). Important aquatic mammals included the harbor seal (*Phoca vitulina*), river otter (*Lutra sp.*), and as many as twenty species of waterfowl (HRA 2004:49; Suttles and Lane 1990).

3.3 Prehistory

The landscape of the Pacific Northwest may have been available for human occupation by approximately 14,000 years ago, after the retreat of the continental glaciers. New radiocarbon and DNA analysis from the Manis Mastodon Site (45CA218, located on the Olympic Peninsula in northwestern Washington) dates pre-Clovis occupation to 13,800 years ago, one of the oldest archaeological sites in North America (Waters et al. 2011:351). Although a bone point fragment was found in faunal remains at Site 45CA218, early sites typically consist of low density lithic scatters, believed to represent campsite or foraging areas. Highly acidic soils in the Puget Sound region commonly decompose softer materials such as bone, antler, shell, and other organics. More dense material like lithics tend to be preserved (Nelson 1990:481). As a result, the archaeological record for early sites is sparse, making it difficult to recreate the timeline for human land use patterns. Nevertheless, several cultural chronologies have been compiled for the region. Ames and Maschner (1999) have perhaps the most comprehensive chronology.

Ames and Maschner’s cultural chronology indicates changes are based on technological advances and the increase in sedentism (1999:57–112). Their chronology is divided into five periods: Paleo-Indian, Archaic, Early Pacific, Middle Pacific, and Late Pacific.

Over time, changes in settlement patterns included the use of semi-subterranean pithouses in semi-permanent and permanent village sites, indicating an increase in sedentism (Nelson 1990:483). Use of a variety of microenvironments in different locations throughout the year encouraged the development of the seasonal round, with an emphasis on fishing, hunting, and gathering plants and other materials. Ames and Maschner (1999:25) suggest this is indicative of the emergence of a complex hunter-gather economy, a transitional time from the foraging economy in the Paleo-Indian phase.

Overall increasing social and cultural traits, such as intensification of resources, innovations in technology, permanent winter village sites, and social stratification, occurred (Ames and Maschner 1999:87). These factors continued throughout the Late Prehistoric and the Ethnographic Periods.

3.4 Ethnography and Ethnographic Land Use

The project vicinity is within the aboriginal territory of the Duwamish tribe, a subgroup of the Southern Coast Salish (Spier 1936; Suttles and Lane 1990:486–487). The Southern Coast Salish was composed of two language groups, Twana and Lushootseed (further subdivided into Northern and Southern groups). The Duwamish were part of the Southern Lushootseed dialect group (Suttles and Lane 1990:486). The Duwamish followed the general Southern Coast Salish subsistence and settlement pattern, and had villages along Lake Washington, and the Duwamish, Cedar, and Black
Rivers (Suttles and Lane 1990:488). Duwamish territory extended to the confluence of the White and Green Rivers (Swanton 1952).

The seasonal round developed around terrestrial, marine, and riverine environments (Haeberlin and Gunther 1930). Salmon and shellfish were a dietary staple for Southern Coast Salish groups (Thrash 2007:237–238). Semi-permanent and permanent winter villages were located along water courses, many near key fishing locations. Dwellings in the villages consisted of cedar plank longhouses designed to hold multiple families (Haeberlin and Gunther 1930). Temporary dwellings made from poles and covered with mats were used at campsites. Seasonal camps were utilized during the spring, summer, and fall to obtain specialized resources in a variety of locations, such as berry gathering and hunting at inland locations. Waterfowl and other birds were also utilized, especially during spring and fall migrations (Thrash 2007:237). Ethnographic place name are discussed in Section 2.7 and indicate a deep-seated knowledge of the local landforms, tied to day to day and spiritual activities.

In 1855, members of the Duwamish and neighboring Puget Sound tribes signed the Treaty of Point Elliott, which provided for the removal of tribal members to reservations. The Duwamish, along with neighboring groups from the Green and White Rivers, were ordered to move onto the Port Madison Reservation, along with the Suquamish (Lane 1975:3–4). Many Duwamish remained on the Black River, several miles southeast of the project area, in defiance of government orders and were present as late as 1874; however, they had been removed by the early 1900s (Lewarch et al. 1996:3-13). The Duwamish Indian Tribe petitioned for federal recognition in 1979. In 2001, the federal government rejected the petition, reversing the decision of the previous administration to recognize the tribe. The Duwamish Indian community continues to pursue recognition, build their community, and maintain their traditions (Ruby and Brown 1992).

### 3.5 Historic Period Non-Native Settlement

Settlement of the South Park area by non-native people began in 1851. The area quickly grew to be an agricultural community composed largely of Japanese and Italian farmers, who eventually supplied produce to Pike Place Market (Wilma 2001). The settlement’s first post office was established in 1892 at the corner of Donovan and Dallas; however, South Park did not remain as its own township for long, as it was annexed by the City of Seattle in 1907 (Lange 1998; Wilma 2001). General Land Office Plat maps from 1862 and 1863 also show this area as being claimed by land owners such as George Holt, Augustus Hograve, and Eli Maple (USSG 1862, 1863). These men are commonly recognized as being among the first Euroamericans to settle the area (Wilma 2001).

Transportation to and from the settlement was conducted via the Duwamish River until the Grant Street Electric Railway was extended into the town via a wooden drawbridge in 1891. The Duwamish River was rechanneled to accommodate large vessels in 1913, which brought more
industry and settlement to South Park. Further changes occurred with the coming of World War II as ship yards were constructed, and the demand for housing for the accompanying workers increased. South Park was rezoned as “transition to industrial” by the City of Seattle, and the days of agriculture in the area decreased. Today’s South Park supports a mix of industry, commercial and residential developments (Wilma 2001).

Sanborn Fire Insurance Maps depict the project area as platted by 1917. The area surrounding the project area was fairly populated, mostly with residences, stables, and garages (Sanborn Map Company 1917). By 1929, the Sanborn maps show that the vicinity of the project area is more densely populated, mostly with residences, but also with commercial enterprises such as auto repair shops and offices have moved into the area, thus reflecting the growth of industry in the area (Sanborn Map Company 1929–1950).
4. Anticipated Archaeological Finds

Based on the background review, as well as supplemental archival research, HRA developed probabilities for prehistoric, ethnographic, and historic Native American, and historic Euroamerican, archaeological resources in the project area. The Project is located in the neighborhood of South Park, near the Duwamish River.

Geotechnical projects conducted in the near vicinity of the project found varying amounts of fill containing fragments of brick, metal, and asphalt debris—potentially historic-period artifacts. The fill extends from less than 1 ft below surface to over 7 ft below surface, closer to the southeast corner of the project area. Fill overlies alluvial silts and sands which in turn overlies glacial till (Gibson and Clark 2013).

The locations of ethnographic places and other landmarks indicate food processing in settings near sources of water. Use of the project area for travel and/or settlement during the prehistoric and ethnographic periods is likely, due to its topography and proximity to water and travel routes. The nearest recorded archaeological site, shell midden site 45KI815, has been tested and subject to data recovery as a NRHP-eligible resource. Site 45KI815 is located less than 400 ft northwest of the project area, and two other precontact shell midden and camping sites (45KI816 and 45KI817) are located within 1,000 ft northwest of the project area. The proximity of these resources, identified beneath the modern street and residential infrastructure, heightens the probability that similar materials will be observed in the project area beneath the fill.

Therefore, HRA considers there to be a moderate to high potential for prehistoric, ethnographic, and historic Native American cultural resources in less-disturbed areas below the ground surface, for instance within native alluvial sediments. Prehistoric and ethnographic period resources could include lithic, bone, and shell artifacts, as well as the food and technological materials from plants and animals. Shell middens and associated cultural materials, such as those observed at Site 45KI815 could be observed beneath fill in portions of the project area closer to the river channel, such as at the location of the proposed outfall pipe and along Dallas Avenue South.

HRA has determined that there is also a moderate probability of encountering intact historic Euroamerican archaeological resources within the proposed project site, particularly along the edges of the road ROW as they approach privately owned residences or former industrial facilities. This area of South Park has a long history of settlement by Japanese and Euroamerican settlers who used the area for agricultural, residential, and commercial purposes. Historic-period resources may include but are not limited to artifacts and features associated with these uses, such as glass bottles, vessels,
or fragments; ceramic dishware or vessels; metal fragments, cans, or machinery parts; concrete; brick; and milled wood.
5. Procedures for Archaeological Monitoring and Inadvertent Discovery Plan (IDP)

If cultural materials are identified, the City will take appropriate steps, including, when necessary, consulting with a professional archaeologist to determine whether the discovery may be an archaeological site. The City’s Resident Engineer (RE) will take reasonable steps to protect the discovery site. Work in the immediate area will not resume until treatment of the discovery has been completed or the discovery has been adequately protected. The City will notify the appropriate tribe and the State Historic Preservation Office (SHPO) of the discovery within 24 hours, if it is a Native American site.

The City’s RE will determine whether it is necessary to continue the ground-disturbing work that led to the discovery. If it is not necessary to continue the ground-disturbing activity that led to the discovery, The City’s RE will consult with interested parties, including the DAHP and, as appropriate, Native American Tribes (see Appendix A) to stabilize and protect the discovered resource.

The following steps will be followed during archaeological monitoring for the project:

1. Archaeological monitoring will take place in the project area during ground-disturbing activities within native soils and at the interface of fill soils and native soils.

2. The City will arrange for a professional archaeologist who meets the Secretary of the Interior’s qualifications (36 CFR Part 61; required by the State of Washington in RCW 27.53.030.8) to provide oversight for all cultural resources related activities on the site. If an archaeologist meeting the qualifications is not available but an experienced archaeologist (e.g., one with five or more years of experience in a variety of archaeological field situations) is available to monitor construction activities, they will be allowed to do so given that a “Supervisory Plan for Archaeological Monitoring” has been filed with DAHP by HRA prior to their work at the site. The form is located in Appendix B. The archaeologist may be on-site to observe soil disturbing activities, or shall be available on an on-call basis.

3. It is anticipated that the City will provide the professional archaeologist with a copy of the site-specific Health and Safety Plan (HASP). It is also anticipated that the City will provide
all necessary orientation and training regarding project-specific safety concerns and potential hazards. The archaeological monitor will abide by applicable safety regulations.

4. During construction, the archaeological monitor will examine soils as safe and feasible, including sediments from excavations and back-dirt piles. Equipment will include, as appropriate, the appropriate personal protective equipment (PPE—anticipated to include at least nitrile gloves), a shovel, trowel, and screen of ¼-inch mesh. The archaeologist will watch for prehistoric or historic-period artifacts or layers/lenses of organic material or shell, and organically enriched midden soils that might indicate past human use.

5. The archaeologist will record the monitoring work as follows: daily activities will be recorded on a Daily Record Form (monitoring form) and in a field notebook; and overview photographs of construction activities, along with detailed photographs of particular locations, work in progress, and prehistoric or historic-period cultural materials, will be promptly logged in a field notebook. In addition, the archaeologist will log in sketches/drawings of particular areas, features, and soil profiles. The locations of areas that have been monitored will be noted on maps of the project area. Copies of the daily monitoring form (Appendix C) will be sent electronically to the City upon request.

6. If it appears that a cultural deposit has been encountered, the archaeologist will immediately notify the City’s RE, who will stop work. The RE and archaeologist will inform the construction contractor(s) about the monitoring work and coordinate with the contractor(s) who will implement temporary shoring of excavated areas, when applicable, for inspection of possible finds.

7. For safety reasons, the archaeologist will not enter any excavations deeper than 5 ft to inspect a possible find until the excavation has been shored by the contractor, per OSHA standards at 29 CFR 1926.652 (www.osha-slc.gov/). The archaeologist will also communicate with the City’s representative about the safety of handling archaeological materials that may have been exposed to toxic substances, if any exist in the project area.

8. If the archaeological monitor or any member of the construction work force believes that they have encountered prehistoric (including, but not limited to, intact deposits of midden sediments; clusters of FMR, charcoal, or other evidence of fire-related activities; and faunal remains in association with stone chips or tools) or historic-period archaeological materials (such as refuse concentrations, railroad grades and ties, machinery fragments, or structural foundations) in any portion of the Project, the archaeologist will direct the RE to stop excavation work in the immediate area. If the archaeologist is not present at the time of discovery, the RE will be responsible for stopping excavation work and immediately contacting the monitoring archaeologist.
9. Halting of construction for inspection of a possible find may take only a few minutes, but rarely would exceed 30 minutes, to allow the monitoring archaeologist to identify whether it is an intact archaeological deposit. For instance, an isolated artifact may only require around 5 minutes of stoppage to properly document, while a concentration of artifacts or a feature will necessarily take longer.

10. To document an archaeological find, the archaeologist will take notes on the location observed (e.g., depth in metric units below surface), the sedimentary context, and other pertinent information, and will document the area with photographs. The RE will establish a buffer zone of 50 ft around the find to protect the location and the archaeologist during this inspection. It may be necessary for the archaeologist to request continued mechanical excavation of soils adjacent to the find in order to confirm the extent and integrity of the find. The archaeologist will coordinate with the RE to direct the contractor in such circumstances.

11. If the monitoring archaeologist believes that the find is a prehistoric archaeological resource or a significant historic-period archaeological resource, the RE will take appropriate steps to protect the discovery site by installing a physical barrier (i.e., exclusionary fencing) and prohibiting all machinery, other vehicles, and unauthorized individuals from crossing the barrier. The archaeologist will inform the City, which will then contact DAHP and the cultural resources representatives for the affected Tribes (see Appendix A, Contact List). Under RCW 27.53, all prehistoric archaeological sites are protected regardless of significance or eligibility for national, state, and/or local historic registers. A determination of eligibility for listing on the NRHP by DAHP must be obtained for historic-period resources. It is presumed that historic-period resources are eligible for listing on the NRHP until and unless DAHP makes a determination that they are not. Treatment measures may include mapping, photography, subsurface testing, sample collection, and/or other activities, as determined appropriate by DAHP and Tribal representative. Eligible prehistoric and historic-period resources will require a permit to disturb under RCW 27.53. Appropriate treatment measures will be stipulated under a permit obtained from DAHP.

12. The City will work with the landowner and the appropriate Tribes (see Appendix A) for discoveries on Federal, State, or private land. The consulting parties will also include DAHP, as appropriate.

13. The City will contact the appropriate parties, as soon as practical, to seek consultation regarding the National Register-eligibility of the discovery. If the consulting parties determine that the discovery is an eligible resource, they will consult with appropriate parties on an appropriate form of treatment. Treatment measures may include mapping, photography, limited probing, and sample collection, or other activities.
14. The City will arrange for the implementation of the treatment measures agreed upon by the City, the SHPO, and the Tribe. If treatment measures determined by the consulting parties include sample collection, the archaeological resources will be examined by the archaeologist and possibly analyzed by specialists, as needed and appropriate.

15. Cultural features, horizons, and artifacts detected in buried sediments may require further evaluation using hand-dug test units to clarify aspects of integrity, stratigraphic context, or feature function. Test units will be used only when necessary to gather information on the nature, extent, and integrity of subsurface cultural deposits to evaluate the site’s potential to address significant research domains. Units may be dug in controlled fashion to expose features, collect radiocarbon or animal/plant macrofossil samples from undisturbed contexts, or interpret complex stratigraphy. A test excavation unit or small trench might also be used to cross-section a feature to determine if an intact occupation surface is present. Excavations will be conducted using industry-standard techniques for controlling provenience of recovered remains.

16. Sediments excavated for purposes of cultural resources investigation will be screened through ¼-inch mesh. Spatial information, depth of excavation levels, natural and cultural stratigraphy, presence or absence of cultural material, and depth to sterile soil, regolith, or bedrock will be recorded on a standard form. Test excavation units will be recorded on unit level forms, which include plan maps for each excavated level and material type, number, and vertical provenience (depth below surface and stratum association where applicable) for all artifacts recovered from the level. Radiocarbon and macrofossil samples will be taken from intact subsurface features exposed by shovel/auger probes or test units. A stratigraphic profile will be drawn for at least one wall of each test excavation unit.

17. All prehistoric and historic artifacts collected from the surface and from probes and excavation units will be analyzed, catalogued, and temporarily curated by HRA. Ultimate disposition of cultural materials will be determined in consultation with the SHPO and the affected Tribes. The preferred repository is the Burke Museum of Natural History and Culture.

18. When monitoring work has been completed, HRA will prepare a report discussing the methods and results of the work. The draft report will be provided to the City within 30 days of completion of monitoring work. After a 30-day review period, the City will direct the archaeologist to make revisions that take into account review comments. HRA will provide a final copy to the City for distribution to the affected tribes, and DAHP.

19. If monitoring reveals human remains, the procedures listed in Section 6.0 will be followed.
6. Inadvertent Discovery of Human Remains

Any human remains that are discovered during project-related geotechnical exploration, construction, maintenance, or operation activities will be treated with dignity and respect.

In the event that human remains are discovered during geotechnical exploration, construction, maintenance, or operation of the Project, the following procedures are to be followed to ensure compliance with RCW 68.60: *Abandoned and Historic Cemeteries and Historic Graves*, and RCW 27.44: *Indian Graves and Records*.

If ground disturbing activities encounter human skeletal remains during the course of geotechnical exploration, construction, maintenance, or operation of the Project, then all activity must cease that may cause further disturbance to those remains and the area of the find must be secured and protected from further disturbance. In addition, the finding of human skeletal remains must be reported to the King County Medical Examiner and local law enforcement in the most expeditious manner possible. The remains should not be touched, moved, or further disturbed.

The King County Medical Examiner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the King County Medical Examiner determines the remains are non-forensic, then they will report that finding to DAHP, who will then take jurisdiction over those remains and report them to the appropriate cemeteries and affected tribes. The State Physical Anthropologist will make a determination of whether the remains are Indian or Non-Indian and report that finding to any appropriate cemeteries and the affected tribes. DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.
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Appendix A. List of Contacts
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King County Medical Examiner
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Appendix B. Example Supervisory Monitoring Plan
Supervisory Plan for Archaeological Monitoring

T-117 Early Action Area, Phase 2, Adjacent Streets and Stormwater Project

Location: Seattle, King County, Washington

Monitoring Plan: Attachment A (not included herein)

Name of Archaeological Monitor: Name

Monitor’s Resume: Attachment B (not included herein)

Summary of Monitor’s Qualifications:
- At least 5 years of archaeological field experience: Yes □ No □
- Experience in archaeological excavation: Yes □ No □
- Experience with historical and prehistoric archaeological artifacts and deposits that could be found at the monitoring location: Yes □ No □
- Experience in archaeological monitoring: Yes □ No □
  (or an HRA onsite supervisor will be present during first monitoring project)

Professional Archaeologist(s) who will serve as Monitoring Supervisor(s):

Lynn Compas, M.A. HRA Associate Archaeologist

Jennifer Gilpin, M.A. HRA Project Archaeologist

Supervisory Requirements:
- Monitor will have a cell phone and a digital camera.
- Supervisor will visit the project site at the beginning of the work, if the monitor has not worked at the location previously. Supervisor will visit the project site periodically if the monitoring work continues longer than two full-time weeks. Supervisor will visit the project site if a find is made that needs immediate attention.
- Monitor will record daily notes on HRA’s standard monitoring form (Attachment C). Monitor will take at least one photograph daily to record the work progress.
- Monitor will telephone Monitoring Supervisor daily to describe results of observation, monitoring methods, and findings, and to discuss any questions.
- Monitor will send electronic photographs of any finds of artifacts or deposits to supervisor for discussion of treatment measures and decisions. The Supervisor will be available to visit site on short notice to view finds that are questionable and/or need immediate attention.
- Monitor will submit written notes weekly for Supervisor’s review.
Supervisor will review written notes at least weekly and during site visits, and will sign each monitoring record form.
Appendix C. HRA Standard Monitoring Form
| Recorder's Name and Signature of Primary Monitor |  |
| Date and Hours on Site/ Travel Time |  |
| Safety Meeting | Yes / No – issues discussed |
| Site Location/ Weather Conditions Area Description |  |
| Site Description | Describe environment, subdivision, road grade and also archaeological and/or historical context |
| Nature of Construction Activity, Skidding, grubbing, scraping, excavating |  |
| Remedial Activities | Nature of removals and where taken to, if any |
| Equipment working on Site Types and number of machines |  |
| Workers Present | Names and Companies |
| Visitors On Site | Names and Companies |
| Arch Monitoring Activities | Describe in full if equipment was stopped or asked to move |
| Distance and Direction of nearby Recorded Archaeological Sites |  |
| Archaeological Findings | Include significant findings, soil descriptions, level of disturbance, description of debris not considered significant |
| Notes on Discussions with others HRA, other contractors, Tribes |  |
REVISED STANDARD PLANS
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<tr>
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REF STD SPEC SEC 1-01.2

City of Seattle

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REF STD SPEC SEC

City of Seattle | NOT TO SCALE | STANDARD SYMBOLS
WATER

NOTES:
1. MATERIALS: CONCRETE=CLASS 4000; REINFORCING STEEL=ASTM A615 GRADE 60 MIN; CHANNEL AND SHELF MATERIAL = CONCRETE CLASS 3000.
2. PRECAST MAINTENANCE HOLE COMPONENTS SHALL CONFORM TO ASTM C 476. JOINTS BETWEEN PRECAST COMPONENTS SHALL BE RUBBER GASKETED CONFORMING TO ASTM C 443.
3. MINIMUM REQUIRED SOIL BEARING = 3,000 LBS/SQ. FT.
4. MAX HOLE SIZE SHALL BE 6D OF PIPE PLUS 5 IN. MIN HOLE SIZE SHALL BE 6D OF PIPE PLUS 3 IN. MIN CLEAR DISTANCE BETWEEN HOLES IS 8 IN.

REF STD SPEC SEC 7-05

City of Seattle

NOT TO SCALE

TYPE 204B MAINTENANCE HOLE

REINFORCING STEEL "A"

MIN. SQ IN/FT, TOP FACE, IN EACH DIRECTION

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<td>40' Max</td>
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NOTES:
1. MATERIALS: CONCRETE—CLASS 4000; REINFORCING STEEL—ASTM A615 GRADE 60 MIN. CHANNEL AND SHELF MATERIAL—CONCRETE CLASS 3000.
2. PRECAST MAINTENANCE HOLE COMPONENTS SHALL CONFORM TO ASTM C 478. JOINTS BETWEEN PRECAST COMPONENTS SHALL BE RUBBER GASKETED CONFORMING TO ASTM C 443.
3. MINIMUM REQUIRED SOIL BEARING = 3,000 LBS/50 FT.
4. MAX HOLE SIZE SHALL BE OD OF PIPE PLUS 7 IN. MIN HOLE SIZE SHALL BE OD OF PIPE PLUS 3 IN. MIN CLEAR DISTANCE BETWEEN HOLES IS 12 IN.

REF STD SPEC SEC 7-05

City of Seattle

NOTES:
1. MATERIAL – STEEL REINFORCED POLYPROPYLENE
2. DIMENSIONS FOR THE MH LADDER AND STEP ARE MINIMUM REQUIREMENTS ONLY.
3. WHEN THE DISTANCE FROM THE LAST (HIGHEST) STEP OR HANDHOLD TO THE TOP OF THE MH FRAME EXCEEDS 1'-6", A HANDHOLD SHALL BE INSTALLED MID-WAY IN THE LEVELING BRICK OR COLLAR.
4. IF BOTH STEPS AND LADDER ARE REQUIRED IN ANY MH, THEY SHALL BE FROM THE SAME MANUFACTURER.
5. A VERTICAL HANDHOLD SHALL BE INSTALLED 4'-0" ABOVE THE SHELF WHEN INDICATED IN MH PLAN VIEW.
24" HIGH CONCENTRIC CONE

18" HIGH CONCENTRIC CONE

NOTES:
1. MATERIAL = STEEL REINFORCED POLYPROPYLENE.
2. DIMENSIONS FOR THE MH LADDER AND STEP ARE MINIMUM REQUIREMENTS ONLY.
3. WHEN THE DISTANCE FROM THE LAST (HIGHEST) STEP OR HANDHOLD TO THE TOP OF THE MH FRAME EXCEEDS 1'-6", A HANDHOLD SHALL BE INSTALLED MID-WAY IN THE LEVELING BRICK OR COLLAR.
4. IF BOTH STEPS AND LADDER ARE REQUIRED IN ANY MH, THEY SHALL BE FROM THE SAME MANUFACTURER.
5. STEP ON OPPOSITE SIDE OF MH SHALL BE PLACED MID-WAY BETWEEN STEPS ON OPPOSING SIDE.
SECTION A-A

TABLE 1

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<td>240B</td>
<td>PER STD PLAN 264</td>
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<td>240C</td>
<td>PER STD PLAN 262</td>
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<tr>
<td>240D</td>
<td>PER STD PLAN 263</td>
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NOTES:
1. FRAME & GRATE OR FRAME & COVER SHALL BE LOCATED OVER TRAP.
2. INVERT OF INLET PIPE SHALL BE 2" MIN ABOVE INVERT OF OUTLET PIPE.
3. SEE STD PLAN 261 FOR ALLOWABLE OUTLET LOCATIONS.
NOTES:
1. THIS CATCH BASIN IS FOR INSTALLATIONS IN ALLEYS AND UNEPAVED AREAS IN THE RIGHT-OF-WAY. ANY OTHER USE IN THE R/W WILL REQUIRE THE APPROVAL OF SPU.
2. FOR CURB DISCHARGE INSTALLATION SEE STD PLAN NO 241b.
3. INSTALL PER STD PLAN NO 261.
4. MATERIAL, CONCRETE CLASS 4000 REINFORCING STEEL ASTM A615 GR60.
5. INLET INVERT EL. TO BE HIGHER THAN OUTLET INVERT EL.
6. USE OF LEVELING BRICKS SHALL BE RUNNING BOND PATTERN WITH 3/4 TO 1/2 GROUT IN BETWEEN BRICKS.

SECTION B-B

SECTION A-A

FRAME & GRATE PER STD PLAN NO 264
LEVELING BRICK OR PRECAST RISER

FLOW LINE
8" MAX PIPE CONNECTION TO APPROVED OUTLET

OUTLET TRAP SEE STD PLAN NO 267

TYPE 2 MINERAL AGGREGATE W/ PORTLAND CEMENT

PRECAST BASE

REF STD SPEC SEC 7-05

City of Seattle
NOT TO SCALE
TYPE 241 CATCH BASIN

REFERENCE STANDARD SPECIFICATION SECTION 2-07 & 7-17

City of Seattle

NOT TO SCALE

TYPICAL TRENCH DETAIL FOR SEWER & STORM DRAIN

401A—CEMENT CONCRETE PAVEMENT WITH INTEGRAL CURB

401B—CEMENT CONCRETE PAVEMENT WITH EXISTING CURB & GUTTER

401C—HOT MIX ASPHALT ON CEMENT CONCRETE BASE

401D—HOT MIX ASPHALT OVER CRUSHED ROCK BASE

HMA DESIGN CRITERIA:
1. 3 MILLION ESAL'S UNLESS OTHERWISE SPECIFIED ON DRAWINGS
2. ASPHALT PG 64-22 UNLESS OTHERWISE SPECIFIED ON DRAWINGS
3. WARM MIX ASPHALT MAY BE USED IN PLACE OF HMA WHERE SHOWN ON THE DRAWINGS

REF STD SPEC SEC 5-04, 5-05, 8-04

City of Seattle

NOTES:
- If conc. thickness is 9 inch or greater, optional keyway may be used. See Std Plan No 405 for details.

OPTIONAL KEYWAY
FOR LONGITUDINAL JOINT

ROADWAY CEMENT CONCRETE PAVEMENT
(THICKNESS AS SPECIFIED IN CONTRACT DOCUMENTS)

SEE STD PLAN TYPE 410e CURB

COMPACTED SUBGRADE
6"MNRL AGG TYPE 2
(COMPACTED AS SPECIFIED IN CONTRACT DOCUMENTS)

402A—ROADWAY CONCRETE PAVEMENT ON CRUSHED ROCK

ROADWAY CEMENT CONCRETE PAVEMENT
(THICKNESS AS SPECIFIED IN CONTRACT DOCUMENTS)

SEE STD PLAN TYPE 410e CURB

2"HMA (CL ½"

COMPACTED SUBGRADE
6"MNRL AGG TYPE 2
(COMPACTED AS SPECIFIED IN CONTRACT DOCUMENTS)

402B—HOT MIX ASPHALT ON CEMENT CONCRETE ON CRUSHED ROCK

HMA (CL 1") THICKNESS AS SPECIFIED IN CONTRACT DOCUMENTS

SEE STD PLAN TYPE 410b CURB & CUTTER

2"HMA (CL ½"

SUBGRADE
6"MNRL AGG TYPE 2
(COMPACTED AS SPECIFIED IN CONTRACT DOCUMENTS)

402C—HOT MIX ASPHALT ON CRUSHED ROCK BASE

HMA DESIGN CRITERIA:
1. An ESAL count of 10 million unless otherwise specified in contract documents.
2. Asphalt PG 64-22 unless otherwise specified in contract documents.
3. Warm mix asphalt may be used in place of HMA where shown on the drawings.

REF STD SPEC SEC 4-04, 5-05 & 8-04

City of Seattle
NOT TO SCALE
COMMERCIAL AND ARTERIAL PAVEMENT SECTIONS

CONTRACTION JOINT FOR CURB OR CURB & GUTTER

SECTION A-A

THROUGH JOINT FOR CURB OR CURB & GUTTER

SECTION B-B

#3 (2'-8") EPOXY COATED REINFORCING BARS @ 2'-4" O.C.
#3 EPOXY COATED REINFORCING BARS
DRILL ¾" MIN. DIA. HOLES FILL WITH EPOXY CEMENT (TYPE I OR IV EPOXY PER SEC 9-26)
TOP OF PROPOSED CURB

COLD JOINT

COMPACTED SUBGRADE

Curb Dowel pins on Existing Pavement

Dowels for Dowelled Curb Construction

REF STD SPEC SEC 8-04

City of Seattle

TYPICAL SIDEWALK & CURB RAMP DETAIL

THROUGH JOINT @ SECTION A-A

UNLESS CURB IS MONOLITHIC WITH SIDEWALK

SECTION B-B

NOTES:
1. 3/4" THROUGH AND CONTRACTION JOINTS SHALL BE LOCATED AS REQUIRED BY SECTION 8-14.3(8).
2. "V" GROOVE SCORING SHALL MATCH PATTERN IN ADJACENT EXISTING SIDEWALK OR SHALL BE A 2" SQUARE SCORING PATTERN UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. FOR CURB RAMPS, SEE STANDARD PLAN 422.
4. FOR TREE HINTS, SEE STANDARD PLAN 424.
5. 12" MINIMUM BETWEEN EDGE OF RAMPS AND PLANTING STRIP IS DESIRABLE.
6. ALL SIDEWALK SHALL BE NON-ROADWAY CEM CONC W/ 25% POZZOLANS.

REF STD SPEC SEC 8-14
NOTES:
1. TYPE 422A PERPENDICULAR CURB RAMP SHALL BE USED UNLESS OTHERWISE DIRECTED BY ENGINEER.
2. TWO CURB RAMPS SHALL BE INSTALLED AT EACH CORNER UNLESS OTHERWISE DIRECTED BY ENGINEER. RECOMMENDED MINIMUM DISTANCE BETWEEN TWO ADJACENT CURB RAMPS SHALL BE 3'-0". WHERE SPACE IS RESTRICTED THE MINIMUM DISTANCE BETWEEN TWO ADJACENT CURB RAMPS MAY BE REDUCED TO 1'-0".
3. CURB RAMP SHALL BE CONSTRUCTED WITH COMPANION RAMP ON OPPOSITE SIDE OF THE ROADWAY UNLESS OTHERWISE DIRECTED BY ENGINEER.
4. RAMP CENTERLINE SHALL BE RADIAL PERPENDICULAR TO THE ALIGNMENT OF THE FACE OF CURB. RAMP SHALL HAVE A MAXIMUM SLOPE 12H:1V AND A MINIMUM WIDTH OF 4'-0". THE CROSS SLOPE OF THE RAMP SHALL BE MAXIMUM OF 20H:1V. RAMP SURFACE SHALL HAVE A HEAVY BROOM BRUSHED SURFACE PARALLEL TO THE CURB. MAXIMUM RAMP LENGTH SHALL BE 15 FEET.
5. DETECTABLE WARNING SHALL HAVE A TRUNCATED DOME PATTERN AS SHOWN, A MINIMUM WIDTH OF 2'-0" AND SHALL BE PLACED AT THE RAMP BOTTOM STARTING AT THE BACK OF CURB. DETECTABLE WARNING COLOR SHALL BE "CITY OF SEATTLE SAFETY YELLOW", UNLESS OTHERWISE DIRECTED.
6. UPPER LANDING SHALL BE FULL WIDTH OF THE RAMP AND SHALL HAVE A MINIMUM DEPTH OF 4'-0". SLOPE ON THE UPPER LANDING SHALL BE BETWEEN 0.5% AND 2% AVOID PLACING HANDBOLES, UTILITY CASTINGS OR OTHER OBSTRUCTIONS IN THE UPPER LANDING.
7. LOWER LANDING SHALL BE FULL WIDTH OF THE RAMP AND SHALL EXTEND A MINIMUM 4'-0" BEYOND DETECTABLE WARNING. THE LOWER LANDING SHALL BE THE WIDTH OF THE RAMP AND FALL WHOLLY WITHIN THE LEGAL CROSSWALK, MARKED OR UNMARKED. SLOPE ON THE LOWER LANDING SHALL BE BETWEEN 0.5% AND 2% GUTTER FLOW LINE SHALL BE SURVEYED BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ENSURE PONDING OF WATER SHALL NOT OCCUR ON THE LOWER LANDING.
8. WINGS SHALL HAVE A MAXIMUM SLOPE OF 10H:1V. IF UPPER LANDING HAS A DEPTH LESS THAN 4'-0", THE MAXIMUM SLOPE FOR THE WINGS SHALL BE 12H:1V. WINGS SHALL HAVE A BRUSHED FINISH PARALLEL TO THE CURB. THE CONCRETE WALK THICKENED EDGE ALONG THE CURB SHALL CONTINUE THROUGH EACH WING.
9. POLES, HYDRANTS AND OTHER ABOVE GROUND OBSTRUCTIONS SHALL HAVE A MINIMUM LATERAL CLEARANCE OF 1'-0" FROM THE UPPER LANDING AND RAMP SURFACE.
10. ALL CHANGES IN LEVEL ACROSS JOINTS SHALL BE FLUSH. ANY DIFFERENCE IN ELEVATION OF 1/8 INCH OR GREATER SHALL BE REPAIRED OR REPLACED.
11. ALL SLOPE GRADES SHALL BE MEASURED OFF THE HORIZON-LINE. IF EXISTING SITE CONDITIONS CONFLICT WITH OBTAINING GRDES SHOWN, THE DESIGNER / CONTRACTOR SHALL MAKE MINIMUM ADJUSTMENTS TO THE GRADES SHOWN TO MEET EXISTING SITE CONDITIONS; ADJUSTMENTS ARE SUBJECT TO ENGINEER APPROVAL.

REF STD SPEC SEC 8-14

City of Seattle NOT TO SCALE CURB RAMP DETAILS

NOTES:
1. TYPE 430A SHALL BE USED UNLESS OTHERWISE DIRECTED BY ENGINEER. USE OF DRIVEWAY TYPE 430B IS SUBJECT TO ENGINEER APPROVAL.
2. DRIVEWAYS SHALL BE NON-ROADWAY CONCRETE HIGH STRENGTH.
3. WING WIDTH ON ARTERIAL STREETS WHERE TRAVEL LANE IS NEXT TO THE CURB SHALL BE 5'-0". OTHERWISE, WING WIDTH SHALL BE 2'-6".
4. "V" GROOVE SCORING SHALL MATCH PATTERN IN ADJACENT EXISTING SIDEWALK.
5. FOR CONCRETE DRIVEWAY CONSTRUCTED WITH CONCRETE SIDEWALK, SEE STANDARD PLAN 431.
6. CONCRETE DRIVEWAYS WITH A WIDTH GREATER THAN 15'-0" SHALL HAVE A 3/4" TRANSVERSE CONTRACTION JOINT NEAR THE CENTERLINE OF DRIVEWAY. SEE DETAIL SECTION C-C, STANDARD PLAN 420.
7. FOR TYPE 430A SLOPE IN THE 6'-0" MINIMUM WIDE AREA CONNECTING TO CW ON EACH SIDE OF THE DRIVEWAY SHALL BE MAXIMUM 2% AND MINIMUM 0.5%. FOR TYPE 430B, SLOPE OF THE DRIVEWAY BETWEEN THE TWO RAMP SECTIONS SHALL BE MAXIMUM 2% AND MINIMUM 0.5%. DRIVEWAY ON THE PRIVATE SIDE OF THE CW MAY BE SLOPED AS NEEDED TO MATCH EXISTING SITE CONDITIONS.
8. RAMP SHALL HAVE A MAXIMUM SLOPE 12%-14%, AND A MINIMUM WIDTH OF 6'-0". THE CROSS SLOPE OF THE RAMP SHALL BE MAXIMUM 5%-14%. RAMP SURFACE SHALL HAVE A HEAVY BROOM BRUSHED SURFACE PERPENDICULAR TO THE CURB.
9. ALL CHANGES IN LEVEL ACROSS JOINTS SHALL BE FLUSH WITH A MAXIMUM DIFFERENCE IN ELEVATION OF ½ INCH.
10. ALL SLOPE GRADINGS SHALL BE MEASURED OFF THE HORIZON-LINE. IF EXISTING SITE CONDITIONS CONFLICT WITH OBTAINING GRADINGS SHOWN, THE CONTRACTOR SHALL MAKE MINIMUM ADJUSTMENTS TO THE GRADINGS TO ACCOMMODATE EXISTING SITE CONDITIONS. ADJUSTMENTS ARE SUBJECT TO ENGINEER APPROVAL.
SECTION A-A

NOTES:

1. DRIVEWAY WIDTH GREATER THAN 15'-0" AND LESS THAN OR EQUAL TO 30' SHALL HAVE TRANSVERSE CONSTRUCTION JOINTS AT IT'S CENTER.

2. DRIVEWAY GREATER THAN 30'-0" REQUIRES SDOT APPROVAL AND SHALL HAVE TRANSVERSE CONTRACTION JOINTS EVENLY PLACED SO THE DISTANCE BETWEEN CONTRACTION JOINTS, OR BETWEEN THE EDGE THROUGH JOINTS AND CONTRACTION JOINTS IS NOT GREATER THAN 15'-0".

3. PROVIDE SCORE LINES PER STD PLAN 420 AND THE DRAWINGS.

REF STD SPEC SEC 8-14 & 8-19

CEMENT CONCRETE DRIVEWAY PLACED WITH CEMENT CONCRETE SIDEWALK

Attachment 1-07.15-A. Existing Tank System Schematic and Operating Requirements

To river

PS #2

Lower Containment Area/Construction Water Treatment Facility

Pump control panel

Discharge manifold

Ex Catch basin

Shutoff valve

Meter

Backflow preventer

From pump station

Tank discharge line

Removable end cap

Flexible hose extended to river as needed (500 ft stored onsite)

Upper Containment Area

Additional tanks as needed

To combined sewer

Meter #2

Valve #2

Valve #1

Meter #1

Lower Containment Area/Construction Water Treatment Facility

Power panel for pipe heat tape

Flexible hose extended to river as needed (500 ft stored onsite)
Normal operation

1. All valves at tanks are open
2. Main control valves to river and CSS are shut (Valves 1 and 2)
3. Pump stations 1 and 2 on (AUTO)


Rainfall totals: http://www-k12.atmos.washington.edu/k12/grayskies/nw_weather.html

Tank Draining to Combined Sewer (normal)

1. Tanks are drained only during dry periods and when the combined sewer is not longer surcharged from previous events to prevent sewer backups in CSS.
2. Allow at least 4-8 hrs to allow CSS to drain following a storm before draining tanks.
3. Record reading at Meter #1 and enter in blue 3-ring binder
4. Open Valve #1 to discharge to the combined sewer.
5. Check MH on combined sewer for surcharge conditions. Adjust Valve #1 to prevent surcharge conditions.
6. Watch weather. If it starts to rain before tanks are empty, close everything down (Close valve #1).
7. Record reading at Meter 1 and enter in blue 3-ring binder

Heavy or Prolonged Rainfall

Tanks can hold about 2.5 inches of total rainfall

If continued or heavy rainfall is predicted and it appears that tanks could overfill:

1. Contact Port's Site Manager (Stacy Heilgeist) or call the T117 Hotline at least 12 hrs prior to discharge and coordinate access to Port property
2. Deploy 4" blue flexible hose (coiled/stored onsite) across T117 to the river.
3. Record reading at Meter #2 and enter in blue 3-ring binder
4. Crack (and I mean slightly crack) Valve #2
5. Shut off pump station #2 (turn both handles to OFF position)
6. Check discharge from blue hose....it should just be a small trickle to maintain water levels in the tanks
7. Collect waer sample from the blue hose and submit to ARI for PCB analysis (0.01 ug/L detection limit)
8. Recheck containment area every 4 hrs. If containment area is full and rain is continuing, see instructions below:
9. Shut off when rain stops and record meter reading in blue 3-ring binder
10. Remember to turn PS #2 back on (AUTO position) when the rainstorm is over and tanks are operational again.

If continued or heavy rainfall is predicted and the tanks are full and the lower containment area is full:

1. Record reading at Meter #2 and enter in blue 3-ring binder
2. Contact Port's Site Manager (Stacy Heilgeist) or call the T117 Hotline at least 12 hrs prior to discharge and coordinate access to Port property
3. Deploy 4" blue flexible hose (coiled/stored onsite) across T117 to the river.
4. Record reading at Meter #2 and enter in blue 3-ring binder
5. Open Valve #2.
6. Check discharge from blue hose to ensure that discharge is not causing erosion along the bank of the waterway
7. Collect water sample from blue hose and submit to ARI for PCB analysis (0.01 ug/L detection limit)
8. Shut off Valve #2 when it stops raining, record meter reading in blue 3-ring binder and coordinate with Port to remove hose from T117.
9. Coil hose and store in lower containment area
10. Remember to turn PS #2 back on (AUTO position) when the rainstorm is over and tanks are operational again.

Freeze Conditions

1. Make sure the pipe wrap heaters are on (check the control panel in the tank area. Breakers should be in ON position). Valves should be slightly warm
2. Shut off pump station #2 (leave PS #1 on to keep stormwater after thaw from ponding in front of residences on 17th Ave S)
3. Close all inlet/outlet valves on the tanks (18 total valves). Note: upper valves do not have to be closed if water level in tank is below valve level.
4. Open Valves #1 and #2
5. Open all end caps (8 total) to drain the supply and discharge pipes around the tanks
6. Crack the quick disconnects on the hoses around the meters
7. Remove the black hose from the backflow preventer on the force main to the tanks. Force backflow preventer open with MH hook and drain line (stand back or you'll get wet)
8. Crack the quick disconnect on the backflow preventer by the pump discharge manifold
9. Crack all the quick disconnects on the pipes from the pump at the discharge manifold
AGREEMENT FOR LICENSE
FOR SITE ACCESS

This Access Agreement ("Agreement") is made the __/__/2013 day of April, 2013 between the Port of Seattle ("Port") and the City of Seattle ("the City") (collectively "the Parties").

RECITALS

A. The Port owns certain real property located at 8700 Dallas Avenue, Seattle Washington ("Terminal 117") or ("T117"). The referenced real property is depicted in Exhibit A.

B. The City wishes to use portions of Terminal 117 ("the Premises") for installation and operation of a temporary stormwater conveyance and discharge line.

AGREEMENT

Now therefore, for good and valuable consideration, the receipt and sufficiency of which are acknowledged, and based on the Recitals above which are incorporated herein by reference, the Parties agree as follows:

1. License for Access for Stormwater Discharge Line. The Port grants to the City a temporary, non-exclusive revocable license for access to, in, on, across, and through the Premises in the location(s) described in Paragraph 2. The license is granted solely for the Permitted Use, which consists of deploying, operating, maintaining or repairing a flexible hose/pipe (the "Discharge Line") to discharge stormwater from the City's temporary stormwater storage tank system, located at the intersection of 17th Ave S and Dallas Ave S., across the Premises, directly into the Duwamish River. The Parties acknowledge that the Discharge Line is intended to be used only to discharge stormwater during extraordinary storm events, and should be deployed for very limited periods of time. The Port shall not unreasonably interfere with the City's performance of the Permitted Use; nor shall the City unreasonably interfere with the Port's access to and/or work on the property. The license shall begin on 12:01 a.m. on May 1, 2013.

2. Conditions for City Access.

2.1. Deployment and removal of the Discharge Line during Port's remediation project: Beginning May 1, 2013 and continuing until informed otherwise, the City shall comply with the following conditions:

2.1.1. When the City determines that access to the Premises is necessary in order to deploy the Discharge Line, City personnel will notify the Port, during the hours of 8:00 a.m. to 4:00 p.m. Monday through Friday, at least 12 hours prior to deployment, by either emailing the Port's Site Manager, or calling the T117 Hotline. Upon timely notification to the Port of the City's need for access, the Port shall ensure the City is provided with the means to access the Premises at the agreed-
upon time. The City shall deploy the Discharge Line only within a 10-foot wide corridor running adjacent to the southern property line of the Premises, except in the event that such location is infeasible for placement of the Discharge Line at the time of deployment, in which case the Discharge Line shall be deployed at another location as approved by the Port’s Site Manager.

2.1.2. The City shall remove the Discharge Line when not in use, or 72 hours after deployment, whichever is sooner.

2.2. Deployment of Discharge Line after Port remediation project: When the Port determines that construction activities are sufficiently complete to allow the City to have uninterrupted access for deployment of the Discharge Line, the Port will notify the City in writing that the City is authorized to deploy the Discharge Line, in a location agreed to by the Parties, 24 hours per day, 7 days per week. Thereafter, the conditions described in Paragraph 2.1 will no longer be in effect.

2.3. The City agrees that only City of Seattle employees, contractors or agents who have received 40-hour training in accordance with WAC 296-843, and who have attended any additional safety training required by the Port or its agents, are allowed to enter the Premises.

2.4. The City will maintain its stormwater discharge systems at all times, and perform and pay for all repairs or replacement of its system immediately.

2.5. The City shall comply with its existing King County Wastewater Discharge Authorization (Exhibit B), and any other applicable requirements established by the Environmental Protection Agency (“EPA”), the Washington State Department of Ecology (“Ecology”), or other regulatory agency with appropriate jurisdiction.

3. **Agreement is License.** The relationship between the Port and the City is not one of landlord and tenant, but rather one of licensor and licensee. The incurrence of any costs with respect to the Premises or Permitted Use by the City shall in no way operate to confer upon the City any other interest, status, or estate of any kind other than as a licensee, nor obligate the Port to enter into any agreement conferring such other interest.

4. **Utilities.** The Port shall have no obligation to provide any utility services to the Premises. The City shall be liable for payment of any utilities consumed. The City shall be responsible for its own janitorial and garbage collection services.

5. **Termination.** The City may terminate this Agreement at any time by providing notice of such termination to the Port. The Port may terminate this Agreement at any time by providing 60 days notice to the City.

6. **Notice of Damage.** The City shall promptly notify the Port of any damage to the Premises or adjacent property resulting from the City’s use of the Premises during the term of this License; if the damage is of an environmental nature, the City shall also report to EPA.
7. **Contact Information.** Any notices or communications among or between the Parties to this agreement shall be directed to the following:

**Seattle Public Utilities**
Beth Schmoyer
Seattle Public Utilities
P.O. Box 34018
Seattle, WA 98124-4018
206-386-1199
beth.schmoyer@seattle.gov

**Port of Seattle**

For access to T117:
T117 Hotline: 1-866-999-8117

Email: Stacy Heilgeist
heilgeist.s@portseattle.org

For all other communication:
Roy Kuroiwa
Port of Seattle
P.O. Box 1209
Seattle WA 98111-1209
206-787-3814
kuroiwa.k@portseattle.org

8. **Compliance with Applicable Laws.** The City shall at all times exercise its rights herein and shall conduct the Permitted Use in accordance with any and all applicable statutes, orders, rules, and regulations of any public authority with jurisdiction, and specifically including those related to the protection of the environment and those promulgated by the Port of the general safety and convenience of its customers and the public. The City shall obtain all permits that may be required by federal, state, or local law regarding the Permitted Use. The City shall perform the work in a manner that is consistent with the applicable EPA-approved removal action work plan.

10. **Indemnity and Hold Harmless.** The City agrees to defend, and hold the Port of Seattle harmless from any and all claims, liabilities, or damages of any nature whatsoever, including without limitation all costs, attorneys’ fees, expert witness fees and other legal expenses, all damages to persons or property, and all claims for investigation, response, or remediation costs asserted against the Port that arise out of the City’s, or its agents and contractors, negligent acts or omissions at Terminal 117; provided, however, that City shall not be responsible to hold the Port harmless for any claims for damages to any person or property, and remediation costs that are caused by negligent acts or omissions by the Port, including but not limited to damage to the Discharge Line itself.
11. **Insurance.** The City is self-insured. All contractors and subcontractors retained by the City shall obtain adequate liability insurance that meets or exceeds standard contract requirements for similar projects. The insurance policies obtained by the City’s contractors and subcontractors shall name the Port as an additional insured with regard to activities affecting Terminal 117.

12. **Care of Property.** The City, its representatives, agents, contractors, and subcontractors performs under this Agreement will comply with all applicable industry standards and shall not damage, disturb, or destroy improvements or property. The City shall be solely responsible for proper transport and discharge of its stormwater during the license term, subject to the terms of Paragraph 10. The City will not flood any portion of the Premises. Prior to May 1, 2013, The Port and designated representative(s) of the City will conduct a site visit to mutually document the condition and existing improvements at the Premises with photographs and narratives prior to the City’s use of the parcel.

13. **Dispute Resolution.** Any dispute that may arise under this Agreement shall be resolved according to this Paragraph. If a Party alleges a breach or violation of any provision of this Agreement, it shall provide written notice of the alleged violation to the other Party. The Parties and/or their attorneys shall meet in person as soon as reasonably possible to attempt to resolve the dispute. If the Parties cannot resolve the dispute within thirty (30) days of such meeting, the Parties shall seek to agree on a mediator to mediate the dispute. The mediation shall be nonbinding on the Parties. In the event the mediation is unsuccessful and the Parties are not able to resolve the dispute, each Party reserves all rights and defenses available to it under applicable laws.

14. **Entire Agreement.** This Agreement contains the entire understanding of the Parties and supersedes all prior agreements and understandings among the Parties relating to the subject matter of this Agreement.

15. **Counterparts.** The Agreement may be executed in counterparts by the Parties named herein, and all such counterparts once so executed shall together be deemed to constitute one final Agreement, as if one document has been signed by all Parties hereto; and each such counterpart, upon execution and delivery, shall be deemed a complete original, binding on the Parties to the Agreement.

16. **Binding Effect.** Unless otherwise provided, the Agreement and the terms, covenants, conditions, provisions, obligations, undertakings, rights, and benefits hereto shall be binding upon and shall inure to the benefit the City and the Port.

17. **Headings.** The headings contained in the paragraphs of the Agreement are for convenience of reference only and do not in any way limit, expand, or modify the terms or provisions of the Agreement.

18. **Governing Law.** This Agreement shall be interpreted and enforced according to the laws of the state of Washington and all proceedings hereunder shall occur in King County, Washington.

19. **Legal Expenses.** In any action between the Parties to interpret or enforce any of the terms and conditions of this Agreement, the substantially prevailing Party shall be entitled to
recover its reasonable attorneys' fees and costs including those incurred at arbitration or an appeal.

EXECUTED as of the date first written above.

**Port of Seattle**

| By: | [Signature] |
| Title: | [Title] | Mellinda Miller  
Director, Property Management  
Real Estate Division |

**City of Seattle**

| By: | [Signature] |
| Title: | [Title] | Deputy Director |
Note:
Survey information from the Port of Seattle 2011 survey.
December 16, 2008

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Beth Schmoyer
Seattle Public Utilities
700 Fifth Avenue, Suite 4900
P.O. Box 34018
Seattle, WA 98124

Issuance of Wastewater Discharge Authorization No. 4072-04 to City of Seattle – Seattle Public Utilities for the Dallas Avenue South Remediation Project

Dear Ms. Schmoyer:

The King County Industrial Waste Program has reviewed your application to discharge industrial wastewater to the sewer system from the Seattle Public Utilities Dallas Avenue South Remediation Project located near the intersection of South Donovan Street and 17th Avenue South, Seattle, Washington and has issued the enclosed Major Discharge Authorization.

This authorization permits you to discharge limited amounts of industrial wastewater into King County’s sewer system in accordance with the effluent limitations and other requirements and conditions set forth in the document and the regulations outlined in King County Code 28.84.060 (enclosed). The formal requirements and fees of a full wastewater permit will not be required as long as you maintain good compliance and do not change the nature and volume of your discharge.

If you propose to increase the volume of your discharge or change the type or quantities of substances discharged, you must contact King County at least 60 days before making these changes.

If at any time you have questions about this discharge authorization, or other questions about your discharge, please feel free to call me at 206-263-3012.

Sincerely,

[Signature]

Anaud Girard
Investigator
Industrial Waste Program

Enclosures

cc: Andrew Lee, Seattle Public Utilities
    Doug Hilderbrand, King County
MAJOR DISCHARGE AUTHORIZATION
King County Industrial Waste Program
130 Nickerson Street, Suite 200
Seattle, Washington 98109-1658

NUMBER 4072-04
for
Seattle, City of-SPU - Dallas Avenue South Remediation Project

Plant Address: Intersection of South Donovan Street and 17th Avenue South
Seattle, Washington

Mailing Address: 700 Fifth Avenue, Suite 4900 - P.O. Box 34018
Seattle, WA 98124

Phone: (206) 386-1199   Emergency (24-Hour) Phone: (206) 386-1849

Industry Type: Construction Dewatering

SIC Code: 4959   EPA Id. #: NA

Sample Site No.: A45611 - Outlet from treatment system

Discharge To: West Point

*Note: This authorization is valid only for the specific discharges shown below:

Discharge Process: Wastewater generated by Construction Dewatering operation.

Pre-treatment Process: Gravity Separation, filtration & activated carbon absorption

Maximum Volume: Industrial: 100,000 gallons per day
Other: 0 gallons per day
Total: 100,000 gallons per day

Effective Date: January 1, 2009
Expiration Date: December 31, 2013

Permission is hereby granted to discharge industrial wastewater from the above-identified facility into the King County sewer system in accordance with the effluent limitations and monitoring requirements set forth in this authorization.

If the industrial user wishes to continue to discharge after the expiration date, an application must be filed for re-issuance of this discharge authorization at least 180 days prior to the expiration date. For information concerning this King County Discharge Authorization please call Arnaud Girard, Industrial Waste Investigator, at 206-263-3012.

24-HOUR EMERGENCY NOTIFICATION
West Point Treatment Plant: 206-263-3801
Department of Ecology: 425-649-7000
SPECIAL CONDITIONS

1. This authorization grants the discharge of limited amounts of the following types of wastewater:
   - Stormwater runoff from 1.8-acre subject area;
   - Site pressure washing activities;
   - Equipment & personnel decontamination wash water.

   Wastes or contaminants from sources other than permitted herein shall not be discharged to the sanitary sewer without prior approval from King County's Industrial Waste Program.

2. For the purpose of sampling, treatment, and/or discharge mode requirements the following definitions shall apply:
   - The term **Active Stages** of the site remediation refers to the stages of the remediation project when active remediation and construction work is being performed. These stages have been defined as the interim clean up stage and the final clean up stage. During these stages, contaminated sediments will be exposed and therefore likely to contribute contaminants of concern to the stormwater runoff.
   - The term **Non-Active Stage** of the site remediation refers to the period between the interim and final clean up stages when contaminated sediments in the public right of way will be capped and therefore not likely to contribute contaminants of concern to the stormwater runoff.

3. During the non-active stage of the site remediation, collected stormwater must be pumped to appropriately sized settling tanks.

4. During the active stages of the site remediation there shall be no bypass of the granular activated carbon (GAC) vessels.

5. During the active stages of the site remediation, discharge to the sewer shall not occur until analytical test results associated with required sampling indicate compliance with discharge limits.

6. Local sewerage system capacity is a concern at the proposed discharge location. The permittee must coordinate with Seattle Public Utilities wastewater staff to ensure that timing and discharge rate into the sewer will not hydraulically overload the sewerage conveyance system. During periods of peak hydraulic loading King County and Seattle Public Utilities representatives reserve the authority to request that discharge to the sewer be stopped.

7. The daily average (composite sample) PCB discharge limit per Aroclor is 0.513 μg/L.

8. SPU must contact King County at least fifteen (15) days before the final clean-up stage is scheduled to begin.
SELF-MONITORING REQUIREMENTS

1. The following self-monitoring requirements shall be met for this discharge authorization during the “active” stages (b) of the site remediation:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency</th>
<th>Sample Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCBs (a)</td>
<td>Each batch</td>
<td>Composite</td>
</tr>
<tr>
<td>Discharge Rate</td>
<td>Daily</td>
<td>In-line sewer meter</td>
</tr>
<tr>
<td>Discharge Rate Daily Max</td>
<td>Report monthly</td>
<td>In-line sewer meter</td>
</tr>
<tr>
<td>Total Monthly Flow</td>
<td>Report monthly</td>
<td>In-line sewer meter</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>Only if operating criteria are exceeded</td>
<td>Meter reading</td>
</tr>
<tr>
<td>Settleable Solids</td>
<td>Only if operating criteria are exceeded</td>
<td>Grab</td>
</tr>
<tr>
<td>Explosivity</td>
<td>Only if operating criteria are exceeded</td>
<td>Meter reading</td>
</tr>
</tbody>
</table>

The following self-monitoring requirements shall be met for this discharge authorization during the “non-active” stage (b) of the site remediation:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency</th>
<th>Sample Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCBs (a)</td>
<td>Monthly</td>
<td>Composite</td>
</tr>
<tr>
<td>Discharge Rate</td>
<td>Daily</td>
<td>In-line sewer meter</td>
</tr>
<tr>
<td>Discharge Rate Daily Max</td>
<td>Report monthly</td>
<td>In-line sewer meter</td>
</tr>
<tr>
<td>Total Monthly Flow</td>
<td>Report monthly</td>
<td>In-line sewer meter</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>Only if operating criteria are exceeded</td>
<td>Meter reading</td>
</tr>
<tr>
<td>Settleable Solids</td>
<td>Only if operating criteria are exceeded</td>
<td>Grab</td>
</tr>
<tr>
<td>Explosivity</td>
<td>Only if operating criteria are exceeded</td>
<td>Meter reading</td>
</tr>
</tbody>
</table>

(a) Includes: Aroclor 1016, Aroclor 1221, Aroclor 1232, Aroclor 1242, Aroclor 1248, Aroclor 1254, Aroclor 1260

(b) See Item 2 of the Special Conditions section for a definition of active and non-active stages

2. If a violation of any discharge limits or operating criteria is detected in monitoring, you shall notify the Industrial Waste Program immediately upon receipt of analytical data.

3. Monthly self-monitoring reports (report form enclosed with this document) shall be filed with Industrial Waste no later than the 15th day of the following month for monthly, weekly,
daily samples. If no discharge takes place during any monitoring period, it shall be noted on the report.

4. All self-monitoring data submitted to Industrial Waste, which required a laboratory analysis, must have been performed by a laboratory accredited by the Washington State Department of Ecology for each parameter tested, using procedures approved by 40 CFR 136. This does not apply to field measurements performed by the industrial user such as pH, temperature, flow, atmospheric hydrogen sulfide, total dissolved sulfides, total settleable solids by Imhoff cone, or process control information.

5. All sampling data collected by the Permittee and analyzed using procedures approved by 40 CFR 136 or approved alternatives shall be submitted to King County whether required as part of this permit or done voluntarily by the Permittee.

6. Self-monitoring reports shall be signed by an authorized representative of the industrial user. The authorized representative of the industrial user is defined as:

   a. A principal executive officer of at least the level of vice president, if the industrial user is a corporation;

   b. A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively;

   c. A director or highest official appointed or designated to oversee the operation and performance of the industry if the industrial user is a government agency; or

   d. A duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.
GENERAL DISCHARGE LIMITATIONS

Operating Criteria

There shall be no odor of solvent, gasoline, or hydrogen sulfide (rotten egg odor), oil sheen, unusual color, or visible turbidity. The discharge must remain translucent. If any of the discharge limits are exceeded, you must stop discharging and notify the King County Industrial Waste Program at 206-263-3000.

Polychlorinated biphenyls (PCBs)

The daily average (composite sample) PCB discharge limit per Aroclor is 0.513 µg/L.

Corrosive Substances

Limits
Maximum: pH 12.0 (s.u.)
Instantaneous Minimum: pH 5.0 (s.u.)
Daily Minimum: pH 5.5 (s.u.)

The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5.0. The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.

Discharges of more than 50 gallons per day of caustic solutions equivalent to more than five percent (5%) NaOH by weight or greater than pH 12.0 are prohibited unless authorized by King County and subject to special conditions to protect worker safety, the collection system, and treatment works.

Fats, Oils, and Grease (FOG)

Discharge of FOG shall not result in significant accumulations that either alone or in combination with other wastes are capable of obstructing flow or interfere with the operation or performance of sewer works or treatment facilities.

Non-polar FOG (oil and grease from petroleum sources): The industrial user shall not discharge wastes that contain in excess of 100 milligrams per liter (mg/L) of non-polar FOG.

Polar FOG (oil and grease from animal and/or vegetable origin): Dischargers of polar FOG shall minimize free-floating polar FOG. Dischargers may not add emulsifying agents exclusively for the purpose of emulsifying free floating FOG.

Flammable or Explosive Materials

No person shall discharge any pollutant, as defined in 40 CFR 403.5, that creates a fire or explosion hazard in any sewer or treatment works, including, but not limited to, waste streams with a closed cup flashpoint of less than 140°F Fahrenheit or 60°C Centigrade using the test methods specified in 40 CFR 261.21.

At no time shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system), be more than five percent (5%) nor any single reading be more than ten percent (10%) of the Lower Explosive Limit (LEL) of the meter. Pollutants subject to this prohibition include, but are not limited to, gasoline, kerosene, naphtha,
GENERAL CONDITIONS

1. All requirements of King County Code pertaining to the discharge of wastes into the municipal sewer system are hereby made a condition of this Discharge Authorization.

2. The industrial discharger shall implement measures to prevent accidental spills or discharges of prohibited substances to the metropolitan sewer system. Such measures include, but are not limited to, secondary containment of chemicals and wastes, elimination of connections to the metropolitan sewer system, and spill response equipment.

3. Any facility changes, which will result in a change in the character or volume of the pollutants discharged to the municipal sewer system, must be reported to your Industrial Waste representative. Any facility changes that will cause the violation of the effluent limitations specified herein will not be allowed.

4. In the event the industrial user is unable to comply with any of the conditions of this Discharge Authorization because of breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature the company shall:
   a. Take immediate action to stop, contain, and clean up the unauthorized discharges and correct the problem;
   b. immediately notify the King County Industrial Waste Program, 206-263-3000, so steps can be taken to prevent damage to the sewerage system; and
   c. submit a written report within 14 days describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent recurrence.

5. Compliance with these requirements does not relieve the industrial user from responsibility to maintain continuous compliance with the conditions of the Discharge Authorization or the resulting liability for failure to comply.

6. The industrial user shall, at all reasonable times, allow authorized representatives of King County to enter that portion of the premises where an effluent source or disposal system is located or in which any records are required to be kept under the terms and conditions of this Discharge Authorization.

7. Nothing in the Discharge Authorization shall be construed as excusing the industrial user from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including discharge into waters of the state. Any such discharge is subject to regulation and enforcement action by the Department of Ecology.

8. This authorization does not authorize discharge after its expiration date. If the industrial user wishes to continue to discharge after the expiration date, an application must be filed for reissuance of this discharge authorization at least 180 days prior to the expiration date. If the industrial user submits its reaplication in the time specified herein, the industrial user shall be deemed to have an effective waste discharge authorization until Industrial Waste issues or denies the new waste discharge authorization. If the industrial user fails to file its reaplication in the time period specified herein, the industrial user will be deemed to be discharging without a discharge authorization.

Investigator: Arnaud Girard

Date: 12/16/08
benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides, and any other substances that King County, a fire department, the State, or EPA has notified the user are a fire hazard or a hazard to the system.

**Heavy Metals/Cyanide**

The industrial user shall not discharge waste, which exceed the following limitations:

<table>
<thead>
<tr>
<th>Heavy Metals &amp; Cyanide</th>
<th>Instantaneous Maximum ppm (mg/L)*</th>
<th>Daily Average ppm (mg/L)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>4.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Cadmium</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Chromium</td>
<td>5.0</td>
<td>2.75</td>
</tr>
<tr>
<td>Copper</td>
<td>8.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Lead</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Mercury</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Nickel</td>
<td>5.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Silver</td>
<td>3.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Zinc</td>
<td>10.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Cyanide</td>
<td>3.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*The instantaneous maximum is violated whenever the concentration of any sample, including a grab within a series used to calculate daily average concentrations, exceeds the limitation.

**The daily average limit is violated: a) for a continuous flow system when a composite sample consisting of four or more consecutive samples collected during a 24-hour period over intervals of 15 minutes or greater exceeds the limitation, or b) for a batch system when any sample exceeds the limitation. A composite sample is defined as at least four grab samples of equal volume taken throughout the processing day from a well-mixed final effluent chamber, and analyzed as a single sample.

**High Temperature**

The industrial user shall not discharge material with a temperature in excess of 65 °C (150 °F).

**Hydrogen Sulfide**

Atmospheric hydrogen sulfide: 10.0 ppm
(As measured at a monitoring manhole designated by King County)

Soluble sulfide limits may be established on a case-by-case basis depending upon volume of discharge and conditions in the receiving sewer, including oxygen content and existing sulfide concentrations.

**Organic Compounds**

No person shall discharge any organic pollutants that result in the presence of toxic gases, vapors, or fumes within a public or private sewer or treatment works in a quantity that may cause worker health and safety problems. Organic pollutants subject to this restriction include, but are not limited to: Any organic pollutants compound listed in 40 CFR Section 433.11 (e) (Total Toxic Organics (TTO) definition), Acetone, 2-butanolone (MEK), 4-methyl-2-pentanone (MIBK), and xylenes.

**Settleable Solids**

Settleable solids concentrations: 7.0 ml/L
**CONTRACTOR'S SOLID WASTE TRACKING SHEET (SWTS)**

*FOR ALL DISCARDED ITEMS DESIGNATED AS NOT HAZARDOUS WASTE, PCB, OR ASBESTOS*

**SECTION I WASTE ID**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION II CONTRACT NUMBER/TITLE**

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>Contract Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION III FINAL DESTINATION**

<table>
<thead>
<tr>
<th>Permit Type and Number</th>
<th>(if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION IV FINAL DISPOSITION**

<table>
<thead>
<tr>
<th>Waste will be taken to the Section III address to be:</th>
</tr>
</thead>
<tbody>
<tr>
<td>REUTILIZED</td>
</tr>
</tbody>
</table>

**STOP!**

Make enough copies of this original to match the estimated number of loads to be transported. Number the first copy "01." If there will only be one load, use this original instead of a copy. DO NOT USE THIS FORM FOR waste designated as ASBESTOS, PCB, or HW.

**SECTION V CONTRACTOR VERIFICATION**

<table>
<thead>
<tr>
<th>I hereby verify the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

have been inspected by me and are as described in Section II and the WIS. No additional waste has been added.

<table>
<thead>
<tr>
<th>Contractor's Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION VI TRANSPORTER VERIFICATION**

<table>
<thead>
<tr>
<th>I hereby verify the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. No material or waste was added or removed after loading and verification signature at the work site, and b. I delivered the load contents as stated to the address stated in Section III.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transporter's Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION VII RECEIVER SITE VERIFICATION**

| I hereby verify I received the load contents as described in Section II at the address stated in Section III. |

| Approved receiver sites for soil reuse are sometimes unattended. In this case, Transporter completes. |

<table>
<thead>
<tr>
<th>Receiver's Signature</th>
<th>Print Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## CONTRACTOR’S SOLID WASTE TRACKING SHEET (SWTS)

**FOR ALL DISCARDED ITEMS DESIGNATED AS NOT HAZARDOUS WASTE, PCB, OR ASBESTOS**

### DISPOSITION DESCRIPTION

**NOTE:** All discarded items require designation. *Exceptions: Sanitary wastes and organic decaying debris.*

#### “Reutilize”

Items which contractually belong to the Contractor may be removed by the Contractor to his place of business, or may be offered to the Government for reutilization (reuse). Examples: Kitchen and lavatory items, concrete barriers.

**NOTE:** Although soil does not belong to the Contractor, there is a potential for reuse of soil off-site IF: Upon designation of the waste as non-hazardous or non-dangerous, AND The Contractor obtains approval of the receiving county’s Health District Officials.

#### “Recycle”

Take to a facility (or broker) where there is a process to remanufacture the discarded item into another usable item. Examples: Cardboard/paper, asphalt, wood, concrete.

#### “Landfill-Controlled”

Landfills are required to have a process in place to screen the waste they receive. A “Landfill-Controlled” waste is any waste for which the receiving facility requires a landfill disposal application to ensure the waste is screened in a way that meets the requirements of their operating permit. Examples: Soil, painted wood waste. If you check this category, enter the Waste Disposal Application (WDA) number on the line provided to the right of the “Landfill-Controlled” category box.

#### “Trash” or “Non-Hazardous to Trash”

Discarded items which:
- Have not been designated as “Hazardous Waste (HW),” “PCB,” or “Asbestos,”
- Do not require a Waste Disposal Application; and
- Are unable to be recycled.

### INSTRUCTIONS

**CONTRACTOR:** With the exception of the “Load Number” block, fill out Sections I - IV. This will be the base form for all loads of this designated waste stream. Next, estimate the number of loads it will take to remove the waste, and make the same amount of copies of the semi-completed form as the load estimate. Contractor will then assign load numbers in the “Load Number” block for the purpose of tracking each load of waste to its final destination. Number each page consecutively, beginning with the number “01” — refer to “Sample Scenario.” If there will be only one load of this waste stream on the project, use the original instead of making copies. Each time a load of waste is put into the transport vehicle, the Contractor verifies the waste, signs, and completes Section V.

**TRANSPORTER:** Verify, sign, and complete Section VI. Obtain a load weight ticket. If no one is present at the receiving site, complete Section VII.

**RECEIVER:** Verify, sign, and complete Section VII. Provide weight ticket and return signed SWTS to Transporter. If scales are not available, enter number of cubic yards of the load on the line provided for the weight ticket.

**TRANSPORTER:** Attach the load weight ticket to the SWTS. Return SWTS and weight ticket to Contractor.

**CONTRACTOR:** If the receiving facility did not provide a weight ticket, ensure the number of cubic yards has been recorded on the line provided. Retain SWTS until the end of that calendar month for compilation into the Contractor’s Weekly Disposal Report (CWDR). Submit all SWTS and the CWDR forms in a package to your contract point of contact.

### Sample Scenario:

XYZ Co. is excavating soil during a project, and has determined that the soil is designated as “Landfill-Controlled” waste. XYZ Co. completes the additional form (Waste Disposal Application) required by the landfill. They obtain a SWTS and a waste id number (if used) from their Contracting Officer. Next they identify the project information for Section II. Moving to Section III, they enter the Owner-approved facility location the soil will be taken to, and check “disposed” as its final disposition. They estimate 1,000 cubic yards of soil will be removed during the project, which will take approximately 50 truckloads. XYZ Co. makes 50 copies of the SWTS original, and then assigns each copy a number, beginning with Load #01 and ending with #50. When the soil transportation begins, XYZ Co. gives “SWTS #001, Load #01” to the driver of the first load of soil, “SWTS #00X, Load #02” to the driver of the second load, etc. Before each load leaves the work site, XYZ Co. verifies that the content of each load is indeed what is described in Section I. As each driver delivers their load, they verify that they transported only that specified waste to the approved facility. The receiver at the disposal facility acknowledges receipt of the load with his signature, and provides the transporter with the load weight ticket. The driver submits the weight ticket and the completed SWTS to XYZ Co. Monthly, XYZ Co. submits all completed SWTS documentation for the prior month, and a completed CWDR summarizing the data.

_Sw tracking sheet.doc_
### SAMPLE OFFSITE POLICY CERTIFICATION MEMO

Project/Contract #: ____________________________________________

Waste Stream: ________________________________________________

Primary TSD Facility, USEPA ID # and Location: ________________

Alter. TSD Facility, USEPA ID # and Location: ____________________

<table>
<thead>
<tr>
<th>USEPA Region 10</th>
<th>Primary Contact</th>
<th>Secondary Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Telephone No.</td>
<td>Telephone No.</td>
</tr>
<tr>
<td></td>
<td>Fax: No.</td>
<td>Fax No.</td>
</tr>
</tbody>
</table>

USEPA representative contacted: USEPA ____________________________

Representative telephone no.: ________________________________

Date contacted: ________________________________

Comment: ___________________________________________________________________________________

The above USEPA representative was contacted on __________________. As of that date the above Sites were considered acceptable in accordance with the Off-Site Policy in 40 CFR 300.440.

Signature: ________________________________ Date: ________________________________

Telephone No.: ________________________________
The NOAA Tide Predictions application provides predictions in both graphical and tabular formats, with many user selected options, for over 3000 stations broken down by key areas in each state. Users can also access stations via the Google map interface. Additional information can be found in the help page.

Station Types: The NOAA Tide Predictions application provides predictions from 2 distinct categories of stations at over 3000 locations:

Harmonic - The predicted height values for Harmonic stations are conducted by combining the harmonic constituents into a single tide curve.

Subordinate - The high and low height values for Subordinate stations are obtained by means and differences, and ratios applied to the full harmonic constant predictions at a specific Harmonic station (a Reference station).

Disclaimer: The official Tide prediction tables are published annually on October 1, for the following calendar year. Tide predictions generated prior to the publishing date of the official tables are subject to change. The predictions from the web based NOAA Tidal Predictions are based upon the latest information available as of the date of your request. Tide predictions generated may differ from the official published predictions if information for the station requested has been updated since the publishing date of the official published tables.
<table>
<thead>
<tr>
<th>Date</th>
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<th>Height</th>
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<th>Time</th>
<th>Height</th>
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</thead>
<tbody>
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<td>9.3</td>
<td>16</td>
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<td>03:44 AM</td>
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</tr>
<tr>
<td>109</td>
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<td>17</td>
<td>12:43 PM</td>
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<td>10:04 AM</td>
<td>6.4</td>
</tr>
<tr>
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<td>11.4</td>
<td>27</td>
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<td>2</td>
<td>02:49 PM</td>
<td>10.2</td>
</tr>
<tr>
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<td>09:15 AM</td>
<td>6.4</td>
<td>27</td>
<td>11:30 AM</td>
<td>6.9</td>
<td>2</td>
<td>03:22 PM</td>
<td>9.2</td>
</tr>
<tr>
<td>17</td>
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<td>9.7</td>
<td>27</td>
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<td>9.3</td>
<td>2</td>
<td>03:10 PM</td>
<td>10.0</td>
</tr>
<tr>
<td>17</td>
<td>01:00 AM</td>
<td>5.5</td>
<td>27</td>
<td>09:49 PM</td>
<td>6.7</td>
<td>2</td>
<td>01:40 PM</td>
<td>5.4</td>
</tr>
<tr>
<td>17</td>
<td>01:30 AM</td>
<td>6.0</td>
<td>27</td>
<td>07:41 PM</td>
<td>6.0</td>
<td>2</td>
<td>03:01 PM</td>
<td>6.7</td>
</tr>
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<td>27</td>
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<td>27</td>
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<td>6.8</td>
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<td>02:09 PM</td>
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</tr>
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<td>04:30 PM</td>
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<td>27</td>
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<td>2</td>
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<td>6.5</td>
</tr>
<tr>
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<td>03:00 PM</td>
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<td>27</td>
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<td>6.6</td>
<td>2</td>
<td>00:00 PM</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Datum:** mean lower low water (MLLW) which is the chart datum of soundings

**Source:** NOAA/NOS/CO-OPS

**Generated On:** Wed Apr 02 14:51:13 GMT 2014

---

**NOAA Tide Predictions**

**Times and Heights of High and Low Waters**

---

**Disclaimer:** These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.

**Referenced to Station:** SEATTLE (Madison St.), Elliott Bay (9447130) Time offset in mins (high:10 low:11) Height offset in feet (high: *0.97 low: *0.95)

---

**Generated On:** Wed Apr 02 14:51:13 GMT 2014 Page 2 of 5
### Times and Heights of High and Low Waters

#### April

<table>
<thead>
<tr>
<th>Time</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3.4</td>
</tr>
<tr>
<td>08:24 AM</td>
<td>1.2</td>
</tr>
<tr>
<td>09:56 AM</td>
<td>0.6</td>
</tr>
<tr>
<td>11:28 AM</td>
<td>0.4</td>
</tr>
<tr>
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<td>0.1</td>
</tr>
<tr>
<td>02:32 PM</td>
<td>2.6</td>
</tr>
<tr>
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<tr>
<td>05:38 PM</td>
<td>2.1</td>
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#### May

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#### June

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</tbody>
</table>

**Disclaimer:** These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.

Referenced to Station: SEATTLE (Madison St.), Elliott Bay (9447130) Time offset in mins (high:10 low:1) Height offset in feet (high: * 0.97 low: * 0.95)

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Discretion: These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.

Times and Heights of High and Low Waters
NOAA Tide Predictions

Times and Height of Low Waters

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<th>ft</th>
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<tr>
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Generated On: Wed Apr 02 14:51:13 GMT 2014
Page 4 of 5
## NOAA Tide Predictions

**Duwamish Waterway, Eighth Ave. South, Washington, 2015**

### Times and Heights of High and Low Waters

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<th>Height</th>
</tr>
</thead>
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<td>59.4 ft</td>
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</table>

**Disclaimer:** These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.

**Generated On:** Wed Apr 02 14:51:13 GMT 2014 Page 5 of 5
CONSTRUCTION STAGING ON SOUTH PARK MARINA PROPERTY
(36,179 SF)
- FIELD OFFICE TRAILERS
- TEMPORARY SANITARY FACILITIES
- CONTRACTOR PARKING
- TOOL & EQUIPMENT STORAGE
- MATERIAL LAY-DOWN (CLEAN)
- TRUCK QUEUING

Figure 1-04.9-1
South Park Marina Property
Adjacent Streets Cleanup
T-117 EAA, Lower Duwamish Waterway Superfund Site

PARCEL # 218500-1275
(5,000 SF)

PARCEL # 218500-1075
(5,193 SF)

PARCEL # 218500-1045
(25,986 SF)

Note:
Background image obtained from maps.google.com.
Figure 2-08.3-1: Potential Groundwater Locations

1. Background imagery is provided courtesy of the City of Seattle, is dated 2009, and is for reference purposes only.

2. Potential for Groundwater to be Encountered During Excavation

3. Adjacent Street Excavation Units

4. Right-of-way Decision Units

5. Pavement Restoration

6. T-117 EAA Boundary

7. Buildings with Addresses

8. DRAFT
### Table 1-07.34-1: Required Chemical Analytes, Acceptance Criteria, Method, and Reporting Limits for Import Material

<table>
<thead>
<tr>
<th>Chemical Analyte</th>
<th>Units</th>
<th>Acceptance Criterion*</th>
<th>Analytical Method</th>
<th>Method Reporting Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB Aroclors</td>
<td>µg/kg dw</td>
<td>ND</td>
<td>USEPA 8082A</td>
<td>4</td>
</tr>
<tr>
<td>Semivolatile organic compounds (SVOCs)</td>
<td>µg/kg dw</td>
<td>ND</td>
<td>USEPA 8270</td>
<td>20&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Pesticides</td>
<td>µg/kg dw</td>
<td>ND</td>
<td>USEPA 8081B</td>
<td>3.3&lt;sup&gt;b&lt;/sup&gt;</td>
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<tr>
<td>Dioxins/Furan TEQ</td>
<td>ng/kg dw</td>
<td>4</td>
<td>USEPA 1613</td>
<td>1</td>
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<tr>
<td>Arsenic</td>
<td></td>
<td>7.3</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Cadmium</td>
<td></td>
<td>2.6</td>
<td></td>
<td>0.2</td>
</tr>
<tr>
<td>Chromium</td>
<td>mg/kg dw</td>
<td>130</td>
<td>USEPA 6010</td>
<td>0.5</td>
</tr>
<tr>
<td>Copper</td>
<td>mg/kg dw</td>
<td>195</td>
<td></td>
<td>0.2</td>
</tr>
<tr>
<td>Lead</td>
<td></td>
<td>225</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Silver</td>
<td></td>
<td>2</td>
<td></td>
<td>0.3</td>
</tr>
<tr>
<td>Zinc</td>
<td></td>
<td>205</td>
<td></td>
<td>1</td>
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<tr>
<td>Mercury</td>
<td>mg/kg dw</td>
<td>0.21</td>
<td>USEPA 7471</td>
<td>0.02</td>
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<tr>
<td>Diesel range hydrocarbons</td>
<td>mg/kg dw</td>
<td>ND</td>
<td>NWTPH-D</td>
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<tr>
<td>Lube oil range hydrocarbons</td>
<td>mg/kg dw</td>
<td>ND</td>
<td></td>
<td>10</td>
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</tbody>
</table>
Notes:

In addition to these criteria, import material data results will be compared to state (MTCA) and federal (USEPA Regional Screening Levels) criteria, as applicable. These criteria are given in Table 1-07.34-2.

a Most SVOCs, such as PAHs, have reporting limits of 20 $\mu$g/kg dw. Some SVOCs have higher reporting limits: 2,4-dimethylphenol – 35, 4-methylphenol – 35, benzoic acid – 400, bis(2-ethylhexyl)phthalate – 30, hexachlorobutadiene – 90, diethylphthalate – 50, pentachlorophenol – 200.

b Certain pesticides have higher reporting limits: methoxychlor – 17; toxaphene – 170.

ND = Not detected at reporting limit

TEQ = toxicity equivalent

$\mu$g/kg dw = microgram per kilogram, dry weight

mg/kg dw = milligram per kilogram, dry weight

ng/kg dw = nanogram per kilogram, dry weight
**Table 1-07.34-2. Additional Criteria to be Considered for Import Materials**

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Acceptance Criteria</th>
<th>MTCA A Unrestricted Land Use (Direct Contact, Ingestion)</th>
<th>MTCA B Unrestricted Land Use (Direct Contact, Ingestion)</th>
<th>EPA Regional Screening Levels Residential Soil (Direct Contact, Ingestion)</th>
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</thead>
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<td></td>
<td></td>
<td>Carcinogen</td>
<td>Non-Carcinogen</td>
<td>Carcinogen</td>
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<tr>
<td><strong>Metals (mg/kg)</strong></td>
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<td>Metals</td>
<td>Metals</td>
<td>Metals</td>
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<td>Arsenic</td>
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<td>Cadmium</td>
<td>2.6</td>
<td>2</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Chromium**</td>
<td>130</td>
<td>—</td>
<td>240</td>
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<td>Copper</td>
<td>195</td>
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<td>3,200</td>
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<td>205</td>
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<td>24,000</td>
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<td><strong>PCBs (μg/kg)</strong></td>
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<td>Metals</td>
<td>Metals</td>
<td>Metals</td>
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<td>Metals</td>
<td>Metals</td>
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<td>MTCA B Unrestricted Land Use (Direct Contact, Ingestion)</td>
<td>EPA Regional Screening Levels Residential Soil (Direct Contact, Ingestion)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>cis-Chlordane ^</td>
<td>ND or &lt;3.3</td>
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<td>Toxaphene</td>
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<td>TPH (mg/kg)</td>
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<td>Motor oil range</td>
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<td>SVOCS (μg/kg)</td>
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<td>Phenol</td>
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<td></td>
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<td>ND or &lt;20</td>
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<td>1,4-Dichlorobenzene</td>
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<tr>
<td>Benzyl alcohol</td>
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<td>1,2-Dichlorobenzene</td>
<td>ND or &lt;20</td>
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<td>ND or &lt;20</td>
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<td>4-Methylphenol</td>
<td>ND or &lt;35</td>
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<td></td>
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<td>16,000 55,000</td>
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<td>2,4-Dimethylphenol</td>
<td>ND or &lt;35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzoic acid</td>
<td>ND or &lt;400</td>
<td></td>
<td></td>
<td>310,000,000</td>
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<td>1,2,4-Trichlorobenzene</td>
<td>ND or &lt;20</td>
<td>34,500</td>
<td>22000 780,000</td>
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<td>1,600,000</td>
<td>1,600,000</td>
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<td>8,200 78,000</td>
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<td>ND or &lt;20</td>
<td>320,000</td>
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<td>310,000</td>
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<td>Dimethylnaphthalate</td>
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<td></td>
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<td>Acenaphthylene</td>
<td>ND or &lt;20</td>
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</tr>
<tr>
<td>Acenaphthene</td>
<td>ND or &lt;20</td>
<td></td>
<td>4,800,000</td>
<td>4,700,000</td>
</tr>
<tr>
<td>Dibenzofuran</td>
<td>ND or &lt;20</td>
<td></td>
<td>80,000</td>
<td>78,000</td>
</tr>
<tr>
<td>Diethylphthalate</td>
<td>ND or &lt;50</td>
<td>64,000,000</td>
<td></td>
<td>63,000,000</td>
</tr>
<tr>
<td>Fluorene</td>
<td>ND or &lt;20</td>
<td>3,200,000</td>
<td></td>
<td>3,100,000</td>
</tr>
<tr>
<td>N-Nitrosodiphenylamine</td>
<td>ND or &lt;20</td>
<td>204,000</td>
<td>130,000</td>
<td></td>
</tr>
<tr>
<td>Hexachlorobenzene</td>
<td>ND or &lt;20</td>
<td>625</td>
<td>64,000 400</td>
<td>63,000</td>
</tr>
</tbody>
</table>
### Table 1-07.34-2. Additional Criteria to be Considered for Import Materials

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Acceptance Criteria</th>
<th>MTCA A Unrestricted Land Use</th>
<th>MTCA B Unrestricted Land Use (Direct Contact, Ingestion)</th>
<th>EPA Regional Screening Levels Residential Soil (Direct Contact, Ingestion)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Carcinogen</td>
<td>Non-Carcinogen</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>Pentachlorophenol</td>
<td>ND or &lt;200</td>
<td></td>
<td>2,500</td>
<td>400,000</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>ND or &lt;20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthracene</td>
<td>ND or &lt;20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Di-n-butylphthalate</td>
<td>ND or &lt;20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>ND or &lt;20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pyrene</td>
<td>ND or &lt;20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butylbenzylphthalate</td>
<td>ND or &lt;20</td>
<td>526,000</td>
<td>16,000,000</td>
<td>340,000</td>
</tr>
<tr>
<td>Benzo(a)anthracene</td>
<td>ND or &lt;20</td>
<td></td>
<td>1,370</td>
<td></td>
</tr>
<tr>
<td>Bis(2-ethylhexyl)phthalate</td>
<td>ND or &lt;30</td>
<td></td>
<td>71,400</td>
<td>1,600,000</td>
</tr>
<tr>
<td>Chrysene</td>
<td>ND or &lt;20</td>
<td>137,000</td>
<td></td>
<td>20,000</td>
</tr>
<tr>
<td>Di-n-octyl phthalate</td>
<td>ND or &lt;20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>ND or &lt;20 100</td>
<td>137</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>ND or &lt;20</td>
<td>1,370</td>
<td></td>
<td>200</td>
</tr>
<tr>
<td>Dibenz(a,h)anthracene</td>
<td>ND or &lt;20</td>
<td>137</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Benzo(g,h,i)perylene</td>
<td>ND or &lt;20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Methylnaphthalene</td>
<td>ND or &lt;20</td>
<td>34,500</td>
<td>22,000</td>
<td>5,500,000</td>
</tr>
<tr>
<td>Total Benzofluoranthen</td>
<td>ND or &lt;20</td>
<td>13,700</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td><strong>Dioxins/Furans (ng/kg)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,3,7,8-TCDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,3,7,8-TCDD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,3,7,8-PCDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,3,4,7,8-PeCDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,3,7,8-PeCDD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,3,4,7,8-HxCDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,3,6,7,8-HxCDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,3,4,6,7,8-HxCDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,3,7,8,9-HxCDF</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,3,4,7,8-HxCDD</td>
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<td></td>
</tr>
<tr>
<td>1,2,3,6,7,8-HxCDD</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1,2,3,7,8,9-HxCDD</td>
<td></td>
<td>161</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>1,2,3,4,6,7,8-HpCDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,3,4,7,8,9-HpCDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>MTCA Carcinogen</td>
<td>Non-Carcinogen</td>
</tr>
<tr>
<td>1,2,3,4,6,7,8-HpCDD</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>OCDF</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>OCDD</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>TEQ</td>
<td>4</td>
<td>—</td>
<td>11*</td>
<td>—</td>
</tr>
</tbody>
</table>

**Notes**
- MTCA values compiled from the CLARC database 11/28/12: https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx
- EPA soil regional screening levels (RSLs), May 2012: http://www.epa.gov/region9/superfund/prg/
- **Table conservatively shows MTCA and EPA values for chromium VI; the more common form, chromium III values are higher.**
- * MTCA and EPA values for endosulfan.
- ^ MTCA and EPA values for chlordane.
- ^ MTCA and EPA values for benzo(k)fluoranthene.
- — = no value
February 6, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Beth Schmoyer
Seattle Public Utilities
P.O. Box 34018
Seattle, WA 98124-4018

Issuance of Wastewater Discharge Authorization No. 4072-06 to Seattle Public Utilities - Dallas Avenue South Remediation Project

Dear Ms. Schmoyer:

The King County Industrial Waste Program (KCIW) has reviewed your application to discharge industrial wastewater to the sewer system from the Seattle Public Utilities - Dallas Avenue South Remediation Project located at South Donovan Street and 17th Avenue South, Seattle, Washington, and has issued the enclosed Major Discharge Authorization. The enclosed Discharge Authorization No. 4072-06 supersedes and cancels Discharge Authorization No. 4072-05, effective February 12, 2014. There is no fee for this first revision of your authorization; however, KCIW will assess the applicable King County fee for additional revisions.

The following revisions were made:

1. Special Conditions and self-monitoring sections were updated to provide clarification on the King County requirements regarding the “Active Stage” of remediation.

This authorization permits you to discharge limited amounts of industrial wastewater into King County’s sewer system in accordance with the effluent limitations and other requirements and conditions set forth in the document and the regulations outlined in King County Code 28.84.060. As long as you maintain compliance with regulations and do not change the nature and volume of your discharge, KCIW will not require you to apply for an industrial wastewater discharge permit, a type of approval that would result in additional requirements and increased fees.
If you propose to increase the volume of your discharge or change the type or quantities of substances discharged, you must contact KCIW at least 60 days before making these changes.

If at any time you have questions about this discharge authorization or your wastewater discharge, please call me at 206-263-3005 or email me at dana.heinz@kingcounty.gov. You may also wish to visit our program’s Internet pages at: www.kingcounty.gov/industrialwaste.

Thank you for helping support our mission to protect public health and enhance the environment.

Sincerely,

Dana Heinz
Compliance Investigator

Enclosures

cc: Julie Howell, Seattle Public Utilities
    Kristin Painter, King County
MAJOR DISCHARGE AUTHORIZATION
King County Industrial Waste Program
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658

NUMBER 4072-06
for
Seattle Public Utilities - Dallas Avenue South Remediation Project

Facility address: S. Donovan Street and 17th Avenue S.
Seattle, WA 98108

Mailing address: P.O. Box 34018
Seattle, WA 98124

Phone: 206-780-9010

Emergency (24-hour) phone: 206-386-9085

Industry type: General type – Site remediation

SIC code: 4959  EPA Id. No.: NA

Discharge to: West Point Treatment Plant

*Note: This authorization is valid only for the specific discharges shown below:

Discharge process: Wastewater generated by general type – site remediation operations

Effective date: January 1, 2014
Revision date: February 12, 2014
Expiration date: December 31, 2018

DESCRIPTION OF SAMPLE SITES AND DISCHARGE VOLUMES

<table>
<thead>
<tr>
<th>Sample Site No.</th>
<th>Description</th>
<th>Maximum Industrial Discharge Volume (gallons per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A45611</td>
<td>Outlet from treatment system</td>
<td>50,000</td>
</tr>
</tbody>
</table>

Permission is hereby granted to discharge industrial wastewater from the above-identified facility into the King County sewer system in accordance with the effluent limitations and monitoring requirements set forth in this authorization.

If the industrial user wishes to continue to discharge after the expiration date, an application must be filed for re-issuance of this discharge authorization at least 90 days prior to the expiration date. For information concerning this King County Discharge Authorization, please call Industrial Waste Compliance Investigator Dana Heinz at 206-263-3005.

24-HOUR EMERGENCY NOTIFICATION
West Point Treatment Plant: 206-263-3801
Washington State Department of Ecology: 425-649-7000
**SPECIAL CONDITIONS**

A. This authorization grants the discharge of limited amounts of the following types of wastewater:

1. Stormwater runoff from 2.4-acre subject area
2. Site pressure washing activities
3. Equipment and personnel decontamination wash water
4. Trench dewatering

Wastes or contaminants from sources other than permitted herein shall not be discharged to the sanitary sewer without prior approval from KCIW.

B. For the purpose of sampling, treatment, and/or discharge mode requirements, the following definitions shall apply:

1. The term *Active Stage* of the site remediation refers to the stages of the remediation project when active remediation and construction work is being performed. These stages have been defined as the interim clean up stage and the final clean up stage. During these stages, contaminated sediments will be exposed and therefore likely to contribute contaminants of concern to the stormwater runoff.

2. The term *Non-Active Stage* of the site remediation refers to the period between the interim and final clean up stages when contaminated sediments in the public right-of-way will be capped and therefore not likely to contribute contaminants of concern to the stormwater runoff.

C. During the non-active stage of the site remediation, collected stormwater must be pumped to appropriately sized settling tanks.

D. During the active stages of the site remediation there shall be no bypass of the granular activated carbon (GAC) vessels.

E. No later than 60 days before the active stage discharge to the sanitary sewer begins, the permittee shall submit the following information for KCIW review and approval:

1. Site diagram describing the final location of processes generating wastewater, dewatering well(s) and pumps, piping, wastewater treatment systems, sample site, and discharge point

2. A schematic flow diagram for the proposed wastewater pretreatment system(s) illustrating the system piping, tanks, and control features. This diagram(s) should clearly indicate how each waste stream will be treated, plumbed, and discharged to the sewer.

3. Wastewater sources, quantity, and chemical characteristics to be treated by the pretreatment system
4. Basic design data and sizing calculations of the pretreatment system components; for example, pump specifications, including maximum discharge rate in gallons per minute (the maximum discharge rate of the piping-pump system must be compatible with the instantaneous maximum flow rate for the pretreatment system), tanks, oil/water separator, GAC media, mixers, etc.

5. Description of your treatment process including the amount and kind of chemicals used in the treatment process (if applicable)

6. The general operations and the set points of all control features

7. Sound engineering justification through the use of pilot plant data, results from other similar installations, and/or scientific evidence from the literature that indicates that the effluent from the proposed facility will meet applicable permit effluent limitations and/or pretreatment standards

8. A discussion of the method of final sludge or solid waste disposal selected

9. Provide contingency actions(s) to be taken if dewatering volumes exceed the permitted daily discharge volumes specified in this permit. Please note that violating the permitted discharge volume limitations is not an acceptable contingency.

F. Prior to discharging to sanitary sewer during the active stage, the permittee must submit a list of personnel responsible for construction dewatering activities, including operation and maintenance of the wastewater treatment system and monitoring of the discharge to the sanitary sewer. The list shall include the site contacts' name, title, company, and phone numbers (office and cell).

G. Discharge to the sanitary sewer shall not begin until KCIW has conducted a preoperative inspection of the pretreatment facilities and has sent written notification (email is sufficient) to the permittee that discharges may begin.

H. During the active stages of the site remediation, discharge to the sewer shall not occur until analytical test results associated with required sampling indicate compliance with discharge limits.

I. During the active stages of site remediation, KCIW policy requires that PCB (polychlorinated biphenyl) contaminated wastewater be batch treated, stored, sampled, and only discharged to the sewer once sample results indicate compliance with established limits. This policy allows the permittee to continuously discharge to the sanitary sewer once it has been demonstrated that the treatment system is effective at meeting discharge limits and a preventative sampling plan has been developed and implemented. If the permittee requests to be allowed to discharge continuously to the sanitary sewer system, the permittee shall:

   1. Collect three composite samples of the initial batch treatment to evaluate the GAC (granulated activated carbon) performance and ensure discharge criteria are met:

      a. Influent to lead GAC vessel
      b. Between lead and lag GAC vessels
      c. Effluent of lag GAC vessel

   Samples must be analyzed for PCBs with a detection limit not to exceed 0.1 µg/L.
2. Submit the results to KCIW for review with a request for authorization to continuously discharge to the sewer.

   a. Upon written approval by KCIW (email is sufficient), the permittee shall:

      i. Collect weekly samples between lead and lag GAC vessels to check for breakthrough and have samples run on a 48-hour turn around or shorter. Samples must be analyzed for PCBs with a method detection limit not to exceed 0.1 µg/L.

      ii. If PCBs are detected in the effluent of the lead GAC unit, the permittee shall cease treatment and discharge to the sanitary sewer system until GAC change out of the lead unit is performed.

      iii. Comply with the effluent monitoring and reporting requirements specified in the Self-Monitoring Requirements section of this Discharge Authorization.

   b. Until written approval for continuous discharge has been granted by KCIW, discharge shall be by batch mode where collected wastewater is batch treated, stored, sampled and only discharged to the sewer once sample results indicate compliance with established limits.

J. Local sewerage system capacity is a concern at the proposed discharge location. The permittee must coordinate with Seattle Public Utilities wastewater staff to ensure that timing and discharge rate into the sewer will not hydraulically overload the sewerage conveyance system. During periods of peak hydraulic loading, KCIW and Seattle Public Utilities representatives reserve the authority to request that discharge to the sewer be stopped.

K. The daily average (composite sample) PCB discharge limit per Aroclor is 0.56 µg/L.
SELF-MONITORING REQUIREMENTS

A. The following self-monitoring requirements shall be met for this discharge authorization during the active stages of the site remediation. (See Item B of the Special Conditions section for a definition of active and non-active stages.):

<table>
<thead>
<tr>
<th>Sample Site No.</th>
<th>Parameter</th>
<th>Sample Type</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>A45611</td>
<td>PCBs</td>
<td>Composite</td>
<td>Each batch^D (batch mode)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Composite</td>
<td>Weekly^D (continuous mode)</td>
</tr>
<tr>
<td></td>
<td>Daily discharge volume</td>
<td>Meter reading</td>
<td>Daily</td>
</tr>
<tr>
<td></td>
<td>Maximum daily discharge volume</td>
<td>Meter reading</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Total monthly flow</td>
<td>Meter reading</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Settleable solids</td>
<td>Grab (by Imhoff cone)</td>
<td>Only if operating criteria are exceeded</td>
</tr>
<tr>
<td></td>
<td>Hydrogen sulfide</td>
<td>Meter reading</td>
<td>Only if operating criteria are exceeded</td>
</tr>
<tr>
<td></td>
<td>Explosivity</td>
<td>Meter reading</td>
<td>Only if operating criteria are exceeded</td>
</tr>
</tbody>
</table>

B. The following self-monitoring requirements shall be met for this discharge authorization during the non-active stages of the site remediation. (See Item B of the Special Conditions section for a definition of active and non-active stages.):

<table>
<thead>
<tr>
<th>Sample Site No.</th>
<th>Parameter</th>
<th>Sample Type</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>A45611</td>
<td>PCBs</td>
<td>Composite</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Aroclor 1221</td>
<td>Composite</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Aroclor 1232</td>
<td>Composite</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Aroclor 1242</td>
<td>Composite</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Aroclor 1248</td>
<td>Composite</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Aroclor 1254</td>
<td>Composite</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Aroclor 1260</td>
<td>Composite</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Daily discharge volume</td>
<td>Meter reading</td>
<td>Daily</td>
</tr>
<tr>
<td></td>
<td>Maximum daily discharge volume</td>
<td>Meter reading</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Total monthly flow</td>
<td>Meter reading</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Settleable solids</td>
<td>Grab (by Imhoff cone)</td>
<td>Only if operating criteria are exceeded</td>
</tr>
<tr>
<td></td>
<td>Hydrogen sulfide</td>
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</tr>
<tr>
<td></td>
<td>Explosivity</td>
<td>Meter reading</td>
<td>Only if operating criteria are exceeded</td>
</tr>
</tbody>
</table>
C. The settleable solids field test by Imhoff cone must be performed as follows:

1. Fill Imhoff cone to one-liter mark with well-mixed sample
2. Allow 45 minutes to settle
3. Gently stir sides of cone with a rod or by spinning; settle 15 minutes longer
4. Record volume of settleable matter in the cone as mL/L

D. See Special Condition I.

E. If a violation of any discharge limits or operating criteria is detected in monitoring, you shall notify KCIW immediately upon receipt of analytical data.

F. A self-monitoring report shall be filed with KCIW no later than the 15th day of the time period following the sample collection (i.e., the 15th day of the following month for monthly, weekly, daily samples). If no discharge takes place during any monitoring period, it shall be noted on the report.

G. All self-monitoring data submitted to KCIW, which required a laboratory analysis, must have been performed by a laboratory accredited by the Washington State Department of Ecology for each parameter tested, using procedures approved by 40 CFR 136. This does not apply to field measurements performed by the industrial user such as pH, temperature, flow, atmospheric hydrogen sulfide, total dissolved sulfides, total settleable solids by Imhoff cone, or process control information.

H. All sampling data collected by the permittee and analyzed using procedures approved by 40 CFR 136 or approved alternatives shall be submitted to KCIW whether required as part of this authorization or done voluntarily by the permittee.

I. Self-monitoring reports shall be signed by an authorized representative of the industrial user. The authorized representative of the industrial user is defined as:

1. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation
2. The manager of one or more manufacturing, production, or operating facilities, but only if the manager:
   a. Is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations
   b. Can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements and knowledgeable of King County reporting requirements
   c. Has been assigned or delegated the authority to sign documents, in accordance with corporate procedures
3. A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively.

4. A director or highest official appointed or designated to oversee the operation and performance of the industry if the industrial user is a government agency.

5. The individuals described in one through four above may designate an authorized representative if:

   a. The authorization is submitted to King County in writing.
   b. The authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company or agency.
GENERAL DISCHARGE LIMITATIONS

Operating criteria

There shall be no odor of solvent, gasoline, or hydrogen sulfide (rotten egg odor), oil sheen, unusual color, or visible turbidity. The discharge must remain translucent. If any of the discharge limits are exceeded, you must stop discharging and notify KCIW at 206-263-3000.

Corrosive substances

Limits
Maximum: pH 12.0 (s.u.)
Instantaneous minimum: pH 5.0 (s.u.)
Daily minimum: pH 5.5 (s.u.)

The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5.0. The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.

Discharges of more than 50 gallons per day of caustic solutions equivalent to more than 5 percent NaOH by weight or greater than pH 12.0 are prohibited unless authorized by KCIW and subject to special conditions to protect worker safety, the collection system, and treatment works.

Fats, oils, and grease

Discharge of FOG shall not result in significant accumulations that either alone or in combination with other wastes are capable of obstructing flow or interfere with the operation or performance of sewer works or treatment facilities.

Nonpolar FOG (oil and grease from petroleum sources): The three nonpolar FOG grab samples shall be of equal volume, collected at least five minutes apart, and analyzed separately. When using U.S. Environmental Protection Agency approved protocols specified in 40 CFR Part 136, the individual grab samples may be composited (at the laboratory) prior to analysis. The result of the composite sample or the average of the concentrations of the three grab samples may be reported as Total FOG unless the value is 100 mg/L or greater, in which case the concentration of nonpolar FOG must be reported.

Polar FOG (oil and grease from animal and/or vegetable origin): Dischargers of polar FOG shall minimize free-floating polar FOG. Dischargers may not add emulsifying agents exclusively for the purpose of emulsifying free-floating FOG.

Flammable or explosive materials

No person shall discharge any pollutant, as defined in 40 CFR 403.5, that creates a fire or explosion hazard in any sewer or treatment works, including, but not limited to, waste streams with a closed cup flashpoint of less than 140°F Fahrenheit or 60°C Centigrade using the test methods specified in 40 CFR 261.21.

At no time shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system), be more than 5 percent nor any single reading be more than 10 percent of the lower explosive limit (LEL) of the meter.
Pollutants subject to this prohibition include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides, and any other substances that King County, the fire department, Washington State, or the U.S. Environmental Protection Agency has notified the user are a fire hazard or a hazard to the system.

<table>
<thead>
<tr>
<th>Petroleum Compounds</th>
<th>Maximum Concentration ppm (mg/L)</th>
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<tbody>
<tr>
<td>Benzene</td>
<td>0.07</td>
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<tr>
<td>Ethylbenzene</td>
<td>1.7</td>
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<tr>
<td>Toluene</td>
<td>1.4</td>
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<tr>
<td>Total xylenes</td>
<td>2.2</td>
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</table>

**Heavy metals/cyanide**

The industrial user shall not discharge wastes, which exceed the following limitations:

<table>
<thead>
<tr>
<th>Heavy Metals &amp; Cyanide</th>
<th>Instantaneous Maximum ppm (mg/L)¹</th>
<th>Daily Average ppm (mg/L)²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>4.0</td>
<td>1.0</td>
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<tr>
<td>Cadmium</td>
<td>0.6</td>
<td>0.5</td>
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<tr>
<td>Chromium</td>
<td>5.0</td>
<td>2.75</td>
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<td>Copper</td>
<td>8.0</td>
<td>3.0</td>
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<tr>
<td>Lead</td>
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<td>Mercury</td>
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<td>Nickel</td>
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<td>Silver</td>
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<tr>
<td>Zinc</td>
<td>10.0</td>
<td>5.0</td>
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<tr>
<td>Cyanide</td>
<td>3.0</td>
<td>2.0</td>
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</table>

¹ The instantaneous maximum is violated whenever the concentration of any sample, including a grab within a series used to calculate daily average concentrations, exceeds the limitation.

² The daily average limit is violated: a) for a continuous flow system when a composite sample consisting of four or more consecutive samples collected during a 24-hour period over intervals of 15 minutes or greater exceeds the limitation, or b) for a batch system when any sample exceeds the limitation. A composite sample is defined as at least four grab samples of equal volume taken throughout the processing day from a well-mixed final effluent chamber, and analyzed as a single sample.

**High temperature**

The industrial user shall not discharge material with a temperature in excess of 65°C (150°F).

**Hydrogen sulfide**

Atmospheric hydrogen sulfide: 10.0 ppm
(As measured at a monitoring manhole designated by KCIW)

Soluble sulfide limits may be established on a case-by-case basis depending upon volume of discharge and conditions in the receiving sewer, including oxygen content and existing sulfide concentrations.
**Organic compounds**

No person shall discharge any organic pollutants that result in the presence of toxic gases, vapors, or fumes within a public or private sewer or treatment works in a quantity that may cause worker health and safety problems.

Organic pollutants subject to this restriction include, but are not limited to: Any organic pollutants compound listed in 40 CFR Section 433.11 (e) (total toxic organics [TTO] definition), acetone, 2-butanone (MEK), 4-methyl-2-pentanone (MIBK), and xylenes.

**Settleable solids**

Settleable solids concentrations: 7.0 ml/L
GENERAL CONDITIONS

A. All requirements of King County Code pertaining to the discharge of wastes into the municipal sewer system are hereby made a condition of this discharge authorization.

B. The industrial discharger shall implement measures to prevent accidental spills or discharges of prohibited substances to the municipal sewer system. Such measures include, but are not limited to, secondary containment of chemicals and wastes, elimination of connections to the municipal sewer system, and spill response equipment.

C. Any facility changes, which will result in a change in the character or volume of the pollutants discharged to the municipal sewer system, must be reported to your KCIW representative. Any facility changes that will cause the violation of the effluent limitations specified herein will not be allowed.

D. In the event the permittee is unable to comply with any of the conditions of this discharge authorization because of breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature the company shall:

1. Take immediate action to stop, contain, and clean up the unauthorized discharges and correct the problem.
2. Immediately notify KCIW and, if after 5 p.m. weekdays and on weekends, call the emergency King County treatment plant phone number on Page 1 so steps can be taken to prevent damage to the sewer system.
3. Submit a written report within 14 days of the event (14-Day Report) describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent recurrence.

E. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this discharge authorization or the resulting liability for failure to comply.

F. The permittee shall, at all reasonable times, allow authorized representatives of KCIW to enter that portion of the premises where an effluent source or disposal system is located or in which any records are required to be kept under the terms and conditions of this discharge authorization.

G. Nothing in this discharge authorization shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including discharge into waters of the state. Any such discharge is subject to regulation and enforcement action by the Washington State Department of Ecology.

H. This discharge authorization does not authorize discharge after its expiration date. If the permittee wishes to continue to discharge after the expiration date, an application must be filed for reissuance of this discharge authorization at least 90 days prior to the expiration date. If the permittee submits its reaplication in the time specified herein, the permittee shall be deemed to have an effective wastewater discharge authorization until KCIW issues or denies the new wastewater discharge authorization. If the permittee fails to file its reaplication in the time period specified herein, the permittee will be deemed to be discharging without authorization.

Compliance Investigator: Dana Heinz
Date: February 6, 2014
# Industrial Waste Monthly Self-Monitoring Report

**Company Name:** Seattle, City of SPU - Dallas Avenue South Remediation  
**Sample Site No.:** A45611  
**Permit/DA No.:** 4072-06  
**Please Specify Month & Year:** Month: 20

---

All units are mg/l unless otherwise noted.

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>Sample Type</th>
<th>C (composite)</th>
<th>G (grab)</th>
<th>Acolor 1016</th>
<th>Acolor 1221</th>
<th>Acolor 1232</th>
<th>Acolor 1242</th>
<th>Acolor 1254</th>
<th>Acolor 1260</th>
<th>Total PCBs</th>
<th>Daily Discharge Volume (gallons per day)</th>
<th>Notes</th>
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**Please Circle All Violations**

**Due Date:** Monthly report is due by the 15th each month.
AGREEMENT FOR SITE ACCESS
FOR FILLING AND GRADING ACTIVITIES

This agreement ("Access Agreement") is made the 20th day of June, 2014 between the Boeing Company ("Grantor" or "Boeing") and the City of Seattle ("Grantee" or "City").

RECITALS

A. Property that is the subject of this Access Agreement is owned by the Grantor and is located in Seattle, Washington south of South Donovan Street, east of 17th Avenue South, and is depicted in Exhibit A. The Property is a portion of the parcel recorded in King County under Tax Parcel No. 7883608601.

B. The City will undertake the Activities set forth in Exhibit B in support of the cleanup action ordered pursuant to the Agreed Order on Consent by the U.S. Environmental Protection Agency ("EPA") requiring a Non-time-critical Removal Action at the Terminal 117 site. Some of the activities will take place on a portion of the property owned by Grantor.

C. Grantor is amenable to granting temporary access to the City for the purpose of implementing the activities set forth in Exhibit B, under the conditions set forth below.

AGREEMENT

Now therefore, for good and valuable consideration, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. Ownership and Control of Property. Grantor represents and warrants that it owns the Property, and has all requisite power and authority to enter into this Agreement. Grantor further represents that it has the authority, and further agrees to comply with the material terms of this Agreement, including making reasonable efforts to move tenant vehicles, equipment, and/or any other potential obstructions to accommodate the Work in the area to which access is granted to the City.

2. License for Access to the Property. Grantor grants to Grantee a non-exclusive license for access to, including ingress and egress, in, on, across, and through the Property up to the Grantor's fence line at the existing parking lot, for the purpose of performing the Work, subject to the terms and conditions of this Agreement, PROVIDED THAT, the parties understand (a) that the purpose of access to the Property is to provide additional work area to limit the height and extent of shoring to accommodate excavation and fill activities to be performed in the ROW, and (b) that the Work activities set forth in Exhibit B shall be performed by the City or its employees, contractors or agents from the
South Donovan Street right-of-way ("ROW"). At no time shall the City encroach on the Property beyond the Grantor’s fence line at the exiting parking lot.

3. **Term.** This License for Access to Property shall commence at 12:01 a.m. on March 31, 2015, and will terminate on October 31, 2015.

4. **Project Manager.** The City’s Project Manager (hereafter “PM”) shall be the contact person between Grantee and Grantor, and shall coordinate all access related issues. The City’s PM is Allison Crowley. She may be reached at: (206) 684-3167 and by email at allison.crowley@seattle.gov

5. **Prior Notice.** At least five (5) business days prior to the intended commencement of any Work on or adjacent to the Property, the PM shall notify Grantor of its intent to perform the Work specified in this agreement. Grantor’s contact is Steven Tochko. Steven may be reached at: (425) 237-1956 and by email at steven.tochko@boeing.com.

6. **Lien Waivers.** Grantee shall hold Grantor and the Property harmless from and against any liens of contractors, or other persons supplying goods, services, equipment, materials, or labor to or on behalf of Grantee at the Property. At the request of Grantor, Grantee shall discharge any such liens.

7. **Compliance with Applicable Laws.** Grantee shall at all times exercise its rights herein and shall have the Work performed at the Property in accordance with any and all applicable statutes, orders, rules, and regulations of any public authority with jurisdiction. Grantee is solely responsible at its expense for obtaining all necessary permits, licenses, and approvals, and for preparing, maintaining and submitting any records or reports, as required under any applicable law or from any governmental authority or agency and shall conduct its business at the Property strictly in conformance with all requirements of any applicable permits, licenses, and approvals.

8. **Compliance with Boeing Policies.** Grantee, its contractors and agents shall comply with all applicable Boeing policies and security requirements. Grantor and Grantee shall meet and confer prior to the commencement of the Work for the purpose of Grantor apprising Grantee of the applicable Boeing policies and security requirements.

9. **Hazardous Substances.** Grantee shall not cause, permit or allow the presence of and shall not generate, release, store or deposit any Hazardous Substances on or about the Property in violation of any applicable laws, or in a manner which may give rise to liability for environmental cleanup, damage to property or personal injury to Grantor, or any other person. Grantee shall not release any hazardous, toxic, chemical or dangerous substance, pollutant, contaminant, waste or material, including petroleum, which is regulated under any and all federal, state or local statute, ordinance, rule, regulation or common law relating to chemical management, environmental protection, contamination, or cleanup ("Hazardous Substances") into the soil, water (including groundwater) or air of the Property or onto any other adjoining property in violation of applicable laws, or in a
manner which may give rise to liability for environmental cleanup, damage to property, or personal injury to Grantor or any other person. In the event of a spill or other release of Hazardous Substances caused by Grantee, its agents, employees or contractors at or from the Property, Grantee shall undertake immediate response as required by law, including but not limited to reporting to appropriate agencies, and shall notify Boeing of same as soon as possible.

10. **Insurance.** The City and all contractors retained by the City to perform any part of the Work on the Property shall obtain adequate liability insurance for the Work that meet or exceed standard contract requirements for similar projects. Boeing understands that the City is self-insured and has liability, vehicle, property, and workers compensation insurance, all with insurance limits that meet or exceed standard contract requirements for similar projects. All Workers Compensation insurance carried by the City shall contain Waiver of Subrogation Endorsements in favor of Boeing. All contractors retained by the City shall provide Boeing with certificates of insurance and such insurance shall include:

   A. Automobile Liability insurance with limits not less than $1,000,000 Combined Single Limit per occurrence for bodily injury and property damage; and

   B. Commercial General Liability insurance, written on an occurrence basis with limits not less than $1,000,000 combined single limit per occurrence and $2,000,000 aggregate for personal injury, bodily injury, and property damage. At a minimum, coverage shall include the following or its equivalent: blanket contractual; products and completed operations; broad form property damage; explosion, collapse, and underground (XCU); and employer’s liability.

   The insurance policies obtained by the City’s contractors shall name “The Boeing Company” as an additional insured with regard to all activities performed on the Property.

11. **Indemnity and Hold Harmless.** To the extent allowed by law, Grantee agrees to indemnify and hold Grantor harmless from any and all claims, liabilities, or damages of any nature whatsoever, including without limitation all costs, attorneys’ fees, expert witness fees and other legal expenses, all damages to persons or property asserted against Grantor that arise out of negligent acts or omissions by Grantee or their employees, agents or contractors on the Property; provided, however, that Grantee shall not be responsible to the Grantor for any claims for damages to any person or property that are caused solely by acts or omissions of Grantor or its employees. The City’s indemnity obligation is limited to funds that have been appropriated for this purpose and are available at the time that an indemnity claim is made.

12. **Damages Limitation.** Boeing, its subsidiaries, and their respective directors, officers, employees and agents (hereafter, collectively “Boeing”) and tenants shall not be liable to the City for damages to any property, regardless of how such damage is caused, sustained or alleged to have been sustained by Grantee as a result of any acts or omissions by
Boeing or its tenants or for any condition (including without limitation existing or future defects in Boeing-owned property or the Property) or occurrence whatsoever related in any way to Grantee’s use or occupancy of the Property and surrounding real property. Grantor shall have no obligation or liability to Grantee, whether arising in contract (including warranty), tort (including active, passive or imputed negligence) or otherwise, for loss of use, revenue or profit or for any other special, incidental or consequential damages.

13. Care of Property. While performing the Work, Grantee shall use its best efforts to avoid and/or mitigate any physical damage to personal or real property on the Property. Grantee agrees to promptly repair or restore any personal or real property on the Property that is damaged during the performance of the Work and is caused by the Grantee, their agents or contractors to substantially the same condition that existed immediately prior to the Grantee commencing the Work.

14. Additional Provisions Relating to Liability. If the Activities are determined to fall within the scope of RCW 4.24.115, the provisions of Sections 11 and 12 shall be limited to the extent required by RCW 4.24.115, but shall be otherwise enforceable. For purposes of Section 11, the City waives any immunity it may have under RCW Title 51 with respect to any claims made by employees of the City against Grantor.

EXECUTED as of the date written above.

The Boeing Company
By: [Signature]
Title: [Title]

City of Seattle
By: [Signature]
Title: Seattle City Light Director of Environmental Affairs & Real Estate
EXHIBIT B
DESCRIPTION OF PROPOSED PROPERTY USE

Earthwork activities for slope stabilization will be necessary to support soil removal within the Licensee’s S. Donovan Street right-of-way during the Terminal 117 Non-Time-Critical Removal Action.

Earthwork activities include the following elements:

1. **Removal of Fill.** Removal and disposal of existing fill material, previously deposited on side of the slope during grading of the intersection at S. Donovan Street and 17th Avenue S.

2. **Temporary Slope Excavation.** Removal of existing soil to provide a uniform or benched slope, not exceeding a depth to height ratio of 1.5H:1V, to support excavation of contaminated soil within the S. Donovan Street right-of-way.

3. **Backfill.** Import and compaction of clean, select backfill to provide a uniform slope adjacent S. Donovan Street, matching existing conditions outside of the area of deposited fill but not exceeding a depth to height ratio of 2H:1V.

4. **Stabilization.** Upon completion of earthwork, the Licensee will provide topsoil, hydroteed, mulches, matting, and other amendments as needed to stabilize the slope with vegetation. The Licensee will provide maintenance of the vegetation for a period of one year following installation.

The above work shall be fully performed from the S. Donovan Street right-of-way. Work activities, including access will at no time encroach beyond the Owner’s fence line at the existing parking lot.
### FRANCHISE UTILITY FIELD INSPECTION WORKSHEET

**City of Seattle**  
**Seattle Department of Transportation**  
**Street Use Division**  
700 Fifth Avenue, Suite 3700  
Seattle, Washington 98104-5043

Date: ____________________  
Permit Number: ______________  
Job Number/Work Order Number: ____________________

Agency: ____________________  
Contractor: ____________________

Construction Field Lead: ______________  
Work Activity Address/Block Location: ____________________

# days in rights-of-way: ____________________

#### UNDERGROUND IMPROVEMENT DESCRIPTION

- Gas  
- Drainage  
- Electrical  
- Telephone  
- Water  
- Sewer  
- Telecommunication  
- Other

- Conduit/Duct  
  - Conduit Size/Number: ____________________  
  - Conduit Material: ____________________  
  - HH Type: ____________________  
  - MH Type: ____________________  
  - INLET Type: ____________________  
  - Other

- Direct Burial  
- Vaults  
- C/B  
- Pipe  
  - Size: ____________________  
  - Material: ____________________  
  - HH Type: ____________________  
  - MH Type: ____________________  
  - INLET Type: ____________________  
  - Other

#### Traffic Control Description

- Passed  
- Failed  
- Other

#### Surface Improvement Description

- Forms (Description/Type)  
- Reinforcement (Description/Type)  
  - Dowel  
    - Size: ____________________  
  - Tie Bar  
    - Size: ____________________

- Backfill Type  
  - Trip Ticket Collected  
  - Compaction Test Report

- Base Type  
  - Trip Ticket Collected  
  - Compaction Test Report

- Street Pavement  
  - Concrete  
  - Asphalt  
  - AC

- Other (Description)  
- Rights-Of-Way Usage Area Verification  
  - ROW Usage Area Confirmed  
  - Corrected ROW Usage Area ____________________ (SF)

- Pavement Restoration Performed By Street Maintenance  
  - Utility Cut (UC) #  
  - Time & Material (T&M) #

- Pavement Restoration Performed By Permittee  
  - Final Pavement Restoration Accomplishment Measurement: ____________________ WIDTH (FT) x ____________________ LENGTH (FT)

#### CORRECTIONS REQUIRED

- Conditions/Agreements

#### NOTES

ST. USE INSPECTOR: ____________________  
DATE: ____________________

APPROVALS REQUIRED

- Street Maintenance  
- Other  
- Street Use

DATE APPROVED  
APPROVALS REQUIRED  
DATE APPROVED

Certification of Occupancy Approved (If Applicable)  
Temporary Certification of Occupancy (If Applicable)

SIGNED: ____________________  
PHONE #: ____________________  
PROJECT APPROVAL DATE: ____________________

---

**City of Seattle**  
**Seattle Department of Transportation**  
**Street Use Division**  
700 Fifth Avenue, Suite 3700  
Seattle, Washington 98104-5043
City of Seattle  
Seattle Department of Transportation  
Street Use Division  
700 Fifth Avenue, Suite 3700  
Seattle, Washington 98104-5043

FRANCHISE UTILITY NON - ARTERIAL PERMIT ISSUANCE WORKSHEET

Date: ___________________________ Job Number/Work Order Number: ________________________________

Agency: __________________________ Contractor: __________________________

Project Manager/Engineer: __________________________ Billing Address: __________________________

Work Activity Address/Block Location: __________________________

Permit Type: □ Arterial Utility □ Non-Arterial Utility □ Other # days in rights-of-way: __________

IMPROVEMENT DESCRIPTION

☐ Gas ☐ Electrical ☐ Telephone ☐ Sewer
☐ Drainage ☐ Water ☐ Telecommunication

USE FEE™ CALCULATION WORKSHEET

Rights-of-way usage area: ________________ WIDTH (FT) X ________________ LENGTH (FT) TOTAL = ________________ (SF)

Length of Project in 10 day increments

No. of days in project + 10 = # of 10 day periods

FEE CALCULATION (by 10 day units)

Month 1 (No. of SF charge)

Period 1 = 1 unit
2 = 2 units
3 = 3 units

$0.00 x ________________ (SF) x ________________ (units) = $ 0.00

Month 2 & 3 (No. of SF charge)

Period 4 = 1 unit
5 = 2 units
6 = 3 units
7 = 4 units
8 = 5 units
9 = 6 units

$0.10 x ________________ (SF) x ________________ (units) = $

Month 4 & 5 (No. of SF charge)

Period 10 = 1 unit
11 = 2 units
12 = 3 units
13 = 4 units
14 = 5 units
15 = 6 units

$0.20 x ________________ (SF) x ________________ (units) = $

Month 6 & 7 (No. of SF charge)

Period 16 = 1 unit
17 = 2 units
18 = 3 units
19 = 4 units
20 = 5 units
21 = 6 units

$0.40 x ________________ (SF) x ________________ (units) = $

Month 8 & 9 (No. of SF charge)

Period 22 = 1 unit
23 = 2 units
24 = 3 units
25 = 4 units
26 = 5 units
27 = 6 units

$0.80 x ________________ (SF) x ________________ (units) = $

Month 10 + (No. of SF charge)

Period 28 + = 1 unit/period > 27

$1.20 x ________________ (SF) x ________________ (units) = $

Subtotal .......................................................... $ 135.00

Base Fee .......................................................... $ 135.00

Mapping Surcharge ............................................. $ 30.00

Restoration Deposit (If Applicable) ................................ $ GDV #

Inspection Deposit (If Applicable) .............................. $ GDV #

Other Deposit (If Applicable) ................................... $ GDV #

TOTAL FEE .......................................................... $ 135.00

Agency’s Utility Coordination List  □ Capital Improvement Project  □ Corrections

Reviewer: __________________________ DATE: __________________________

Calculation prepared by: __________________________ PHONE#: __________________________

ISSUER
| Prepared Date: | ____________________________ |
| Calculations Approved by: | ____________________________ |
| REVIEWER |
FRANCHISE UTILITY FIELD INSPECTION WORKSHEET GUIDELINE

Introduction

In order for us to accomplish the improvements that the new fee ordinance will support it is important for Street Use Franchise Utility Section to restructure the standard permit issuance and inspection practices. Beginning this year, Seattle’s Department of Transportation (SDOT) Franchise Utility Section is using a few new worksheets in order to align us with the new fee structure:

- Ensures consistency and clear understanding
- Provides more timely permit issuance

FRANCHISE UTILITY WORKSHEETS

There are four worksheets that were created. The worksheets are the following:

1. Franchise Utility Field Inspection Worksheet
2. Franchise Utility Permit Issuance Checklist for Non-Arterial
3. Franchise Utility Permit Issuance Checklist for Arterial
4. Franchise Utility Permit Application Checklist

Inspectors are required to complete the Franchise Utility Field Inspection Worksheet in order to consider the utility permit project complete and signed off.

FRANCHISE UTILITY PERMIT ISSUANCE CHECKLIST FOR ARTERIAL OR NON-ARTERIAL

There will be some cases where inspectors will be required to complete Franchise Utility Permit Issuance Checklist for Arterial or Non-Arterial at the Permittee’s request. Inspectors will be required to complete the Franchise Utility Permit Issuance Checklist for Arterial or Non-Arterial if:

1. Setting conditions for a utility permit requested by Permittee
2. Utility work that occur in non-arterial and it last for more than 30 days
3. Utility projects that does not a have a valid utility permit

When setting conditions for the any utility work, assigned inspector is limited to one-half hour (1/2) charge against time work authorization charge number TWA0050, activity 047.

Standard Introduction Fields to be complete

On each standard the Franchise Utility Permit Issuance Checklist for Arterial or Non-Arterial, if the Permittee decided to have Street Use to complete the worksheet information, the Permittee are notified that will be charging his or her time to complete the worksheet. Permittee are encouraged to follow-up with Street Use Division and inquire about the amount of time charged to the preliminary activities in order to complete the worksheet by the assigned inspector.

<table>
<thead>
<tr>
<th>Date: To be completed by inspector</th>
<th>Job Number/Work Order Number: (to be completed by Franchise Utility Permit Issuer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency: (to be completed by Franchise Utility Permit Issuer)</td>
<td>Contractor:</td>
</tr>
<tr>
<td>Project Manager/Engineer: (to be completed by Franchise Utility Permit Issuer)</td>
<td>Billing Address: (to be completed by Franchise Utility Permit Issuer)</td>
</tr>
<tr>
<td>Work Activity Address/Block Location: To be completed by inspector</td>
<td>Permit Type: Arterial Utility (to be completed by inspector) Non-Arterial Utility (to be completed by inspector)</td>
</tr>
<tr>
<td># days in rights-of-way: To be completed by inspector</td>
<td></td>
</tr>
</tbody>
</table>
Utility Improvement Fields to be completed

Permittee or inspectors will be required to identify what type of utility work is occurring. For example, utility installation type may be gas utility, electrical utility, and sewer utility. Detail description of the work will be needed in order to have a complete utility permit. The baseline information that is necessary is be type of infrastructure that will be installed (i.e. conduit, vault, MH, HH and their respective material type, and size and number if applicable). Plans may identify the needed

<table>
<thead>
<tr>
<th>IMPROVEMENT DESCRIPTION</th>
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<tbody>
<tr>
<td>IMPROVEMENT TYPE (To be completed by inspector)</td>
</tr>
<tr>
<td>☐ Gas</td>
</tr>
<tr>
<td>☐ Drainage</td>
</tr>
</tbody>
</table>

Rights-of-Way Use Fee Calculation Worksheet Section

The assigned inspector will be required to complete the “Use Fee” Calculation Worksheet section for utility work located on arterial streets. If a utility work located on non-arterial streets last for more than 30 working days, the assigned inspector will be required to complete the “Use Fee” Calculation Worksheet for utility work located on non-arterial streets. Inspector will be required to complete the following fields:

<table>
<thead>
<tr>
<th>ARTERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rights-of-way usage area: (To be completed by inspector) WIDTH (FT) X (To be completed by inspector) LENGTH (FT) TOTAL = (To be completed by inspector) (SF)</td>
</tr>
<tr>
<td>Length of Project in 10 day increments</td>
</tr>
<tr>
<td>(To be completed by inspector) No. of days in project ÷ 10 = (To be completed by inspector) # of 10 day periods</td>
</tr>
</tbody>
</table>

FEE CALCULATION (by 10 day units)

Month 1 (No. of SF charge)

<table>
<thead>
<tr>
<th>Period</th>
<th>1 = 1 unit</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2 = 2 units</td>
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<tr>
<td></td>
<td>3 = 3 units</td>
</tr>
</tbody>
</table>

$0.10 x (To be completed by inspector) (SF) x (To be completed by inspector) (units) = $(To be completed by inspector) IF APPLICABLE

Month 2 (No. of SF charge)

<table>
<thead>
<tr>
<th>Period</th>
<th>4 = 1 unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 = 2 units</td>
</tr>
<tr>
<td></td>
<td>6 = 3 units</td>
</tr>
</tbody>
</table>

$0.20 x (To be completed by inspector) (SF) x (To be completed by inspector) (units) = $(To be completed by inspector) IF APPLICABLE

Month 3 (No. of SF charge)

<table>
<thead>
<tr>
<th>Period</th>
<th>7 = 1 unit</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>8 = 2 units</td>
</tr>
<tr>
<td></td>
<td>9 = 3 units</td>
</tr>
</tbody>
</table>

$0.40 x (To be completed by inspector) (SF) x (To be completed by inspector) (units) = $(To be completed by inspector) IF APPLICABLE

Month 4 (No. of SF charge)

<table>
<thead>
<tr>
<th>Period</th>
<th>10 = 1 unit</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>11 = 2 units</td>
</tr>
<tr>
<td></td>
<td>12 = 3 units</td>
</tr>
</tbody>
</table>

$0.80 x (To be completed by inspector) (SF) x (To be completed by inspector) (units) = $(To be completed by inspector) IF APPLICABLE

Month 5+ (No. of SF charge)

| Period | 13 + = 1 unit/period > 12 |

$1.20 x (To be completed by inspector) (SF) x (To be completed by inspector) (units) = $(To be completed by inspector) IF APPLICABLE

Subtotal ..............................................................................................................$ (To be completed by inspector )
+ Base Fee ...........................................................................................................$ 135.00
+ Mapping Surcharge .........................................................................................$ 30.00
+ Restoration Deposit (If Applicable) .................................................................$ GDV # __________
+ Inspection Deposit (If Applicable) ..............................................................$ GDV # __________
+ Other Deposit (If Applicable) .........................................................................$ GDV # __________
TOTAL FEE ...........................................................................................................$
Confirmation and Sign-off of Franchise Utility Permit Issuance Checklist for Arterial or Non-Arterial

All submitted Franchise Utility Permit Application Checklist worksheets must have a signature by the individual who performed the Rights-of-Way “Use” Calculation section. A permit issuer in the Franchise Utility Permitting Section will review the calculation. If necessary clarification is need, the issuer will contact the Preparer.

<table>
<thead>
<tr>
<th>Calculation prepared by:</th>
<th>PHONE#</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREPARER</td>
<td></td>
</tr>
</tbody>
</table>

| Prepared Date: | |
|----------------|

| Calculations Approved by | |
|--------------------------|
| REVIEWER                 |

FRANCHISE UTILITY FIELD INSPECTION WORKSHEET

Every utility permit job need to have the Franchise Utility Field Inspection Worksheet completed by the inspector assigned to the project. The worksheet supports the following:

1. Consistency in field inspections
2. Confirm that the rights-of-way “use” submitted in the permitting phase is consistent in the construction phase

Standard Introduction Fields to be complete

On each standard Franchise Utility Field Inspection Worksheet, the inspector must complete the fields.

<table>
<thead>
<tr>
<th>Date:</th>
<th>Permit Number:</th>
<th>Job Number/Work Order Number:</th>
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<tbody>
<tr>
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<td>(To be completed by inspector)</td>
<td>(To be completed by inspector)</td>
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<tr>
<th>Agency:</th>
<th>Contractor:</th>
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<td>(To be completed by inspector)</td>
<td>(To be completed by inspector)</td>
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<table>
<thead>
<tr>
<th>Construction Field Lead:</th>
<th>Work Activity Address/Block Location:</th>
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<tbody>
<tr>
<td>(To be completed by inspector)</td>
<td>(To be completed by inspector)</td>
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</table>

<table>
<thead>
<tr>
<th># days in rights-of-way:</th>
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</thead>
<tbody>
<tr>
<td>(To be completed by inspector)</td>
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</tbody>
</table>

Inspection Results

The Inspection Results Section contains the baseline information needed to confirm that the submitted and approved permitted work is work by the Permittee.

UNDERGROUND IMPROVEMENT DESCRIPTION

Inspectors will need to check off what type utility work is being performed in the field. In addition, the type of infrastructure is being installed will be confirmed.

TRAFFIC CONTROL DESCRIPTION

On projects that are located on arterial, Traffic Control Plans will be required to approved by Traffic Management, Traffic Control Program Division. Inspectors will need to confirm that an approved Traffic Control Plan has been completed by the Permittee and confirm that the contractor satisfy the conditions. If the contractor meets conditions per the Traffic Control Plan, the inspector will check off the “PASSED” box.

SURFACE IMPROVEMENT DESCRIPTION

If any surface restoration or improvement that was done in relation to the work, inspectors will be required to describe what type of surface restoration or improvement was performed by the contractor and confirm whether the restoration or improvement satisfied the City of Seattle Standard for Municipal Construction and the Pavement Opening Policy. In this section, the common standard surface improvement has been described as the following subsection:

- Forms
- Reinforcement
- Backfill Type
- Base Type
- Street Pavement
- Other
The inspector should collect trip Ticket from the contractor. In addition, a description of the material used need to be stated and whether the installation passed inspection.

**RIGHTS-OF-WAY USAGE AREA VERIFICATION**

Inspectors are required to confirm that the Rights-of-Way “Usage” area is correct as stated by the Permittee on the Franchise Utility Permit Application Checklist worksheet. If a correction is needed, the inspector will need to measure the correct area used. The Franchise Utility Permitting Section will advise the Permittee of the correction.

**PAVEMENT RESTORATION PERFORMED BY STREET MAINTENANCE**

If the Permittee is having SDOT’s Street Maintenance Department performing the street paving, the inspector must check off the box that identify that Street Maintenance is performing the street pavement restoration.

**PAVEMENT RESTORATION PERFORMED BY PERMITTEE**

If the Permittee is performing the street paving, the inspector must check off the box that identify that the Permittee is performing the work. The Inspector will need to measure the Final Pavement Restoration Accomplishment for each utility cut made. If the contractor performed multiple cuts in 1 block area, the inspector may hand write the measurement for the other cuts in the same section.
### UNDERGROUND IMPROVEMENT DESCRIPTION

**To be completed by inspector**

- Gas
- Drainage
- Electrical
- Water
- Telephone
- Telecommunication
- Sewer
- Other

**To be completed by inspector**

- CONDUIT/DUCT
  - Conduit Size/Number: __________
  - Conduit Material: __________
- DIRECT BURIAL
  - HH Type: __________
  - MH Type: __________
- VAULTS
  - Type: __________
  - INLET Type: __________
- Pipe
  - Size: __________
  - Material: __________
  - Other

### TRAFFIC CONTROL DESCRIPTION

**To be completed by inspector if applicable**

<table>
<thead>
<tr>
<th>PASSED</th>
<th>FAILED</th>
<th>OTHER</th>
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### SURFACE IMPROVEMENT DESCRIPTION

**To be completed by inspector if applicable**

- FORMS (Description/Type)
<table>
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<tr>
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- REINFORCEMENT (Description/Type)
  - Dowel Size: __________
  - Tie Bar Size: __________

- BACKFILL TYPE
  - To be completed by inspector if applicable
  - Trip Ticket Collected
  - Compaction Test Report

- BASE TYPE
  - Trip Ticket Collected
  - Compaction Test Report

- STREET PAVEMENT
  - Trip Ticket Collected
  - To be completed by inspector if applicable
  - CONCRETE
  - ASPHALT
  - AC

- OTHER (Description)
<table>
<thead>
<tr>
<th>PASSED</th>
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</table>

- RIGHTS-OF-WAY USAGE AREA VERIFICATION
  - To be completed by inspector if applicable
  - ROW Usage Area Confirmed
  - Corrected ROW Usage Area __________ SF

### PAVEMENT RESTORATION PERFORMED BY STREET MAINTENANCE

**To be completed by inspector if applicable**

- Utility Cut (UC) # __________
- Time & Material (T&M) # __________

### PAVEMENT RESTORATION PERFORMED BY PERMITTEE

**To be completed by inspector if applicable**

- Final Pavement Restoration Accomplishment Measurement: __________ WIDTH (FT) X __________ LENGTH (FT)
Utility Note Section
The Utility Note section is for the Inspection’s Use for any correspondence made to the contractor.

☐ CORRECTIONS REQUIRED  ☐ CONDITIONS/AGreements  ☐ NOTES

☐ Certification of Occupancy Approved (If Applicable)
☐ Temporary Certification of Occupancy (If Applicable)

SIGNED: __________________________ PHONE#: __________________________

INSPECTOR  PROJECT APPROVAL DATE:

Approval Section
There is some case where the inspector will be the approval from maintaining divisions from SDOT. If this is the case, the inspector will need to maintain a log of it.

Sign Off
Once the job is complete, the inspector will need to sign the worksheet and submit the worksheet with the permit for completion.
Social Equity Plan

Please complete this plan as appropriate to your project. This plan has two components, each component applies to only certain projects based on dollar value and federal standing. **Return to the City Purchasing and Contracting Services (PCSD) Contract Analyst named below, on or before the Preconstruction meeting.** The Analyst will discuss the social equity requirements and your plan at the meeting. Prominently mark the package/e-mail so it can be easily recognized and identified by the Contracting Analyst for your project. You will be asked to update these plans as the project progresses.

The City will withhold first payment until the Plan is received and accepted.

*(courier) Street Address:* 700 - 5th Ave, Room 4112, Seattle Municipal Tower, Seattle WA 98104  
*(mail) Post Office:* Seattle Municipal Tower, PO Box 94687, Seattle WA 98124-4687  
*Questions?:* (206) 684-0444
## WMBE Inclusion Plan Supplement

For non-federal projects with a base-bid Engineers Estimate over $300,000.

<table>
<thead>
<tr>
<th>Scopes of Work that you Intend to Award to WMBEs</th>
<th>Intended WMBE Sub/Supplier Name</th>
<th>Y/N</th>
<th>Approximate Subcontract $ Amount</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

**Total Amount Intended to be Performed by WMBEs to Date:** $ -

**Percentage of Award Amount:** #DIV/0!

<table>
<thead>
<tr>
<th>Scopes where the sub/supplier is not yet determined or committed</th>
<th>When do you anticipate making a selection?</th>
<th>Do you anticipate using a WMBE?</th>
<th>Is this a Guaranteed WMBE?</th>
<th>Approximate Subcontract $ Amount</th>
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**Total Amount Not Yet Committed to a Sub/Supplier:** $ -

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* These are WMBEs listed in the Spread the Work section or other WMBE firms you have not used in the previous 12 months.
**Apprentice Utilization Plan**
For non-federal projects estimated over $1 million.

List the prime and all subcontractors scheduled to work on this project, and indicate the estimated number of hours to be performed by journey level and apprentice workers for each. Apprentice utilization must equal or exceed 15% of the total labor hours.

<table>
<thead>
<tr>
<th>Prime Contractor and all Subcontractors</th>
<th>Journey Labor Hours</th>
<th>Apprentice Labor Hours</th>
<th>Total Labor Hours for Project</th>
<th>Apprentice Percentage</th>
<th>Number of Apprentices</th>
</tr>
</thead>
<tbody>
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</table>

**Estimated information**

TOTALS: 0 0 0 0 #DIV/0! 0

Apprenticeship Utilization Requirement: 15%
PUBLIC WORKS WMBE INCLUSION PLAN CHANGE REQUEST FORM

Departments use this form to request modification to a project WMBE Inclusion Plan. Modifications are subject to advance approval from the department WMBE Advisor and City Purchasing and Contracting Services (CPCS).

<table>
<thead>
<tr>
<th>PROJECT INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Name</td>
</tr>
<tr>
<td>PW#</td>
</tr>
<tr>
<td>Date of Request</td>
</tr>
<tr>
<td>Prime Contractor</td>
</tr>
<tr>
<td>Name of Requestor and Title</td>
</tr>
</tbody>
</table>

When the Prime seeks a change to the WMBE Inclusion Plan, the City Project Manager completes this form, routes to their WMBE Advisor, who then sends to CPCS for approval. Absent CPCS approval, changes to the Inclusion Plan are prohibited. This form is for public works projects with a WMBE Inclusion Plan that needs an adjustment or change to a Guaranteed firm. Check all that apply to this request:

- Request to Remove a Guaranteed WMBE Firm
- Request to Change WMBE Inclusion Plan Aspirational Goal

<table>
<thead>
<tr>
<th>REMOVE A GUARANTEED WMBE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMBE Firm Proposed for Removal</td>
</tr>
<tr>
<td>Guaranteed Amount $</td>
</tr>
<tr>
<td>Dollar amount of guaranteed work completed, if any $</td>
</tr>
</tbody>
</table>

Reason for Removal (check all that apply and attach evidence).
- Bankruptcy of Subcontractor
- Failure of Subcontractor to provide the required bond
- Subcontractor cannot perform the work because they are debarred, not properly licensed, or does not meet subcontractor approval criteria, or in some other way is ineligible to work.
- Failure of Subcontractor to comply with a requirement of law applicable to subcontracting
- The death or disability of Subcontractor (if Subcontractor is an individual)
- Dissolution of Subcontractor (if Subcontractor is a corporation or partnership)
- Failure by Subcontractor to perform under previous contracts
- Failure or refusal of Subcontractor to perform the work for reasons other than contract term or pricing disputes

CPCS will review in collaboration with the appropriate department WMBE Advisor, request documentation as necessary to evidence the change, and will respond to the department Project Manager with direction.

The Prime must make good faith efforts to find another WMBE subcontractor to substitute.
Reduce the Aspirational Goal

Aspirational WMBE Goals

The Total Aspirational WMBE Goal represents the percentage of base bid the Bidder intends to perform with WMBE contractors and also applies to the entire contract cost. **If a contract change, addendum or additive merits modification to the Goals, the City and Prime will discuss whether a greater or lesser goal is appropriate and seek approval to amend the Plan.**

- The City requires a change order for a body of work that has no WMBE opportunity. The goal would be adjusted based on the statistical impact that would have given the associated dollars compared to the total project spend.
- Other: ________________________________

<table>
<thead>
<tr>
<th>Original Goal</th>
</tr>
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<tbody>
<tr>
<td>Proposed Goal as a share of the entire contract value.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reducing Goal</th>
<th>Printed Name</th>
<th>Approved Denied</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Construction Representative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department WMBE Representative</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>FAS/CPCS</td>
<td></td>
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</tr>
</tbody>
</table>

Cc:
- Resident Engineer
- Contractor PM, Requestor
- Sub-Contractor
- City WMBE Equity Office
- City Purchasing and Contracting, Contract Analyst
This is a check list which has been devised to help/assist the employer determine if the person he/she has designated as a COMPETENT PERSON is competent within the description and intent of the EXCAVATION & TRENCHING STANDARD.

<table>
<thead>
<tr>
<th>Employee's name</th>
<th>Occupation: What is job on site?</th>
<th>Date of evaluation by employer</th>
<th>Length of time with employer</th>
<th>Length of experience in excavation &amp; trenching</th>
</tr>
</thead>
</table>

### TRAINING:

<table>
<thead>
<tr>
<th>Does the designated individual have training in:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soils analysis?</td>
<td></td>
<td></td>
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<tr>
<td>Use of protective systems?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirements of the standard?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### KNOWLEDGE:

<table>
<thead>
<tr>
<th>Does the designated individual have knowledge about:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soils analysis?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of protective systems?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirements of the standard?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### AUTHORITY:

<table>
<thead>
<tr>
<th>Does the designated individual have authority to:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take prompt corrective measures to eliminate existing and predictable hazards?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stop work until hazards are corrected or eliminated or controlled and remove employees from the hazardous area until proper systems are in place?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### INSPECTION:

<table>
<thead>
<tr>
<th>Has the competent person conducted a daily inspection of the excavation?</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of adjacent areas?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Of protective systems?</td>
<td></td>
<td></td>
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<tr>
<td>Were inspection conducted prior to start of work?</td>
<td></td>
<td></td>
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<tr>
<td>As needed during work?</td>
<td></td>
<td></td>
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<tr>
<td>After rainstorms or other hazard increasing occurrences?</td>
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<tr>
<td>Is there water in the trench?</td>
<td></td>
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<tr>
<td>Is water removal equipment being monitored to insure safe operation?</td>
<td></td>
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<tr>
<td>Has the soils analysis been verified allowing for the influence of water?</td>
<td></td>
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<tr>
<td>Is there evidence of failure of any portion of the protective system?</td>
<td></td>
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<tr>
<td>Is damage evident to structural members of the protective system?</td>
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<tr>
<td>If so, has the equipment been evaluated for suitability of use?</td>
<td></td>
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</tbody>
</table>
SOILS CLASSIFICATION:

Has the employer selected a protective system which relies on soils classification?  

☐  ☐

What types of soils have been identified?  

______________________________________________________________

What visual tests were performed?  

______________________________________________________________

What manual test(s) were performed?  

______________________________________________________________

Who performed the tests?  

______________________________________________________________

Have the conditions changed since the classification was made?  

☐  ☐

Has the proper soils classification been made?  

☐  ☐

If YES, does the protective system selected comply with or exceed the performance criteria outlined in the standard?  

☐  ☐

Are utilities involved?  

☐  ☐

If YES, are they properly protected?  

☐  ☐

Are ramps involved?  

☐  ☐

If YES, are they constructed according to standard?  

☐  ☐

Are confined spaces involved?  

☐  ☐

If YES, has a competent person evaluated the environment in question?  

☐  ☐

COMMENTS:

Do you consider the individual to be COMPETENT within the requirements of the EXCAVATION AND TRENCHING STANDARD?  

☐  ☐

IF NOT, WHY?  

Areas to be strengthened:  

___________________________________________________________________________  

___________________________________________________________________________  

___________________________________________________________________________  

___________________________________________________________________________  

___________________________________________________________________________  

___________________________________________________________________________  

___________________________________________________________________________

Employer/Representative Signature  

___________________________________________________________________________
SEATTLE/KING COUNTY WASTE CHARACTERIZATION FORM

WC# ________________

Please Type or Print in Ink Initial _____ Renewal _____ Previous #_______________

A. WASTE GENERATOR

Company:_____________________________________________ Phone #:____________________

Contact:__________________________________ E-mail:________________________________

WAD/EPA ID #:____________________________ Fax #:____________________

Address of Waste Generation:__________________________________ City:___________________

Mailing Address:____________________________________________________________________

City:_____________________________________ State:______ ZIP:________________

Preferred Communication:  Phone     E-mail     Fax     Mail

APN _________________________________

B. CONSULTANT (If Applicable)

Company:_____________________________________________ Phone #:____________________

Contact:  _____________________________________________ Fax #:____________________

E-mail:    _____________________________________________

C. WASTE HAULER

Company:_____________________________________________ Phone #:____________________

Contact: ______________________________________________ Fax #:____________________

Mailing Address:____________________________________________________________________

City:_____________________________________ State:_____ i ZIP:________________

Waste Packaging:   Drum     Bulk Solid     Other:____________________________________

D. WASTE STREAM INFORMATION

Name of Waste:____________________________________________________________________

Process Generating Waste: __________________________________________________________

Annual Amount in pounds or tons:_______________ Estimated Amount per Delivery:_______________

Frequency of Disposal:     One time only     Weekly     Monthly     Other:__________________

Special Handling Instructions/Supplemental Information: ___________________________________
E. PHYSICAL CHARACTERISTICS OF WASTE (See Instructions)

1. Color: ____________________
2. Does the waste have a strong incidental odor? No Yes, if so, describe: ____________________
3. Physical State: Solid Liquid Semi-Solid Powder Other: ____________________
4. Free Liquids: No Yes - Volume: _______%
5. pH: ≤2 > 2-4 4-7 7 7-10 10-<12.5 ≥12.5 NA
6. Flash Point: NA <140°F/60°C 140-199°F/60-93°C ≥200°F/93°C

F. CHEMICAL COMPOSITION RANGE (MIN-MAX)

1. ____________________ - _______%  2. Does the waste contain any of the following? (provide concentration if known):

   NO  LESS THAN  ACTUAL

   ____________________ - _______% PCBs <50 ppm ______ppm
   ____________________ - _______% Cyanides <30 ppm ______ppm
   ____________________ - _______% Sulfides <500 ppm ______ppm

   Total: _______%

3. Method used to determine composition: Analytical Data MSDS Other:__________________

G. SAMPLING INFORMATION (If Applicable)

1. Source of Sample (eg. drum, stockpile, sump/catch basin; tank) ____________________
2. Sampling Method: Composite Discrete/grab Other:__________________
3. Number of samples:__________________

H. GENERATOR CERTIFICATION

By signing this Waste Characterization Form, the Generator certifies:

1. This waste is not a "Hazardous Waste" as defined by USEPA and/or the state.
2. This waste does not contain regulated radioactive materials or regulated concentrations of PCBs (Polychlorinated Biphenyls).
3. All information provided is a true and accurate description of the waste material. All relevant information regarding known or suspected hazards in the possession of the Generator has been disclosed.
4. This waste complies with the regulations of the Seattle-King County Department of Public Health and the local solid waste division.
5. The analytical data presented herein, attached hereto, or otherwise submitted for the purpose of completing or supplementing any or all of the information on this form were derived from testing a representative sample taken in accordance with 40 CFR 261.20(c) or equivalent rules.
6. If any changes occur in the character of the waste (e.g., physical characteristics, chemical composition, process of generation, etc.), the Generator shall notify the Seattle-King County Department of Public Health.

7. Signature: ____________________ 8. Title: ____________________
   (not required if submitted electronically)

9. Name: ____________________ 10. Date: ____________________
WASTE CHARACTERIZATION FORM INSTRUCTIONS

Information on this form, is used to determine if questionable wastes may be disposed as solid waste in a legal, safe, and environmentally sound manner. Answers must be provided for all sections of this form, and must be printed in ink or typed. A response of "NONE", or "NA" (not applicable) can be made if appropriate. If additional space is needed, indicate on the Waste Characterization Form and attach. If you have questions concerning this form, please contact the Waste Characterization Program at (206) 296-4633.

PARTS A. – C. Enter appropriate contact information. If you have waste generator ID number issued by the USEPA or Washington Department of Ecology, enter it in section A.

PART D. WASTE STREAM INFORMATION
Name of Waste - Enter the name generally descriptive of this waste (e.g., paint sludge, contaminated soil, sharps)
Process Generating Waste - List the specific process/operation or source that generates the waste (e.g., spray painting, spill clean up, process wastewater treatment, building maintenance).
Annual Amount - Enter the amount of waste that will be generated and transported annually (expressed in pounds, or tons). If this waste is going directly to a transfer station or landfill enter an estimate of the amount to be delivered per trip.
Frequency of Disposal - Enter how often this waste will be removed from the site.
Special Handling Instructions/Supplemental Information - For all wastes, describe any special handling requirements and any additional information that you feel would assist in determining the proper method(s) for transportation, treatment, storage, and disposal of the waste.

In addition, for the following wastes include the information specified:
Biomedical Waste (as defined by local ordinance): Describe the type of biomedical waste and the treatment method used.
Empty drums or other containers: List the number, size of containers, materials they contained.
Food Products/Containerized Liquids: Describe the products or containerized liquids (e.g., beef jerky, beer, shampoo). List the number and size of containers for any containerized liquids.

For the wastes listed above, skip Parts E, F and G. However, Part H must be completed.

PART E. PHYSICAL CHARACTERISTICS OF WASTE
1. Color - Describe the color of the waste (e.g., blue, transparent, varies).
2. Odor - DO NOT SMELL THE WASTE. If the waste has a known incidental odor check "Yes" and describe it (e.g., acrid, pungent, solvent, sweet).
3. Physical State - Check the appropriate box for the physical state of the waste. Include a description if "other" is chosen (e.g., gas).
4. Free Liquids - Check "Yes" if liquid is usually present when packaging for shipment and estimate the percentage of liquid. Check "No" if there are no free liquids as determined by the Paint Filter Test (Method 9095 of SW-846) or direct observation.
5. pH - Check the appropriate box for the pH of the liquid portion of the waste. For solid or organic liquid wastes, indicate the pH of 10% aqueous solution of the waste, if applicable. Check "NA" for non-water soluble materials (e.g., foundry sand).
6. Flash Point - Check the appropriate box for the flash point of the waste and the method used to obtain the flash point, if applicable.
PART F. CHEMICAL COMPOSITION
1. If known, list all organic and/or inorganic components of the waste using specific chemical names. If trade names are used, attach Material Safety Data Sheets or other documents which adequately describe the composition of the waste. For each component, estimate the range (in percents) in which the component is present. The total of the maximum values of the components must be greater than or equal to 100% including water, earth, etc.
2. If this waste contains PCBs, cyanides, or sulfides, indicate the concentration(s). If this waste does not contain these constituents, indicate by checking the "NO" box(es) which apply. If the concentration of these constituents is unknown, please indicate "UNK" under "ACTUAL".
3. Indicate the method(s) used to determine composition and attach supporting documents.

PART G. SAMPLING INFORMATION
1. Indicate where the sample of the waste was obtained.
2. Check the appropriate box indicating the method of sampling.
3. Indicate the number of samples taken.

If the sample was handled using Chain of Custody, attach the completed form.

PART H. GENERATOR CERTIFICATION
By signing this Waste Characterization Form, the Generator certifies that the statements in numbers 1, 2, 3, 4, 5 and 6 are true and accurate with respect to the waste streams listed.

7. Signature - An authorized employee of the Generator must sign this form.
8. Title - Enter employee's title.
9. Name - Enter employee's name.
10. Date - Enter the date signed.

Send the completed application to -

Public Health – Seattle & King County
Waste Characterization Program
Chinook Building
401 5th Ave, Suite 1100
Seattle, WA. 98104

You may also fax the form to - (206) 296-0189

Questions? Contact Waste Characterization at –

Telephone: (206) 263-8528 or (206) 296-4633
E-mail: wc@kingcounty.gov

PAYMENT AND PERFORMANCE BOND
THE CITY OF SEATTLE

We, __________________________________________________________________________("Principal"); and

[Insert full legal name of Vendor / Contractor]

_______________________________________________
_____________________________________________,
a___________________ corporation
[Insert legal name of Surety and its state of incorporation]

authorized to transact surety business in the State of Washington, ("Surety"), are held and firmly bound unto The City of Seattle ("City"), as Obligee, in an amount equal to the total compensation and expense reimbursement payable to Principal for satisfactory completion of Principal's work under Contract No. ____________________ between Principal and City, which total is initially ___________________________ Dollars ($_______________), lawful money of the United States of America, for the payment of which sum Principal and Surety bind themselves, their heirs, legal representatives, successors and assigns, jointly and severally, firmly by these presents. Said contract (hereinafter referred to as "the Contract") is for ____________________________ and is made a part hereof by this reference. The Contract includes the original agreement as well as all documents attached thereto or made a part thereof and all addenda, amendments, change orders, and any other document modifying, adding to or deleting from said Contract any portion thereof.

This Bond is executed in accordance with the laws of the State of Washington and is subject to all provisions thereof and the Charter and ordinances of City insofar as they are not in conflict there with, and is entered into for the use and benefit of City, and all laborers, mechanics, subcontractors, and materialmen, and all persons who supply such person or persons, or subcontractors, with provisions or supplies for the carrying on of the work covered by the Contract.

THE CONDITION OF THIS OBLIGATION is such that if Principal faithfully performs all the provisions of the Contract and pays all laborers, mechanics, and subcontractors and materialmen, and all persons who supply such person or persons, or subcontractors, with provisions and supplies for the carrying on of such work; and pays all other just debts incurred in the performance of such work (provided, however, that the conditions of this obligation shall not apply to any money loaned or advanced to any such contractor or subcontractor or other person in the performance of such work); and to the extent permitted by law indemnifies, defends, and holds City harmless from all cost and damage by reason of Principal's default, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

THE PARTIES FURTHER ACKNOWLEDGE AND AGREE AS FOLLOWS:

(1) Surety hereby consents to, and waives notice of, any alteration, change order, or other modification of the Contract and any extension of time made by City, except that any single or cumulative change order amounting to more than twenty-five percent (25%) of the penal sum of this bond shall require Surety's written consent.

(2) Surety recognizes that the Contract includes provisions for additions, deletions, and modifications to the work or Contract Time and the amounts payable to Principal (i.e., Vendor/Contractor). No such change or any combination thereof shall void or impair Surety's obligation hereunder.

(3) Whenever City has declared Principal (i.e., Vendor/Contractor) to be in default and City has given Surety written notice of such declaration, Surety shall promptly (in no event more than thirty [30] days following receipt of such notice) specify, in written notice to City, which of the following actions Surety intends to take to remedy such default, and thereafter shall:

(a) Remedy the default within fifteen (15) days after its notice to City; or

(b) Assume within fifteen (15) days following its notice to City, full responsibility for the completion of the Contract in accordance with all of its provisions, and become entitled to payment of the balance of the Contract sum as provided in the Contract; or

(c) Pay City upon completion of the Contract, in cash, the cost of completion together with all other reasonable costs and expenses incurred by City as a result of Principal's (i.e., Vendor/Contractor's) default, including but not limited to those incurred by City to mitigate its losses, which may include but are not limited to attorneys' fees and the cost of efforts to complete the work prior to Surety's exercising any option available to it under this Bond; or

(d) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon a
determination by City and Surety jointly of the lowest responsible bidder, arrange for one or more agreements between such bidder and City, and make available as work progresses (even though there is a default or a succession of defaults under such agreement(s) for completion arranged for under this paragraph) sufficient funds to pay the cost of completion of the Contract less the balance of the Contract price, but not exceeding, including other costs and damages for which Surety may be liable hereunder, the penal sum of this Bond. The term “balance of the Contract price,” as used in this paragraph, shall mean the total amount payable by City to Principal (i.e., Vendor/Contractor) under the Contract, less the amount properly paid by City to Principal (i.e., Vendor/Contractor).

In addition to (a) through (d) above, Surety shall pay City all other reasonable costs and expenses incurred by City as a result of Principal’s (i.e. Vendor/Contractor’s) default, and prior to Surety’s exercising any option available to Surety under this bond.

(4) The venue for any action arising out of or in connection with this bond shall be in King County, Washington.

(5) No right or action shall accrue on this Bond to or for the use of any person or corporation other than The City of Seattle and, to the extent required under RCW Chapter 39, all laborers, mechanics, subcontractors, and materialmen, and all persons who supply such person or persons, or subcontractors, with provisions or supplies for the carrying on of the work covered by the Contract.

(6) Nothing of whatever kind or nature whatsoever that will not discharge the Principal shall operate as a discharge or a release of liability of the Surety, any law, rule of equity, or usage relating to the liability of sureties to the contrary notwithstanding.

(7) No rider, amendment, or other document modifies this Bond unless made in writing and accepted by Principal, Surety and the City.

(8) Surety shall give to Principal and to City not less than sixty (60) days’ prior written notice by certified mail, return receipt requested, of the effective date of the expiration or cancellation of this bond. Notice to City shall be mailed to: DEA, P. O. Box 94687, Seattle, WA 98124-4687 or delivered to DEA at 700 5th Av., Ste. 4112, Seattle, WA 98104-5042.

(9) Principal must provide City with a replacement bond, acceptable to City, not less than thirty (30) days before the effective date of this bond’s expiration or cancellation as specified in the Surety’s notice provided pursuant to Condition (8) above.

(10) If Principal fails to provide the replacement bond not less than thirty (30) days before the effective date of this bond’s expiration or cancellation as specified in the Surety’s notice provided pursuant to Condition (8) above, such failure shall constitute a default under this bond, for which City may make a claim, and Surety shall be obligated to make immediate payment under this bond of all sums.

**SURETY’S QUALIFICATIONS:** Every Surety named on this bond must either appear on the United States Treasury Department’s most current list (Circular 570 as amended or superseded) or have a current rating of at least A-:VII in A. M. Best’s Key Rating Guide. Additionally, every Surety named on this bond must be authorized by the Washington State Insurance Commissioner to transact business as a surety in the State of Washington.

**INSTRUCTIONS FOR SIGNATURES:** This bond must be signed by the president or a vice-president of a corporation; the managing general partner of a partnership; managing joint venturer of a joint venture; manager of a limited liability company ("LLC") or, if no manager has been designated, a member of such entity; a general partner of a limited liability partnership ("LLP"); or the owner(s) of a sole proprietorship. If the bond is signed by any other representative, the Principal must attach written proof of that signer’s authority to bind the Principal, identifying and quoting the provision in the corporate articles of incorporation, bylaws, Board resolution, partnership agreement, certificate of formation, power of attorney, or other document authorizing delegation of signature authority to such signer, and confirmation acceptable to the Seattle City Attorney’s Office that such delegation was in effect on the date the bond was signed.

**A NOTARY PUBLIC MUST ACKNOWLEDGE EACH SIGNATURE ON THIS BOND.**
Bond No. ____________________

FOR THE SURETY:
By ____________________________
(Signature of Attorney-in-Fact)
(Type or print name of Attorney-in-Fact)
(Type or print telephone number for Attorney-in-Fact)

FOR THE PRINCIPAL:
By: __________________________
(Signature of authorized signer for Principal)
(Type or print NAME of signer for Principal)
(Type or print TITLE of signer for Principal)

STATE OF ______________________
COUNTY OF _____________________

ACKNOWLEDGMENT FOR PRINCIPAL
I certify that I know or have satisfactory evidence that __________________ is the person who appeared before me, said person acknowledged that he/she signed this bond, and on oath stated that he/she was authorized to execute the bond on behalf of the Principal as the Principal’s free and voluntary act for the uses and purposes mentioned therein.
WITNESS my hand and official seal hereto affixed this _____ day of ________________, ________.

______________________________
(Signature of Notary Public)
(Print or type name of Notary Public)
Notary Public in and for the state of____________________ residing at ________________________________
My commission expires ____________________.

STATE OF ______________________
COUNTY OF _____________________

ACKNOWLEDGMENT FOR SURETY
I certify that I know or have satisfactory evidence that __________________ is the person who appeared before me as the Attorney-in-Fact for the Surety that executed the foregoing bond, acknowledged said bond to be the free and voluntary act and deed of the Surety for the uses and purposes therein mentioned, and on oath stated that he/she is authorized to execute said bond on behalf of the Surety, and that the seal affixed on said bond or the annexed Power of Attorney is the corporate seal of said Surety.
WITNESS my hand and official seal hereto affixed this _____ day of ________________, ________.

______________________________
(Signature of Notary Public)
(Print or type name of Notary Public)
Notary Public in and for the state of____________________ residing at ________________________________
My commission expires ____________________.
Supplemental Bidder Responsibility Criteria

City Purchasing and Contracting Services (PCSD) will request this form from the apparent low bidder. This form is used by the City to finalize responsibility determinations before award. The bidder is to return this form within three (3) Business Days of the request or as otherwise acceptable to PCSD. The Owner’s evaluation may include further investigation to establish the responsibility, experience and/or qualifications of the bidder. PCSD reserves the right to request the Form from other bidders. Please provide all information relevant to the Owner for an informed responsibility determination. Questions? Please contact the City staff that sent the initial request or contact PCSD at (206) 684-0444.

If you are a national company or with multiple offices, please answer these questions in regard to the local office that is responsible for managing this project.

You may e-mail, fax or mail this form back to the City. Please clearly mark the package/email with the Public Works Number (PW#) and a title of “Supplemental Bidder Responsibility Criteria Form.”

Email (preferable): Submit via e-mail to the City staff that sent the initial request
Fax to: (206) 684-4511
(courier) Street Address: 7 00 – 5th Ave, Room 4112, Seattle Municipal Tower, Seattle WA 98104
(mail) Post Office: Post Office Box: Seattle Municipal Tower, PO Box 94687, Seattle WA 98124-4687

Your Signature: The information provided is correct and complete.

______________________________________________ ____________________________
Signature of Authorized Representative    Date
Print Name and Title: ______________________________________________________________

<table>
<thead>
<tr>
<th>PW#</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Contact Name and Title</td>
<td></td>
</tr>
<tr>
<td>Your Contact Phone Number</td>
<td></td>
</tr>
<tr>
<td>Contact Email</td>
<td></td>
</tr>
<tr>
<td>Company Legal Name</td>
<td></td>
</tr>
<tr>
<td>DBA (if any)</td>
<td></td>
</tr>
<tr>
<td>List any former company names under which the company, its Owners, and/or its principals has operated in the past 3 years</td>
<td></td>
</tr>
<tr>
<td>Explain reason for name change(s) in the past 3 years</td>
<td></td>
</tr>
</tbody>
</table>
1. **Work Completed:** If this project required project specific supplemental bidder qualifications, the project specifications will define the type, size, and scope of work along with any other requirements for the number of projects and date of projects. If there is not a specific requirement in the bidding documents it is up to the Bidder to interpret the most appropriate projects to provide the Owner that demonstrate your experience.

**A Work Experience form is attached to this package.** For the local office leading this project, list similar construction contracts completed in the past three years (or longer when required by the project specifications). Select project(s) that are similar in type, size and scope to this project. The Owner may check owner references for such previous projects to confirm the owner’s assessment of the Bidder’s performance, including but not limited to the following, so please be thorough in your descriptions:

- Quality control;
- Safety record;
- Ability to meet to the project schedule;
- Use of skilled personnel;
- Management of subcontractors;
- Availability of and use of appropriate equipment;
- Compliance with contract documents;
- Management of submittals process, change orders and close out; and
- Any other criteria listed on this form.

2. **Personnel:** List the Superintendent and Project Manager who will be assigned to this project. Identify any concurrent projects that they are working on now or that are planned for them to work on concurrent to the City project, and how their time will be allotted among the projects.

**Attach detailed resumes** for each with a list of all projects that person supervised or managed within the past three (3) years (or longer if required in the specifications), with references and contact information for each project. Remember that you should show experience with any specific supplemental bidder qualifications that are unique to this project.

<table>
<thead>
<tr>
<th>Superintendent</th>
<th>Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The Owner may check owner references for previous projects and use the owner’s assessment of the personnel’s performance, including but not limited to the following, so please be thorough in your descriptions. As listed above, these include such things as quality control, safety record, ability to meet project schedule and other items.

3. **Equipment:** List all equipment owned or leased which you intend to use on this project:

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Size or Capacity</th>
<th>Owned or leased?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
4. **Work in Progress:** List all construction contracts in progress for the office that will be managing this work. List project name, Owner, contract amount, percent of work performed with own forces, anticipated completion date.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Owner and Contact Information</th>
<th>Contract Amount</th>
<th>% Self Performed</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

For the following, please check the appropriate box. If your answer is “yes” the Owner will request additional information or seek further explanation. A “yes” answer does not automatically reject a bidder.

5. **Performance Evaluation:** Has your (local) firm, under present or past business name, received one or more “Deficient” or “Inadequate,” or similar, evaluations from the City of Seattle or another governmental agency on a construction project within the last three (3) years?

   Yes □  No □

6. **WMBE Inclusion:** If your firm has done business previously with the City of Seattle, have you received one or more “deficient” or “inadequate” evaluation scores on your social equity performance within the last (3) years?

   Yes □  No □

7. **Termination:** Has your (local) firm, under present or past business name, been terminated for “default or cause” on any public works project within the last three (3) years?

   Yes □  No □

8. **Debarment:** In the last three (3) years has your firm or any firm with which any of your company’s owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing any public works project for any reason? NOTE: “associated with” refers to another construction firm in which an owner, partner or officer of your firm held a similar position.

   Yes □  No □

9. **Safety:** Has the Washington State Department of Labor and Industries, federal OSHA, or any other state’s occupational safety and health agency cited your (local) firm for any “serious,” “willful” or “repeat” violations of its safety or health regulations in the past three (3) years?

   Yes □  No □
10. OSHA Experience Factor: List the Experience Factor (Washington workers’ compensation insurance) of your firm for each of the past three years. NOTE: An Experience Factor is calculated annually by the Washington Department of Labor and Industries.

<table>
<thead>
<tr>
<th>Current Year:</th>
<th>Previous Year:</th>
<th>Year to previous year:</th>
</tr>
</thead>
</table>

11. Environmental: Has the EPA, Washington DOE, any Regional Clean Air Agency, or any other state’s equivalent environmental enforcement agency cited either your firm, or the owner of a project on which your firm was the contractor, in the past three (3) years?

☐ Yes  ☐ No

12. Apprenticeship: Has your firm, within three (3) years of the bid submittal date, have unresolved citations issued by Washington Department of Labor and Industries?

☐ Yes  ☐ No

13. Prevailing Wages: Has your firm been required to pay either back wages or penalties for failure to comply with any state or federal prevailing wage laws in the past three (3) years?

☐ Yes  ☐ No
Equal Benefits: Please declare one (1) option from the list below that describes the Contractor’s compliance status with Seattle Municipal Code Chapter 20.45 and related rules. For additional information or explanations regarding the Equal Benefits Program with the City please visit our website at http://www.seattle.gov/contracting/equalbenefits.htm/

☐ Option A The Contractor makes, or intends to make by the contract award date, all benefits available on an equal basis to its employees with spouses and its employees with domestic partners, and to the spouses and the domestic partners of employees, in every location within the United States where substantial work on contract will be performed.

☐ Option B The Contractor does not make benefits available to either the spouses or the domestic partners of its employees.

☐ Option C The Contractor has no employees.

☐ Option D Collective Bargaining Delay. Benefits are available on an equal basis to non-union workers, but union workers are subject to a collective bargaining agreement that does not provide equal benefits.

☐ Option E Open Enrollment Delay. The first open enrollment period for implementing Equal Benefits is not available until after contract execution.

☐ Option F Cash Equivalent Payment. The Contractor intends to provide a cash equivalent payment to eligible employees in lieu of making benefits available.

☐ No United States Presence The Contractor does not perform substantial work for the contract in any United State location.

☐ Non-Compliant The Contractor does not comply and does not intend to comply, and refuses all options provided above.
Attachment to Supplemental Bidder Responsibility Criteria

Work Experience Form

Please complete one form per project and include the minimum number of projects (and forms) as requested. You may include any additional work experience you deem relevant to determining bidder responsibility. Please be sure to provide a thorough description of the work in order to demonstrate how your firm meets any required experience detailed in the specifications. You may attach additional documentation if needed.

<table>
<thead>
<tr>
<th>PAST PROJECT EXPERIENCE DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIDDER’S COMPANY NAME</td>
</tr>
<tr>
<td>PROJECT NAME</td>
</tr>
<tr>
<td>PROJECT OWNER</td>
</tr>
<tr>
<td>PROJECT OWNER CONTACT NAME &amp; TITLE</td>
</tr>
<tr>
<td>CONTRACT DAYS SPECIFIED AT BID:</td>
</tr>
<tr>
<td>PRIME CONTRACTOR NAME (IF NOT BIDDER)</td>
</tr>
<tr>
<td>BRIEF PROJECT DESCRIPTION</td>
</tr>
<tr>
<td>BRIEF SUMMARY OF TECHNICAL WORK COMPLETED BY BIDDER, INCLUDING ANY RELEVANT DETAILS TO DEMONSTRATE SIMILAR EXPERIENCE AND ANY REQUIRED EXPERIENCE DETAILED IN THE SPEC.</td>
</tr>
<tr>
<td>WMBE UTILIZATION RATES: DESCRIBE THE MINORITY AND WOMAN UTILIZATION ON THIS PROJECT, REGARDLESS OF WHETHER THE OWNER SOUGHT OR REQUIRED SUCH UTILIZATION.</td>
</tr>
</tbody>
</table>
Goal: This Teaming 360 Review supports collaborative communications on City construction projects. The review will share information at preconstruction, project midpoint, and project completion, to team and facilitate a quality construction experience. *This review is provided for communication and collaboration, not for determinations of responsibility, debarment or performance.*

Process: This Teaming 360 Review is required for all projects with an engineer’s estimate of $1,000,000 and up.
- For all other projects, this Teaming 360 Review may be used by the City when the City has determined that it may prove beneficial to the City and Contractor (for example when a Contractor has not worked for the City or for a specific department before).
- During the pre-construction review, expectations and project approach strategies will be shared between the Owner and Contractor.
- A midpoint review meeting will be scheduled during the middle of construction to provide an opportunity to review progress and identify areas for improvement and the steps to achieve it.
- Additional reviews are optional and can and should be requested by either party whenever it may be helpful to project collaboration.
- A final review is required for all projects at physical completion.

Participants: The Review will engage the Contractor Representative, City Department Representative, and the CPCS Social Equity representative at a minimum.

**Project Name and PW#:**

**Contractor Name and PM:**

**Contractor Representative:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
</table>

**Owner Representative:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
</table>

**CPCS Social Equity Representative:**

| Name | Title |

---

**PRECONSTRUCTION**

The Owner and Contractor will review expectations together at the preconstruction meeting, or at a meeting as otherwise agreed, and will agree upon the mid-point review date.

1) Please briefly discuss how the Owner and the Contractor define success for this Project.

2) What does the Owner expect from the Contractor to ensure success?

3) What are the items that most concern the Owner about this project?

4) What are the items that most concern the Contractor on this project?
### EXPECTATIONS

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Exceptional</td>
</tr>
<tr>
<td></td>
<td>Always over achieves, exceeds expectations</td>
</tr>
<tr>
<td>4</td>
<td>Superior</td>
</tr>
<tr>
<td></td>
<td>Almost always, meets expectations, positive results</td>
</tr>
<tr>
<td>3</td>
<td>Solid Performance</td>
</tr>
<tr>
<td></td>
<td>Sometimes, average</td>
</tr>
<tr>
<td>2</td>
<td>Inconsistent</td>
</tr>
<tr>
<td></td>
<td>Rarely, below average, developing skills</td>
</tr>
<tr>
<td>1</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td></td>
<td>Never, poor, requires constant guidance or reminding</td>
</tr>
</tbody>
</table>

### MIDPOINT REVIEW

**DATE:** ________________

**OWNER’S FEEDBACK TO THE CONTRACTOR**

<table>
<thead>
<tr>
<th>Expectation Topics</th>
<th>Scale</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management and Supervision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project field supervision is knowledgeable, on-site and responsive, including keeping the Owner up-to-date.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Coordination and control of subcontractors and suppliers is organized and efficient.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Project field supervision is professional and maintains good relationships with the public, other agencies and Owner staff.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

| Schedule Performance                      |       |          |
| Schedule is accurate, up-to-date, and well-communicated to Owner staff, sub-contractors and suppliers. | 1 2 3 4 5 |          |
| Work is executed in accordance with the schedule, substantially completed on time and punch list completed promptly. | 1 2 3 4 5 |          |

| Submittals, Payments and Change Orders    |       |          |
| Submittals are timely, accurate and well-organized. | 1 2 3 4 5 |          |
| Payment requests, with support documentation, are provided complete and on time. | 1 2 3 4 5 |          |
| Requests for Information and Change Orders are legitimate, timely and well-documented. | 1 2 3 4 5 |          |

| Quality Control and Workmanship          |       |          |
| Work is accomplished in accordance with plans and specifications, including correction of deficient work in a timely manner. | 1 2 3 4 5 |          |
| Workmanship reflects quality and pride in performance so as to pass inspection the first time. | 1 2 3 4 5 |          |

| Environmental and Safety                 |       |          |
| Worksite is maintained clean and safe in accordance with all applicable standards and regulations, and project Safety Plan. | 1 2 3 4 5 |          |
Compliance with environmental laws, ordinances and regulations including TESC measures being effectively monitored for performance.

<table>
<thead>
<tr>
<th>Social Equity (Completed by CPCS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor actively participates in recruitment efforts for under-represented scopes for WMBEs.</td>
</tr>
<tr>
<td>All on-line reports are accurate and up-to-date each month.</td>
</tr>
<tr>
<td>Ensure eligible subcontractors are receiving prompt payments.</td>
</tr>
<tr>
<td>Social Equity Plan/Inclusion Plan/Apprenticeship Plan updated, complete and thoughtful at the start of construction and participation meets goals.</td>
</tr>
</tbody>
</table>

**CONTRACTOR’S FEEDBACK TO THE CITY**

<table>
<thead>
<tr>
<th>Expectation Topics</th>
<th>Scale</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Management and Oversight</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City processes allowed timely access to the Owner’s rep or Engineer during construction.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td><strong>Communication and Responsiveness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City processes allowed a responsive, timely, and respectful resolution around issues.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td><strong>Documentation Review</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City processes allowed RFI's and Change Orders to be reviewed and responded to in a timely way.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>City process allowed Change Orders to be reviewed timely with clear directives on information and documentation needed for approval and signature.</td>
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</tr>
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<td>The City provides appropriate support, guidance and assistance to resolve social equity issues clearly and timely.</td>
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</table>

**Follow Up:**
On any topics receiving a rating of 1 or 2, outline strategies for improvement. Use additional space as needed. Contractors may include responses here as well.
**DATE OF REVIEW:** _______________  
**Physical Completion Date:** _______________

**OWNER’S FEEDBACK TO THE CONTRACTOR**

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**CONTRACTOR’S FEEDBACK TO THE CITY**

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<td>Circle Rating</td>
<td></td>
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</table>

Final comments and feedback for future projects:

*Provide a copy to each participating Representative at each stage in the review. Provide a copy of the final review to CPCS as part of the project close out documents. Reminder: these reviews are public documents subject to disclosure upon request.*
SUBCONTRACTOR APPROVAL APPLICATION

Prior to a subcontractor beginning work, this form shall be completed and signed by Prime Contractor and submitted to and approved by the owner’s authorized representative.

### SECTION A

<table>
<thead>
<tr>
<th>Project Name</th>
<th>P.W. Project No.</th>
<th>Spec. No (if applicable)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Contractor Business Name (Prime)</th>
<th>Telephone Number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
</tr>
</thead>
</table>

Approval is requested to Sublet the Following Described Work to:

<table>
<thead>
<tr>
<th>Name (Select one: ☐ Subcontractor or ☐ Supplier or ☐ Lower-tier Subcontr)</th>
<th>Telephone Number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Federal Tax ID #</th>
<th>State UBI #</th>
<th>Seattle Business License #</th>
<th>Contractor’s License # (Subcontractor only)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exp. ...........................................</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exp. ...........................................</td>
</tr>
</tbody>
</table>

Has this Company ever been disbarred by L&I?

☐ No  ☐ Yes, Reason: 

<table>
<thead>
<tr>
<th>Subcontractor’s Estimated Start Date</th>
<th>Subcontractor’s Estimated Number of Working Days</th>
<th>Cumulative Percentage of all Work Subcontracted</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Contract Item #</th>
<th>Bid Quantity</th>
<th>Bid Item Description</th>
<th>Bid Item Amount</th>
<th>Split Bid Item Amount (sub)</th>
<th>Total Amount (sub) A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Total Amount of this Request (less Specialty items)

Total Contract Amount (less Specialty items)

Percentage of Total Contract

A  B  (A/B)
SECTION B

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the company listed in the City of Seattle’s Vendor and Contractor Registration System?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(see <a href="https://wald1.seattle.gov/dea/registration/">https://wald1.seattle.gov/dea/registration/</a>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the company listed in the WA State Office of Minority and Women’s Business Enterprises directory?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(see <a href="http://www.omwbe.wa.gov/certification/certification_directory.shtml">http://www.omwbe.wa.gov/certification/certification_directory.shtml</a>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the company listed in the WMBE Contract Commitment Log section of the inclusion plan?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ Yes (Go to Section C)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ No, Is subcontracting to this company going to negatively affect the Total estimated percentage of the base bid to all MWBE subcontractors and suppliers in the inclusion plan or does it affect the work that is committed to the WMBE businesses’ listed on the commitment log in the inclusion plan?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ No, Proceed to Section D.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Yes, Provide a detailed explanation below for review by the owner’s representative (Note: Every attempt should be made to meet the percentage and to use the WMBE subcontractors/suppliers listed in the commitment log or substitute their work with another approved WMBE company.)</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

SECTION C

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the dollar amount of the work match the dollar amount listed in the WMBE Contract Commitment Log?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ Yes, the form is complete and you do not need to go any further.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ No, please provide an explanation below for review by the owner’s representative:</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

SECTION D

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is LNI Approved Intent to Pay Prevailing Wages for Subcontractor attached?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>By signing this form I certify that the subcontractor listed above is in compliance with all of the responsible bidder requirements under RCW 39.04.350, including: having a certificate of registration under RCW 18.27; a UBI number; industrial insurance coverage if required under Title 51 RCW; an employment security number under Title 50; and a state excise tax registration number under Title 82. I affirm that the subcontractor is not disqualified from working on any public works contract under RCW 39.06, or RCW 39.12.065(3) or on the Federal Excluded Parties List System (epls.gov).</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I understand and will require that the subcontractor comply fully with the Contract under which this work is being performed.</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prime Contractor's Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For City of Seattle Administering Department Only

<table>
<thead>
<tr>
<th>Authorized CITY OF SEATTLE Signature</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Printed Name of Signature</th>
<th>Title:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

☐ Approved ☐ Rejected, Reason:

Instructions to the Contractor

1. Subcontractor or Lower Tier Contractor name and address must be the same as shown on the State License.
2. Regardless of the agreement between the prime and subcontractor; the Bid Item Amount (or split item amount) will be used in determining the % of total Contract.
3. Fill in all columns using Contract Item Numbers and Bid Items as shown in the Contract. Use column headed “Split Bid Item Amount” for the Subcontractor’s unit cost. Contact the Engineer for information concerning determination of “Split Bid Item Amount.” When splitting item work, including a specialty item, a description of item work being performed must appear in the column headed “Bid Item Description.”; for example: “Handhole Type 2 less saw-cutting” or “Handhole Type 2 saw-cutting only”. If no work is split out, then use Item Description only “Handhole Type 2”.
4. Carry percentages to two decimal places. Be sure your figures are accurate before submitting request.
5. If the Prime Contractor is requesting to subcontract, check the box next to “Subcontractor.”
6. If the Subcontractor is requesting to Subcontract, check the box next to “Lower Tier Subcontractor.”
7. Original “Subcontractor Approval Applications” must be signed and submitted by the Prime Contractor to the authorized owner’s representative (Engineer or Project Manager, as directed).
8. If approved, please ensure that subcontractor or supplier is registered in the Vendor and Contractor Registration (VCR) database (https://wald1.seattle.gov/dea/registration/).
Subcontractor Payment Report

Project Name: ___________________________ PW# __________________

Contractor Name: ___________________________

Report Period: Start - m/d/y __________ to __________ End - m/d/y


Business name of ALL subcontractors and suppliers that provided work and/or materials on this Contract

<table>
<thead>
<tr>
<th>Business name</th>
<th>*WMBE</th>
<th>Type</th>
<th>*Amount Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Sub</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

*Include taxes paid to subs, exclude retainage to be paid.

Submitted by:

Name (signature) ___________________________ Title ___________________________ Date Signed ___________________________

**WMBE Definitions - WMBE: a business that is at least 51% owned by one or more minority women, and whose management and daily operations are controlled by one or more minority women. WBE: a business that is at least 51% owned by one or more women, and whose management and daily operations are controlled by one or more women. MBE: a business that is at least 51% owned by one or more minority males, and whose management and daily operations are controlled by one or more minority males. CBE: a business that is 50% owned and controlled by one or more minority men, and 50% owned and controlled by one or more non-minority women.
Contractor’s Shop Drawing Review & Approval Request

Date:
To: Seattle City Light, Construction Management
From:
Contract: PW #:

Bid Items:
Drawing Sheet #(s):
Material Standard (ASTM, AWWA, etc.):
Location/Intended Use:

Deviations from contract requirements and / or Standard Plans:
<<Enter Deviations here>>

This is to certify that the Contractor has reviewed and approved the Shop Drawing #(s) to for accuracy, completeness, and compliance with the Contract requirements:

Contractor’s signature Date

Contractor’s Name and Address:

Note: One Shop Drawing Review Form shall be submitted for each shop drawing submittal package.
**Project Labor List - Contractor**

The Project Labor Report submitted by the contractor and by any subcontractor before that firm commences force account work. They can either use this form or their own form with like information.

Contract Name: ________________________________  Fica: 7.65%

PW No: ________________________________  Futa: 0.60%

Contractor/Subcontr.: ________________________________  Suta: (0.4% to 5.42%)

Checked By: (SCL CE): ________________________________  Total: ________________________________

* Contractor must supply copy of "State Rate Notice" with this form.

**Note:** Rate for Sup. Pen, Med Aid, Ind. Insur - Diff. Between "Your Tax Rate" and their "Payroll Deduction" columns.

<table>
<thead>
<tr>
<th>* Labor Classification</th>
<th>Base Rate</th>
<th>Overtime Rate</th>
<th>Fica; Futa; Suta</th>
<th>Sup. Pen. *0.5; Med. Aid *0.5; Ind. Insur.</th>
<th>Total Fringe Benefits</th>
<th>Regular Weighted Rate</th>
<th>Overtime Weighted Rate</th>
</tr>
</thead>
</table>

* Must match exactly with the occupation descriptions listed in wage schedule of the contract.
**Substitution Request Form**

To: ___________________________  Project: ___________________________

___________________________  Owner: ___________________________

Specified Item:

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
<th>Paragraph</th>
<th>Description</th>
</tr>
</thead>
</table>

The undersigned requests consideration of the following:

**Proposed Substitution:** _____________________________________________

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request. Applicable portions of the data are clearly identified.

The undersigned states that the following paragraphs, unless modified on attachments, are correct:

1. The proposed substitution does not affect dimensions shown on Drawings and will not require a change in any of the Contract Documents.

2. The undersigned will pay for changes to the design, including engineering design, detailing, and construction costs caused by the request substitution which is estimated to be $_____________.

3. The proposed substitution will have no adverse affect on other contractors, the construction schedule (specifically the date of substantial completion), or specified warranty requirements.

4. Maintenance and service parts will be locally available for the proposed substitution.

5. The incorporation or use of the substitute in connection with the work is not subject to payment of any license fee or royalty.

The undersigned further states that the function, appearance, and quality of the Proposed Substitution are equivalent or superior to the Specified item.

Submitted by **Contractor:** ___________________________  Reviewed by **Engineer:** ___________________________

<table>
<thead>
<tr>
<th>Accepted</th>
<th>Accepted as Noted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Accepted</td>
<td>Received too Late</td>
</tr>
</tbody>
</table>

Signature ___________________________  By: ___________________________

Firm ___________________________  Title: ___________________________

Date: ___________________________  Date: ___________________________

Telephone: ___________________________  Remarks: ___________________________

Attachments: ___________________________  

CM 1110 (Revised 10/22/01)
Request for Approval of Material Sources  
SCL, Construction Management Division

SF # __________ Project No. __________ Date: __________

Contract Name: ____________________________________________

<table>
<thead>
<tr>
<th>Bid Item #</th>
<th>Description of Material</th>
<th>Sources of Supply</th>
<th>Approval Action *</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Local Supplier</td>
<td>Manufacturer or Pit #</td>
</tr>
</tbody>
</table>

Contractor: __________ Submitted by: __________

Seattle City Light or Seattle Public Utilities Materials Laboratory Use Only

* Sources of supply for all items checked ( ) in approval column are approved for use on the above improvement provided the materials delivered comply with all specifications.

1. Source Approved: Acceptance based upon 'Satisfactory' test report for samples of materials to be incorporated into project.
2. Source Approved: Submit manufacturer certificate of compliance for 'Approval' prior to use of material.
3. Source Approved: Submit millcerts prior to use of material.
4. Source Approved: Submit catalog cuts and/or shop drawings for 'Approval' prior to use or fabrication of material.
5. Source Approved: Only stamped 'SCL, SPU, or WSDOT Inspected' material shall be used.
6. Source Approved: Request supplier to provide 'SPU' or 'WSDOT' Pipe Acceptance Report (PAR) with pipe upon delivery.
7. Source Approved: Submit mix design for 'Approval' prior to incorporation of material into project.
9. Approval Withheld: Submit brand name, name of manufacturer, treating plant, or WSDOT Pit number.
10. Approval Withheld: Submit catalog cuts and/or shop drawings for approval.
11. Approval Withheld: Submit bid item number.
12. Approval Withheld:
13. Conditionally Approved:

Review by: __________________________ Date: __________

I, __________________________, have reviewed the above items and ( ) concur, ( ) do not concur (attach comments)

Senior Construction Engineer

Note: Forms not filled in completely will not be processed
# Seattle City Light Spill Notification Procedures

Notifications to regulatory agencies are required when a hazardous material is released to the environment (soil, water, air). All notifications to regulatory agencies will be performed by Seattle City Light's Environmental Affairs Division.

<table>
<thead>
<tr>
<th>What</th>
<th>Who</th>
<th>Responsible Person</th>
<th>Contact/Additional Info</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Hazardous Material Spills, independent of quantity released.</td>
<td>Contractor personnel on site discovers spill, contacts the Contractor SCC for assistance.</td>
<td>Contractor Spill Control Coordinator (SCC):</td>
<td>1. Site personnel will perform containment and remediation of the release. 2. Contractor's On-Call Spill Response Sub-Contractor will be called in.</td>
<td></td>
</tr>
<tr>
<td>1. Site personnel <strong>Will</strong> perform containment and remediation</td>
<td>Contractor SCC determines how spill is managed</td>
<td>Contractor Spill Control Coordinator (SCC):</td>
<td>SCL Resident Engineer:</td>
<td>TBD</td>
</tr>
<tr>
<td>2. Site personnel <strong>Will Not</strong> perform containment and remediation</td>
<td>Contractor SCC determines how spill is managed</td>
<td>Contractor Spill Control Coordinator (SCC):</td>
<td>SCL Resident Engineer:</td>
<td>Contractor's On-Call Spill Response Sub-Contractor</td>
</tr>
</tbody>
</table>

**IF the Contractor is unable to reach the SCL Resident Engineer, the Contractor shall proceed with the following notifications to SCL Environmental Affairs.**

<table>
<thead>
<tr>
<th>SCL Resident Engineer contacted by Contractor Spill Control Coordinator</th>
<th>SCL Resident Engineer contacts SCL Environmental Affairs</th>
<th>SCL Environmental Affairs 8:00 AM – 5:00 PM</th>
<th>206/684-3270</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCL Environmental Affairs contacted by SCL Resident Engineer</td>
<td>SCL Environmental Affairs notifies regulatory agencies as required, dependent on the material &amp; release location</td>
<td>Regulatory Agencies may include NRC, Ecology, WA State DEM, EPA, Coast Guard, NPS, USFS, F&amp;W</td>
<td>Various</td>
</tr>
<tr>
<td>SCL Environmental Affairs contacted by SCL Resident Engineer</td>
<td>SCL Environmental Affairs:</td>
<td>After Hours Pager 5:00 PM - 8:00 AM, Weekends &amp; Holidays</td>
<td>206/995-2460</td>
</tr>
<tr>
<td>What</td>
<td>Types of Hazards</td>
<td>Responsible Person</td>
<td>Contact to Call</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------</td>
<td>--------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Spills that are immediately</td>
<td>Explosive, Reactive, Flammable, Corrosive</td>
<td>Any On-Scene Personnel</td>
<td>Emergency</td>
</tr>
<tr>
<td>dangerous to life or health</td>
<td>and/or Toxic Materials</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Seattle Public Utilities Recycling & Disposal Stations
## Rates and Information

<table>
<thead>
<tr>
<th>Recyclables Only</th>
<th>Hazardous Waste</th>
<th>Garbage</th>
<th>Yard Waste and Clean Wood</th>
<th>Large Appliances (Limit 2 per load)</th>
<th>Vehicle Tires (Limit 4 per load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucks and like vehicles, including those with trailers</td>
<td>No Charge</td>
<td>Not accepted</td>
<td>$145 per ton ($30 min. charge)</td>
<td>$110 per ton ($20 min. charge)</td>
<td>$30 each</td>
</tr>
</tbody>
</table>

Please note that unsecured loads (not covered or securely tied down) are charged an additional fee - $3 for sedans, SUVs and station wagons; all other vehicles $5 (if less than one ton) or $10 (if greater than one ton).

*PLEASE NOTE: Concrete, bricks, and asphalt paving - recycling required:* As of January 1, 2012, all construction and demolition sites shall separate out readily recyclable concrete, bricks, and asphalt paving... and... concrete, bricks, and asphalt paving shall not be deposited in construction and demolition site garbage containers... and... concrete, bricks, and asphalt paving shall not be deposited in construction and demolition site garbage containers,... railhead intermodal containers, or in the garbage disposal areas at the City’s Recycling and Disposal Stations.... Exceptions: The recycling requirement will not apply where concrete, bricks, and asphalt paving are painted, have hazardous constituents, are difficult to separate from other materials (such as wood), are present only in very small quantities, or are generated during disaster emergency situations where... recycling options are not available. (Seattle Municipal Code 21.36.089)

## Acceptable Materials

<table>
<thead>
<tr>
<th>Recyclables</th>
<th>Collected Commingled</th>
<th>Collected Separately</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Aluminum and Tin Cans</td>
<td>• Cardboard (clean, dry and flattened.)</td>
</tr>
<tr>
<td></td>
<td>• Glass Bottles and Jars (no lids)</td>
<td>• Motor Oil (5-gallons per day) and Drained Oil Filters</td>
</tr>
<tr>
<td></td>
<td>• Plastic Bottles (no lids)</td>
<td>• Scrap Metal</td>
</tr>
<tr>
<td></td>
<td>• Mixed Paper</td>
<td>• Vehicle Batteries</td>
</tr>
<tr>
<td>Yard Waste and Clean Wood</td>
<td>• Grass Clippings, Houseplants, Leaves and Brush</td>
<td>• Water Heaters (only if all insulation removed)</td>
</tr>
<tr>
<td></td>
<td>• Branches (up to 4-inches in diameter and 8-feet long)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Rocks (up to 2 inches in diameter)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cedar Shingles (untreated, no tar paper)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Pallets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lumber</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lath (no plaster)</td>
<td></td>
</tr>
<tr>
<td>Large Appliances (Residential Only)</td>
<td>• Refrigerators/Freezers (empty and doors removed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Air Conditioners</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Stoves, Washers, Dryers, Dishwashers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Water Heaters (If insulation is not removed)</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>• Ashes (must be cooled and bagged or boxed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Barrels or Drums (must be empty and cut in two)</td>
<td></td>
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<tr>
<td></td>
<td>• Hypodermic Needles/Syringes (must be in rigid container)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Latex Paint (must be dried/solidified)</td>
<td></td>
</tr>
</tbody>
</table>

## Unacceptable Materials
To ensure the safety of our employees and customers and to comply with recycling laws, we do not accept the following items:
- Furnace Parts, Woodstoves or Duct-Work
- Asbestos ( Loads containing asbestos will be turned away. )
- Electronics
- Explosives, Ammunition or Weapons
- Material more than 8 feet long or more than 200 pounds
- Dead Animals more than 15 pounds (call Animal Control)
- Compressed Gas Cylinders (e.g. propane tanks, fire extinguishers)
**Waste and Recycling Resources**

| Recycling and Disposal Station General Information | 206-684-8400 (Recording)  
|http://www.seattle.gov/util/ForBusinesses/GarbageBusinesses/DumpTransferStation/Rates/index.htm| 206-386-9790 (Billing Info.) |

| Construction Information and Recyclers |  |
|http://www.seattle.gov/util/ForBusinesses/Construction/index.htm|  |
| and Construction Recycling Directory|  |
|or downloadable: http://your.kingcounty.gov/solidwaste/greenbuilding/documents/CDLguide.pdf|  |

| Seattle Public Utilities Customer Service | 206-684-3000 |
|http://www.seattle.gov/util/AboutUs/ContactUs/index.htm|  |

| Illegal Dumping and Graffiti Hotline | 206-684-7587 |
|Illegal dumping|  |
|Graffiti|  |

| Puget Sound Clean Air Agency (Asbestos Disposal Information) | 206-343-8800 |
|http://www.pscleanair.org/regulated/asbestos/default.aspx|  |

| Waste Clearance |  |
|Public Health - Seattle & King County’s Waste Characterization Program reviews “questionable waste” and determines whether it will be cleared for disposal as municipal solid waste. Typical questionable wastes to review include contaminated soil, sludges, expired or off-spec products and chemicals, filters, blasting/grinding wastes, empty containers, and manufacturing wastes. Recycling and Disposal Stations may require completed Waste Clearance Forms before accepting questionable wastes. |  |

**Waste Clearance Request Form**

Fill in the form then email it to: wc@kingcounty.gov, or print it and mail it to:
Environmental Health Division, Solid Waste- Waste Characterization  
401 5th Avenue, Suite 1100, Seattle, WA 98104.

| Recycling and Disposal Stations |  |
|Recycling and Disposal Stations |  |
|**Hours of Operation:** |  |
|8 am to 5:30 pm, 7 days a week|  |
|Closed Thanksgiving, Christmas and New Years Day|  |
|North Station also closed on July 4th|  |

- **North Recycling and Disposal Station**
  1350 North 34th Street  
  Seattle, WA 98103

- **South Recycling and Disposal Station**
  8105 5th Avenue South  
  Seattle, WA 98108

For more information, including driving directions and tips on how to prepare your load, visit:  
www.seattle.gov/util.
# HMA Mix Design Submittal

## Contract Information

<table>
<thead>
<tr>
<th>PW Number:</th>
<th>Project Name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Manager:</th>
<th>Supervising Resident Engineer:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Contractor:</th>
<th>HMA Paving Contractor:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Contractors Mix ID:

- 3/8 Inch
- 3/4 Inch
- ATB
- 1/2 Inch
- 1 Inch
- Other (describe)

<table>
<thead>
<tr>
<th>Design ESALs (millions):</th>
<th>Gyration Levels:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( N_{ini} ) =</td>
</tr>
<tr>
<td></td>
<td>( N_{des} ) =</td>
</tr>
<tr>
<td></td>
<td>( N_{max} ) =</td>
</tr>
</tbody>
</table>

## Asphalt Binder Information

### Primary

<table>
<thead>
<tr>
<th>Asphalt Binder Supplier:</th>
<th>Asphalt Binder Specific Gravity (( G_b )):</th>
<th>Asphalt Binder Grade:</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Max. Binder Temp.:</th>
<th>Mixing Temp. Range:</th>
<th>Compaction Temp. Range:</th>
<th>Anti-strip Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

### Secondary

<table>
<thead>
<tr>
<th>Asphalt Binder Supplier:</th>
<th>Asphalt Binder Specific Gravity (( G_b )):</th>
<th>Asphalt Binder Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Max. Binder Temp.:</th>
<th>Mixing Temp Range:</th>
<th>Compaction Temp. Range:</th>
<th>Anti-strip Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

## Note:

Attach asphalt binder Temperature – Viscosity curves to submittal forms.

## Aggregate Structure

In the table below, provide the “Material” identification (3/4”-0, RAP, etc.), “Source” (J-199, E-320, etc.), “Ratio” (45%, 20%, etc.), and the percent passing each sieve for each stockpile used in the mix design as well as the combined gradation and the specification requirements for the class of HMA used. Report all stockpile gradations to the nearest tenth of a percent. Report the combined gradation to the nearest whole percent except the U.S. No. 200, which must be reported to the nearest tenth of a percent. Attach a 0.45 power chart showing the combined gradation with control points for the class of mix submitted.

<table>
<thead>
<tr>
<th>Material</th>
<th>Combined Gradation</th>
<th>Specification Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1/2” Square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1” Square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/4” Square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2” Square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/8” Square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. No. 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. No. 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. No. 16</td>
<td></td>
<td></td>
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<tr>
<td>U.S. No. 30</td>
<td></td>
<td></td>
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<tr>
<td>U.S. No. 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. No. 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. No. 200</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Aggregate Test Data

In the tables below provide all of the aggregate specific gravity and aggregate quality property test data determined for each stockpile and the selected design aggregate structure (Combined Gradation) as required. The specification requirements only apply to the design aggregate structure (Combined Gradation).

### Aggregate Specific Gravity, Sand Equivalency, and Uncompacted Void Content of Fine Aggregate

<table>
<thead>
<tr>
<th>Material</th>
<th>Combined Gradation</th>
<th>Specification Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$G_{sb}$ Coarse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$G_{sb}$ Fine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$G_{sb}$ Blend</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sand Equiv.</td>
<td>45 min.</td>
<td></td>
</tr>
<tr>
<td>Uncompacted Void Content</td>
<td>45% Min.</td>
<td></td>
</tr>
</tbody>
</table>

### Coarse Aggregate Fracture (not applicable to ATB)

<table>
<thead>
<tr>
<th>Sieve Sizes</th>
<th>1 Sided Fracture</th>
<th>2 Sided Fracture</th>
<th>Combined Gradation</th>
<th>%Fractured Faces</th>
<th>Specification Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1” Square</td>
<td></td>
<td></td>
<td></td>
<td>90% Min.</td>
<td></td>
</tr>
<tr>
<td>3/4” Square</td>
<td></td>
<td></td>
<td></td>
<td>90% Min.</td>
<td></td>
</tr>
<tr>
<td>1/2” Square</td>
<td></td>
<td></td>
<td></td>
<td>90% Min.</td>
<td></td>
</tr>
<tr>
<td>3/8” Square</td>
<td></td>
<td></td>
<td></td>
<td>90% Min.</td>
<td></td>
</tr>
<tr>
<td>U.S. No. 4</td>
<td></td>
<td></td>
<td></td>
<td>90% Min.</td>
<td></td>
</tr>
</tbody>
</table>

### Flat and Elongated Particles (not applicable to ATB)

<table>
<thead>
<tr>
<th>Sieve Sizes</th>
<th>% Flat and Elongated</th>
<th>Specification Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1” Square</td>
<td>10% Max.</td>
<td></td>
</tr>
<tr>
<td>3/4” Square</td>
<td>10% Max.</td>
<td></td>
</tr>
<tr>
<td>1/2” Square</td>
<td>10% Max.</td>
<td></td>
</tr>
<tr>
<td>3/8” Square</td>
<td>10% Max.</td>
<td></td>
</tr>
<tr>
<td>U.S. No. 4</td>
<td>10% Max.</td>
<td></td>
</tr>
</tbody>
</table>

### Binder Content of RAP (%):

Remarks:
HMA Mix Design Data

In the Table below, provide the HMA volumetric mix design data determined by performing WSDOT SOP 732. The \( V_a \), VMA, VFA, and \( G_{mm} \) values must be determined from replicate mixtures compacted to the appropriate N design gyration level in accordance to Section 8.2 of SOP 732, back calculated values from replicate mixtures compacted to \( N_{max} \) are not acceptable.

<table>
<thead>
<tr>
<th>HMA Properties</th>
<th>Primary Asphalt Binder</th>
<th>Secondary Asphalt Binder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.5% P_b Design</td>
<td>P_b Design</td>
</tr>
<tr>
<td>P_b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% G_{mm} @ N_{ini}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% G_{mm} @ N_{des} (V_a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>%VMA @ N_{des}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>%VFA @ N_{des}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dust / Asphalt Ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P_{be}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G_{mm}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G_{mb}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G_{se}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height @ N_{ini}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height @ N_{des}</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HMA Mix Design Proposal(s)

In the Table below, provide the HMA volumetric mix design data that comes closest to, or intersects 4.0% \( V_a \) (7% for ATB), from the testing performed via WSDOT SOP 732. This may be the same as the P_b design data from the table above. Also provide the % \( G_{mm} \) data developed from the replicate mixture compacted to the appropriate \( N_{max} \) gyration level.

<table>
<thead>
<tr>
<th>HMA Properties</th>
<th>Primary Asphalt Binder Proposal</th>
<th>Secondary Asphalt Binder Proposal</th>
<th>Specification Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>P_b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% G_{mm} @ N_{ini}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% G_{mm} @ N_{des} (V_a)</td>
<td></td>
<td>96.0 (93 for ATB)</td>
<td></td>
</tr>
<tr>
<td>%VMA @ N_{des}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%VFA @ N_{des}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% V_a @ N_{des}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dust / Asphalt Ratio</td>
<td></td>
<td>0.6 – 1.6</td>
<td></td>
</tr>
<tr>
<td>P_{be}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G_{mm}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G_{mb}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G_{se}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% G_{mm} @ N_{max}</td>
<td></td>
<td>98.0 Max (ATB excluded)</td>
<td></td>
</tr>
<tr>
<td>% RAP in Final Mix</td>
<td></td>
<td>20 Max.</td>
<td></td>
</tr>
</tbody>
</table>

I certify this HMA job-mix formula (JMF) has been developed in accordance to WSDOT Standard Operating Procedure (SOP) 732 “Volumetric Design for Hot-Mix Asphalt (HMA)”. The HMA JMF has been verified in accordance to section 10 of SOP 732 which consists of preparing replicate mixtures containing the selected design aggregate structure at each of the following binder contents: (1) the estimated design binder content, P_b (design); (2) 0.5 percent below P_b (design); 0.5 percent above P_b (design). I am aware, in accordance to City of Seattle Standard Specification 5-04.3(6)C1, that a response will be provided within 25 Working Days after a complete mix design submittal has been received at the SPU Materials Laboratory in Seattle.

__________________________  __________________________  __________________________  __________
Signature                      Title                   Phone                      Date
DEFICIENT CONTRACTOR PERFORMANCE EVALUATION PROGRAM

I. POLICY

The Department of Finance and Administrative Services (FAS) is authorized by SMC 3.39.020 to administer public works contracting processes in accordance with applicable state law and City ordinances. FAS developed a standardized Contractor Performance Evaluation Program (“Program”) for City staff to evaluate when a Contractor’s performance on public works project is deficient.

II. PURPOSE

The Program is intended to:

A. Provide the City with a rational basis for determining Contractor responsibility.
B. Provide a history and an assessment of a Contractor's performance on prior City contracts for use in debarment proceedings as authorized by SMC 20.70.050.

The Program is not intended to determine whether a Contractor has breached a contract with the City.

III. PERFORMANCE EVALUATION

The Performance Evaluation Report is only used to document deficient performance:

DEFICIENT (Includes Prior Ratings of “Inadequate” and “Deficient”)

The Contractor’s failure to perform was such that it seriously compromised the successful completion of the project resulting in termination, liquidated damages, third party (surety) intervention, significant violations, or other similar damages or corrective actions were required to bring the project to completion. While the project may have been accepted by the City, the Contractor's performance put the project or City in serious jeopardy.

IV. PERFORMANCE EVALUATION REPORT PROCESS

If the Administering Department finds a contractor’s performance deficient, then the department will complete this form, have it signed for concurrence, and submit it to PCSD. Electronic signatures are acceptable.

For a Contractor to be “Deficient”, the report must describe and provide examples of the work deficiencies or issues that demonstrate how the Contractor failed in contract performance.

The Administering Department is responsible for keeping all supporting documentation in the project file (including photos, reports, copies of violations, correspondence, project notes, etc.)

PCSD shall provide a copy of the Deficient Performance Evaluation to the Contractor.
V. SOCIAL EQUITY PERFORMANCE EVALUATIONS

The Contractor’s compliance with social equity requirements may be evaluated by the City Purchasing and Contracting Services Division as a separate performance evaluation form.

VI. NOTICE

A. Notice. Contractors shall be provided a copy of their Performance Evaluation Report attached to the Certificate of Completion.

B. Contractor’s Response. Within ten (10) calendar days of receipt of the Performance Evaluation Report, a Contractor may submit a written response to the City Purchasing and Contracting Services Division. The evaluation is not subject to a protest procedure but the Contractor’s written response will be included in the project file.

VII. DISQUALIFICATION FOR WORK ON SPECIFIC PROJECT

The Director of the City Purchasing and Contracting Services Division or his/her designee may determine, from Performance Evaluation Reports and other public documents relating to the project in question, that a Contractor who has received one or more Overall Evaluations of "Deficient" or "Inadequate" is not a responsible Bidder and is therefore ineligible for Award of that contract.

VIII. DEBARMENT

In accordance with SMC 20.70.050, the Director of the Department of Finance and Administrative Services or his/her designee may debar a Contractor and prevent the Contractor from entering into a Contract with the City or from acting as a Subcontractor on any Contract with the City for up to five (5) years. SMC 20.70.050 provides multiple reasons for debarment and includes whether or not the Contractor received Overall Evaluations of “Deficient,” or “Inadequate” on the Performance Evaluation Report on three (3) or more City Contracts.

The Director may issue an Order of Debarment only after adhering to the procedures specified in SMC 20.70.050. The rights and remedies of the Owner under these debarment provisions are in addition to any other rights and remedies provided by law or under the Contract.

IX. PUBLIC DISCLOSURE

Performance Evaluation Reports are public documents subject to public disclosure requests.
Deficient Contractor Performance Evaluation Report
(completed by the Administering Department)

- Deficient means a Contractor’s failure to perform was such that it seriously compromised the successful completion of the project resulting in termination, liquidated damages, third party (surety) intervention, significant violations, or other similar damages or corrective actions were required to bring the project to completion.
- If your department finds a contractor’s performance deficient, complete this form and submit to PCSD.
- For a Contractor to be “Deficient”, clearly describe and provide examples of the work deficiencies or issues that demonstrate how the Contractor failed in contract performance.
- Departments are responsible for keeping all supporting documentation in the project file (including photos, reports, copies of violations, correspondence, project notes, etc.)

### CONTRACTOR AND PROJECT INFORMATION

<table>
<thead>
<tr>
<th>CONTRACTOR</th>
<th>CONTRACTOR SUPERINTENDENT OR PROJECT MANAGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>PW NUMBER</td>
<td>PROJECT NAME</td>
</tr>
<tr>
<td>CITY PROJECT MANAGER</td>
<td>CITY ADMINISTERING DEPARTMENT</td>
</tr>
<tr>
<td>SCHEDULED SUBSTANTIAL COMPLETION DATE</td>
<td>ACTUAL SUBSTANTIAL COMPLETION DATE</td>
</tr>
<tr>
<td>SCHEDULED PHYSICAL COMPLETION DATE</td>
<td>ACTUAL PHYSICAL COMPLETION DATE</td>
</tr>
<tr>
<td>AWARDED CONTRACT VALUE</td>
<td>FINAL CONTRACT VALUE</td>
</tr>
</tbody>
</table>

BRIEF PROJECT DESCRIPTION AND ANY SPECIFIC WORK PERFORMED BY CONTRACTOR

### DESCRIPTION OF DEFICIENCIES

Clearly state the deficiencies that rise to the definition provided above (Prepare a package of supporting documentation and retain in your Department’s contract file).

<table>
<thead>
<tr>
<th>EVALUATED BY (NAME AND TITLE)</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONCURRENCE BY (NAME AND TITLE)</td>
<td>DATE</td>
</tr>
</tbody>
</table>
PUBLIC WORKS PREVAILING WAGE CERTIFICATION & SUBCONTRACTOR LIST

Project: ________________________________________________________________

PW#: __________________________ Contractor Name: __________________________

I certify that the prevailing wages have been paid in accordance with the pre-filed Statement(s) of Intent to Pay Prevailing Wages on file with the Contracting Services Division of Finance and Administrative Services. This statement covers all subcontractors of all tiers and suppliers who worked on the project.

PAYMENT PERIOD FROM __________________________ TO __________________________

☐ Final Subcontractor Report?

<table>
<thead>
<tr>
<th>Subcontractor/Supplier Name</th>
<th>Subcontractor or Supplier?</th>
<th>UBI Number</th>
<th>Intent ID</th>
<th>Affidavit ID</th>
<th>Prompt Pay Eligible?</th>
<th>Total Amount Paid During Pay Period*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

In accordance with RCW 60.28, 18.27 and 19.28, for all public works contracts over $35,000 the Contractor shall submit with each Progress Payment a list of all Subcontractors, UBI numbers, Intent IDs, Affidavit IDs, WMBE statuses and dates worked. Moreover, the Contractor shall record the total amount paid to each Prompt Pay Eligible Subcontractor. This letter shall be signed by an authorized representative of the Contractor prior to payment pursuant to RCW 39.12.040.

* If final, include final total amount paid

Print Name

Signature  Date

CPCS Rev. 08/08/2014
Request for Information/
Design Clarification/Variation Request
SCL, Construction Management

RFI/DCVR No.: enter #
Reference No.: enter #

Date: enter date
Contract Name: enter name
PW No.: enter #
Contractor: enter name

Contractor Representative: name
Response Requested By: date

Nature of Work: enter description
Reference Drawings: enter number
Reference Specification: enter number
Bid Items: enter number

Description:
Enter description of RFI

Engineer’s Response:
(Leave blank for Engineer’s Response)

BY: DATE:

THIS IS NOT AN AUTHORIZATION TO PROCEED WITH WORK INVOLVING ADDITIONAL COST
AND/OR TIME. Notification must be given in accordance with the Contract Documents if any clarification,
variation or Engineer’s response causes any change to the Contract.
Seattle City Light
Construction Management

Submittal Transmittal & Response

<table>
<thead>
<tr>
<th>Subitem #</th>
<th>Spec Sec. #</th>
<th>DESCRIPTION</th>
<th>SCL Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>2</td>
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<td>3</td>
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</tr>
<tr>
<td>4</td>
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</tr>
</tbody>
</table>

- [ ] Resubmittal  - [ ] Supplemental Submittal

Submitted by: ________________________________

Signature  Printed Name & Title  Phone #

The Engineer has reviewed the above noted documents and responded as noted above, under “SCL Response”.

Key:
- NE = NO EXCEPTIONS TAKEN
- MC = MAKE CORRECTIONS NOTED: No resubmittal required, but corrections noted are required
- SI = SUBMIT SPECIFIED ITEM: Resubmittal required – rejected, see comments below
- RR = REVISE AND RESUBMIT: Resubmittal required – rejected, see comments below
- RJ = REJECTED – see comments below

Note: Review is only for conformance with the general design concept of the Project and does not extend to consideration of structural integrity, safety, detailed compliance with Contract requirements and any other obligation of the Contractor. Any action shown is subject to the requirements of the construction Contract. Contractor is responsible for confirming and correlating all dimensions; fabricating and construction techniques; coordinating its work with that of all other trades; and the satisfactory performance of its entire work in strict accordance with the construction Contract. The review is undertaken solely to satisfy Engineer’s obligations and does not relieve Contractor from its obligation fully to perform all Contract requirements, nor shall such review give rise to any right of action or suit in favor of Contractor or third persons, against the Owner. Comments or actions may not be complete, once non-compliance is documented, the review may be discontinued and the submittal rejected.

Engineer’s Comments and Sign-off:

<table>
<thead>
<tr>
<th># (key to above)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Signature  Mario M. Babasa – SCL CM Office Engineer  Date

See Attached Engineer’s Comments  See Mark-Up of Submittal Documents  See Other Attachments

Cc: Project File
Form (Rev. 4/13)
Construction Stormwater Pollution Prevention (CSWPP) 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 □ Clearing/Demo/Grading □ Vertical Construction/buildings □ Infrastructure/storm/roads □
Concrete pours □ Site temporary stabilized □
Offsite improvements □ Utilities □ Final stabilization □

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? (refer to permit conditions S4 & S5) 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: ______________________

<table>
<thead>
<tr>
<th>Parameter*</th>
<th>Method (circle one)</th>
<th>Result</th>
<th>Other/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity</td>
<td>tube, meter, laboratory</td>
<td>NTU</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>Paper, kit, meter</td>
<td>cm</td>
<td></td>
</tr>
</tbody>
</table>

*Sampling of the above parameters is only necessary if the project has an NPDES permit.
### Construction Stormwater Pollution Prevention (CSWPP) Inspection Form

**D. Check the observed status of all items. Provide “Action Required “details and dates.**

<table>
<thead>
<tr>
<th>Element #</th>
<th>Inspection</th>
<th>BMPs Inspected</th>
<th>BMP needs maintenance</th>
<th>BMP failed</th>
<th>Action required (describe in section F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>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)</td>
<td>yes no n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Construction Access: Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>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?</td>
<td>yes no n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>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).</td>
<td>yes no n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Stormwater runoff from disturbed areas is directed to sediment removal BMP.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Stabilize Soils: Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?</td>
<td>yes no n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Element #</td>
<td>Inspection</td>
<td>BMPs Inspected</td>
<td>BMP needs maintenance</td>
<td>BMP failed</td>
<td>Action required (describe in section F)</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------------------</td>
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<td>-----------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>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?</td>
<td>yes no n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>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?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Drain Inlets Storm drain inlets made operable during construction are protected. Are existing storm drains within the influence of the project protected?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>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?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>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?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Construction Stormwater Pollution Prevention (CSWPP) Inspection Form

<table>
<thead>
<tr>
<th>Element #</th>
<th>Inspection</th>
<th>BMPs Inspected</th>
<th>BMP needs maintenance</th>
<th>BMP failed</th>
<th>Action required (describe in section F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 Cont.</td>
<td>Wheel wash wastewater is handled and disposed of properly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>10 Control Dewatering</td>
<td>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?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Maintain BMP</td>
<td>Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Manage the Project</td>
<td>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?</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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

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.

<table>
<thead>
<tr>
<th>Element #</th>
<th>Description and Location</th>
<th>Action Required</th>
<th>Completion Date</th>
<th>Initials</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

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: ___________________________
WAGE RATES
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: 8/31/2014

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<thead>
<tr>
<th>County</th>
<th>Trade</th>
<th>Job Classification</th>
<th>Wage</th>
<th>Holiday</th>
<th>Overtime</th>
<th>Note</th>
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<tr>
<td>King</td>
<td>Asbestos Abatement Workers</td>
<td>Journey Level</td>
<td>$42.67</td>
<td>5D</td>
<td>1H</td>
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<tr>
<td>King</td>
<td>Boilermakers</td>
<td>Journey Level</td>
<td>$64.44</td>
<td>5N</td>
<td>1C</td>
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<tr>
<td>King</td>
<td>Brick Mason</td>
<td>Brick And Block Finisher</td>
<td>$44.46</td>
<td>5A</td>
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<tr>
<td>King</td>
<td>Brick Mason</td>
<td>Journey Level</td>
<td>$51.32</td>
<td>5A</td>
<td>1M</td>
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<tr>
<td>King</td>
<td>Brick Mason</td>
<td>Pointer-Caulker-Cleaner</td>
<td>$51.32</td>
<td>5A</td>
<td>1M</td>
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<tr>
<td>King</td>
<td>Building Service Employees</td>
<td>Janitor</td>
<td>$21.29</td>
<td>5S</td>
<td>2F</td>
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<tr>
<td>King</td>
<td>Building Service Employees</td>
<td>Traveling Waxer/Shampooper</td>
<td>$21.70</td>
<td>5S</td>
<td>2F</td>
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<td>King</td>
<td>Building Service Employees</td>
<td>Window Cleaner (Non-Scaffold)</td>
<td>$24.94</td>
<td>5S</td>
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<td>Window Cleaner (Scaffold)</td>
<td>$25.80</td>
<td>5S</td>
<td>2F</td>
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<tr>
<td>King</td>
<td>Cabinet Makers (In Shop)</td>
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<td>$22.74</td>
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<td>Carpenters</td>
<td>Acoustical Worker</td>
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<td>5D</td>
<td>1M</td>
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<td>King</td>
<td>Carpenters</td>
<td>Bridge, Dock And Wharf Carpenters</td>
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<td>Carpenters on Stationary Tools</td>
<td>$52.45</td>
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<td>Floor Finisher</td>
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<tr>
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<td>Diver</td>
<td>$105.37</td>
<td>5D</td>
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<td>8A</td>
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<td>Diver On Standby</td>
<td>$59.50</td>
<td>5D</td>
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<td>Diver Tender</td>
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<tr>
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<td>Surface Rcv &amp; Rov Operator</td>
<td>$54.82</td>
<td>5D</td>
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<td>Divers &amp; Tenders</td>
<td>Surface Rcv &amp; Rov Operator Tender</td>
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<td>Dredge Workers</td>
<td>Assistant Mate (Deckhand)</td>
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<td>King Dredge Workers</td>
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<td>King Drywall Tapers</td>
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<td>King Electricians</td>
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<tr>
<td>King Electricians</td>
<td>Powderperson</td>
<td>$46.55</td>
<td>5A</td>
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<td>King Electronic Technicians</td>
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<td>$31.00</td>
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<td>King Elevator Constructors</td>
<td>Mechanic</td>
<td>$80.14</td>
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<td>King Elevator Constructors</td>
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<td>$86.77</td>
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<td>King Fabricated Precast Concrete Products</td>
<td>All Classifications - In-Factory Work Only</td>
<td>$15.25</td>
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<td>King Fence Erectors</td>
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<td>$15.18</td>
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<td>King Flaggers</td>
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<td>$36.17</td>
<td>7A</td>
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<tr>
<td>King Glaziers</td>
<td>Journey Level</td>
<td>$54.91</td>
<td>7L</td>
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<td>King Heat &amp; Frost Insulators And Asbestos Workers</td>
<td>Journeyman</td>
<td>$60.93</td>
<td>5J</td>
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<td>King Heating Equipment Mechanics</td>
<td>Journey Level</td>
<td>$70.37</td>
<td>7F</td>
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<td>King Hod Carriers &amp; Mason Tenders</td>
<td>Journey Level</td>
<td>$44.00</td>
<td>7A</td>
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<td>King Industrial Power Vacuum</td>
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<td>King</td>
<td>Inland Boatmen</td>
<td>Cleaner Boat Operator</td>
<td>$54.57</td>
<td>5B</td>
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<td>King</td>
<td>Inland Boatmen</td>
<td>Cook</td>
<td>$50.95</td>
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<td>King</td>
<td>Inland Boatmen</td>
<td>Deckhand</td>
<td>$51.19</td>
<td>5B</td>
<td>1K</td>
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<td>King</td>
<td>Inland Boatmen</td>
<td>Deckhand Engineer</td>
<td>$52.18</td>
<td>5B</td>
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<td>Inland Boatmen</td>
<td>Launch Operator</td>
<td>$53.40</td>
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<td>Mate</td>
<td>$53.40</td>
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<td>King</td>
<td>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</td>
<td>Cleaner Operator, Foamer Operator</td>
<td>$31.49</td>
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<td>King</td>
<td>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</td>
<td>Grout Truck Operator</td>
<td>$11.48</td>
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<td>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</td>
<td>Head Operator</td>
<td>$24.91</td>
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<td>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</td>
<td>Technician</td>
<td>$19.33</td>
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<td>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</td>
<td>Tv Truck Operator</td>
<td>$20.45</td>
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<td>Insulation Applicators</td>
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<td>Air, Gas Or Electric Vibrating Screed</td>
<td>$42.67</td>
<td>7A</td>
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<td>Airtrac Drill Operator</td>
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<td>Laborers</td>
<td>Ballast Regular Machine</td>
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<td>Laborers</td>
<td>Batch Weighman</td>
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<td>Laborers</td>
<td>Brick Pavers</td>
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<td>King</td>
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<td>Brush Cutter</td>
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<td>7A</td>
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<td>Brush Hog Feeder</td>
<td>$42.67</td>
<td>7A</td>
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<td>Burner</td>
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<td>Caisson Worker</td>
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<td>Carpenter Tender</td>
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<td>Caulker</td>
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<td>King</td>
<td>Laborers</td>
<td>Cement Dumper-paving</td>
<td>$43.46</td>
<td>7A</td>
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<td>Laborers</td>
<td>Cement Finisher Tender</td>
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<tr>
<td>King</td>
<td>Laborers</td>
<td>Change House Or Dry Shack</td>
<td>$42.67</td>
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<td>King</td>
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<td>Chipping Gun (under 30 Lbs.)</td>
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<td>Laborers</td>
<td>Chipping Gun(30 Lbs. And Over)</td>
<td>$43.46</td>
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<tr>
<td>King</td>
<td>Laborers</td>
<td>Choker Setter</td>
<td>$42.67</td>
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<td>King</td>
<td>Laborers</td>
<td>Chuck Tender</td>
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<td>Clary Power Spreader</td>
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<td>King</td>
<td>Laborers</td>
<td>Clean-up Laborer</td>
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<td>7A</td>
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<td>Laborers</td>
<td>Concrete Dumper/chute</td>
<td>$43.46</td>
<td>7A</td>
<td>3I</td>
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<td>Laborers</td>
<td>Operator</td>
<td>Rate</td>
<td>Hour</td>
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<tr>
<td>King</td>
<td>Concrete Form Stripper</td>
<td>$42.67</td>
<td>7A</td>
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<tr>
<td>King</td>
<td>Concrete Placement Crew</td>
<td>$43.46</td>
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<td>King</td>
<td>Concrete Saw Operator/core Driller</td>
<td>$43.46</td>
<td>7A</td>
<td>3I</td>
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<td>King</td>
<td>Crusher Feeder</td>
<td>$36.17</td>
<td>7A</td>
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<tr>
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<td>Curing Laborer</td>
<td>$42.67</td>
<td>7A</td>
<td>3I</td>
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<td>King</td>
<td>Demolition: Wrecking &amp; Moving (incl. Charred Material)</td>
<td>$42.67</td>
<td>7A</td>
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<tr>
<td>King</td>
<td>Ditch Digger</td>
<td>$42.67</td>
<td>7A</td>
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<td>King</td>
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<td>7A</td>
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<tr>
<td>King</td>
<td>Drill Operator (hydraulic, diamond)</td>
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<td>7A</td>
<td>3I</td>
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<td>Dry Stack Walls</td>
<td>$42.67</td>
<td>7A</td>
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<td>King</td>
<td>Dump Person</td>
<td>$42.67</td>
<td>7A</td>
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<td>Erosion Control Worker</td>
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<td>7A</td>
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<tr>
<td>King</td>
<td>Faller &amp; Bucker Chain Saw</td>
<td>$43.46</td>
<td>7A</td>
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<tr>
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<td>Fine Graders</td>
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<td>7A</td>
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<td>Firewatch</td>
<td>$36.17</td>
<td>7A</td>
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<td>King</td>
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<td>7A</td>
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<td>7A</td>
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<td>Grade Checker &amp; Transit Person</td>
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<td>Grinders</td>
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<td>7A</td>
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<td>Grout Machine Tender</td>
<td>$42.67</td>
<td>7A</td>
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<tr>
<td>King</td>
<td>Groutmen (pressure) including Post Tension Beams</td>
<td>$43.46</td>
<td>7A</td>
<td>3I</td>
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<tr>
<td>King</td>
<td>Guardrail Erector</td>
<td>$42.67</td>
<td>7A</td>
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<td>King</td>
<td>Hazardous Waste Worker (level A)</td>
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<td>7A</td>
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<td>Jackhammer</td>
<td>$43.46</td>
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<td>Laserbeam Operator</td>
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<td>Maintenance Person</td>
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<td>7A</td>
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<tr>
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<td>Manhole Builder-mudman</td>
<td>$43.46</td>
<td>7A</td>
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<td>Material Yard Person</td>
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<td>7A</td>
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<td>King</td>
<td>Motorman-dinky Locomotive</td>
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<td>7A</td>
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<td>King</td>
<td>Nozzleman (concrete Pump, Green Cutter) When Using Combination Of High Pressure Air &amp; Water On Concrete &amp;</td>
<td>$43.46</td>
<td>7A</td>
<td>3I</td>
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<tr>
<td>Laborers</td>
<td>Rock, Sandblast, Gunite, Shotcrete, Water Bla</td>
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<tr>
<td><strong>King</strong></td>
<td>$43.46 7A 31</td>
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<td><strong>Laborers</strong></td>
<td>Pavement Breaker</td>
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<tr>
<td><strong>King</strong></td>
<td>$36.17 7A 31</td>
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<tr>
<td><strong>Laborers</strong></td>
<td>Pilot Car</td>
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<tr>
<td><strong>King</strong></td>
<td>$44.00 7A 31</td>
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<tr>
<td><strong>Laborers</strong></td>
<td>Pipe Layer Lead</td>
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<td><strong>King</strong></td>
<td>$43.46 7A 31</td>
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<td><strong>Laborers</strong></td>
<td>Pipe Layer/tailor</td>
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<tr>
<td><strong>King</strong></td>
<td>$43.46 7A 31</td>
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<td>Pipe Pot Tender</td>
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<tr>
<td><strong>King</strong></td>
<td>$43.46 7A 31</td>
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<td><strong>Laborers</strong></td>
<td>Pipe Reliner</td>
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<td><strong>King</strong></td>
<td>$43.46 7A 31</td>
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<tr>
<td><strong>Laborers</strong></td>
<td>Pipe Wrapper</td>
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<td><strong>King</strong></td>
<td>$42.67 7A 31</td>
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<td><strong>Laborers</strong></td>
<td>Pot Tender</td>
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</tr>
<tr>
<td><strong>King</strong></td>
<td>$44.00 7A 31</td>
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<td><strong>Laborers</strong></td>
<td>Powderman</td>
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<tr>
<td><strong>King</strong></td>
<td>$42.67 7A 31</td>
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<tr>
<td><strong>Laborers</strong></td>
<td>Powderman's Helper</td>
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<td><strong>Laborers</strong></td>
<td>Tamper &amp; Similar Electric, Air &amp; Gas Operated Tools</td>
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<td>General Laborer &amp; Topman</td>
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<td>Irrigation Or Lawn Sprinkler Installers</td>
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<td>Landscape Equipment Operators Or Truck Drivers</td>
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<td>Landscaping or Planting Laborers</td>
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<td>Lathers</td>
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<td>5D</td>
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<td>5A</td>
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<td>$13.04</td>
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<td>Cabinet Assembly</td>
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<td>Equipment Maintenance</td>
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<td>Tool Maintenance</td>
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<td>Utility Person</td>
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<td>Welder</td>
<td>$11.56</td>
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<td>5D</td>
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<td>7Q</td>
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<td>Journey Level</td>
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<td>Journey Level</td>
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<td>Asphalt Plant Operators</td>
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<td>7A</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Bobcat</td>
<td>$51.77</td>
<td>7A</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Brokk - Remote Demolition Equipment</td>
<td>$51.77</td>
<td>7A</td>
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<td>King</td>
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<td>Brooms</td>
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<td>Power Equipment Operators</td>
<td>Bump Cutter</td>
<td>$54.75</td>
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<td>Chipper</td>
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<td>Compressor</td>
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<td>7A</td>
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<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Concrete Pump: Truck Mount With Boom Attachment Over 42 M</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Concrete Finish Machine -laser Screed</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure.</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
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<td>Power Equipment Operators</td>
<td>Concrete Pump: Truck Mount With Boom Attachment Up To 42m</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
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<td>3C</td>
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<td>Power Equipment Operators</td>
<td>Cranes: 20 Tons Through 44 Tons With Attachments</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
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</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Cranes: 100 Tons Through 199 Tons, Or 150' Of Boom (Including Jib With Attachments)</td>
<td>$55.79</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Cranes: 200 Tons To 300 Tons, Or 250' Of Boom (including Jib With Attachments)</td>
<td>$56.36</td>
<td>7A</td>
<td>3C</td>
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</tr>
<tr>
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<td>Power Equipment Operators</td>
<td>Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
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</tr>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Cranes: A-frame - 10 Tons And Under</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Cranes: Friction 100 Tons Through 199 Tons</td>
<td>$56.36</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
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<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Cranes: Friction Over 200 Tons</td>
<td>$56.92</td>
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<td>3C</td>
<td>8P</td>
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<tr>
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<td>Power Equipment Operators</td>
<td>Cranes: Over 300 Tons Or 300' Of Boom (including Jib With Attachments)</td>
<td>$56.92</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
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<td>Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons</td>
<td>$54.33</td>
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<td>3C</td>
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<td>Crusher</td>
<td>$54.75</td>
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<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Deck Engineer/deck Winches (power)</td>
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<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Derricks, On Building Work</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Dozers D-9 &amp; Under</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Drill Oilers: Auger Type, Truck Or Crane Mount</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Drilling Machine</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Elevator And Man-lift: Permanent And Shaft Type</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Finishing Machine, Bidwell And Gamaco &amp; Similar Equipment</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Forklift: 3000 Lbs And Over With Attachments</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
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<tr>
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<td>Power Equipment Operators</td>
<td>Forklifts: Under 3000 Lbs. With Attachments</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Grade Engineer: Using Blue Prints, Cut Sheets, Etc</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
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<td>Gradechecker/stakeman</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
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<td>Guardrail Punch</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Hard Tail End Dump Articulating Off-road Equipment 45 Yards. &amp; Over</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Horizontal/directional Drill Locator</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Horizontal/directional Drill Operator</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Hydralifts/boom Trucks Over 10 Tons</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Hydralifts/boom Trucks, 10 Tons And Under</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Loader, Overhead 8 Yards. &amp; Over</td>
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<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>Loader, Overhead, 6 Yards. But Not Including 8 Yards</td>
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<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Loaders, Overhead Under 6 Yards</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td></td>
<td>$</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
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<tr>
<td>King</td>
<td>Loaders, Plant Feed</td>
<td></td>
<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Loaders: Elevating Type Belt</td>
<td></td>
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<td>7A</td>
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<td>8P</td>
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<td>Locomotives, All</td>
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<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
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<td></td>
<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Mechanics, All (leadmen - $0.50 Per Hour Over Mechanic)</td>
<td></td>
<td>55.79</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Motor Patrol Grader - Non-finishing</td>
<td></td>
<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Motor Patrol Graders, Finishing</td>
<td></td>
<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield</td>
<td></td>
<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Oil Distributors, Blower Distribution &amp; Mulch Seeding Operator</td>
<td></td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Outside Hoists (elevators And Manlifts), Air Tuggers,strato</td>
<td></td>
<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Overhead, Bridge Type Crane: 20 Tons Through 44 Tons</td>
<td></td>
<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Overhead, Bridge Type: 100 Tons And Over</td>
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<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>Overhead, Bridge Type: 45 Tons Through 99 Tons</td>
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<td>3C</td>
<td>8P</td>
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<td>King</td>
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<td></td>
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<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Pile Driver (other Than Crane Mount)</td>
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<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Plant Oiler - Asphalt, Crusher</td>
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<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Posthole Digger, Mechanical</td>
<td></td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
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<td></td>
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<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Pumps - Water</td>
<td></td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Quad 9, Hd 41, D10 And Over</td>
<td></td>
<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Quick Tower - No Cab, Under 100 Feet In Height Based To Boom</td>
<td></td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Remote Control Operator On Rubber Tired Earth Moving Equipment</td>
<td></td>
<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Rigger And Bellman</td>
<td></td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Rollagon</td>
<td></td>
<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Roller, Other Than Plant Mix</td>
<td></td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Roller, Plant Mix Or Multi-lift Materials</td>
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<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Roto-mill, Roto-grinder</td>
<td></td>
<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Saws - Concrete</td>
<td></td>
<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Scrapper, Self Propelled Under 45 Yards</td>
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<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Scrapers - Concrete &amp; Carry All</td>
<td></td>
<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Scrapers, Self-propelled: 45</td>
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<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Yards And Over</td>
<td>$</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>-------</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Service Engineers - Equipment</td>
<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Shotcrete/gunite Equipment</td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons.</td>
<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons</td>
<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons</td>
<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons</td>
<td>55.79</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Slipform Pavers</td>
<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Spreader, Topsider &amp; Screedman</td>
<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Subgrader Trimmer</td>
<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>Power Equipment Operators</td>
<td>Tower Bucket Elevators</td>
<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Tower Crane Over 175'in Height, Base To Boom</td>
<td>56.36</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Tower Crane Up To 175' In Height Base To Boom</td>
<td>55.79</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Transporters, All Track Or Truck Type</td>
<td>55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Trenching Machines</td>
<td>54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Truck Crane Oiler/driver - 100 Tons And Over</td>
<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Truck Crane Oiler/driver Under 100 Tons</td>
<td>54.33</td>
<td>7A</td>
<td>3C</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Truck Mount Portable Conveyor</td>
<td>54.75</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Welder</td>
<td>55.24</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Wheel Tractors, Farmall Type</td>
<td>51.77</td>
<td>7A</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Yo Yo Pay Dozer</td>
<td>54.75</td>
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<td>King</td>
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<td>Asphalt Plant Operators</td>
<td>55.24</td>
<td>7A</td>
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<td>Power Equipment Operators</td>
<td>Assistant Engineer</td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Barrier Machine (zipper)</td>
<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators</td>
<td>Batch Plant Operator, Concrete</td>
<td>54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Bobcat</td>
<td>51.77</td>
<td>7A</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Brokk - Remote Demolition Equipment</td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators</td>
<td>Brooms</td>
<td>51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Bump Cutter</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
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<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cableways</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Chipper</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
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<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Compressor</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Concrete Pump: Truck Mount With Boom Attachment Over 42m</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Concrete Finish Machine -laser Screed</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure.</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Concrete Pump: Truck Mount With Boom Attachment Up To 42m</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Conveyors</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cranes: 20 Tons Through 44 Tons With Attachments</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cranes: 100 Tons Through 199 Tons, Or 150' Of Boom (Including Jib With Attachments)</td>
<td>$55.79</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cranes: 200 Tons To 300 Tons, Or 250' Of Boom (including Jib With Attachments)</td>
<td>$56.36</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cranes: A-frame - 10 Tons And Under</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cranes: Friction 100 Tons Through 199 Tons</td>
<td>$56.36</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cranes: Friction Over 200 Tons</td>
<td>$56.92</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cranes: Over 300 Tons Or 300' Of Boom (including Jib With Attachments)</td>
<td>$56.92</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Crusher</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Deck Engineer/deck Winches (power)</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Derricks, On Building Work</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Dozers D-9 &amp; Under</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Drill Oilers: Auger Type, Truck Or Crane Mount</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Drilling Machine</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Elevator And Man-lift: Permanent And Shaft Type</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Finishing Machine, Bidwell And Gamaco &amp; Similar Equipment</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Forklift: 3000 Lbs And Over With Attachments</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Forklifts: Under 3000 Lbs. With Attachments</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Grade Engineer: Using Blue Prints, Cut Sheets, Etc</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Gradechecker/stakeman</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Guardrail Punch</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Hard Tail End Dump Articulating Off-road Equipment 45 Yards. &amp; Over</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Horizontal/directional Drill Locator</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Horizontal/directional Drill Operator</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Hydralifts/boom Trucks Over 10 Tons</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Hydralifts/boom Trucks, 10 Tons And Under</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Loader, Overhead 8 Yards. &amp; Over</td>
<td>$55.79</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Loader, Overhead, 6 Yards. But Not Including 8 Yards</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Loaders, Overhead Under 6 Yards</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Loaders, Plant Feed</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Loaders: Elevating Type Belt</td>
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<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Locomotives, All</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Material Transfer Device</td>
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<td>7A</td>
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<td>8P</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Mechanics, All (leadmen -</td>
<td>$55.79</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Motor Patrol Grader - Non-finishing</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
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<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Motor Patrol Graders, Finishing</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Oil Distributors, Blower Distribution &amp; Mulch Seeding Operator</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Outside Hoists (elevators And Manlifts), Air Tuggers, strato</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Overhead, Bridge Type Crane: 20 Tons Through 44 Tons</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Overhead, Bridge Type: 100 Tons And Over</td>
<td>$55.79</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Overhead, Bridge Type: 45 Tons Through 99 Tons</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Pavement Breaker</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Pile Driver (other Than Crane Mount)</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Plant Oiler - Asphalt, Crusher</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Posthole Digger, Mechanical</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Power Plant</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Pumps - Water</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Quad 9, Hd 41, D10 And Over</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Quick Tower - No Cab, Under 100 Feet In Height Based To Boom</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Remote Control Operator On Rubber Tired Earth Moving Equipment</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Rigger And Bellman</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Rollagon</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Roller, Other Than Plant Mix</td>
<td>$51.77</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Roller, Plant Mix Or Multi-lift Materials</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
</tr>
<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Roto-mill, Roto-grinder</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>Saws - Concrete</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Scraper, Self Propelled Under 45 Yards</td>
<td>$54.75</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Scrapers - Concrete &amp; Carry All</td>
<td>$54.33</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>King</td>
<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Scrapers, Self-propelled: 45 Yards And Over</td>
<td>$55.24</td>
<td>7A</td>
<td>3C</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Service Engineers - Equipment</td>
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<td>Shotcrete/gunite Equipment</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.</td>
<td>$54.33</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons</td>
<td>$54.75</td>
<td>7A</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons</td>
<td>$55.79</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Shovel, Excavator, Backhoes: Over 90 Metric Tons</td>
<td>$56.36</td>
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<td>Slipform Pavers</td>
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<td>Spreader, Topsider &amp; Screedman</td>
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<td>7A</td>
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<td>Subgrader Trimmer</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Tower Bucket Elevators</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Tower Crane Over 175'in Height, Base To Boom</td>
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<td>7A</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Tower Crane Up To 175' In Height Base To Boom</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Transporters, All Track Or Truck Type</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Truck Crane Oiler/driver - 100 Tons And Over</td>
<td>$54.75</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Truck Crane Oiler/driver Under 100 Tons</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Truck Mount Portable Conveyor</td>
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<td>Welder</td>
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<td>Wheel Tractors, Farmall Type</td>
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<td>Power Equipment Operators-Underground Sewer &amp; Water</td>
<td>Yo Yo Pay Dozer</td>
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<td><strong>Underground Sewer &amp; Water</strong></td>
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<td>Power Line Clearance Tree Trimmers</td>
<td>Journey Level In Charge</td>
<td>$44.86</td>
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<td>Power Line Clearance Tree Trimmers</td>
<td>Spray Person</td>
<td>$42.58</td>
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<td>Tree Trimmer Groundperson</td>
<td>$30.20</td>
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<td><strong>Refrigeration &amp; Air Conditioning Mechanics</strong></td>
<td>Journey Level</td>
<td>$72.46</td>
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<td>King</td>
<td>Residential Brick Mason</td>
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<td>Residential Carpenters</td>
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<td>Residential Cement Masons</td>
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<td>$40.14</td>
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<td>Residential Drywall Tapers</td>
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<td>Residential Electricians</td>
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<td>Residential Plumbers &amp; Pipefitters</td>
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<td>Residential Refrigeration &amp; Air Conditioning Mechanics</td>
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<td>Residential Sheet Metal Workers</td>
<td>Journey Level (Field or Shop)</td>
<td>$42.58</td>
<td>7F</td>
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<td>Residential Soft Floor Layers</td>
<td>Journey Level</td>
<td>$42.41</td>
<td>5A</td>
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<td>Residential Sprinkler Fitters (Fire Protection)</td>
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<td>Residential Stone Masons</td>
<td>Journey Level</td>
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<td>5A</td>
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<td>Residential Terrazzo Workers</td>
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<td>King</td>
<td>Residential Terrazzo/Tile Finishers</td>
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<td>Residential Tile Setters</td>
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<td>King</td>
<td>Roofers</td>
<td>Journey Level</td>
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<td>5A</td>
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<td>Roofers</td>
<td>Using Irritable Bituminous Materials</td>
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<td>Sheet Metal Workers</td>
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<td>$70.37</td>
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<td>Shipbuilding &amp; Ship Repair Carpenter</td>
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<td>7T</td>
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<td>King</td>
<td>Shipbuilding &amp; Ship Repair Electrician</td>
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<td>$39.22</td>
<td>7T 4B</td>
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<td>Shipbuilding &amp; Ship Repair Painter</td>
<td>$39.31</td>
<td>7T 4B</td>
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<td>Shipbuilding &amp; Ship Repair Pipefitter</td>
<td>$39.22</td>
<td>7T 4B</td>
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<td>Shipbuilding &amp; Ship Repair Rigger</td>
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<td>7T 4B</td>
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<td>Sign Makers &amp; Installers (Electrical) Sign Installer</td>
<td>$22.92</td>
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<td>Sign Makers &amp; Installers (Electrical) Sign Maker</td>
<td>$21.36</td>
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<td>Sign Makers &amp; Installers (Non-Electrical) Sign Installer</td>
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<td>Soft Floor Layers Journey Level</td>
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<td>Sprinkler Fitters (Fire Protection) Journey Level</td>
<td>$69.59</td>
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<td>Stage Rigging Mechanics (Non Structural) Journey Level</td>
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<td>Stone Masons Journey Level</td>
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<td>5A 1M</td>
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<td>Street And Parking Lot Sweeper Workers Journey Level</td>
<td>$19.09</td>
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<td>King</td>
<td>Surveyors Assistant Construction Site Surveyor</td>
<td>$54.33</td>
<td>7A 3C 8P</td>
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<td>Surveyors Chainman</td>
<td>$53.81</td>
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<td>Surveyors Construction Site Surveyor</td>
<td>$55.24</td>
<td>7A 3C 8P</td>
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<td>Telecommunication Technicians Journey Level</td>
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<td>King</td>
<td>Telephone Line Construction - Outside Cable Splicer</td>
<td>$36.96</td>
<td>5A 2B</td>
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<td>$20.49</td>
<td>5A 2B</td>
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<td>Telephone Line Construction - Outside Installer (Repairer)</td>
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<td>5A 2B</td>
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<td>5A 2B</td>
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<td>Telephone Line Construction - Outside Telephone Equipment Operator (Light)</td>
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<td>Telephone Lineperson</td>
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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.
1. 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.

O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.

P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.

R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.

S. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays and all other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

U. All hours worked on Sundays 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.
2. **ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.**

   B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

   C. All hours worked on Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at two times the hourly rate of wage.

   F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.

   G. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

   H. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

   O. All hours worked on Sundays and holidays shall be paid at one and one-half times the hourly rate of wage.

   R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.

   U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.

   W. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The first eight (8) hours worked on the fifth day shall be paid at one and one-half times the hourly rate of wage. All other hours worked on the fifth, sixth, and seventh days and on holidays shall be paid at double the hourly rate of wage.

3. **ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.**

   A. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal shift, and all work on Saturdays shall be paid at time and one-half the straight time rate. Hours worked over twelve hours (12) in a single shift and all work performed after 6:00 pm Saturday to 6:00 am Monday and holidays shall be paid at double the straight time rate of pay. Any shift starting between the hours of 6:00 pm and midnight shall receive an additional one dollar ($1.00) per hour for all hours worked that shift. The employer shall have the sole discretion to assign overtime work to employees. Primary consideration for overtime work shall be given to employees regularly assigned to the work to be performed on overtime situations. After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.
3. C. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays shall be paid at double the hourly rate of wage. After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

D. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 15% over the hourly rate of wage. All other hours worked after 6:00 am 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.

E. All hours worked Sundays and holidays shall be paid at double the hourly rate of wage. Each week, once 40 hours of straight time work is achieved, then any hours worked over 10 hours per day Monday through Saturday shall be paid at double the hourly wage rate.

F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.

I. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. In the event the job is down due to weather conditions during a five day work week (Monday through Friday,) or a four day-ten hour work week (Tuesday through Friday,) then Saturday may be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.

B. All hours worked over twelve (12) hours per day and all hours worked on holidays shall be paid at double the hourly rate of wage.

Holiday Codes


Benefit Code Key – Effective 8-31-2014 thru 3-3-2015


Holiday Codes Continued


   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.

**Holiday Codes Continued**

   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.
   H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
I. Holidays: New Year's Day, President’s Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

M. Paid Holidays: New Year's Day, The Day after or before New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, And the Day after or before Christmas Day (10). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.


Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

R. Paid Holidays: New Year's Day, the day after or before New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day after or before Christmas Day (10). If any of the listed holidays fall on Saturday, the preceding Friday shall be observed as the holiday. If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

T. Paid Holidays: New Year's Day, The Day After Or Before New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, Christmas Day, and The Day After Or Before Christmas Day. (10). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
8. A. In addition to the hourly wage and fringe benefits, the following 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 100’ To 150’ - $3.00 per Foot for Each Foot Over 100 Feet
   - Over 150’ To 220’ - $4.00 per Foot for Each Foot Over 150 Feet
   - Over 220’ - $5.00 per Foot for Each Foot Over 220 Feet

C. In addition to the hourly wage and fringe benefits, the following depth premiums apply to depths of fifty feet or more:
   - Over 50’ To 100’ - $1.00 per Foot for Each Foot Over 50 Feet
   - Over 100’ To 150’ - $1.50 per Foot for Each Foot Over 100 Feet
   - Over 150’ To 200’ - $2.00 per Foot for Each Foot Over 150 Feet
   - Over 200’ - Divers May Name Their Own Price

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

L. Workers on hazmat projects receive additional hourly premiums as follows - Level A: $0.75, Level B: $0.50, And Level C: $0.25.

M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: $1.00, Levels C & D: $0.50.

N. Workers on hazmat projects receive additional hourly premiums as follows - Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

P. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, And Class D Suit $0.50.

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

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

S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
ADDENDA AND MODIFICATIONS
City of Seattle

Seattle City Light

PW No. 2014-012

Project Funded By: SCL and DOE

The following changes are hereby made to the Contract documents for this project:

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<tr>
<th>Addendum Item No.</th>
<th>Location and description of change</th>
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<tbody>
<tr>
<td>1-A</td>
<td><strong>Project Manual; Bid Form</strong></td>
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<td></td>
<td>Delete the Bid Form and replace with the attached new Bid Form marked “Addendum No. 1, Attachment 1”.</td>
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<td><strong>Note to Bidders:</strong> The new Bid Form reflects the revised drawings sheets included in this addendum.</td>
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<tr>
<td>1-B</td>
<td><strong>Project Manual; Page 46</strong></td>
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<td>1-07.30(6)</td>
<td><strong>WASTE PACKAGING</strong></td>
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<td>Delete item 1 under “Contaminated Material(s) Not Designated as Dangerous Waste or TSCA Waste” and replace with the following:</td>
</tr>
<tr>
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<td>1. The Contractor shall cover each load of Contaminated Materials(s) Not Designated as Dangerous Waste or TSCA Waste transported from the project site, in accordance with EPA direction. The contaminated material shall be trucked either directly to approved disposal facilities or to a transfer facility where it shall be placed onto railcars.</td>
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<td></td>
<td>In addition, the Contractor shall line each truck bed or container to be used for excavated material from saturated zones (i.e., beneath the water table) with a minimum 6 mil new, intact plastic liner. Contractor shall propose material type and method for overlapping or welding/closing seams if multiple liners are used. This proposal is subject to Owner approval.</td>
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1-C  

**Drawings: Sheet 5, 22, 27, 32, 36, 38, 42, 62, 66, 67, 69, and 74**

Delete Sheets 5, 22, 27, 32, 36, 38, 42, 62, 66, 67, 69, and 74 and replace with the new sheets marked “Addendum No. 1, Attachment 2”.

1-D  

**Attachments**

- **Attachment 1:** Bid Form
- **Attachment 2:** Drawing Sheets 5, 22, 27, 32, 36, 38, 42, 62, 66, 67, 69, and 74

The Date of Bid Opening is not changed by this Addendum.

The above change(s) shall constitute a binding change to the Contract documents for this project and shall become a part of any resulting Contract Awarded subsequent to opening of Bids for the project. Bidders shall insure that the above changes are reflected in the appropriate Bid items of their proposal prior to submittal of the proposal.

**ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM:**

The Bidder shall acknowledge receipt in Section 0-01.3(2) (Declaration) of the Bid Form of all Addenda issued during the bidding period. Failure to so acknowledge may result in the PROPOSAL being rejected as not responsive.

Mark Fredrickson, P.E.  
Public Works Contracts Supervisor  
SPU Contracts Office

MOF:RWB
CITY OF SEATTLE
Seattle
City Light

BID FORM

IMPROVEMENT OF: TERMINAL 117 ADJACENT STREETS CLEANUP & STORMWATER INFRASTRUCTURE

SPEC. No.: 3567
FUNDED BY: SCL AND DOE
PW#: 2014-012
ORDINANCE #: 124349

ADVERTISE: September 17, 2014
BIDS OPEN: October 8, 2014

SEATTLE, WASHINGTON
0-01.3(1) BID

TO THE DIRECTOR OF PURCHASING AND CONTRACTING SERVICES DIVISION FOR THE CITY OF SEATTLE:

A. The undersigned Bidder hereby certifies to have personally and carefully examined the Bid Documents issued for: Terminal 117 Adjacent Street Cleanup & Stormwater Infrastructure, as authorized under Ordinance No. 124349

B. The Bidder has examined the Project Site where the Work is to be performed and the conditions affecting the Work;

C. The Bidder has attached a Bid Guaranty in the amount of five percent (5%) of the Total Bid including retail sales tax in the form of cashier's check, certified check, or Bid bond;

D. Understanding that the quantities shown in the Bid are estimates only, being given for the purposes of comparing Bids, the Bidder hereby proposes to furnish all Material and labor and to perform all Work which may be required, and to complete the Work within the time fixed and upon the terms and conditions provided in the Bid Documents for the following prices:

(NOTE: The letters "SP" whenever appearing in the Bid item number column of the Bid Form indicate that additions or revisions to the Standard Specifications applicable to that Bid item are included in the Special Provisions. The Contractor is advised to review those requirements regarding Bid items so designated.

The six digit number above the Bid item description denotes the standard code number for that particular Bid item. The first three digits indicate the associated Specification division and section number. The last three digits comprise the identification number for that item within the particular Section. A non-standard Bid item is indicated whenever the letter "S" appears in the six digit code number.

An asterisk (*) appearing in the Bid item number column of the Bid Form denotes those items in which the Owner will pay retail sales tax in accordance with the excise tax Rule 170 (refer to Section 1-07.2(3) of the Specifications). For all other Bid items, the Contractor shall include retail sales tax in accordance with the excise tax Rule 171 (refer to Section 1-07.2(2) of the Specifications).
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<th>Bid Item</th>
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SCHEDULE: 1 -- All Construction Except Drainage, Water, and Outfall
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**SCHEDULE: 1 -- All Construction Except Drainage, Water, and Outfall**

Bidder:  
Subtotal:  
Addendum No. 1, Attachment 1
### SCHEDULE: 1 -- All Construction Except Drainage, Water, and Outfall

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Subtotal: _____________________________
## Terminal 117 Adjacent Streets Cleanup and Stormwater Infrastructure

**Bid Form**

**Addendum No. 1, Attachment 1**

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<th>Bid Item Description</th>
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**Schedule: 1 -- All Construction Except Drainage, Water, and Outfall**

Subtotal: ____________________________

Bidder: ____________________________
### BID FORM

**TERMINAL 117 ADJACENT STREETS CLEANUP AND STORMWATER INFRASTRUCTURE**

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**SCHEDULE: 1 -- All Construction Except Drainage, Water, and Outfall**

Bidder: ____________________________

Subtotal: __________________________
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**SCHEDULE: 1 -- All Construction Except Drainage, Water, and Outfall**

Bidder: ________________________________  Subtotal: ____________________________
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### SCHEDULE: 2 -- Drainage and Water Construction

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**SCHEDULE: 2 -- Drainage and Water Construction**

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Bidder: ____________________________

(Business Name)
0-01.3(2) DECLARATION

I declare, under penalty of perjury under the Laws of the State of Washington, as follows:

A. **BID:** I agree to perform the Work in compliance with the Bid Documents, for the prices stated in Section 0-01.3(1) of the Bid Form.

B. **NON-DISCRIMINATION:** I agree to ensure equal opportunity for employment and to engage in Affirmative Efforts in the solicitation of women and minorities and WMBE firms for participation on this Contract in accordance with SMC Ch. 20.42 and RCW 35.22.650.

C. **NON COLLUSION:** I 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 the preparation and submission of a Bid to the Owner for consideration in the award of a contract on the improvement described in the Bid Documents.

D. My bid takes into account the requirements imposed by Section 1-07.18, Subsection 8 which waives, with respect to the Owner only, the Contractor's immunity under RCW Title 51, (Industrial Insurance) of the Revised Code of Washington.

E. I agree to comply with the requirements regarding subcontracting, and the purchase of supplies or materials from firms that are not disqualified or otherwise debarred from doing business with the City under the provisions of SMC Ch. 20.42 or SMC Ch. 20.70.

F. Responsible Bidder Requirements: My bid acknowledges that I am in compliance with all of the responsible bidder requirements under RCW 39.04.350, including: having a certificate of registration under RCW 18.27 prior to bidding; a UBI number; industrial insurance coverage if required under Title 51 RCW; an employment security number under Title 50; and a state excise tax registration number under Title 82. I affirm I am not disqualified from bidding on any public works contract under RCW 39.06 or RCW 39.12.065(3) or on the Federal Excluded Parties List System (epls.gov). I will provide proof of these requirements if requested.

BUSINESS NAME OF BIDDER: ________________________________
**Addendum No. 1, Attachment 1**

**BUSINESS ADDRESS:**

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<th>City</th>
<th>State</th>
<th>Zip Code</th>
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If the above address is not in Washington State, check ONE of the boxes below:

- [ ] Physical Office in WA
  | Street or P.O. Box | City | Zip Code |
- [ ] State of incorporation or State where business entity was formed if not a corporation: ______________________

**CONTACT INFO:**

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<th>Fax Number</th>
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E-mail Address of Primary Contact: ____________________________________________

**ADDITIONAL CONTACT FOR AWARD:**

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<th>Fax Number</th>
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E-mail Address of Contact for Award: ____________________________________________

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E-mail Address of Contact for Insurance: ____________________________________________

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<tr>
<th>Employment Security Dept. No:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>City of Seattle Business License No.:</th>
</tr>
</thead>
</table>

Receipt is hereby acknowledged of Addenda No(s).: ________________________________;

**OFFICIAL AUTHORIZED TO SIGN FOR BIDDER:**

I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct:

<table>
<thead>
<tr>
<th>Location or Place Executed (City, State):</th>
<th>Print Name and Title:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date:</th>
<th>Signature:</th>
</tr>
</thead>
</table>
Inclusion Plan
Construction – Public Works

Bidders must complete and submit this form with their bid. Carefully read all instructions.

For questions or assistance contact:
- Miguel Beltran, City Contract Compliance Manager, 206-684-4525 (Miguel.Beltran@seattle.gov)
- Forrest Gillette, Senior Equity Advisor, 206-684-3081 (Forrest.Gillette@seattle.gov)

<table>
<thead>
<tr>
<th>Bidder Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Works Number</td>
</tr>
<tr>
<td>Project Title</td>
</tr>
<tr>
<td>Name of person authorized to speak on behalf of the company regarding this Plan</td>
</tr>
<tr>
<td>Email</td>
</tr>
<tr>
<td>Phone</td>
</tr>
</tbody>
</table>

Aspirational WMBE GOALS. Total available score: 6 points.
Identify the Aspirational WMBE Goals Bidder believes can reasonably be achieved through good faith efforts during this project. It is not mandatory that these goals be achieved; they are not contractually or legally binding. Goals must be developed in good faith and represented as attainable by reasonable efforts.

<table>
<thead>
<tr>
<th>Estimated percentage of the base bid to Minority Owned contractors and suppliers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated percentage of the base bid to Woman Owned contractors and suppliers</td>
<td>%</td>
</tr>
<tr>
<td>Total estimated percentage of the base bid to all WMBE contractors and suppliers</td>
<td>%</td>
</tr>
</tbody>
</table>
BUSINESS SUPPORT STRATEGIES. Total available score: 4 points

Each of the two options below is worth 2 points. Bidder may select one, both, or neither. Once selected, it applies to:
1. Registered as a Women or Minority Owned Business in the City Online Business Directory, and/or
2. Small Business Concern as certified by King County, and/or
3. Disadvantaged Business Enterprise of any definition certified by the State of Washington, and/or
4. Women or Minority Owned Business Enterprise as certified by the State of Washington; and/or
5. Small Business Concern certified by the State of Washington

<table>
<thead>
<tr>
<th>Business Support Strategy</th>
<th>Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Retainage Release. The prime (and any sub-tier primes) will release retainage held for the subcontractor, within thirty (30) days of acceptance of the work performed by the qualified subcontractor.</td>
<td></td>
</tr>
<tr>
<td>Advance Mobilization Pay: The Prime (and any sub-tier primes) shall advance 10% of the specified and agreed-upon mobilization costs that were identified by line item within the WMBE firms bid, to each qualified firm at least 5 days in advance of the mobilization event.</td>
<td></td>
</tr>
</tbody>
</table>

WMBE GUARANTEES. Total available score: 6 points.

A Bidder may offer to guarantee work to WMBE firms for the project, by identifying the WMBE and minimum dollar value of such work in the table below. You may add additional rows.

<table>
<thead>
<tr>
<th>WMBE Business Name</th>
<th>Minimum Guaranteed Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>$</td>
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<tr>
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<tr>
<td></td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>$</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$</td>
</tr>
</tbody>
</table>
Carefully review all instructions. All Bidders must complete this form. The City public works inclusion plan requires the Bidder identify the good faith efforts the Bidder will use to include woman-owned and minority-owned business (WMBE) firms on the City project. There are 3 options for evidencing good faith efforts. Each option is worth points which can vary depending on information supplied by the Bidder. There are a maximum of 16 points available. The Bidder must earn at least 10 points. Bidders that earn less than 10 points will be found non-responsive and the Bid will be rejected. This Inclusion Plan becomes a material part of the Bidder’s contract if the project is awarded to Bidder.

WMBE firms are state certified or self-identified firms that are at least 51% WMBE owned (per SMC 20.42). A WMBE need not be self-identified within the City Online Directory at bid time, but in such case must self-identify and register by time of award. These resources may assist bidders:


1. **INSTRUCTIONS**
   a. All Bidders (including WMBE Primes) must complete and submit this form as part of the Bid for City design-bid-build public works project having an Engineer's Estimate of $300,000 or greater, unless the City expressly instructs otherwise in the bid package.

   b. There are three commitments Bidders can use to establish an Inclusion Plan – Aspirational WMBE Goals, Business Support Strategies, and WMBE Guarantees:
      1. Aspirational WMBE Goals are goals Bidder believes can be achieved by good faith efforts. This option is worth a maximum of 6 points;
      2. Business Support Strategies are those the Bidder commits to employ for qualified firms. This option is worth a maximum of 4 points;
      3. WMBE Guarantees identify WMBE firms the Bidder guarantees to contract with for this project, with agreement reached about the work and pricing for the WMBE scope, including any terms and conditions important to the WMBE for their performance. This option is worth a maximum of 6 points.

   c. Work performed by a WMBE must be commercially useful and a distinct element of work that includes managing and supervising the work. The Contractor should evaluate the amount of work subcontracted, industry practices, and other relevant factors to determine whether the work is commercially useful.

   d. A Bidder scored less than 10 points will be deemed non-responsive. See Scoring section below.

   e. All dollars cited shall exclude sales tax (including references to the Total Bid Cost and estimates made by Prime when completing this form).

2. **SCORING INSTRUCTIONS**
   a. The average percentage of WMBE utilization on past City projects has been calculated by CPCS and is provided in the table below. This average is used to score the points that will be awarded for the aspirational goals and guarantees. These percentages are updated annually. Note that these averages include total WMBE utilization, not subcontracting alone, since aspirational goals may include prime self-performance.

   b. If the project is characterized by work of various types, CPCS may calculate a unique utilization rate for the project given the weight of each. CPCS determination is not subject to challenge.

   c. The project type and percentage of past WMBE utilization will be stated in the bids advertisement and documents.

   d. If past utilization for a project type was zero, an Aspirational Goal above two percent will receive 6 points. Bidder must still identify Business Support Strategies and Guarantees it is willing to employ and will be scored accordingly.

   e. Points awarded for WMBE Guarantees will be calculated based upon total available work for subcontract given past performance. This section can be awarded as many as 6 points.

   f. A Bidder who has received a formal Deficiency Report issued by the City as a result of unfulfilled WMBE Inclusion Plan commitments on past projects will lose one point from the total score.

   g. When calculations are used to evaluate the points, the City will calculate points to the nearest tenth decimal place. The City will round up to the nearest tenth.
3. ASPIRATIONAL WMBE GOAL INSTRUCTIONS
   a. Aspirational WMBE Goals represent a serious commitment to use good faith efforts to reach the stated goals.
   b. The City will rely upon the Total to determine responsiveness. The City will correct the Total if that provided by the Bidder does not match the MBE and WBE goals.
   c. Aspirational WMBE Goals are a percentage of the Base Bid and during the course of the project will apply to the total contract amount including all contract change orders (additives and deductives). Contractor may seek a goal adjustment if such changes may merit a greater or lesser goal; CPCS will consider such requests, approve if appropriate, and modify the Plan accordingly.
   d. A WMBE Bidder may include in their goals and guarantees that percentage of contract base bid for work which the WMBE intends to self-perform that is in excess of the mandatory 30% they are otherwise required to perform as required by the City Specifications Section 1-08.1(3).
   e. Bidder will receive between 0 and 6 points for its Aspirational WMBE Goals, with proportional points based on a straight line formula to Past Performance (plus 2%) identified for the project as advertised in the bid solicitation. Bidder receives 3 points if the Total Aspirational Goal is half of Past Performance + 2%. Six points are awarded if the Bidder meets or exceeds Past Performance by 2 or more percentage points. For example, a Roadway project with Past Performance of 14%, would receive 3 points if the Total Aspirational Goal was 8% or 6 points if the Total Aspirational Goal was 16%.

\[
P_A = \frac{6A}{(P + 2)},
\]

Where

- \( P_A \) = Points awarded for Bidder’s Aspiration Goal
- \( A \) = Bidder’s Aspiration Goal (%)
- \( P \) = Applicable Past Performance Trend (%)

4. BUSINESS SUPPORT STRATEGIES INSTRUCTIONS
   The Bidder may elect to provide the business support identified on Page 2 for qualified firms. The City will provide two points for each choice selected. There are two options, allowing a total of 4 points if both options are chosen:
   1. Early Retainage Release. The prime and any sub-tier primes will release retainage held for the subcontractor, within thirty (30) days of acceptance of the work performed by the qualified subcontractor.
   2. For mobilization, the Prime and any sub-tier primes will pay all qualified firms five days in advance of the on-site performance, except if a unique situation prohibits such as an emergency or event requiring an immediate mobilization response. In those events, the Prime (including any sub-tier primes) shall deliver the payment no later than 5 days after job mobilization begins.

6. WMBE GUARANTEE INSTRUCTIONS
   a. This guarantees the City and WMBE that they shall be used for at least the amount given, following the remaining rules below. A WMBE Guarantee expects the Bidder achieved agreement about scope, terms and cost of the work for the WMBE at bid time. The burden is upon the Bidder to resolve any differences, once the guarantee is given.
   b. The City may contact the WMBE firm after Bid opening to verify that the firm has an agreement to perform work as described in the plan. Failure to have agreement may result in rejection of the Inclusion Plan which will render Bid non-responsive.
   c. A bidder will receive between 0 and 6 points for WMBE Guarantees, receiving a proportional number of points based on a straight line formula to Past Performance. A bidder will receive 3 points if the dollar-value of the Guarantees equals half of the Past Performance percentage. Six points are awarded if the Bidder commitments meet or exceed Past Performance.

\[
P_G = \frac{6 G}{P}
\]

Where

- \( P_G \) = Points awarded for Bidder’s Guaranteed Goal
- \( G \) = Bidder’s Guaranteed WMBE Goal (%)
- \( P \) = Applicable Past Performance Trend (%)
c. A WMBE bidder may only include self-performed work above 30%. This is based on the self-performance minimum required by the City Specifications Section 1-08.1(3).

d. Substitution of a Guaranteed WMBE firm is prohibited absent a waiver granted by the CPCS as a result of:
   1. Bankruptcy of the WMBE firm;
   2. Failure of the WMBE firm to provide the required bond;
   3. The WMBE firm cannot perform the work because they are debarred, not properly licensed, does not meet the subcontractor approval criteria, or in some other way is ineligible to work;
   4. Failure of the Subcontractor to comply with a requirement of law applicable to subcontracting;
   5. Death or disability of the principal of the WMBE firm rendering it unable to perform the work;
   6. Dissolution of the WMBE firm;
   7. Failure of the WMBE firm to perform satisfactorily in previous projects not known to Bidder at the time of bid;
   8. Failure or refusal of the WMBE to perform work for reasons other than contract term or pricing disputes;
   9. A change in scope of the contract which removes the guaranteed work from the project.

6. INCORPORATION OF PLAN INTO CONTRACT AND REPORTING REQUIREMENTS
a. CPCS may discuss the Plan with the Apparent Successful Bidder before incorporating into the contract and may amend the Plan by mutual consent.
b. The Contractor must provide reports and documents as required by CPCS.
c. CPCS will evaluate Contractor’s WMBE utilization throughout the project.
d. Contractor may not substitute a WMBE firm identified in the guaranteed portion of the plan unless the substitution is approved by CPCS. Such a substitution will not be considered unless Contractor can demonstrate clear necessity for such substitution. A Contractor granted permission to substitute for a guaranteed WMBE firm shall use good faith efforts to recruit another WMBE firm to perform the Work.
e. If CPCS determines the Contractor is not making good faith efforts, it may take action as described in the project specification such as withholding invoice payments and breach of contract.
e. The City will evaluate the WMBE utilization at close-out and may assign a Deficiency rating for failure to demonstrate good faith efforts. Deficient ratings are used by the City to determine Bidder responsibility on future work and debarment. To avoid a deficiency rating, the Contractor must demonstrate:
   1. A good faith effort to achieve Aspirational goals. Attainment under 80% of the goal will likely be considered deficient;
   2. Timely submittal of required and requested materials and reports to CPCS;
   3. Having advance agreements with each WMBE Guarantee, such that the WMBE understands and agrees that the WMBE Guarantee represents mutual agreement at time of the bid submittal;
   4. Using all “WMBE Guarantees” named in the Inclusion Plan, unless Prime received written authorization from CPCS for substitution;
   5. WMBE relationships are harmonious, clearly communicated and free of undue dispute; and
   6. WMBE work was commercially useful as defined above.
0-01.5  BIDDER / SUBCONTRACTOR LIST

In compliance with RCW 39.30.060 for all projects estimated to cost $1,000,000 or more, all Bidders shall complete and submit the Bidder/Subcontractor List (section 0-01.5). The completed Bidder/Subcontractor list shall identify all Subcontractors that the Bidder will directly contract with for the performance of HVAC, plumbing, and electrical work or indicate that the Bidder intends to self-perform the work, if awarded the Contract. If the HVAC, plumbing, or electrical specialty is left blank (either the name of a subcontractor is blank or a checkbox is not checked), the City shall accept the blank as “self performance.” If left blank, the City shall determine through clarification whether HVAC, plumbing, or electrical work is required to execute the project; if so, the Bidder must be licensed and qualified to self-perform at the time of Bid submittal or the Bid shall be rejected. The Bidder shall be bound to self-performance of that specialty for the duration of the Project. The Bidder may contract with more than one Subcontractor in each of these trades, but may not list more than one Subcontractor for each category of work. If Subcontractors vary with Bid Alternates, Additives, or Deductives, the Bidder must indicate on a separate Bidder/Subcontractor List which Subcontractor will be used for which Alternate, Additive, or Deductive.

The Bidder/Subcontractor List must be submitted to the City Purchasing & Contracting Services Division (PCSD) with the Bid, or separately within one hour of the time and date for Bid submittal. Failure to complete and submit the Bidder/Subcontractor List by the required time will result in the Bid being declared non-responsive and rejected. The Bidder is responsible for the timely delivery of the Bidder Subcontractor List. If awarded the contract, the Bidder agrees to utilize the subcontractors identified on the Bidder/Subcontractor List unless the City agrees to a substitution.

Bidders may submit the Bidder/Subcontractor List to City Purchasing & Contracting Services Division in person or by courier at 700 Fifth Ave, Suite 4112, Seattle, WA 98104; by fax to (206) 684-4511; or by submitting a signed PDF version of the form to Judy.Keefe@Seattle.gov. Clearly mark the Project Name and Bidder’s name to ensure the form is routed correctly.

<table>
<thead>
<tr>
<th>Trade</th>
<th>You must check one box for each trade. If subcontracting, you must name the subcontractor(s) you will use and the category of work.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating, Ventilation &amp; Air Conditioning (HVAC)</td>
<td>□ Name of Sub(s) &amp; Category of Work:__________________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td>□ Bidder will self-perform this work</td>
</tr>
<tr>
<td></td>
<td>□ N/A (this project does not include this work)</td>
</tr>
<tr>
<td>Plumbing</td>
<td>□ Name of Sub(s) &amp; Category of Work:__________________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td>□ Bidder will self-perform this work</td>
</tr>
<tr>
<td></td>
<td>□ N/A (this project does not include this work)</td>
</tr>
<tr>
<td>Electrical</td>
<td>□ Name of Sub(s) &amp; Category of Work:__________________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td>□ Bidder will self-perform this work</td>
</tr>
<tr>
<td></td>
<td>□ N/A (this project does not include this work)</td>
</tr>
</tbody>
</table>

Bidder’s Business Name  Signature of Bidder’s Representative

Project Name

FAS Rev 8/15/14
City of Seattle

Seattle City Light

PW No. 2014-012

Project Funded By: SCL and DOE

The following changes are hereby made to the Contract documents for this project:

<table>
<thead>
<tr>
<th>Addendum</th>
<th>Location and description of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-A</td>
<td>Project Manual and Bid Form</td>
</tr>
<tr>
<td></td>
<td>Cover Page; Advertisement for Bids; Section 0-01.1</td>
</tr>
<tr>
<td></td>
<td>Revise the Bid Opening Date from October 8, 2014 to October 15, 2014.</td>
</tr>
</tbody>
</table>

The Date of Bid Opening is **October 15, 2014**.

The above change(s) shall constitute a binding change to the Contract documents for this project and shall become a part of any resulting Contract Awarded subsequent to opening of Bids for the project. Bidders shall insure that the above changes are reflected in the appropriate Bid items of their proposal prior to submittal of the proposal.

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM:

The Bidder shall acknowledge receipt in Section 0-01.3(2) (Declaration) of the Bid Form of all Addenda issued during the bidding period. Failure to so acknowledge may result in the PROPOSAL being rejected as not responsive.

Mark Fredrickson, P.E.
Public Works Contracts Supervisor
SPU Contracts Office

MOF:RWB
City of Seattle

Seattle City Light

PW No. 2014-012

Project Funded By: SCL and DOE

The following changes are hereby made to the Contract documents for this project:

### Addendum

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Location and description of change</th>
</tr>
</thead>
</table>

#### 3-A  Project Manual; Advertisement Letter

Delete the 7th paragraph starting with “For purposes of the Inclusion…” and replace with the following:

This project is partially funded by the Washington Department of Ecology and the goals for the utilization of disadvantaged businesses on this project are 10% MBE and 6% WBE. Reference Section 1-07.11(2) for more information regarding these goals.

**Note to Bidders:** The Inclusion Plan and requirements of the Inclusion Plan have been removed as part of this Addendum.

#### 3-B  Project Manual; Table of Contents

Under Bid Requirements delete “0-01.4 Inclusion Plan” and replace with “0-01.4 Complete Bidders List”.

Under City Forms delete “Social Equity Form” and replace with “Apprentice Utilization Plan”.

Under City Forms delete “Public Works WMBE Inclusion Plan Change Request Form” with no replacement.

Under City Forms delete “Subcontractor and Supplier Approval Applications” and replace with “Subcontractor Approval Application”.


3-C **Project Manual; Instructions to Bidders**

In paragraph I delete the Inclusion Plan paragraph (last paragraph) and replace with the following:

WMBE Requirements: All questions on the WMBE requirements and on the Complete Bidders List shall be directed to Miguel Beltran at Miguel.beltran@seattle.gov or 206-684-4525. If he is out of the office, the back-up contact is Forrest Gillette at Forrest.gillette@seattle.gov or 206-684-3081.

In paragraph IV delete the Inclusion Plan and the references to the Inclusion Plan.

3-D **Project Manual; Bidder’s Checklist**

Delete item 4 and replace with the following:

4. With regard to Section 0-01.4 – **COMPLETE BIDDERS LIST**:
   a. Have you completed the Complete Bidders List? This form must be submitted with your bid.

3-E **Addendum No. 1; Item No. 1-A**

Delete the Bid Form issued in Addendum No. 1 and replace with the attached new Bid Form marked “Addendum No. 3, Attachment 1”.

**Note to Bidders:** The new Bid Form reflects:
1) The removal of the Inclusion Plan and the replacement with the Complete Bidders List
2) An updated bid list that identifies taxable bid items (previously all bid items were not taxable).

3-F **Project Manual; Section 0-01.4 reference sheet (not the Bid Form)**

Delete the term “Inclusion Plan” and replace with “Complete Bidders List” in all locations.
3-G  **Project Manual; Section 0-02.1 – Agreement Form**

Delete the Base Bid, State Sales Tax, and Awarded Contract Price rows and replace with the following:

Base Bid (Items 1 through 169, Inclusive)............................... $_______________

State Sales Tax (9.5%).................................................. $_______________
(Applies to Schedule 1, Items 1 through 10;
Schedule 3, Item 96; and Schedule 4, Item 158)

Awarded Contract Price............................................... $_______________

3-H  **Project Manual; Page 1**

1-01.3  **DEFINITIONS**

Delete the definition of Affirmative Efforts and replace with the following:

Documented, good faith efforts to contact and employ women and minorities and to solicit and contract with Women and Minority Businesses Enterprises (WMBE).

Delete the definition for Construction Inclusion Plan with no replacement.

3-I  **Project Manual; Page 2**

1-02.2  **SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA**

Delete the second paragraph of Item 2 and replace with the following:

It is the Bidder’s responsibility to verify that the reference information provided (names and phone numbers) is current. If the Owner is unable to contract the individuals in order to verify Bidder experience, the related experience may not be considered by the Owner.

3-J  **Project Manual; Page 6**

1-02.9(4)  **INCLUSION PLAN**

Delete this Title and Section and replace with the following:

1-02.9(4)  **COMPLETE BIDDERS LIST**

The Bidder shall submit a Complete Bidder’s List with the Bid. Failure to submit a completed Complete Bidder’s List will result in a determination that the Bid is non-responsive and the Bid will be rejected.
ADDENDUM NO. 3  DATE OF ISSUE: OCTOBER 6, 2014
T-117 ADJACENT STREETS CLEANUP AND STORMWATER INFRASTRUCTURE  Page 4

3-K  Project Manual; Page 6

1-02.13  IRREGULAR BIDS
Delete this Section and replace with the following:
Delete Item 1.i. with no replacements.

3-L  Project Manual; Page 7

1-03.1(4)  PRE-AWARD INFORMATION
Delete this Section and replace with the following:
Delete Item 5 and replace with the following:

5. Complete Bidders List: The apparent low Bidder shall comply with SMC 20.42 and RCW 35.22.650 pertaining to women and minority employment and subcontracting. See Section 1-07.11(2) for more information.

3-M  Project Manual; Page 10

1-05.3(5)  EARLY SUBMITTALS
Delete Item 5 and replace with the following:

5. Apprenticeship Utilization Plan; see Section 1-07.11(2)A.

3-N  Project Manual; Page 12

1-05.14  COORDINATION WITH OTHER CONTRACTORS
Supplement Item 1 with the following:

Port Restoration Grading is scheduled to begin in June 2015 and last one year. There is approximately 30,000 cubic yards of soil to be removed as part of this project.
3-O  

Project Manual; Page 19

1-07.11(2)  WOMEN AND MINORITY BUSINESSES AND NON-DISCRIMINATION REQUIREMENTS

Delete this Section and Replace with the following:

Supplement this Section with the following:

This project is funded by a grant from the State of Washington Department of Ecology. The Contractor shall use the Department of Ecology’s voluntary goals for minority and women owned business participation in construction for this bid package which are: 10% for minority business enterprises (MBEs) and 6% for women-business enterprises (WBEs).

Only WMBEs certified by the Washington State Office of Minority & Women’s Business Enterprises (OMWBE) may be counted towards these % goals. Reference the OMWBE Directory at: http://omwbe.wa.gov/directory-of-certified-firms/

Contract awards or rejections cannot be based on MBE or WBE participation.

All bidders should take following steps, when possible, in any procurement associated with this project.

1. Include qualified minority and women’s businesses on solicitation lists.
2. Assure that qualified minority and women’s businesses are solicited whenever they are potential resources of services or supplies.
3. Divide the total requirements, when economically feasible, into smaller tasks or quantities, to permit maximum participation by qualified minority and women’s businesses.
4. Establish delivery schedules, where work requirements permit, which will encourage participation of qualified minority and women’s businesses.
5. Use the services and assistance of the State Office of Minority and Women’s Business Enterprises (OMWBE) and the Office of Minority Business Enterprises of the U.S. Department of Commerce, as appropriate.

3-P  

Project Manual; Page 19

1-07.11(2)A  AFFIRMATIVE EFFORTS

Delete this Section and replace with the following:

The Contractor shall utilize Affirmative Efforts to solicit and contract with women and minority businesses on subcontracting and supply opportunities within the Contract scope of work. The Contractor agrees to such efforts as a condition of the Contract.

1. Affirmative Efforts shall include efforts to achieve the activities
specified in the Complete Bidders List the Contractor submitted in accordance with Section 1-02.9(4). This Complete Bidders List is a part of the Contract. The Contractor shall be solely responsible for any efforts made and costs incurred to meet such voluntary goals.

2. Reporting Requirements:
   a. If applicable, the Contractor shall submit an Apprentice Utilization Plan no later than the preconstruction conference.

   1) The first Subcontractor Payment Report shall be submitted no later than the 15th of the first month after the date specified in the Notice to Proceed.
   2) Subsequent monthly Subcontractor Payment Reports shall be submitted by the 15th day of every month thereafter. When no work is performed during a reporting period, the Contractor shall submit monthly report(s) indicating that no work was performed.
   3) The last Subcontractor Payment Report shall be marked as “Final” and shall be due no later than 30 Days after the Physical Completion Date. The final report shall list the name of and dollar amount paid to each Subcontractor and Supplier utilized by the Contractor. The Owner will not establish the Completion Date until the completed final Subcontractor Payment Report Form has been received.
   4) A sample of the form is included in the Appendix section of the Project Manual but this form is submitted through an online reporting website listed above.
   5) The Contractor shall require each Subcontractor and Supplier (except OMWBE certified firms) to register on the City’s Business Registration website, if not currently registered (this is a one-time registration process for each Subcontractor and Supplier):
      http://www2.ci.seattle.wa.us/VendorRegistration/
      Contractors may use this website to look up whether the Subcontractors or Suppliers are registered or not. The Subcontractors and Suppliers shall register themselves.
1-07.11(4) RECORDS

Delete this section and replace with the following:

The Contractor shall furnish to the Department of Finance and Administrative Services upon request and on such form as may be provided, evidence of compliance with Section 1-07.11(2) including the Complete Bidders List.

1-07.32(4) SUBMITTALS

Delete the first paragraph with no replacement.

1-07.35(1)A PROJECT WORK PLAN

Delete the reference to “Section 1-07.3(5)” in the second paragraph and replace with “Section 1-07.31(4)”.

1-07.35(1)E SURVEYING/FIELD ENGINEERING PLAN

Delete this Section and replace with the following:

The Contractor shall prepare and implement a Surveying Plan describing how the requirements of Section 1-07.32 are met.

1-08.1(2)A PRECONSTRUCTION CONFERENCE

Delete Item 10 and replace with the following:

10. To review the Apprentice Utilization Plan.

Delete the City Form “Social Equity Plan” and replace it with the “Apprentice Utilization Plan” marked “Addendum No. 3, Attachment 2”.
Delete the City Form “Public Works WMBE Inclusion Plan Change Request Form”.

3-W Addendum No. 1; Item No. 1-C

Delete Sheet 38 and replace with the new sheet marked “Addendum No. 1, Attachment 3”

3-X Attachments

Attachment 1: Bid Form

Attachment 2: Apprentice Utilization Plan

Attachment 3: Drawing Sheet 38
ADDENDUM NO. 3                                    DATE OF ISSUE: OCTOBER 6, 2014
T-117 ADJACENT STREETS CLEANUP AND STORMWATER INFRASTRUCTURE                Page 9

The Date of Bid Opening is not changed by this Addendum.

The above change(s) shall constitute a binding change to the Contract documents for this project and shall become a part of any resulting Contract Awarded subsequent to opening of Bids for the project. Bidders shall insure that the above changes are reflected in the appropriate Bid items of their proposal prior to submittal of the proposal.

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM:

The Bidder shall acknowledge receipt in Section 0-01.3(2) (Declaration) of the Bid Form of all Addenda issued during the bidding period. Failure to so acknowledge may result in the PROPOSAL being rejected as not responsive.

Mark Fredrickson, P.E.
Public Works Contracts Supervisor
SPU Contracts Office

MOF:RWB
CITY OF SEATTLE
Seattle
City Light

BID FORM

IMPROVEMENT OF: TERMINAL 117 ADJACENT STREETS CLEANUP & STORMWATER INFRASTRUCTURE

SPEC. No.: 3567
FUNDED BY: SCL AND DOE
PW#: 2014-012
ORDINANCE #: 124349

ADVERTISE: September 17, 2014
BIDS OPEN: October 15, 2014

SEATTLE, WASHINGTON
TO THE DIRECTOR OF PURCHASING AND CONTRACTING SERVICES DIVISION FOR THE CITY OF SEATTLE:

A. The undersigned Bidder hereby certifies to have personally and carefully examined the Bid Documents issued for: Terminal 117 Adjacent Street Cleanup & Stormwater Infrastructure, as authorized under Ordinance No. 124349

B. The Bidder has examined the Project Site where the Work is to be performed and the conditions affecting the Work;

C. The Bidder has attached a Bid Guaranty in the amount of five percent (5%) of the Total Bid including retail sales tax in the form of cashier's check, certified check, or Bid bond;

D. Understanding that the quantities shown in the Bid are estimates only, being given for the purposes of comparing Bids, the Bidder hereby proposes to furnish all Material and labor and to perform all Work which may be required, and to complete the Work within the time fixed and upon the terms and conditions provided in the Bid Documents for the following prices:

(NOTE: The letters "SP" whenever appearing in the Bid item number column of the Bid Form indicate that additions or revisions to the Standard Specifications applicable to that Bid item are included in the Special Provisions. The Contractor is advised to review those requirements regarding Bid items so designated.

The six digit number above the Bid item description denotes the standard code number for that particular Bid item. The first three digits indicate the associated Specification division and section number. The last three digits comprise the identification number for that item within the particular Section. A non-standard Bid item is indicated whenever the letter "S" appears in the six digit code number.

An asterisk (*) appearing in the Bid item number column of the Bid Form denotes those items in which the Owner will pay retail sales tax in accordance with the excise tax Rule 170 (refer to Section 1-07.2(3) of the Specifications). For all other Bid items, the Contractor shall include retail sales tax in accordance with the excise tax Rule 171 (refer to Section 1-07.2(2) of the Specifications).
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<th>Bid Item</th>
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SUBTOTAL:

Bidder: ____________________________ Subtotal: ____________________________
## Addendum No. 3, Attachment 1

### Terminal 117 Adjacent Streets Cleanup and Stormwater Infrastructure

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**Bidder:** ____________________________________________  **Subtotal:** _______________________________

**Schedule:** 2 -- All Construction Except Contaminated Soil, Drainage, Water, and Outfall
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**SCHEDULE: 2 -- All Construction Except Contaminated Soil, Drainage, Water, and Outfall**

Bidder: ________________________________ Subtotal: ________________________________
### Addendum No. 3, Attachment 1

#### Terminal 117 Adjacent Streets Cleanup and Stormwater Infrastructure

**Item Bid**

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**Bidder:** .................................................................  
**Subtotal:** .................................................................
**TERMINAL 117 ADJACENT STREETS CLEANUP AND STORMWATER INFRASTRUCTURE**

**BID FORM**

**Addendum No. 3, Attachment 1**

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**SCHEDULE: 2 -- All Construction Except Contaminated Soil, Drainage, Water, and Outfall**

**Bidder:**

**Subtotal:**
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SCHEDULE: 2 -- All Construction Except Contaminated Soil, Drainage, Water, and Outfall

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SCHEDULE: 2 -- All Construction Except Contaminated Soil, Drainage, Water, and Outfall
## SCHEDULE: 3 -- Drainage and Water Construction

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**SCHEDULE: 3 -- Drainage and Water Construction**
## SCHEDULE: 3 -- Drainage and Water Construction

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Bidder:  
Subtotal: 

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**Addendum No. 3, Attachment 1**
## TERMINAL 117 ADJACENT STREETS CLEANUP AND STORMWATER INFRASTRUCTURE

### BID FORM

#### Addendum No. 3, Attachment 1

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**SCHEDULE: 3 -- Drainage and Water Construction**

**Bidder:**  
**Subtotal:**  

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<td></td>
<td></td>
</tr>
<tr>
<td>163</td>
<td></td>
<td>BEDDING, CL B, 18 IN PIPE</td>
<td>192</td>
<td>LF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>164</td>
<td></td>
<td>TELEVISION INSPECTION</td>
<td>192</td>
<td>LF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>165</td>
<td>PIPE, HDPE, PE 3608 DR 17, 18 IN</td>
<td>192</td>
<td>LF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>166</td>
<td>TRENCH PLUG</td>
<td>4</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>167</td>
<td>CONSTRUCTION ACCESS RAMP -- PERMANENT</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>168</td>
<td>CHAIN LINK FENCE, TYPE 3</td>
<td>20</td>
<td>LF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>169</td>
<td>CHAIN LINK GATE, DOUBLE 20 FT WIDE</td>
<td>1</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bidder: ___________________________________________    Subtotal: ___________________________
E. BID SUMMARY:

BASE BID (ITEMS 1 THROUGH 169, INCLUSIVE) $_____________

STATE SALES TAX (9.5%) $_____________
(APPLIES TO SCHEDULE 1, ITEMS 1 THROUGH 10;
SCHEDULE 3, ITEM 96; AND SCHEDULE 4, ITEM 158)

TOTAL AMOUNT BID INCLUDING TAX $_____________

Bidder: ________________________________

(Business Name)
0-01.3(2) DECLARATION

I declare, under penalty of perjury under the Laws of the State of Washington, as follows:

A. **BID**: I agree to perform the Work in compliance with the Bid Documents, for the prices stated in Section 0-01.3(1) of the Bid Form.

B. **NON-DISCRIMINATION**: I agree to ensure equal opportunity for employment and to engage in Affirmative Efforts in the solicitation of women and minorities and WMBE firms for participation on this Contract in accordance with SMC Ch. 20.42 and RCW 35.22.650.

C. **NON COLLUSION**: I 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 the preparation and submission of a Bid to the Owner for consideration in the award of a contract on the improvement described in the Bid Documents.

D. My bid takes into account the requirements imposed by Section 1-07.18, Subsection 8 which waives, with respect to the Owner only, the Contractor’s immunity under RCW Title 51, (Industrial Insurance) of the Revised Code of Washington.

E. I agree to comply with the requirements regarding subcontracting, and the purchase of supplies or materials from firms that are not disqualified or otherwise debarred from doing business with the City under the provisions of SMC Ch. 20.42 or SMC Ch. 20.70.

F. Responsible Bidder Requirements: My bid acknowledges that I am in compliance with all of the responsible bidder requirements under RCW 39.04.350, including: having a certificate of registration under RCW 18.27 prior to bidding; a UBI number; industrial insurance coverage if required under Title 51 RCW; an employment security number under Title 50; and a state excise tax registration number under Title 82. I affirm I am not disqualified from bidding on any public works contract under RCW 39.06 or RCW 39.12.065(3) or on the Federal Excluded Parties List System (epls.gov). I will provide proof of these requirements if requested.
Addendum No. 3, Attachment 1

BID FORM  SECTION 0-01.3
TERMINAL 117 ADJACENT STREETS CLEANUP & STORMWATER INFRASTRUCTURE

BUSINESS ADDRESS:

Street or P.O. Box  City  State  Zip Code

If the above address is not in Washington State, check ONE of the boxes below:

☐ Physical Office in WA  Street or P.O. Box  City  Zip Code

OR

☐ State of incorporation or State where business entity was formed if not a corporation: ______________________

CONTACT INFO:

Telephone Number  Fax Number  Name of Contact

E-mail Address of Primary Contact: ______________________________________________________

ADDITIONAL CONTACT
FOR AWARD:

Telephone Number  Fax Number  Name of Contact

E-mail Address of Contact for Award: ______________________________________________________

INSURANCE
AGENT/BROKER: ____________________________

Name of Insurance Company

Name of Insurance Contact  Telephone Number

E-mail Address of Contact for Insurance: ____________________________________________

State of WA UBI No.: ____________________________

State of WA Contractor Registration No.: ____________________________

Employment Security Dept. No: ____________________________

City of Seattle Business License No.: ____________________________

Receipt is hereby acknowledged of Addenda No(s).:

OFFICIAL AUTHORIZED TO SIGN FOR BIDDER:

I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct:

Location or Place Executed (City, State):  Print Name and Title:

Date:  Signature:
Complete Bidders List (40 CFR Part 33 part 33.501)

All bidders shall submit the following information for all firms that bid or quote on with their bid proposal. Attach additional pages if necessary.

1. Entity's name with point of contact;
2. Entity's mailing address, telephone number, and e-mail address;
3. The procurement on which the entity bid or quoted, and when; and
4. Entity's status as an MBE/WBE or non-MBE/WBE.

<table>
<thead>
<tr>
<th>Entity's name with point of contact</th>
<th>Entity's mailing address, telephone number, and e-mail address</th>
<th>The procurement on which the entity bid or quoted, and when</th>
<th>Entity's status as an MBE/WBE or non-MBE/WBE</th>
</tr>
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<tbody>
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</table>

Bidder’s Business Name  Signature of Bidder’s Representative
0-01.5 BIDDER / SUBCONTRACTOR LIST

In compliance with RCW 39.30.060 for all projects estimated to cost $1,000,000 or more, all Bidders shall complete and submit the Bidder/Subcontractor List (section 0-01.5). The completed Bidder/Subcontractor list shall identify all Subcontractors that the Bidder will directly contract with for the performance of HVAC, plumbing, and electrical work or indicate that the Bidder intends to self-perform the work, if awarded the Contract. If the HVAC, plumbing, or electrical specialty is left blank (either the name of a subcontractor is blank or a checkbox is not checked), the City shall accept the blank as “self performance.” If left blank, the City shall determine through clarification whether HVAC, plumbing, or electrical work is required to execute the project; if so, the Bidder must be licensed and qualified to self-perform at the time of Bid submittal or the Bid shall be rejected. The Bidder shall be bound to self-performance of that specialty for the duration of the Project. The Bidder may contract with more than one Subcontractor in each of these trades, but may not list more than one Subcontractor for each category of work. If Subcontractors vary with Bid Alternates, Additives, or Deductives, the Bidder must indicate on a separate Bidder/Subcontractor List which Subcontractor will be used for which Alternate, Additive, or Deductive.

The Bidder/Subcontractor List must be submitted to the City Purchasing & Contracting Services Division (PCSD) with the Bid, or separately within one hour of the time and date for Bid submittal. Failure to complete and submit the Bidder/Subcontractor List by the required time will result in the Bid being declared non-responsive and rejected. The Bidder is responsible for the timely delivery of the Bidder Subcontractor List. If awarded the contract, the Bidder agrees to utilize the subcontractors identified on the Bidder/Subcontractor List unless the City agrees to a substitution.

Bidders may submit the Bidder/Subcontractor List to City Purchasing & Contracting Services Division in person or by courier at 700 Fifth Ave, Suite 4112, Seattle, WA 98104; by fax to (206) 684-4511; or by submitting a signed PDF version of the form to Judy.Keefe@Seattle.gov. Clearly mark the Project Name and Bidder's name to ensure the form is routed correctly.

<table>
<thead>
<tr>
<th>Trade</th>
<th>You must check one box for each trade. If subcontracting, you must name the subcontractor(s) you will use and the category of work.</th>
</tr>
</thead>
</table>
| Heating, Ventilation & Air Conditioning (HVAC) | ☐ Name of Sub(s) & Category of Work:__________________________________________  
☐ Bidder will self-perform this work  
☐ N/A (this project does not include this work) |
| Plumbing                  | ☐ Name of Sub(s) & Category of Work:________________________  
☐ Bidder will self-perform this work  
☐ N/A (this project does not include this work) |
| Electrical                | ☐ Name of Sub(s) & Category of Work:________________________  
☐ Bidder will self-perform this work  
☐ N/A (this project does not include this work) |

Bidder's Business Name  Signature of Bidder's Representative

Project Name

FAS Rev 8/15/14
**Apprentice Utilization Plan**

For non-federal projects estimated over $1 million.

List the prime and all subcontractors scheduled to work on this project, and indicate the estimated number of hours to be performed by journey level and apprentice workers for each. Apprentice utilization must equal or exceed 15% of the total labor hours.

<table>
<thead>
<tr>
<th>Prime Contractor and all Subcontractors</th>
<th>Journey Labor Hours</th>
<th>Apprentice Labor Hours</th>
<th>Total Labor Hours for Project</th>
<th>Apprentice Percentage</th>
<th>Number of Apprentices</th>
</tr>
</thead>
</table>

**Estimated information**

**TOTALS:**

<table>
<thead>
<tr>
<th>Journey Labor Hours</th>
<th>Apprentice Labor Hours</th>
<th>Total Labor Hours for Project</th>
<th>Apprentice Percentage</th>
<th>Number of Apprentices</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>#DIV/0!</td>
<td>0</td>
</tr>
</tbody>
</table>

**Apprenticeship Utilization Requirement:** 15%
The following changes are hereby made to the Contract documents for this project:

### Addendum

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Location and description of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-A</td>
<td><strong>Addendum No. 3, Item No. 3-C</strong></td>
</tr>
<tr>
<td></td>
<td>In the last paragraph revise “paragraph IV” to read “paragraph VI”.</td>
</tr>
<tr>
<td>4-B</td>
<td><strong>2011 Seattle Standard Specifications, Page 9 - 114</strong></td>
</tr>
<tr>
<td>9-30.2(6)</td>
<td><strong>RESTRAINED JOINTS</strong></td>
</tr>
<tr>
<td></td>
<td>Delete item 2 and replace with the following:</td>
</tr>
<tr>
<td></td>
<td>2. The joint restraint system for the pipe shall be the same as the joint restraint system for the pipe fittings except as provided for in item 4 below.</td>
</tr>
<tr>
<td></td>
<td><strong>Supplement this Section with the following:</strong></td>
</tr>
<tr>
<td></td>
<td>4. Where restrained jointed fittings required on the Drawings cannot be furnished, or where restrained jointed fittings are required in areas that are known to be subject to location adjustments, the Contractor may submit a lay plan showing mechanically jointed fittings with wedge restraint glands for approval. Mechanically jointed pipe with wedge restraint glands shall not be substituted for restrained joint pipe.</td>
</tr>
<tr>
<td></td>
<td>5. Where proposed, wedge restraint glands shall conform to AWWA C111, ASTM A 536-80 Grade 65-45-12. All bolts and wedges shall be ductile iron. Wedges shall be heat-treated to a minimum 370 BHN. Wedge restraint glands shall be treated for 350 psi for pipe 12 inch in diameter and smaller. All wedge restraint glands shall be wax tape encased. Wedge restraint glands shall be electrically joint bonded if installed on coated Water Main.</td>
</tr>
</tbody>
</table>
Addendum No. 3, Item No. 3-W

At the end of the sentence replace the reference “Addendum No. 1, Attachment 3” with “Addendum No. 3, Attachment 3”.

The Date of Bid Opening is not changed by this Addendum.

The above change(s) shall constitute a binding change to the Contract documents for this project and shall become a part of any resulting Contract Awarded subsequent to opening of Bids for the project. Bidders shall insure that the above changes are reflected in the appropriate Bid items of their proposal prior to submittal of the proposal.

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM:

The Bidder shall acknowledge receipt in Section 0-01.3(2) (Declaration) of the Bid Form of all Addenda issued during the bidding period. Failure to so acknowledge may result in the PROPOSAL being rejected as not responsive.

Mark Fredrickson, P.E.
Public Works Contracts Supervisor
SPU Contracts Office

MOF:RWB