

REQUEST FOR BID (“RFB”)

For

Petroleum Contaminated Soil Removal at Buckley Library

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PART 1: INTRODUCTION

The Pierce County Library System (the “Library”) is a junior taxing district under the laws of the State of Washington established in 1946 as a rural library district under Chapter 27.12 RCW. The Library provides library services for the residents of unincorporated Pierce County, 15 annexed cities and towns (Bonney Lake, Buckley, DuPont, Eatonville, Edgewood, Fife, Gig Harbor, Lakewood, Milton, Orting, South Prairie, Steilacoom, Sumner, University Place, and Wilkeson). The total estimated population served is 650,000. More information about the Library may be found online at www.piercecountylibrary.org.

Thank you for your interest in proposing PETROLEUM CONTAMINATED SOIL REMOVAL AT BUCKLEY LIBRARY. In general, the scope of work includes the following:

- Installation of site security and temporary sediment and erosion control measures;
- Protection of existing site features (electrical poles, concrete sidewalks);
- Demolition and disposal;
- Temporary shoring and excavation of overburden material, metal-impacted soil, and petroleum-contaminated soils (PCS);
- Dewatering, temporary storage, and offsite disposal;
- Transport of contaminated soils to a landfill facility;
- Installation of a granular activated carbon wall;
- Re-construction of the demolished stormwater conveyance system within the remedial excavation area; and
- Backfill and compaction of overburden soil deemed suitable for reuse and imported fill (borrow and topsoil).

The Library/Engineer will file for a General Use Application with the City of Buckley to secure a grading and right-of-way permit.

ESTIMATED TIMELINE

RFB Announcement.....	June 9, 2023
Final questions or substitution requests due	June 19 2023, 2:00 PM
RFB Question Responses Due from Library.....	June 21, 2023
RFB due to PCLS.....	June 30, 2023, 2:00 PM
RFB Opening	June 30, 2023, 2:30 PM
Notice of Intent to Award.....	July 7, 2023
Notice of Award.....	July 14, 2023

PROJECT TEAM

Owner	Pierce County Library System
Consultant (the “Consultant”)	EHS-I/SoundEarth, and any assignees by Library or Consultant
Architect (the “Architect”)	BuildingWork, et al; and EHS-I
Engineer (the “Engineer”)	As assigned by the Library, Consultant, and Architect
Contractor (the “Contractor”)	Awarded vendor that executes a contract

PART 2: INSTRUCTIONS TO BIDDERS

- a) **AVAILABILITY:** Electronic PDFs of existing drawings can be viewed at:
<https://mypcls.org/get-involved/partner-with-us/>
- b) **QUESTIONS ABOUT THE RFB:** It is the responsibility of all proposers to carefully review and read the entire RFB, and understand all terms, conditions, processes, and methods for responding to this RFB. All questions about this RFB should be directed to Christina Neville-Neil by email to cneville-neil@piercecountylibrary.org. Oral explanations or instructions given before the award of the contract will not be binding. Any information that is different from what is provided in this RFB and given to a prospective proposer concerning this RFB will be furnished to all prospective proposer as an amendment to the solicitation. The Library reserves the right to share answers with other proposers, if such information is necessary to proposers in submitting proposals on the solicitation or if the lack of such information would be prejudicial to uninformed proposers. **All questions must be submitted by 2:00 PM, June 19, 2023.**
- c) **SUBSTITUTIONS:** Provide any proposed material to design team, in writing, for review by **June 19, 2023**. No Substitutions will be accepted after bid due date. Use the attached sample form to submit request for substitutions.
- d) **SITE ADDRESS AND SITE VISITS:**
123 S. River Ave
Buckley, WA 98321

Bidders may visit site at their discretion prior to submitting a bid. Please inform the Contract Administrator of intention to visit the site.
- e) **ACKNOWLEDGEMENT OF ADDENDA:** Bidders must acknowledge receipt of any addenda by signing the bid form. Such acknowledgment must be received prior to bid opening.
- f) **BID SUBMISSION:** The preferred method of proposal submission is electronically to Petra McBride at PMcBride@piercecountylibrary.org. If sending electronically, the Library strongly encourages confirmation of receipt prior to bid opening. Please use the subject line: BID FOR PETROLEUM CONTAMINATED SOIL REMOVAL AT BUCKLEY LIBRARY. If bidders choose to submit printed copies, please submit a sealed proposal with three (3) copies to:

Pierce County Library System
Attn: Petra McBride, Executive Assistant for Executive Office Department
3005 112th Street East
Tacoma, WA 98446-2215
Sealed bid for: PETROLEUM CONTAMINATED SOIL REMOVAL AT BUCKLEY LIBRARY
- g) **DATE OF SUBMISSION: SEALED BIDS MUST BE SUBMITTED NO LATER THAN JUNE 30, 2023, 2:00 PM, Local time.** Submissions received late may be deemed not responsive and may not be considered, at the Library's discretion. The Library reserves the right to extend the date of submission and will provide due notice of such date extension.
- h) **SIGNATURES:** A corporate official who has been authorized to make such bid commitments must sign the bid.
- i) **WITHDRAWAL OR MODIFICATIONS OF BIDS:** The bidder may, without prejudice to itself, modify or withdraw its bid by written request, provided that the bid and any request is received by the Library

prior to the date of submission. Following the withdrawal of its bid, the bidder may submit a new bid provided it is received by the Library at the address and by the date of submission.

- j) **REJECTION OF BIDS:** The Library reserves the right to reject any and all bids without penalty. Any and all bids may be rejected for any cause.
- k) **BIDDING PROCEDURES AND FORMS:** All bidders must comply with the specifications and requirements attached. To be considered all bids must be signed; bidders may only submit one bid for consideration. Bidders may submit additional information with their bids as desired.
- l) **VALIDITY OF PRICES:** Bidders must confirm in writing that prices quoted will be valid and in effect for a minimum of sixty (60) days after bid opening. When the sum of the base bid plus all additive alternates is greater than \$35,000.00, a bid guarantee in the amount of 5.00% of the base bid amount is required. Failure of the bidder to provide bid guarantee when required shall render the bid non-responsive. Acceptance form of bid guarantee shall be a bid bond. The successful bidder's bid guarantee will be returned to the successful bidder ("Awardee") with its official notice to proceed with the work of the contract.
- m) **BID OPENING:** A virtual public bid opening will be held at approximately 2:30PM, on Friday, June 30, 2023 using Microsoft Teams.

Meeting ID: 251 938 047 252

Passcode: L55FHH

The Library estimates submitting a Notice of Intent to Award to the apparent winning bidder within five (5) business days of bid opening.

- n) **AWARD OF BID: CONTRACT SHALL BE AWARDED BASED ON PRICE, REFERENCES, AND COMPLETION OF ALL ASPECTS OF THE RFB.** The Library reserves the right to waive informalities or irregularities and deviations from the RFB, and to be the final judge as to which bid shall be accepted by the Library. Final award is anticipated no later than thirty (30) days of bid closing.
- o) **PUBLIC DISCLOSURE OF AWARDED BID:** All bids will be treated with confidentiality prior to award. After award of the contract, the bid will fall under the requirement by Washington State law (Chapter 42.56 RCW) that obligates the Library to make the document available for public inspection, if requested.
- p) **RETAINAGE:** Bidders acknowledge that the awarded contract, per RCW 60.28.011, the Library will retain funds in the amount of 5.00% for the duration of an annual contract, as provided in the contract terms.
- q) **PREVAILING WAGES:** Workers of all contractors, subcontractors, and lower tier subcontractors on all Library public work projects, as the term public works is defined by RCW 39.040.010, shall be paid the "prevailing rate of wage" including usual benefits, as those terms are defined by Chapter 39.12 RCW. It is understood that the successful Contractor is responsible for obtaining and completing all required government forms and submitting them the same to the proper authorities. Contractor is required to provide certified payroll to Library showing the payment of prevailing wage.
- r) **FINAL INSPECTION UPON AWARD:** Upon Library's request, Awardee will verify bid on all existing conditions. Awardee will return to the Library a signed contract, insurance certificate and bond or bond waiver within fifteen (15) days after receipt of contract. If the apparent Awardee fails to sign all contractual documents or provide the bond and insurance as required or return documents within

fifteen (15) days of receipt of the contract, the Library may terminate the award of the contract and select the next lowest, responsive, responsible bid.

- s) **CONTRACT ADMINISTRATOR:** The administrator of this contract will be: Christina Neville-Neil, Library Facilities Project Manager.
- t) **REFERENCES:** List the names and addresses of three (3) customers, for whom the bidder has provided similar services. Include dates, contact persons, and telephone numbers. Should any reference submitted by the bidder be found unsatisfactory, the Library, as its sole option, may reject that bidder's offer. The Library shall be the sole judge in determining a satisfactory or unsatisfactory reference response. References must be submitted with the bid response.

USE OF TECHNICAL LANGUAGE

Hereon forward, the following terms are used and are defined within their sections or assumed to be known to the parties involved, and are capitalized as proper nouns accordingly. Available attributions may be used for succinctness.

- Architect/Engineer or Architecture/Engineering ("A/E")
- Architect's Supplemental Instruction ("SI")
- Change Order or Contract Change Order or Construction Change Order ("CO")
- Change Order Proposals or Construction Change Order Proposal ("COP")
- Contract Documents
- Contract Sum
- Contract Time
- Field Authorization ("FA")
- Final Acceptance
- Notice of Non-Compliance ("NCC")
- Notice of Substantial Completion
- Project Record
- Request for Information ("RFI")
- Schedule of Values
- Substantial Completion
- Work

BID FORM (Page 1 of 2)

Declarations:

The undersigned bidder declares to have read and fully understand the Request for Bid and agrees to all of the terms, conditions, and provisions contained therein; and proposes and agrees that if the bid as submitted in the proposal be accepted, will contract to perform in accordance with the specifications and proposals. Said price is to include and cover all materials, labor, supervision, overhead, and profit to complete the job to the Library's satisfaction.

Project Name: PETROLEUM CONTAMINATED SOIL REMOVAL AT BUCKLEY LIBRARY

Contractor's Name: _____

BID SUBMITTED BY:

Signature of Authorized Representative

Firm Name

Printed Name

Address

Title

City, State, Zip Code

Date

Telephone/ Fax Number

State of Washington Contractor's License No. _____

Federal Tax ID No. _____

Base Bid (print dollar amount)

\$ _____
(\$ amount, do not include WSST)

BID FORM (Page 2 of 2)

TIME FOR COMPLETION:

Contract Time – The undersigned hereby agrees to Substantially Complete all the Work under the Base Bid within sixty (60) days from issuance of Notice to Proceed.

Final Completion – All the Work shall be fully and finally completed in accordance with the Contract Documents within fourteen (14) calendar days after the date of Substantial Completion.

LIQUIDATED DAMAGES:

The undersigned agrees to pay the Library as liquidated damages the sum of \$300.00 for each and consecutive calendar day that is in default after the Contract Time. Liquidated damages shall be deducted from the contract invoice after taxes and retainage.

RECEIPT OF ADDENDA:

Receipt of the following addenda is acknowledged:

Addendum No: _____

Addendum No: _____

Addendum No: _____

Addendum No: _____

Addendum No: _____

Addendum No: _____

REFERENCES:

1. Company Name _____
 Company Address _____
 Company Phone _____
 Contact Person _____
 Dates _____
2. Company Name _____
 Company Address _____
 Company Phone _____
 Contact Person _____
 Dates _____
3. Company Name _____
 Company Address _____
 Company Phone _____
 Contact Person _____
 Dates _____

PART 3: CONTRACT TERMS AND CONDITIONS

**ACTUAL CONTRACT WILL TAKE THE FORM OF
EITHER AIA FORM A105-2017 OR THE SERIES OF FORMS A101-2017 & A201-2017**

PROVIDED HEREIN ARE GUIDELINES OF CONTRACTUAL TERMS

- a) **NON-ASSIGNMENT:** The Contractor may not assign any rights or any duties under this contract without the Library's prior written consent. Such consent must be in writing and received no less than thirty (30) days prior to the date of any proposed assignment and/or delegation.
- b) **SUPERVISION:** The Contractor shall supervise and direct the work in relation to this contract using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over the means, methods, techniques, sequences and procedures, and for coordinating portions applicable to this contract. The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out work in accordance to this contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them, according to the specifications contained herein.
- c) **SEVERABILITY:** The invalidity or unenforceability of any provision in any resultant contract shall not affect the other provisions hereof, and the contract shall be construed in all respects as if such invalid or unenforceable provisions were omitted.
- d) **INDEMNIFICATION AND HOLD HARMLESS:** The Contractor shall protect, defend, indemnify, and hold the Library, its agents, employees, officials harmless from, and shall process and defend at its own expense any and all claims, demands, suits, penalties, losses, damages, or costs of any kind whatsoever (hereinafter "claims") brought against the Library arising out of or incident to the execution of, performance of, or failure to perform this contract; PROVIDED, however, that if such claims are caused by or the result from the concurrent negligence of the Contractor, its agents, employees, an/ or officers and the Library, its agents, employees, and/ or officers, this paragraph shall be valid and enforceable only to the extent of negligence of the Contractor, its agents, employees, and/ or officers; and PROVIDED/FURTHER that nothing in this paragraph shall require the Contractor to indemnify, hold harmless, or defend the Library, its agents, employees, and/ or other officers from any claims caused by or resulting from the sole negligence of the Library, its agents, employees, and/ or officers. The Contractor's obligation under this paragraph shall include indemnification for made by the Contractor's own employees or agents. For this purpose, the Contractor, by mutual negotiation, hereby waives, with respect to the Library only, any immunity that would otherwise be available against such claims under the Industrial Insurance provisions of Title 51 RCW. In the event the Library incurs any judgment, award, and or cost arising there from including attorney's fees to enforce the provisions of this paragraph, and such fees, expenses, and costs shall be recoverable from the Contractor.
- e) **PUBLIC RECORDS ACT/CONFIDENTIALITY:** Notwithstanding any other provision herein, Consultant recognizes that Library is a public agency subject the state Public Records Act, Chapter 42.56 RCW. Upon receipt of a public record request for any material which is the subject of this agreement, Library will promptly notify Consultant of the request and Consultant will promptly elect whether it will at its

own expense commence court action to protect the material from disclosure. If Consultant does elect to seek such protection, Consultant will fully defend and indemnify Library from any liability, including attorney fees and statutory penalties, which may arise under the Public Records Act in connection with the request.

- f) **TERMINATION FOR CONVENIENCE:** The Library for its convenience may terminate this contract, in whole or in part, at any time by written notice sent certified mail, return receipt requested, to the Contractor. After receipt of a Notice of Termination ("Notice"), and except as directed by the contract administrator, the Contractor shall immediately stop work as directed in the Notice, and comply with all other requirements in the Notice. The Contractor shall be paid its costs, including necessary and reasonable contract close-out costs and profit on that portion of the work satisfactorily performed up to the date of termination as specified in the Notice. The Contractor shall promptly submit its request for the termination payment, together with detailed supporting documentation. If the Contractor has any property in its possession belong to the Library, the Contractor will account for the same and dispose of it in the manner the Library directs.
- g) **TERMINATION FOR DEFAULT:** In addition to termination for convenience, if the Contractor does not deliver supplies in accordance with the delivery schedule, or if the contract is for services and the Contractor fails to perform in the manner called for in the contract, the Library may terminate this contract, in whole or in part, for default. Termination shall be effected by serving a Notice by certified mail, return receipt requested, on the Contractor setting forth the manner in which the Contractor is in default and the effective date of termination; provided that the Contractor shall have ten (10) calendar days to cure the default. The Contractor will be only paid for goods delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract less any damages to the Library caused by default. The termination of this contract shall in no way relieve the Contractor from any of its obligations under this contract not limit the rights and remedies of the Library hereunder in any manner.
- h) **TERMINATION FOR NON-APPROPRIATION:** This contract is cancelable at the end of the fiscal period for non-appropriation of funds by the Library Board of Trustees. Such cancellation shall be upon thirty (30) days written notice to the Contractor. The Library's fiscal period ends December 31 of each year. If the contract is terminated as provided in this subsection: The Library will be liable only for payment in accordance with the terms of this contract for services rendered prior to the effective date of termination; and the Contractor shall be released from any obligation to provide further services pursuant to the contract as are affected by the termination. Funding under this contract beyond the current appropriation is conditional upon the appropriation by the Library Board of Trustees of sufficient funds to support the activities described in the contract. Should such an appropriation not be approved, this contract will terminate at the close of the current appropriation year.
- i) **CONTRACT TIME AND SCHEDULE:** Contractor shall diligently prosecute the Work, with adequate forces, achieve Substantial Completion with the Contract Time, and achieve final completion with a reasonable period thereafter. Unless otherwise provided, Contractor shall, within fourteen (14) days after issuance of Notice of Award, submit a preliminary progress schedule. The progress schedule shall show the sequence in which Contractor proposes to perform the Work, and the dates on which Contractor plans to start and finish major portions of the Work, including dates for shop drawings and other submittals, and for acquiring materials and equipment.
- j) **LIQUIDATED DAMAGES FOR FAILURE TO ACHIEVE TIMELY COMPLETION:**

1. Reasons: Timely performance and completion of the Work is essential to the Library and time limits stated in Contract Documents are of the essence. The Library will incur serious and substantial damages if Substantial Completion of the Work does not occur with the Contract Time. However, it would be difficult if not impossible to determine the exact amount of such damages. Consequently, provisions for liquidated damages are included in the Contract Documents.
 2. Calculated Amount: The liquidated damage amounts set forth in the Contract Documents will be assessed not as a penalty, but as liquidated damages for breach of the Contract Documents. This amount is fixed and agreed upon by and between the Contractor and Library because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Library would in such event sustain. This amount shall be construed as the actual amount of damages sustained by the Library, and may be retained by the Library and deducted from the periodic payments to the Contractor.
 3. Contractor responsible even if Liquidated Damages assessed: Assessment of Liquidated damages shall not release Contractor from any further obligations or liabilities pursuant to the Contract Documents.
- k) **RETAINAGE:** All laws related to retainage shall apply. RCW 60.28.11 requires public entities to retain a portion of payments on a maintenance contract. This contract requires retainage in the amount of 5.00% of all payments. The Contractor may choose to have it:
1. Retained in fund managed by the Library; or
 2. Deposited by the Library into an interest bearing account in a bank, mutual saving bank, or savings and loan association. Interest on moneys reserved by the Library under the provision of this contract shall be paid to the Contractor; or
 3. Placed in escrow with the bank or trust company by the Library. When the money reserved is placed in escrow, the Library shall issue a check representing the sum of the moneys reserved payable to the bank or trust company and the Contractor jointly. This check shall be converted into bonds and securities shall be held in escrow. Interest on the bonds and securities shall be paid to the Contractor as the interest accrues.

In lieu of retainage, the Contractor may submit a retainage bond. If elected, retainage bond must be submitted within thirty (30) days of contract signing; any retainage withheld shall then be paid immediately to Contractor.

- l) **INSURANCE:** The Contractor shall furnish to the Library at time of award copies of all applicable liability insurance and applicable documentation as specified below:

<u>Coverage</u>	<u>Limits of Liability</u>
General Liability Insurance	\$1,000,000 each occurrence \$2,000,000 aggregate
Automotive Liability Insurance	\$1,000,000
Umbrella/Excess Liability Insurance	\$5,000,000

All insurance policies shall be endorsed with the following declaration, "Pierce County Library System, its officials and employees are covered as additional insured."

- m) **PAYMENT:** The Contractor will submit an invoice monthly. The Library will make payments upon delivery and acceptance of the services by the Library and upon receipt of an acceptable invoice.
- n) **WARRANTY OF WORK:** Contractor warranty of Work – In addition to any special warranties provided elsewhere in the Contract Documents, Contractor warrants that all Work conforms to the requirements of the Contract Documents. Contractor warrants that all Work conforms to the requirements of the Contract Documents and is free of any defect in equipment, material, or design furnished, or workmanship performed by Contractor.

PART 4: STATEMENT OF PIERCE COUNTY LIBRARY SYSTEM RESPONSIBILITIES

The Contractor must provide a comprehensive statement identifying the exact tasks, and other needs that are the responsibility of the Library as a part of this project. This includes cost, coordination, and labor required to complete all Work associated with the project as defined in this RFB.

PART 5: SPECIFICATIONS, DRAWINGS, AND OTHER DOCUMENTS

- a) **SPECIFICATIONS AND DRAWINGS ARE THE BASIS OF THE WORK:** The intent of the specifications and drawings is to describe a complete project to be constructed in accordance with the Contract Documents. Contractor shall furnish all labor, materials, equipment, tools, transportation, permits, and supplies, and perform the Work required in accordance with the drawings, specifications, and other provisions of the Contract Documents.
- b) **PARTS OF THE CONTRACT DOCUMENTS ARE COMPLEMENTARY:** The Contract Documents are complementary. What is required by one part of the Contract Documents shall be binding as if required by all. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both.
- c) **CONTRACTOR TO REPORT DISCREPANCIES IN CONTRACT DOCUMENTS:** Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by Library. If during the performance of the Work, Contractor finds a conflict, error, inconsistency, or omission in the Contract Documents, it shall promptly and before proceeding with the work effected thereby, report such conflict, error, inconsistency, or omission to A/E in writing.
- d) **PROJECT RECORD:** The Contractor maintains the Project Record as defined herein. Contractor shall legibly mark in ink on a separate set of the drawings and specifications all actual construction, including depths of foundations, horizontal, and vertical locations of internal and underground utilities and appurtenances referenced to permanent visible and accessible surface improvements, field changes of dimensions and details, actual suppliers, manufacturers and trade names, models of installed equipment, and Change Order Proposals. This separate set of drawings and specifications shall be the Project Record. Contractor shall submit the completed and finalized Project Record to A/E prior to Final Acceptance. Upon review and acceptance from A/E, Library shall receive copy for files.
- e) **PERMITS, FEES, AND NOTICES:** Contractor to obtain and pay for permits. Unless otherwise provided in the Contract Documents, Contractor shall pay for and obtain all permits, licenses, and inspections necessary for proper execution and completion of the Work. Prior to Final Acceptance, the approved, signed permits shall be delivered to the Library.

PART 6: PERFORMANCE

The period of performance of this contract is sixty (60) days from the Date of Commencement as specified in the Contract Documents. Contractor shall retain the responsibility for the traffic operations. Contractor shall cooperate with Library so that traffic flow is least impeded by the execution of the Work under this contract. In the event of conflict, the Library's Contract Administrator shall be the sole judge of the adequacy of the Contractor's protective measures to assure the flow of traffic. Contractor understands the special requirements of maintaining the facilities in full operation concurrent with the construction activity, and shall provide continuous and safe access by Library to all areas of the site not specifically designated for Work by the Contractor under each phase. There may be other entities conducting work onsite including but not limited, to adjunct staff, contractors, officials, and inspectors (collectively, "Others"). Contractor agrees to cooperate and not impede Others' scope of work.

- a) **CONTRACTOR CONTROL AND SUPERVISION:** Contractor is responsible for the means and methods of construction. Contractor shall supervise and direct the Work, using their best skill and attention, and shall perform the Work in a skillful manner. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work, unless the Contract Documents give other specific instructions concerning these matters.
- b) **SAFETY PRECAUTIONS:** In performing this contract, the Contractor shall provide for protecting the lives and health of employees and other persons; preventing damage to property, materials, supplies, and equipment; and avoid work interruptions.
 - 1. Temporary walls/partitions/dust protection will be required between work zone and occupied spaces.
 - 2. Contractors are not to enter the building through the main public door during Library operating hours. Contractor entry and access to be coordinated with Library prior to mobilization.
 - 3. Safe and clearly marked access to patron means of egress to be maintained throughout construction.
 - 4. Demolition staging and site access: Contractor will be allowed to fence off an area for laydown in coordination with the Library, location to be confirmed with Library at pre-installation meeting. Area to be secured by the Contractor's means and at their own cost. The Library takes no responsibility for the security of the Contractor's assigned laydown area.
- c) **CONTRACTOR'S OBLIGATIONS:**
 - 1. Library will remain in continuous operation during construction, unless otherwise approved by the Library's Contract Administrator.
 - 2. Contractor shall provide and adjust temporary construction fencing as necessary to protect the site and secure any areas of work. Contractor shall be responsibility to adjust the temporary construction fencing to allow for customer access into the parking lot and main entry doors of the libraries. Staff access to staff entry doors must also be maintained.
 - 3. Contractor work hours can be weekdays (Monday to Sunday) between 6 AM to 6 PM. Contractor shall abide by all requirements for traffic control and safety when working in the road right-of-way.

4. Substantial completion of all Work is sixty (60) calendar days after the date of Notice to Proceed. Contractor shall provide construction schedule for Library approval prior to commencement of Work.
- d) **UNFORESEEN PHYSICAL CONDITIONS:** If Contractor encounters conditions at the site which are subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then Contractor shall give written notice to Library promptly and in no event later than seven (7) days after the first observance of the conditions. Conditions shall not be disturbed prior to such notice.
- e) **CORRECTION OF NON-CONFORMING WORK:** Contractor shall promptly correct work found by Library not to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed, or completed. Contractor shall bear all costs of correcting such nonconforming work, including additional testing and inspections.
- f) **CHANGES:**
 1. Changes in Work, Contract Sum, and Contract Time by Change Order: Library may, at any time and without notice to Contractor's surety, order additions, deletions, revisions, or other changes in the Work. These changes in the Work shall be incorporated into the Contract Documents through the execution of Change Orders. If any change in the Work ordered by the Library causes an increase or decrease in the Contract Sum or the Contract Time, an equitable adjustment shall be made.
 2. Library may request COP from Contractor: If Library desires to order a change in the Work, it may request a written Change Order Proposal from Contractor. Contractor shall submit a Change Order Proposal within fourteen (14) days of the request from Library, or within such other period as mutually agreed. Contractor's Change Order Proposal shall be full compensation for implementing the proposed change in the Work, including any adjustment in the Contract Sum or Contract Time, and including compensation for all delays in connection with such change in the Work and for any expense or inconvenience, disruption or schedule, or loss of efficiency or productivity occasioned by the change in the Work.
 3. Contract Sum changes only by Change Order: The Contract Sum shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Sum in its Change Order Proposal. If the cost of Contractor's performance is changed due to the fault or negligence of Library, or anyone for whose acts Library is responsible, Contractor shall be entitled to make a request for an equitable adjustment to the Contract Sum. No change in the Contract Sum shall be allowed to the extent: Contractor's changed cost of performance is due to the fault or negligence of Contractor, or anyone for whose acts Contractor is responsible; the change is concurrently caused by Contractor and Library; or the change is caused by an act of force majeure as defined below.

Acts of force majeure include but not limited to:

1. Acts of God or the public enemy
2. Acts or omissions of any government entity
3. Fire or other casualty for which Contractor is not responsible
4. Quarantine or epidemic

5. Strike or defensive lockout
6. Unusually severe weather conditions which could not have been reasonably anticipated
7. Unusual delay in receipt of supplies or products which were ordered and expedited and for which no substitute reasonably acceptable to Library was available.

PART 7: ADMINISTRATIVE REQUIREMENTS

- a) **PRECONSTRUCTION/PRE-INSTALLATION MEETING:** Library, Consultant, and Contractor will attend initial meeting to establish communication expectations, address Contractor and Library questions and concerns, schedule and sequence of work, and identify issues for resolution early in the process.
- b) **CONSTRUCTION PROGRESS SCHEDULE:** Contractor to submit baseline schedule within fourteen (14) days of issuance of Notice of Award for review and submit updated schedule with each application for payment.
- c) **WEEKLY PROGRESS MEETINGS:** Contractor to hold weekly construction meetings to review site-specific progress with three (3) week schedule and updates. Contractor to prepare agenda, meeting minutes, and progress schedule, submittal log, RFI log, Field Authorization log, and Change Order log.
- d) **SUBMITTALS FOR REVIEW:** As indicated in the individual technical specification sections, submit for review:

Section 01 50 00 – Temporary Facilities and Controls

- Health and Safety Plan
- Traffic Control Plan
- Environmental Protection Plan (includes Site Security Plan)

Section 01 57 13 – Temporary Erosion and Sediment Control

- Stormwater Pollution Prevention Plan, including Temporary Erosion and Sediment Control Plan.

Section 01 99 00 – Environmental Protection Plan

- Spill Plan

Section 31 00 00 – Earthwork

- Analytical results for import fill testing.
- Independent utility location/potholing results.
- Gradation analyses, optimum moisture content, and maximum dry density for import material
- Compaction test results.

Schedule submittals to expedite the project, and coordinate submission of related items. When revised for resubmission, identify all changes made since previous submission. Submittals to be submitted digitally and logged and tracked in submittal log, to be shared with project team in weekly progress meetings.

Consultant's Action – Except for submittals for record, information, or similar purposes, where action and return is required or requested, the Consultant will review each submittal, mark to indicate action taken, and return promptly.

Submittals expected for review are specified in individual sections.

- e) **MODIFICATION PROCEDURES:** Changes to and clarification of the Work may be made by response to a Request for Information, Architect's Supplemental Instruction, Field Authorization, Change Order

Proposal, and Contract Change Order as issued by Library. A monetary change to the contract is implemented by an accepted FA and by CO.

a. Request for Information

- i. Prepared by Contractor
- ii. Transmitted to Consultant
- iii. Response by Consultant. Allow up to two (2) calendar days for response.
- iv. Acceptance by Library
- v. Contractor must either:
 1. Proceed upon receipt of response if not cost/time impact; or
 2. Submit a notice of cost impact within three (3) calendar days of response date. Submit substantiation of costs within ten (10) days or response date.
 3. By proceeding without submitting a statement of impact, the Contractor agrees that there is no impact on the Contract Sum or Contract Time.
 4. RFIs must reference a drawing and detail number or specification section.

b. Supplemental Instruction

- i. Prepared by Consultant
- ii. Approved by Library
- iii. Transmitted to Contractor
- iv. Contractor must either:
 1. Proceed upon receipt of response if no cost/time impact; or
 2. Submit a notice of cost impact within three (3) calendar days of response date. Submit substantiation of costs within ten (10) days or response date.
FA or COP will be prepared.
 3. By proceeding without submitting a statement of impact, the Contractor agrees that there is no impact on the Contract Cost or Contract Time.
- v. SI shall be numbered consecutively and emailed to appropriate parties.

c. Field Authorization

- i. Issued in response to:
 1. An RFI with unresolved cost/time impacts
 2. A SI with unresolved cost/time impacts
 3. Absence of agreement on proposal request terms.
- ii. Issued to expedite the work and avoid delays.
- iii. Procedure:
 1. Form provided and prepared by Architect
 2. Signed by Architect, Library, and Contractor

3. Contractor must proceed immediately
 4. Method of adjustment of Contract Sum shall be determined per general conditions of the contract.
 5. FA's shall be numbered consecutively
 6. Changes shall be marked on record drawings and specifications
 7. FA will have an agreed not-to-exceed price
- d. Construction Change Order Proposal
- i. Prepared by Consultant
 - ii. May be initiated by Contractor by submitting a written notice to Architect indicating justification and anticipated cost impact
 - iii. Delivered to Contractor
 - iv. Contractor must provide cost data and submit substantiation
 - v. Consultant makes recommendation
 - vi. Library accepts or rejects
 1. Library issues Notice to Proceed and prepares Change Order; or
 2. Library requests additional cost data; or
 3. FA is issued
 - vii. COPs shall be numbered consecutively
 - viii. Changes shall be marked on record drawings and specifications
- e. Construction Change Order
- i. Prepared by Library
 - ii. May include several COPs and FAs
 - iii. COs shall be numbered consecutively
 - iv. Changes shall be marked on record drawings and specifications
- f. Notice of Non-Compliance
- i. Issued by Consultant in response to observation of work that is not in compliance with Contract Documents.
 - ii. Contractor shall correct deficiency promptly upon receipt of notice.
 - iii. Notice will be considered closed following Consultant's verification that remedial work is in compliance with Contract Documents.
 - iv. In no case shall subsequent work be attached to, built on or built over the deficient work, until such time that correction of the deficient work has been verified.
- f) **CLOSEOUT REQUIREMENTS:** Contractor shall submit a written Notice of Substantial Completion certifying that all Work has been inspected, and that Work is complete in accordance with the Contract Documents and ready for A/E punch list inspection. Contractor to submit all outstanding FA and COP for review, draft operations and maintenance manual to Architect for review, draft

warranties and bonds to Consultant for review, and record documents. Upon punch list inspection, Contractor to correct items of work listed prior to final inspection. Closeout submittals to include record documents: drawings, specifications, addenda, change orders, modifications, shop drawings, product data, samples, manufacturer's instructions for assembly, installation and adjustments, testing and inspection log and reports, permits, and progress photos. Submit two paper copies and one electronic copy of each document prior to final invoice.

PART 8: PAYMENT SCHEDULE

- Contractor will submit Schedule of Values on Library-provided application for payment Form A-19 within fourteen (14) days after date established as the Notice to Proceed or seven (7) days prior to first application for payment, whichever is first. Approved Schedule of Values shall be used by the Library as the basis for progress payments.
- The Contractor will submit an invoice monthly on Form A-19 (see sample), to be filled out electronically, signed and certified by authorized officer of company, reviewed by Architect.
- The Library will make payments upon delivery and acceptance of the services by the Library and upon receipt of an acceptable invoice.
- Invoicing for all work must be done monthly and invoices must indicate separate charges for labor and materials, and material charges must be itemized. The Contractor may only invoice for parts that have been furnished and installed; parts on order shall not be billed prior to installation. All invoices shall reference the relevant work order number for the authorized work. Statement of intent to pay prevailing wage rates and signed statement of compliance must be submitted to the Finance Department upon request. No invoices will be processed for payment without the above referenced documentation.
- The Library is required by law to withhold retainage from payment. For more information, please see retainage in Part 3.

SUBSTITUTION REQUEST FORM

PROJECT NAME: _____

CONTRACTOR: _____

We hereby submit for consideration, the following product instead of specified item for above project:

SECTION	PARAGRAPH	SPECIFIED ITEM
_____	_____	_____

Proposed substitution: _____

Attach complete dimensional information and technical data, including laboratory tests, if applicable.

Include complete information on changes to drawings and specifications which proposed substitution will require for its proper installation.

Submit with request all necessary samples and substantiating data to prove equal quality, performance, and appearance to that specified. Clearly mark manufacturer's literature to indicate equality in performance. Indicate differences in quality of materials and construction.

Fill in blanks below:

Does the substitution affect dimensions shown on drawings?

Yes _____ No _____ If yes, clearly indicate changes. _____

The Undersigned agrees to pay for changes to the building design and Architect's review time, including engineering and detailing costs caused by the requested substitution.

What affect does substitution have on other trades, other contracts, and contract completion date?

What affect does substitution have on applicable code requirements?

Difference between proposed substitution and specified item? _____

Manufacturer's guarantees of the proposed and specified items are:

_____ Same _____ Different

(explain) _____

List of names and addresses of three (3) similar projects on which product was used, date of installation, and Architect's name and address:

Cost impact: _____

CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTION OF LIABILITY FOR EQUAL PERFORMANCE

The Undersigned attests function and quality equal or superior to specified items.

Signature must be by person having authority to legally bind his/her firm to the above terms. Failure to provide legally binding signature will result in retraction of acceptance.

Submitted By:

Signature Address

PRINTED NAME AND TITLE

Firm Telephone

Date

For Use by Architect:

Accepted Accepted as Noted

Not Accepted Received Too Late

By _____ Date _____
Remarks _____

END OF FORM

FORM A 19-1A (Rev. 5/91)		STATE OF WASHINGTON INVOICE VOUCHER
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AGENCY USE ONLY		
AGENCY NO.	LOCATION CODE	P.R. OR AUTH. NO.

AGENCY NAME
VENDOR OR CLAIMANT (Warrant is to be payable to)

INSTRUCTIONS TO VENDOR OR CLAIMANT: Submit this form to claim payment for materials, merchandise or services. Show complete detail for each item.

Vendor's Certificate: I hereby certify under penalty of perjury that the items and totals listed herein are proper charges for materials, merchandise or services furnished to the State of Washington, and that all goods furnished and/or services rendered have been provided without discrimination because of age, sex, marital status, race, creed, color, national origin, handicap, religion, or Vietnam era or disabled veterans status.

BY _____

(SIGN IN INK)

(TITLE) (DATE)

FEDERAL I.D. NO. OR SOCIAL SECURITY NO. (For reporting Personal Services Contract Payments to I.R.S.)		RECEIVED BY		DATE RECEIVED	
DATE	DESCRIPTION	QUANTITY	UNIT	AMOUNT	FOR AGENCY USE
1	Mobilization	1	lump sum		
2A	Health and Safety Plan	1	lump sum		
2B	Traffic Control Plan	1	lump sum		
2C	Stormwater Pollution Prevention Plan	1	lump sum		
3	Temporary Fencing	1	lump sum		
4	Temporary Sediment and Erosion Control Measures	1	lump sum		
5	Demolition and Disposal	1	lump sum		
6A	Metal-Impacted Soil Excavation and Load to Bins	40	cubic yard		
6B	Overburden Soil Excavation and Stockpiling	750	cubic yard		
6C	Temporary Shoring, PCS Excavation Direct Load to Trucks	1,000	cubic yard		
7	Dewatering and Temporary Storage	1	lump sum		
8A	Transport Petroleum-Impacted Soil to Landfill (Category 2)	340	ton		
8B	Transport Petroleum-Contaminated Soil to Landfill (Category 3)	1,800	ton		
8C	Transport Metal-Impacted Soil to Landfill (Category 4)	70	ton		
8D	Transport and Dispose Petroleum-Contaminated Groundwater	40,000	gallon		
9A	Place and Compact Overburden Soil	190	cubic yard		
9B	Import, Place and Compact Gravel Borrow	2,030	ton		
9C	Import and Place Topsoil	110	ton		

10A	Granular Activated Carbon (GAC)	11	cubic yard													
10B	Import Washed Sand	34	cubic yard													
10C	Mechanical Mixing of GAC and Sand	45	cubic yard													
10D	Construct GAC Wall	100	lineal feet													
11	Replace Stormwater Conveyance System	1	lump sum													
12	Site Cleanup and Demobilization	1	lump sum													
PREPARED BY		TELEPHONE NUMBER	DATE	AGENCY APPROVAL												
DOC. DATE		PMT DUE DATE	CURRENT DOC. NO.	REF DOC.	UBI NUMBER											
REF DOC SUF	TRANS CODE	M O D	FUND	MASTER INDEX APPN INDEX	PROGRAM INDEX	SUB OBJ	SUB SUB OBJECT	ORG INDEX	WORKCLASS ALLOC	COUNTY BUDGET UNIT	CITY/TOWN MOS	PROJECT	SUB PROJ	PROJ PHAS	AMOUNT	INVOICE NUMBER
ACCOUNTING APPROVAL FOR PAYMENT						DATE						WARRANT TOTAL			WARRANT NUMBER	

Measurement and Payment Item Descriptions:

Bid Item No. 1: Mobilization will not be measured and will be paid for as a lump sum. Payment at the unit price shall include furnishing and mobilizing equipment and materials necessary to complete the work.

Bid Item No. 2A: Health and Safety Plan will not be measured and will be paid for as a lump sum. Payment at the unit price shall include preparation of a Health and Safety Plan that meets the minimum requirements for such a plan identified in federal regulations (Parts 1910.120 and 1926 of Title 29 of the Code of Federal Regulations) and state regulations (Chapter 296 of the Washington Administrative Code). Site environmental conditions includes petroleum hydrocarbon and lead impacts to soil and groundwater. Contractor's employees shall possess 40-hour Hazwoper training certifications.

Bid Item No. 2B: Traffic Control Plan will not be measured and will be paid for as a lump sum. Payment at the unit price shall include the preparation of a Traffic Control Plan, including but not limited to, ingress/egress to the work area, loading/unloading of equipment, materials and soil along the River Avenue right-of-way, and a transport route to the landfill.

Bid Item 2C: Stormwater Pollution Prevention Plan (SWPPP) will not be measured and will be paid for as a lump sum. Payment at the unit price shall include preparation of SWPPP in accordance with the Washington Department of Ecology's General Construction Stormwater Permit.

Bid Item 3: Temporary Fencing will not be measured and will be paid for as a lump sum. Payment at the unit price bid shall include all labor, equipment, and materials necessary to provide and maintain temporary safety fencing as shown on the drawings for the duration of the project.

Bid Item 4: Temporary Erosion and Sediment Control Measures (TESC) will not be measured and will be paid for as a lump sum. Payment at the unit price shall include all labor, equipment, and materials necessary to install and maintain TESC measures for the duration of the project.

Bid Item 5: Demolition and Disposal will not be measured and paid for as a lump sum. Payment at the unit price shall include all labor and equipment necessary to demolish and dispose of material per the drawings and technical specifications.

Bid Item 6A: Metal-Impacted Soil Excavation and Stockpiling will be measured on a cubic yard. Payment at the unit price bid shall include all labor and equipment necessary to excavate metal-impacted soil as shown on the drawings and as directed by the Engineer and load into bins for transport to the landfill.

Bid Item 6B: Overburden Soil Excavation and Stockpiling will be measured on a cubic yard. Payment at the unit price bid shall include all labor and equipment necessary to excavate and stockpile overburden soil as shown on the drawings and directed by the Engineer. Stockpile soil sampling and chemical analyses will be performed by the Engineer; the Contractor will be notified on designation of stockpiled overburden material within 3 days.

Bid Item 6C: Temporary Shoring, PCS Excavation and Direct Load to Trucks will be measured and paid for by the cubic yard. Payment at the unit price bid shall include all labor, equipment, and materials necessary to provide temporary shoring measures and excavate PCS as shown on the drawings and as directed by the Engineer.

Bid Item 7: Dewatering and Temporary Storage will not be measured and paid for as a lump sum. Payment at the unit price bid shall include all labor, equipment, and materials necessary to dewater and temporarily store in aboveground storage tanks.

Bid Item 8A: Transport Petroleum-Impacted Soil to Landfill (Category 2) will be measured and paid for by the ton. Payment at the unit price bid shall include all labor and equipment to transport petroleum-impacted soil as a non-hazardous waste to the Heidelberg Materials facility in Everett, Washington. Waste characterization and profiling has been completed and waste transport forms will be provided to the Contractor by the Owner. This bid item does not include the landfill disposal fee as it will be direct billed to the Owner. Payment will be based on weight tickets provided to the Owner.

Bid Item 8B: Transport PCS to Landfill (Category 3) will be measured and paid for by the ton. Payment at the unit price bid shall include all labor and equipment to transport petroleum-impacted soil as a non-hazardous waste to the Heidelberg Materials facility in Everett, Washington. Waste characterization and profiling has been completed and waste transport forms will be provided to the Contractor by the Owner. This bid item does not include the landfill disposal fee as it will be direct billed to the Owner. Payment will be based on weight tickets provided to the Owner.

Bid Item 8C: Transport Metal-Impacted Soil to Landfill (Category 4) will be measured and paid for by the ton. Payment at the unit price bid shall include all labor and equipment to transport metal-impacted soil as a hazardous waste to the Heidelberg Materials facility in Everett, Washington. Waste characterization and profiling has been completed and waste manifest forms will be provided to the Contractor by the Engineer. This bid item does not include the landfill disposal fee as it will be direct billed to the Owner. Payment will be based on weight tickets provided to the Owner.

Bid Item 8D: Transport and Dispose Petroleum-Contaminated Groundwater will be measured and paid for by the gallon. Payment at the unit price shall include all labor and equipment to transport and dispose of up to 40,000 gallons of petroleum-contaminated groundwater generated from dewatering activities at a licensed facility accepting such waste. Waste characterization and profiling shall be completed by the Contractor. Payment will be based on weight tickets provided to the Owner.

Bid Item 9A: Place and Compact Overburden Soil will be measured and paid for by the cubic yard. Payment at the unit price bid shall include all work, equipment, and materials necessary to place and compact overburden soil.

Bid Item 9B: Import, Place, and Compact Gravel Borrow will be measured and paid for by the ton. Payment at the unit price bid shall include all work, equipment, and materials necessary to import, place, and compact gravel borrow per the drawings and specifications.

Bid Item 9C: Import and Place Topsoil will be measured and paid for by the cubic yard. Payment at the unit price bid shall include all labor, equipment and materials necessary import and place topsoil per the drawings and specifications. Landscaping, including hydroseeding and plantings will be performed by Owner under separate contract.

Bid Item 10A: Granular Activated Carbon (GAC) will be measured and paid for by the cubic yard. Payment at the unit price bid shall include all to provide GAC in 1 cubic yard super sacs.

Bid Item 10B: Import Washed Sand will be measured and paid for by the cubic yard. Payment at the unit price bid shall include all work to provide import washed sand.

Bid Item 10C: Mechanical Mixing of GAC and Sand will be measured and paid for by the cubic yard. Payment at the unit price bid shall include all labor and equipment to mechanically mix GAC with import wash sand (30% sand to 70% sand volume ratio).

Bid Item 10D: Construct GAC Wall will be measured and paid for by the lineal feet. Payment at the unit price bid shall include all labor, equipment, and materials to construct the GAC wall per the drawings and technical specifications and as directed by the Engineer.

Bid Item 11: Install Demolished Stormwater Conveyance System will not be measured and will be paid for as a lump sum. Payment at the unit price bid shall include all labor, equipment and materials necessary to install the demolished stormwater conveyance system within the remedial excavation area to match previous conditions.

Bid Item 12: Site Cleanup and Demobilization will not be measured and will be paid for as a lump sum. Payment at the unit price bid shall include all work necessary to perform site cleanup and demobilize equipment and materials from the site.

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. This section describes the Contractor's temporary facilities at the site associated with parking, temporary utilities, sanitary facilities, internet access, controls (barriers, traffic, enclosures, and fencing), security requirements, and waste removal facilities and services.
- B. Contractor shall provide temporary connection to existing facilities or provide temporary facilities as required herein or as necessary to carry out the work.

1.02 RELATED SECTIONS

- A. **Section 01 57 13 – Temporary Erosion and Sediment Control**
- B. **Section 01 99 00 – Environmental Protection**
- C. **Section 31 00 00 – Earthwork**

1.03 SUBMITTALS

- A. Traffic Control Plan. Contractor shall submit a traffic control plan.
- B. Contractor shall provide a Temporary Facilities and Controls Plan as an appendix to the Environmental Protection Plan that details management of environmental conditions present during the performance of the Work and provides method for how the work will be performed. This plan shall be submitted as part of the Environmental Protection Plan. The Temporary Facilities and Controls Plan shall be submitted to Engineer for approval prior to beginning the Work. The Plan shall include, at a minimum:
 - 1. A general description of the construction work to be performed discussing anticipated chemical and physical hazards associated with the Work.
 - 2. Description of required temporary facilities.
 - 3. Methods for site maintenance.
 - 4. Maps showing the location of temporary facilities, including fencing and barriers, and staging areas on site.

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

- C. Contractor shall develop a Site Security Plan as part of the Environmental Protection Plan to detail the protection of the Work and the protection of the public from unauthorized access to the Work. The Site Security Plan shall include, at a minimum:
 - 1. Maps showing the location of temporary and permanent fences, authorized access points, and other security measures.
 - 2. A general description of the site security measures to be employed at the site.

1.04 HEALTH AND SAFETY PLAN

- A. The Contractor shall prepare a site-specific health and safety plan for the activities described herein that meets the minimum requirements for such a plan identified in federal regulations (Parts 1910.120 and 1926 of Title 29 of the Code of Federal Regulations) and state regulations (Chapter 296 of the Washington Administrative Code).

1.05 TRAFFIC CONTROL

- A. The Contractor must maintain traffic flow along adjacent streets in both directions and all times and may not block access to residences or other facilities. Contractor shall conduct operations to minimize obstruction and inconvenience to public traffic.
- B. Contractor shall develop a Traffic Control Plan describing methods for maintaining traffic flow along adjacent streets. The Traffic Control Plan shall include, at a minimum:
 - 1. Scaled drawings indicating the Contractor's proposed routes for construction traffic entrance and exit, location of signage, and location of fencing and barriers.
 - 2. Proposed methods for maintaining traffic flow and protection of vehicular and pedestrian traffic in the vicinity of work areas.
- C. The Contractor shall be responsible for maintaining a safe flow of car and pedestrian traffic through and around the work areas at all times. The Contractor shall provide temporary flagging, signs, and/or barricades around construction areas at all times. The Contractor shall obtain all necessary traffic control permits from Pierce County/City of Buckley.

1.06 BARRIERS, FENCES, AND ENCLOSURES

- A. The Contractor shall be responsible for cordoning off the work areas with temporary construction fencing to prevent unauthorized entry to construction areas and other areas that could be hazardous to workers or the public.
 - B. Contractor shall provide barriers to protect existing facilities and adjacent properties from damage from construction operations.
 - C. All open excavations and trenches shall be roped off with warning tape.
 - D. Contractor shall be responsible for traffic control and coordination as described herein
-

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

during the entire period of activities under this contract.

1.07 WASTE REMOVAL

- A. Contractor shall maintain site areas free of waste materials, debris, and rubbish and shall maintain the Site in a clean and orderly condition.
- B. Contractor shall provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- C. Contractor shall provide containers with lids. Remove trash from site periodically.
- D. If materials to be recycled or re-used on the project must be stored on-site, contractor shall provide suitable non-combustible containers.
- E. Contractor shall prepare, permit, operate, and restore in accordance with local requirements.

1.08 PARKING AREAS

- A. Coordinate with Engineer to determine acceptable parking locations for workers.

1.09 PROPERTY/PEDESTRIAN CONTROLS

- A. Properly warn the public of construction equipment and activities, open trenches, and/or other unsafe conditions by providing all necessary warning equipment. Equipment includes warning signs, barricades, fencing, flashing lights and traffic control personnel (flaggers).
 - 1. Flaggers shall have current Washington State Traffic Control (Flagging) Certification.
 - 2. Conduct operations with the least possible obstruction and inconvenience to the property owners and the public.
 - 3. Do not obstruct property owner access to their garages, homes, or pets. Provide temporary access ways, gates, and plywood coverings as needed. On a reasonably frequent basis, escort property owners to access areas of their property that are outside the cleanup area but that are not accessible due to cleanup.

1.10 PROTECTION OF WORK

- A. Protect Work, materials, and equipment against damage, weather conditions, or other hazards. Equipment, Work, or materials found damaged or in other than new condition will be rejected by Engineer.
 - B. Contractor shall provide security and facilities to protect the work and temporary and existing facilities from unauthorized entry, vandalism, and theft.
 - C. Fire Extinguishers: Contractor shall comply with the applicable recommendations of NFPA Standard 10 "Standard for Portable Fire Extinguishers." Locate fire
-

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

extinguishers where they are most convenient and effective for their intended purpose. Provide at least one extinguisher.

1.11 USE OF PROJECT SITE SPACE

- A. Contractor vehicle and equipment parking only as designated by Engineer.

1.12 SANITARY FACILITIES

- A. At the Contractor's discretion, Contractor may provide temporary toilets, wash facilities, and drinking water, for use by the construction personnel, subcontractor, and the Engineer. Contractor shall coordinate the location of these facilities with the Engineer. Contractor shall comply with requirements of Authorities Having Jurisdiction for type, number, location, operation, and maintenance and disinfection of fixtures and facilities.

1.13 WATER

- A. Contractor shall obtain access for water for all uses including but not limited to dust control, drinking, cleaning, and other needs.
 - 1. If Contractor decides to use water from fire hydrants, they must obtain approval from appropriate water district. Owner will not pay for water used from fire hydrants.
 - 2. Contractor may provide water from off-site potable sources.
 - 3. Non-potable water shall not be used.
 - 4. Provide backflow prevention as required.
- B. Contractor shall provide all hoses and other equipment needed to convey water.
- C. The Contractor shall not obtain water from private residential property owners.

1.14 ELECTRICAL POWER

- A. General: Contractor shall comply with applicable National Electrical Manufacturer's Association (NEMA), National Electrical Code (NECA) and Underwriter's Laboratory (UL) standards and governing regulations for materials and layout of temporary electric service.
 - B. Contractor shall provide temporary power as required from temporary independent power drop coordinated with utility, or by using generators.
 - C. Contractor shall pay for all usage charges.
 - D. Contractor shall not use private power outlets at work sites.
-

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

1.15 PROTECTION OF PROPERTY AND EXISTING FACILITIES

- A. Provide protections necessary to prevent damage to property and facilities. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct in execution of Work, or in consequence of non-execution of Contractor, restore, or have restored at Contractor's expense, such property to a condition similar and equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring same, or make good damage or injury in some other manner acceptable to Engineer.
- B. Rubber-tired or rubber-tracked equipment is permitted to operate on paved driveways, walkways and sidewalks with pavement protection measures in place and following proper equipment cleaning to minimize spread of contaminants off site (see **Section 31 00 00 - Earthwork**). If equipment must operate on paved driveways and sidewalks, appropriate protection methods should be used to prevent damage to the structures.
- C. Instruct Contractor staff, utility locate firms and surveyors that existing facilities to remain shall be protected and not defaced. Markings as needed shall be temporary and shall be removed at the completion of the project.

1.16 DAMAGE TO FACILITIES, ROADS, VEGETATION OR PROPERTY

- A. The Contractor shall complete photo documentation of site conditions, including private and public property/rights-of-ways prior to the start of work by the Contractor.
 - B. During the course of construction, the Contractor shall repair any damage to any part of the project property damaged by Contractor's actions, operations or neglect. Contractor shall make repairs to the original condition, as acceptable to the Engineer, at no cost to Owner.
 - C. Repair to "original condition" includes conforming to codes and regulatory requirements. Repairs shall conform to the most stringent of the following:
 - 1. Meet applicable codes, including obtaining appropriate permits and inspections.
 - 2. Meet relevant industry standards for the type of pipe, conduit, wire, etc., as published by a National Industry Association.
 - 3. Meet applicable and relevant ASTM standards.
 - 4. Replace the damaged item with an equivalent item. For pipe, conduit, wire, or similar item, replace the damaged item with the same size item of the same material of the same specification (e.g., schedule 40) based on inspection of the damaged item and concurrence of the Engineer. Replace a standard length of pipe or conduit or other item, and use joints or connectors specifically manufactured for the repair the type of item/material damaged. Provide
-

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

waterproof jacketing or other seals, coatings, or other ancillary items. Repair tracer wires and or conductive warning tapes.

5. Complete all testing typically implemented for installation of the damaged item (e.g., pressure testing of water lines) and comply with regulatory procedures (e.g., disinfection of water lines).
 6. Pipe wraps, clamps, and similar patches shall not be used.
- D. Repair, restore, or replace any curbs, parking lot pavement, utilities, vegetation or property damaged by the Contractor to the original condition at the time construction began. Repair or replace trees and vegetation indicated to remain (or not indicated for removal) which has been damaged by construction operations, in a manner acceptable to the Engineer.
- E. All repairs made within rights-of-ways, including repair of sidewalks and curbs, shall meet the requirements of the City of Buckley Development Guidelines and Public Works Standards (Rev. 5).

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 INSTALLATION, GENERAL

- A. Contractor shall use qualified personnel for installation of temporary services and facilities. Locate temporary services and facilities where they will serve the entire project adequately and result in minimum interference with the performance of the Work.
- B. Contractor shall require that tradesmen accomplishing this work be licensed as required by the local authority for the work performed.
- C. Contractor shall coordinate acceptable locations with the Owner, determined before the Pre-Construction Meeting.

3.02 DEMOBILIZATION AND REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Contractor shall remove temporary utilities, equipment, barriers, fencing, facilities, controls, and materials prior to final application of payment inspection.
- B. Contractor shall clean and repair damage caused by the work or use of temporary facilities. Contractor shall restore existing facilities used during construction to original condition.

END OF SECTION 01 50 00

SECTION 01 57 13
TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. The work includes the provision of temporary and permanent erosion and sediment control (TESC) measures to prevent the pollution of air, water, and land within the project limits and in areas outside the project limits where work is accomplished in conjunction with the project.
- B. General: The work involves excavation of soils containing petroleum hydrocarbons and metals. The Contractor shall diligently implement TESC procedures at all times during completion of the work to prevent cross-contamination between clean and contaminated areas, contaminated sediment tracking, dispersal of contaminated dust, and runoff of contaminated stormwater from excavation areas. The Contractor is cautioned that release of contamination to uncontaminated areas may cause Owner and/or the Contractor to be liable for the spread of contamination, including associated future actions and costs for investigation and remediation of the released contamination.
- C. NPDES Construction Stormwater General Permit coverage forms, activities, monitoring, reporting, and Notice of Termination.
 - 1. Coordinate with Engineer per requirements of NPDES Construction Stormwater General Permit.

1.02 RELATED SECTIONS

- A. **Section 01 99 00 – Environmental Protection**

1.03 REGULATORY REQUIREMENTS

- A. Stormwater Management Manual for Western Washington, Washington State Department of Ecology (2019).
 - B. City of Seattle Stormwater Manual (2017).
 - C. NPDES Construction Stormwater General Permit.
-

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL

1.04 QUALIFICATIONS

- A. Certified Erosion Sediment and Control Lead (CESCL). The Contractor shall designate a Temporary Erosion and Sediment Control (TESC) Supervisor to be responsible for inspecting the TESC measures and for ensuring that the Contractor's operations are preventing sediment runoff. The minimum qualifications for the TESC-Supervisor include a current certification as a Certified Erosion and Sediment Control Lead (CESCL) by a course approved by Ecology. The Contractor shall provide Engineer with a method for contacting the TESC-Supervisor 24-hours per day, 7 days a week.

1.05 HEALTH AND SAFETY PLAN

- A. The Contractor shall prepare a site-specific health and safety plan for the activities described herein that meets the minimum requirements for such a plan identified in federal regulations (Parts 1910.120 and 1926 of Title 29 of the Code of Federal Regulations) and state regulations (Chapter 296 of the Washington Administrative Code).

1.06 CONSTRUCTION SEQUENCE SCHEDULE

- A. The Contractor shall develop a SWPPP in accordance with the NPDES Construction Stormwater General Permit. Contractor shall also prepare TESC Plans. The SWPPP shall include the Contractor's construction sequence schedule. The TESC Plans and SWPPP shall be maintained to be at least as stringent as a requirement set forth in the construction drawings and applicable regulations. The Contractor shall submit to Engineer revisions to the SWPPP on a weekly basis.
 - B. The work schedule shall coordinate the time of land disturbing activities with the provision of erosion control measures to reduce on site erosion and off site sedimentation. Installation of temporary erosion control features shall be coordinated with the construction of permanent erosion control features to assure effective and continuous control of erosion and pollution.
 - C. TESC Plan: The Contractor shall prepare a TESC Plan and other documents that meet the requirements of the NPDES Construction Stormwater General Permit, and modify, adapt, and maintain these plans and documents as required based on site conditions. The project specific documents shall include a site specific TESC Plan that describes the proposed layout of temporary erosion and sediment controls and best management practices to be used. The plan shall include the manufacturer's catalog cut sheets or a sample of materials to be used. The plan should identify the types of work and Best Management Practices for each phase of the project.
 - D. NPDES Construction Stormwater General Permit: The Contractor shall develop and maintain a site-specific SWPPP that includes the following elements: identified all potential sources of stormwater pollution at the construction site; describes practices to reduce pollutants in stormwater discharges from the construction site; and identifies procedures the operator shall implement to comply with the terms of
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DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL

NPDES Construction Stormwater General Permit, including project specific requirements.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General: Meet specifications for TESC materials as outlined in the appropriate jurisdiction's manual including but not limited to the following TESC measures:
 - 1. Stabilized Construction Entrance (or alternate entrance);
 - 2. Straw Wattles;
 - 3. Plastic Sheeting:
 - a. 10 mil string reinforced multi-layer plastic sheeting for stockpile baseliner.
 - b. 10 mil plastic sheeting (truck loading liners and access way liners to accommodate equipment traffic).
 - c. All other applications: 6 mil unreinforced plastic sheeting.
 - 4. Silt Fence;
 - 5. Storm Drain Inlet Protection;
 - 6. Sandbags and anchors;
 - 7. Other applicable erosion and sediment control materials determined by BMPs and dynamics of the site.

PART 3 - EXECUTION

3.01 NPDES CONSTRUCTION STORMWATER GENERAL PERMIT

- A. Permit Requirements: The Contractor shall meet all the permit requirements including providing a currently certified CESCL, completing site inspections and filling out Site Inspection Checklists, preparing and submitting monthly Discharge Monitoring Reports (DMRs) (using Ecology's electronic reporting process), and updating Ecology provided SWPPP as necessary throughout the life of the site work requiring this permit coverage.
 - B. Notification to Ecology for Inspection: The Contractor shall notify the Ecology Water Quality Program by phone and email a minimum of 72 hours prior to first excavation and after installing TESC measures. Provide schedule and continue to update schedule as it changes. This notification informs Ecology that TESC measures are installed correctly and that they can be inspected by Ecology's Water Quality personnel.
 - C. When site is restored, remove TESC measures and complete final restoration of impacts from removal of TESC measures.
-

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL

3.02 PREPARATION

- A. TESC measures shall be installed as stringent as or more stringent than indicated in the Contractor's TESC plan and SWPPP and shall be substantially upgraded by the Contractor following any observed deficiencies; downgrading installed TESC measures shall only occur with concurrence of Ecology.

3.03 INSTALLATION

- A. Install BMPs per Contractor prepared and Ecology approved TESC Plan and SWPPP and BMP specifications.

3.04 TESC IMPLEMENTATION AND MAINTENANCE

- A. Implement stormwater TESC measures and BMPs per the site SWPPP.
 - B. Maintain installed TESC measures in place throughout the duration of construction and site stabilization.
 - C. Run-on/Run-off Control: The Contractor shall prevent stormwater from higher elevation areas from running into excavations. Provide and maintain water diversion structures. Prevent water from flowing into excavation areas. Collect and manage water from downspouts and roof drainage and divert this clean stormwater to drainages outside excavation areas.
 - D. Prevent stormwater contact with contaminated subgrade and soils.
 - 1. The Contractor shall cover excavated areas with plastic sheeting to prevent contact of stormwater with potentially contaminated soils. Sheeting shall be secured in place daily as the work progresses. Secure sheeting in place with sandbags and anchor trenches (filled with clean soil). Overlap sheeting from higher elevation areas over lower elevation areas.
 - 2. Sheeting shall be arranged such that runoff is contained within excavations.
 - 3. Discharged water shall meet project specific discharge limits (see Section 3.05 herein).
 - E. All water shall be managed on site to the maximum extent practicable.
 - F. Store water that cannot be maintained on site in portable tanks. Manage water on site to the maximum degree possible in accordance with the site SWPPP.
 - G. Prevent water from running into or ponding near basements and foundations. Manage run-on areas as well as excavation areas. Use plastic sheeting and sandbag berms and other measures as needed to prevent damage to structures by water.
 - H. Inspection: TESC Supervisor shall inspect erosion and sediment control daily and immediately before, during and after each rain event.
 - I. Logs: TESC Supervisor shall maintain a log of all inspections.
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DIVISION 01 – GENERAL REQUIREMENTS

SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL

- J. Sediment Control: The Contractor shall implement the following measures to eliminate sediment from leaving the site.
1. No track out or dispersal of sediment to areas outside cleanup limits is allowed. Protect all access and staging areas, and loading areas, with plastic sheeting. Clean plastic sheeting after loading each truck. Replace plastic sheeting daily or more frequently if damaged; holes are not allowed. Roll up plastic sheeting when not in use.
 2. Do not load contaminated soils when raining; alternatively, prevent runoff of water from plastic sheeting into rights of way or adjacent areas. Fully contain and manage water on plastic sheeting.
 3. Complete the work so as to limit placement of plastic sheeting over existing lawn in access and staging and loading areas to 5 days maximum. Restore any areas and lawn damaged by plastic sheeting or other protective measures.
 4. Clean equipment that contacted soils prior to leaving site. Equipment that contacts contaminated soils shall be thoroughly cleaned and decontaminated, first by dry brushing and vacuuming, or, as a contingency, by pressure washing (if approved by Engineer). Contain and dispose of wash water off site or, if it can be accomplished, infiltrate wash water into excavation area soils. Do not discharge sediment or wash water to areas adjacent to the remediation areas, or to restored areas, or to storm drains.
 5. Sweep all sediment tracked or deposited on public roadways within 30 minutes of occurrence. Cleaning is not a substitute for prevention of trackout.
 6. Sweep using high efficiency vacuum sweeper. Visible dust from sweeper exhaust is not allowed. Washing down pavements and streets is prohibited unless all wash water is fully contained and treated to meet project specific discharge limit.
- K. Stockpiles: Any stockpiles used shall be underlain, and covered, with plastic sheeting of a size substantially larger than the pile, secured as required prior to leaving job site on a daily basis. Secure covers against movement by wind.

3.06 TERMINATION, RESTORATION AND CLEAN UP

- A. After the site is fully stabilized, and prior to submitting Notice of Termination to Ecology Water Quality and before Final Completion, remove and dispose all temporary erosion and sediment control materials and fully restore and stabilize the site.
- B. Prepare Notice of Termination form and submit to Ecology Water Quality in accordance with NPDES Construction Stormwater General Permit procedures. Submit copy of form to Ecology project manager.

END OF SECTION 01 57 13

SECTION 01 99 00
ENVIRONMENTAL PROTECTION

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. This section includes requirements for keeping work areas in a neat and clean condition and protection of the environment both on and off site, throughout and upon completion of the project.

1.02 RELATED SECTIONS

- A. **Section 01 33 00 – Submittal Procedures**
- B. **Section 01 50 00 – Temporary Facilities and Controls**
- C. **Section 01 57 13 – Temporary Erosion and Sediment Controls**

1.03 GENERAL

- A. Applicable Regulations: Comply with applicable federal, state, and local laws and regulations concerning environmental pollution control and abatement, and specific requirements elsewhere in this project manual to prevent and provide for control of environmental pollution.
- B. Subcontractors: Contractor is responsible for compliance with provisions of this Section by subcontractors.

1.04 SUBMITTALS

- A. Develop and submit an Environmental Protection Plan in detail and submit in accordance with submittal procedures. The Environmental Protection Plan shall include, but not be limited to, the following items:
 - 1. Site maintenance and security procedures.
 - 2. Procedures for air pollution control, noise and dust monitoring and abatement, and equipment decontamination.
 - 3. Description of protections for natural resources.
 - 4. Copies of required permits.

DIVISION 01 – GENERAL REQUIREMENTS
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5. Copies of any agreements with public or private landowners regarding equipment, materials storage borrow sites, fill sites, or disposal sites. Any such agreement made by the contractor shall be invalid if its execution causes violation of local or regional grading or land use regulations.
 6. Site Security Plan in accordance with **Section 01 57 13 – Temporary Facilities and Controls**, paragraph 1.03.C.
 7. Temporary Facilities and Control Work Plan in accordance with **Section 01 57 13 – Temporary Facilities and Controls**, paragraph 1.03.B.
- B. Spill Plan. The Contractor shall submit a Spill Plan prior to the start of any Work to Engineer for review and comment. The Spill Plan shall meet the requirements specified herein.

1.05 HEALTH AND SAFETY PLAN

- A. The Contractor shall prepare a site-specific health and safety plan for the activities described herein that meets the minimum requirements for such a plan identified in federal regulations (Parts 1910.120 and 1926 of Title 29 of the Code of Federal Regulations) and state regulations (Chapter 296 of the Washington Administrative Code).

1.06 MITIGATION OF CONSTRUCTION IMPACTS

- A. Requirements: All operations shall comply with all federal, state, and local regulations pertaining to water, air, solid waste, and noise pollution.
- B. Definitions of Contaminants:
1. Sediment: Soil and other debris that have been eroded and transported by runoff water.
 2. Solid Waste: Rubbish, debris, garbage, and other discarded solid materials resulting from construction activities, including a variety of combustible and non-combustible wastes, such as ashes, waste materials that result from construction or maintenance and repair work, leaves, and tree trimmings.
 3. Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, disinfectants, organic chemicals, and inorganic wastes. Some of the above may be classified as "hazardous."
 4. Sanitary Wastes:
 - a. Sewage: That which is considered as domestic sanitary sewage.
 - b. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.
 5. Hazardous Materials: As defined by applicable laws and regulations. Undisclosed hazardous material contamination, if encountered will constitute a changed site condition. The Owner may retain a separate contractor to dispose

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of undisclosed hazardous material encountered.

C. Protection of Natural Resources:

1. General: It is intended that the natural resources within the project boundaries and outside the limits of permanent work performed under this Contract be preserved in their existing condition or be restored to an equivalent or improved condition upon completion of the work. Confine construction activities to areas

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 99 00 – ENVIRONMENTAL PROTECTION

defined by the public roads, easements, and work area limits shown on the Drawings. Return construction areas to their pre-construction elevations except where surface elevations are otherwise noted to be changed. Maintain natural drainage patterns. Conduct construction activities to avoid ponding stagnant water conducive to mosquito breeding.

2. Land Resources: Do not remove, cut, deface, injure, or destroy trees or shrubs outside the work area limits. Do not remove, deface, injure, or destroy trees within the work area without permission from the Engineer.
 - a. Protection: Protect trees that are located near the limits of the Contractor's work areas which may possibly be defaced, bruised, or injured, or otherwise damaged by the Contractor's operations. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees or shrubs for anchorages unless specifically authorized. Where such special emergency use is permitted, the Contractor shall be responsible for any damage resulting from such use.
 - b. Trimming: Trim and seal tree limbs overhanging the line of the work and in danger of being damaged by the Contractor's operations in accordance with recognized standards for such work. Remove other tree limbs under the direction of the Engineer, so that the tree will present a balanced appearance.
 - c. Treatment of Roots: Do not cut roots unnecessarily during excavating or trenching operations. Expose major roots encountered in the course of excavation and do not sever. Wrap them in burlap as a protective measure while exposed. Neatly trim all other roots larger than 1 inch in diameter that are severed in the course of excavation at the edge of the dredged area.
 - d. Temporary Construction: Obliterate all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction as directed by the Engineer. Level all temporary roads, parking areas and any other areas that have become compacted or shaped. Any unpaved areas where vehicles are operated shall receive a suitable surface treatment or shall be periodically wetted down to prevent construction operations from producing dust damage and nuisance to persons and property. Keep haul roads clear at all times of any object that creates an unsafe condition. Promptly remove any contaminants or construction material dropped from construction vehicles. Do not drop mud and debris from construction equipment on public streets. Sweep clean turning areas and pavement entrances as necessary.
3. Water Resources: Investigate and comply with all applicable federal, state, and local regulations concerning the discharge (directly or indirectly) of pollutants to the underground and natural waters. Perform all work under this Contract in such a manner that any adverse environmental impacts are reduced to a level that is acceptable to the Engineer and regulatory agencies.

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- a. Oily Substances: At all times, special measures shall be taken to prevent oily or other hazardous substances from entering the ground or drainage areas. Any soil or water that is contaminated with oily substances due to the Contractor's operations shall be disposed of in accordance with applicable regulations.
 - b. If the measures being taken by the Contractor are inadequate to control water pollution effectively, the Engineer may direct the Contractor to revise his operations and his water pollution control program at no additional cost. Such directions will be in writing and will specify the items of work for which the Contractor's water pollution control measures are inadequate. No further work shall be performed on said items until the water pollution control measures are adequate; and if also required, a revised water pollution control plan has been accepted.
 - c. Nothing in the terms of the Contract or in the provisions in this Section shall relieve the Contractor of the responsibility for compliance with other applicable statutes relating to prevention or abatement of water pollution.
4. Fish and Wildlife Resources: Perform all work and take such steps required to prevent any interference or disturbance to fish and wildlife.
5. Cultural Resources: The project does not pass through any known archaeological sites. However, it is conceivable that unrecorded archaeological sites could be discovered during the construction. In the event that artifacts, human remains, or other cultural resources are discovered during excavations at locations of the Work, the Contractor shall protect the discovered items, notify the Engineer, and comply with applicable law as described in **Section 01 10 00 – Summary**.
6. Revegetation of Disturbed Areas: If required by Engineer due to impacts to vegetation caused by the Work, revegetation of disturbed areas shall be performed in accordance with the following:
 - a. Tree, Shrubs, and Grasses Replacement: Replace trees, shrubs, and grasses damaged by the construction after completion of work in the project area. Plant stock of the same species and variety, on a one-for-one basis. If planting is not feasible in early fall, the Engineer will reschedule the tree planting operations.
 - b. Planting of Trees and Shrubs:
 - 1) Selection: Deliver trees and shrubs to the site in suitable containers, with tags identifying the species and variety. The trees and shrubs should be selected for shape and symmetrical branching habit, which at maturity will produce strong, full foliated specimens. The specimens shall have grown in the designated size of container for a sufficient length of time for the root system to hold the earth when taken from the container, but not long enough to become root bound or cause a "hardening off" of the root system. Specimens which are loose in the root ball will be rejected.

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Remove all rejected specimens from the site and replace with specimens as specified. Specimens shall be sound, healthy, vigorous, and free from insects, pests, plant diseases, and injuries.

- 2) Protection: Specimens which cannot be planted within one day of delivery shall be properly protected and kept moist to prevent drying.
 - 3) Planting Procedure: Planting hole shall be twice the width of the root ball and at least one and one-half times the height of the root ball. Fill the planting hole with water and let drain away. Mix excavated soil with a planting mix appropriate for the type and condition of the soil and the species of tree or shrub and place the mixed soil in the planting hole to the depth necessary to bring the root ball slightly higher than the surrounding soil. Remove the specimen from the container carefully so that the root ball remains unbroken. Place in planting hole and fill with mixed soil to one half the height of the root ball, tamp thoroughly, then water. Set specimens at such a level that after settlement the top of the root ball is level with the surrounding finish grade. Add mixed soil to form watering basin, fill basin twice with water immediately after planting. Water as frequently as is required to keep the specimens adequately moist until well established. The Contractor will be responsible for maintaining specimens for a minimum of one (1) year after final acceptance or planting, whichever is later.
 - 4) Staking: Use 2-inch by 2-inch redwood or cedar stakes of length adequate to support each tree. Drive a stake on each side of each specimen outside of the root ball, to a depth of 3 feet. Support tree to stakes using twisted galvanized wire covered with reinforced rubber hose where in contact with the specimen.
 - 5) Mulching: Fill all watering basins of trees and shrubs with a layer of mulch not less than 2 inches thick.
7. Noise Control: Noise limitations shall meet the requirements specified in the City of Buckley Municipal Code.
 8. Dust Control, Air Pollution, and Odor Control: Employ measures to prevent the creation of dust, air pollution, and odors.
 - a. Store all volatile liquids, including fuels or solvents in closed containers.
 - b. No open burning of debris, lumber, or other scrap will be permitted.
 - c. Properly maintain equipment to reduce gaseous pollutant emissions.
 - d. Stop Work: The Engineer shall be the final judge of whether the Contractor is providing adequate dust control. If dust leaves the construction site or excavation area, the Contractor shall cease work immediately, with no compensation to the Contractor for cost or delay. Work shall not be resumed until the Contractor provides additional oversight, labor, equipment and dust

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 99 00 – ENVIRONMENTAL PROTECTION

control measures such that the work can be completed with adequate dust control.

9. The Contractor shall thoroughly clean all areas and surfaces contaminated by blown dust and fall-out, including sidewalks, siding, window ledges, decks/patios (and items therein), playground equipment and surfaces, buildings, and other items. Cleaning shall consist of vacuuming and brushing, followed by pressure washing.
10. Construction Storage Areas: Storage of construction equipment and materials shall be limited to the designated storage area shown on the Drawings.
 - a. Store and service equipment at the designated storage area where oil wastes shall be collected in containers. Oil wastes shall not be allowed to flow onto the ground or into surface waters. Containers shall be required at the construction site for the disposal of materials such as paint, paint thinner, solvents, motor oil, fuels, resins, and other environmentally deleterious substances. No dumping of surplus concrete or grout on the site will be permitted.
11. Sanitation: During the construction period, Contractor may provide adequate and conveniently located sanitation facilities, including temporary toilets, wash facilities, and drinking water, for use of construction crews, the Engineer, and visitors to the site. Contractor shall coordinate the location of these facilities with the Engineer. Contractor shall comply with requirements of Authorities Having Jurisdiction for type, number, location, operation, and maintenance and disinfection of fixtures and facilities. Facilities shall be regularly maintained.
12. Fire Prevention: Take steps to prevent fires including, but not limited to the following:
 - a. Provide spark arrestors on all internal combustion engines.
 - b. Store and handle flammable liquids in accordance with the Flammable and Combustible Liquids Code, NFPA 30.
 - c. Provide fire extinguishers at hazardous locations or operations, such as welding.
13. Erosion and Sediment Transport Control:
 - a. Discharge construction runoff into small drainages at frequent intervals to avoid buildup of large potentially erosive flows.
 - b. Prevent runoff from flowing over unprotected slopes.
 - c. Keep disturbed areas to the minimum necessary for construction.
 - d. Keep runoff away from disturbed areas during construction.
 - e. Direct flows over vegetated areas prior to discharge into public storm drainage systems.

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SECTION 01 99 00 – ENVIRONMENTAL PROTECTION

- f. Trap sediment before it leaves the site, using such techniques as check dams, sediment ponds, or siltation fences.
- g. Stabilize disturbed areas as quickly as possible.
- h. Implement BMPs in accordance with the TESC Plan developed by the Contractor in accordance with **Section 01 57 13 – Temporary Erosion and Sediment Control** and the site SWPPP.

1.07 SPILL PLAN

- A. The Contractor shall prepare a project specific Spill Plan (SP) to be used for the duration of the project. The Spill Plan shall include the items specified herein.
- B. The Contractor shall maintain a copy of the SP at the Project Site and must update the document throughout project construction so that the written plan reflects actual Project Site conditions and practices. All Contractor employees shall be trained in spill prevention and containment and must know where the Spill Plan and spill response kits are located and have immediate access to them.
- C. The Contractor must supply and maintain spill response kits of appropriate size within close proximity to hazardous materials and equipment, including oil, fuel, and other petroleum products used in the Contractor's operations.
- D. All pollutants other than sediment that occur on site during construction shall be handled and disposed of in a manner that does not contaminate stormwater or surface water. Fueling of Contractor's equipment shall be performed away from storm drain outlets. Extreme care shall be taken to prevent fuel spills. A Contractor's representative shall be present at all times when equipment is being fueled. Absorbent oil pads and drip pans shall be placed beneath the vehicle being fueled and under parked vehicles (overnight and otherwise).
- E. The Contractor is advised that discharge of oil from equipment or facilities into state waters or onto adjacent land is not permitted under state water quality regulations.
- F. The Contractor shall, at a minimum, take the following measures regarding oil spill prevention, containment, and cleanup.
 - 1. Fuel hoses, lubrication equipment, hydraulically operated equipment, oil drums, and other equipment and facilities shall be inspected regularly for drips, leaks, or signs of damage, and shall be maintained and stored properly to prevent spills. Proper security shall be maintained to discourage vandalism.
 - 2. All land-based oil and product storage tanks shall be diked, contained, and/or located to prevent spills from escaping into the water. Diking and containment

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SECTION 01 99 00 – ENVIRONMENTAL PROTECTION

area surfaces shall be lined with impervious material to prevent oil from seeping through the ground and dikes.

3. All visible floating oils shall be immediately contained with booms, dikes, or other appropriate means and removed from the water prior to discharge into state waters. All visible oils on land shall be immediately contained using dikes, straw bales, or other appropriate means and removed using sand, ground clay, sawdust, or other absorbent material, which shall be properly disposed of by the Contractor. Waste materials shall be temporarily stored in drums or other leak-proof containers after cleanup and during transport for disposal. Waste materials shall be disposed of off-site in accordance with applicable local, state, and federal regulations.
- G. In the event of any oil or product discharges into public waters, or onto land with a potential for entry into public waters, the Contractor shall immediately notify the parties as indicated in Article 3.06.
- H. The Contractor shall maintain the following materials (at a minimum) on Site at all times:
1. Oil-absorbent pads or bulk material, adequate for coverage of 200 square feet of surface area
 2. Oil dry all, gloves, and plastic bags
 3. 5-gallon buckets
 4. Shovels
- I. The Spill Plan shall include:
1. Responsible Personnel: The name, title, and contact information for the person(s) responsible for implementing and updating the plan and all spill responders.
 2. Spill Reporting: The names and telephone numbers of the federal, state, and local agencies the Contractor must notify in the event of a spill. Contractor must also notify Ecology and the Engineer (see details below).
 3. Project Site Information: Including project scope of work, site location and boundaries, drainage pathways from the site, and nearby waterways and sensitive areas and their distances from the site.
 4. Potential Spill Sources: A description of the following for all potentially hazardous materials brought or generated on-site, including materials used for equipment operation, refueling, maintenance, or cleaning:
 - a. Name of material and its intended use;
 - b. Estimated maximum quantity on-site at any one time;
 - c. Locations where the material will be staged, used, and stored;

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- d. Cleaning location and procedure for equipment that comes into contact with the material; and
 - e. Disposal procedures.
- 5. Spill Prevention and Response Training: Describe how and when all personnel (including refueling contractors and Subcontractors) will be trained in spill prevention, containment, and response per the Spill Plan. Describe how and when all spill responders will be trained per WAC 296-824
- 6. Spill Response: Outline the response procedures the Contractor will follow in the event of a spill. Include a description of the actions the Contractor will take and the specific, on-site, spill response equipment that will be used to assess the spill, secure the area, contain and eliminate the spill source, and clean up and dispose of spilled and Contaminated Material.
 - a. If the Contractor will use a Subcontractor for spill response, provide contact information for the Subcontractor, identify when the Subcontractor will be used, and describe actions the Contractor must take while waiting for the Subcontractor to respond.
- 7. Project Site Map: Provide a map showing the following items:
 - a. Site location and boundaries;
 - b. Site access roads;
 - c. Drainage pathways from the site;
 - d. Nearby waterways and sensitive areas;
 - e. Hazardous materials, equipment, and decontamination areas;
 - f. Spill prevention and response equipment locations.
- 8. Spill Report Forms: Provide a copy of the spill report forms that the Contractor will use to record the release and cleanup.
- 9. SDS Sheets: Include copies of all SDS sheets for chemicals on site including fuels, cleaners, and other chemical materials.
- 10. The Spill Plan shall comply with all applicable codes and ordinances for spill prevention and response.
- J. Emergency Spill Response Notification: Notify Owner, Engineer, and Ecology of any spill of fuel or hazardous substance, regardless of quantity.
- K. Under state law, Ecology must be notified when any amount of regulated waste or hazardous material that poses an imminent threat to life, health, or the environment is released to the air, land, or water, or whenever oil is spilled on land or to waters of the state. The spiller is always responsible for reporting a spill. Failure to report a spill in a timely manner may result in enforcement actions. If you are not responsible for a spill, making the initial notification does not make you liable.

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SECTION 01 99 00 – ENVIRONMENTAL PROTECTION

- L. If oil or hazardous materials are spilled to state waters, the spiller must notify Ecology, state, and federal spill response agencies. The contact information for these entities are:
1. Ecology Representative – Dean Malte (Site Manager) – 360-999-9584
 2. SoundEarth Strategies, Inc. (Engineer) – Mindy Graddon – 206-306-1900
 3. State – Washington Emergency Management Division (EMD) – 1-800-258-5990 or 1-800-OILS-911; AND
 4. Federal – National Response Center (NRC) – 1-800-424-8802;
 5. The appropriate Ecology Regional Office for your county (noted below). An Ecology spill responder will normally call the reporting party back to gather more information. The agency will then determine its response action. Also notify the Ecology Project Manager and Engineer assigned to the project.
 - a. Southwest Regional Office – 1-360-407-6300
(Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties).
 - b. Northwest Regional Office – 1-425-649-7000
(Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom counties).
 - c. Central Regional Office – 1-509-575-2490
(Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima counties).

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 99 00

SECTION 02 40 00
DEMOLITION

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section includes requirements for all demolition required to perform the work covered under this Contract. Selected features and improvements in the Site may need to be demolished by the Contractor. Demolished site features are either to be restored to their original location, configuration, and alignment after completion of earthwork or are to be removed from the Site for proper disposal.

1.02 RELATED SECTIONS

- A. **Section 01 99 00 – Environmental Protection**
- B. **Section 31 00 00 – Earthwork**
- C. **Section 01 57 13 – Temporary Erosion and Sediment Control**

1.03 REFERENCES

- A. Executive Order 13514: Federal Leadership in Environmental, Energy, and Economic Performance (October 5, 2009).

1.04 SUBMITTALS

- A. Submit copies of all executed permits.
- B. Submit approval agreements with the hazardous waste treatment, storage, and disposal facility (TSDF) licensed to receive the hazardous materials.
- C. Contractor shall develop and submit a Waste Management Plan in accordance with submittal procedures.

1.05 DESCRIPTION

- A. This section includes requirements for all demolition required to perform the work covered under this contract including:
 - 1. Remove existing construction as shown on Drawings.

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SECTION 02 40 00 – DEMOLITION

2. Remove and replace existing construction and/or finishes as required to provide access to perform work included in the Contract.
3. Include removal of mechanical and electrical work that is to be abandoned and is contained in construction to be removed whether or not the mechanical and electrical work is shown. Disconnect and cap off utilities in accordance with applicable codes and safety regulations.
4. Where utilities that are not shown pass through construction that must be removed and those utilities serve other areas, notify the Engineer before disrupting service. If rerouting is required to maintain service, Owner may issue a Change Order to accomplish the required work.
5. Store and protect items intended for reuse.
6. Assume ownership of debris and unwanted materials, remove from the site, and dispose of legally. Note: Soil and other potentially contaminated material will be stockpiled as directed by the Engineer, tested, and disposed of according to state and federal regulations.
7. Comply with all State permit requirements for demolition.
8. If illegal electrical wiring is encountered such as "BX" or nonmetallic sheathed cable, notify the Engineer.
9. Conduct demolition operations and remove debris and materials to ensure minimum interference with roads, streets, sidewalks, and other adjacent buildings and facilities.

1.06 HEALTH AND SAFETY PLAN

- A. The Contractor shall prepare a site-specific health and safety plan for the activities described herein that meets the minimum requirements for such a plan identified in federal regulations (Parts 1910.120 and 1926 of Title 29 of the Code of Federal Regulations) and state regulations (Chapter 296 of the Washington Administrative Code).

1.07 NOISE AND DUST CONTROL

- A. Perform work in accordance with requirements in **Section 01 99 00 – Environmental Protection**.
 - B. Provide temporary partitions to control dust and noise and exclude unauthorized persons.
 - C. Perform work in a manner to cause least disturbance to building occupants and least damage to work to remain.
 - D. Maintain adequate means of safe, clear egress for building occupants.
 - E. Employ all available techniques for construction noise abatement.
-

DIVISION 02 – EXISTING CONDITIONS
SECTION 02 40 00 – DEMOLITION

1.08 WARNING

The Contractor is advised that work under this Section may be hazardous. The Contractor is to take all necessary precautions to ensure the safety of workers and property. Removal of and/or working in areas containing even minor amounts of hazardous material including without limitation, asbestos, lead-based paint, PCBs, or other hazardous materials requires special precautions, knowledge and procedures. If hazardous material is suspected, notify the Engineer.

1.09 QUALITY ASSURANCE

- A. Maximize use of source reduction and recycling procedures.
- B. Diversion Goals: A minimum 50 percent by weight of total project solid waste to be diverted from landfill. (EO 13514).

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 REMOVAL OF CONSTRUCTION IN AREAS TO RECEIVE NEW WORK

- A. Remove all unwanted mechanical and electrical work (whether shown or not) that is not wanted and is not needed to serve other areas that is in, on, or concealed behind work being removed.
- B. Protect mechanical and electrical work that serves other areas. Relocate concealed mechanical and electrical work that is required to preserve service to other areas.

3.02 REMOVAL OF LIMITED PORTIONS OF EXISTING CONSTRUCTION TO PERMIT MODIFICATIONS

- A. Provide careful, selective cutting and removal of existing construction as required to permit relocation or modification of partitions, doors, or openings. Cut and remove the least amount of work possible except when a larger area needs to be removed to permit strengthening existing construction or when required to remove finishes to a natural break line such as a corner or change in material.
 - B. Protect existing construction to remain with temporary coverings.
 - C. Treat existing mechanical, electrical, or structural work as described in other parts of this Section.
 - D. When modifications are complete, replace removed work with new construction and finishes to match adjacent existing work. Standards of material and workmanship shall be in accordance with other portions of this Specification or if not covered then in accordance with current practice for this class of work. Salvaged materials may be used for replacement if in good condition.
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DIVISION 01 – GENERAL REQUIREMENTS
SECTION 02 40 00 – DEMOLITION

3.03 REMOVAL OF EXISTING CONSTRUCTION TO PROVIDE ACCESS TO PERFORM WORK

- A. Provide careful selective cutting and removal of existing construction where required to permit installation of new concealed mechanical or electrical work, or installation of equipment, fixtures or devices.
- B. Treat existing mechanical, electrical, or structural work as described in other parts of this Section.
- C. Replace and/or patch removed construction and finishes in accordance with other parts of this Section.

3.04 PROTECTION OF WORK TO REMAIN

- A. Protect all work to remain. Repair damage with materials, workmanship, and finishes matching existing work when new.

3.05 HAZARDOUS MATERIALS

- A. If hazardous materials are discovered, comply with paragraph 1.07 of this Section and all applicable laws.

3.06 REMOVAL AND DISPOSAL OF MATERIAL

- A. Store debris in suitable covered containers located where directed by the Engineer and remove from site when full. Burning on the site is not permitted.
- B. Removed material (other than material to be reused) shall become the property of the Contractor who shall remove it from the site and dispose of it in a legal manner.

END OF SECTION 02 40 00

SECTION 31 00 00

EARTHWORK

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. This Section includes requirements for performing excavation, backfilling, compaction, and grading work and the materials to be used.

1.02 RELATED SECTIONS

- A. **Section 01 57 13 – Temporary Erosion and Sediment Control**
- B. **Section 02 40 00 – Demolition**
- C. **Section 01 99 00 – Environmental Protection**

1.03 REFERENCES

- A. ASTM International (ASTM).
 - 1. ASTM C136 Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 - 2. ASTM C260 Standard Specification for Air-Entraining Admixtures for Concrete
 - 3. ASTM C494 Standard Specification for Chemical Admixtures for Concrete
 - 4. ASTM C869 Standard Specification for Foaming Agents used in Making Preformed Foam for Cellular Concrete
 - 5. ASTM D448 Standard Classification for Sizes of Aggregate for Road and Bridge Construction
- B. Association of State Highway and Transportation Officials (AASHTO):
 - 2. AASHTO M 154 Standard Specification for Air-Entraining Admixtures for Concrete
 - 3. AASHTO M 194 Standard specification for Chemical Admixtures for Concrete

1.04 SUBMITTALS

- A. Submit in accordance with submittal procedures.
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SECTION 31 00 00 – EARTHWORK

- B. Submit a Waste Management Plan in accordance with submittal procedures and the specifications described herein. The plan should include the following elements related to earthwork at a minimum:
 - 1. Procedures for testing of proposed import material for backfill. Proposed laboratory for testing.
 - 2. Stockpile management practices and procedures to minimize soil contact with stormwater.
 - 3. Procedures for off-hauling excavated material for disposal.
 - 4. Procedures for importing backfill material.
 - 5. Methods for recording off-haul and import volumes.
- C. Submit gradation analyses, optimum moisture content, and maximum dry density information for the following materials:
 - 1. Pit Run
 - 2. Sand
 - 3. Backfill
 - 4. Crushed Gravel/Crushed Surfacing Top Course (CSTC)
 - 5. Crushed Surface Base Course (CSBC).
- D. Submit field compaction test results.
- E. Submit independent utility location.
- F. Submit potholing reports.
- G. Submit analytical results of import fill testing.

1.05 DEFINITIONS

- A. Fill: Earth used to fill holes, pits, or depressions necessary to bring the final grade up to the specified elevation or contours.
 - B. Pipe Zone: Zone of material that extends from 3 inches below the bottom of pipe to 3 inches above the crown of the pipe.
 - C. Pipe Bedding: Zone of material that extends from the bottom of the pipe to 12 inches below the pipe.
 - D. Trench Zone: Zone of material that extends from the top of the pipe zone to the bottom of the pavement subgrade in pavement areas or to the top of the trench in earth areas.
 - E. Rock: Rock shall consist of non-decomposed stone which, by demonstration, cannot in the Engineer's opinion, be reasonably excavated with a Caterpillar 345 DL with rock bucket or similar approved equipment and contains a volume of more than
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1 cubic yard. The Engineer reserves the right to waive the demonstration of the material encountered as well-defined rock.

- F. Over excavation: Excavation beyond the limits shown in the Drawings.
- G. Relative Compaction: In-place dry density divided by the maximum dry density laboratory compaction expressed as percentage.

1.06 HEALTH AND SAFETY PLAN

- A. The Contractor shall prepare a site-specific health and safety plan for the activities described herein that meets the minimum requirements for such a plan identified in federal regulations (Parts 1910.120 and 1926 of Title 29 of the Code of Federal Regulations) and state regulations (Chapter 296 of the Washington Administrative Code).

1.07 QUALITY ASSURANCE

- A. Imported Backfill Quality Control:
 - 1. Test import materials proposed for use to demonstrate that the materials conform to the specified requirements. Tests shall be performed by an independent laboratory.
 - 2. Contractor shall be responsible for collection of representative samples of all imported fill materials used by the Contractor for the project. Contractor shall collect and submit samples for laboratory analyses with sufficient lead time for the imported material's use in accordance with the project schedule. The lead time between sampling and transport of materials to the site shall be sufficient to include normal (2-week) laboratory turnaround time. If samples are not collected with sufficient lead time and expedited laboratory turnaround is required, Contractor shall be responsible for additional laboratory costs incurred as a result of the expedited analysis. Analytical results for samples shall be submitted to Engineer for favorable review prior to procurement and transport of materials to the site.
 - 3. All backfill material shall consist of clean material free of easily suspendable fines and free of all organic and inorganic contaminants (whether naturally occurring or not). Contractor shall supply chemical analysis of a representative sample of each backfill material demonstrating that the material does not contain any contaminants. Representative samples of fill materials shall be analyzed prior to transport to the site for the following chemicals:
 - a. Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270
 - b. Volatile Organic Compounds (VOCs) by EPA Method 8260B
 - c. Polychlorinated Biphenyls (PCBs) by EPA Method 8082
 - d. Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270 in selected ion monitoring (SIM) mode

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- e. Organochlorine Pesticides by EPA Method 8081A
 - f. RCRA 8 Metals by EPA 6010 (arsenic, barium, cadmium, chromium, lead, selenium, and silver) and by EPA 7471 (mercury)
 - g. Total Petroleum Hydrocarbons (TPH) by NWTPH-Dx (without Silica Gel Cleanup) and NWTPH-Gx.
4. Submit analytical results for import fill testing and other imported materials. Submit test results following product review submittal requirements. No material shall be delivered to the site until it has been favorably reviewed by the Engineer. No material shall be used in construction work until it has been inspected in the field by the Engineer.
- B. Compaction Quality Control:
- 1. The Contractor shall pay for and provide certified compaction testing in the field at the specified frequency, and all results (pass or fail) shall be submitted to the Engineer. The Engineer may elect to verify compaction testing results with its own independent testing. Notify the Engineer in writing 1 week prior to compaction testing of any fill material so that the Engineer may coordinate its own testing.
 - 2. Testing Methods and Definitions:
 - a. Proctor Testing: ASTM D1557.
 - b. In-Place Density: ASTM D1556 or ASTM D2922.
 - c. Particle Size Analysis of Soils: ASTM D1241.
 - d. Relative Compaction: In-place dry density divided by the maximum dry density laboratory compaction expressed as a percentage.

1.08 ADDITIONAL SAFETY RESPONSIBILITIES

- A. The Contractor shall select, install, and maintain shoring, sheeting, bracing, fencing, and sloping as necessary to maintain safe excavations. The Contractor shall be responsible for ensuring such measures: (1) comply fully with 29 CFR Part 1926 OSHA Subpart P Excavations and Trenches requirements, (2) provide necessary support to the sides of excavations, (3) provide safe access to the Engineer's sampling and testing within the excavation, (4) provide safe access for backfill, compaction, and compaction testing, and (5) otherwise maintain excavations in a safe manner that shall not endanger property, life, health, or the project schedule. All earthwork shall be performed in strict accordance with applicable law, including local ordinances, and applicable OSHA.
 - B. Trenches that are 4 feet deep or less do not typically require shoring and can be cut with vertical walls, except in areas of the site that were backfilled with pea gravel during previous remedial activities. If excavations extend into pea gravel backfill areas, walls must be cut with slopes of 1 ½ horizontal to 1 vertical or flatter to maintain slope stability or trench boxes or other temporary shoring equipment shall be used.
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- C. Excavations deeper than 4 feet are not expected for this project. If excavations deeper than 4 feet are required, the trench walls should be shored or cut to slopes no steeper than 1 ½ horizontal to 1 vertical.
- D. Cut slopes should be established at least 2 feet away from the edge of saw cuts, existing pavement, utilities, or other adjacent structures.

1.09 DECONTAMINATION

- A. All personnel, vehicles, and equipment that have come in contact with impacted materials will follow appropriate decontamination procedures prior to leaving the site and accessing public roads. Decontamination procedures will be in accordance with 29 CFR 1910.120 and USEPA approved methods and will follow requirements outlined in these Specifications below.

1.10 EXPLOSIVES

- A. Do not use explosives.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Refer to paragraph 1.06 for import fill testing requirements.
- B. Backfill Material: May consist of pit run, CDF, or other structural backfill proposed by the Contractor and favorably approved by the Engineer. Backfill material shall be fairly well-graded between coarse and fine material, contain no particles in excess of 2 inches, and have less than 10 percent passing the No. 200 sieve.
- C. Pipe Bedding Material: Shall consist of ¾-inch crushed gravel. The bedding material must be clean, uniform in quality, and free from wood, bark, roots, and other deleterious materials. The crushed screenings must be substantially free from adherent coatings. The portion retained on a U.S. No. 4 sieve must not contain more than 0.1% deleterious materials by weight.

The grading shall meet the following specifications:

Sieve Size	Percent Passing
3/4"	100
1/2"	45-100
No. 4	0-24
No. 200	0-3

Note: All percentages are by weight.

- D. CSBC (Crushed Surfacing Base Course): Shall consist of 1-1/4-inch minus crushed rock. The CSBC shall be crushed surfacing manufactured from ledge rock, talus, or gravel. The materials shall be uniform in quality and substantially free from wood, roots, bark, and other extraneous material.
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The grading shall meet the following specifications:

Sieve Size	Percent Passing
1-1/4"	100
1"	80-100
5/8"	50-80
No. 4	25-45
No. 40	3-18
No. 200	0-7.5

Note: All percentages are by weight.

1. The L.A. Abrasion maximum percentage shall be 35%.
 2. The Degradation Factor shall be 15 min.
 3. The fracture requirement shall be at least one fractured face and will apply to the combined aggregate retained on the No. 4 sieve in accordance with FOP for AASHTO T 335. The portion of crushed surfacing retained on a No. 4 sieve shall not contain more than 0.15 percent wood waste.
- E. CSTC (Crushed Surfacing Top Course): Shall consist of 3/4" minus crushed rock. The CSTC shall be crushed surfacing manufactured from ledge rock, talus, or gravel. The materials shall be uniform in quality and substantially free from wood, roots, bark, and other extraneous material.

The grading shall meet the following specifications:

Sieve Size	Percent Passing
3/4"	100
1/2"	80-100
No. 4	46-66
No. 40	8-24
No. 200	0-10

Note: All percentages are by weight.

1. The L.A. Abrasion maximum percentage shall be 35%.
 2. The Degradation Factor shall be 25 min.
 3. The fracture requirement shall be at least one fractured face and will apply to the combined aggregate retained on the No. 4 sieve in accordance with FOP for AASHTO T 335. The portion of crushed surfacing retained on a No. 4 sieve shall not contain more than 0.15 percent wood waste.
- G. Pit Run Material: Must consist of free draining granular materials obtained from naturally occurring deposits or manufactured from screened gravel. Pit Run Sand must meet the below grading requirements for Type 10; Pit Run Sandy Gravel must meet the below grading requirements for Type 15.
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The grading shall meet the following specifications:

Sieve Size	Percent Passing	
	Type 10	Type 15
3/4"	100	100
1/2"	45-100	-
3/8"	100	-
No. 4	75-100	19-38
No. 8	40-100	-
No. 50	10-60	-
No. 200	0-10	0-10

Note: All percentages are by weight.

- H. Controlled Density Fill (CDF): CDF is a self-compacting, cementitious, flowable material requiring no subsequent vibration or tamping to achieve consolidation. For trench backfill, the following CDF mix design must be used:

Sieve Size	Quantity
Portland Cement Type I or Type II	30 lbs
Fly Ash Class F or	2.2 cf
Fly Ash Class C	1.1 cf
Mineral Aggregate Type 7 with Class F Fly Ash or	17.1 cf
Mineral Aggregate Type 7 with Class C Fly Ash	18.2 cf
Water	4.8 cf
Air Entrainment	2.7 cf

1. Slump must not exceed 7 inches.
2. The Contractor may propose an alternate CDF formulation. This alternate formulation must be submitted to the Engineer for approval prior to use. The submittal must include the following information:
 - a. Reason for alternate formulation and impact on application.
 - b. Mix design components and component quantities for a 1 cubic yard batch.
 - c. Strength data at 24 hours, 7 days, and 28 days. The strength at 24 hours must not be less than 15 psi when tested per ASTM D 4832. The strength at 28 days must not be less than 50 psi, with a maximum of 100 psi, when tested per ASTM D 4832. Slump must not exceed 7 inches and the mixture must not produce excessive bleed water.

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3. Water shall not exceed the maximum water specified in the mix design. The specific gravity of water must not exceed 1.03.
4. Mineral Aggregate Type 7:
 - a. Fine aggregate must consist of sand or other inert materials, or combinations thereof, approved by the Engineer, having hard, strong, durable particles free from adherent coating. Fine aggregate must be washed thoroughly to remove clay, loam, alkali, organic matter, or other deleterious matter.
 - b. The amount of deleterious substances in the washed aggregate must not exceed the following values:
 - 1) Particles having a specific gravity less than 1.95 must not exceed 1.0 percent of total weight.
 - 2) Organic matter, by calorimetric test, must not be darker than the reference standard color (organic plate No. 3) AASHTO T 21 unless other tests prove a darker color to be harmless.
 - c. Fine aggregate for Portland cement concrete must be graded to conform to the following requirements expressed as percentages by weight:

Sieve	Type 7	
	Class 2	
	Max.	Min.
3/8" square	--	100
% Passing U.S. No. 4	100	95
% Passing U.S. No. 8	--	--
% Passing U.S. No. 16	80	45
% Passing U.S. No. 30	--	--
% Passing U.S. No. 50	30	10
% Passing U.S. No. 100	10	2
% Passing U.S. No. 200	2.5	0
(wet sieving)		

- d. Within the gradation limits for fine aggregate Class 2, uniformity of gradation must be limited to a range of ± 0.20 of the reference Fineness Modulus. The reference Fineness Modulus must be determined from a representative sample from the proposed source as submitted by the Contractor.
 - K. Portland Cement: Cement must comply with AASHTO M 85 or ASTM C 150 Types I, or II Portland cement, except that the cement must not contain more than 0.75 percent alkalis by weight calculated as Na_2O plus $0.658 \text{ K}_2\text{O}$ and the content of tricalcium aluminate (C3A) must not exceed 8 percent by weight calculated as 2.650A_{1203} minus 1.692Fe_{203} .
 1. Processing additions must comply with ASTM C 465 and the total amount of processing additions used must not exceed 1 percent of the weight of Portland cement clinker.
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2. Cement kiln dust may be used as a process addition above 1 percent but not exceed 4 percent of the weight of Portland cement clinker. When process additions greater than 1 percent are used, the type and amount of processing additions used must be shown on mill test reports.
 3. The time of setting must be determined by the Vicat Test method per AASHTO T 131 or ASTM C 191.
- L. Fly Ash: Fly ash must be per AASHTO M 295 Class C or F including optional chemical requirements set in Table 2 and with a further limitation that the loss on ignition must be a maximum of 1.5%.
- M. Pea Gravel: Pea gravel shall consist of screened sand, gravel, or other inert materials, or combinations thereof, from sources approved by the Engineer, and must have hard, strong, durable particles free from adherent coatings. The material must be washed thoroughly to remove clay, loam, alkali, organic matter, and other deleterious substances.
1. The amount of deleterious substances in the washed aggregate must not exceed the following values:
 - a. Particles having a specific gravity less than 1.95 must not exceed 1.0 percent of total weight.
 - b. Organic matter, by calorimetric test, must not be darker than the reference standard color (organic plate No. 3) AASHTO T 21 unless other tests prove a darker color to be harmless.

The grading shall meet the following specifications:

Sieve Size	Percent Passing
3/8"	80-100
No. 4	10-30
No. 8	0-10
No. 200	0-1

Note: All percentages are by weight.

- N. Water: The water used shall be free of objectionable quantities of silt, oil, organic matter, alkali, salts, and other impurities. Water quality must be acceptable to the Engineer.

PART 3 – EXECUTION

3.01 CONTROL OF WATER

- A. All construction water shall remain on site. Manage water in accordance with the site SWPPP and **Section 01 57 13 – Temporary Erosion and Sediment Control**.
 - B. Water shall not be stored in trenches or excavations. Contractor shall not be paid for disposal of water accumulated in trenches or excavations.
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- C. Excavation work during rain shall be done at the Contractor's discretion. Should the Contractor choose to perform earthwork during periods of precipitation, the Contractor shall discuss the planned work with the Engineer prior to initiating the work. Whether earthwork is performed during periods of no precipitation or not, the Contractor is fully responsible for any costs associated with mitigation regarding repairs to existing earthwork or rework necessary to achieve the required compaction requirements stipulated in these Specifications.

3.02 EXISTING UTILITIES

- A. Obtain best available current information on location, identification and marking of existing utilities, piping and conduits, and other underground facilities before beginning any excavation. In areas where utilities that participate in the "Call Before You Dig" Program may occur, call for locator at least 48 hours in advance of beginning work. Give Engineer 24 hours' notice before beginning work.
 - B. Provide independent utility location services in all areas of work. Pothole existing utilities at utility crossings and at areas of possible interference. If utilities are identified that are not shown on the Drawings, survey these utilities and submit coordinates to the Engineer. Provide State Plane coordinates of the utility referenced to the project datum.
 - C. The location of existing utilities and underground facilities known to the Design Engineer are shown in their approximate location based on information available at the time of preparing the Drawings. The actual location, size, type, and number of utilities and underground facilities may differ from that shown and utilities or underground facilities may be present that are not shown.
 - D. The Contractor shall exercise care in avoiding damage to all utilities as he/she will be held responsible for their repair if damaged. There is no guarantee that all utilities or obstructions are shown, or that locations indicated are accurate.
 - E. Use extreme care when excavating or working in areas that may contain existing utilities, process piping, conduits, or other underground facilities. Use careful potholing, hand digging, and probing to determine the exact location of underground installation. Some locations contain multiple pipes or conduits.
 - F. Where connections to existing utilities or other underground facilities is required or where new piping or conduits may cross or interfere with existing utilities or underground facilities, carefully excavate and uncover existing installations to a point 1 foot below the pipe or conduit to determine the actual elevation and alignment. Call the Engineer's attention to differing existing conditions that may require a clarification or change.
 - G. Check on Locations (Potholing):
 - 1. Prior to constructing any excavation or trench, pot hole to determine the location of any utility in the area of the excavation.
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2. Clearly paint the location of all affected utility underground pipes, conduits, and other utilities on the ground.
3. After the utility survey is completed, commence "potholing" to determine the actual location and elevation of all utilities where crossings, interferences, or connections to the new pipelines are shown on the Drawings. Provide State Plane coordinates and elevation to the top of the utility referenced to the project datum.
4. Excavations around underground electrical ducts and conduits and footings shall be performed using extreme caution to prevent injury to workmen or damage to electrical ducts or conduits.

H. Interferences:

1. If interferences occur at locations other than shown on the Drawings, the Contractor shall notify the Engineer, and a method for correcting said interferences shall be supplied by the Engineer. Payment for interferences that are not shown on the plans, nor which may be inferred from surface indications, shall be in accordance with the provisions of the General Conditions.
2. Any necessary relocations of utilities, whether shown on the Drawings or not, shall be coordinated with the affected utility. The Contractor shall perform the relocation only if instructed to do so in writing from the Engineer.

I. Shutdowns: Planned utility service shutdowns shall be accomplished during periods of minimum use. In some cases, this may require night or weekend work. Such work shall be at no additional cost to the Owner.

J. Overhead Facilities: There are existing overhead electric and communication transmission lines at the site. Extreme caution shall be used when working in the vicinity of overhead utilities to prevent injury to workmen or damage to the utilities.

3.03 GENERAL CONSTRUCTION REQUIREMENTS

- A. Site Access: Access to the site will be via public roads. Exercise care in the use of such roads and repair at own expense any damage thereto caused by Contractor's operations. Such repair shall be to the satisfaction of the Owner or agency having jurisdiction over the road. Take whatever means are necessary to prevent tracking of mud onto existing roads and shall keep roads free of debris.
 - B. Traffic Regulation: Provide such flagmen, barricades, lights, warning signs, and safety devices as may be required for control of traffic adjacent to all areas of work. Maintain compliance with the approved Traffic Control Plan detailed in **Section 01 50 00 – Temporary Facilities and Controls.**
 - C. Access: Free access must be maintained to all fire hydrants, water valves and meters, and private driveways.
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- D. Dust and Dirt Control: Take proper and efficient steps to control dust and dirt. If native excavated materials or import fill materials are temporarily stockpiled, stockpiles shall be covered with D16 WB liner and weighted.
- E. Storage of Materials: Excavated materials unsuitable for backfill shall be disposed of immediately.

3.04 TRENCH EXCAVATION

- A. Open cut trenches shall be as wide as necessary for sheeting and bracing. The sides of the trenches shall be vertical in paved areas.
- B. Take care not to over excavate. Accurately grade the bottom of the trenches to provide uniform bearing and support.
- C. The trench shall not be backfilled until the Engineer reviews the pipe and bedding installation.
- D. Backfill and compact to 95% relative compaction. There shall be no additional payment to the Contractor for over excavations not directed by the Engineer.
- E. Provide ladders for access into the trench for construction and inspection personnel.

3.05 BACKFILL AND COMPACTION

- A. Place bedding and backfill materials true to the lines, grades, and cross-sections indicated on the Drawings and compacted to the degree specified on the Drawings. Place bedding and backfill materials in horizontal lifts not to exceed 12 inches in thickness measured before compaction.
 - B. Place 3 inches of sand as pipe bedding for all pipes. Pipe bedding shall be compacted to 95% relative density.
 - C. Pipes shall be placed in a pre-set pipe spacer system with 1-inch spacing between all pipes.
 - D. Surround pipe spacer system with 3 inches of sand on all sides and above the top of the system before backfilling with backfill material.
 - E. Backfill material shall not be placed until Work has been inspected by the Engineer.
 - F. It shall be incumbent upon the Contractor to protect the pipes during the construction period. It shall be the Contractor's responsibility to repair broken or damaged pipe at no extra cost to the Owner.
 - G. Add water to backfill material or dry the material as necessary to obtain moisture content within 2 percent of optimum.
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- H. Compact all backfill to not less than 95% of the maximum dry density in accordance with ASTM D1557 (Modified Proctor).
- I. Compaction by flooding, ponding, or jetting shall not be permitted.
- J. Testing Frequency:
 - 1. Trench Backfill: Test every 100 linear feet of trench for each 2 feet of fill.

3.06 SUPPORT OF EXCAVATIONS

- A. Adequately support excavation for trenches and structures to meet all applicable requirements in the current rules, orders, and regulations. Excavation shall be adequately shored, braced, and sheeted so that the earth will not slide or settle and so that all existing structures and all new pipe and structures will be fully protected from damage.

3.07 FINISH GRADING

- A. Grade surfaces to drain away from structures. The finished surfaces shall be smooth and compacted to match existing site conditions as shown on the Drawings.

3.08 DISPOSAL OF EXCAVATED MATERIAL

- A. Petroleum- and metals-contaminated soil shall be disposed of by the Contractor to an appropriate landfill facility as determined by the Engineer.
- B. Soils may be stockpiled on site or direct loaded based on the Contractor's selected means and methods.

3.09 CLEANING

- A. Contractor shall construct two (2) temporary cleaning facilities on site. Cleaning facilities will include a cleaning station for personnel and a cleaning pad for vehicles and equipment. The cleaning pad shall be designed with both dry and wet areas. The cleaning facilities shall be designed to capture the soil and cleaning fluids, including fluids from cleaning trucks, sample and analyze for waste characterization, and properly dispose.
 - B. If the Contractor elects to install temporary water supply and electrical systems at the cleaning facilities, the Contractor shall be responsible for the design of these systems and submit details of the proposed systems to the Engineer for approval. Contractor shall be responsible for removal of all temporary facilities prior to demobilization.
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- C. Personnel Cleaning: Contractor shall ensure that personnel who have encountered impacted material shall perform cleaning procedures in accordance with the site-specific HASP prior to exiting the site.
 - 1. Personnel cleaning stations shall be established and shall include an emergency eye wash station, a three-stage boot wash (detergent bath, dirty rinse, and clean rinse) for scrubbing boots and gloves, containers for disposal of contaminated PPE and supply containers for fresh PPE. All PPE that contacts impacted material will be disposed of and not reused unless cleaning is possible and practical.
- D. Cleaning of Ancillary Equipment: Ancillary equipment, such as shovels, hand tools, and sampling equipment that have been in contact with impacted material will be cleaning at the cleaning pad prior to leaving the site. Dry cleaning methods will be used initially followed by wet cleaning methods only when necessary to minimize the amount of water produced. Cleaning of this equipment will be done in appropriate PPE. Solids removed during dry cleaning will be collected prior to starting the wet cleaning and stored appropriately for sampling and/or offsite disposal at an appropriate facility. Cleaning fluids will be collected and stored appropriately for sampling and/or offsite disposal at an appropriate facility by the Contractor.
- E. Cleaning of Haul Vehicles and Heavy Equipment: Haul vehicles and other heavy equipment shall be cleaned as appropriate. Physical cleaning techniques shall include dry cleaning methods followed by wet cleaning methods, if necessary.
 - 1. Equipment will be mobilized to a temporary cleaning pad for manual removal of accumulated soils to the extent practicable.
 - 2. An initial manual dry removal of accumulated soils from those areas of the equipment expected to have actually or potentially contacted soils, in particular the excavator/end loader bucket and tracks/tires.
 - 3. Solids removed during dry removal of soil will be collected prior to starting the wet cleaning and stored for offsite disposal.
 - 4. Removal of soils and dust from the equipment using a high-pressure wash using water (only). Steam cleaning shall be an approved alternative to high-pressure wash.
 - 5. Surfactants and detergents must be approved by the Engineer prior to use in cleaning operations.
 - 6. Prior to heavy vehicles and equipment leaving the site, a thorough visual inspection of the equipment shall be conducted to ensure no accumulated soil or dust remains.

END OF SECTION 31 00 00
