

**CITY OF PORTLAND
AGREEMENT FOR PROFESSIONAL, TECHNICAL, OR EXPERT SERVICES**

CONTRACT NO.

**SHORT TITLE OF WORK PROJECT:
Moody Avenue Improvements**

This contract is between the City of Portland, acting by and through its Elected Officials, hereafter called "City," and Harper Houf Peterson Righellis Inc., hereafter called Contractor. The City's Project Manager for this contract is Chris Armes.

Effective Date and Duration

This contract shall become effective on May 19, 2010. This contract shall expire, unless otherwise terminated or extended, on December 31, 2012.

Consideration

- (a) City agrees to pay Contractor a sum not to exceed \$5,378,225 for accomplishment of the work.
- (b) Interim payments shall be made to Contractor according to the schedule identified in the STATEMENT OF THE WORK AND PAYMENT SCHEDULE.

CONTRACTOR DATA AND CERTIFICATION

Name (please print): Harper Houf Peterson Righellis, Inc.

Address: 205 SE Spokane Street, Suite 200, Portland OR 97202

Employer Identification Number (EIN) 931045332

[INDEPENDENT CONTRACTORS: DO NOT PROVIDE SOCIAL SECURITY NUMBER (SSN) – LEAVE BLANK IF NO EIN]

City of Portland Business License # 404477

Citizenship: Nonresident alien ☐ Yes ☒ No

Business Designation (check one): ☐ Individual ☐ Sole Proprietorship ☐ Partnership ☒ Corporation
☐ Limited Liability Co (LLC) ☐ Estate/Trust ☐ Public Service Corp. ☐ Government/Nonprofit

Payment information will be reported to the IRS under the name and taxpayer I.D. number provided above. Information must be provided prior to contract approval. Information not matching IRS records could subject you to 20 percent backup withholding.

**STANDARD CONTRACT PROVISIONS FOR
PROFESSIONAL, TECHNICAL & EXPERT SERVICES (MANDATORY PROVISIONS)**

1. Access to Records

The Contractor shall maintain, and the City of Portland ("City") and its duly authorized representatives shall have access to the books, documents, papers, and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts, and transcripts for a period of three years after final payment. Copies of applicable records shall be made available upon request. Payment for cost of copies is reimbursable by the City.

2. Audits

- (a) The City, either directly or through a designated representative, may conduct financial and performance audits of the billings and services specified in this agreement at any time in the course of the agreement and during the three (3) year period established by section 1, **Access to Records**. Audits will be conducted in accordance with generally accepted auditing standards as promulgated in Government Auditing Standards by the Comptroller General of the United States General Accounting Office.
- (b) If an audit discloses that payments to the Contractor were in excess of the amount to which the Contractor was entitled, then the Contractor shall repay the amount of the excess to the City.
- (c) If any audit shows performance of services is not efficient in accordance with Government Auditing Standards, or that the program is not effective in accordance with Government Auditing Standards, the City may pursue remedies provided under section 5, **Early Termination of Agreement** and section 7, **Remedies**.

3. Effective Date and Duration

The passage of the contract expiration date (as recorded on reverse side) shall not extinguish, prejudice, or limit either party's right to enforce this contract with respect to any default or defect in performance that has not been cured.

4. Order of Precedence

This contract consists of the terms and conditions of this contract, the Request for Proposals (RFP) issued by the City, if any, and the Contractor's proposal in response to the RFP. In the event of any apparent or alleged conflict between these various documents, the following order of precedence shall apply to resolve the conflict: a) this contract's terms and conditions, b) the City's RFP, and c) the Contractor's proposal in response to the RFP.

5. Early Termination of Agreement

- (a) The City and the Contractor, by mutual written agreement, may terminate this Agreement at any time.
- (b) The City, on thirty (30) days written notice to the Contractor, may terminate this Agreement for any reason deemed appropriate in its sole discretion.
- (c) Either the City or the Contractor may terminate this Agreement in the event of a breach of the Agreement by the other. Prior to such termination, however, the party seeking the termination shall give to the other party written notice of the breach and of the party's intent to terminate. If the party has not entirely cured the breach within fifteen (15) days of the notice, then the party giving the notice may terminate the Agreement at any time thereafter by giving a written notice of termination.

6. Payment on Early Termination

- (a) In the event of termination under subsection 5(a) or 5(b), **Early Termination of Agreement** hereof, the City shall pay the Contractor for work performed in accordance with the Agreement prior to the termination date.
- (b) In the event of termination under subsection 5(c), **Early Termination of Agreement** hereof, by the Contractor due to a breach by the City, then the City shall pay the Contractor as provided in subsection (a) of this section.
- (c) In the event of termination under subsection 5(c), **Early Termination of Agreement** hereof, by the City due to a breach by the Contractor, then the City shall pay the Contractor as provided in subsection (a) of this section, subject to set off of excess costs, as provided for in section 7(a), **Remedies**.
- (d) In the event of early termination all of the Contractor's work product will become and remain property of the City.

7. Remedies

- (a) In the event of termination under subsection 5(c), **Early Termination of Agreement**, hereof, by the City due to a breach by the Contractor, then the City may complete the work either itself, by agreement with another contractor or by a combination thereof. In the event the cost of completing the work exceeds the remaining unpaid balance of the total compensation provided under this contract, then the Contractor shall pay to the City the amount of the reasonable excess.
- (b) The remedies provided to the City under section 5, **Early Termination of Agreement** and section 7, **Remedies** for a breach by the Contractor shall not be exclusive. The City also shall be entitled to any other equitable and legal remedies that are available.
- (c) In the event of breach of this Agreement by the City, then the Contractor's remedy shall be limited to termination of the Agreement and receipt of payment as provided in section 5(c), **Early Termination of Agreement** and section 6(b), **Payment on Early Termination** hereof.

8. Subcontracts and Assignment

Contractor shall not subcontract, assign or transfer any of the work scheduled under this agreement, without the prior written consent of the City. Notwithstanding City approval of a subcontractor, the Contractor shall remain obligated for full performance hereunder, and the City shall incur no obligation other than its obligations to the Contractor hereunder. The Contractor agrees that if subcontractors are employed in the performance of this Agreement, the Contractor and its subcontractors are subject to the requirements and sanctions of ORS Chapter 656, Workers' Compensation.

9. Compliance with Applicable Law

In connection with its activities under this Agreement, Contractor shall comply with all applicable federal, state and local laws and regulations including the City's Equal Benefits Ordinance and its administrative rules, all of which are incorporated by this reference. Failure to comply with the Ordinance permits the City to impose sanctions or require remedial actions as stated in Section 13.1 of the administrative rules. Contractor shall complete the INDEPENDENT CONTRACTOR CERTIFICATION STATEMENT, which is attached hereto and by this reference made a part hereof.

(a) Indemnity - Claims for Other than Professional Liability

Contractor shall defend, save, and hold harmless the City of Portland, its officers, agents, and employees, from all claims, suits, or actions of whatsoever nature, including intentional acts, resulting from or arising out of the activities of Contractor or its subcontractors, agents or employees under this agreement. Nothing in this section requires the Contractor or its insurer to indemnify the City for any claims or losses arising out of death, or bodily injury to persons, or property damage caused by the negligence of the City.

(b) Indemnity - Claims for Professional Liability

Contractor shall defend, save, and hold harmless the City of Portland, its officers, agents, and employees, from all claims, suits, or actions arising out of the professional negligent acts, errors or omissions of Contractor or its subcontractors and sub-consultants, agents or employees in performance of professional services under this agreement. Nothing in this section requires the Contractor or its insurer to indemnify the City for any claims or losses caused by the negligence of the City.

(c) Indemnity - Standard of Care

If Contractor's services involve engineering or consulting, the standard of care applicable to Contractor's service will be the degree of skill and diligence normally employed by professional engineers or consultants performing the same or similar services at the time such services are performed. Contractor will re-perform any services not meeting this standard without additional compensation.

10. Insurance

During the term of this contract Contractor shall maintain in force at its own expense, each insurance noted below:

- (a) Workers' Compensation insurance in compliance with ORS 656.017, which requires subject employers to provide Oregon workers' compensation coverage for all their subject workers (contractors with one or more employees, unless exempt under ORS 656.027).

- (b) X Required and attached or Waived by City Attorney: _____

General Liability insurance with a combined single limit of not less than \$1,000,000 per occurrence for Bodily Injury and Property Damage. It shall include contractual liability coverage for the indemnity provided under this contract, and shall provide that City of Portland, and its agents, officers, and employees are Additional Insured but only with respect to the Contractor's services to be provided under this Contract:

- (c) X Required and attached or Waived by City Attorney: _____

Automobile Liability insurance with a combined single limit of not less than \$1,000,000 per occurrence for Bodily Injury and Property Damage, including coverage for owned, hired, or nonowned vehicles, as applicable:

- (d) X Required and attached or Waived by City Attorney: _____

Professional Liability insurance with a combined single limit of not less than \$1,000,000 per claim, incident, or occurrence. This is to cover damages caused by error, omission or negligent acts related to the professional services to be provided under this contract. If insurance coverage is provided on a "claims made" basis, the successful Proposer shall acquire a "tail" coverage or continue the same coverage for three years after completion of the contract, provided coverage is available and economically feasible. If such coverage is not available or economically feasible, contractor shall notify City immediately.

- (e) On all types of insurance. There shall be no cancellation, material change, reduction of limits, or intent not to renew the insurance coverage(s) without 30-days written notice from the Contractor or its insurer(s) to the City.
- (f) Certificates of insurance. As evidence of the insurance coverages required by this contract, the Contractor shall furnish acceptable insurance certificates to the City at the time contractor returns signed contracts. The certificate will specify all of the parties who are Additional Insured and will include the 30-day cancellation clause and 10-day non-payment clause that provides that the insurance shall not terminate or be cancelled without 30 days or 10 days written notice first being given to the City Auditor. Insuring companies or entities are subject to City acceptance. If requested, complete policy copies shall be provided to the City. The Contractor shall be financially responsible for all pertinent deductibles, self-insured retentions, and/or self-insurance.

11. Ownership of Work Product

All work products produced by the Contractor under this contract is the exclusive property of the City. "Work product" shall include but not be limited to research, reports, computer programs, manuals, drawings, recordings, photographs, artwork and any data or information in any form; the Contractor and the City intend that such work product shall be deemed "work made for hire" of which the City shall be deemed the author. If for any reason a work product is deemed not to be a "work made for hire," the Contractor hereby irrevocably assigns and transfers to the City all right, title and interest in such work product, whether arising from copyright, patent, trademark, trade secret, or any other state or federal intellectual property law or doctrines. Contractor shall obtain such interests and execute all documents necessary to fully vest such rights in the City. Contractor waives all rights relating to work product, including any rights arising under 17 USC 106A, or any other rights of authorship, identification or approval, restriction or limitation on use or subsequent modifications. If the Contractor is an architect, the work product is the property of the Contractor-Architect, and by execution of this contract, the Contractor-Architect grants the City an exclusive and irrevocable license to use that work product.

12. Nondiscrimination

Contractor agrees to comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules, and regulations. Contractor also shall comply with the Americans With Disabilities Act of 1990 (Pub L. No. 101-336) including Title II of that Act, ORS 659.425, and all regulations and administrative rules established pursuant to those laws.

13. Successors in Interest

The provisions of this contract shall be binding upon and shall inure to the benefit of the parties hereto, and their respective successors and approved assigns.

14. Severability

The parties agree that if any term or provision of this contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular term or provision held to be invalid.

15. Waiver

The failure of the City to enforce any provision of this contract shall not constitute a waiver by the City of that or any other provision.

16. Errors

The Contractor shall perform such additional work as may be necessary to correct errors in the work required under this contract without undue delays and without additional cost.

17. Governing Law

The provisions of this contract shall be construed in accordance with the provisions of the laws of the State of Oregon. Any action or suits involving any question arising under this contract must be brought in the appropriate court in Multnomah County Oregon.

18. Amendments

All changes to this contract, including changes to the scope of work and contract amount, must be made by written amendment and approved by the Purchasing Agent to be valid. Any amendment that increases the original contract amount by more than 25% must be approved by the City Council to be valid.

19. Business License

The Contractor shall obtain a City of Portland business license as required by PCC 7.02 prior to beginning work under this Agreement. The Contractor shall provide a business license number in the space provided on page one of this Agreement. Additionally, the Contractor shall pay all fees or taxes due under the Business License Law and the Multnomah County Business Income Tax (MCC Chapter 12) during the full term of this contract. Failure to be in compliance may result in payments due under this contract to be withheld to satisfy amount due under the Business License Law and the Multnomah County Business Income Tax Law.

20. Prohibited Interest

(a) No City officer or employee during his or her tenure or for one year thereafter shall have any interest, direct or indirect, in this Agreement or the proceeds thereof.

(b) No City officer or employee who participated in the award of this Agreement shall be employed by the Contractor during the period of the Agreement.

21. Payment to Vendors and Subcontractors

The Contractor shall timely pay all suppliers, lessors and contractors providing it services, materials or equipment for carrying out its obligations under this Agreement. The Contractor shall not take or fail to take any action in a manner that causes the City or any materials that the Contractor provides hereunder to be subject to any claim or lien of any person without the City's prior written consent.

Merger Clause

THIS CONTRACT AND ATTACHED EXHIBITS CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES. NO WAIVER, CONSENT, MODIFICATION, OR CHANGE OF TERMS OF THIS CONTRACT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY BOTH PARTIES. SUCH WAIVER, CONSENT, MODIFICATION, OR CHANGE IF MADE, SHALL BE EFFECTIVE ONLY IN SPECIFIC INSTANCES AND FOR THE SPECIFIC PURPOSE GIVEN. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS CONTRACT. CONTRACTOR, BY THE SIGNATURE OF ITS AUTHORIZED REPRESENTATIVE, HEREBY ACKNOWLEDGES THAT HE OR SHE HAS READ THIS CONTRACT, UNDERSTANDS IT AND AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

OPTIONAL PROVISIONS (selected by City Project Manager)**22. Arbitration: / ☒ / Not Applicable / ☐ / Applicable (consult with City Attorney's Office before finalizing as applicable)**

(a) Any dispute arising out of or in connection with this Agreement, which is not settled by mutual agreement of the Contractor and the City within sixty (60) days of notification in writing by either party, shall be submitted to an arbitrator mutually agreed upon by the parties. In the event the parties cannot agree on the arbitrator, then the arbitrator shall be appointed by the Presiding Judge (Civil) of the Circuit Court of the State of Oregon for the County of Multnomah. The arbitrator shall be selected within thirty (30) days from the expiration of the sixty (60) day period following notification of the dispute. The arbitration, and any

litigation arising out of or in connection with this Agreement, shall be conducted in Portland, Oregon, shall be governed by the laws of the State of Oregon, and shall be as speedy as reasonably possible. The applicable arbitration rules for the Multnomah County courts shall apply unless the parties agree in writing to other rules. The arbitrator shall render a decision within forty-five (45) days of the first meeting with the Contractor and the City. Insofar as the Contractor and the City legally may do so, they agree to be bound by the decision of the arbitrator.

(b) Notwithstanding any dispute under this Agreement, whether before or during arbitration, the Contractor shall continue to perform its work pending resolution of a dispute, and the City shall make payments as required by the Agreement for undisputed portions of work.

23. Progress Reports: /X/ Applicable /___/ Not Applicable

The Contractor shall provide monthly progress reports to the Project Manager. If applicable, the STATEMENT OF THE WORK should list what information the Contractor must include in monthly progress reports.

24. Contractor's Personnel: /X/ Applicable /___/ Not Applicable

The Contractor shall assign the following personnel to do the work in the capacities designated: If applicable, list selected personnel in the STATEMENT OF THE WORK. The Contractor shall not change personnel assignments without the prior written consent of the City.

25. Subcontractors: /X/ Applicable /___/ Not Applicable

The City requires Contractors to use the Minority, Women and Emerging Small Business (M/W/ESB) subcontractors identified in their proposals, and as such the Contractor shall assign these subcontractors as listed in the STATEMENT OF THE WORK to perform work in the capacities designated. The Contractor shall not change subcontractor assignments without the prior written consent of the Purchasing Agent.

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**STATEMENT OF THE WORK
AND PAYMENT SCHEDULE**

SCOPE OF WORK

See attached

The City will enforce all diversity in workforce and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Contractor in its Proposal. For contracts valued \$100,000 or more, the Contractor shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subcontractors employed in the performance of this agreement. An electronic copy of the MUR may be obtained at: <http://www.portlandonline.com/shared/cfm/image.cfm?id=119851>.

COMPENSATION

Contractor shall be paid the not to exceed amount of \$5,378,225. The Contractor will be paid based on its hourly rates, costs incurred in paying its subcontractors, if any, plus any authorized expenses, as set forth in more detail below. The "not to exceed amount" is the maximum amount of compensation due the Contractor for all the work required by the contract. Errors in estimating the number of hours necessary to perform the work is the sole responsibility of the Contractor.

PAYMENT TERMS: Net 30 Days

Hourly Rates

The billing rates shall not exceed those on attached spreadsheet

Standard Reimbursable Costs

See attached spreadsheet

Sub consultant Costs

Compensation for subconsultants shall be limited to the same restrictions imposed on the Consultant. The maximum markup on subconsultant services shall not exceed 5 %.

Adjustment of Labor Rates Due to Inflation

Annual adjustment of hourly rates will be considered upon written request from the Consultant. Approval of a request for rate increases is solely within the City's discretion and under no circumstances is the City obligated to approve such a request.

Rate increases are subject to the following limitations:

- No increases will be granted before the one-year anniversary of the contract;
- No more than one increase shall be granted per contract year;
- Rate increases may not exceed the then-current average inflation rate for the Portland Metropolitan Area (as determined from the US Department of Labor statistics);
- Rate increases shall not be retroactive.

Other than the impact of inflation as described above, hourly rates may not be increased.

Progress Payments

On or before the 15th of each month, the Contractor shall submit to the City's Project Manager an invoice for work performed by the Contractor during the preceding month. The invoice shall contain the City's Contract Number and set out all items for payment including, but not limited to: the name of the individual, labor category, direct labor rate, hours worked during the period, and tasks performed. The Contractor shall also attach photocopies of claimed reimbursable expenses, if applicable. The Project Coordinator shall stamp and approve all subconsultant invoices and note on the subconsultant invoice what they are approving as "billable" under the contract. The billing from the prime should clearly roll up labor and reimbursable costs for the prime and subconsultants – matching the subconsultant invoices. Prior to initial billing, the Contractor shall develop a billing format for approval by the City.

The City shall pay all amounts to which no dispute exists within 30 days of receipt of the invoice. Payment of any bill, however, does not preclude the City from later determining that an error in payment was made and from withholding the disputed sum from the next progress payment until the dispute is resolved.

The Contractor shall make full payment to its subcontractors within 10 business days following receipt of any payment made by the City to Contractor.

INDEPENDENT CONTRACTOR CERTIFICATION STATEMENT

SECTION A

CONTRACTOR CERTIFICATION I, undersigned, am authorized to act on behalf of entity designated below, hereby certify that entity has current Workers' Compensation Insurance.

Contractor Signature

Date

4/28/10

Entity

HARPER HOUF Peters
RIBHELLS INC.

If entity does not have Workers' Compensation Insurance, City Project Manager and Contractor complete the remainder of this form.

SECTION B

ORS 670.600 Independent contractor standards. As used in various provisions of ORS Chapters 316, 656, 657, and 701, an individual or business entity that performs labor or services for remuneration shall be considered to perform the labor or services as an "independent contractor" if the standards of this section are met. The contracted work meets the following standards:

1. The individual or business entity providing the labor or services is free from direction and control over the means and manner of providing the labor or services, subject only to the right of the person for whom the labor or services are provided to specify the desired results;
2. The individual or business entity providing labor or services is responsible for obtaining all assumed business registrations or professional occupation licenses required by state law or local government ordinances for the individual or business entity to conduct the business;
3. The individual or business entity providing labor or services furnishes the tools or equipment necessary for performance of the contracted labor or services;
4. The individual or business entity providing labor or services has the authority to hire and fire employees to perform the labor or services;
5. Payment for the labor or services is made upon completion of the performance of specific portions of the project or is made on the basis of an annual or periodic retainer.

City Project Manager Signature

Date

SECTION C

Independent contractor certifies he/she meets the following standards:

1. The individual or business entity providing labor or services is registered under ORS Chapter 701, if the individual or business entity provides labor or services for which such registration is required;
2. Federal and state income tax returns in the name of the business or a business Schedule C or form Schedule F as part of the personal income tax return were filed for the previous year if the individual or business entity performed labor or services as an independent contractor in the previous year; and
3. The individual or business entity represents to the public that the labor or services are to be provided by an independently established business. Except when an individual or business entity files a Schedule F as part of the personal income tax returns and the individual or business entity performs farm labor or services that are reportable on Schedule C, an individual or business entity is considered to be engaged in an independently established business when four or more of the following circumstances exist. Contractor check four or more of the following:

- A. The labor or services are primarily carried out at a location that is separate from the residence of an individual who performs the labor or services, or are primarily carried out in a specific portion of the residence, which portion is set aside as the location of the business;
- B. Commercial advertising or business cards as is customary in operating similar businesses are purchased for the business, or the individual or business entity has a trade association membership;
- C. Telephone listing and service are used for the business that is separate from the personal residence listing and service used by an individual who performs the labor or services;
- D. Labor or services are performed only pursuant to written contracts;
- E. Labor or services are performed for two or more different persons within a period of one year; or
- F. The individual or business entity assumes financial responsibility for defective workmanship or for service not provided as evidenced by the ownership of performance bonds, warranties, errors and omission insurance or liability insurance relating to the labor or services to be provided.

Contractor Signature

Date

CONTRACTOR SIGNATURE:

This contract may be signed in two (2) or more counterparts, each of which shall be deemed an original, and which, when taken together, shall constitute one and the same Agreement.

The parties agree the City and Contractor may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

I, the undersigned, agree to perform work outlined in this contract in accordance to the STANDARD CONTRACT PROVISIONS, the terms and conditions, made part of this contract by reference, and the STATEMENT OF THE WORK made part of this contract by reference; hereby certify under penalty of perjury that I/my business am not/is not in violation of any Oregon tax laws; hereby certify that my business is certified as an Equal Employment Opportunity Affirmative Action Employer and is in compliance with the Equal Benefits Program as prescribed by Chapter 3.100 of Code of the City of Portland; and hereby certify I am an independent contractor as defined in ORS 670.600.

Contractor Name Here

BY:



Date:

4/28/10

HARPER HOUF PETERSON RIGHELLIS INC.

Name:

DANIEL S. HOUF

Title:

VICE PRESIDENT

Contract No. _____

Contract Title: _____

CITY OF PORTLAND SIGNATURES:By: _____
Bureau Director

Date: _____

By: _____
Chief Procurement Officer

Date: _____

By: _____
Elected Official

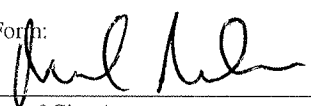
Date: _____

Approved:

By: _____
Office of City Auditor

Date: _____

Approved as to Form:

By:  _____
Office of City AttorneyDate: 4/29/10

A. PROJECT DESCRIPTION and OVERVIEW of SERVICES

The City of Portland has made a commitment to the development of the South Waterfront District and to provide high density development in the Central City. To accommodate this new development a multimodal transportation system must be in place. SW Moody Avenue provides the critical north access to and from the District. The existing configuration of SW Moody will not provide adequate capacity for the projected growth. TriMet will be constructing a new light rail line that passes through the District via a new transit bridge over the Willamette River. This bridge will provide access of multiple forms of transit including the new light rail line, a streetcar connection and multiple bus lines. This Bridge and light rail line will intersect with the existing road system at SW Moody near SW Porter. However, the existing grades at this intersection point do not match the proposed grades required for the bridge off-ramp. In order to provide a seamless interface between the street network, building developments and the rail system, the current grade of SW Moody will need to be raised to accommodate the vertical clearances required for the bridge. The project, which includes SW Moody Avenue from River Parkway to SW Gibbs Street, will include three travel lanes, double-tracking the existing streetcar tracks, sidewalks and a cycle track for bicycle. The project will elevate the exiting roadway up to 19 feet above its current elevation. The horizontal alignment will be modified to intersect with a future at-grade crossing of the light rail alignment planned for the area. The project will be completed consistent with the requirements of the TIGER Discretionary Grant Program.

Task 1.0: Project Management and Coordination

Consultant shall provide the management, coordination, and direction to the Project team that includes the Consultant team throughout the duration of the Project. This will include direct Project Management of the Project, Consultant and sub consultant staff, and meeting coordination.

Task 1.1: Project Management/Communications and Schedule

Consultant shall supervise and manage work tasks performed within the scope defined by this WOC. Consultant's Project Manager will communicate as required by the City regarding the status of work being performed and to discuss any issues or concerns that may impact the Project. Consultant shall also review and respond to all email messages and telephone calls as required to address any City issues or concerns.

Consultant shall prepare and submit a detailed Project schedule in Microsoft Project 2003. The Project schedule will be used to track all major tasks, deliverables and milestones. Consultant shall update the Project schedule bi-weekly in a format that compares the actual timelines with the committed baseline schedule. Consultant shall review and submit a copy of the updated schedule to the City at each PT meeting.

Consultant shall maintain a Project file to include engineering computations, assumptions, working drawings, correspondence, and memoranda.

DELIVERABLES:

Consultant shall provide:

- Project Schedule in MS Project 2003 format (one electronic copy, attached to an email) within 14 days of NTP.
- Project Schedule updates (one electronic copy) bi-weekly, by the 20th of each month.
- Project files and documentation within thirty (30) days upon request, after the work is complete.

Task 1.2: Monthly Invoices and Weekly Progress Reports

Consultant shall prepare monthly invoices. Monthly invoices shall reflect the project schedule and show the budgeted cost for each task, tasks completed/percent complete, actual cost/cost to date.

The Consultant shall prepare weekly progress reports which must identify the status of the Project including but not limited to major accomplishments, work completed (by task) during the month; project significant milestones; problems and resolved issues. Consultant shall provide progress reports, and updated project schedule that reflects any changes in the Project and that tracks progress on work completed.

DELIVERABLES:

Consultant shall provide:

- Weekly progress reports and schedule detailing work completed and project issues for the duration of the contract by the 20th of each month for the duration of the contract.
- Monthly invoices by the 20th of each month for the duration of the Contract.

Task 2.0: Quality Control/Assurance

Quality Control (QC) Consultant shall assemble the plan sets and perform a 3rd party quality review of the plans prior to submittal to the Agency and City. Consultant shall submit the Review Log of all QC completed with each plan package submitted to the Agency and City.

DELIVERABLES:

Consultant shall provide:

- Submittal Review Log showing received City and 3rd Party review comments, Assigned Consultant, changes made and supporting comments.

Task 3.0: Streetcar Coordination and Oversight

Task 3.1: Streetcar Design Coordination

Participate in Project team meetings and development design coordination meetings and provide review and input on project progress reports and project documentation as needed for streetcar design coordination and oversight.

Coordinate review of the streetcar related design and construction by the Portland Streetcar Maintenance and Operations/Safety Managers, communicating their comments to the Technical Team and reporting the Team's actions or responses to the Managers; and periodically arranging for the Managers to attend Technical Team meetings when required.

Plan for advance procurement of long-lead time streetcar related materials and items including special electrical equipment, custom track sections, switches and track (as well as any non-streetcar items that could delay completion of streetcar work) to assure schedule adherence

Plan and schedule for implementing the transition of Streetcar service from the existing single-track alignment in the Willamette Shore Right-of-way to the completed Moody segment.

Assist with creating an IGA amendment to allow the temporary relocation of the streetcar in the Willamette Shoreline Consortium right-of-way.

Provide input on the construction contract documents with respect to the streetcar related work prior to commencement of construction.

As required by the City review requests-for-information (RFI's) and Responses to RFIs that are related to streetcar design.

Task 3.2: Streetcar Design Quality Assurance

Review project plans and specifications to provide quality assurance review to identify Project design or operations features that may affect Streetcar annual cost; maintenance; operations; rider comfort, convenience and safety; compatibility with existing Streetcar standards; local, state and federal transit operations requirements including, but not limited to:

- Stop locations for transferring to and from streetcar lines, buses and light rail.
- Handicapped and pedestrian access and crossings
- Bike lanes and crossings
- Vehicular, pedestrian and train signal controls and timing, particularly any preemption of streetcars at the bridgehead crossings; integration with existing system and light rail; etc.
- Track turning radii, track profile, crossings and turnouts, turnout control methods, transitions from double to single track
- Alignments, clearances and grades
- Utility reconstructions and relocations to ensure future access to utility facilities without interruption to Streetcar service
- Track slab structural design and cathodic track insulation
- Track and street storm drainage to avoid water ponding over tracks
- Overhead catenary system (OCS) elements including poles and foundations; suspension methods; conduits; new and/or existing substation installations, relocations and connections; streetcar and light rail crossings; method for connecting to existing OCS; emergency turnoff locations; sufficiency of any signal or lighting poles proposed for OCS suspension
- Stop designs including curb heights and clearances; handicapped access, signage, pavement markings and vehicle handicapped ramp compatibility; shelters; access to electrical power; signage and transit information (NextBus) provisions; seating; waste disposal; etc.
- Bus and light rail transit, general traffic, parking or loading zone conflicts or other factors that potentially could create unreasonable streetcar operations delays

Task 3.3: PSI Coordination

Report regularly to Portland Streetcar Inc. (PSI) Board of Directors regarding project status, schedule, costs and other project issues.

Review proposed Project schedule and phasing plans, endeavoring to insure that disruption of existing streetcar operations to S.W. Lowell in the South Waterfront District is minimized or eliminated and that funding of the cost for any interim (bridge-bus) service that might be required is identified and budgeted prior to start of construction.

Present monthly reports on status of the streetcar related work to the PSI board and executive committee, Portland Streetcar CAC, Project Management Group and others when requested.

Task 3.4 Streetcar Construction Coordination

During construction, attend regular technical team meetings and periodically inspect the on-site work endeavoring to insure that the streetcar related work is proceeding generally in accordance with approved Contract Documents.

Develop a community relations plan for updating streetcar riders and others of any streetcar service changes, delays or other inconveniences during construction including identifying funding for implementation of the plan.

During construction, implement the approved streetcar specific community relations plan coordinating with the general Project community relations program.

Task 4.0: Meetings Support

Consultant shall help facilitate the Project by leading, facilitating, and/or participating in meetings with project teams and various entities. Agency and/or City may limit the number of consultant staff the Project will pay to attend particular meetings. Consultant shall prepare all meeting minutes/notes.

Task 4.1: Project Kick-off Meeting/Chartering Meeting

Consultant shall prepare a Project Charter and conduct a Project Chartering Meeting. The Consultant Project Manager shall develop the agenda with the PDOT Project Manager, and shall attend the Chartering Meeting with the Consultant team and City staff to develop consensus and commitment to the Project. The Chartering Process will familiarize all members of the team with the Project Work Plan, the Project Scope, the Schedule and the Budget. The process will define the project team, identify the project's purpose, outline team and individual responsibilities, articulate expectations and performance measures, and develop operating guidelines.

DELIVERABLES:

Consultant shall provide:

- Meeting agenda three (3) business days prior to the meeting and meeting notes within five (5) business days following the meeting.
- Project Charter due five working days prior to the project chartering meeting.

Task 4.2: Team Meetings

Consultant shall organize, prepare for and attend team meetings during the course of the Project. Consultant shall prepare and distribute an agenda addressing and resolving project issues as they are encountered. It is assumed up to forty-five (45) team meetings (up to 1 hour each) will be held during Project (21-month timeframe.)

DELIVERABLES:

Consultant shall provide:

- Up to three (3) consultant staff shall attend up to forty-five (45) meetings as scheduled by the City.
- Meeting agendas three (3) business days prior to the meetings.

Task 4.3: Design Workshops

Consultant shall organize, prepare for and attend up to two (2) Project Design Workshops up to four (4) hours in length each. The Consultant Project Manager shall develop the agenda with the City Project Manager. The meetings will be attended up to three consultant staff.

DELIVERABLES:

Consultant shall provide:

- Up to three (3) consultant staff shall attend up to two (2) workshops as scheduled by the City.
- Meeting agenda three (3) business days prior to the meeting.
- One roll plot of the existing Project corridor at a scale of 1"=30'.

Task 4.4: Bureau Coordination Meetings

Consultant shall organize and attend up to thirty (30) individual bureau coordination meetings. For estimating purposes, each meeting is assumed to be one (1) hour in length with up to three (3) Consultant staff attending.

DELIVERABLES:**Consultant shall provide:**

- Up to three (3) Consultant staff to attend up to thirty (30) meetings as scheduled by the City.
- Meeting agendas three (3) business days prior to the meetings and meeting minutes within five (5) business days following the meetings.

Task 4.5: Development Design Coordination Meetings

Consultant shall coordinate with adjacent property development design teams. The Consultant shall attend up to twenty-one (21) coordination meetings with adjacent property development design teams. Each meeting is assumed to be two (2) hours in length with up to three (3) Consultant staff attending. Consultant shall prepare agendas for each meeting and write and distribute meeting minutes within five (5) business days of each meeting.

DELIVERABLES:**Consultant shall provide:**

- Up to four (4) Consultant staff to attend up to twenty-one meetings as scheduled by the City.
- Meeting minutes within five (5) business days following the meetings.

Task 4.6: Community Meetings

The City will lead the public involvement (PI) work for the Project and will schedule and lead up to six (6) meetings with the Community. One consultant staff shall attend three meetings and up to two Consultant staff shall attend up to three (3) other meetings with the Community. Each meeting is assumed to be up to two (2) hours in length.

Consultant shall prepare up to four (4) exhibits for each meeting.

DELIVERABLES:**Consultant shall provide:**

- Up to two (2) Consultant staff to attend up to three (3) meetings.
- One (1) Consultant staff shall attend up to three (3) meetings.
- Up to four (4) exhibits for each meeting as requested.

Task 4.7: Project Newsletters

Consultant shall prepare up to three (3) project newsletters/mailings during the project as scheduled by the City. Newsletters will be up to four (2) pages, 11" by 17". The mailing limits will be determined by the City. The newsletter/mailings will be printed and mailed by the City.

DELIVERABLES:**Consultant shall provide:**

- Up to three (3) project newsletters/mailings during the project as scheduled by the City.

Task 4.8: Project Logo and Web Hosting

Consultant shall design a project logo. Consultant shall buy a domain for the project and host the project web site. Consultant shall design the project web site and post content updates. Text content for the project web site shall be prepared by the City. Graphics shall be prepared by the Consultant. Graphics anticipated to be included are an overall project layout, typical cross section and a project schedule.

DELIVERABLES:

Consultant shall provide:

- Draft and final project logo.
- Web domain, project web page design
- Web page updates as needed (up to once per week)

Task 5.0: Background Data Collection, Surveying and Mapping**Task 5.1: Photo Log**

Consultant shall provide:

- A photo log of the Project area to document existing conditions of the street and project area.

DELIVERABLES:

Consultant shall provide:

- A photo log of the Project area within twenty-five (25) business days of NTP.

Task 5.2: Field Verify Survey

Consultant shall field verify survey provided by PBOT.

DELIVERABLES:

Consultant shall provide:

- Memo summarizing findings of field verification of survey.

Task 5.3: ROW Exhibits and Legal Descriptions

Consultant shall obtain title report and provide legal descriptions for two (2) ROW dedications. Consultant shall provide legal descriptions for up to seven (7) TCEs. The TCEs will not be recorded. Consultant shall prepare property impact maps for up to two (2) street dedications and up to seven (7) temporary construction easement sites. PDOT ROW staff will be responsible for ROW the right-of-way acquisition and negotiation.

DELIVERABLES:

Consultant shall provide to City:

- Two (2) title reports for street dedication parcels.
- One PDF (electronic) copy and one hard copy of property impact maps and ROW Exhibits for up to nine (9) properties impacted by the project
- Legal descriptions for two (2) street dedication and up to seven (7) TCEs

Task 6.0: Traffic Analysis

Task 6.1 Traffic Analysis for Interim Year Scenarios

A traffic analysis of SW Moody Avenue from River Parkway to Gibbs Street will be conducted to determine lane configuration scenarios for a number of interim year scenarios. The study area intersections will include:

- Moody Avenue/River Parkway
- Moody Avenue/Sheridan Street
- Moody Avenue/Porter Street
- Moody Avenue/Woods Street
- Moody Avenue/Gibbs Street

The interim year scenarios will be based on determining how long a two-way Moody Avenue will function and what the lane configuration will need to be at study intersections for a two-way Moody Avenue. Year 2030 traffic volumes from other previous studies will be used to develop year 2030 traffic volumes under a two-way Moody Avenue. Based on linear growth patterns, year 2025, 2020 and 2015 traffic volumes will be developed and subsequent lane configuration needs developed. Left turn lane needs and the length of the left turn lanes will be determined at study area intersections including Sheridan Street and Woods Street. A scenario will also be analyzed that considers a three lane cross-section on Moody Street (one lane in each direction and a center left turn lane) and how long this three lane cross-section will last before failure. At what point in time does the second southbound through lane on Moody Street become necessary. Traffic operations analysis at the Moody Avenue/Porter Street intersection will consider both light rail and street car operations. The traffic analysis at the Moody/Porter intersection will not consider adjustments to the light rail or streetcar track alignments. It will be focused on determining the number of lanes needed on Moody Avenue at different horizon years. No new traffic counts will be collected under this task.

DELIVERABLES:

Consultant shall provide to City:

- Draft and Final memorandum documenting transportation conditions for interim year scenarios

Task 7.0: Environmental Documentation

Task 7.1: FTA Environmental Documentation and Clearance

This contingent task would allow the preparation of a Categorical Exclusion for the SW Moody Avenue project. It assumes that the Final EIS for the Portland-Milwaukie LRT project will be released and that a Biological Opinion and other supporting documentation will be sufficient to support the CE determination. This task would be contingent upon a potential delay in FTA's Record of Decision for the PMLRT project, which has prepared the FEIS to encompass the SW Moody project. This contingent task will prepare CE materials to satisfy the SW Moody project's NEPA environmental clearance by the Federal Transit Administration (FTA). Other federal co-lead or lead agencies are not anticipated.

It is assumed that all of the required documentation and analysis for the SW Moody Avenue DCE can be obtained from the Portland-Milwaukie FEIS or its related technical reports and materials, including its approved methodologies, and that the depiction of the project will remain similar to the 25% design information developed and analyzed for the SW Moody element. If further engineering refines the SW Moody proposal in a way that substantially alters the potential for environmental impacts, the scope of work and environmental approach may require re-evaluation.

Consultant shall complete the FTA Categorical Exclusion worksheet using information and data extracted from the FEIS prepared for the Portland-Milwaukie, which will “crosswalk” the FEIS information specific to the SW Moody project. Consultant will provide response to comments after FTA review.

Assumptions:

- The Portland-Milwaukie FEIS will be the main data source.
- The City will provide a complete project description in a timely manner and will initiate FTA coordination.
- Assumes one (1) review cycle with FTA and one (1) response to comments cycle.
- Budget includes one draft and one final version of a CE form.
- Comments on the draft memo will be consolidated and prioritized by the City.

DELIVERABLES:

Consultant shall provide to City:

- Draft and Final Categorical Exclusion Worksheet.

Task 7.2: Environmental Site Assessment

Consultant shall an environmental site assessment that will assess existing impacts along the construction corridor and prepare a report that will address the impacts and recommend measures to limit the impacts to construction and the potential to further exacerbate impacts to the environment.

Consultant shall provide necessary permitting, utility locations, soil sample analysis (at a maximum of 35 soil boring locations), and providing environmental design parameters for the proposed construction. The following work activities are anticipated:

- Perform a review of existing environmental files and reports for previous environmental assessments at or nearby the site. This will be augmented with data obtained in the field exploration phase of the project.
- Develop the environmental assessment work plan for submission to the City upon notice to proceed.
- Obtain City permits for proposed subsurface investigations and a submit traffic control plan, as required, based on the location of the proposed borings.
- Perform a utility location at the proposed boring locations. This will be completed at least 48 hours from the initiation of the filed investigation. Consultant shall also work with the City to identify the location of the CSO pipe in relation to the proposed borings. Consultant does not anticipate the borings will endanger the pipe; however we do understand the City may require the borings to be located so as to avoid damaging the pipe during drilling operations.
- Conduct a field assessment consisting of up to 35 soil borings (approximately one soil boring every 100 feet plus 5 additional borings to assess areas exhibiting excessive impacts to soil) along the new alignment. The soil borings will be advanced to a maximum of 25 feet below ground surface (bgs).
- Subcontract with an analytical laboratory (APEX Laboratories LLC) to analyze soil samples collected from the borings. Soil samples will be analyzed for the following compounds by the referenced analytical methods. For the purpose of this proposal, Consultant has assumed the quantity of samples to be analyzed and has indicated our estimates after the indicated method.
 - Asbestos by polarized light microscopy (PLM) – 20 samples
 - Volatile organic compounds (VOCs) by EPA Method 8260B – 20 samples
 - RCRA 8 Metals by EPA 6000/7000 – 45 samples

- Organochlorine Pesticides by EPA 608/8081 – 45 samples
- Identification of petroleum hydrocarbons by DEQ approved method NWTPH-HCID – 45 samples
- In the event petroleum hydrocarbons are identified, quantification of the petroleum hydrocarbons will be complete for the following hydrocarbons by the referenced method. For the purpose of this proposal, Consultant has assumed the quantity of samples to be analyzed and has indicated our estimates after the indicated method.
 - Gasoline-range hydrocarbons by DEQ approved method NWTPH-Gx – 20 samples
 - Diesel and heavy-oil range hydrocarbons by DEQ approved method NWTPH-Dx – 20 samples
 - Polycyclic aromatic hydrocarbons (PAHs) by 8270-SIM – 20 samples
 - Polychlorinated biphenyls (PCBs) by EPA 8082A – 20 samples
- Compare analytical results to the Oregon State Department of Environmental Quality (DEQ) Risk-Based Concentrations (RBCs) and the anticipated background concentrations of metals in soil to assess the potential risk to construction workers.
- Develop recommendations based on the analytical data, comparison to the DEQ RBCs, and the depth and location of the impacted soils. This will include the following:
 - Methods for personal protection of the construction workers
 - Methods to prevent the exacerbation of contaminants during and after construction

Additional Assumptions:

- Soil cuttings and water used for decontamination will be drummed and disposed of off site
- Soil samples will be analyzed for the compounds indicated above by the associated methods.
- The number of soil samples analyzed will not exceed the quantities indicated above.
- Groundwater will not be encountered
- Groundwater monitoring wells will not be installed
- City permits, as required, will be obtained at no cost
- Right of entry permits will be provided by the City, as required
- Surveying of boring locations will not be required

DELIVERABLES:

Consultant shall provide:

- Traffic control plan and required permitting for field work.
- Draft Environmental Site Assessment (one (1) electronic copy in .pdf format).
- Final Environmental Site Assessment (one (1) electronic copy in .pdf format and four (4) paper copies [two (2) to City and two (2) to Agency]).

Task 7.4: Soil Management Plan

Consultant shall prepare a written soil management plan (SMP), which will outline the selected disposal sites for soil impacted by contaminants anticipated to be encountered during the project's construction activities. The SMP will also describe field screening criteria to be used for assessing the ultimate disposition of excavated soil as well as analytical requirements for acceptance at the disposal sites. A

section of the SMP will also address handling of groundwater; both impacted and non-impacted, in the event it is encountered.

DELIVERABLES:

Consultant shall provide:

- Draft Soil Management Plan (one (1) electronic copy in .pdf format).
- Final Soil Management Plan (one (1) electronic copy in .pdf format and four (4) paper copies [two (2) to City and two (2) to Agency]).

Task 8.0 Geotechnical Engineering Services

Consultant shall provide geotechnical engineering services during the design phase of the Project.

Task 8.1: Geotechnical Engineering and Report

Consultant shall provide necessary permitting, utility locations, subsurface explorations (at a total of four borehole and five CPT locations), and geotechnical design parameters for the proposed construction. We anticipate using the following scope:

- Perform a review of geologic maps and existing geotechnical files for subsurface exploration information at or nearby the site. This will be augmented with data obtained in the field exploration phase of the project.
- Develop the criteria and subsurface exploration plan for submission to the City upon notice to proceed.
- Obtain City permits for proposed subsurface investigations and a submit traffic control plan, as required, based on the location of the proposed investigations.
- Locate utilities at the proposed boring locations. This will be completed at least 48 hours from the initiation of the filed investigation. URS will also work with the City to identify the location of the CSO pipe in relation to the proposed borings. We anticipate that the City will have a minimum setback from the centerline of the pipe to maintain sufficient clearance to avoid damaging the pipe during drilling operations.
- Conduct a field exploration program consisting of up to four boreholes and five cone penetrometer tests (CPT). One borehole will be located at the propose substation, the other boring and CPT holes will be located along the proposed alignment. Boreholes will be advanced to a minimum of 10 feet into the Troutdale gravels. We anticipate that these holes will be between 50 and 75 feet below ground surface. Up to three of the CPT holes will be advanced to the Troutdale, the remaining two will be shallow and used to support the proposed track subgrade design.
- URS will restrict work hours, as necessary, during drilling to meet City requirements. Groundwater monitoring wells will not be established as part of our fieldwork, but we will note the groundwater levels encountered in each of the explorations. URS will complete the subsurface program as described above. Subsurface investigations located on private property will require right of entry permits from the owners of the property. URS assumes that the City will provide these permits, as required.
- Complete a laboratory test program to assess the pertinent engineering characteristics of the site soils. Tests may include evaluation of moisture content, unit weight, gradation, shear strength, and compressibility. These samples will be tested in our Portland, Oregon laboratory or subcontracted out to Northwest Testing, Inc. URS shall ensure all necessary laboratory testing is conducted as needed to

comply with City of Portland requirements, and provide the basis for necessary inputs required for the fill, roadway, track slab and retaining wall designs.

- Develop a soil profile for the project area using the subsurface information from previous and current investigation.
- Develop alternatives and recommendations regarding protection of the existing CSO pipe below the proposed fill areas.
- Develop recommendations regarding shallow foundation support of the proposed structures, as necessary. This will include the following:
 - Allowable soil bearing pressure
 - Lateral sliding friction coefficients between soil and concrete
 - Active, at rest and passive equivalent fluid lateral pressures
 - Minimum embedment depth into soil mass or competent bearing strata for new foundations
 - Minimum footing size and depth
 - Estimated total and differential settlement of new foundations
- Develop geotechnical design recommendations for the catenary pole foundations that will include bearing, active and passive pressures for overturning resistance, and anticipated settlements.
- Develop a comprehensive Lateral Load Analysis for the project alignment that will include the OSSC Method, Broms Method and the LPILE methods to allow for an optimized catenary pole foundation design.
- Determine corrosion potential and grounding resistance design parameters at the proposed site by resistivity tests. This will be used for construction material recommendations and cathodic protection requirements.
- Development of MSE wall design recommendations including earth pressures, bearing capacities, estimated settlements, and global stability analysis.
- Develop the seismic design parameters as required in the Oregon Structural Specialty Code (OSSC) and in compliance with the current AASHTO code.
- Recommendations for seismically induced liquefaction potential, settlement and lateral spread.
- Develop modulus of design for track beds
- Develop track subdrainage requirements, as necessary
- Develop recommendations pertaining to earthwork at the site. This includes recommendations for site preparation, overexcavation requirements, frost penetration depths, foundation construction, construction sequencing, embankment base preparation, wet weather earthwork, MSE and embankment fill, temporary excavations, and drainage control, as applicable. Develop recommendations for suitability of onsite soils for use as structural fill, compaction criteria.

Additional Assumptions

- All cuttings will be drummed and disposed of off site
- Contaminated soils will not be encountered
- Piezometers will not be installed
- City permits, as required, will be obtained at no cost
- One substation area is anticipated
- Right of entry permits will be provided by the City, as required

- Deep foundations will not be required

Consultant shall prepare a draft geotechnical report. The report will summarize the field observations and data, presents laboratory test results, and discusses the preliminary foundation and earthwork recommendations. Three copies will be submitted for review. URS will respond to review comments as necessary and finalize the geotechnical report. After incorporating the relevant comments, URS will submit three copies of the final geotechnical report.

DELIVERABLES:

Consultant shall provide:

- Design criteria and subsurface exploration plan
- Traffic control plan and required permitting for subsurface investigation.
- Draft Geotechnical and Pavement Report within forty-five (45) business days of NTP. One (1) electronic .pdf version of draft geotechnical report will be provided.
- Final Geotechnical and Pavement Report. Five (5) hard copies and one (1) electronic .pdf version of final geotechnical report shall be provided within ten (10) days of receiving comments from both Agency and City.

Task 10.0: Pavement Design

Consultant shall provide a single asphalt concrete (AC) pavement section design to simplify construction and future maintenance since the project is relatively short. The pavement design will meet perpetual pavement criteria based on the controlling conditions of the subgrade moduli within the north and south ends of the project and TriMet bus axle loading.

Work shall include:

- Conduct walking reconnaissance of site conditions.
- Conduct Falling Weight Deflectometer (FWD) testing within existing roadway at north and south ends of project for estimation of in situ subgrade resilient modulus.
- Conduct tests at 100 ft intervals on 1 test line both ends.
- Provide traffic control for testing work.
- Review URS draft geotechnical report.
- Review DKS traffic data.
- Estimate axle load spectra for pavement design analysis.
- Develop design for an AC pavement section using PerRoad 3.3 software to meet perpetual pavement design criteria that the computed values of AC tensile strain and subgrade compressive strain are less than their respective endurance thresholds of 70 and 200 microstrain in 90% of the Monte Carlo analysis simulation runs.
- Summarize design recommendations in draft design report with supporting documentation.

DELIVERABLES:

Consultant shall provide:

- Draft Pavement Report (one (1) electronic copy in .pdf format).
- Final Pavement Report (one (1) electronic copy in .pdf format and four (4) paper copies).

Task 0.0: Utility Coordination

Consultant shall provide labor, equipment and materials to conduct all utility related tasks listed below:

- Identify existing and proposed utilities.
- Notify utility companies, in writing, of project scope, schedule and potential impacts.

- Make initial determination of potential utility reimbursement costs for budgeting purposes.
- Determine utility conflicts based on the current project design.
- Verify location data and conflicts with utility companies.
- Develop detailed list of all conflicts for each utility.
- Work in coordination with utility and City to determine best solution of utility conflicts.
- Notify utilities, in writing, of project schedule, the specific conflicts with their utility facilities, and the requirement to relocate. Request relocation plan and relocation schedule and a cost estimate if appropriate.
- Work with utilities to determine best relocation schedule and any coordination requirements with the construction Project.
- Confirm utility relocation schedule in writing with each utility.
- Prepare written utility relocation specifications for the Contract Special Provisions.

Consultant shall schedule and conduct three utility coordination meetings. The purpose of the first meeting is to share project information with the utility companies, review the concept set and project schedule, for construction, and identify potential utility conflicts within the Project area. The purpose of the second meeting is to review the design details of the Project, confirm utility conflicts with the design, review utility relocation plans and develop a preliminary schedule of utility relocations work. Both meetings will be held at the Consultant's Portland office. A third meeting is planned to be held in the field with utilities that need further coordination.

DELIVERABLES:

Consultant shall provide:

- Utility conflict identification notes with each plan set deliverable.
- Utility Coordination Meeting agenda and minutes (meetings as scheduled by the City). Meeting agendas due three (3) business days prior to the meetings and meeting notes within five (5) business days following the meetings.

Task 11.0: Project Design

Consultant shall provide labor, equipment and materials to design the following major project elements for construction through a CMGC process. For estimating purposes, the following elements are assumed:

- Task 12.1 Temporary Streetcar Design
- Task 12.2 Advance Purchase Track
- Task 12.3 Sanitary Sewer Relocation and 24" Water Main
- Task 12.4 Double track of street car from River Parkway to Sheridan
- Task 12.5 Walls, Fill and Utilities
- Task 12.6 Temporary roadway and multi-use path to be used during construction
- Task 12.7 Roadway and streetcar design from River Parkway to Gibbs

The elements listed above will be group together in up to three design packages and will include the following five submittals.

1. Concept Set PS&E:
 - Concept Plans: One (1) half-size, 11"x17" set of concept design plans on paper
 - Engineer's Estimate with bid items and quantity take-offs (Microsoft Excel)
2. Preliminary Set PS&E:
 - Preliminary Plans: One (1) half-size, 11"x17" set of preliminary design plans on paper
 - Updated Engineer's Estimate with bid items and quantity take-offs (Microsoft Excel)
 - Updated Technical Specifications (Microsoft Word)
3. Review Set PS&E:

- Review Plans:
 - One (1) half-size, 11"x17" set of advanced review design plans on paper
 - Updated Engineer's Estimate with bid items and quantity take-offs (Microsoft Excel)
 - Updated Technical Specifications (Microsoft Word)
4. Bid Set PS&E: Stamped and Signed Plans, Specifications and Estimate
- 100% Final Plans: Stamped and Signed plans
 - One (1) half -size, 11"x17" set of final design plans on paper
 - One (1) half -size, 11"x17" set of final design plans in Adobe Acrobat (.pdf) format
 - Electronic files in MicroStation (.dgn) design file format. The MicroStation design files shall be kept on their original coordinate base. Level names that currently exist shall remain. New logical level names may be added as needed but must remain within the maximum 63 layers as supported by the MicroStation level structure. All necessary MicroStation resource files (font libraries, line styles, etc.) shall be included with the returned set.
 - Final Engineer's Estimate with bid items and quantity take-offs (Microsoft Excel)
 - Final stamped Technical Specifications (Microsoft Word)
5. Construction Set PS&E: Stamped and Signed Plans, Specifications and Estimate
- 100% Final Plans: Stamped and Signed plans-Incorporates any Bid Period Revisions(Addendums)
 - One (1) half -size, 11"x17" set of final design plans on paper
 - One (1) half -size, 11"x17" set of final design plans in Adobe Acrobat (.pdf) format
 - Electronic files in MicroStation (.dgn) design file format.
 - Final Engineer's Estimate with bid items and quantity take-offs (Microsoft Excel)
 - Final stamped Technical Specifications (Microsoft Word)

Below is a general description of the work to be included with each major project element:

Task 11.1 Temporary Streetcar Design

Consultant shall prepare final design plans that will include the following:

- Streetcar Phasing Concept
- Streetcar Track Alignment and Profiles
- Streetcar Details
- OCS Layout Plans and Details
- Typical Sections and Detail Sheets
- Erosion Control Plans

Task 11.2 Advance Purchase Track

Consultant shall prepare materials list for purchasing of track

Task 11.3 Sanitary Sewer Relocation and 24" Water Main

- Sanitary Sewer Plan and Profile
- Sanitary Sewer Details
- Water Main Plans
- Water Main and Corrosion Control Details

- Erosion Control Plans
- Temporary Wall Plans and Details
- Staging and Traffic Control Plans

Task 11.4 Double track of street car from River Parkway to Sheridan

Consultant shall prepare final design plans that will include the following:

- Streetcar Track Alignment and Profiles
- Streetcar Details
- OCS Layout Plans and Details
- Drainage Plans
- Water Main Plans
- Water Main and Corrosion Control Details
- Intersection Detailed Grading Plans
- Signing and Striping Plans
- Typical Sections and Detail Sheets
- Staging and Traffic Control Plans
- Erosion Control Plans
- Landscape Plans
- Traffic Signal Plans
- Illumination Plans

Assumptions:

Signal modifications at the intersection of SW River Parkway/Moody Avenue are limited to modification of traffic signal heads, detector loop modifications, and wiring. The traffic signal system modifications will be designed to meet PBOT design standards and shall consist of the following plans sheets:

Traffic signal interconnect conduit and junction box installations will be done under Task 12.5 as part of the joint utility trench design.

The Consultant will develop street lighting plans for the replacement of the existing cobra head style of street lights located along both sides of SW Moody Avenue between SW River Parkway and SW Sheridan Street. Replacement of the existing lighting will be necessary to accommodate the new streetcar catenary system. PBOT standard twin ornamental street light poles will be used in the new design. The lighting shall be designed to current PBOT standards.

No lighting analysis will be conducted as part of this scope of services.

The Consultant will utilize the existing underground lighting system infrastructure to the extent possible. This will include existing conduits, pull boxes, conductors, and service cabinets. Where required, the Consultant will design the new underground conduit, wiring, and junction box system to match into the existing system. Voltage drop calculations will be conducted to determine the appropriate wire sizes to be utilized in the lighting circuit designs. Conduit fills will be calculated to insure NEC conduit capacities are not exceeded. The Consultant shall coordinate service connections with PGE and will coordinate with other utilities to minimize underground and overhead conflicts with the proposed light pole and foundation design.

The Consultant will design traffic signal interconnect conduits, pull boxes, and wiring along SW Moody Avenue between the intersections of SW River Parkway and SW Sheridan Street. The design elements of the interconnect system will be included on the roadway illumination plans.

Plans and construction cost estimates will be submitted at the Concept Set, Preliminary Engineering, Review Set, and Bid Set design levels. Special provisions will be developed starting at the Preliminary Engineering design level.

Consultant will develop permanent signing plans in accordance with Agency's latest standards and specifications. Consultant shall identify any R/W (including temporary or permanent easements) required for signing. Signing will be required to be replaced along SW Moody Avenue between SW River Parkway Street and SW Sheridan Street.

This scope of services does not include the design of large overhead guide sign panels that may be associated with the Curry Street Ramp closure.

Consultant will develop permanent striping plans in accordance with the Agency's latest standards and specifications. New striping will be required from SW Sheridan Street along SW Moody Avenue to Gibbs Street. Striping will be designed on side street approaches at SW Woods Street, SW Sheridan Street and SW Gibbs Street intersections. In addition, a striping plan will be developed for the OHSU parking lot to replace parking stalls removed to facilitate the SW Moody Avenue construction.

Consultant shall develop temporary traffic control plans for the SW Moody Avenue Improvements between SW River Parkway and SW Sheridan Street. Temporary traffic control will be designed to PBOT and MUTCD standards and will consist of a road closure with signed detour route.

Task 11.5 Temporary Walls, fill and utilities (franchise, water, and storm)

Consultant shall prepare final design plans that will include the following:

- Plan and Profile design
- Horizontal and Vertical Alignment
- Storm Sewer Plan and Profile
- Water Main Plans
- Water Main and Corrosion Control Details
- Joint Utility Trench Design
- Typical Sections and Detail Sheets
- Staging and Traffic Control Plans
- Erosion Control Plans
- Landscape Plans
- Temporary Wall Design Plans and Details

Assumptions:

The Consultant will design the roadway illumination and interconnect underground conduit and pull box systems that will become part of the joint utility trench. The underground system will be designed to accommodate the temporary roadway lighting system and future permanent lighting system along SW Moody Avenue from SW Sheridan Street to the Ross Island Bridge Overcrossing. From the Ross Island Bridge Overcrossing to SW Gibbs Street, the underground system will be designed to accommodate the

permanent roadway illumination system. Conduits will be sized to accommodate the assumed worst case fill condition.

Consultant shall develop temporary traffic control plans for the SW Moody Avenue Improvements between SW River Parkway and SW Sheridan Street. Temporary traffic control will be designed to facilitate the installation of the joint utility trench and will follow PBOT and MUTCD standards.

Task 11.6 Temporary roadway and multi-use path to be used during construction

Consultant shall prepare final design plans that will include the following:

- Roadway Design Plans
- Drainage Plans
- Intersection Detailed Grading Plans
- Signing and Striping Plans
- Typical Sections and Detail Sheets
- Staging and Traffic Control Plans
- Erosion Control Plans
- Landscape Plans
- Traffic Signal Plans
- Illumination Plans

Assumptions:

The Consultant will develop temporary parking illumination plans for the temporary relocation of parking lot lighting affected by the SW Moody Avenue construction. The temporary lighting shall consist of wood light poles and aerial power feeds. The temporary lighting shall be designed to current PBOT standards.

No lighting analysis will be conducted as part of this scope of services.

The Consultant will conduct voltage drop calculations to determine the appropriate wire sizes to be utilized in the temporary lighting circuit designs. The Consultant shall coordinate service connections with PGE and will coordinate with other utilities to minimize underground and overhead conflicts with the proposed light pole and foundation design.

Consultant shall develop temporary traffic control plans for the SW Moody Avenue Improvements between SW Sheridan Street to SW Gibbs Street. Temporary traffic control will be designed to PBOT and MUTCD standards and will consist maintaining southbound traffic along with a multi-use path and a road closure for northbound traffic with signed detour route. Temporary traffic control plans will be developed for relocating the OHSU parking lot entrance from its current position to the SW Sheridan Street /Moody Avenue intersection.

Task 11.7 Roadway and streetcar design from River Parkway to Gibbs

Consultant shall prepare final street design plans that will include the following:

- Roadway Plan and Profile design
- Horizontal and Vertical Alignment
- Streetcar Track Alignment and Profiles
- Streetcar Details

- Streetcar Platform Plans
- OCS Layout Plans and Details
- Drainage Plans
- Intersection Detailed Grading Plans
- Paving Plan
- Signing and Striping Plans
- Typical Sections and Detail Sheets
- Staging and Traffic Control Plans
- Erosion Control Plans
- Landscape Plans
- Traffic Signal Plans
- Illumination Plans
- Permanent Retaining Wall Plans and Details

Assumptions:

The Consultant will develop traffic signal plans and traffic signal modification plans for the following intersection:

- SW Moody Avenue/Sheridan Street – new traffic signal to replace existing system
- SW Moody Avenue/Woods Street – new traffic signal system
- SW Moody Avenue/Gibbs Street – modification of existing traffic signal system
- Signal Foundations based on ODOT standard shaft foundations.

Removal plans will be developed for the existing system at the intersection of SW Moody Avenue/Sheridan Street. Modifications for the traffic signal at the intersection of SW River Parkway/Gibbs Street will be designed to keep the existing traffic signal system in operation during construction as necessary to accommodate traffic. It is assumed that most of the underground conduit systems will be maintained and that 2 to 3 traffic signal poles as well as the traffic signal controller will require relocation. The traffic signal systems will be designed to meet PBOT design standards.

The Consultant shall design the underground conduit, wiring, and junction box systems. The Consultant shall coordinate service connection requirements with PGE and will coordinate with other utilities to minimize underground and overhead conflicts with the proposed traffic signal poles and foundations.

Traffic signal interconnect conduit and junction box installations will be done under Task 12.5 as part of the joint utility trench design.

Geotechnical studies for the design of foundations will be conducted under Task 9.0.

The Consultant will develop street lighting plans for the installation of above ground roadway lighting hardware along SW Moody Avenue between the intersections of SW Sheridan Street and SW Gibbs Street. The street lights between SW Sheridan Street and the Ross Island Bridge Overcrossing shall be temporary wood poles with cobra head style of luminaires and will be located along one side of the roadway. From the Ross Island Bridge Overcrossing to SW Gibbs Street, the permanent roadway lighting consisting of the South Waterfront Contemporary Twin luminaire poles with mast and way finding lights will be designed. The lighting shall be designed to current PBOT standards .

No lighting analysis will be conducted as part of this scope of services. This task assumes light pole layout for both the permanent and temporary lighting has been completed under Task 12.5.1

The Consultant will utilize the lighting conduit and pull box systems installed under Task 12.5 for installation of roadway lighting circuits. Voltage drop calculations will be conducted to determine the appropriate wire sizes to be utilized in the lighting circuit designs. Conduit fills will be calculated to insure NEC conduit capacities are not exceeded. The Consultant will determine locations for service panels and will coordinate service connections with PGE and will coordinate with other utilities to minimize underground and overhead conflicts with the proposed light pole and foundation design.

The Consultant will design traffic signal interconnect wiring and connections into traffic signal controlled intersections of SW Porter Street/Moody Avenue, SW Woods Street/Moody Avenue, and SW Gibbs Street/Moody Avenue. The design elements of the interconnect system will be included on the roadway illumination plans.

Consultant will develop permanent signing plans in accordance with Agency's latest standards and specifications. Consultant shall identify any R/W (including temporary or permanent easements) required for signing. Signing will be required to be replaced along SW Moody Avenue between SW Sheridan Street and SW Gibbs Street.

This scope of services does not include the design of large overhead guide sign panels that may be associated with the Curry Street Ramp closure.

Consultant will develop permanent striping plans in accordance with the Agency's latest standards and specifications. New striping will be required from SW Sheridan Street along SW Moody Avenue to Gibbs Street. Striping will be designed on side street approaches at SW Woods Street, SW Sheridan Street and SW Gibbs Street intersections. In addition, a striping plan will be developed for the OHSU parking lot to replace parking stalls removed to facilitate the SW Moody Avenue construction.

The Consultant will provide temporary traffic control plans for the transition of traffic from the temporary alignment to the permanent roadway alignment, reconstruction of the OHSU parking lot originally removed as part of the temporary roadway alignment during construction and for finalizing the SW Woods Street approach to SW Moody Avenue. Temporary traffic control will be designed to PBOT and MUTCD standards

Contingency Task 11.8 Porter/Moody Light Rail Coordination

Consultant shall prepare the following:

- Coordinate with TriMet and PSI/City of Portland to determine the planned operations and system requirements for the proposed LRT crossing and future Close-the-Loop streetcar track connections at the intersection of Moody and Porter
- Develop the track and special trackwork designs
- Assess the feasibility of the different phasing scenarios for the installation of the special trackwork
- Assist in the determination of the necessary system design requirements (signaling, communications and OCS) and incorporate those elements that related directly to the track infrastructure located on Moody
- Assist in the assessment of the potential phasing scenarios for the system elements
- Assist in the determination of cost sharing responsibilities between the three projects (Moody; Milwaukie LRT; Close-the-Loop)
- Coordinate with systems, train signaling and traffic signal designs as necessary
- Attend design coordination meetings with design team, TriMet and City as necessary

- Conduct QA/QC reviews per project requirements
- Complete necessary specifications for special track improvements
- Generate special trackwork procurement package including detailed designs and specifications
- Review and respond to contractor RFI's and provide design clarifications as necessary
- Conduct site visits for purposes of inspection or design clarification upon request
- Conduct site visit for inspection of special trackwork fabrication
- Provide track design support upon request. Provide new designs as necessary to resolve minor field related conditions or conflicts.

Task 12.0: Bid Support

It is assumed that during the letting process Plan Holders may ask clarifying questions and identify areas within the bid documents that need to be amended. The Consultant shall be available to respond to questions and prepare an addendum(s) to the bid documents.

It is assumed that a pre-bid meeting with prospective Construction Contractors will not be required.

Task 12.1: Bid Support

Consultant shall respond to question from Construction Contractors and suppliers regarding the Plans and Special Provisions that are fielded by the Agency. Responses to questions will be in writing and forwarded to the Agency for distribution within one (1) business day from the time a question is submitted by a Construction Contractors.

During the bidding process, the Consultant shall manage the communications with Construction Contractors and suppliers in a manner that provides that no Construction Contractors or supplier is provided with information that could provide a bidding advantage or disadvantage. Consultant shall prepare a written log to document questions and answers asked by Construction Contractors and suppliers, and prepare a summary of the communications at the close of the bidding period.

Consultant shall prepare an addendum to the bid documents as required during the bidding process. An allowance for supporting three (3) bid addenda is provided for in the estimated budget for this SOW.

DELIVERABLES AND SCHEDULE:

Consultant shall provide:

- Written log of conversations, questions and answers. Responses to questions must be forwarded to the Agency for distribution within one (1) business day from the time that a question is received by the Consultant.
- Up to three (3) copies of written addenda determined to be necessary and appropriate.
- Up to three (3) PS&E modifications for use in addenda.

Task 13.0: Construction Engineering, Construction Management and Inspection

Task 13.1: Construction Engineering and Staking Data

Consultant shall provide office engineering support as detailed below.

- Prepare design modification details as necessary as a result of different conditions encountered during construction
- Respond to RFIs by the Contractor and prepare plan revisions as required
- Review structural shop drawings and submittals
- Make field visits to observe construction issues as requested. Prepare written field observation reports for field visit.
- Prepare as-built drawings for the project. City will provide one set fully marked up with all changes necessary to be included in the as-built drawings, which will be provided in both electronic (with revisions electronically added) and half-size paper (with revisions included and replotted). As-built drawings shall include:

- Certification on each drawing as “As Built” or “Not Revised” with preparer’s name and date
- As-built drawings do not require an Engineer’s Seal; however, each drawing must reference the original sealed contract drawings with a notation similar to:

DELIVERABLES:

Consultant shall provide:

- Response to RFIs and plan revisions
- Submittal and/or shop drawing responses
- Plan Revisions as necessary during construction
- Project As-builts
- Field observation report

Task 13.2 Construction Management

Consultant shall provide one (1) full-time Field Engineer for up to seventeen (17) months and one (1) half-time Construction Tech for up to seventeen (17) months.

Consultant shall:

- Provide field engineering in coordination with City’s Construction Project Manager
- Review inspectors installation sheets
- Assist in preparation of contractors payment
- Review employee certified payrolls submitted by contractor
- Distribute contractor submittals for review
- Collect and distribute as needed daily field testing reports
- Maintain project files

DELIVERABLES:

Consultant shall provide:

- Daily reports as required by the City up to four hours per day throughout the duration of the construction project.

Task 13.3 Construction Inspection

Consultant will provide one (1) full-time Project inspector for the duration of the construction Project. Construction activities are estimated to last seventeen (17) months.

Inspection Services to include:

- Review engineering plans, specifications, contract documents, and recommendation reports during pre-construction period if requested; and instruct the CC on these requirements.
- Inspect and prepare daily reports on installation sheets, for payment on pipeline, structure and street construction, for quality of work and material, for proper line, grade, slope, placement, and for adherence to stipulations and specifications, including the environment for all parties involved.
- Inspect the CC’s method of construction. Investigate complaints relative to projects and check for proper dimensions, quantities, and proper use of materials. Interpret plan requirements such as survey stakes and controls; verify accuracy and consistency with plans and drawings. Prepare daily reports and discuss the changes with the contractor.
- Inspect and prepare daily reports and installation sheets for payment for construction of curbs, sidewalks and streets and proper grade and slope. Check forms for proper alignment and surfacing; check crowns before and after surfacing material has been laid down; inspect gravel, asphalt, concrete mixes, and joint material going into pavement for quality.

- Provide final walk-through at the construction site; issue payment documents; and monitor testing of materials.
- Prepare "as-paid" plans.
- Perform related duties as assigned.

DELIVERABLES:**Consultant shall provide:**

- Daily Construction Inspection reports
- Payment Documents twice monthly (by the middle and end monthly cutoff dates)
- As-paid plans within 60days of the project completion by the CC.
- Construction Inspection throughout the Project

Harper Houf Peterson Righellis, Inc - Moody Avenue Fee	Proposed	Harper Houf Peterson Righellis, Inc.																DKS ASSOCIATES							ACE			Eilon							OBEC														
		Senior Principal - Dan Houf	Project Manager - April Siebenaler	Quality Control Engineer	Project Engineer - Bruce Hummelner	Civil Engineer	Senior Civil Designer - Jeff Elston	Civil Designer - Jake Lydon	CAD Technician - Ted Hem	Inspector	Tech/EIT	Graphic Designer	Survey Manager - John Cambell	Lead Landscape Architect	Landscape Architect	Landscape Designer	Clerical	Expenses	Grade 26Principal Traffic Engineering	Grade 17Senior Task Manager	Grade 11Project Engineer	Grade 9Graphic Support	Grade 10Project Engineer	Grade 7ICAD Support	Tech./Admin. Support	Expenses	Principal Engineer	Senior Designer II	Senior Designer 1	Corrosion Protection Specialist	Expenses	Task Manager	Traction Power Engineer	Train Control Engineer	Structural Engineer	Project Engineer	CAD Technician	Clerical	Expenses	Senior Project ManagerPrincipal Engineer	Senior Project EngineerProject Manage	Senior Specifications Engineer	Senior CAD Technician	Administrative Assistant 3	Secretary 2	Expenses			
Task Description																																																	
Task 1: Project Intent and Project Management																																																	
Task 1.1 Project Management /Communications and Schedule		2500														120	\$150.00																																
Task 1.2 Monthly Invoices and Weekly Progress Reports		350														80	\$200.00																																
																	\$350.00																																
Task 2: Quality Control																																																	
Task 2.0 Review of Roadway, Sewer, Water elements																																																	
Task 3: Streetcar Coordination and Oversight																																																	
Task 3.1 Streetcar Design Coordination																																																	
Task 3.2 Streetcar Design Quality Assurance																																																	
Task 3.3 PSI Coordination																																																	
Task 3.4 Streetcar Construction Coordination																																																	
Task 4: Meetings Support																																																	
Task 4.1 Project Kick-off Meeting		8		3		3					8						\$25.00	2	2																														
Task 4.2 Team Meetings		90		45		45										120	\$250.00	5	40																														
Task 4.3 Design Workshops		8		6		6											\$50.00	8	8																														
Task 4.4 Bureau Coordination Meetings		60		60													\$200.00		8																														
Task 4.5 Development Design Coordination Meetings		60		40													\$100.00		10																														
Task 4.6 Community Meetings		24		12													\$250.00																																
Task 4.7 Project Newsletters											160						\$200.00																																
Task 4.8 Web site/Logo																																																	
Task 5: Background Data Collection, Surveying and Mapping																	\$1,075.00																																
Task 5.1 Photo Log				2		16										24	\$100.00																																
Task 5.1 Field Verdy Survey and Basemap Refinement				4		8		8																																									
Task 5.2 ROW Exhibits and Legal Descriptions											96																																						
Task 6: Traffic Analysis																																																	
Task 6.2 Traffic Analysis for Interim Year Scenarios																		6	22	60	12	65		8																									
Task 7: Environmental Documentation																																																	
Task 7.1 FTA Environmental Documentation and Clearance																																																	
Task 7.2 Hazardous Materials Assessment																																																	
Task 7.4 Soil Management Plan																																																	
Task 8: Geotechnical Engineering Services																																																	
Task 8.1 Geotechnical Engineering and Report																																																	
Task 9-0 Pavement Design																																																	
Task 9-0 Pavement Design																																																	
Task 10-0 Utility Coordination																																																	
Task 10.0 Utility Coordination		40				80	180	20	20	40																																							
Task 11-0 Project Design																																																	
Task 11.1 Temporary Streetcar Design						20	8	20	20	8							\$200.00																																
Task 11.2 Advance Track Purchase		16															\$100.00																																
Task 11.3 Sanitary Sewer Relocation			20	80	40	20	20	20									\$200.00																																
Task 11.4 Double track of street car from River Parkway to Sheridan		8		140	40	160	160	160				8	20	40	16		\$200.00	7	34	120		116	56	11	\$100.00																								
Task 11.5 Walls, fill and utilities		250	80	1000	800	1000	1000	1000							16		\$200.00	4	40	100		92	60	8	\$100.00																								

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