



DAN JOHNSON
DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD OREGON CITY, OR 97045

August 10, 2023

BCC Agenda Date/Item: _____

Board of County Commissioners
Clackamas County

**Approval of a Contract with DKS Associates, Inc. for the
82nd Drive and Jennifer Street Signal Replacement Project. Total contract value is
\$351,385.65. Funding is through County Road Fund, Insurance Proceeds, and Fee In Lieu
of Funds. No County General Funds are involved.**

Previous Board Action/Review	Discussed at issues: August 8, 2023		
Performance Clackamas	The project will build a strong infrastructure.		
Counsel Review	Yes – Andrew Naylor	Procurement Review	Yes
Contact Person	Terry Mungenast	Contact Phone	503-742-4656

EXECUTIVE SUMMARY: The traffic signals at the 82nd Drive and Jennifer Street intersection are over 30 years old and have exceeded their service life. Recently, one pole was damaged by a motor vehicle and a wood pole is currently in use as a temporary replacement. Also, the existing curb ramps do not meet current ADA standards and must be replaced. This contract will provide design services to install replacement traffic signals, street lighting, ADA curb ramps, pushbuttons, pavement, and pavement markings. The proper function of this busy intersection is critical to keep commercial trucking, automobiles and pedestrians moving through the area, efficiently and safely.

The project's total estimated construction cost is \$1,402,040. County Road Fund is expected to contribute up to \$1,314,540 with \$50,000 in insurance proceeds from the pole damage and \$37,500 from Fee In Lieu Of funds. Clackamas River Water constructed waterline improvements at this location and the County suggested paying a fee in lieu of constructing ADA Ramp improvements that would need to be reconstructed with this traffic signal project. The design of the project is anticipated to be complete by October 31, 2024 with construction in 2025.

For Filing Use Only

PROCUREMENT PROCESS: This project was advertised in accordance with ORS and LCRB Rules on December 27, 2022, through RFP 2022-116. Proposals were publicly opened on January 31, 2023. The County received two (2) Proposals in response to the RFP from Kittelson and Associates and DKS Associates, Inc. An evaluation committee of three DTD personnel evaluated the proposals and scored the DKS Associates, Inc. proposal the highest. Upon notification of intent to award, the statement of work and project fees were negotiated and finalized.

RECOMMENDATION: Staff recommends that the Board approve this Consultant Services contract with DKS Associates, Inc. for the 82nd Drive and Jennifer Street Signal Replacement Project.

Respectfully submitted,

Dan Johnson

Dan Johnson, Director
Department of Transportation & Development



CLACKAMAS COUNTY
PERSONAL SERVICES CONTRACT
Contract #8255

This Personal Services Contract (this “Contract”) is entered into between **DKS Associates, Inc.**, (“Contractor” or “Consultant”), and Clackamas County, a political subdivision of the State of Oregon (“County”) on behalf of Department of Transportation and Development.

ARTICLE I.

- 1. **Effective Date and Duration.** This Contract shall become effective upon signature of both parties. Unless earlier terminated or extended, this Contract shall expire on **October 31, 2024**.
- 2. **Scope of Work.** Contractor shall provide the following services: engineering services necessary to design 82nd Drive and Jennifer Street Signal Replacement (“Work”), further described in **Exhibit A**.
- 3. **Consideration.** The County agrees to pay Contractor, from available and authorized funds, a sum not to exceed **Three Hundred Fifty-One Thousand Three Hundred Eighty-Five Dollars and Sixty-Five Cents (\$351,385.65)**, for accomplishing the Work required by this Contract. Consideration rates are on a time and materials basis in accordance with the rates and costs specified in Exhibit B. If any interim payments to Contractor are made, such payments shall be made only in accordance with the schedule and requirements in Exhibit B.
- 4. **Invoices and Payments.** Unless otherwise specified, Contractor shall submit monthly invoices for Work performed. Invoices shall describe all Work performed with particularity, by whom it was performed, and shall itemize and explain all expenses for which reimbursement is claimed. The invoices shall include the total amount billed to date by Contractor prior to the current invoice. If Contractor fails to present invoices in proper form within sixty (60) calendar days after the end of the month in which the services were rendered, Contractor waives any rights to present such invoice thereafter and to receive payment therefor. Payments shall be made in accordance with ORS 293.462 to Contractor following the County’s review and approval of invoices submitted by Contractor. Contractor shall not submit invoices for, and the County will not be obligated to pay, any amount in excess of the maximum compensation amount set forth above. If this maximum compensation amount is increased by amendment of this Contract, the amendment must be fully effective before Contractor performs Work subject to the amendment.

Invoices shall reference the above Contract Number and be submitted to: terrymun@clackamas.us

- 5. **Travel and Other Expense.** Authorized: Yes No
If travel expense reimbursement is authorized in this Contract, such expense shall only be reimbursed at the rates in the County Contractor Travel Reimbursement Policy, hereby incorporated by reference and found at: <https://www.clackamas.us/finance/terms.html>. Travel expense reimbursement is not in excess of the not to exceed consideration.
- 6. **Contract Documents.** This Contract consists of the following documents, which are listed in descending order of precedence and are attached and incorporated by reference, this Contract, Exhibit A, and Exhibit B.

7. Contractor and County Contacts.

Contractor Administrator: Nate Schroeder Phone: 503-972-1238 Email: nns@dksassociates.com	County Administrator: Terry Mungenast Phone: 503-742-4656 Email: terrymun@clackamas.us
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Payment information will be reported to the Internal Revenue Service (“IRS”) under the name and taxpayer ID number submitted. (See I.R.S. 1099 for additional instructions regarding taxpayer ID numbers.) Information not matching IRS records will subject Contractor payments to backup withholding.

ARTICLE II.

- 1. ACCESS TO RECORDS.** Contractor shall maintain books, records, documents, and other evidence, in accordance with generally accepted accounting procedures and practices, sufficient to reflect properly all costs of whatever nature claimed to have been incurred and anticipated to be incurred in the performance of this Contract. County and their duly authorized representatives shall have access to the books, documents, papers, and records of Contractor, which are directly pertinent to this Contract for the purpose of making audit, examination, excerpts, and transcripts. Contractor shall maintain such books and records for a minimum of six (6) years, or such longer period as may be required by applicable law, following final payment and termination of this Contract, or until the conclusion of any audit, controversy or litigation arising out of or related to this Contract, whichever date is later.
- 2. AVAILABILITY OF FUTURE FUNDS.** Any continuation or extension of this Contract after the end of the fiscal period in which it is written is contingent on a new appropriation for each succeeding fiscal period sufficient to continue to make payments under this Contract, as determined by the County in its sole administrative discretion.
- 3. CAPTIONS.** The captions or headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any provisions of this Contract.
- 4. COMPLIANCE WITH APPLICABLE LAW.** Contractor shall comply with all applicable federal, state and local laws, regulations, executive orders, and ordinances, as such may be amended from time to time.
- 5. COUNTERPARTS.** This Contract may be executed in several counterparts (electronic or otherwise), each of which shall be an original, all of which shall constitute the same instrument.
- 6. GOVERNING LAW.** This Contract, and all rights, obligations, and disputes arising out of it, shall be governed and construed in accordance with the laws of the State of Oregon and the ordinances of Clackamas County without regard to principles of conflicts of law. Any claim, action, or suit between County and Contractor that arises out of or relates to the performance of this Contract shall be brought and conducted solely and exclusively within the Circuit Court for Clackamas County, for the State of Oregon. Provided, however, that if any such claim, action, or suit may be brought in a federal forum, it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this section be construed as a waiver by the County of any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any claim or from the jurisdiction of any court. Contractor, by execution of this Contract, hereby consents to the personal jurisdiction of the courts referenced in this section.
- 7. INDEMNITY, RESPONSIBILITY FOR DAMAGES.** Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay which may be caused by, or result from, any act, omission, or neglect of Contractor, its subcontractors, agents, or employees. The Contractor agrees to indemnify and defend the County, and its officers, elected officials, agents, and employees, from and against all claims, actions, losses, liabilities, including

reasonable attorney and accounting fees, and all expenses incidental to the investigation and defense thereof, arising out of or based upon Contractor's acts or omissions in performing under this Contract.

However, neither Contractor nor any attorney engaged by Contractor shall defend the claim in the name of County, purport to act as legal representative of County, or settle any claim on behalf of County, without the approval of the Clackamas County Counsel's Office. County may assume its own defense and settlement at its election and expense.

- 8. INDEPENDENT CONTRACTOR STATUS.** The service(s) to be rendered under this Contract are those of an independent contractor. Although the County reserves the right to determine (and modify) the delivery schedule for the Work to be performed and to evaluate the quality of the completed performance, County cannot and will not control the means or manner of Contractor's performance. Contractor is responsible for determining the appropriate means and manner of performing the Work. Contractor is not to be considered an agent or employee of County for any purpose, including, but not limited to: (A) The Contractor will be solely responsible for payment of any Federal or State taxes required as a result of this Contract; and (B) This Contract is not intended to entitle the Contractor to any benefits generally granted to County employees, including, but not limited to, vacation, holiday and sick leave, other leaves with pay, tenure, medical and dental coverage, life and disability insurance, overtime, Social Security, Workers' Compensation, unemployment compensation, or retirement benefits.
- 9. INSURANCE.** Contractor shall secure at its own expense and keep in effect during the term of the performance under this Contract the insurance required and minimum coverage indicated below. The insurance requirement outlined below do not in any way limit the amount of scope of liability of Contractor under this Contract. Contractor shall provide proof of said insurance and name the County as an additional insured on all required liability policies. Proof of insurance and notice of any material change should be submitted to the following address: Clackamas County Procurement Division, 2051 Kaen Road, Oregon City, OR 97045 or emailed to the County Contract Analyst.

Required - Workers Compensation: Contractor shall comply with the statutory workers' compensation requirements in ORS 656.017, unless exempt under ORS 656.027 or 656.126.
<input checked="" type="checkbox"/> Required – Commercial General Liability: combined single limit, or the equivalent, of not less than \$1,000,000 per occurrence, with an annual aggregate limit of \$2,000,000 for Bodily Injury and Property Damage.
<input checked="" type="checkbox"/> Required – Professional Liability: combined single limit, or the equivalent, of not less than \$1,000,000 per claim, with an annual aggregate limit of \$2,000,000 for damages caused by error, omission or negligent acts.
<input checked="" type="checkbox"/> Required – Automobile Liability: combined single limit, or the equivalent, of not less than \$1,000,000 per accident for Bodily Injury and Property Damage.

The policy(s) shall be primary insurance as respects to the County. Any insurance or self-insurance maintained by the County shall be excess and shall not contribute to it. Any obligation that County agree to a waiver of subrogation is hereby stricken.

- 10. LIMITATION OF LIABILITIES.** This Contract is expressly subject to the debt limitation of Oregon counties set forth in Article XI, Section 10, of the Oregon Constitution, and is contingent upon funds being appropriated therefore. Any provisions herein which would conflict with law are deemed inoperative to that extent. Except for liability arising under or related to Article II, Section 13 or Section 20 neither party shall be liable for (i) any indirect, incidental, consequential or special damages under this Contract or (ii) any damages of any sort arising solely from the termination of this Contract in accordance with its terms.

- 11. NOTICES.** Except as otherwise provided in this Contract, any required notices between the parties shall be given in writing by personal delivery, email, or mailing the same, to the Contract Administrators identified in Article 1, Section 6. If notice is sent to County, a copy shall also be sent to: Clackamas County Procurement, 2051 Kaen Road, Oregon City, OR 97045. Any communication or notice so addressed and mailed shall be deemed to be given five (5) days after mailing, and immediately upon personal delivery, or within 2 hours after the email is sent during County's normal business hours (Monday – Thursday, 7:00 a.m. to 6:00 p.m.) (as recorded on the device from which the sender sent the email), unless the sender receives an automated message or other indication that the email has not been delivered.
- 12. OWNERSHIP OF WORK PRODUCT.** All work product of Contractor that results from this Contract (the "Work Product") is the exclusive property of County. County and Contractor intend that such Work Product be deemed "work made for hire" of which County shall be deemed the author. If for any reason the Work Product is not deemed "work made for hire," Contractor hereby irrevocably assigns to County all of its right, title, and interest in and to any and all of the Work Product, whether arising from copyright, patent, trademark or trade secret, or any other state or federal intellectual property law or doctrine. Contractor shall execute such further documents and instruments as County may reasonably request in order to fully vest such rights in County. Contractor forever waives any and all rights relating to the Work Product, including without limitation, any and all rights arising under 17 USC § 106A or any other rights of identification of authorship or rights of approval, restriction or limitation on use or subsequent modifications. Notwithstanding the above, County shall have no rights in any pre-existing Contractor intellectual property provided to County by Contractor in the performance of this Contract except to copy, use and re-use any such Contractor intellectual property for County use only.
- 13. REPRESENTATIONS AND WARRANTIES.** Contractor represents and warrants to County that (A) Contractor has the power and authority to enter into and perform this Contract; (B) this Contract, when executed and delivered, shall be a valid and binding obligation of Contractor enforceable in accordance with its terms; (C) Contractor shall at all times during the term of this Contract, be qualified, professionally competent, and duly licensed to perform the Work; (D) Contractor is an independent contractor as defined in ORS 670.600; and (E) the Work under this Contract shall be performed in accordance with the standard of professional skill and care required for a project of similar size, location, scope, and complexity, during the time in which the Work is being performed. The warranties set forth in this section are in addition to, and not in lieu of, any other warranties provided. The Contractor shall be responsible for the technical accuracy of its services and documents resulting therefrom, and County shall not be responsible for discovering deficiencies therein. The Contractor shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in information furnished by the County.
- 14. SURVIVAL.** All rights and obligations shall cease upon termination or expiration of this Contract, except for the rights and obligations set forth in Article II, Sections 1, 6, 7, 10, 12, 13, 14, 15, 17, 20, 21, 25, 27, and 28, and all other rights and obligations which by their context are intended to survive. However, such expiration shall not extinguish or prejudice the County's right to enforce this Contract with respect to: (a) any breach of a Contractor warranty; or (b) any default or defect in Contractor performance that has not been cured.
- 15. SEVERABILITY.** 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.

16. SUBCONTRACTS AND ASSIGNMENTS. Contractor shall not enter into any subcontracts for any of the Work required by this Contract, or assign or transfer any of its interest in this Contract by operation of law or otherwise, without obtaining prior written approval from the County, which shall be granted or denied in the County's sole discretion. In addition to any provisions the County may require, Contractor shall include in any permitted subcontract under this Contract a requirement that the subcontractor be bound by this Article II, Sections 1, 7, 8, 13, 16 and 27 as if the subcontractor were the Contractor. County's consent to any subcontract shall not relieve Contractor of any of its duties or obligations under this Contract.

17. 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 authorized successors and assigns.

18. TAX COMPLIANCE CERTIFICATION. The Contractor shall comply with all federal, state and local laws, regulation, executive orders and ordinances applicable to this Contract. Contractor represents and warrants that it has complied, and will continue to comply throughout the duration of this Contract and any extensions, with all tax laws of this state or any political subdivision of this state, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318. Any violation of this section shall constitute a material breach of this Contract and shall entitle County to terminate this Contract, to pursue and recover any and all damages that arise from the breach and the termination of this Contract, and to pursue any or all of the remedies available under this Contract or applicable law.

19. TERMINATIONS. This Contract may be terminated for the following reasons: (A) by mutual agreement of the parties or by the County (i) for convenience upon thirty (30) days written notice to Contractor, or (ii) at any time the County fails to receive funding, appropriations, or other expenditure authority as solely determined by the County; or (B) if contractor breaches any Contract provision or is declared insolvent, County may terminate after thirty (30) days written notice with an opportunity to cure.

Upon receipt of written notice of termination from the County, Contractor shall immediately stop performance of the Work. Upon termination of this Contract, Contractor shall deliver to County all documents, Work Product, information, works-in-progress and other property that are or would be deliverables had the Contract Work been completed. Upon County's request, Contractor shall surrender to anyone County designates, all documents, research, objects or other tangible things needed to complete the Work.

20. REMEDIES. If terminated by the County due to a breach by the Contractor, then the County shall have any remedy available to it in law or equity. If this Contract is terminated for any other reason, Contractor's sole remedy is payment for the goods and services delivered and accepted by the County, less any setoff to which the County is entitled.

21. NO THIRD PARTY BENEFICIARIES. County and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Contract.

22. TIME IS OF THE ESSENCE. Contractor agrees that time is of the essence in the performance of this Contract.

23. FOREIGN CONTRACTOR. If the Contractor is not domiciled in or registered to do business in the State of Oregon, Contractor shall promptly provide to the Oregon Department of Revenue and the Secretary of State, Corporate Division, all information required by those agencies relative to this

Contract. The Contractor shall demonstrate its legal capacity to perform these services in the State of Oregon prior to entering into this Contract.

- 24. FORCE MAJEURE.** Neither County nor Contractor shall be held responsible for delay or default caused by events outside the County or Contractor's reasonable control including, but not limited to, fire, terrorism, riot, acts of God, or war. However, Contractor shall make all reasonable efforts to remove or eliminate such a cause of delay or default and shall upon the cessation of the cause, diligently pursue performance of its obligations under this Contract.
- 25. WAIVER.** The failure of County to enforce any provision of this Contract shall not constitute a waiver by County of that or any other provision.
- 26. PUBLIC CONTRACTING REQUIREMENTS.** Pursuant to the public contracting requirements contained in Oregon Revised Statutes ("ORS") Chapter 279B.220 through 279B.235, Contractor shall:
- a. Make payments promptly, as due, to all persons supplying to Contractor labor or materials for the prosecution of the work provided for in the Contract.
 - b. Pay all contributions or amounts due the Industrial Accident Fund from such Contractor or subcontractor incurred in the performance of the Contract.
 - c. Not permit any lien or claim to be filed or prosecuted against County on account of any labor or material furnished.
 - d. Pay the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.
 - e. As applicable, the Contractor shall pay employees for work in accordance with ORS 279B.235, which is incorporated herein by this reference. The Contractor shall comply with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract, and failure to comply is a breach entitling County to terminate this Contract for cause.
 - f. If the Work involves lawn and landscape maintenance, Contractor shall salvage, recycle, compost, or mulch yard waste material at an approved site, if feasible and cost effective.
- 27. NO ATTORNEY FEES.** In the event any arbitration, action or proceeding, including any bankruptcy proceeding, is instituted to enforce any term of this Contract, each party shall be responsible for its own attorneys' fees and expenses.
- 28. MERGER.** THIS CONTRACT CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES WITH RESPECT TO THE SUBJECT MATTER REFERENCED THEREIN. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS CONTRACT. NO AMENDMENT, CONSENT, OR WAIVER OF TERMS OF THIS CONTRACT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY ALL PARTIES. ANY SUCH AMENDMENT, CONSENT, OR WAIVER SHALL BE EFFECTIVE ONLY IN THE SPECIFIC INSTANCE AND FOR THE SPECIFIC PURPOSE GIVEN. CONTRACTOR, BY THE SIGNATURE HERETO OF ITS AUTHORIZED REPRESENTATIVE, IS AN INDEPENDENT CONTRACTOR, ACKNOWLEDGES HAVING READ AND UNDERSTOOD THIS CONTRACT, AND CONTRACTOR AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

SIGNATURE PAGE FOLLOWS

By their signatures below, the parties to this Contract agree to the terms, conditions, and content expressed herein.

DKS Associates, Inc.

Clackamas County

Peter L. Coffey

July 19, 2023

Authorized Signature

Date

Chair

Date

Peter Coffey / President

Name / Title (Printed)

Recording Secretary

221955-80

Oregon Business Registry #

APPROVED AS TO FORM

FBC/California

Entity Type / State of Formation

[Signature]
County Counsel

07/20/2023

Date

**EXHIBIT A
PERSONAL SERVICES CONTRACT
SCOPE OF WORK**

SCOPE OF SERVICES

SUMMARY OF WORK

Project management, survey, environmental, stormwater/hydraulic services (as warranted), utility coordination, geotechnical, traffic engineering, public outreach, development of both preliminary design criteria and final PS&E (Plans, Specifications and Estimates) design, and bid assistance up through bid award for this project based upon the scope of services described herein.

Task 1.0 Project Management and Project Coordination

Task 2.0 Survey, Field Investigations and Mapping

Task 3.0 Environmental Reconnaissance and Permitting

Task 4.0 Stormwater / Hydraulic Related Services

Task 5.0 Utility Coordination

Task 6.0 Geotechnical and Geologic Services

Task 7.0 Design Acceptance Package (“DAP”) and Preliminary Design (30%)

Task 8.0 Public Involvement/Outreach

Task 9.0 Final Design (90% and 100% Bid Ready)

Task 10.0 Right-of-Way Research

Task 11.0 Bid and Award Assistance

The duration of the design of this project is assumed to be from (July 2023) through (October 2024) for the completion of design tasks. This scope of services does not include construction engineering or construction support but may be added at the discretion of the County toward the end of the design phase through a contract amendment.

Task 1.0 Project Management and Project Coordination

1.1 Project Management

Consultant shall:

- Provide the management and coordination to the consultant team and general day-to-day coordination with Clackamas County and project team members.
- Document action items from meetings, comments, and responses in a master comment/response log.
- Document risks, opportunities, and task decisions in individual deliverables such as meeting minutes and memoranda included within each task.
- Prepare monthly invoices and progress reports. Consultant assumes a 15-month timeframe for the project to be designed and bid for construction.
- Maintain project files.

1.2 Project Coordination

The proposed approach to project coordination during design is to hold project meetings with key project team members and representatives from the County. The Consultant Project Manager shall direct all

meetings and provide direction to the rest of the team as the project progresses. These meetings shall have a specific agenda with a predefined objective and outcome to address and resolve project issues as they are encountered. Agendas shall be distributed a minimum of 3 days in advance of the meeting.

- It is assumed in-person or virtual coordination meetings (1 hour each) shall be held during the design phase of the project (15-month time frame for a total of 15 meetings). 5 meetings to be held at County office and 10 meetings to be held virtually. Up to 3 consultant personnel are expected to attend each meeting. Consultant shall prepare agenda in advance of deliverable review and other meetings as needed and provide minutes after each meeting including action items.
- A total of up to 15 periodic telephone check-in meetings with the Consultant PM (1/2 hour each) are included to supplement the coordination meetings.
- Consultant shall prepare a project schedule at the on-set of design. Consultant shall provide an updated project schedule, as needed, with all major deliverables (30%, 90%, and 100%).

Task 1.0 Deliverables:

- Monthly Invoices and Progress Reports
- Project Schedule with Periodic Updates
- Meeting Agendas and Minutes for In-Person Coordination Meetings

Task 2.0 Survey, Field Investigations and Mapping

2.1 Topographic Survey

Consultant shall complete a topographic survey in English units (International feet) for the project area.

- Features to be shown include trees four inches or more in diameter (dbh), ornamental trees, utilities, utility poles, overhead wires, fences, area lights, culverts, driveways (including width and length), walks, crown line of streets, edge of pavement, ditches, traffic and other permanent signs, and structures as accessible.
- Prepare and submit One Call utility locate request to identify existing subsurface utilities along the project corridor. One Call response time may be as much as 10 business days as allowed by law. A request will be made to the utility providers to provide as-built/facility information.
- Underground features such as utility line sizes, rim elevations, invert elevations, fuel tanks, wells, septic tanks, and drain fields shall be shown as indicated by surface features and other information including as-built drawings and utility company data, if available.
- Existing striping shall be located within the project limits to design the project striping.
- All significant features within the project limits described below.
- Photos of site conditions shall also be taken.
- The Horizontal Datum to be NAD 83(2011) epoch 2010.00 PDX Zone, utilizing the Oregon Real Time Network. The Horizontal Network shall be resolved using differential Real Time Kinematic (RTK) GPS observations along with terrestrial ground measurements. The Vertical Datum shall be NAVD 88. Closed loop differential level measurements shall run through all of the on-site Control.
- The field topographic data shall be incorporated into a topographic survey base map and digital terrain model utilizing AutoCAD Civil 3D 2019 or newer.

The project limits shall include:

- From the 82nd Drive/Jennifer Street intersection, 180 feet north along 82nd Drive, 180 feet west along 82nd Drive, and 180 feet east along Jennifer Street.
- All features within 5 feet of existing back of walk should be considered within project limits.

2.2 Horizontal Control, Monument Recovery, and Right-of-Way Depiction

Consultant shall:

- Recover sufficient survey monuments from SN25509 and SN27361 to calculate the approximate northeasterly and southeasterly right-of-way lines of the intersection of 82nd Drive/Jennifer Street within the project limits for design consideration. Not all available survey monuments will be recovered as a part of this survey. The calculated right-of-way line is for reference only and should be considered approximate for design consideration.
- The approximate westerly right-of-way line of the intersection of 82nd Drive/Jennifer Street will be depicted based upon available Metro GIS for reference only and should be considered approximate for design consideration.
- No survey/deed research will be completed as a part of this project.
- Approximate adjacent property lines will be shown based upon available Metro GIS for reference only and should be considered approximate for design consideration.
- The approximate location of the (3) centerline monuments shown on SN25509 within the project limits will be calculated for reference. It is intended that these calculated locations will be shown on the final construction drawings. It is assumed that the selected contractor will contract with a Professional Land Surveyor during construction to recover these monuments and follow proper procedures as required by ORS 209.150 or ORS 209.155

Task 2.0 Deliverables:

- Base maps drawings in AutoCAD and PDF

Task 3.0 Environmental Reconnaissance and Permitting

Consultant will obtain Rights of Entry (ROE) for field reconnaissance work. Consultant shall provide County with an exhibit map for each property showing the approximate location of any invasive test sites on the property, e.g. anything more than minor shovel sampling, test pits, etc. prior to initiating ROEs.

The following tasks will be completed by the Consultant to identify issues and ensure compliance with the regulating agencies:

- Perform a natural resources reconnaissance for biological and wetland resources and write a memo documenting existing conditions. For scoping, it is assumed that no wetland impacts are associated with the project.
- Perform a Level One Hazardous Materials Corridor Assessment and provide draft and final memorandums.
- Depending on the findings of the Level One Assessment, a Level Two Assessment may be required. This activity may be added by amendment at a later date.

3.1 Wetland and Waters Delineation

Consultant shall conduct a site visit of the project's Area of Potential Impact (API). It is anticipated that reconnaissance will determine no wetlands exist within the project area. Consultant will provide a memo indicating final result of reconnaissance.

Assumptions

- The County and Consultant will provide Consultant biologist with the final project API prior to completion of the reconnaissance work.
- The Consultant will coordinate property access and entry approval for completion of the reconnaissance.
- The wetland reconnaissance work for this task will be completed during a single day by a two-person team, including travel.
- No other site visits will be required as part of this task.
- No wetlands or waters are present in the API.
- The Wetland Reconnaissance memo will not be sent to agencies for review.

3.2 Hazardous Materials Corridor Study

Consultant shall conduct a Hazardous Materials Corridor Study (“HMCS”) according to the following standards and guides:

- “Hazardous Waste Guide for Project Development”, by the American Association of State Highway and Transportation Officials (“AASHTO”) Special Committee on Environment, Archaeology and Historic Preservation.
- “ODOT Hazmat Program Procedures Guidebook,” Oregon Department of Transportation.
- “Level 1 Corridor Study” report template, Oregon Department of Transportation.
- And the requirements listed below.

Consultant shall conduct a site reconnaissance to identify potential sources of contamination that could impact construction or result in Agency acquiring contaminated property.

Consultant shall review available federal and State environmental databases to identify sites that could potentially impact the project, using the minimum search radii listed below.

Environmental Database	Search Radius
State-Equivalent NPL List (ECSIS)	0.5 mile
Oregon Permitted Landfill List	0.5 mile
State Leaking (L)UST List	0.25 mile
Federal RCRA Generators List	Site and Adjoining
State Fire Marshal’s Spill Response List	Site and Adjoining
Oregon Motor Carrier Spill List	Site and Adjoining
State Certified UST List	Site and Adjoining

Consultant shall review DEQ files, available using DEQ’s Facility Profiler web site at <http://deq12.deq.state.or.us/fp20/>, to determine whether contamination from adjacent facilities is likely to impact project construction. Alternatively, this review may be conducted using commercially available database reports such as provided by EDR.

Consultant shall review the Oregon Water Resources Department on-line database at http://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx to determine if water wells or monitoring wells are located on or adjacent to the project corridor.

Consultant shall review project files at the appropriate DEQ Region office, based on the project location, for all facilities considered to be high risk for impacting project construction. Consultant shall use DEQ file information to delineate contaminated areas within the project corridor and identify if that information is sufficient to develop construction plans and specifications without additional sampling.

Consultant shall conduct historical research to identify past uses of the project corridor and adjacent properties, using one or more of the following resources:

- Sanborn Fire Insurance Maps
- Aerial Photographs
- Reverse Agency Directories
- Historic property ownership/occupancy records or building permits

The resource(s) selected must, if possible, provide historic information regarding land use back to 1935 at 10 year intervals, or the Consultant must demonstrate that such information is not readily available.

Consultant shall review pertinent records that may be made available by the Agency as they relate to the environmental condition of the project corridor.

Consultant shall assess if soil sampling is necessary to determine if soil excavated from the project corridor shall meet DEQ clean fill screening levels for contaminants-of-concern including pesticides, herbicides, metals, polynuclear aromatic hydrocarbons, petroleum hydrocarbons, and solid waste.

Consultant shall prepare a HMCS report summarizing the information obtained through the activities listed above, using ODOT's Corridor Report Template available under "Guidance Materials" at <https://www.oregon.gov/odot/GeoEnvironmental/Pages/Haz-Mat.aspx>. The report shall include photographs documenting project corridor observations. The report must include conclusions that identify specific sources of contamination that could impact project construction and recommendations for further investigation, if needed.

3.2.1 Consultant Deliverables and Schedule:

Consultant shall prepare and provide:

- Draft HMCS report to Agency per the schedule developed under Task 1.
- Final HMCS report to Agency within 2 weeks following receipt of draft review comments.

Assumptions

- The Consultant will not need property access and entry approval for completion of the study.

Task 3.0 Deliverables:

- Meeting summaries; draft and final Wetland Reconnaissance memo, draft and final Hazardous Materials Corridor Study Report.

Task 4.0 Stormwater / Hydraulics Related Services (

It is anticipated that existing storm drainage will be adequate with minor adjustments to existing catch basins and manholes. These minor adjustments must be included in the project design.

Note: the latest WES guidelines state that stormwater quantity and quality upgrades are required for improvements or changes that exceed 5,000 square feet. Clackamas County has made it clear that this threshold must not be crossed and, if necessary, desired improvements will be modified to remain under this threshold. Therefore, we can confidently remove quality and quantity scope requirements and revise other tasks to fit this plan.

The purpose of this subtask is to design stormwater systems for the management of drainage in the Project.

4.1 Stormwater Conveyance

The purpose of this subtask is to provide design of stormwater conveyance facilities that collect and carry highway runoff in conformance with County Water Environment Services (WES) requirements.

Consultant shall:

- Determine the locations of flow entering and leaving the Project right-of-way (R/W).
- Review existing conditions downstream of locations where flow is leaving the Project R/W for deficiencies and document observations.
- Review existing stormwater conveyance, detention and water quality facility designs and reports.
- Delineate on-site drainage basins, calculate peak flow rates for design, model the proposed pipe network, and calculate hydraulic grade line to check that proper freeboard design requirements are being met.
- Check inlet capacity and inlet spacing, calculate gutter flow to check spread, and provide design recommendations for inlet locations.
- Provide design recommendations for pipe network, associated pipe sizes, pipe material recommendations, and manhole access design recommendations (i.e. -spacing, location within a travel lane, etc.).
- Provide manhole diameter design recommendations based upon analysis of pipe connections at each manhole.
- Compare pipe network against known utilities in the Project area and provide design recommendations to minimize utility conflicts or to adjust existing utilities.
- Provide Stormwater Outfall design and energy dissipater design recommendations if environmental permits are required.

4.2 Roadside Channel Conveyance (RESERVED)

4.3 Stormwater Quality Design (RESERVED)

4.4 Stormwater Quantity Design (RESERVED)

4.5 Stormwater Code Compliance Memo

The purpose of this subtask is to provide preliminary stormwater design recommendations and document that code compliance requirements are met.

- Consultant shall prepare a code-compliance memo documenting code requirements and demonstrating how the project design meets these requirements..
- Consultant shall submit code-compliance memo concurrently with the Preliminary Plans.

Task 4.5 Deliverables:

- Draft Stormwater Code Compliance Memo in PDF file format, along with an MS Word file, due with the Preliminary Plans

4.6 Stormwater Operation and Maintenance (O&M) Manual (RESERVED)

Task 5.0 Utility Coordination

5.1 Utility Coordination

Consultant shall initiate coordination with utilities and incorporate utility provided relocation plans into the design documents. The locations and elevations of existing utilities and options for resolving conflicts shall be investigated. This work shall include working with the County and utility companies to “pothole” crossings and other areas to identify and eliminate conflicts. It is expected that potholing shall be provided by the utility companies. Once “potholing” data is obtained and mapped, the Consultant shall incorporate the data into any plan changes.

It is assumed up to three (3) utilities will require coordination.

Consultant shall:

- Develop a utility contact information list and email project information letters (in email format) to utility companies involved to explain the nature of the work.
- Prepare a Utility Conflict Spreadsheet and send utility conflict letters with 30% plans to the affected utility companies describing the conflicts that exist, and the required adjustment to eliminate the conflict. A spreadsheet of centerline reference points and elevations shall be provided to utility companies for use in excavating existing utilities (potholing) at points of potential conflicts. Consultant shall also provide the conflict list to an independent potholing service who shall provide quotes to the utilities and coordinate with the Project team to aid in gathering pothole data. The schedule for making the necessary adjustment ahead of the beginning of road construction shall be identified.
- Provide survey utility staking of the conflict locations to aid utilities in potholing their facilities. Sixteen crew hours (1-field day) and eight office hours are assumed.
- Review pothole data provided by the utilities and make recommendations to the project design to minimize utility relocation.
- Prepare and send a Utility Relocation Letter of conflict with 60% plans for each utility notifying them of unavoidable conflicts with a mandatory relocation date.
- Organize and lead three group utility coordination meeting (30%, 60%, and 90% design milestones).
- Conduct up to three coordination meetings with individual utilities.
- Perform ongoing coordination with utilities to resolve utility conflicts and finalize utility relocation requirements as appropriate.
- Provide 90% plans to each utility, perform ongoing coordination with utilities to resolve utility conflicts and finalize utility relocation requirements as appropriate.
- Provide County standard 60-day and 30-day utility notice letters (from start of construction).

Task 5.0 Deliverables:

- Utility contact list
- Utility Conflict Spreadsheet(s) and Letter(s)
- The final utility relocation plan(s) submitted to the County Project Manager (CPM) within 10 days after acceptance.
- Final Notice Letter(s) submitted to each utility and CPM 15 business days after submittal of 90% Plans to County.

Task 6.0 Geotechnical and Geologic Services

The County will obtain Rights of Entry (ROE) for field reconnaissance work, if needed. If needed, the Consultant will provide a list of properties requiring ROEs for research disciplines no less than six (6) weeks before such ROE's are required to perform work on private parcels. Consultant shall provide County with an exhibit map for each property showing the approximate location of any invasive test sites on the property, e.g. anything more than minor shovel sampling, test pits, etc. prior to County initiating ROEs.

Consultant shall conduct geotechnical field investigations to explore the subsurface conditions for signal pole drilled shafts, pavement rehabilitation and potential new pavement for widening areas. Consultant shall provide a Geotechnical Report summarizing and presenting the results of the investigation, analyses, and recommendations. Assessment of Material Sources and Disposal Sites is not included in these Services.

Consultant shall complete the geotechnical and geological Services in accordance with County design standards, AASHTO, and FHWA. Consultant shall summarize the findings in a Geotechnical Report. Consultant shall perform the following subtasks for the foundation investigation.

6.1 Site Reconnaissance, Exploration and Testing Work Plan

Consultant shall perform site reconnaissance. The site reconnaissance must include the following. Consultant shall:

- Observe surface conditions indicative of subsurface conditions;
- Identify site constraints and staging concerns (for exploration and construction);
- Identify potential exploration locations;
- Attend meetings with County or other parties to discuss, review, and ascertain site conditions relevant to the geotechnical project work.

The site reconnaissance will facilitate understanding of the site constraints for field explorations, construction, and traffic staging. Proposed boring locations will be staked or painted on the ground.

Consultant shall perform visual pavement assessment in accordance with ODOT's Good-Fair-Poor (GFP) Pavement Condition Rating Manual and Distress Survey Manual. The primary goal shall be to identify and map areas of severely distressed existing pavement to determine the cause of the distresses and to determine potential mitigation strategies. Mapping will identify surface manifestation of weak, poor, or failing subgrade, and locations of pavement failure such as longitudinal cracking or raveling; in addition, subsurface drainage conditions shall be assessed based on surface evidence. The mapped locations shall be identified using a measuring wheel.

Consultant shall prepare an Exploration and Site Plan figure to show the proposed exploration locations and Traffic Control Plans (TCPs). The traffic control plan must be prepared by a flagging company licensed to work in the State of Oregon. The TCP must address a minor road encroachment as well as a single lane closure for activities associated with drilling exploratory borings from the roadway. Consultant shall submit the figure and TCPs to the County for approval. Consultant shall obtain ROW permit from the County.

6.2 Field Exploration and Laboratory Testing

Consultant shall perform the geotechnical explorations and reconnaissance for pavement design and signal pole drilled shafts to evaluate subsurface conditions and develop geotechnical recommendations for the designs as shown in the following table.

STRUCTURE	EST # OF BORINGS	ESTIMATED BORING DEPTH
Signal Poles (Drilled Shafts)	3	30 feet below ground
Pavement explorations	2	10 feet below ground
Dynamic cone penetrometer	2	Complete dynamic cone penetrometer testing in each of the pavement explorations, beginning at top of aggregate base (if present)

Consultant shall perform geotechnical field explorations to determine the subsurface conditions for the express purpose of characterizing subsurface conditions within the project limits and determining the new traffic signal drilled shaft design recommendations.

Consultant shall perform exploration work in accordance with Federal, State, and Local regulations. Consultant shall perform the subsurface exploration work in conformance with the ETWP as described in Task 6.1.

Exploration tasks include the following. Consultant shall:

- Obtain a drilling permit from Clackamas County;
- The permit fee will be waived;
- Locate utilities in the vicinity of the proposed borings by and through the One-Call system prior to the fieldwork;
- Drill all borings with a truck-mounted drill rig using mud-rotary or solid stem drilling techniques;
- If rock is encountered above the target depth, switch to HQ-size core drilling;
- Notify the County immediately and place drill cuttings/fluids in separate drums, labeled with the boring #, depth, and date and transport drums to a location designated by the County, if contaminated soil/groundwater is encountered. The geotechnical investigation does not include any services related to environmental or hazardous materials;
- Patch explorations at pavement locations by filling core hole to surface with concrete.
- By and through the drilling subcontractor, drum and dispose of all cuttings offsite;
- The field explorations will be performed during weekdays between 9 am and 6 pm;
- Provide temporary traffic control that will be consistent with requirements for shoulder and single lane closures;

Consultant shall provide an engineer or geologist to supervise the field operations and log the borings. Subsurface explorations must be conducted in general accordance with American Association of State Highway Transportation Officials (AASHTO). Soil samples must be obtained at 2.5-foot to 5-foot intervals using either a standard penetration sampler or a Shelby tube sampler.

Laboratory Testing: Consultant shall conduct water contents, sieve analyses, and Atterberg limits tests on soil samples obtained from the borings to classify the soils and estimate their engineering properties. If soft soils are encountered, a consolidation and direct shear test may be performed by Consultant to assist with the engineering studies.

6.3 Geotechnical Analysis

Consultant shall perform analyses of the field and laboratory test data to develop geotechnical recommendations for signal pole foundation design parameters, and pavement design and construction. The Consultant shall provide the analysis and design for the foundation in accordance with County's design standard, FHWA, AASHTO, design guidelines.

6.4 Geotechnical Report

Consultant shall prepare a Geotechnical Report summarizing the subsurface conditions, design, and construction recommendations. The Geotechnical Report must summarize the field observations, subsurface conditions, laboratory test data, analysis results, construction issues and geotechnical recommendations for the project. Consultant shall prepare the Geotechnical Report in accordance with the Geotechnical Report and Documentation requirements contained in the most current version of the ODOT Geotechnical Design Manual.

Consultant shall provide special provisions relating to embankment and construction. Special Provisions shall be per ODOT Standard Specifications format.

Task 6.0 Deliverables:

- Exploration and Site Plan
- Draft and Final Geotechnical Report

Task 7.0 Design Acceptance Package ("DAP") and Preliminary Design (30%)

The objective of the DAP is to identify the size of the Project footprint, required design exceptions, right of way ("R/W") impacts, and any required environmental permits prior to preparing the Preliminary, Advance and Final Plans.

Consultant shall prepare a DAP that includes design plans (30%), a construction cost estimate and a design narrative that addresses the following:

- Description of the purpose, need, and design solution for the Project;
- Summary of existing conditions, (i.e., Project location, roadway classification, lanes, average daily traffic ("ADT"), posted speed, and other design standards pertinent to the Project);
- Summary of design exceptions that will be necessary;
- Summary of roadway alignment and typical section alternatives considered, including recommendations;
- Outline of Project constraints such as topography, environmental, permits, R/W, utilities and cost (NOTE: these may be executive summaries prepared by Consultant for other deliverables associated with this Project);
- Summary of the Traffic Analysis;
- Environmental impacts and mitigation measures;
- Environmental permitting requirements;
- Utility conflicts;
- Description of geotechnical subsurface conditions;
- Draft Geotechnical Report;
- Draft Stormwater Management Plan;
- Draft Hydraulics Report;
- Description of drainage features;

- R/W needs;
- Local permit needs;
- Construction staging, temporary detours, and temporary protection and direction of traffic during construction;
- Description of impact to freight mobility
- Design acceptance checklist
- Traffic Control Management including Temporary Pedestrian Access Route (TPAR)

Consultant shall develop preliminary design plans generally described as follows:

7.1 Traffic Analysis

Consultant shall prepare a traffic analysis using Synchro and SimTraffic to determine design elements within Project limits including the following:

- Signalization needs (signal warrant and capacity analysis)
- Lane configurations
- Turn lane lengths
- Traffic signal phasing

Consultant shall collect the following traffic data:

- Three 24-hour bi-directional vehicle counts (including vehicle classifications and speed), one in advance of each leg of the intersection of SE 82nd Dr & SE Jennifer St.
- AM and PM peak period turn movement counts at SE 82nd Dr & SE Jennifer St.

Consultant shall conduct AM and PM peak hour traffic analysis for both existing conditions and future conditions approximately 20 years in the future for SE 82nd Dr & SE Jennifer St. Future traffic volumes will be developed using the regional travel demand model. Consultant shall determine future volume estimates as follows: Capacity analysis must be based on current Highway Capacity Manual (“HCM”) methodology. Left turn signal phasing must be determined based on ODOT Signal Policy and Guidelines.

Consultant shall also conduct a safety evaluation for the intersection, evaluating the past 5-years of available collision data. The results of the safety evaluation will be included in the traffic analysis memorandum.

7.2 Traffic Signal Design (30% submittal)

Consultant shall prepare plans and cost estimate for the construction of a new traffic signal at SE 82nd Dr & SE Jennifer St. All traffic signal plans and specifications must conform to Manual on Uniform Traffic Control Devices (MUTCD), ODOT, Clackamas County, and National Electric Code (“NEC”) standards as applicable. Consultant shall coordinate with the utility for service connections. Consultant shall develop cabinet plans according to County and ODOT standards in AutoCAD format.

Plans and specifications shall include locating pedestrian push buttons to meet current MUTCD and ADA standards, in accordance with the ODOT Signal Design Manual, Agency ADA standards, the ODOT Signal Policy and Guidelines, and applicable ODOT standard drawings. This task shall develop alternatives to be evaluated based on the design criteria to meet the overall project needs, as well as to reach agreement on the preferred alternative.

7.3 Traffic Signal Interconnect and Pan-Tilt-Zoom Camera (30% submittal)

Consultant shall prepare a design narrative for the replacement of fiber optic traffic signal interconnect and Pan-Tilt-Zoom (PTZ) camera at SE 82nd Dr & SE Jennifer St. One site visit will be conducted as part of this task to verify existing conditions and equipment.

The traffic signal interconnect plans and specifications shall conform to MUTCD, ODOT, Agency and NEC standards as applicable and will be prepared as part of Task 9.

7.4 Curb Ramp and Push Button Analysis (30% submittal)

This task shall develop alternatives to be evaluated based on the design criteria to meet the overall project needs, as well as to reach agreement on the preferred alternative.

Consultant shall:

- Provide ADA complaint push-button design for all corners.
- Provide ADA complaint curb ramp design for all corners.
- For estimating purposes, it is assumed 6 total curb ramps will be replaced.

7.5 Permanent Signing and Pavement Markings (30% submittal)

Consultant shall prepare a design approach narrative and construction cost estimates for the permanent signing and pavement markings associated with the proposed improvements. The design must be completed in accordance with applicable MUTCD, ODOT, and Agency standards. Existing conditions will be evaluated in the field as part of this task.

7.6 Permanent Pavement Markings (30% submittal) RESERVED

7.7 Illumination Analysis (30% submittal)

Consultant shall prepare a lighting analysis for the construction of an illumination system at the intersection of SE 82nd Dr & SE Jennifer St. Consultant shall conduct lighting analysis to determine appropriate lighting design (signal pole layout, mounting heights, and wattages) to meet current Illumination Engineering Society (“IES”) or Agency standards for light levels. Roadway lighting and specifications shall conform to the NEC, ODOT, and Agency standards as applicable.

7.8 Traffic Control Plans (“TCPs”) (30% submittal)

Consultant shall prepare and submit temporary traffic control to accommodate the public during construction. Consultant shall develop plans and specifications to accommodate vehicle, bicycle and pedestrian traffic during construction. ODOT or Agency standard plans must be referenced where possible.

Consultant’s 30% TCPs will include overall staging and sequencing information. Additional details, such as work zone limits, transitions, traffic control devices, signage, detours and staging cross sections (where applicable), and work zone details for vehicles, bicycles and pedestrians such as temporary detection and pushbuttons will be included as part of Task 9.

Consultant shall prepare a Temporary Pedestrian Accessible Route Plan (“TPARP”) as part of the TCPs. The TPARP must include a pedestrian route through or around each work area that is equal to or better than the route that was there before construction.

TCPs must meet MUTCD, ODOT, and Agency requirements. No transportation management plan (TMP) is included as part of this scope of work.

7.9 Asphalt Pavement Resurfacing Concept (30% submittal)

This task shall develop alternatives to be evaluated based on the design criteria to meet the overall project needs, as well as to reach agreement on the preferred alternative.

Consultant shall:

- Develop proposed asphalt pavement resurfacing approach within the project area. Determine and specify which asphalt rehabilitation treatment is appropriate (rebuild section, grind and inlay, etc.).

7.10 Stormwater Conveyance Concept Alignment and Grade (30% submittal)

The Consultant shall develop conceptual drainage layout and profile grades for the preferred alternative. This shall validate the stormwater disposal locations and depth of the storm system. This shall also provide locations of potential utility conflicts and potholing needs. Consultant shall:

- Determine the locations of stormwater flow entering and leaving the Project right-of-way.
- Review existing conditions downstream of locations where flow is leaving the Project right-of-way for deficiencies and document observations.
- Delineate on-site drainage basins, calculate peak flow rates for design, model the proposed pipe network, and calculate hydraulic grade line to check that proper freeboard design requirements are being met.
- Check inlet capacity and inlet spacing, calculate gutter flow to check spread, and provide design recommendations for inlet locations.
- Provide design recommendations for pipe network, associated pipe sizes, pipe material recommendations, and manhole access design recommendations (i.e.-spacing, location within a travel lane, etc.).
- Provide manhole diameter design recommendations based upon analysis of pipe connections at each manhole.
- Compare pipe network against known utilities in the Project area and provide design recommendations to minimize utility conflicts or to adjust existing utilities.
- Provide Stormwater Outfall design and energy dissipater design recommendations in compliance with applicable Project permits.
- Identify treatment Best Management Practice (“BMP”) types applicable for the site.
- Identify potential locations to site facilities within and outside the existing right-of-way.
- Estimate facility size, type and space needs at each of the potential locations.
- Evaluate constraints to siting a stormwater facility (i.e.-drainage area, adjacent grades, roadway safety, presence of existing utilities, protected resource areas, etc.)

7.11 Construction Estimate

Consultant shall develop estimated costs early in the 30% design process for use in decision making. Consultant shall provide quantities and construction cost estimates for design alternatives considered and the preferred alternative.

7.12 Design Memorandum

Consultant shall provide a brief 30% design memorandum summarizing the preferred alternative. The memorandum will include the other applicable reports, memorandums, and documents supporting the preliminary design to the extent possible.

Task 7.0 Deliverables:

- Draft Traffic Analysis Technical Memorandum documenting the results of the traffic analysis
- Final Traffic Analysis Technical Memorandum
- 30% Traffic Signal plans and cost estimate
- 30% Traffic Signal Interconnect and PTZ Camera plans and cost estimate
- 30% Permanent Signing/Pavement Marking narrative and cost estimate
- 30% Staging Plans and cost estimate
- Technical Memorandum summarizing the results of the lighting analysis
- Cost Estimate (one electronic copy in PDF form and one copy in Excel form)
- Design Memorandum (one electronic copy in PDF form)
- Draft (at 30%) and Final (at 90%) Design Exceptions

Task 8.0 Public Involvement/Outreach

The Consultant will assist the County's community relations specialists with preparation of documents to be distributed or made available to the general public. Tasks related to public involvement include:

- Coordinating with the County's community relations specialists, County PM and other relevant staff.
- Preparing one flyer to be mailed to area businesses and residents. The County will develop the mailing list and mail the flyers.
- Developing an online open house including:
 - Develop a webpage designed to lead the viewer through the project with the ability to jump ahead or navigate back to the start. The webpage shall be designed to allow the user to scroll from top to bottom versus using button links to other pages as this helps lead the viewer through the project versus wandering from page to page. The virtual open house page will contain the following features:
 - Title Screen – The webpage will contain a title screen containing project branding, title, and any contact information.
 - Background – This page will contain text and/or graphics to provide project background.
 - Project Design – Page containing design graphics and visual simulations including a project corridor fly-thru animation.
 - Public Feedback – Viewers will be able to view the different improvement features and provide feedback by clicking on the map and entering comments and other details in a form.
 - Feedback Trends – Create a live infographic page providing summary details from public comments. This page will show the different trends based on the comments made in the map.
 - Contacts – This page will contain contact information if viewers had additional questions.
 - The Online Virtual Open House service will be created on and maintained using consultants web services.
- Providing project graphics and information for inclusion on the County's website.

Task 8.0 Deliverables:

- One Flyer
- Project graphics and information for County project website
- Hosted website for an Online Virtual Open House

Task 9.0 Final Design (90% and Final Bid Ready) - Plans, Specifications, and Estimate (PS&E)

The Consultant shall advance the recommended alternative from the Preliminary Design (30% design) stage to the 100% complete stage.

Consultant shall:

- Conduct work sessions (per Task 1) with County staff.
- Complete engineering drawings for submittal to the County at 90%, and Final milestones and perform quality assurance and in-house independent design checks and plan review of all drawings and related quantities including constructability reviews. Plans will be drafted with the latest version of AutoCAD software and the final CAD drawings provided through an FTP site.
- Provide relevant plan drawings per the anticipated sheet list below for submittal to County for review. Drawings shall include sufficient information for review and bidding including ROW lines, alignments, elevations, etc. with the assumption that more detailed staking and layout information necessary for construction will be provided electronically to the Contractor after notice of intent to award. Standard details and drawings will be attached at the end of the plan set without the need for a title block. Additional specific plan sheet requirements include:
 - Index of Drawings: Provide a list of the standard details and drawings utilized with a link to the location where they can be found.
 - Roadway Plan and Profile: Consultant shall prepare roadway construction plans in accordance with County design standards, AASHTO, and Oregon Standard Specifications for Construction with ROW information shown as applicable.
 - Roadway Cross Sections: Assumes cross sections prepared at intervals and/or at locations of interest for the proposed improvements. Sections will be prepared to display the existing ground, finish grade, subgrade, and right-of-way.
 - Driveway Connection Details
 - ADA Curb Ramp Details: Assumes 2 ADA curb ramps per sheet.
 - Drainage, Utilities & Grading Plans: Consultant shall prepare grading and drainage plans in accordance with County design standards. Drainage profiles will accompany the same sheet as the juxtaposed plan. Water, sewer and gas utility relocation designs are excluded from the utility plans.
 - Erosion Control: Consultant shall prepare erosion control plans in accordance with the 1200-CA permit.
 - Traffic Signal: Consultant shall prepare traffic signal plans (removal and new), detection plan, and specifications in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), ODOT, Clackamas County, and National Electric Code (“NEC”) standards as applicable.
 - Cabinet Prints: Consultant shall develop cabinet plans according to County and ODOT standards in AutoCAD format.
 - Fiber Optic Communication to 82nd & Fred Meyer (South): Consultant shall prepare ITS plans, details, and specifications that conform to MUTCD, ODOT, Agency and NEC standards as applicable. Fiber optic communications are assumed as part of these improvements.
 - Traffic Control: Consultant shall prepare temporary traffic control plans in accordance with County design standards, the MUTCD, and Oregon Standard Specifications for Construction. Plans are anticipated to include staging plans, lane shifts, lane and shoulder widths, temporary barriers, delineation, signing, temporary vehicle, pedestrian, and bicycle detection, and Temporary Pedestrian Accessible Routes (TPAR).
 - Signing/Pavement Marking: Consultant shall prepare signing and pavement marking plans per County and MUTCD standards. A sign inventory will be completed to evaluate existing sign conditions and verify compliance with current MUTCD standards.
- Calculate quantities and develop an engineer’s construction cost estimate for submittal at each plan development milestone (90%, Final).

- Develop an anticipated construction schedule (90%, Final)
- Prepare relevant sections of specifications based on the current Oregon Standard Specifications for Construction. Produce special provisions for the project using standard ODOT boilerplate special provisions and County boilerplate special provisions to the specifications in Part 00100 – General Requirements and Part 00900 Permanent Traffic Control and Illumination Systems.
- Revise and submit final Special Provisions based on comments received during County reviews.
- Make corrections as required by County and submit final plans to County (both documents and electronic copies).

Consultant shall provide services for each deliverable per the following subtasks:

9.1 90% Design

Provide 90% complete plans, specifications, estimate, and construction schedule as described above. One additional site visit is included as part of this task.

9.2 Final Design

Provide Final plans, specifications, estimate, and construction schedule as described above.

Task 9.0 Deliverables (all electronic):

- 90% and Final Engineering Drawings (Full Size – 11”X17”)
- 90% and Final Construction Schedule
- 90% and Final Specifications and Bid Schedule
- Documentation of 90% review comments
- 90% and Final Engineer’s Estimate
- Updated Comment/Response Log at each milestone

Task 10.0 Right-of-Way Research

- No acquisitions will be required.

Task 10.0 Deliverables:

- Approximate right of way lines, easement lines and property ownership will be shown on the plans as indicated in Task 2.0

Task 11.0 Bid and Award Assistance

This task includes the preparation of up to two addenda, as needed, and responding to questions during the bidding phase. Consultant shall respond to questions from County and Construction Contractors about the plans and specifications during the bidding process.

Consultant’s Project Manager, or Consultant’s designee(s) approved by County, shall assist County with questions regarding the bid documents and bid process. Consultant shall respond to all questions in writing within 3 days to the CPM.

During the bidding process, Consultant shall not separately communicate with Construction Contractors or suppliers during bidding. Any communication will go through County Procurement passed on to the CPM in a manner that assures that no Construction Contractor or supplier is provided with information not in the bidding documents and that could provide a bidding advantage or disadvantage. Consultant shall prepare a written log to document responses to CPM response requests as a result of construction contractors or suppliers questions to Procurement. Consultant shall maintain a written log and provide upon request of the CPM.

Task 11.0 Deliverables:

- Written log of conversations, questions and answers, provided to the CPM upon request.
- Up to two addenda

REIMBURSABLE EXPENSES

The reimbursable budget estimate is based on our experience with this project type and the governing agencies. It is an estimate only. Additional budget may be necessary to complete the project.

Customary reimbursable expenses mean the actual expense incurred in direct connection with the project. Vehicle mileage is reimbursed at the current Internal Revenue Service (IRS) rate for project related travel.

The following project related expenses are reimbursed at cost:

- External Reproduction Services
- Travel Expenses, other than private vehicle mileage
- Express Postage
- Other Direct Expenses (survey filing fees; project specific supplies, etc.)

ASSUMPTIONS

1. All permits and application fees shall be paid by Clackamas County, or as a reimbursable expense at cost.

COUNTY'S RESPONSIBILITIES

The County will:

1. Provide a project manager who is responsible for overall project development and management and for coordination between the Consultant and the County including coordination of review and comment by County staff on design deliverables.
2. Maintain records and process Consultant invoices.
3. Coordinate the relationship with adjacent property owners and with the general public.
4. Maintain and manage the public involvement mailing list and project press releases.
5. Provide County standard drawings and details when possible.
6. Provide as-built CAD files of recent construction projects.
7. Provide standard pavement sections for use in pavement design.
8. Assist in utilities coordination through attendance at coordination meetings and providing County templates for 60- and 30-day final notices.
9. Provide Consultant with digital copies of the County 00100 Special Provisions. County to prepare the front-end contract forms, prepare the bid-booklet, and provide legal review of the contracts and bid forms.
10. Advertise and manage the bidding process for construction

**EXHIBIT C
FEE SCHEDULE**



Fee Schedule

Effective January 1, 2023 through December 31, 2023

<i>ENGINEERS and PLANNERS</i>				<i>TECHNICIANS and SUPPORT STAFF</i>	
Grade	Hourly Rate	Grade	Hourly Rate	Tech Level	Hourly Rate
Grade 5	75.00	Grade 38	240.00	Tech Level G	65.00
Grade 6	80.00	Grade 39	245.00	Tech Level H	70.00
Grade 7	85.00	Grade 40	250.00	Tech Level I	75.00
Grade 8	90.00	Grade 41	255.00	Tech Level J	80.00
Grade 9	95.00	Grade 42	260.00	Tech Level K	85.00
Grade 10	100.00	Grade 43	265.00	Tech Level L	90.00
Grade 11	105.00	Grade 44	270.00	Tech Level M	95.00
Grade 12	110.00	Grade 45	275.00	Tech Level N	100.00
Grade 13	115.00	Grade 46	280.00	Tech Level O	105.00
Grade 14	120.00	Grade 47	285.00	Tech Level P	110.00
Grade 15	125.00	Grade 48	290.00	Tech Level Q	115.00
Grade 16	130.00	Grade 49	295.00	Tech Level R	120.00
Grade 17	135.00	Grade 50	300.00	Tech Level S	125.00
Grade 18	140.00	Grade 51	305.00	Tech Level T	130.00
Grade 19	145.00	Grade 52	310.00	Tech Level U	135.00
Grade 20	150.00	Grade 53	315.00	Tech Level V	140.00
Grade 21	155.00	Grade 54	320.00	Tech Level W	145.00
Grade 22	160.00	Grade 55	325.00	Tech Level X	150.00
Grade 23	165.00	Grade 56	330.00	Tech Level Y	155.00
Grade 24	170.00	Grade 57	335.00	Tech Level Z	160.00
Grade 25	175.00	Grade 58	340.00	Tech Level AA	165.00
Grade 26	180.00	Grade 59	345.00	Tech Level AB	170.00
Grade 27	185.00	Grade 60	350.00	Tech Level AC	175.00
Grade 28	190.00	Grade 61	355.00	Tech Level AD	180.00
Grade 29	195.00	Grade 62	360.00	Tech Level AE	185.00
Grade 30	200.00	Grade 63	365.00	Tech Level AF	190.00
Grade 31	205.00	Grade 64	370.00	Tech Level AG	195.00
Grade 32	210.00	Grade 65	375.00	Tech Level AH	200.00
Grade 33	215.00	Grade 66	380.00		
Grade 34	220.00	Grade 67	385.00		
Grade 35	225.00	Grade 68	390.00		
Grade 36	230.00	Grade 69	395.00		
Grade 37	235.00	Grade 70	400.00		

- All invoices are due and payable within 30 days of date of invoice. Invoices outstanding over 30 days will be assessed a 1 1/4 percent service charge, compounded, for each 30 days outstanding beyond the initial payment period. Service charges are not included in any agreement for maximum charges.