

CONSULTANT: Applied Research Associates, Inc.
CONTACT PERSON: Salil Gokhale, P.E.
ADDRESS: 4300 San Mateo Blvd., NE, Suite A-2022
Albuquerque, NM 87110

FEDERAL TAX ID NUMBER/U.B.I. NUMBER: 85-0276434 / 601 575 507

TELEPHONE: 235-281-9654

COUNTY DEPT: Public Works

DEPT. CONTACT PERSON: Sheela George

TELEPHONE: 425-388-3271

PROJECT: Snohomish County Pavement Condition Survey

AMOUNT: \$497,000.00

FUND SOURCE: Road Fund

CONTRACT DURATION: Execution through December 31, 2027,
unless extended or renewed pursuant to
Section 2 hereof

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT (the "Agreement") is made by and between SNOHOMISH COUNTY, a political subdivision of the State of Washington (the "County") and APPLIED RESEARCH ASSOCIATES, INC., a New Mexico corporation (the "Contractor"). In consideration of the mutual benefits and covenants contained herein, the parties agree as follows:

1. Purpose of Agreement; Scope of Services. The purpose of this Agreement is to provide for pavement condition surveys on County roadways. The scope of services is as defined in Schedule A attached hereto and by this reference made a part hereof. This Agreement is the product of County RFP-22-050SB.

The services shall be performed in accordance with the requirements of this Agreement and with generally accepted practices prevailing in the western Washington region in the occupation or industry in which the Contractor practices or operates at the time the services are performed. The Contractor shall perform the work in a timely manner and in accordance with the terms of this Agreement. Any materials or equipment used by the Contractor in connection with performing the services shall be of good quality. The Contractor represents that it is fully qualified to perform the services to be performed under this Agreement in a competent and professional manner.

The Contractor will prepare and present status reports and other information regarding performance of the Agreement as the County may request.

2. Term of Agreement; Time of Performance. This Agreement shall be effective upon Execution (the “Effective Date”) and shall terminate on December 31, 2027. The Contractor shall commence work upon the Effective Date and shall complete the work required by this Agreement no later than December 31, 2027, PROVIDED, HOWEVER, that the County’s obligations after December 31, 2023 are contingent upon local legislative appropriation of necessary funds for this specific purpose in accordance with the County Charter and applicable law.

3. Compensation.

a. Services. The County will pay the Contractor for services as and when set forth in Schedule B, which is attached hereto and by this reference made a part of this Agreement.

b. Overhead and Expenses. The Contractor’s compensation for services includes overhead and expenses and no separate claims for reimbursement of overhead or expenses will be allowed under this Agreement.

c. Invoices. The Contractor shall submit properly executed invoices to the County no more frequently than monthly. Each invoice shall include an itemization of the dates on which services were provided, including the number of hours and a brief description of the work performed on each such date. Subject to Section 8 of this Agreement, the County will pay such invoices within thirty (30) calendar days of receipt.

Invoices shall be sent to PWInvoices@snoco.org to ensure proper and timely payment.

d. Payment. The County’s preferred method of payment under this contract is electronic using the County’s “e-Payable” system with Bank of America. The Contractor is highly encouraged to take advantage of the electronic payment method.

In order to utilize the electronic payment method, the Contractor shall email SnocoEpayables@snoco.org and indicate it was awarded a contract with Snohomish County and will be receiving payment through the County’s e-Payable process. The Contractor needs to provide contact information (name, phone number and email address). The Contractor will be contacted by a person in the Finance Accounts Payable group and assisted with the enrollment process. This should be done as soon as feasible after County award of a contract or purchase order, but not exceeding ten (10) business days.

Department approved invoices received in Finance will be processed for payment within seven calendar days for e-Payable contractors. Invoices are processed for payment by Finance two times a week for contractors who have selected the e-Payable payment option.

In the alternative, if the Contractor does not enroll in the electronic (“e-Payable”) payment method described above, contract payments will be processed by Finance with the issuance of paper checks or, if available, an alternative electronic method. Alternative payment methods, other than e-Payables, will be processed not more than 30 days from receipt of department approved invoices to Finance.

THE COUNTY MAY MAKE PAYMENTS FOR PURCHASES UNDER THIS CONTRACT USING THE COUNTY’S VISA PURCHASING CARD (PCARD).

Upon acceptance of payment, the Contractor waives any claims for the goods or services covered by the Invoice. No advance payment shall be made for the goods or services furnished by Contractor pursuant to this Contract.

e. Payment Method. In addition to Payment section above, the County may make payments for purchases under this contract using the County's VISA purchasing card (PCARD).

Are you willing to accept PCARD payments without any fees or surcharges?

Yes No

f. Contract Maximum. Total charges under this Agreement, all fees and expenses included, shall not exceed **\$497,000** for the initial term of this Agreement (excluding extensions or renewals, if any).

4. Independent Contractor. The Contractor agrees that Contractor will perform the services under this Agreement as an independent contractor and not as an agent, employee, or servant of the County. This Agreement neither constitutes nor creates an employer-employee relationship. The parties agree that the Contractor is not entitled to any benefits or rights enjoyed by employees of the County. The Contractor specifically has the right to direct and control Contractor's own activities in providing the agreed services in accordance with the specifications set out in this Agreement. The County shall only have the right to ensure performance. Nothing in this Agreement shall be construed to render the parties partners or joint venturers.

The Contractor shall furnish, employ and have exclusive control of all persons to be engaged in performing the Contractor's obligations under this Agreement (the "Contractor personnel"), and shall prescribe and control the means and methods of performing such obligations by providing adequate and proper supervision. Such Contractor personnel shall for all purposes be solely the employees or agents of the Contractor and shall not be deemed to be employees or agents of the County for any purposes whatsoever. With respect to Contractor personnel, the Contractor shall be solely responsible for compliance with all rules, laws and regulations relating to employment of labor, hours of labor, working conditions, payment of wages and payment of taxes, including applicable contributions from Contractor personnel when required by law.

Because it is an independent contractor, the Contractor shall be responsible for all obligations relating to federal income tax, self-employment or FICA taxes and contributions, and all other so-called employer taxes and contributions including, but not limited to, industrial insurance (workers' compensation). The Contractor agrees to indemnify, defend and hold the County harmless from any and all claims, valid or otherwise, made to the County because of these obligations.

The Contractor assumes full responsibility for the payment of all payroll taxes, use, sales, income, or other form of taxes, fees, licenses, excises or payments required by any city, county, federal or state legislation which are now or may during the term of the Agreement be enacted as to all persons employed by the Contractor and as to all duties, activities and requirements by the Contractor in performance of the work under this Agreement. The Contractor shall assume exclusive liability therefor, and shall meet all requirements thereunder pursuant to any rules or regulations that are now or may be promulgated in connection therewith.

5. Ownership. Any and all data, reports, analyses, documents, photographs, pamphlets, plans, specifications, surveys, films or any other materials created, prepared, produced, constructed, assembled,

made, performed or otherwise produced by the Contractor or the Contractor's subcontractors or consultants for delivery to the County under this Agreement shall be the sole and absolute property of the County. Such property shall constitute "work made for hire" as defined by the U.S. Copyright Act of 1976, 17 U.S.C. § 101, and the ownership of the copyright and any other intellectual property rights in such property shall vest in the County at the time of its creation. Ownership of the intellectual property includes the right to copyright, patent, and register, and the ability to transfer these rights. Material which the Contractor uses to perform this Agreement but is not created, prepared, constructed, assembled, made, performed or otherwise produced for or paid for by the County is owned by the Contractor and is not "work made for hire" within the terms of this Agreement.

6. Changes. No changes or additions shall be made in this Agreement except as agreed to by both parties, reduced to writing and executed with the same formalities as are required for the execution of this Agreement.

7. County Contact Person. The assigned contact person (or project manager) for the County for this Agreement shall be:

Name: Sheela George
Title: PW Supervisor III - Program Planning
Department: Public Works
Telephone: (425) 388-3271
Email: sheela.george@snoco.org

8. County Review and Approval. When the Contractor has completed any discrete portion of the services, the Contractor shall verify that the work is free from errors and defects and otherwise conforms to the requirements of this Agreement. The Contractor shall then notify the County that said work is complete. The County shall promptly review and inspect the work to determine whether the work is acceptable. If the County determines the work conforms to the requirements of this Agreement, the County shall notify the Contractor that the County accepts the work. If the County determines the work contains errors, omissions, or otherwise fails to conform to the requirements of this Agreement, the County shall reject the work by providing the Contractor with written notice describing the problems with the work and describing the necessary corrections or modifications to same. In such event, the Contractor shall promptly remedy the problem or problems and re-submit the work to the County. The Contractor shall receive no additional compensation for time spent correcting errors. Payment for the work will not be made until the work is accepted by the County. The Contractor shall be responsible for the accuracy of work even after the County accepts the work.

If the Contractor fails or refuses to correct the Contractor's work when so directed by the County, the County may withhold from any payment otherwise due to the Contractor an amount that the County in good faith believes is equal to the cost the County would incur in correcting the errors, in re-procuring the work from an alternate source, and in remedying any damage caused by the Contractor's conduct.

9. Subcontracting and Assignment. The Contractor shall not subcontract, assign, or delegate any of the rights, duties or obligations covered by this Agreement without prior express written consent of the County. Any attempt by the Contractor to subcontract, assign, or delegate any portion of the Contractor's

obligations under this Agreement to another party in violation of the preceding sentence shall be null and void and shall constitute a material breach of this Agreement.

10. Records and Access; Audit; Ineligible Expenditures. The Contractor shall maintain adequate records to support billings. Said records shall be maintained for a period of seven (7) years after completion of this Agreement by the Contractor. The County or any of its duly authorized representatives shall have access at reasonable times to any books, documents, papers and records of the Contractor which are directly related to this Agreement for the purposes of making audit examinations, obtaining excerpts, transcripts or copies, and ensuring compliance by the County with applicable laws. Expenditures under this Agreement, which are determined by audit to be ineligible for reimbursement and for which payment has been made to the Contractor, shall be refunded to the County by the Contractor.

11. Indemnification.

To the maximum extent permitted by law and except to the extent caused by the sole negligence of the County and, if any funds for this Agreement are provided by the State, the State, the Contractor shall indemnify and hold harmless the County and the State, their officers, officials, agents and employees, from and against any and all suits, claims, actions, losses, costs, penalties and damages of whatsoever kind or nature arising out of, in connection with, or incidental to the services and/or deliverables provided by or on behalf of the Contractor. In addition, the Contractor shall assume the defense of the County and, if applicable, the State and their officers and employees in all legal or claim proceedings arising out of, in connection with, or incidental to such services and/or deliverables and shall pay all defense expenses, including reasonable attorneys' fees, expert fees and costs incurred by the County and, if applicable, the State, on account of such litigation or claims.

The above indemnification obligations shall include, but are not limited to, all claims against the County and, if applicable, the State by an employee or former employee of the Contractor or its subcontractors, and the Contractor, by mutual negotiation, expressly waives all immunity and limitation on liability, as respects only the County and, if applicable, the State, under any industrial insurance act, including Title 51 RCW, other worker's compensation act, disability benefit act, or other employee benefit act of any jurisdiction which would otherwise be applicable in the case of such claim.

In the event that the County or, if applicable, the State incurs any judgment, award and/or cost including attorneys' fees arising from the provisions of this section, or to enforce the provisions of this section, any such judgment, award, fees, expenses and costs shall be recoverable from the Contractor.

In addition to injuries to persons and damage to property, the term "claims," for purposes of this provision, shall include, but not be limited to, assertions that the use or transfer of any software, book, document, report, film, tape, or sound reproduction or material of any kind, delivered hereunder, constitutes an infringement of any copyright, patent, trademark, trade name, and/or otherwise results in an unfair trade practice.

The indemnification, protection, defense and save harmless obligations contained herein shall survive the expiration, abandonment or termination of this Agreement.

Nothing contained within this provision shall affect or alter the application of any other provision contained within this Agreement.

12. Insurance Requirements. The Contractor shall procure by the time of execution of this Agreement, and maintain for the duration of this Agreement, (i) insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the services hereunder by the Contractor, its agents, representatives, or employees, and (ii) a current certificate of insurance and additional insured endorsement when applicable.

a. General. Each insurance policy shall be written on an "occurrence" form, except that Professional Liability, Errors and Omissions coverage, if applicable, may be written on a claims made basis. If coverage is approved and purchased on a "claims made" basis, the Contractor warrants continuation of coverage, either through policy renewals or the purchase of an extended discovery period, if such extended coverage is available, for not less than three (3) years from the date of completion of the work which is the subject of this Agreement.

By requiring the minimum insurance coverage set forth in this Section 12, the County shall not be deemed or construed to have assessed the risks that may be applicable to the Contractor under this Agreement. The Contractor shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits and/or broader coverage.

b. No Limitation on Liability. The Contractor's maintenance of insurance as required by this Agreement shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the County's recourse to any remedy available at law or in equity.

c. Minimum Scope and Limits of Insurance. The Contractor shall maintain coverage at least as broad as, and with limits no less than:

(i) General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage, and for those policies with aggregate limits, a \$2,000,000 aggregate limit. CG 00 01 current edition, including Products and Completed Operations, Personal Injury/Advertiser's Liability, and Contractual Liability;

(ii) Automobile Liability: \$2,000,000 combined single limit per accident for bodily injury and property damage. CA 0001 current edition, Symbol 1;

(iii) Workers' Compensation: To meet applicable statutory requirements for workers' compensation coverage of the state or states of residency of the workers providing services under this Agreement;

(iv) Employers' Liability or "Stop Gap" coverage: \$1,000,000;

d. Other Insurance Provisions and Requirements. The insurance coverages required in this Agreement for all liability policies except workers' compensation and Professional Liability, if applicable, must contain, or must be endorsed to contain, the following provisions:

(i) The County, its officers, officials, employees and agents are to be covered as additional insureds as respects liability arising out of activities performed by or on behalf of the Contractor in connection with this Agreement. Such coverage shall be primary and non-contributory

insurance as respects the County, its officers, officials, employees and agents. Additional Insured Endorsement shall be included with the certificate of insurance, "CG 2026 07/04" or its equivalent is required.

(ii) The Contractor's insurance coverage shall apply separately to each insured against whom a claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.

(iii) Any deductibles or self-insured retentions must be declared to, and approved by, the County. The deductible and/or self-insured retention of the policies shall not limit or apply to the Contractor's liability to the County and shall be the sole responsibility of the Contractor.

(iv) Insurance coverage must be placed with insurers with a Best's Underwriting Guide rating of no less than A:VIII, or, if not rated in the Best's Underwriting Guide, with minimum surpluses the equivalent of Best's surplus size VIII. Professional Liability, Errors and Omissions insurance coverage, if applicable, may be placed with insurers with a Best's rating of B+:VII. Any exception must be approved by the County.

Coverage shall not be suspended, voided, canceled, reduced in coverage or in limits until after forty-five (45) calendar days' prior written notice has been given to the County.

If at any time any of the foregoing policies fail to meet minimum requirements, the Contractor shall, upon notice to that effect from the County, promptly obtain a new policy, and shall submit the same to the County, with the appropriate certificates and endorsements, for approval.

e. Subcontractors. The Contractor shall include all subcontractors as insureds under its policies, or shall furnish separate certificates of insurance and policy endorsements for each subcontractor. **Insurance coverages provided by subcontractors instead of the Contractor as evidence of compliance with the insurance requirements of this Agreement shall be subject to all of the requirements stated herein.**

13. County Non-discrimination. It is the policy of the County to reject discrimination which denies equal treatment to any individual because of his or her race, creed, color, national origin, families with children, sex, marital status, sexual orientation, age, honorably discharged veteran or military status, or the presence of any sensory, mental, or physical disability or the use of a trained dog guide or service animal by a person with a disability as provided in Washington's Law against Discrimination, Chapter 49.60 RCW, and the Snohomish County Human Rights Ordinance, Chapter 2.460 SCC. These laws protect against specific forms of discrimination in employment, credit transactions, public accommodation, housing, county facilities and services, and county contracts.

The Contractor shall comply with the substantive requirements of Chapter 2.460 SCC, which are incorporated herein by this reference. Execution of this Agreement constitutes a certification by the Contractor of the Contractor's compliance with the requirements of Chapter 2.460 SCC. If the Contractor is found to have violated this provision, or to have furnished false or misleading information in an investigation or proceeding conducted pursuant to this Agreement or Chapter 2.460 SCC, this Agreement may be subject to a declaration of default and termination at the County's discretion. This provision shall not affect the Contractor's obligations under other federal, state, or local laws against discrimination.

14. Federal Non-discrimination. Snohomish County assures that no persons shall on the grounds of race, color, national origin, or sex as provided by Title VI of the Civil Rights Act of 1964 (Pub. L. No. 88-352), as amended, and the Civil Rights Restoration Act of 1987 (Pub. L. No. 100-259) be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any County sponsored program or activity. Snohomish County further assures that every effort will be made to ensure nondiscrimination in all of its programs and activities, whether those programs and activities are federally funded or not.

During the performance of this contract, Contractor agrees to comply with all of the terms required by Appendices A and E, attached hereto and incorporated by this reference.

15. Employment of County Employees. SCC 2.50.075, “Restrictions on future employment of County employees,” imposes certain restrictions on the subsequent employment and compensation of County employees. The Contractor represents and warrants to the County that it does not at the time of execution of this Agreement, and that it shall not during the term of this Agreement, employ a former or current County employee in violation of SCC 2.50.075. For breach or violation of these representations and warranties, the County shall have the right to terminate this Agreement without liability.

16. Compliance with Other Laws. The Contractor shall comply with all other applicable federal, state and local laws, rules, and regulations in performing this Agreement.

17. Compliance with Grant Terms and Conditions. The Contractor shall comply with any and all conditions, terms and requirements of any federal, state or other grant, if any, that wholly or partially funds the Contractor’s work hereunder.

18. Prohibition of Contingency Fee Arrangements. The Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Contractor, to solicit or secure this Agreement and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the Contractor, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the County shall have the right to terminate this Agreement without liability or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

19. Force Majeure. If either party is unable to perform any of its obligations under this Agreement as a direct result of an unforeseeable event beyond that party’s reasonable control, including but not limited to an act of war, act of nature (including but not limited to earthquake and flood), embargo, riot, sabotage, labor shortage or dispute (despite due diligence in obtaining the same), or governmental restriction imposed subsequent to execution of the Agreement (collectively, a “force majeure event”), the time for performance shall be extended by the number of days directly attributable to the force majeure event. Both parties agree to use their best efforts to minimize the effects of such failures or delays.

20. Suspension of Work. The County may, at any time, instruct the Contractor in writing to stop work effective immediately, or as directed, pending either further instructions from the County to resume the work or a notice from the County of breach or termination under Section 21 of this Agreement.

21. Non-Waiver of Breach; Termination.

- a. The failure of the County to insist upon strict performance of any of the covenants or agreements contained in this Agreement, or to exercise any option conferred by this Agreement, in one or more instances shall not be construed to be a waiver or relinquishment of those covenants, agreements or options, and the same shall be and remain in full force and effect.
- b. If the Contractor breaches any of its obligations hereunder, and fails to cure the same within thirty (30) business days of written notice to do so by the County, the County may terminate this Agreement, in which case the County shall pay the Contractor only for the services and corresponding reimbursable expenses, if any, accepted by the County in accordance with Sections 3 and 8 hereof.
- c. The County may terminate this Agreement upon five (5) business days' written notice to the Contractor for any reason other than stated in subparagraph b above, in which case payment shall be made in accordance with Sections 3 and 8 hereof for the services and corresponding reimbursable expenses, if any, reasonably and directly incurred by the Contractor in performing this Agreement prior to receipt of the termination notice.
- d. Termination by the County hereunder shall not affect the rights of the County as against the Contractor provided under any other section or paragraph herein. The County does not, by exercising its rights under this Section 21, waive, release or forego any legal remedy for any violation, breach or non-performance of any of the provisions of this Agreement. At its sole option, the County may deduct from the final payment due the Contractor (i) any damages, expenses or costs arising out of any such violations, breaches or non-performance and (ii) any other set-offs or credits including, but not limited to, the costs to the County of selecting and compensating another contractor to complete the work of the Agreement.

22. Notices. All notices and other communications shall be in writing and shall be sufficient if given, and shall be deemed given, on the date on which the same has been mailed by certified mail, return receipt requested, postage prepaid, addressed as follows:

If to the County: Snohomish County, Public Works
 3000 Rockefeller Ave, M/S 607
 Everett, Washington 98201
 Attention: Sheela George
 PW Supervisor III - Program Planning

If to the Contractor: Applied Research Associates, Inc.
 4300 San Mateo Blvd., NE, Suite A-220
 Albuquerque, NM 97110
 Attention: Salil Gokhale, P.E.

The County or the Contractor may, by notice to the other given hereunder, designate any further or different addresses to which subsequent notices or other communications shall be sent.

23. Confidentiality. The Contractor shall not disclose, transfer, sell or otherwise release to any third party any confidential information gained by reason of or otherwise in connection with the Contractor's performance under this Agreement. The Contractor may use such information solely for the purposes necessary to perform its obligations under this Agreement. The Contractor shall promptly give written notice to the County of any judicial proceeding seeking disclosure of such information.

24. Public Records Act. This Agreement and all public records associated with this Agreement shall be available from the County for inspection and copying by the public where required by the Public Records Act, Chapter 42.56 RCW (the "Act"). To the extent that public records then in the custody of the Contractor are needed for the County to respond to a request under the Act, as determined by the County, the Contractor agrees to make them promptly available to the County. If the Contractor considers any portion of any record provided to the County under this Agreement, whether in electronic or hard copy form, to be protected from disclosure under law, the Contractor shall clearly identify any specific information that it claims to be confidential or proprietary. If the County receives a request under the Act to inspect or copy the information so identified by the Contractor and the County determines that release of the information is required by the Act or otherwise appropriate, the County's sole obligations shall be to notify the Contractor (a) of the request and (b) of the date that such information will be released to the requester unless the Contractor obtains a court order to enjoin that disclosure pursuant to RCW 42.56.540. If the Contractor fails to timely obtain a court order enjoining disclosure, the County will release the requested information on the date specified.

The County has, and by this section assumes, no obligation on behalf of the Contractor to claim any exemption from disclosure under the Act. The County shall not be liable to the Contractor for releasing records not clearly identified by the Contractor as confidential or proprietary. The County shall not be liable to the Contractor for any records that the County releases in compliance with this section or in compliance with an order of a court of competent jurisdiction.

25. Interpretation. This Agreement and each of the terms and provisions of it are deemed to have been explicitly negotiated by the parties. The language in all parts of this Agreement shall, in all cases, be construed according to its fair meaning and not strictly for or against either of the parties hereto. The captions and headings of this Agreement are used only for convenience and are not intended to affect the interpretation of the provisions of this Agreement. This Agreement shall be construed so that wherever applicable the use of the singular number shall include the plural number, and vice versa, and the use of any gender shall be applicable to all genders.

26. Complete Agreement. The Contractor was selected through the County's RFP or RFQ identified in Section 1. The RFP or RFQ and the Contractor's response are incorporated herein by this reference. To the extent of any inconsistency among this Agreement, the RFP or RFQ, and the Contractor's response, this Agreement shall govern. To the extent of any inconsistency between the RFP or RFQ and the Contractor's response, the RFP or RFQ shall govern.

27. Conflicts between Attachments and Text. Should any conflicts exist between any attached exhibit or schedule and the text or main body of this Agreement, the text or main body of this Agreement shall prevail.

Schedule A
Scope of Services

The Contractor shall:

1. Perform annual automated or semi-automated surface distress data collection surveys on the County's roadway network using industry-standard pavement imaging technology as well as a certified high-speed laser profiler for measurement of the International Roughness Index (IRI) and rutting. The data collection process must incorporate GPS technology to validate and ensure spatial accuracy of modeled datasets and meet the following requirements:
 - a. Data collection is to be performed in the direction of increasing milepost.
 - b. Data collection is to be performed on 100% of the outside through lane.
 - c. Data collection is to be performed during dry weather/pavement conditions and during daylight.
 - d. Data collection is to be performed under prevailing traffic conditions and at or under posted speed limits.
 - e. The approximate mileages to be surveyed each year are as follows:
 - i. 2023 – 516 centerline miles of arterial/collector roads
 - ii. 2024 – 535 centerline miles of south County local access roads
 - iii. 2025 – 516 centerline miles of arterial/collector roads
 - iv. 2026 – 527 centerline miles of north County local access roads
 - v. 2027 – 516 centerline miles of arterial/collector roads
2. Refer to Exhibit B, Section 1 for a list of surface distresses to be collected and reported for Cartegraph and GIS-Mo.
3. Collect data and perform QA/QC per the Quality Management Plan (QMP) documented in Exhibit A.
4. Use manual and semi-automated data processing methodologies to analyze all pavement surface distress data using guidelines provided in ASTM D6433-20 except for longitudinal/transverse cracking and patching which will be evaluated using Northwest Pavement Management Association (NWPMA) pavement rating manual for asphalt pavements (see Exhibit B, Section 2).
5. Use automated data processing methodologies to analyze and report IRI and rutting for all pavement management sections. Refer to Exhibit B, Section 3 for more detail pertaining to IRI data collection requirements.
6. Aggregate distress data by segmenting each pavement management section into inspection unit lengths (IUs). The County will decide and communicate the required IU length before the start of any 2023 survey work. If a change in IU length is needed in future years, the County will communicate this need to ARA and provide the revised IU length ahead of the deadline set by ARA.
7. Deliver the resulting processed distress data in .csv, .xlsx, and geodatabase formats conforming to Cartegraph and CRAB/GIS-Mo requirements.
8. Complete each year's field survey by September 30, with final deliverables due by November 30 of each survey year unless the County agrees in advance to an extended deadline in writing.
9. Provide a final report documenting the contractor's QMP implementation for the year and summarizing responses to any issues that may have been encountered. The report shall

include equipment calibration results, measures taken to ensure data collection repeatability, quality assurance for distress data processing, and proposed changes (if any) to the quality management plan. Both the annual QMP report and any proposed QMP changes to be used in future years shall be approved by the Pavement Manager prior to the start of data collection for the following year

The following project tasks have been identified in relation to the above services:

- Task 1:** Project Initiation and Kickoff Meeting
- Task 2:** GIS and Pavement Inventory Database(s) Review
- Task 3:** Pavement Condition Surveys
 - Task 3A:** Routing and Navigation
 - Task 3B:** Data Collection
- Task 4:** Pavement Distress Data Analysis
- Task 5:** Data Conversion
- Task 6:** Data Delivery
- Task 7:** Final Report

PROJECT APPROACH

Task 1: Project Initiation and Kickoff Meeting

ARA's team will meet with County staff to initiate the project. This meeting will occur after receiving the Notice to Proceed and at the earliest convenience of the County personnel. The main objective of this meeting will be to review the current pavement network, review/finalize the quality management plan, discuss County's requirements for CRAB/GIS-Mo and Cartegraph OMS, and to finalize the project schedule. Prior to beginning the project, our team will develop a clear communications plan with contact information and list of key personnel from both ARA and the County, and a comprehensive project plan, including detailed schedule and deliverables. All project related tasks and deliverables will be reviewed during the kick-off meeting.

Task 2: GIS and Pavement Inventory Database(s) Review

ARA will conduct a thorough review of the County's GIS data and PMS/AMS databases including:

- A review of the County's GIS data sets to ensure that all County maintained roadway sections (and sub-segments) are present, and that they include all pertinent attributes including, but not limited to:
 - Segment and management section identifiers
 - Surface type, functional classification, number of lanes
 - Section From and To descriptions, begin and end mile points
 - Correctly-calculated GIS shape lengths

- Number of inspection units, with correctly-calculated begin and end definitions
- A coordinated effort to work with the County to add and remove new road segments, adjust jurisdiction or functional classification changes, and make other pertinent changes as required
- A review of the GIS data sets and corresponding pavement inventory definitions in Cartograph and CRAB/GIS-Mo to ensure a 1-1 match
- Following the initial review, ARA’s team will work with the County to conduct segmentation of the GIS data sets into appropriate IUs. The segmented GIS data will form the basis for all fieldwork and data collection in subsequent years. The IUs will be segmented using the following guidance:
 - Each pavement management section will be segmented into IU lengths determined to best meet the County’s pavement management and maintenance needs,
 - If the entire management section is less than the chosen IU length, then the entire management section will be comprised of one IU,
 - If the last IU in a pavement management section is less than half of the standard IU length, it will be added to the preceding IU, if not, it will be retained as an independent IU,
 - Figure 1 shows an example of this approach. The left-hand side shows an entire pavement management section (red lines with arrows), while the right-hand side shows the management sections segmented split into IUs (lines with blue arrows and sequential numbering of inspection units).



Figure 1: Management Sections and Inspection Units

Task 3: Pavement Condition Surveys

Snohomish County’s pavement condition surveys will be conducted with the state-of-the-art Laser Crack Measurement System (LCMS). While the data collection and distress identification components of the system are fully automated, ARA will utilize a 2-step process to review pavement distresses (hence the term “semi-automated”). Their vans will be equipped with the industry-standard LCMS system, certified pavement profiling systems, and multiple right of way

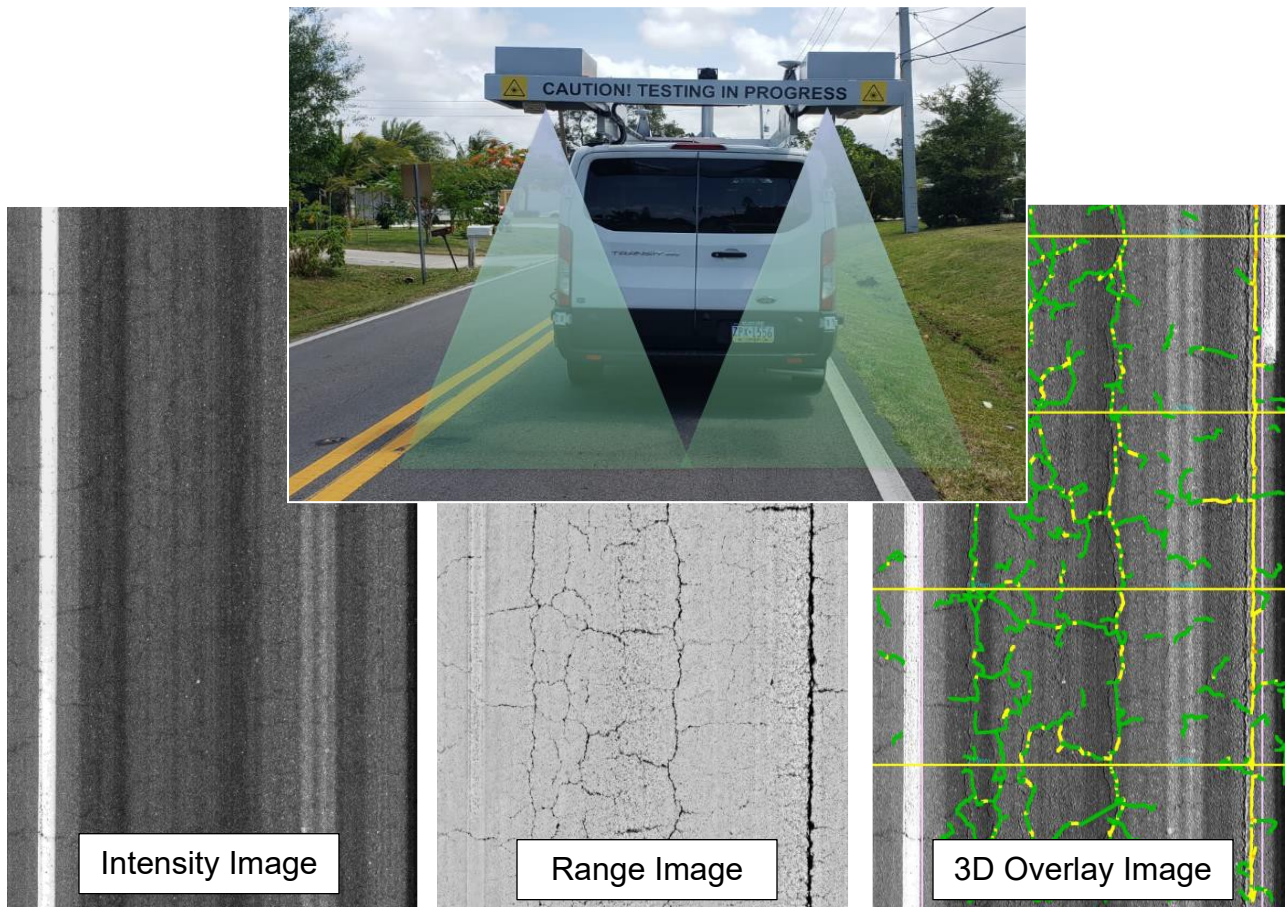
cameras, all synchronized with sub-meter accuracy GPS coordinates. A photo of one of the LCMS vans is shown in Figure 2.



Figure 2: One of ARA’s LCMS based Pavement Evaluation Vans

The main components of ARA’s imaging vans include:

- 3D LCMS system capable of collecting pavement images. Data acquired from this system is analyzed to determine types and extents of pavement distresses.
- High definition right of way (ROW) cameras capable of recording geotagged images in 2464 x 2056 JPEG format. Images are stored in 20-ft. intervals.
- Class-1 inertial profiler for measuring pavement profile information, which is used to calculate the International Roughness Index (IRI). Two (2) ARA profilers are certified by the Texas A&M Transportation Institute (TTI), which has one of the most stringent profiler certification programs nationwide.
- Applanix POS-LV system for pavement geometry and sub-meter accuracy GPS coordinates.
- Adequate markings and strobe lights for safety.



Sample Pavement Images Captured with the LCMS System

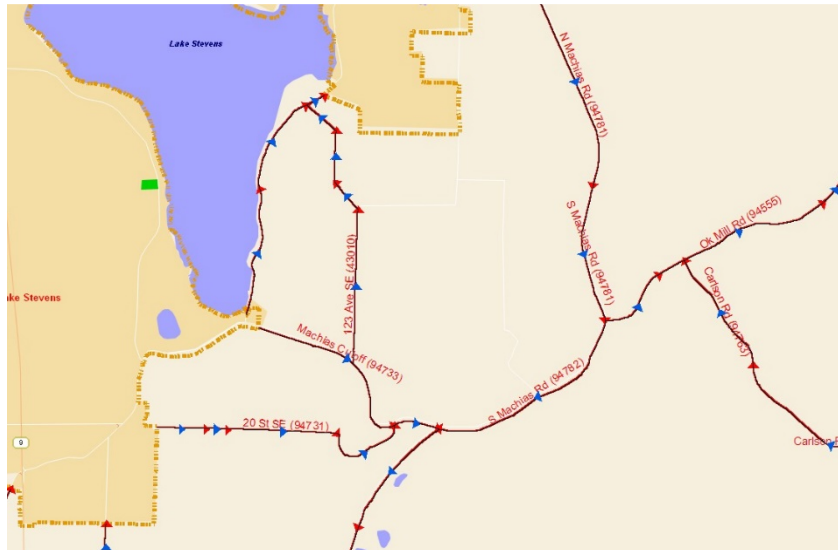


Sample Right of Way Images (Airport Road in Everett)

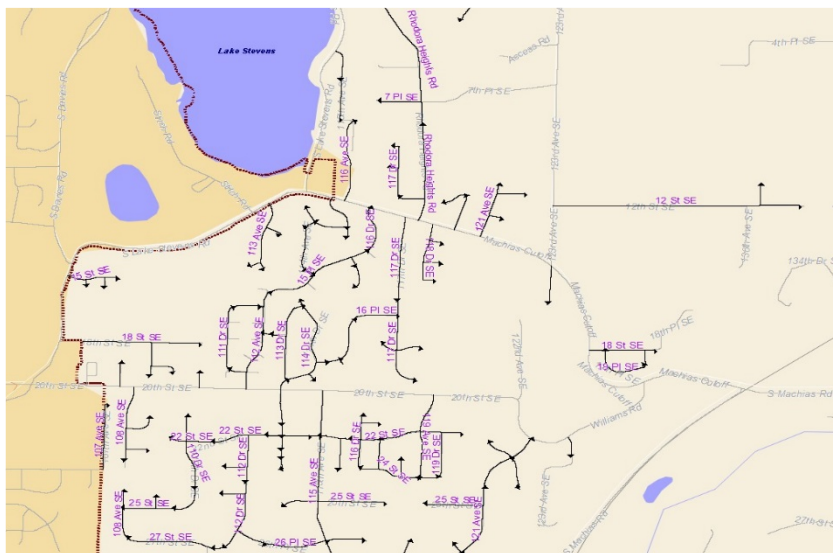
Figure 3: Sample Images

Task 3A: Routing and Navigation

Data will be collected in the outside lane, and in the order of increasing milepost. ARA's navigation plans provide the field survey crew with efficient data collection routing while minimizing the amount of time and number of miles driven without collecting data. The routing/navigation software also provides the operators with driving directions and pertinent section information including Road Log/Street ID numbers, direction of travel, start/end points etc. The software also includes capabilities to include fieldnotes or observations such as areas under construction, different surface types or roads with restricted access (example: gate on Index Galena Road).



Arterial/Collector Roads



Local Access Roads

Figure 4: Routing Software showing Survey Direction

Task 3B: Data Collection

After the preceding tasks are complete, ARA's team will travel to Snohomish County to start the data collection.

1. Data collection is tentatively scheduled for May-June of each year, depending on the weather forecast.
2. Prior to data collection, ARA's team will conduct a field-visit meeting with County personnel.
3. ARA's team will work with the County to set up control sites for local calibration and equipment verification purposes and ensure that data collection vans collect repeatable data (see QMP for details).
4. All data will be collected during daylight and in dry weather conditions with dry pavement. The imaging vans will collect data at/under posted speed limits under prevailing traffic conditions. Traffic control is not required during testing.
5. Data collected with imaging vans will include:
 - a. Continuous pavement images acquired with the LCMS system. The imaging system scans approximately 13.5 ft. in width.
 - b. ROW images will be collected at 20-ft. intervals; all images are geotagged.
 - c. Profile measurements are recorded at 2-in. intervals along the traveled surface. The measurements are used for calculating the IRI scores and rutting.
 - d. Pavement geometry information stored at 20-ft. intervals including cross slope, grade, and radius of curvature.
 - e. Sub-meter accuracy GPS coordinates.
6. At the end of each day, ARA operators will check the collected data for integrity and completeness. A field QC summary log is recorded on a daily basis.
7. ARA's project manager will provide progress updates to County personnel at intervals agreed upon during the Kick-Off Meeting.

Task 4: Pavement Distress Data Analysis

Data acquired with the LCMS system allows the automated detection/identification of various types of distresses including all types of cracking, rutting, raveling, potholes, edge drop-off, sealed cracks, lane markings, and macrotexture. Distress rating will be performed in accordance with ASTM D6433-20 standards for all distress types except longitudinal cracks, transverse cracks, and patching which will be evaluated per Northwest Pavement Management Association (NWPMA) guidelines. ARA follows a two-step approach for distress rating, where Step 1 is the fully automated computer-based crack type determination, and Step 2 is verification of the automated process by an experienced pavement rating technician. ARA pavement inspectors will identify and classify pavement distresses using high-resolution pavement images. Figure 5 illustrates this process.

Step 1: Full Automated Distress Identification

In Step 1, all acquired data is analyzed through ARA's data processing software. The software automatically classifies detected distress type, categorizes them by severity, and quantifies the results including location and extent. An example of the automated distress identification and classification process is shown in Figure 5. This figure shows alligator (fatigue) cracking identified and classified by our software.

Step 2: Manual Review of Distresses

In the second step of the analysis process, ARA's team of experienced pavement inspectors will review 100% of the results of the fully automated process and make changes or edits to the analyzed data as needed. The lower right portion of Figure 5 shows the results of the automated analysis reviewed and edited by ARA's team of experienced pavement inspectors. A manual review of the identified distresses helps eliminate false positives and negatives as well as ensure the accuracy of distress type and severity.

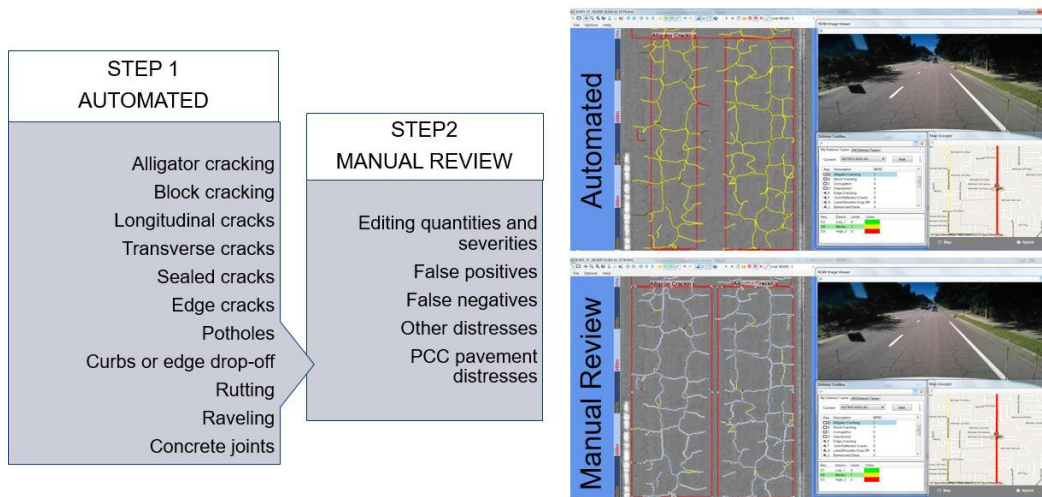


Figure 5 Pavement Distress Analysis Process

ARA's distress rating process will include multiple levels of quality control and review, including:

1. Quality control at 10%, 50% and 75% by the distress rating team leader – this includes checks to ensure that correct distress types, severities and extents are incorporated. Revisions are sent back to the pavement rating technicians for corrections if required.
2. Quality assurance review by lead technician/project engineer at 25%, 75% and 100% marks – this includes overview checks on distress data to ensure database completeness, checks for missing data, checks for excessive extents, checks on output data etc.
3. Overall quality control checks by project manager at periodic intervals – these include oversight of the entire process and comparisons with historical PCI values and distresses.

The results of the QC/QA process are documented as part of ARA's QMP.

Task 5: Data Conversion

ARA has developed several programming tools to assist with conversion of the raw distress data into the required Cartegraph and CRAB/GIS-Mo formats. The distress rating software output contains detailed distress information including section identifiers, GPS coordinates, Station from/to, distress type, severity, quantity, and location. In addition, our software also includes IRI and rutting data. The raw data (in .xml or .csv format) is compiled into a database (geodatabase) for further review and final export. The steps involved in the data conversion are as follows:

1. Segmentation of the collected data as per pavement inventory definition in Cartegraph
2. Sub-segmentation of each pavement management section into the inspection unit length chosen by the County
3. Raw distress data is exported in XML format, and multiple files are compiled into a single database
4. Detailed distress data is further exported to:
 - a. .xlsx files for import into CRAB/GIS-Mo
 - b. .csv files for import into Cartegraph

ARA’s team is very familiar with the data requirements for both formats including CRAB/GIS-Mo specific distress severity requirements for longitudinal and transverse cracking and patching, and distress densities required for CRAB/GIS-Mo and Cartegraph software. IRI data will be included with inspection ID’s and can be used to calculate Cartegraph’s Overall Condition Index (OCI) along with PCI scores.

Additional Analysis of Ride Quality Data

Snohomish County’s Cartegraph OMS system also includes the capability of including IRI measurements as part of the Overall Condition Index (OCI) – with the ride quality (along with PCI scores) forming an overall metric of a given road’s condition. As described previously, ARA’s LCMS vans are equipped with certified pavement profilers, and capture IRI data on each surveyed road. IRI data therefore is an integral part of the raw data set. ARA will provide summarized IRI data in inches per mile for each pavement management section in the County (arterial, collector and local access roads).

In addition, ARA will provide an analysis based on a framework developed by other agencies. This framework includes an approach based on ride quality, with the understanding that arterial/collector streets are held to a higher standard in terms of pavement smoothness. An example of a generalized grading scale is shown in the table below (with IRI range categories for arterial/collector roads).

Grade	Description	Detailed Description
A	Excellent	Very smooth ride – may need only crack sealing or minor repairs if any (IRI range from 25 to 140 in/mi)
B	Good	Smooth ride – may need crack sealing or seal coat and/or minor repairs (IRI range from 140 to 180 in/mi)
C	Fair	Acceptable ride – minimal roughness, may need seal coat with repairs or overlay to maintain acceptable condition (IRI range from 180 to 225 in/mi)
D	Poor	Moderately rough ride – less than desirable or unsatisfactory ride, acceptable at reduced speeds, needs more major repairs and/or overlays (IRI range from 225 to 300 in/mi)
F	Failed	Very rough ride – may not be acceptable even at reduced speeds, typically reconstruction is required to improve the street (IRI > 300 in/mi)

ARA will customize the above grading scale for arterial, collector and local access roads for Snohomish County, with the final scales accepted after County approval.

An example frequency distribution of an agency’s arterial roadway network is shown in Figure 6 on the following page and shows that more than 50% of the network is in the A/Excellent or B/Good grade ranges. ARA will provide such a frequency distribution graph to Snohomish County using the County’s customized grading scale.

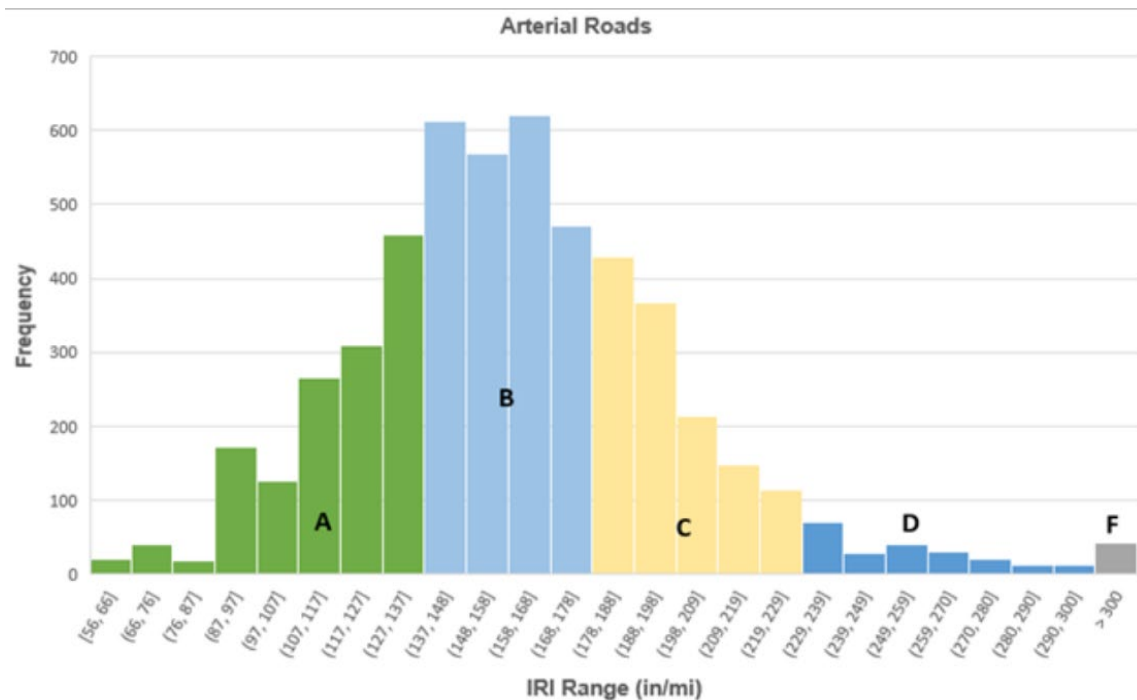


Figure 6 Example IRI Grading Distribution

Task 6: Data Delivery

ARA’s team will deliver the following data sets to the County:

1. Distress data in .xlsx format for import into CRAB/GIS-Mo
2. Asset, Task, Inspection, Sample and Distress data in .csv format for import into Cartegraph
3. IRI data in .csv format for import into Cartegraph
4. Completed datasets in ESRI file geodatabase format using Washington’s NAD_1983_StatePlane_Washington_north_FIP S_4601 projection
5. A hard drive containing all pavement and ROW images acquired in the field, including a versatile image viewing application
6. An ESRI map document showing the location, types and extents of pavement distresses identified in the datacollection cycle (detailed distress map)
7. Pavement geometry data stored at 20-ft. intervals including cross slope, grade, and radius of curvature; delivered in a GIS format (geodatabase or shapefile)

Task 7: Final Report

At the end of each data collection year, ARA will submit a final report summarizing the data collection effort. The report will include:

1. Results of QMP implementation including calibration/field verification results, measures taken to ensure data repeatability and assembly, distress data processing and control etc.
2. List of issues encountered including road sections inaccessible for survey
3. Survey statistics with compiled distress analysis results
4. Ride quality grading for each road
5. An analysis/insight section comparing distress records from the previous cycle as well as independently calculated PCI scores
6. Suggestions and recommendations

Exhibit A

QUALITY MANAGEMENT PLAN (QMP)

Dedication to quality is paramount to the overall success of this project. One of the most important factors of this is a documented Data Quality Management Plan (DQMP). The ARA team will prepare a detailed DQMP that covers all facets of this project for Snohomish County. A high-level data quality chart is shown below that spans the life of the project.

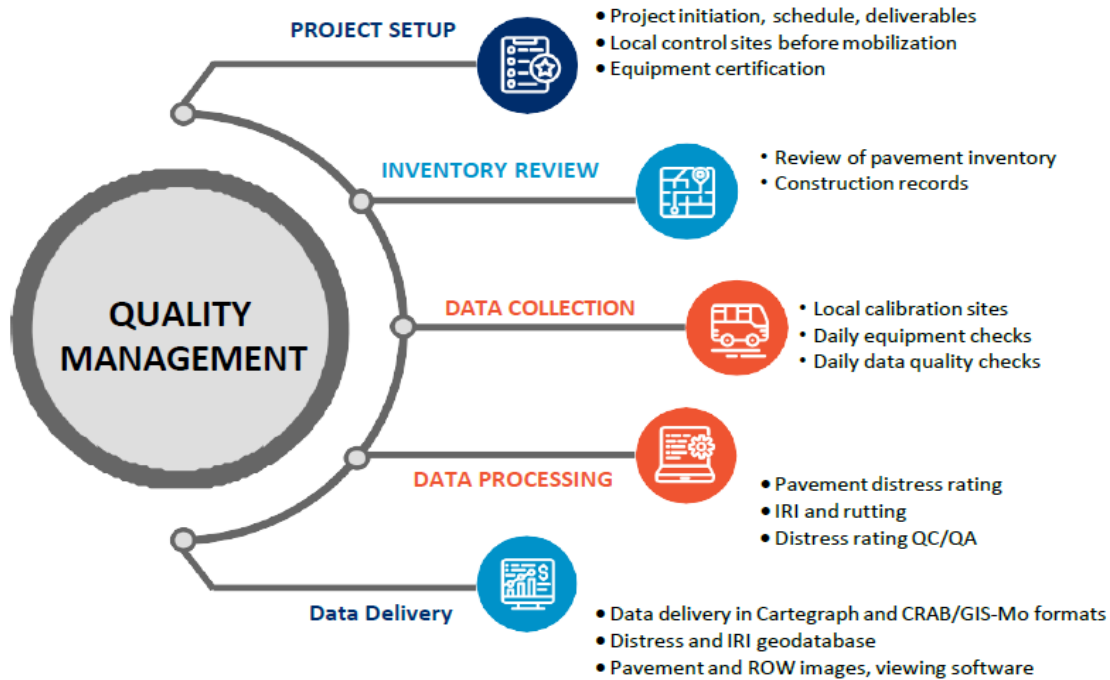


Figure 7 High-Level Quality Management Plan

Our field operators will perform equipment quality control and calibration checks daily to minimize issues with raw data. Data is then screened daily as it is submitted to the office. For data processing, ARA will use programmatically set up quality and processing checks to reduce errors and omissions in the work. For quality control, ARA will utilize personnel not assigned to other tasks on the project to eliminate bias and allow for proper quality control. These systematic procedures will allow ARA to provide quality service to Snohomish County.

QC/QA During Data Acquisition

ARA's QMP will ensure proper calibration and configuration of the data collection vehicle, and that all subsystems are operating within specifications. A key feature of the QMP will be the use of local control sites which will be run before, during, and after the data collection phase of the project to ensure the highest quality pavement condition data at all times.

A minimum of four (4) control sites will be used to ensure proper equipment operation throughout the project. These control sites will be set up in consultation with County personnel, and may include the following:

- One 'smooth' asphalt section with little to no distress and good ride quality – Urban area
- One 'smooth' asphalt section with little to no distress and good ride quality – Rural area
- One 'rough' asphalt section with light/medium cracking and moderate ride quality – Urban area
- One 'rough' asphalt section with light/medium cracking and moderate ride quality – Rural area

If the County has other recommendations, ARA will evaluate these for suitability for establishing the baseline control sites. Considerations for suitability for control sites includes:

- At least 0.5 miles in length
- No stop signs, no stop lights, or the ability to drive the entire length of the control site at a constant speed without stopping
- Reasonable lane delineation, meaning adequate striping to ensure the same wheel path will be driven and ensure the accuracy of the sensors

At least five (5) runs will be performed at each control site to establish baseline sensor readings for each control site as well as expected standard deviation. The data collected on the control sites will establish baselines for the following equipment subsystems:

- Longitudinal profile (ride quality)
- Transverse profile (rutting)
- GPS coordinates
- Image quality
 - Orientation of row images will be established for reference purposes
 - Pavement images will be collected and reviewed to ensure there are no orientation issues (pavement images rarely have orientation issues)
 - Downward images will be checked for quality
- Distress location
 - Pavement distresses will be rated on these roadways and reported with GPS coordinates; this will help to ensure that the location of identified distresses will be accurate and repeatable through the project.

QC/QA During Data Processing

The control site sections will be processed fully for all sensor data (rutting, IRI) and surface condition (distress rating); and then detailed distress quantities and extents will be calculated and presented in graphical and/or tabular format. ARA's team will compare these records with historical distress information available. In addition, ARA will independently calculate PCI score for each section for review purposes.

ARA's team will regularly perform the following quality control and assurance checks:

- Quality control at 10%, 50% and 75% by the distress rating team leader
- Review of the distress rating for 10% of randomly selected sections by the QC/QA manager
- Review of the distress rating for 5% of randomly selected sections by the project manager
- Review of all sections with a PCI score of 100 (i.e., no distresses)– indicates sections that may have been skipped during the data processing phase by the QA/QC team
- Review of all sections with no PCI score – indicates either that a section was missed or could not be tested by the QA/QC team
- Review of all distresses used to calculate PCI score
 - Ensure distresses do not surpass maximum possible quantities
 - Review of areas of excessive distress quantity or severity level
 - Review that distress types are consistent in the pavement classification
 - Review of sample areas/sizes used in PCI calculation – ensures that the PCI calculation is performed correctly
- Ensure that mapped PCI scores are displaying on the correct segments with the correct score – make certain that no data transfer error happens when transferring to GIS database or .xlsx/.csv file type.

Exhibit B

Section 1

Surface Distress Types to Be Collected Every Year

The following distress types are necessary for each digital environment. Submitted data must match this text exactly for each deliverable.

Cartograph Distresses:

Asphalt Alligator Cracking
Asphalt Bleeding
Asphalt Edge Cracking
Asphalt Longitudinal Transverse Cracking
Asphalt Patching and Utility Cut Patching
Asphalt Potholes
Asphalt Raveling -Dense Mix Asphalt
Asphalt Weathering-Surface Wear -Dense Mix Asphalt

GIS-Mo/VUEWorks (CRAB) Distresses:

Alligator Cracking
Longitudinal Cracking
Transverse Cracking
Patching

Section 2

All distress severity and extent shall be evaluated per ASTM D6433-20, except the following distresses, which shall be evaluated per NWPMA guidelines:

- Any longitudinal cracking (NWPMA, Option B)
- Any transverse cracking (NWPMA, Option B)
- Any patching (NWPMA, Option B)

Section 3

International Roughness Index (IRI)

1. IRI data shall be collected using automated profiling equipment.
2. Data shall be collected for both wheel paths and averaged to report the mean roughness index.
3. Profiling equipment shall be certified within 12 months of the start date for the vendor's IRI data collection process.
4. An electronic copy of each survey year's equipment calibration results shall be submitted to the County before the vendor begins collecting IRI data.

Schedule B
Compensation

Cost: Pavement Distress Surveys

Mileage	2023	2024	2025	2026	2027
	510	514	510	535	510
Unit Price	\$185.51	\$195.11	\$188.08	\$197.03	\$197.60
Total Price	\$94,608	\$100,287	\$95,918	\$105,409	\$100,778
Total Cost 2023-2027					\$497,000

***Mileages are estimates only and will be updated annually before each year's survey, taking into consideration jurisdiction changes, new and extended roads, and functional classification changes.*

Cost: IRI and Rutting Surveys (on Arterials and Collectors in years 2023, 2025 and 2027)

Mileage	2023	2024	2025	2026	2027
	510		510		510
Unit Price					
Total Price	Included Above	Included Above	Included Above	Included Above	Included Above
Total Cost 2023-2027					\$ Included Above

***Mileages are estimates only and will be updated annually before each year's survey, taking into consideration jurisdiction changes, new and extended roads, and functional classification changes.*

Total Cost for All Services 2023-2027	\$497,000
--	------------------

Notes:

1. Please note that ARA's imaging van include pavement profilers and that IRI/rutting data is collected on all roads. Therefore the IRI and rutting pricing is included in the first table.

APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Washington State Department of Transportation, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Washington State Department of Transportation to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Washington State Department of Transportation, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Washington State Department of Transportation may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Washington State Department of Transportation may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).