# Scope of Work

## **Pre-Construction**

**Startup meeting with the County –** Psomas will attend a kick-off meeting with the County to introduce team players and to discuss project goals and process.

Internal QA Meeting – Our QA Manager will meet with the Resident Engineer and Construction Inspector to review the scope, budget, project plans and specifications, and discuss individual responsibilities. Our QA Manager will schedule the mid-project audit and provide the Resident Engineer and Construction Inspector with project-specific checklists.

Review Plans, Specifications and Estimates (PS&E) – Psomas will review all PS&E documentation, contract documents, addendums, schedules, permitting documents and all other documents required of the project.

**Pre-construction conference** – Psomas will facilitate a pre-construction conference with the Contractor prior to the start of construction activities on the project. Our Resident Engineer will develop an invitation list based upon discussions with the County's PM and project design team to include all interested parties, County Road Maintenance personnel if desired, and affected stakeholders.

**Prepare Pre-Construction Documents –** The Construction Inspector will photograph the areas and add to a working spreadsheet the area of roadway to be mircrosurfaced, or chip sealed.

### Construction

**Field Inspection** – Our Construction Inspector, and when needed our Resident Engineer, will observe the Contractors' construction work daily and monitor, document and enforce the conditions of the approved project plans and specifications. Our inspector will, on a daily basis, create a detailed report that includes the weather, operations of the day, traffic control performed, field crews and equipment used, subcontractors on site and their manpower and equipment, any salient discussions, any samples taken for testing, and quantities of work performed. Each day, our Construction Inspector will mark on a set of plans worked performed and measured and will agree on quantities with the Contractor. Our Construction Inspector will also take a copious number of photographs daily so that somebody that is not on site can have, between the photos and the written report, a clear understanding of any work that is performed.

Schedule Management – Our Resident Engineer will take an active role in reviewing and monitoring the Contractor's actual progress in relation to their submitted project schedule. He will review any time impacts to the schedule from outside agencies, weather, etc., contract change orders, work delays or accelerations based on actual operations. All increases in contract time from owner-related causes will be evaluated and discussed prior to placement into the on-going schedule.

Working days – The RE will prepare a weekly statement of working days each Monday for the previous week. The documentation provided will meet the requirements of the Caltrans Local Assistance Procedure Manual. The statement will include working and non-working days each week, a total of days to date and days remaining.

Meetings – During the course of construction, our Resident Engineer will conduct bi-weekly meetings held with the Contractor and the County PM to discuss progress against the submitted schedule, contract issues and changes, submittals, public relations, and other salient features.

**Communication Protocols** – By establishing and maintaining communication protocols, the Psomas team will answer RFIs quickly, return submittals promptly based on clearly written prioritization, will address and discuss contract change orders and resolve potential change orders, and will perform permit notifications as required.

A tool we use to assist with the communication between the Resident Engineer and the contractor is our Data Tracking System (DTS). This web-based system allows contractors to enter submittals and RFIs online into the DTS system, where they can be reviewed, forwarded to Design Engineer if necessary, and responded to quickly.

**Safety** – As always, Psomas cannot be responsible for the construction Contractor's means, methods, or techniques, or for safety measures, precaution or programs at the project site. However, we will stress to the Contractor that the safety of the public, the workers, and all project participants will be monitored at all times. Should safety issues develop during construction, Psomas will notify the County, agree upon the necessary course of action, and document the issue as thoroughly as possible. Psomas will take appropriate action to verify that the Contractor corrects any observed safety violations under the requirements of Cal OSHA Construction Safety Orders. Safety will be a topic which will be covered in every bi-weekly meeting.

Contract Change Orders – Our Resident Engineer, with concurrence from the County PM, will develop a Potential Change Order (PCO) tracking system, whereby issues are given a PCO number and then reviewed in detail with the County PM and the responsible Design Engineer. Change orders will be discussed promptly, with the intention to resolve at the lowest necessary level of authority to keep the project on track. Psomas will verify that appropriate backup is placed in the contract files for any approved or rejected change order.

**Submittals** –The Psomas team will log submittals received from the Contractor and, when appropriate, review and respond in a timely manner. Psomas will develop a submittal distribution list to identify parties responsible for review and acceptance. In cases where County Departments or designer of record must review a submittal, we will briefly review for completeness then forward submittals to the appropriate individual for review.

**Quality Assurance/Quality Control** – QA/QC is a very important part of keeping the project organized, on-track and as designed. Psomas has a dedicated Quality Assurance Manager that will oversee this task to make sure the project is administered and constructed as it was intended.

Claims – Psomas' team will investigate and offer resolution to potential claim issues promptly. Psomas will provide prompt review of any additional cost claims from the Contractor, develop an independent estimate, and provide a recommendation to the County.

**RFIs** – RFIs received from the Contractor will be logged and then reviewed and responded to in a timely manner by the assigned Psomas staff or forwarded to the Design Engineer for review and response if necessary.

Budget Tracking/Payments – Prior to submitting each month's official invoice, we e-mail a budget analysis to the County's PM showing assigned staff, their hours, cumulative hours and costs. We also provide a forward looking "burn rate" to enable us to forecast the future budget the best we can. Each month, our Project Manager will prepare a report that will accompany each invoice. This report will include a narrative of project status, a review of the schedule and payments made to date and will discuss any changes or potential changes to the contract. The report will also include photographs that represent the completed work.

Monthly progress pay estimates will be generated each month by our construction staff based upon an accepted schedule of values submitted by the Contractor and the contract bid items as presented in the contract specifications. Psomas will maintain cost accounting records in accordance with Caltrans Construction Division procedures, and all calculations of quantities and documentation will be in a form approved by the County during the pre-construction phase.

Materials sampling and testing – NV5 (formerly Holdrege and Kull) will perform material testing of the surfacing materials per the Caltrans Construction Manual testing frequencies or as discussed and agreed to with Nevada County. Our Construction Inspector and/or Resident Engineer will coordinate material testing, review reports, and let the Contractor know of any compliance issues.

Labor compliance – As part of their field duties, our Construction Inspectors will conduct periodic labor compliance interviews using accepted forms issued by the State or City's Labor Compliance guidelines. Our Contract Administrative Assistant would review Contractor-submitted payrolls for compliance with the Department of Industrial Relations requirements.

**Traffic Control Plans (Detours, lane closures and staging plans)** – The Psomas team will work with, and monitor, the Contractor's approved traffic control plans in order to provide safe and adequate passage of the public through the project and verify access is maintained to local residences and businesses at all times.

**Punchlist system** – After substantial completion, our staff will schedule a "job drive" with designated County representatives and prepare a preliminary punch list, which will include items required to be furnished or corrected before project acceptance.

#### **Post Construction**

**Project documentation** – At the close of each project, Psomas will submit the following items in electronic form to the County's PM:

Records, maps, and plans maintained by Psomas during construction

Approved submittals and any manufacturers' literature maintained by Psomas during the construction project

One complete set of project progress photographs as well as pre-construction and progress video tape One set of record drawings of as-built changes in neat red pencil

Original documents generated during the project will be provided to the County including daily inspection reports, summaries, testing documents, meeting minutes, clarifications, schedules, correspondence, and all other documents related to the construction work as it was being installed

Final documentation includes a change order summary, final detail estimate, project acceptance documentation and claims management/resolution.

Contract Acceptance – Upon acceptance by Nevada County, our Resident Engineer will prepare and process the Proposed Final Estimate and will prepare the Final Report per Chapter 17 of the Caltrans Local Agency Procedures Manual.

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# Nevada County

2020 Road Rehabilitation Project

Budget Estimate Psomas Job Number: 6NEV060100

|          |                           | UAL             |   | •            | 7             | ici.          | *             | 79            | *             | *             |  |            | \$134,289.60 | \$0.00             | \$134,289.60         |
|----------|---------------------------|-----------------|---|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--|------------|--------------|--------------------|----------------------|
|          | VE TOTA                   | ACTUAL          | l | Ş            | s             | vs.           | S             | S             | s             | S             |  |            | \$137        |                    | \$13                 |
|          | CUMILIATIVE TOTALS        |                 |   | \$ 75,086.45 | \$ 117,566.13 | \$ 130,908.92 | \$ 134,289.60 | \$ 134,289.60 | \$ 134,289.60 | \$ 134,289.60 |  |            |              |                    |                      |
|          | STOTALS                   | ACTUAL          |   | •            |               | 1.01          | 13            | •             |               | 16            |  | 134,289.60 | et           | =                  | maining              |
|          | PEDIOD ENDING TOTAL       | LENGLAND        |   | 75,086 \$    | 42,480 \$     | 13,343        | 3,381 \$      | \$ 7          | \$            | \$ -          |  |            | Budget       | Spent              | Budget Remaining     |
|          | 1                         | JAL             |   | Ş            | \$            | 8             | S             | S             | S             | S             |  |            | 0.0          | 1.00               | \$0.00               |
|          | NIVE (AAntoniale Toetlan) | ACTUAL          |   | 00           |               |               |               |               |               |               |  |            | 00           | 00.1               |                      |
|          | MVE (Mat                  | BUDGET          |   | 34,300.00    |               |               |               |               |               |               |  |            | 34,300       | H                  | \$34,300.00          |
|          | (A)                       | ACTUAL          |   |              |               |               |               |               |               |               |  |            | 0.0          | 48.23              | 80.00                |
|          | Tennol (Non-DM)           | BUDGET          |   | 15.00        | 20.00         | 5.00          |               |               |               |               |  |            | 40           | 48.23              | \$1,929.20           |
| Clark    | touc                      | _               |   |              |               |               |               |               |               |               |  |            | 0'0          | 76'68              | \$0.00               |
|          |                           | BUDGET AC       |   | 12           | 4             | 4             | 4             |               |               |               |  |            | 24           | 89.97              | \$2,159.28           |
| Romer    |                           | ACTUAL BU       |   |              |               |               |               |               |               |               |  |            | 0.00         | 227.88             | 234.72<br>\$0.00 \$2 |
|          | Construction Inspector    | 5               |   | 20.00        | 40.00         |               |               |               |               |               |  |            | 60.00        | 227.88             |                      |
|          | _                         | BUDGET          | 0 | 22           | 40            |               |               |               |               |               |  |            |              |                    | \$13.                |
| Romer    |                           | ACTUAL          |   |              |               |               |               |               |               |               |  |            | 0.0          | \$176              | \$181                |
|          |                           | BUDGET   ACTUAL |   | 120          | 160           | 40            |               |               |               |               |  |            | 320          | \$176.65           | \$181.95             |
| 4        |                           | A.              |   |              |               |               |               |               |               |               |  | 1          | 0.0          | \$188.80           | \$0.00               |
| Albright |                           | BUDGET ACTU     |   | 9            | 20            | 201           | 16            |               |               |               |  |            | 116          | \$188.80           | \$21.900.80          |
| 92       |                           | ACTUAL          |   |              |               |               |               |               |               |               |  |            | 0            | \$237.47           | 20.00                |
| Martin   |                           | BUDGET ACTUA    |   | ×            |               | Di            | 2             |               |               |               |  |            | 16           | \$237.47           | 53 799 52            |
|          |                           | PERIOD          | 2 | 0000/56/9    | 000/20/2      | 0000/00/0     | 0/27/27/20    | 0707/1-7/2    |               |               |  |            | Hours        | Rates thru 6/30/20 |                      |