

April 23, 2024

County of Sonoma
Public Infrastructure
2300 County Center Drive, Suite B 100
Santa Rosa, CA 95403

Attn: Mr. Chet Jamgochian, PE

Subject: River Road Bridge Replacement Project | Amended Scope and Fee for Geometry Changes

M&N Job Number: 7825/03

County Work Order Number: C11002

Dear Mr. Jamgochian,

Moffatt & Nichol (M&N) is writing with an amended scope of work and fee to update the design geometry of the River Road Bridge Replacement Project and to include design services during construction. The original design proposed 11-ft lanes and 5-ft shoulders for a 32-ft curb-to-curb bridge width. Based on Type Selection comments received from Caltrans in June 2023, it is the County's preference to update the bridge and roadway geometry to 11-ft lanes and 2-ft shoulders for a 26-ft curb-to-curb bridge width. The structure approach slab will also be deleted from the project to comply with comments received from Caltrans.

Scope of Work

Task A1 – Project Management

Provide overall management services for control and administration of the work during this task. Implement quality control procedures, submit invoices and progress reports, and oversee subconsultant activities. Conduct periodic Project Progress Meetings as mutually agreed with County oversight staff. Prepare and distribute meeting agenda and minutes.

Task A2 – Design Support

No change.

Task A3 – Update 65% Design (95% Design Equivalent)

Update the project plans, specifications, and estimate to a 95% level of completion based on the new project geometry. This task includes the following subtasks:

Roadway and Drainage Design. The roadway and drainage design will be updated to reflect the revised project geometry and cross section, including all plans, reports, and supporting figures. This includes changes to the following design drawings:

- Demolition and Disposition
- Typical Section
- Layout
- Profile and Superelevation

- Grading and Drainage
- Construction Details
- Erosion Control
- Stage Construction
- Pavement Delineation and Signage

The project Hydraulic Reports will also require revision, including results from a new hydraulic model representative of the revised roadway and bridge geometry.

Bridge Design. The bridge design package will be updated to reflect the revised project geometry and will incorporate the Caltrans 2023 standard plans and specifications. The following revisions to the calculation package are anticipated:

- Girder design calculations for revised flexure, shear, prestressing, and camber (the total number of girders will drop from four to three)
- Deck design
- Abutment stem and footing loading and design
- Shear key design
- End diaphragm design
- Pile design
- Bearing Pad Design

Additionally, the bridge plans will be updated for the revised project geometry, with the following level of effort anticipated for each sheet:

- General Plan Sheet (High)
- Index to Plans (Low)
- Deck Contours (Medium)
- Foundation Plan (Medium)
- Abutment Layout (High)
- Abutment Details No. 1 (Low)
- Abutment Details No. 2 (Medium)
- Abutment Details No. 3 (Low)
- Typical Section (Medium)
- Girder Layout (High)
- Girder Details No. 1 (Low)
- Girder Details No. 2 (Low)
- Structure Approach Slab (Delete)
- Structure Approach Drainage Details (Delete)
- Log of Test Borings (Low)

The structural design quantities and estimate of probable cost will also be updated based on the revised project features.

Geotechnical Design. The Final Foundation Report for the project will be updated to reflect the revised foundation loads and updates to Caltrans design procedures for the inclusion of liquefaction and pile downdrag.

Bridge Independent Check. A full independent check of the bridge was completed in March, 2023 and was based on the original design geometry. The independent check team will perform a "spot check" on the revised bridge design calculations. A record of the spot check will be attached to the original set of Independent Check Calculations.

Task A4 – 100% Design

To meet the original design schedule, M&N expended effort on the 100% design of the bridge during March and April 2023, totaling \$11,016.59. M&N is requesting that the hours previously expended on the 100% Design be added back to the contract to address new comments on the 95% Design Package.

Task A5 – Bid Support

No change.

TASK B - CONSTRUCTION SUPPORT

M&N will support County staff with design services during construction. This will include responding to submittal reviews, responding to contractor requests for information, and limited onsite visits during construction. The estimated level of effort is based on an assumed construction time of 12 months. The actual support time required can vary greatly based on the quality of the contractor's submittals, number of re-submittals required, along with the experience and scope of work of the construction managers and inspectors. A reduced level of effort may be appropriate if the project proceeds smoothly. Conversely, difficult and/or differing field conditions, contract change orders, or an extended construction period could require additional effort. The County will be informed of these conditions as the project progresses.

Task B1 – Project Management, Construction Meetings, and Site Visits

Provide overall consultant team direction and agency coordination throughout the construction phase of the project. Attend the pre-construction meeting and up to four (4) site meetings and/or field visits during construction. For each field meeting, it is assumed that two hours of preparation and two hours of post-meeting engineering will be required. If geotechnical input is required, it is assumed that Earth Mechanics, Inc. will attend meetings virtually.

Task B2 – Respond to Contractor Requests for Information

Provide technical support during construction by responding to contractor RFI's. Up to 35 RFIs are assumed, including five geotechnical RFI's. Written responses will be provided to all RFI's and supplemental or revised drawings may be issued to provide clarity. An average of four (4) hours of review time for each RFI is assumed.

Task B3 – Construction Submittal Reviews

Review contractor submittals during construction. A total of fifteen (15) working drawing submittals are assumed which include, but are not limited to, the following items:

- Pile placement and installation plan
- Joint seal installation plan
- Concrete barrier shop drawings

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- Reinforcing steel shop drawings
- Precast girder submittal
- Bridge demolition submittal
- Temporary detour submittal
- Storm Water Pollution Prevention Plan
- Asphalt concrete submittal
- Aggregate base submittal
- Miscellaneous bridge submittals

Six (6) hours of review time for each construction submittal review is assumed.

Task B4 – Construction Submittal Reviews

Prepare addenda during bidding phase or address CCOs that arise during construction. An addendum or CCO may consist of plan details, specifications, calculations, reports, and other documents necessary to construct and support the change. Documents will meet the same quality standards as documents prepared during the project development phase and will be stamped by a registered engineer when required.

Due to the unknown nature of addenda and CCOs, it is difficult to estimate an exact level of effort required for this task. It has been assumed that a total of two (2) addenda and/or CCOs may be required with a total preparation time of 32 hours each.

Task B5 – Survey Support

As a subconsultant to M&N, Cinquini and Passarino will provide land surveying services as needed during construction of the bridge. It is assumed that up to two days of survey will be required.

Task B6 – Prepare and Submit As-Builts

It is assumed that an independent structures representative will compile all project revisions, including supplemental plan sheets and CCOs, and submit revisions to M&N for incorporation into a set of As-Builts. As-Built corrections will be made to the original plan drawings in accordance with the Caltrans Bridge Design Details manual. The final As-Builts will be prepared under the authority of the registered engineer whose stamp is on the original plans. For the preparation of As-Builts, six (6) hours per sheet have been assumed.

The As-Built Plans submittal shall consist of one (1) full-sized set of As-Built Plans and one (1) field office set of red-marked As-Built prints.

AMENDED FEE

Based on the scope of work outlined above, M&N has identified \$212,953.44 of new scope services for M&N staff, \$28,879.69 of new scope services for subconsultants Earth Mechanics and Cinquini & Passarino, and \$299.87 of direct costs. The proposed amendment totals \$242,133.00. It is requested that this amendment be approved and added to the original contract amount of \$791,667.00 for a new approved contract total of \$1,033,800.00. The work will be executed under the terms and conditions of the of the original contract for County Work Order C11002.

SCHEDULE

AMENDED SCOPE OF SERVICES FOR THE DESIGN OF

RIVER ROAD BRIDGE OVER GILL CREEK

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The following schedule is proposed to meet the County's goal of constructing the bridge in 2025 and assumes written notice to proceed from the County by March 1, 2024:

- May 2024: Submit 95% PS&E with Independent "Spot Check" Package
- July 2024: Receive County and Constructability Review Comments on 95% PS&E
- September 2024: Submit 100% PS&E

Thank you for providing the opportunity to provide these services to the Sonoma County Public Infrastructure. This proposal is good for 60 days from the day of submission. Should you have any questions, feel free to contact me at (925) 956-4947, or via e-mail at gdekker@moffattnichol.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Garrett Dekker". The signature is fluid and cursive, with a large initial "G" and a long, sweeping tail.

Garrett Dekker, PE
Project Manager