

Agenda Item No: 4.c

Meeting Date: August 3, 2020

SAN RAFAEL CITY COUNCIL AGENDA REPORT

Department: Public Works

Prepared by: Bill Guerin, City Manager Approval:

Director of Public Works

TOPIC: SOUTHERN HEIGHTS BRIDGE REPLACEMENT

SUBJECT: A RESOLUTION APPROVING AND AUTHORIZING THE CITY MANAGER TO

EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH SUBSTRATE, INC. FOR CONSTRUCTION MANAGEMENT, INSPECTION, AND MATERIALS TESTING SERVICES ASSOCIATED WITH THE SOUTHERN HEIGHTS BOULEVARD BRIDGE REPLACEMENT PROJECT, CITY PROJECT NO. 11282, IN AN AMOUNT NOT TO EXCEED \$425,000 FUNDED BY THE

HIGHWAY BRIDGE PROGRAM GRANT

RECOMMENDATION: Adopt a resolution approving and authorizing the City Manager to execute a professional services agreement with Substrate, Inc. (Substrate) for construction management, inspection, and materials testing services in an amount not to exceed \$425,000.

BACKGROUND: The California Department of Transportation (Caltrans) routinely inspects bridges across the state to ensure the public's safety. Through this process, the Southern Heights Bridge was identified as needing reconstruction to meet current design, structural, and safety standards. In <u>June 2016</u>, the City retained Mark Thomas to begin preliminary design and public outreach for this bridge. Subsequently, the City has diligently worked to perform bridge design, obtain environmental clearance, and obtain a right of way certification in January 2020 approving the City's coordination efforts with utility companies and private property owners.

In July 2020, PG&E, Comcast, and AT&T began the process of relocating overhead utility lines away from the bridge to provide the City's yet-to-be-determined bridge contractor with working space without having heavy equipment interfere with the utility lines. Concurrent with this utility work, staff advertised the construction plans and specifications to solicit contractor bids for the bridge replacement work and anticipate bringing this construction contract before the City Council soon.

ANALYSIS: Managing construction throughout the duration of the Southern Heights Boulevard Bridge Replacement Project (Bridge Project) will require full-time inspection services to ensure the construction is in conformance with the construction documents, review contractor work, and manage coordination between utility companies and private property owners. With federal funding available to augment staff resources, Public Works proposes to obtain a consultant to perform field inspection and project management services to assist City staff in day-to-day management of the project.

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Disposition:

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On June 4, 2020, Public Works solicited Statements of Qualifications (SOQ) for construction management, inspection, and material testing services. On June 30, 2020, five SOQs from qualified firms were received. All were evaluated by City staff based on criteria specified in the Request for Qualifications including, but not limited to, understanding of the work to be done, previous experience with similar projects, qualified personnel, and familiarity with state and federal procedures. After reviewing the SOQs, the top three ranked firms were each invited to participate in a video conference interview with City staff. Staff recommends Substrate as the most qualified consultant for this project.

FISCAL IMPACT: The consultant's fee of \$425,000 will be reimbursed by Caltrans as part of the Highway Bridge Program Grant.

OPTIONS: The City Council has the following options to consider relating to this matter:

- 1. Adopt a resolution authorizing the City Manager to execute a professional services agreement with Substrate, Inc.
- 2. Do not accept the proposal and provide further direction to staff.

ATTACHMENT:

- 1. Resolution
- 2. Agreement and corresponding Exhibit A

RESOLUTION NO.

A RESOLUTION OF THE SAN RAFAEL CITY COUNCIL APPROVING AND AUTHORIZING THE CITY MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH SUBSTRATE, INC. FOR CONSTRUCTION MANAGEMENT, INSPECTION, AND MATERIALS TESTING SERVICES ASSOCIATED WITH THE SOUTHERN HEIGHTS BOULEVARD BRIDGE REPLACEMENT PROJECT, CITY PROJECT NO. 11282, IN AN AMOUNT NOT TO EXCEED \$425,000 FUNDED BY THE HIGHWAY BRIDGE PROGRAM GRANT

WHEREAS, the City desires to reconstruct the Southern Heights Boulevard bridge; and

WHEREAS, the City was awarded a federal grant through the Highway Bridge Program administered by Caltrans; and

WHEREAS, the City requires outside professional assistance for construction management, inspection, and materials testing services for the aforementioned project; and

WHEREAS, in response to the request for proposals (RFP), the Department of Public Works received five proposals and conducted team interviews; and

WHEREAS, staff has reviewed the proposals and identified Substrate, Inc. to be the most qualified firm; and

WHEREAS, the proposal from Substrate, Inc. was found to be complete and within industry standards.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SAN RAFAEL RESOLVES as follows:

- 1. The City Council hereby approves and authorizes the City Manager to execute a Professional Services Agreement with Substrate, Inc. for construction management, inspection, and materials testing services associated with the Southern Heights Boulevard Bridge Replacement Project in the amount not to exceed \$425,000, in the form included in the Staff Report for this resolution, subject to final approval as to form by the City Attorney.
- 2. Funds totaling \$425,000 will be appropriated for this project from the Highway Bridge Program (HBP) grant.
- 3. The Director of Public Works is hereby authorized to take any and all such actions and make changes as may be necessary to accomplish the purpose of this resolution.

I, LINDSAY LARA, Clerk of the City of San Rafael, hereby certify that the foregoing resolution was duly and regularly introduced and adopted at a regular meeting of the Council of said City on Monday, the 3rd day of August 2020, by the following vote, to wit:

AYES: COUNCILMEMBERS:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

LINDSAY LARA, City Clerk

AGREEMENT FOR PROFESSIONAL SERVICES WITH SUBSTRATE, INC. FOR CONSTRUCTION MANAGEMENT, INSPECTION, AND TESTING SERVICES FOR THE SOUTHERN HEIGHTS BOULEVARD BRIDGE REPLACEMENT PROJECT

ARTICLE I INTRODUCTION

| A. | This AGREEMENT is entered into as of the | day of _ | , 2020 | by and b | etween the |
|----|--|-------------|-------------------|----------|-------------|
| | following named, hereinafter referred to as referred to as LOCAL AGENCY: | CONSULTANT, | and the following | named, | hereinafter |
| | | | | | |

The name of the "CONSULTANT" is as follows: <u>Dynamic Dzyne Associates, Inc. dba Substrate, Inc.</u>, incorporated in or authorized to do business in the State of California.

The Project Manager for the "CONSULTANT" will be Sundeep Jhutti

The name of the "LOCAL AGENCY" is as follows: City of San Rafael

The Contract Administrator for LOCAL AGENCY will be Bill Guerin, Public Works Director

- B. The work to be performed under this AGREEMENT is described in Article III Statement of Work and the approved CONSULTANT's Cost Proposal ("Cost Proposal") dated July 20, 2020. The approved CONSULTANT's Cost Proposal is attached hereto (Exhibit A) and incorporated by reference. If there is any conflict between the approved Cost Proposal and this AGREEMENT, this AGREEMENT shall take precedence.
- C. CONSULTANT agrees to the fullest extent permitted by law, to indemnify, protect, defend, and hold harmless LOCAL AGENCY, its officers, agents, and employees and volunteers from and against any and all claims, damages, demands, liability, costs, losses and expenses, including without limitation, court costs and reasonable attorney's and expert witness fees, arising out of any failure to comply with applicable law, any injury to or death of any person(s), damage to property, loss of use of property, economic loss or otherwise arising out of the performance of the work described herein, to the extent caused by a negligent act or negligent failure to act, errors, omissions, recklessness or willful misconduct incident to the performance of this AGREEMENT on the part of CONSULTANT, except CONSULTANT will not reimburse LOCAL AGENCY for any such loss or damage which was caused by the sole negligence, or willful misconduct of LOCAL AGENCY, as determined by a Court of competent jurisdiction. The provisions of this section shall survive termination or suspension of this AGREEMENT.
- D. CONSULTANT in the performance of this AGREEMENT shall act in an independent capacity. It is understood and agreed that CONSULTANT (including CONSULTANT'S employees) is an independent contractor and that no relationship of employer-employee exists between the Parties hereto. CONSULTANT'S assigned personnel shall not be entitled to any benefits payable to employees of LOCAL AGENCY.
- E. LOCAL AGENCY is not required to make deductions or withholdings from the compensation payable to CONSULTANT under the provisions of the AGREEMENT and is not required to issue W-2 Forms for income and employment tax purposes for any of CONSULTANT's assigned personnel. CONSULTANT in the performance of its obligation hereunder, is only subject to the control of direction of the LOCAL AGENCY as to the designation of tasks to be performed and the results to be accomplished,
- F. Any third-party person(s) employed by CONSULTANT shall be entirely and exclusively under the direction, supervision, and control of CONSULTANT. CONSULTANT hereby indemnifies and holds LOCAL AGENCY harmless from any and all claims that may be made against LOCAL AGENCY based upon any contention by any third party that an employer-employee relationship exists by reason of this AGREEMENT.

- G. Except as expressly authorized herein, CONSULTANT's obligations under this AGREEMENT are not assignable or transferable, and CONSULTANT shall not subcontract any work, without the prior written approval of the LOCAL AGENCY. However, claims for money due or which become due to CONSULTANT from LOCAL AGENCY under this AGREEMENT may be assigned to a financial institution or to a trustee in bankruptcy, without such approval. Notice of any assignment or transfer whether voluntary or involuntary shall be furnished promptly to the LOCAL AGENCY.
- H. CONSULTANT shall be as fully responsible to the LOCAL AGENCY for the negligent acts and omissions of its contractors and subcontractors or subconsultants, and of persons either directly or indirectly employed by them, in the same manner as persons directly employed by CONSULTANT.
- I. No alteration or variation of the terms of this AGREEMENT shall be valid, unless made in writing and signed by the parties authorized to bind the parties; and no oral understanding or agreement not incorporated herein, shall be binding on any of the parties hereto.
- J. The consideration to be paid to CONSULTANT as provided herein, shall be in compensation for all of CONSULTANT's expenses incurred in the performance hereof, including travel and per diem, unless otherwise expressly so provided.

ARTICLE II CONSULTANT'S REPORTS OR MEETINGS

- A. CONSULTANT shall submit progress reports at least once a month. The report should be sufficiently detailed for the LOCAL AGENCY's Contract Administrator to determine if CONSULTANT is performing to expectations, or is on schedule; to provide communication of interim findings, and to sufficiently address any difficulties or special problems encountered, so remedies can be developed.
- B. CONSULTANT's Project Manager shall meet with LOCAL AGENCY's Contract Administrator, as needed, to discuss progress on the AGREEMENT.

ARTICLE III STATEMENT OF WORK

The CONSULTANT shall perform the services specified in the Scope of Work, dated June 30, 2020, attached hereto as Exhibit A and incorporated herein by reference. If there is any conflict between the terms of the Cost Proposal, attached hereto as Exhibit A, and the terms of this AGREEMENT, the terms of this AGREEMENT shall take precedence.

ARTICLE IV PERFORMANCE PERIOD

- A. This AGREEMENT shall go into effect on the date first hereinabove written, contingent upon approval by LOCAL AGENCY, and CONSULTANT shall commence work after notification to proceed by LOCAL AGENCY'S Contract Administrator. The AGREEMENT shall end upon completion of the work to the satisfaction of the LOCAL AGENCY'S Contract Administrator.
- B. CONSULTANT is advised that any recommendation for AGREEMENT award is not binding on LOCAL AGENCY until the AGREEMENT is fully executed and approved by LOCAL AGENCY.

ARTICLE V ALLOWABLE COSTS AND PAYMENTS

A. CONSULTANT will be reimbursed for hours worked at the hourly rates specified in the CONSULTANT's approved Cost Proposal. The specified hourly rates shall include direct salary costs, employee benefits, prevailing wages, employer payments, overhead, and fee. These rates are not adjustable for the performance period set forth in this AGREEMENT. CONSULTANT will

be reimbursed within thirty (30) days upon receipt by LOCAL AGENCY'S Contract Administrator of itemized invoices in duplicate.

- B. In addition, CONSULTANT will be reimbursed for incurred (actual) direct costs other than salary costs that are in the approved Cost Proposal and identified in the approved Cost Proposal.
- C. Reserved.
- D. Reserved.
- E. Reserved.
- F. Reimbursement for transportation and subsistence costs shall not exceed the rates as specified in the approved Cost Proposal. CONSULTANT will be responsible for transportation and subsistence costs in excess of State rates.
- G. When milestone cost estimates are included in the approved Cost Proposal, CONSULTANT shall obtain prior written approval in the form of an AGREEMENT amendment for a revised milestone cost estimate from the Contract Administrator before exceeding such estimate.
- H. Progress payments will be made monthly in arrears based on services provided and actual costs incurred.
- CONSULTANT shall not commence performance of work or services until this AGREEMENT has been approved by LOCAL AGENCY and notification to proceed has been issued by LOCAL AGENCY'S Contract Administrator. No payment will be made prior to approval or for any work performed prior to approval of this AGREEMENT.
- J. Reserved.
- K. CONSULTANT will be reimbursed within thirty (30) days upon receipt by LOCAL AGENCY'S Contract Administrator of itemized invoices in duplicate. Invoices shall be submitted no later than thirty (30) calendar days after the performance of work for which CONSULTANT is billing. Invoices shall detail the work performed on each milestone, on each project as applicable. Invoices shall follow the format stipulated for the approved Cost Proposal and shall reference this AGREEMENT number and project title. Credits due LOCAL AGENCY that include any equipment purchased under the provisions of Article XI Equipment Purchase, must be reimbursed by CONSULTANT prior to the expiration or termination of this AGREEMENT. Invoices shall be mailed to LOCAL AGENCY's Contract Administrator at the following address:

City of San Rafael Department of Public Works Bill Guerin 111 Morphew Street San Rafael, CA 94901

- L. Reserved.
- M. The total amount payable by LOCAL AGENCY shall not exceed the amount agreed to in this AGREEMENT, unless authorized by amendment.
- N. Reserved.

- O. Reserved.
- P. The total amount payable by LOCAL AGENCY for all work resulting from this AGREEMENT shall not exceed \$425,000. It is understood and agreed that there is no guarantee, either expressed or implied that this dollar amount will be authorized under this AGREEMENT.

ARTICLE VI TERMINATION

- A. This AGREEMENT may be terminated by LOCAL AGENCY, provided that LOCAL AGENCY gives not less than thirty (30) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate. Upon termination, LOCAL AGENCY shall be entitled to all work, including but not limited to, reports, investigations, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date, whether completed or not, and in accordance with Article XXVI, Ownership of Data.
- B. LOCAL AGENCY may temporarily suspend this AGREEMENT, at no additional cost to LOCAL AGENCY, provided that CONSULTANT is given written notice (delivered by certified mail, return receipt requested) of temporary suspension. If LOCAL AGENCY gives such notice of temporary suspension, CONSULTANT shall immediately suspend its activities under this AGREEMENT. A temporary suspension may be issued concurrent with the notice of termination provided for in subsection A of this section.
- C. Notwithstanding any provisions of this AGREEMENT, CONSULTANT shall not be relieved of liability to LOCAL AGENCY for damages sustained by LOCAL AGENCY by virtue of any breach of this AGREEMENT by CONSULTANT, and LOCAL AGENCY may withhold any payments due to CONSULTANT until such time as the exact amount of damages, if any, due LOCAL AGENCY from CONSULTANT is determined.
- D. In the event of termination, CONSULTANT shall be compensated as provided for in this AGREEMENT, except as provided in Article XI, section C. Upon termination, LOCAL AGENCY shall be entitled to all work, including but not limited to, reports, investigations, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date, whether completed or not, and in accordance with Article XXVI, Ownership of Data.

ARTICLE VII COST PRINCIPLES AND ADMINISTRATIVE REQUIREMENTS

- A. The CONSULTANT agrees that 48 CFR Part 31, Contract Cost Principles and Procedures, shall be used to determine the allowability of individual items of cost.
- B. The CONSULTANT also agrees to comply with Federal procedures in accordance with 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.
- C. Any costs for which payment has been made to the CONSULTANT that are determined by subsequent audit to be unallowable under 48 CFR Part 31 or 2 CFR Part 200, are subject to repayment by the CONSULTANT to LOCAL AGENCY.
- D. When a CONSULTANT or Subconsultant is a Non-Profit Organization or an Institution of Higher Education, the Cost Principles for Title 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards shall apply.

ARTICLE VIII RETENTION OF RECORDS/AUDIT

For the purpose of determining compliance with Gov. Code §8546.7, the CONSULTANT, Subconsultants, and LOCAL AGENCY shall maintain all books, documents, papers, accounting records,

Independent CPA Audited Indirect Cost Rate workpapers, and other evidence pertaining to the performance of the AGREEMENT including, but not limited to, the costs of administering the AGREEMENT. All parties, including the CONSULTANT's Independent CPA, shall make such workpapers and materials available at their respective offices at all reasonable times during the AGREEMENT period and for three (3) years from the date of final payment under the AGREEMENT. LOCAL AGENCY, Caltrans Auditor, FHWA, or any duly authorized representative of the Federal government having jurisdiction under Federal laws or regulations (including the basis of Federal funding in whole or in part) shall have access to any books, records, and documents of the CONSULTANT, Subconsultants, and the CONSULTANT's Independent CPA, that are pertinent to the AGREEMENT for audits, examinations, workpaper review, excerpts, and transactions, and copies thereof shall be furnished if requested without limitation.

ARTICLE IX AUDIT REVIEW PROCEDURES

- A. Any dispute concerning a question of fact arising under an interim or post audit of this AGREEMENT that is not disposed of by agreement, shall be reviewed by LOCAL AGENCY'S Finance Director.
- B. Not later than thirty (30) days after issuance of the final audit report, CONSULTANT may request a review by LOCAL AGENCY'S Finance Director of unresolved audit issues. The request for review will be submitted in writing.
- C. Neither the pendency of a dispute nor its consideration by LOCAL AGENCY will excuse CONSULTANT from full and timely performance, in accordance with the terms of this AGREEMENT.
- D. CONSULTANT and subconsultant AGREEMENTs, including cost proposals and Indirect Cost Rates (ICR), may be subject to audits or reviews such as, but not limited to, an AGREEMENT audit, an incurred cost audit, an ICR Audit, or a CPA ICR audit work paper review. If selected for audit or review, the AGREEMENT, cost proposal and ICR and related work papers, if applicable, will be reviewed to verify compliance with 48 CFR, Part 31 and other related laws and regulations. In the instances of a CPA ICR audit work paper review it is CONSULTANT's responsibility to ensure federal, LOCAL AGENCY, or local government officials are allowed full access to the CPA's work papers including making copies as necessary. The AGREEMENT, cost proposal, and ICR shall be adjusted by CONSULTANT and approved by LOCAL AGENCY Contract Administrator to conform to the audit or review recommendations. CONSULTANT agrees that individual terms of costs identified in the audit report shall be incorporated into the AGREEMENT by this reference if directed by LOCAL AGENCY at its sole discretion. Refusal by CONSULTANT to incorporate audit or review recommendations, or to ensure that the federal, LOCAL AGENCY or local governments have access to CPA work papers, will be considered a breach of AGREEMENT terms and cause for termination of the AGREEMENT and disallowance of prior reimbursed costs.
- E. CONSULTANT's Cost Proposal may be subject to a CPA ICR Audit Work Paper Review and/or audit by Caltrans Audits and Investigation (A&I). Caltrans A&I, at its sole discretion, may review and/or audit and approve the CPA ICR documentation. The Cost Proposal shall be adjusted by the CONSULTANT and approved by the LOCAL AGENCY Contract Administrator to conform to the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report. Refusal by the CONSULTANT to incorporate the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report will be considered a breach of the AGREEMENT terms and cause for termination of the AGREEMENT and disallowance of prior reimbursed costs.
 - 1. During Caltrans A&I's review of the ICR audit work papers created by the CONSULTANT's independent CPA, Caltrans A&I will work with the CPA and/or CONSULTANT toward a resolution of issues that arise during the review. Each party agrees to use its best efforts to resolve any audit disputes in a timely manner. If Caltrans A&I identifies significant issues during the review and is unable to issue a cognizant approval letter, LOCAL AGENCY will reimburse the CONSULTANT

at an accepted ICR until a FAR (Federal Acquisition Regulation) compliant ICR (e.g. 48 CFR Part 31; GAAS (Generally Accepted Auditing Standards); CAS (Cost Accounting Standards), if applicable; in accordance with procedures and guidelines of the American Association of State Highways and Transportation Officials (AASHTO) Audit Guide; and other applicable procedures and guidelines}is received and approved by A&I.

Accepted rates will be as follows:

- a. If the proposed rate is less than one hundred fifty percent (150%) the accepted rate reimbursed will be ninety percent (90%) of the proposed rate.
- b. If the proposed rate is between one hundred fifty percent (150%) and two hundred percent (200%) the accepted rate will be eighty-five percent (85%) of the proposed rate.
- c. If the proposed rate is greater than two hundred percent (200%) the accepted rate will be seventy-five percent (75%) of the proposed rate.
- 2. If Caltrans A&I is unable to issue a cognizant letter per paragraph E.1. above, Caltrans A&I may require CONSULTANT to submit a revised independent CPA-audited ICR and audit report within three (3) months of the effective date of the management letter. Caltrans A&I will then have up to six (6) months to review the CONSULTANT's and/or the independent CPA's revisions.
- 3. If the CONSULTANT fails to comply with the provisions of this paragraph E, or if Caltrans A&I is still unable to issue a cognizant approval letter after the revised independent CPA audited ICR is submitted, overhead cost reimbursement will be limited to the accepted ICR that was established upon initial rejection of the ICR and set forth in paragraph E.1. above for all rendered services. In this event, this accepted ICR will become the actual and final ICR for reimbursement purposes under this AGREEMENT.
- 4. CONSULTANT may submit to LOCAL AGENCY final invoice only when all of the following items have occurred: (1) Caltrans A&I accepts or adjusts the original or revised independent CPA audited ICR; (2) all work under this AGREEMENT has been completed to the satisfaction of LOCAL AGENCY; and, (3) Caltrans A&I has issued its final ICR review letter. The CONSULTANT MUST SUBMIT ITS FINAL INVOICE TO LOCAL AGENCY no later than sixty (60) calendar days after occurrence of the last of these items. The accepted ICR will apply to this AGREEMENT and all other agreements executed between LOCAL AGENCY and the CONSULTANT, either as a prime or subconsultant, with the same fiscal period ICR.

ARTICLE X SUBCONTRACTING

- A. Nothing contained in this AGREEMENT or otherwise, shall create any contractual relation between LOCAL AGENCY and any Subconsultants, and no sub-agreement shall relieve the CONSULTANT of its responsibilities and obligations hereunder. The CONSULTANT agrees to be as fully responsible to LOCAL AGENCY for the acts and omissions of its Subconsultants and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the CONSULTANT. The CONSULTANT's obligation to pay its Subconsultants is an independent obligation from LOCAL AGENCY'S obligation to make payments to the CONSULTANT.
- B. The CONSULTANT shall perform the work contemplated with resources available within its own organization and no portion of the work shall be subcontracted without written authorization by the LOCAL AGENCY Contract Administrator, except that which is expressly identified in the CONSULTANT's approved Cost Proposal.
- C. Any sub-agreement entered into as a result of this AGREEMENT, shall contain all the provisions stipulated in this entire AGREEMENT to be applicable to Subconsultants unless otherwise noted.

- D. CONSULTANT shall pay its Subconsultants within Fifteen (15) calendar days from receipt of each payment made to the CONSULTANT by the LOCAL AGENCY.
- E. Any substitution of Subconsultants must be approved in writing by LOCAL AGENCY Contract Administrator in advance of assigning work to a substitute Subconsultant.

ARTICLE XI EQUIPMENT PURCHASE AND OTHER CAPITAL EXPENDITURES

- A. Prior authorization in writing, by LOCAL AGENCY's Contract Administrator shall be required before CONSULTANT enters into any unbudgeted purchase order, or subcontract exceeding five thousand dollars (\$5,000) for supplies, equipment, or CONSULTANT services. CONSULTANT shall provide an evaluation of the necessity or desirability of incurring such costs.
- B. For purchase of any item, service, or consulting work not covered in CONSULTANT's approved Cost Proposal and exceeding five thousand dollars (\$5,000), with prior authorization by LOCAL AGENCY's Contract Administrator, three competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.
- C. Any equipment purchased as a result of this contract is subject to the following:
 - 1. CONSULTANT shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two years and an acquisition cost of five thousand dollars (\$5,000) or more. If the purchased equipment needs replacement and is sold or traded in, LOCAL AGENCY shall receive a proper refund or credit at the conclusion of the AGREEMENT, or if the AGREEMENT is terminated, CONSULTANT may either keep the equipment and credit LOCAL AGENCY in an amount equal to its fair market value, or sell such equipment at the best price obtainable at a public or private sale, in accordance with established LOCAL AGENCY procedures; and credit LOCAL AGENCY in an amount equal to the sales price. If CONSULTANT elects to keep the equipment, fair market value shall be determined at CONSULTANT's expense, on the basis of a competent independent appraisal of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable to by LOCAL AGENCY and CONSULTANT, if it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by LOCAL AGENCY.
 - 2. Regulation 2 CFR Part 200 requires a credit to Federal funds when participating equipment with a fair market value greater than five thousand dollars (\$5,000) is credited to the project.

ARTICLE XII STATE PREVAILING WAGE RATES

- A. No CONSULTANT or Subconsultant may be awarded an AGREEMENT containing public work elements unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code §1725.5. Registration with DIR must be maintained throughout the entire term of this AGREEMENT, including any subsequent amendments.
- B. The CONSULTANT shall comply with all of the applicable provisions of the California Labor Code requiring the payment of prevailing wages. The General Prevailing Wage Rate Determinations applicable to work under this AGREEMENT are available and on file with the Department of Transportation's Regional/District Labor Compliance Officer

(http://www.dot.ca.gov/hq/construc/LaborCompliance/documents/District-Region_Map_Construction_7-8-15.pdf).

These wage rates are made a specific part of this AGREEMENT by reference pursuant to Labor Code §1773.2 and will be applicable to work performed at a construction project site. Prevailing wages will be applicable to all inspection work performed at LOCAL AGENCY construction sites, at LOCAL AGENCY facilities and at off-site locations that are set up by the construction contractor or one of its

- subcontractors solely and specifically to serve LOCAL AGENCY projects. Prevailing wage requirements do not apply to inspection work performed at the facilities of vendors and commercial materials suppliers that provide goods and services to the general public.
- C. General Prevailing Wage Rate Determinations applicable to this project may also be obtained from the Department of Industrial Relations Internet site at http://www.dir.ca.gov.

D. Payroll Records

- 1. Each CONSULTANT and Subconsultant shall keep accurate certified payroll records and supporting documents as mandated by Labor Code §1776 and as defined in 8 CCR §16000 showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the CONSULTANT or Subconsultant in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:
 - a. The information contained in the payroll record is true and correct.
 - b. The employer has complied with the requirements of Labor Code §1771, §1811, and §1815 for any work performed by his or her employees on the public works project.
- 2. The payroll records enumerated under paragraph (1) above shall be certified as correct by the CONSULTANT under penalty of perjury. The payroll records and all supporting documents shall be made available for inspection and copying by LOCAL AGENCY representatives at all reasonable hours at the principal office of the CONSULTANT. The CONSULTANT shall provide copies of certified payrolls or permit inspection of its records as follows:
 - a. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or the employee's authorized representative on request.
 - b. A certified copy of all payroll records enumerated in paragraph (1) above, shall be made available for inspection or furnished upon request to a representative of LOCAL AGENCY, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations. Certified payrolls submitted to LOCAL AGENCY, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards shall not be altered or obliterated by the CONSULTANT.
 - c. The public shall not be given access to certified payroll records by the CONSULTANT. The CONSULTANT is required to forward any requests for certified payrolls to the LOCAL AGENCY Contract Administrator by both email and regular mail on the business day following receipt of the request.
- 3. Each CONSULTANT shall submit a certified copy of the records enumerated in paragraph (1) above, to the entity that requested the records within ten (10) calendar days after receipt of a written request.
- 4. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by LOCAL AGENCY shall be marked or obliterated in such a manner as to prevent disclosure of each individual's name, address, and social security number. The name and address of the CONSULTANT or Subconsultant performing the work shall not be marked or obliterated.
- 5. The CONSULTANT shall inform LOCAL AGENCY of the location of the records enumerated under paragraph (1) above, including the street address, city and county, and shall, within five (5) working days, provide a notice of a change of location and address.
- 6. The CONSULTANT or Subconsultant shall have ten (10) calendar days in which to comply subsequent to receipt of written notice requesting the records enumerated in paragraph (1) above.

In the event the CONSULTANT or Subconsultant fails to comply within the ten (10) day period, he or she shall, as a penalty to LOCAL AGENCY, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Such penalties shall be withheld by LOCAL AGENCY from payments then due. CONSULTANT is not subject to a penalty assessment pursuant to this section due to the failure of a Subconsultant to comply with this section.

E. When prevailing wage rates apply, the CONSULTANT is responsible for verifying compliance with certified payroll requirements. Invoice payment will not be made until the invoice is approved by the LOCAL AGENCY Contract Administrator.

F. Penalty

- 1. The CONSULTANT and any of its Subconsultants shall comply with Labor Code §1774 and §1775. Pursuant to Labor Code §1775, the CONSULTANT and any Subconsultant shall forfeit to the LOCAL AGENCY a penalty of not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of DIR for the work or craft in which the worker is employed for any public work done under the AGREEMENT by the CONSULTANT or by its Subconsultant in violation of the requirements of the Labor Code and in particular, Labor Code §§1770 to 1780, inclusive.
- 2. The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of mistake, inadvertence, or neglect of the CONSULTANT or Subconsultant in failing to pay the correct rate of prevailing wages, or the previous record of the CONSULTANT or Subconsultant in meeting their respective prevailing wage obligations, or the willful failure by the CONSULTANT or Subconsultant to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rates of prevailing wages is not excusable if the CONSULTANT or Subconsultant had knowledge of the obligations under the Labor Code. The CONSULTANT is responsible for paying the appropriate rate, including any escalations that take place during the term of the AGREEMENT.
- 3. In addition to the penalty and pursuant to Labor Code §1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the CONSULTANT or Subconsultant.
- 4. If a worker employed by a Subconsultant on a public works project is not paid the general prevailing per diem wages by the Subconsultant, the prime CONSULTANT of the project is not liable for the penalties described above unless the prime CONSULTANT had knowledge of that failure of the Subconsultant to pay the specified prevailing rate of wages to those workers or unless the prime CONSULTANT fails to comply with all of the following requirements:
 - a. The AGREEMENT executed between the CONSULTANT and the Subconsultant for the performance of work on public works projects shall include a copy of the requirements in Labor Code §§1771, 1775, 1776, 1777.5, 1813, and 1815.
 - b. The CONSULTANT shall monitor the payment of the specified general prevailing rate of per diem wages by the Subconsultant to the employees by periodic review of the certified payroll records of the Subconsultant.
 - c. Upon becoming aware of the Subconsultant's failure to pay the specified prevailing rate of wages to the Subconsultant's workers, the CONSULTANT shall diligently take corrective action to halt or rectify the failure, including but not limited to, retaining sufficient funds due the Subconsultant for work performed on the public works project.
 - d. Prior to making final payment to the Subconsultant for work performed on the public works project, the CONSULTANT shall obtain an affidavit signed under penalty of perjury from the Subconsultant that the Subconsultant had paid the specified general prevailing rate of per diem

wages to the Subconsultant's employees on the public works project and any amounts due pursuant to Labor Code §1813.

- 5. Pursuant to Labor Code §1775, LOCAL AGENCY shall notify the CONSULTANT on a public works project within fifteen (15) calendar days of receipt of a complaint that a Subconsultant has failed to pay workers the general prevailing rate of per diem wages.
- 6. If LOCAL AGENCY determines that employees of a Subconsultant were not paid the general prevailing rate of per diem wages and if LOCAL AGENCY did not retain sufficient money under the AGREEMENT to pay those employees the balance of wages owed under the general prevailing rate of per diem wages, the CONSULTANT shall withhold an amount of moneys due the Subconsultant sufficient to pay those employees the general prevailing rate of per diem wages if requested by LOCAL AGENCY.

G. Hours of Labor

Eight (8) hours labor constitutes a legal day's work. The CONSULTANT shall forfeit, as a penalty to the LOCAL AGENCY, twenty-five dollars (\$25) for each worker employed in the execution of the AGREEMENT by the CONSULTANT or any of its Subconsultants for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code, and in particular §§1810 to 1815 thereof, inclusive, except that work performed by employees in excess of eight (8) hours per day, and forty (40) hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day and forty (40) hours in any week, at not less than one and one-half (1.5) times the basic rate of pay, as provided in §1815.

H. Employment of Apprentices

- 1. Where either the prime AGREEMENT or the sub-agreement exceeds thirty thousand dollars (\$30,000), the CONSULTANT and any subconsultants under him or her shall comply with all applicable requirements of Labor Code §§1777.5, 1777.6 and 1777.7 in the employment of apprentices.
- 2. CONSULTANTs and subconsultants are required to comply with all Labor Code requirements regarding the employment of apprentices, including mandatory ratios of journey level to apprentice workers. Prior to commencement of work, CONSULTANT and subconsultants are advised to contact the DIR Division of Apprenticeship Standards website at https://www.dir.ca.gov/das/, for additional information regarding the employment of apprentices and for the specific journey-to- apprentice ratios for the AGREEMENT work. The CONSULTANT is responsible for all subconsultants' compliance with these requirements. Penalties are specified in Labor Code §1777.7.

ARTICLE XIII CONFLICT OF INTEREST (Verbatim)

- A. During the term of this AGREEMENT, the CONSULTANT shall disclose any financial, business, or other relationship with LOCAL AGENCY that may have an impact upon the outcome of this AGREEMENT or any ensuing LOCAL AGENCY construction project. The CONSULTANT shall also list current clients who may have a financial interest in the outcome of this AGREEMENT, or any ensuing LOCAL AGENCY construction project, which will follow.
- B. CONSULTANT certifies that it has disclosed to LOCAL AGENCY any actual, apparent, or potential conflicts of interest that may exist relative to the services to be provided pursuant to this AGREEMENT. CONSULTANT agrees to advise LOCAL AGENCY of any actual, apparent or potential conflicts of interest that may develop subsequent to the date of execution of this

- AGREEMENT. CONSULTANT further agrees to complete any statements of economic interest if required by either LOCAL AGENCY ordinance or State law.
- C. The CONSULTANT hereby certifies that it does not now have nor shall it acquire any financial or business interest that would conflict with the performance of services under this AGREEMENT.
- D. The CONSULTANT hereby certifies that the CONSULTANT or subconsultant and any firm affiliated with the CONSULTANT or subconsultant that bids on any construction contract or on any Agreement to provide construction inspection for any construction project resulting from this AGREEMENT, has established necessary controls to ensure a conflict of interest does not exist. An affiliated firm is one, which is subject to the control of the same persons, through joint ownership or otherwise.

ARTICLE XIV REBATES, KICKBACKS OR OTHER UNLAWFUL CONSIDERATION

The CONSULTANT warrants that this AGREEMENT was not obtained or secured through rebates, kickbacks or other unlawful consideration either promised or paid to any LOCAL AGENCY employee. For breach or violation of this warranty, LOCAL AGENCY shall have the right, in its discretion, to terminate this AGREEMENT without liability, to pay only for the value of the work actually performed, or to deduct from the AGREEMENT price or otherwise recover the full amount of such rebate, kickback or other unlawful consideration.

ARTICLE XV PROHIBITION OF EXPENDING LOCAL AGENCY, STATE, OR FEDERAL FUNDS FOR LOBBYING

- A. CONSULTANT certifies to the best of his or her knowledge and belief that:
 - 1. No state, federal or local agency appropriated funds have been paid or will be paid, by or on behalf of the CONSULTANT, to any person for influencing or attempting to influence an officer or employee of any local, State, or Federal agency, a Member of the State Legislature or United States Congress, an officer or employee of the Legislature or Congress, or any employee of a Member of the Legislature or Congress in connection with the awarding or making of this AGREEMENT, or with the extension, continuation, renewal, amendment, or modification of this AGREEMENT.
 - 2. If any funds other than Federal appropriated funds have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this AGREEMENT, the CONSULTANT shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.
- B. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. §1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than ten thousand dollars (\$10,000) and not more than one hundred thousand dollars (\$100,000) for each such failure.
- C. The CONSULTANT also agrees by signing this document that he or she shall require that the language of this certification be included in all lower tier sub-agreements, which exceed one hundred thousand dollars (\$100,000) and that all such subrecipients shall certify and disclose accordingly.

ARTICLE XVI NON-DISCRIMINATION AND STATEMENT OF COMPLIANCE

- A. The CONSULTANT's signature affixed herein and dated shall constitute a certification under penalty of perjury under the laws of the State of California that CONSULTANT has, unless exempt, complied with the nondiscrimination program requirements of Gov. Code §12990 and 2 CCR §8103.
- B. During the performance of this AGREEMENT, CONSULTANT and its subconsultants shall not deny the AGREEMENT's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. CONSULTANT and subconsultants shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.
- C. CONSULTANT and subconsultants shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 et seq.), the applicable regulations promulgated there under (2 CCR §11000 et seq.), the provisions of Gov. Code §§11135-11139.5, and the regulations or standards adopted by LOCAL AGENCY to implement such article. The applicable regulations of the Fair Employment and Housing Commission implementing Gov. Code §12990 (a-f), set forth 2 CCR §§8100-8504, are incorporated into this AGREEMENT by reference and made a part hereof as if set forth in full.
- D. CONSULTANT shall permit access by representatives of the Department of Fair Employment and Housing and the LOCAL AGENCY upon reasonable notice at any time during the normal business hours, but in no case less than twenty-four (24) hours' notice, to such of its books, records, accounts, and all other sources of information and its facilities as said Department or LOCAL AGENCY shall require to ascertain compliance with this clause.
- E. CONSULTANT and its subconsultants shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.
- F. CONSULTANT shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this AGREEMENT.
- G. The CONSULTANT, with regard to the work performed under this AGREEMENT, shall act in accordance with Title VI of the Civil Rights Act of 1964 (42 U.S.C. §2000d et seq.). Title VI provides that the recipients of federal assistance will implement and maintain a policy of nondiscrimination in which no person in the United States shall, on the basis of race, color, national origin, religion, sex, age, disability, be excluded from participation in, denied the benefits of or subject to discrimination under any program or activity by the recipients of federal assistance or their assignees and successors in interest.
- H. The CONSULTANT shall comply with regulations relative to non-discrimination in federally-assisted programs of the U.S. Department of Transportation (49 CFR Part 21 - Effectuation of Title VI of the Civil Rights Act of 1964). Specifically, the CONSULTANT shall not participate either directly or indirectly in the discrimination prohibited by 49 CFR §21.5, including employment practices and the selection and retention of Subconsultants.

ARTICLE XVII DEBARMENT AND SUSPENSION CERTIFICATION

- A. CONSULTANT's signature affixed herein, shall constitute a certification under penalty of perjury under the laws of the State of California, that the CONSULTANT or any person associated therewith in the capacity of owner, partner, director, officer, or manager:
 - 1. Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
 - 2. Has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years;
 - 3. Does not have a proposed debarment pending; and
 - 4. Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.
- B. Any exceptions to this certification must be disclosed to LOCAL AGENCY. Exceptions will not necessarily result in denial of recommendation for award but will be considered in determining responsibility. Disclosures must indicate to whom exceptions apply, the initiating agency, and the dates of agency action.
- C. Exceptions to the Federal Government Excluded Parties List System maintained by the U.S. General Services Administration are to be determined by FHWA.

ARTICLE XVIII DISADVANTAGED BUSINESS ENTERPRISES (DBE) PARTICIPATION

- A. This AGREEMENT is subject to 49 CFR Part 26 entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs". CONSULTANTs who enter into a federally-funded agreement will assist the LOCAL AGENCY in a good faith effort to achieve California's statewide overall DBE goal.
- B. The goal for DBE participation for this AGREEMENT is <u>6.0</u>%. Participation by DBE CONSULTANT or subconsultants shall be in accordance with information contained in <u>Exhibit 10-O1: Consultant Proposal DBE Commitment</u>, or in <u>Exhibit 10-O2: Consultant Contract DBE Commitment</u> attached hereto and incorporated as part of the AGREEMENT. If a DBE subconsultant is unable to perform, CONSULTANT must make a good faith effort to replace him/her with another DBE subconsultant, if the goal is not otherwise met.
- C. CONSULTANT can meet the DBE participation goal by either documenting commitments to DBEs to meet the AGREEMENT goal, or by documenting adequate good faith efforts to meet the AGREEMENT goal. An adequate good faith effort means that the CONSULTANT must show that it took all necessary and reasonable steps to achieve a DBE goal that, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to meet the DBE goal. If CONSULTANT has not met the DBE goal, complete and submit Exhibit 15-H: DBE Information Good Faith Efforts to document efforts to meet the goal. Refer to 49 CFR Part 26 for guidance regarding evaluation of good faith efforts to meet the DBE goal.
- D. DBEs and other small businesses, as defined in 49 CFR Part 26 are encouraged to participate in the performance of AGREEMENTs financed in whole or in part with federal funds. The LOCAL AGENCY, CONSULTANT or subconsultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The CONSULTANT shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the CONSULTANT to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LOCAL AGENCY deems appropriate, which may include, but is not limited to:

- 1. Withholding monthly progress payments;
- 2. Assessing sanctions;
- 3. Liquidated damages; and/or
- 4. Disqualifying the contractor from future bidding as non-responsible
- E. A DBE firm may be terminated only with prior written approval from LOCAL AGENCY and only for the reasons specified in 49 CFR §26.53(f). Prior to requesting LOCAL AGENCY consent for the termination, CONSULTANT must meet the procedural requirements specified in 49 CFR §26.53(f). If a DBE subconsultant is unable to perform, CONSULTANT must make a good faith effort to replace him/her with another DBE subconsultant, if the goal is not otherwise met.
- F. Consultant shall not be entitled to any payment for such work or material unless it is performed or supplied by the listed DBE or by other forces (including those of Consultant) pursuant to prior written authorization of the LOCAL AGENCY's Contract Administrator.
- G. A DBE is only eligible to be counted toward the AGREEMENT goal if it performs a commercially useful function (CUF) on the AGREEMENT. CUF must be evaluated on an agreement by agreement basis. A DBE performs a Commercially Useful Function (CUF) when it is responsible for execution of the work of the AGREEMENT and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a CUF, the DBE must also be responsible, with respect to materials and supplies used on the AGREEMENT, for negotiating price, determining quality and quantity, ordering the material and installing (where applicable), and paying for the material itself. To determine whether a DBE is performing a CUF, evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the AGREEMENT is commensurate with the work it is actually performing, and other relevant factors.
- H. A DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, AGREEMENT, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, examine similar transactions, particularly those in which DBEs do not participate.
- I. If a DBE does not perform or exercise responsibility for at least thirty percent (30%) of the total cost of its AGREEMENT with its own work force, or the DBE subcontracts a greater portion of the work of the AGREEMENT than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that it is not performing a CUF.
- J. CONSULTANT shall maintain records of materials purchased or supplied from all subcontracts entered into with certified DBEs. The records shall show the name and business address of each DBE or vendor and the total dollar amount actually paid each DBE or vendor, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all firms. DBE prime CONSULTANT's shall also show the date of work performed by their own forces along with the corresponding dollar value of the work.
- K. Upon completion of the AGREEMENT, a summary of these records shall be prepared and submitted on the form entitled, *Exhibit 17-F: Final Report-Utilization of Disadvantaged Business Enterprise* (*DBE*) *First-Tier Subconsultants*, certified correct by CONSULTANT or CONSULTANT's authorized representative and shall be furnished to the Contract Administrator with the final invoice. Failure to provide the summary of DBE payments with the final invoice will result in twenty-five percent (25%) of the dollar value of the invoice being withheld from payment until the form is submitted. The amount will be returned to CONSULTANT when a satisfactory "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subconsultants" is submitted to the Contract Administrator.
- L. If a DBE subconsultant is decertified during the life of the AGREEMENT, the decertified subconsultant shall notify CONSULTANT in writing with the date of decertification. If a subconsultant becomes a certified DBE during the life of the AGREEMENT, the subconsultant shall notify CONSULTANT in

- writing with the date of certification. Any changes should be reported to LOCAL AGENCY's Contract Administrator within thirty (30) calendar days.
- M. Any subcontract entered into as a result of this AGREEMENT shall contain all of the provisions of this section.

ARTICLE XIX INSURANCE

- A. **Scope of Coverage.** During the term of this Agreement, CONSULTANT shall maintain, at no expense to LOCAL AGENCY, the following insurance policies:
 - 1. A commercial general liability insurance policy in the minimum amount of one million dollars (\$1,000,000) per occurrence/two million dollars (\$2,000,000) aggregate, for death, bodily injury, personal injury, or property damage.
 - 2. An automobile liability (owned, non-owned, and hired vehicles) insurance policy in the minimum amount of one million dollars (\$1,000,000) dollars per occurrence.
 - 3. If any licensed professional performs any of the services required to be performed under this Agreement, a professional liability insurance policy in the minimum amount of one million dollars (\$1,000,000) per occurrence/two million dollars (\$2,000,000) aggregate, to cover any claims arising out of the CONSULTANT 's performance of services under this Agreement. Where CONSULTANT is a professional not required to have a professional license, LOCAL AGENCY reserves the right to require CONSULTANT to provide professional liability insurance pursuant to this section.
 - 4. If it employs any person, CONSULTANT shall maintain worker's compensation insurance, as required by the State of California, with statutory limits, and employer's liability insurance with limits of no less than one million dollars (\$1,000,000) per accident for bodily injury or disease. CONSULTANT's worker's compensation insurance shall be specifically endorsed to waive any right of subrogation against LOCAL AGENCY.
- B. **Other Insurance Requirements.** The insurance coverage required of the CONSULTANT in subparagraph A of this section above shall also meet the following requirements:
 - Except for professional liability insurance or worker's compensation insurance, the insurance policies shall be specifically endorsed to include the LOCAL AGENCY, its officers, agents, employees, and volunteers, as additional insureds (for both ongoing and completed operations) under the policies.
 - The additional insured coverage under CONSULTANT'S insurance policies shall be "primary and noncontributory" with respect to any insurance or coverage maintained by LOCAL AGENCY and shall not call upon LOCAL AGENCY's insurance or self-insurance coverage for any contribution. The "primary and noncontributory" coverage in CONSULTANT'S policies shall be at least as broad as ISO form CG20 01 04 13.
 - 3. Except for professional liability insurance or worker's compensation insurance, the insurance policies shall include, in their text or by endorsement, coverage for contractual liability and personal injury.
 - 4. By execution of this Agreement, CONSULTANT hereby grants to LOCAL AGENCY a waiver of any right to subrogation which any insurer of CONSULTANT may acquire against LOCAL AGENCY by virtue of the payment of any loss under such insurance. CONSULTANT agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not LOCAL AGENCY has received a waiver of subrogation endorsement from the insurer.
 - 5. If the insurance is written on a Claims Made Form, then, following termination of this Agreement, said insurance coverage shall survive for a period of not less than five years.

- 6. The insurance policies shall provide for a retroactive date of placement coinciding with the effective date of this Agreement.
- 7. The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and noncontributory basis for the benefit of LOCAL AGENCY (if agreed to in a written contract or agreement) before LOCAL AGENCY'S own insurance or self-insurance shall be called upon to protect it as a named insured.
- 8. It shall be a requirement under this Agreement that any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements and/or limits shall be available to LOCAL AGENCY or any other additional insured party. Furthermore, the requirements for coverage and limits shall be: (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured; whichever is greater. No representation is made that the minimum Insurance requirements of this agreement are sufficient to cover the obligations of the CONSULTANT under this agreement.
- C. **Deductibles and SIR's.** Any deductibles or self-insured retentions in CONSULTANT's insurance policies must be declared to and approved by the PROJECT MANAGER and City Attorney and shall not reduce the limits of liability. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named insured or LOCAL AGENCY or other additional insured party. At LOCAL AGENCY's option, the deductibles or self-insured retentions with respect to LOCAL AGENCY shall be reduced or eliminated to LOCAL AGENCY's satisfaction, or CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claims administration, attorney's fees and defense expenses.
- D. Proof of Insurance. CONSULTANT shall provide to the PROJECT MANAGER or LOCAL AGENCY'S City Attorney all of the following: (1) Certificates of Insurance evidencing the insurance coverage required in this Agreement; (2) a copy of the policy declaration page and/or endorsement page listing all policy endorsements for the commercial general liability policy, and (3) excerpts of policy language or specific endorsements evidencing the other insurance requirements set forth in this Agreement. LOCAL AGENCY reserves the right to obtain a full certified copy of any insurance policy and endorsements from CONSULTANT. Failure to exercise this right shall not constitute a waiver of the right to exercise it later. The insurance shall be approved as to form and sufficiency by PROJECT MANAGER and the City Attorney.

ARTICLE XX FUNDING REQUIREMENTS

- A. It is mutually understood between the parties that this AGREEMENT may have been written before ascertaining the availability of funds or appropriation of funds, for the mutual benefit of both parties, in order to avoid program and fiscal delays that would occur if the AGREEMENT were executed after that determination was made.
- B. This AGREEMENT is valid and enforceable only, if sufficient funds are made available to LOCAL AGENCY for the purpose of this AGREEMENT. In addition, this AGREEMENT is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress, State Legislature, or LOCAL AGENCY governing board that may affect the provisions, terms, or funding of this AGREEMENT in any manner.
- C. It is mutually agreed that if sufficient funds are not appropriated, this AGREEMENT may be amended to reflect any reduction in funds.
- D. LOCAL AGENCY has the option to terminate the AGREEMENT pursuant to Article VI Termination, or by mutual agreement to amend the AGREEMENT to reflect any reduction of funds.

ARTICLE XXI CHANGE IN TERMS

- A. This AGREEMENT may be amended or modified only by mutual written agreement of the parties.
- B. CONSULTANT shall only commence work covered by an amendment after the amendment is executed and notification to proceed has been provided by LOCAL AGENCY's Contract Administrator.
- C. There shall be no change in CONSULTANT's Project Manager or members of the project team, as listed in the approved Cost Proposal, which is a part of this AGREEMENT without prior written approval by LOCAL AGENCY's Contract Administrator.

ARTICLE XXII CONTINGENT FEE

CONSULTANT warrants, by execution of this AGREEMENT that no person or selling agency has been employed, or retained, to solicit or secure this AGREEMENT upon an agreement or understanding, for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees, or bona fide established commercial or selling agencies maintained by CONSULTANT for the purpose of securing business. For breach or violation of this warranty, LOCAL AGENCY has the right to annul this AGREEMENT without liability; pay only for the value of the work actually performed, or in its discretion to deduct from the AGREEMENT price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE XXIII DISPUTES

Prior to either party commencing any legal action under this AGREEMENT, the parties agree to try in good faith, to settle any dispute amicably between them. If a dispute has not been settled after forty-five (45) days of good-faith negotiations and as may be otherwise provided herein, then either party may commence legal action against the other.

- A. Any dispute, other than audit, concerning a question of fact arising under this AGREEMENT that is not disposed of by agreement shall be decided by a committee consisting of LOCAL AGENCY's Contract Administrator and other LOCAL AGENCY representatives who may consider written or verbal information submitted by CONSULTANT.
- B. Not later than thirty (30) days after completion of all work under the AGREEMENT, CONSULTANT may request review by LOCAL AGENCY Governing Board of unresolved claims or disputes, other than audit. The request for review will be submitted in writing.
- C. Neither the pendency of a dispute, nor its consideration by the committee will excuse CONSULTANT from full and timely performance in accordance with the terms of this AGREEMENT.

ARTICLE XXIV INSPECTION OF WORK

CONSULTANT and any subconsultant shall permit LOCAL AGENCY, the State, and the FHWA if federal participating funds are used in this AGREEMENT; to review and inspect the project activities and files at all reasonable times during the performance period of this AGREEMENT.

ARTICLE XXV SAFETY

- A. CONSULTANT shall comply with OSHA regulations applicable to CONSULTANT regarding necessary safety equipment or procedures. CONSULTANT shall comply with safety instructions issued by LOCAL AGENCY Safety Officer and other LOCAL AGENCY representatives. CONSULTANT personnel shall wear hard hats and safety vests at all times while working on the construction project site.
- B. Pursuant to the authority contained in Vehicle Code §591, LOCAL AGENCY has determined that such areas are within the limits of the project and are open to public traffic. CONSULTANT shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the Vehicle Code. CONSULTANT shall take all reasonably necessary precautions for safe operation of its vehicles and the protection of the traveling public from injury and damage from such vehicles.
- C. CONSULTANT must have a Division of Occupational Safety and Health (CAL-OSHA) permit(s), as outlined in California Labor Code §6500 and §6705, prior to the initiation of any practices, work, method, operation, or process related to the construction or excavation of trenches which are five (5) feet or deeper.

ARTICLE XXVI OWNERSHIP OF DATA

- A. It is mutually agreed that all materials prepared by CONSULTANT under this AGREEMENT shall become the property of LOCAL AGENCY, and CONSULTANT shall have no property right therein whatsoever. Immediately upon termination, LOCAL AGENCY shall be entitled to, and CONSULTANT shall deliver to LOCAL AGENCY, reports, investigations, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date, whether completed or not, and other such materials as may have been prepared or accumulated to date by CONSULTANT in performing this AGREEMENT which is not CONSULTANT's privileged information, as defined by law, or CONSULTANT's personnel information, along with all other property belonging exclusively to LOCAL AGENCY which is in CONSULTANT's possession. Publication of the information derived from work performed or data obtained in connection with services rendered under this AGREEMENT must be approved in writing by LOCAL AGENCY.
- B. Additionally, it is agreed that the Parties intend this to be an AGREEMENT for services and each considers the products and results of the services to be rendered by CONSULTANT hereunder to be work made for hire. CONSULTANT acknowledges and agrees that the work (and all rights therein, including, without limitation, copyright) belongs to and shall be the sole and exclusive property of LOCAL AGENCY without restriction or limitation upon its use or dissemination by LOCAL AGENCY.
- C. Nothing herein shall constitute or be construed to be any representation by CONSULTANT that the work product is suitable in any way for any other project except the one detailed in this AGREEMENT. Any reuse by LOCAL AGENCY for another project or project location shall be at LOCAL AGENCY's sole risk.
- D. Applicable patent rights provisions regarding rights to inventions shall be included in the contracts as appropriate (48 CFR 27 Subpart 27.3 Patent Rights under Government Contracts for federal-aid contracts).
- E. LOCAL AGENCY may permit copyrighting reports or other agreement products. If copyrights are permitted; the AGREEMENT shall provide that the FHWA shall have the royalty-free nonexclusive and irrevocable right to reproduce, publish, or otherwise use; and to authorize others to use, the work for government purposes.

ARTICLE XXVII CLAIMS FILED BY LOCAL AGENCY'S CONSTRUCTION CONTRACTOR

- A. If claims are filed by LOCAL AGENCY's construction contractor relating to work performed by CONSULTANT's personnel, and additional information or assistance from CONSULTANT's personnel is required in order to evaluate or defend against such claims; CONSULTANT agrees to make its personnel available for consultation with LOCAL AGENCY'S construction contract administration and legal staff and for testimony, if necessary, at depositions and at trial or arbitration proceedings.
- B. CONSULTANT's personnel that LOCAL AGENCY considers essential to assist in defending against construction contractor claims will be made available on reasonable notice from LOCAL AGENCY. Consultation or testimony will be reimbursed at the same rates, including travel costs that are being paid for CONSULTANT's personnel services under this AGREEMENT.
- C. Services of CONSULTANT's personnel in connection with LOCAL AGENCY's construction contractor claims will be performed pursuant to a written contract amendment, if necessary, extending the termination date of this AGREEMENT in order to resolve the construction claims.

ARTICLE XXVIII CONFIDENTIALITY OF DATA

- A. All financial, statistical, personal, technical, or other data and information relative to LOCAL AGENCY's operations, which are designated confidential by LOCAL AGENCY and made available to CONSULTANT in order to carry out this AGREEMENT, shall be protected by CONSULTANT from unauthorized use and disclosure.
- B. Permission to disclose information on one occasion, or public hearing held by LOCAL AGENCY relating to the AGREEMENT, shall not authorize CONSULTANT to further disclose such information, or disseminate the same on any other occasion.
- C. CONSULTANT shall not comment publicly to the press or any other media regarding the AGREEMENT or LOCAL AGENCY's actions on the same, except to LOCAL AGENCY's staff, CONSULTANT's own personnel involved in the performance of this AGREEMENT, at public hearings, or in response to questions from a Legislative committee.
- D. CONSULTANT shall not issue any news release or public relations item of any nature, whatsoever, regarding work performed or to be performed under this AGREEMENT without prior review of the contents thereof by LOCAL AGENCY, and receipt of LOCAL AGENCY'S written permission.
- E. All information related to the construction estimate is confidential and shall not be disclosed by CONSULTANT to any entity, other than LOCAL AGENCY, Caltrans, and/or FHWA. All of the materials prepared or assembled by CONSULTANT pursuant to performance of this AGREEMENT are confidential and CONSULTANT agrees that they shall not be made available to any individual or organization without the prior written approval of LOCAL AGENCY or except by court order. If CONSULTANT or any of its officers, employees, or subcontractors does voluntarily provide information in violation of this AGREEMENT, LOCAL AGENCY has the right to reimbursement and indemnity from CONSULTANT for any damages caused by CONSULTANT releasing the information, including, but not limited to, LOCAL AGENCY's attorney's fees and disbursements, including without limitation experts' fees and disbursements.

ARTICLE XXIX NATIONAL LABOR RELATIONS BOARD CERTIFICATION

In accordance with Public Contract Code §10296, CONSULTANT hereby states under penalty of perjury that no more than one final unappealable finding of contempt of court by a federal court has been issued against CONSULTANT within the immediately preceding two-year period, because of CONSULTANT's failure to comply with an order of a federal court that orders CONSULTANT to comply with an order of the National Labor Relations Board.

ARTICLE XXX EVALUATION OF CONSULTANT

CONSULTANT's performance will be evaluated by LOCAL AGENCY. A copy of the evaluation will be sent to CONSULTANT for comments. The evaluation together with the comments shall be retained as part of the AGREEMENT record.

ARTICLE XXXI RETENTION OF FUNDS

No retainage will be held by the LOCAL AGENCY from progress payments due the CONSULTANT. Any retainage held by the CONSULTANT or subconsultants from progress payments due subconsultants shall be promptly paid in full to subconsultants within thirty (30) days after the subconsultant's work is satisfactorily completed. Federal law (49 CFR §26.29) requires that any delay or postponement of payment over thirty (30) calendar days may take place only for good cause and with the LOCAL AGENCY's prior written approval. Any violation of this provision shall subject the violating CONSULTANT or subconsultant to the penalties, sanctions and other remedies specified in Business and Professions Code §7108.5. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies, otherwise available to the CONSULTANT or subconsultant in the event of a dispute involving late payment or nonpayment by the CONSULTANT, deficient subconsultant performance, or noncompliance by a subconsultant. This provision applies to both DBE and non-DBE CONSULTANT and subconsultants.

ARTICLE XXXII NOTIFICATION

All notices hereunder and communications regarding interpretation of the terms of this AGREEMENT and changes thereto, shall be effected by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid, and addressed as follows:

CONSULTANT: Substrate, Inc.

Sunny Jhutti, President

270 Crest Rd Novato. CA 94945

LOCAL AGENCY: City of San Rafael

Bill Guerin, Contract Administrator

111 Morphew Street San Rafael, CA 94901

ARTICLE XXXIII CONTRACT

The two parties to this AGREEMENT, who are the before named CONSULTANT and the before named LOCAL AGENCY, hereby agree that this AGREEMENT constitutes the entire AGREEMENT which is made and concluded in duplicate between the two parties. Both of these parties for and in consideration of the payments to be made, conditions mentioned, and work to be performed; each agree to diligently perform in accordance with the terms and conditions of this AGREEMENT as evidenced by the signatures below.

ARTICLE XXXIV NO THIRD PARTY BENEFICIARIES

LOCAL AGENCY and CONSULTANT do not intend, by any provision of this contract, to create in any third party, any benefit or right owed by one party, under the terms and conditions of this AGREEMENT, to the other party.

ARTICLE XXXV COSTS AND ATTORNEY'S FEES

The prevailing party in any action brought to enforce the terms and conditions of this AGREEMENT, or arising out of the performance of this AGREEMENT, may recover its reasonable costs (including claims administration) and attorney's fees expended in connection with such action.

ARTICLE XXXVI LOCAL AGENCY BUSINESS LICENSE / OTHER TAXES

CONSULTANT shall obtain and maintain during the duration of this contract, a LOCAL AGENCY business license as required by the San Rafael Municipal Code. CONSULTANT shall pay any and all state and federal taxes and any other applicable taxes. LOCAL AGENCY shall not be required to pay for any work performed under this contract, until CONSULTANT has provided LOCAL AGENCY with a completed Internal Revenue Service Form W-9 (Request for Taxpayer Identification Number and Certification).

ARTICLE XXXVII WAIVERS

The waiver by either party of any breach or violation of any term, covenant or condition of this AGREEMENT, or of any ordinance, law or regulation, shall not be deemed to be a waiver of any other term, covenant, condition, ordinance, law or regulation, or of any subsequent breach or violation of the same or other term, covenant, condition, ordinance, law or regulation. The subsequent acceptance by either party of any fee, performance, or other consideration which may become due or owing under this AGREEMENT, shall not be deemed to be a waiver of any preceding breach or violation by the other party of any term, condition, covenant of this contract or any applicable law, ordinance or regulation.

ARTICLE XXXVIII APPLICABLE LAW

The laws of the State of California shall govern this AGREEMENT.

CONSULTANT shall observe and comply with all applicable federal, state and local laws, ordinances, codes and regulations, in the performance of its duties and obligations under this AGREEMENT. CONSULTANT shall perform all services under this AGREEMENT in accordance with these laws, ordinances, codes and regulations. CONSULTANT shall release, defend, indemnify and hold harmless LOCAL AGENCY, its officers, agents and employees from any and all damages, liabilities, penalties, fines and all other consequences from any noncompliance or violation of any laws, ordinances, codes or regulations.

ARTICLE XXXIX SIGNATURES

| CITY OF SAN RAFAEL | DYNAMIC DZYNE ASSOCIATES, INC. dba SUBSTRATE, INC. | | |
|----------------------|---|-----|--|
| JIM SCHUTZ | By: | | |
| City Manager | Title: | | |
| | and | | |
| ATTEST: | DYNAMIC DZYNE ASSOCIATES, INC. SUBSTRATE, INC. | dba | |
| LINDSAY LARA | By: | | |
| City Clerk | Title: | | |
| APPROVED AS TO FORM: | | | |
| ROBERT F. EPSTEIN | | | |
| City Attorney | | | |

Exhibit A: Scope of Work





Construction Management, Inspection, and Testing Services for the Southern Heights Boulevard Bridge Replacement Project Federal Project No. BRLO 5043(038)

CITY OF SAN RAFAEL

June 30, 2020 | Statement of Qualifications







June 30, 2020

Mr. Hunter Young
Assistant Public Works Director/City Engineer
City of San Rafael – Department of Public Works
1400 5th Avenue
San Rafael. CA 94901

Substrate, Inc. 270 Crest Rd Novato, CA 94945 T:415.246.4920 substrateinc.com

Sunny Jhutti, PE, SE
President
E: sunny@substrateinc.com

Statement of Qualifications for Construction Management, Inspection,

and Testing Services for the Southern Heights Boulevard Bridge

Replacement Project - Fed No. BRLO 5043 (038)

Dear Mr. Young:

Subject:

Substrate, Inc is pleased to submit this Statement of Qualifications to provide Construction Management, Inspection, and Testing Services for the Southern Heights Boulevard Bridge Replacement Project for the City of San Rafael. We are confident that we have organized the right team that is the right fit for the City of San Rafael's needs on this challenging Southern Heights Boulevard Bridge Replacement located in an a region of the city with limited access and a small footprint.

We want you to be rest assured as you are in safe hands with Substrate, as we not only have done similar projects like this one before, but have won a National Award doing so. Substrate, just recently won the 2019 National APWA Best Transportation Project (\$5 Million Dollar Category) for the Marsh Creek Bridge Replacement project, which has similar issues as your project: limited real-estate, local opposition, and complex staged bridge construction.

Substrate, Inc is a Marin County based certified DBE and SBE firm specializing in providing construction management services for federally funded bridge projects that are part of the Highway Bridge Program (HBP). The Southern Heights Boulevard Bridge Replacement will require an experienced construction management team that has relevant experience with working on projects similar in size and scope, specifically federally-funded local agency bridge replacement project, located in an area with limit access and small footprint. Substrate has a proven successful track record - members of our firm have successfully been involved in several construction management projects throughout California for clients such as – Contra Costa County, City of Larkspur, City of Novato, CALTRANS, BART, Transbay Joint Powers Authority, and various other local agencies.

The following is the value we bring to the City of San Rafael:

• Local, Streamlined, and Efficient Team – We did our very best to assemble a local team that provides the best value and meets the needs and project objectives for the City of San Rafael on this pursuit. Substrate has successfully performed all the major technical submittal reviews as a subconsultant to Prescience Engineers on the City of Larkspur's Bon Air Bridge project literally 1 mile away from your project. Substrate also recently finished a Constructability Review for the Grant Avenue Bridge Rehabilitation in Novato.

The proposed Project Manager/Resident Engineer, Sunny Jhutti, PE, SE (Substrate) and full-time Inspector, Edwin Ekberg (Substrate), are locals, living in Novato and Napa, respectively. We brought on board Scott Stephens from local Miller Pacific Engineering Group for Material Testing (Caltrans Certified Lab), and for Public Outreach, we engaged Marin-based - Dave Javid from Plan to Place who is currently helping the City of Mill Valley with managing public outreach on the Mill Valley Downtown Paving, Sidewalk, and Utility Improvements and has received outstanding reviews on his efforts with a very challenging and politically plugged in community. Finally, we brought on board Sonoma County-based Cinquini & Passarino to assist with QA Bridge surveying, who are currently providing surveying for Chalk Hill Road Bridge and Franz Valley School Bridge in Sonoma County. We added Abe Construction Services for Gamma-Gamma Testing (CT-233) of the CIDH Piles and Verux Inc is on board for QA SWPPP inspections, as needed.

This project only really requires two key individuals: A Resident Engineer/Structure's Representative and full-time Inspector. Given the public exposure risks on this project, we have engaged Plan to Place for additional Public Outreach Support, but the need a separate Project Manager is not warranted for a project, as the proposed Resident Engineer has been in the dual role recently on Marsh Creek Bridge. Moreover, the \$3.05 million Engineer's Estimate would not allow a budget large enough to warrant a separate PM. For Highway Bridge Program (HBP) projects, the maximum reimbursement for CM will be 15% total construction costs, which leads us to critically evaluate which project team roles are essential in delivering a bridge that complies with Federal Quality Standards and the Public Outreach concerns of the City of San Rafael. Based on the HBP requirements and critical evaluation of the Project needs and City objectives, the aforementioned team has been structured which we believe provides the maximum value to the City, while keep costs within Federal Reimbursable limits.

• State and Federal Procedures - Sunny Jhutti, PE, SE (Substrate), the proposed Project Manager/Resident Engineer has over 21 years of federally-funded bridge experience and thoroughly familiar with Caltrans Oversight procedures and federal funding requirements of the HBP. He is a former Caltrans Bridge Engineer and is an expert on the Caltrans 63 Category filing system and LAPM Chapters 16, and 17. Substrate has delivered several federal funded projects, including HBP projects for Local Agencies. Within the last 5 years our firm completed the following federally funded bridge projects for Local Agencies, several of which were HBP projects: Marsh Creek Bridge Replacement – Contra Costa County, Orwood Rd Bridge Replacement – Contra Costa County, I-80 San Pablo Dam Rd Interchange, Phase 1 – Contra Costa Transportation Authority, and Transbay Busramp Cable Stayed Bridge – Transbay Joint Powers Authority. All four projects, which are federally-funded bridge projects have successfully passed their Caltrans Mid and Post Audits reviews with no issues or irregularities. Federally Funded Bridge (HBP) File Audits are very detailed and comprehensive, and Sunny has a very favorable reputation with Moe Shakernia, Caltrans District 4 Oversight Engineer, and Sylvia Fung, Caltrans District Liaison Engineer.

Caltrans Familiarity - As a former Caltrans Bridge Structure's Representative, Sunny spent 4 years working for Jeff Kress, Sonoma - Marin Area Senior Bridge Engineer (14 years in total for Caltrans as employee and consultant), on such projects as Marin-Sonoma Narrows MSN A-1 in Novato, Corte Madera Creek Bridge Rehabilitation, Petaluma River Bridge and Lakeville Replacement, and Central Cotati Widening. Considered a leader in bridge construction, Sunny has instant rapport and respect from Caltrans Northbay Managers including Jeff Kress and Farhad Farazmand, as well as, with Moe Shakernia of Caltrans Division of Local Assistance, who will be performing the Mid and Post File Audit.

Sunny is a **licensed Structural Engineer in California** and has reviewed over 50 independent Falsework Checks, over 30 shoring reviews, several access trestles, and countless CIDH Pile Submittal Reviews. In fact, Sunny recently reviewed and approved all the 8 ft diameter CIDH Pile Placement Plans for the Bon Air Bridge Replacement in Larkspur and 6 ft diameter CIDH piles on the Orwood Road Bridge Replacement, both of which has their own Cofferdams. This included reviewing pile placement plans, inspection tube placement, and temporary access trestle. For the Southern Height's project this scale of technical analysis is not required, as the CIDH Piles are only 3 ft diameter, however the concepts remain the same and the same level of detail and effort will be required for successful and safe delivery.

- Public Outreach Public Outreach, Coordination, and Notification is a critical component of this bridge construction project, as it is in a sensitive neighborhood in Marin that is between downtown San Rafael and the City of Larkspur. Adjacent neighbors pose the highest risk on this project, and as such, a joint effort between Sunny and Edwin (on a day to day basis) will be required to successfully deliver this project without significant complaints. Lesson-learned from award-winning Marsh Creek bridge project and the City of Mill Valley Downtown project will be employed to make sure a positive perception of this project is achieved. For this reason we have engaged Dave Javid from Plan to Place who is currently helping the City of Mill Valley with managing public outreach on the Mill Valley Downtown Paving, Sidewalk, and Utility Improvements and has received outstanding reviews on his efforts which a very challenging and politically plugged in community.
- Innovative Substrate just wrapped up the Marsh Creek Bridge Replacement project, where (as the Prime Consultant) we delivered a two-season project in one season using innovative methods. Where possible, we will work with the Contractor and Designer to implement innovative, cost or schedule saving techniques while keeping project safety and quality as our priority. The proposed dual Falsework/Trestle in the Key Issues section of this proposal is an example of an innovative solution that will reduce project complexity and increase safety.
- Finally, the team has committed to 75% DBE goal, which will far exceed the required 6% goal.

As President of Substrate, Inc, I am empowered to negotiate a contract with the City and hereby commit to the obligations contained in the proposal. The sample Professional Services Agreement (PSA) in the RFQ is acceptable as-is. Substrate acknowledges receipt of Addendum 1 and 2 of this RFQ and have prepared our Statement accordingly. This proposal is valid for 90 days.

Thanks for the opportunity to submit our Statement of Qualifications for consideration and for reviewing our proposal.

Sincerely,

Sundeep Jhutti, President

Sundeep Shuth

Firm President Contact InformationName and Title:Sunny Jhutti, PE, SE – PresidentCompany Name:Substrate, IncAddress:270 Crest Rd, Novato, CA 94945Phone Number:415-246-4920Email:sunny@substrateinc.com



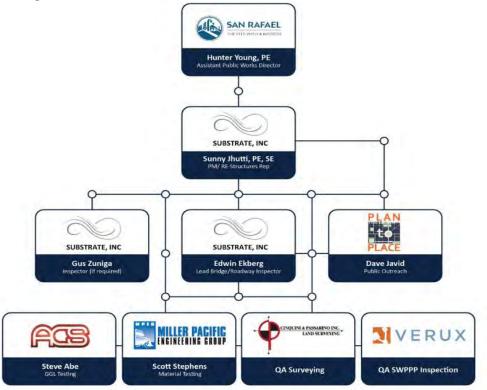


QUALIFICATIONS AND EXPERIENCE

Substrate, Inc - The Right Team

We did our very best to assemble a local team that provides the best value and meets the needs and project objectives for the City of San Rafael on this pursuit. We have carefully selected the right people who are appropriately experienced and skilled professionals with right project experience to that required to provide right expertise for the City of San Rafael on this Southern Heights Boulevard Bridge Replacement.

Substrate – Project Organizational Chart:



Key Personnel



Sunny Jhutti, PE, SE - Project Manager/Resident Engineer



Former Caltrans Structures

Mr. Sunny Jhutti has vast experience in providing construction management, design, and contract administration of highways, roads, bridges, buildings and public works infrastructure projects in California. Over the past 21 years, he has been involved in numerous construction management projects for State, Regional, & Local Agencies in the capacity of Project Manager, Resident Engineer, Structure's Representative, Chief Technical Reviewer, and Lead Inspector.

He is a specialist when it comes to bridge construction management with traditional Design-Bid-Build project delivery and Highway Bridge Program (HBP) Funding. He is fully versed in LAPM Chapters 15, 16, and 17. Sunny has successfully completed several federally funded projects through pre, mid, and post-audits with Caltrans with no irregularities.



Edwin Ekberg – Full-Time Bridge/Roadway Inspector

Intelligent, forward thinking, and proactive Senior Inspector with more than 30 years' experience specializing in large-scale public works construction. He has acted in the role of QA Manager, Senior Inspector, Lead Inspector, and Inspector on project ranging from \$2 million to \$220 million dollars. Edwin is very familiar with the latest Caltrans Standard Specifications, Standard Plans, Construction Manual, Local Agency Procedure's Manual (LAPM), and the "Greenbook" Standard Specifications for Public Works Construction.





Substrate, Inc

Competent in all aspects of Municipal Capital Improvement projects including: Bridges, Grade Separations, Fish-passages, Pedestrian Bridges, Pavement Rehabilitation, Overlays, HMA Paving, Concrete Sidewalks, Ramps, Pedestrian and Bike Facilities, Streetscaping and Beautification, ADA Compliance, Utilities, Drainage, Sewers, Storm Drains, Striping, etc.

Sub-consultants



Dave Javid - Plan to Place - Public Outreach and Community Engagement Support - By working closely with the Resident Engineer and Inspector, Dave will help brand our message to ensure we have weekly strategic communication, Public Outreach and positive community relations on this project. While Sunny and Edwin will handle the day-to-day public outreach and management, Dave will help with digital and print media, constant contact, and weekly engagement, including working with Substrate to develop weekly content for the City of San Rafael's website. He has recently done a stellar job for Downtown Mill Valley, in one of the most politically plugged in communities of Marin.





Miller Pacific Engineering Group (MPEG) - Materials Testing - By working closely with the Resident Engineer and Inspector, MPEG will provide the material engineering and testing services, as well as, source inspection as needed. Substrate, Inc and Scott Stephens, PE will be working closely together to coordinate all inspection services. MPEG

has extensive experience and knowledge of the local conditions in and around Marin County and the Bay Area, working on a wide variety of projects ranging from roadway and city street subgrades, utility trench backfill testing, to inspection for highways and bridges, for all types of soil conditions. Headquartered in Novato, MPEG is a Caltrans Certified Laboratory.



Abe Construction Services (ACS) - GGL Testing – We have included Specialty Pile Testing from Steve Abe. He's a statewide expert and specialist on Gamma-Gamma Logging Test (CT-233), as a Federally Funded Testing Requirement, to ensure adequate concrete density in the below ground CIDH shafts. We have included him as a contract requirement for Quality Assurance, to ensure the City gets their full federal reimbursement. ACS is a

Caltrans Certified Laboratory.



Verux - SWPPP QA Inspections - We have included Verux on the team for SWPPP QA Inspections, as needed, because the specifications have indicated that this is a Risk Level 2 project. Though there is no immediate body of water adjacent to the jobsite, we want to

ensure the Contractor and his SWPPP consultant are doing their jobs with respect to street sweeping, inlet protection, dust control, and installing proper BMPs as construction will be proceeding through the winter which as the potential to be a muddy mess (if not properly controlled). Here's where Verux will bring additional value, even though Sunny and Edwin are SWPPP QSP trained.



Cinquini & Passarino, Inc will be assisting with specialized surveying support for this project and will be under administrative control by Substrate, Inc. Cinquini & Passarino will be performing any required bridge or retaining wall QA as-needed surveying support for Substrate, Inc. They are a local Sonoma County based company. The majority of the Bridge related QA surveying will be provided by Substrate, but Cinquini &

Passarino will be assisting with line for centerline of abutments, return walls, bridge edge of deck and retaining wall layout lines, because we know that TCE and Right of Way is very tight and we want to ensure the bridge is constructed in the exact place it is supposed to in order to mitigate any risk to the City. They are currently providing surveying on Chalk Hill Road Bridge and Franz Valley School Bridge in Sonoma County.

Key Staff Experience Summary

The Southern Heights Blvd Bridge Replacement require the Key Role Individuals (Sunny Jhutti and Edwin) to be technically competent with all aspects of bridge, wall and roadway construction, but also being sensitive and politically aware of the neighborhood opposition and tight construction access to this project. As far as technical capabilities, both Sunny Jhutti and Edwin Ekberg have significant experience in the following:

CIDH Wet Piles, CT-233 (Gamma-Gamma) Testing, Federally Funded and HBP Projects, Caltrans Testing and Reporting Requirements, Bridge Removal, Soldier Pile Wall Construction, Diaphragm Type Abutment Construction, ADA Compliance, Notification to Public, Public Access and Traffic Control, Falsework and Trestle Construction, Temporary Shoring, Paving, Caltrans Deck Construction, Waterline Relocation on Bridges, Approach Slabs, Barrier (including Steel Barriers), Utility Relocation, Drainage, Electrical and LED lighting, Planting, SWPPP, Flowable Backfill Construction, and Erosion Control. All these required relevant skills both Sunny and Edwin bring to the table and are critical for this project's success.







KEY STAFF REFERENCES Sunny Jhutti, PE, SE – PM/Resident Engineer – Structures Rep

DATE: 2010-2012 COST: \$220 Million

| | Reference | Project Description and Role | | |
|---|---|--|--|--|
| 1 | Neil Leary, PE Project Manager | Marsh Creek Road Bridge Replacement Project Contra Costa County Resident Engineer/Struct Rep DATE: 4/2018 - 3/2019 COST: \$4.9 Million | | |
| | Contra Costa County Tel: (925) 313-2278 | Substrate provided comprehensive construction management services for a new 91 ft long new California Bulb-Tee Girder bridge replacing the old bridge spanning over Marsh Creek. Project Elements included: temporary stream diversion, drilling and installing soldier-pile wall, soil nail wall shoring, roadway and channel excavation, rock slope protection, concrete bridge approach slab, Type 742 concrete barriers, tubular hand-railing, aggregate base, Hot Mix Asphalt, cold-planing AC, signing, striping, drainage, fencing, Waterline temporary bypass and Permanent Installation, and MBGR. | | |
| 2 | Dennis Turchon, | Transbay Terminal Bus Ramps Transbay Joint Powers Authority Resident Engineer/Struct Rep | | |
| 2 | PE - Construction | DATE: 4/2016-8/1/2017 COST: \$58 Million | | |
| | Manager TJPA Tel: (415) 754-5015 | Substrate provided Sunny Jhutti as Resident Engineer/Structure's Representative and Field Inspector responsible for the Construction Management of the Transbay Bus Ramps Viaduct Project, which provides an exclusive bus-only exit off WB I-80 and the Bay Bridge to the new Transbay Transit Center. There were 5 bridges on this project, which included: Harrison Street Left (CIP-PS-Box), Harrison Street Right (CIP-PS Box), Fremont Offramp Bridge Widening (CIP-PS Box Widening), Fremont Frame 2 (RC Box Girder), and the 1045-foot-long Bus Ramp Viaduct (5 Frames), which consists of three CIP-PS Box Girders, one Stay-Cable Bridge Signature Span, and one "Drop-In-Span" — Composite Steel Plate-Girder Bridge. Frame 5, the Composite Steel Plate-Girder Bridge connected the viaduct to the Transit Center. | | |
| 3 | Jeff Kress,PE | Petaluma River Bridge and Lakeville Replacement Caltrans Lead Inspector and Technical Reviewer | | |
| 3 | Senior Bridge | DATE: 8/2012 – 11/2014 COST: \$90 Million | | |
| | Engineer Caltrans Tel: (510) 867-6019 | Sunny Jhutti was Principal Assistant Structure's Representative responsible for the replacement of the existing Petaluma River Bridge and Lakeville OC and Overhead. He was the main Technical Reviewer and Inspector for all the: Falsework, Shoring, Cofferdams, CIDH Piles Placement Plans, Trestle, etc. Other project features included: New MSE Wall, New retaining walls and Kastania Rd OC. | | |
| 4 | Chris Blunk, PE PublicWorks | Grant Avenue Bridge Widening and Rehabilitation Project City of Novato Constructability Review DATE: 2/2020 COST: \$3 Million | | |
| | Director City of Novato Tel: (415) 899-8961 | Substrate, Inc's Sunny Jhutti provided comprehensive constructability review of the Grant Avenue Bridge Widening and Rehabilitation project. The 95% design proved to be incomplete and did not take into account critical constructability issues such as: Utility Relocations, Land right agreements for TCE's, retaining wall specifications and Engineer's Estimate. Sunny also provided a Risk Analysis for the project. This effort lead to a redesign of the project. This approximate \$3 million dollar HBP bridge project includes: CIDH piles, precast girder placement, retaining walls, barrier rail replacement, ADA sidewalks and ramp, retaining walls, paving bridge approaches, plus other items of work. | | |
| | Edwin Ekberg - | - Full-time Bridge/Roadway Inspector | | |
| | Reference Project Description and Role | | | |
| 1 | Jerry Grover, PE Project Manager CTRMA Tel: (702) 332-4772 | E&C MOPAC Bridges Central Texas Regional Mobility Authority, Austin, TX QA/QC Manager DATE: 2014-2017 COST: \$160 Million Edwin was the QA/QC Manager that directed quality management of high-profile 11.2-mile highway widening, including new automated toll lanes, widening six existing bridges, construction of a new 600ft steel pedestrian bridge, storm sewer and potable water tunneling, mill & replacement of HMA & 3000ft of drilled shaft sound walls. | | |
| 2 | Don Kogel, PE | Fish Passage Improvement Project – Red Bluff Diversion Dam USBR/TCCA Senior Inspector | | |

Edwin was the Senior Inspector for this US Bureau of Reclamation/Tehama-Colusa Canal Authority joint project. He

inspected the construction of 11 gates on the Sacramento River at Red Bluff Diversion Dam (on time and under

budget) that diverted water into the Tehama-Colusa and Corning Canals. The work Included a pumping plant, 1,400 LF flat-plate fish screen, **710 LF concrete girder bridge (CIDH Wet Piles)**, 1,800 LF sheet pile canal, mass- graded

earth forebay, electrical, water, storm piping and remediation of 200,000 CY of soil.

Project Manager

Tel: (541) 639-1458

USBR/TCCA





Sunny Jhutti, PE, SE - Project Manager/Resident Engineer-Structure's Rep

Mr. Sunny Jhutti has vast experience in providing construction management, design, and contract administration of highways, roads, bridges, buildings and public works infrastructure projects in California. Over the past 21 years, he has been involved in numerous construction management projects for State, Regional, & Local Agencies in the capacity of Project Manager, Resident Engineer, Structure's Representative, Chief Technical Reviewer, and Lead Inspector. As a designer, he has been in the role of Principal Design Engineer, Senior Engineer, Project Engineer, and Designer.

Sunny has worked on projects of all delivery types including: Design-Build, Design-Build, Integrated Project Delivery, and Construction Manager/General Contractor (CM/GC). He is a specialist when it comes to bridge construction management with traditional Design-Bid-Build project delivery and Highway Bridge Program (HBP) Funding.

Sunny has also been involved in value engineering, constructability reviews, and construction technical submittal reviews for those same agencies. Sunny is best utilized as a Resident Engineer/Structure's Representative, which allows the client to benefit from his leadership and communication skills, but also tapping into his technical skills as he is one of the few Licensed California Structural Engineers performing Construction Management.

Sunny's management style of utilizing a solution-based approach and working with the Contractor has led to his projects never ending up in claims.

He has also had several years working for local agencies involved in everything from bridge replacements and slide repairs to sewer and street rehab projects and ADA sidewalk construction. He has also been involved with storm drain and sewer rehab projects. His scope of expertise also involves electrical, fiber optic, and camera work. He is intimately familiar with paving procedures and the Caltrans QC/QA process for HMA placement.

Sunny also specializes in providing all technical support, and technical submittal reviews for all road and bridge related projects, which include: Falsework Plans, Engineered Shoring Plans, Cofferdams, Seal Course, Stream Diversions, Bridge Removal or Demolition Plans, CIDH Pile Placement Plans, Sign Structures, Temporary MSE Walls, Joint Seal Assemblies, Steel and Concrete Pile Shop Drawings, Precast Girder Placement Plan Concrete Mix Designs, HMA Mix Designs, Temporary Supports, Bridge Jacking Plans, WQCP, PQWP, Lead Compliance Plans, and Access Trestles. Sunny has performed Constructability Review for the following projects:

- Grant Avenue Bridge Rehabilitation and Widening City of Novato
- Bon Air Bridge Replacement City of Larkspur
- I-80 San Pablo Dam Rd Interchange Reconstruction Project CCTA
- McHenry Blvd Bridge Replacement San Joaquin County
- South Wilmington Grade Separation POLA
- BART BESP Seismic Retrofit A-Line BART
- BART A-Line 34.5kV Replacement and FO Installation BART
- BART R-Line 34.5kV Replacement and FO Installation BART
- Mathilda Avenue Overhead City of Sunnyvale

Sunny also has significant Office Engineering Experience, such as writing CCO's, Weekly Statement of Working Days, Newsletter, Progress Payments, Preparing and Auditing Project Records and Job Files based on the Caltrans 63-Category File System. He is also very keen on Labor Compliance, Certified Payrolls, Federal Aid Apprentices and the requirements of the California Department of Industrial Relations. He is fully versed in LAPM Chapters 15, 16, and 17. Sunny has successfully completed several federally funded projects through pre, mid, and post-audits with Caltrans with no irregularities.

Sunny's bridge projects won the following awards: Marsh Creek Bridge Replacement APWA National Transportation Award (2019), Transbay Salesforce Busramp Viaduct – ENR Magazine's Best California Project (2018), Orwood Rd Bridge APWA Northern California Award (2018), Petaluma River Bridge – Excellence in Partnering Award (2018), Maxwell Bridge Replacement – California Transportation Foundation Award (2007).

Education

B.S. – Civil Engineering
University of California, Davis, 1998
M.S. – Structural Engineering
CSU, Sacramento, 2002

Registration

Registered Civil Engineer, California: C61752

Registered Structural Engineer,

California: S5238

Safety Assessment Program (SAP)

Evaluator #74082

Specialized Training

Cal-OSHA Safety

Caltrans – Bridge Design Academy
Caltrans Trainer – Bridge Rehabilitation
Caltrans – Falsework Training
Caltrans – Trenching & Shoring Training
Caltrans – ABC Construction Training
Caltrans – Bridge Field Engineer Training
QSP/QSD Trained
BART – RWP Certified
BART – RE/OE Training
UPRR – RWP Certified
Division of State Architect (DSA) –

Caltrans - Resident Engineer Academy

Awards

Summa Cum Laude Graduate Caltrans – Bridge Design Academy

Structural Plan Reviewer

Certificate of Recognition for Leadership - Contra Costa County Supervisor

Project Management Professional (PMP)

Project Awards

Marsh Creek Rd Bridge Replacement 2019 APWA National Project of the Year– Transportation - \$5 Million Category

ENR California's Best Projects 2018 Transbay Transit Center Bus Ramp

Petaluma River Bridge Replacement 2018 Excellence in Partnering Award "Gold" greater than \$50 Million

Orwood Rd Bridge Replacement 2018 APWA Project of the Year – Transportation - \$5-25 Million Category

Maxwell Bridge Replacement 2007 Transportation Foundation Project of the Year

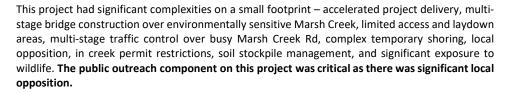




Select Project Experience

Marsh Creek Rd Bridge Replacement (HBP Federally Funded) – Contra Costa County (Apr 2018 – Mar 2019) - \$4.9 M

Sunny was the **Project Manager/Resident Engineer-Structure's Rep** responsible for the comprehensive Construction Management of the Marsh Creek Bridge replacement project in Clayton. **This project was originally intended to be a two-season project, but by utilizing Accelerated Bridge Construction (ABC) techniques, it was completed in one construction season. This project won the 2019 National APWA Project of the Year Award in the \$5 million dollar category.** The project, approximately 5 miles east of Clayton, CA, consisted of a new 91 ft long new California Bulb-Tee Girder bridge replacing the old bridge spanning over Marsh Creek that was deemed "Geometrically Intolerable". Project Elements included: temporary stream diversion, drilling and installing soldier-pile wall, soil nail wall shoring, bridge removal, roadway and channel excavation, rock slope protection, concrete bridge approach slab, Type 742 concrete barriers, tubular hand-railing, aggregate base, Hot Mix Asphalt, cold-planing AC, signing, striping, waterline bypass and new installation on bridge, drainage, fencing, and MBGR. 1000 feet of HMA Paving of bridge approached.



Transbay Bus Ramp Viaduct Stay-Cable Bridge Replacement (Partially Federally Funded) – TJPA (Apr 2016 – Aug 2017) - \$58 Million

Sunny was in the key role as the **Resident Engineer/Structure's Representative** responsible for the Construction Management of the Transbay Bus Ramps Viaduct Project, which provides an exclusive bus-only exit off WB I-80 and the Bay Bridge to the new Transbay Transit Center. The \$58 million Transbay Bus Ramp project is a 1045 ft long Viaduct terminating with a Stay-Cable Span that connects the Bay Bridge directly to the Transbay Terminal Center Building. The main feature of the Bus Ramps project is **Cable-Stayed** portion (Frame 4) of the Viaduct, which is otherwise known as the **"mini-Bay Bridge"**. The Viaduct consisted of 5 frames, including CIP-PS Box Girders (Frame 1-3), Cable Stayed Bridge (Frame 4), and Composite Plate Girder (Frame 5). Other work included: two additional CIP-PS Box Girder Bridges; a CIP-PS Box Girder Widening; an RC Box Girder; Cantilevered Retaining Walls; MSE Walls; CIDH Wet Piles, Steel Barrier with LED Lighting, HMA Paving; Concrete Barriers; and OH Sign Structures. Over 1000 feet of HMA Paving, Striping, Signs, Signals.

This project was unique in that 2 separate specifications were combined together, ACI and Caltrans. And Quality Assurance consisted of two components: Caltrans and Army Corp of Engineer Definable Features of Work (DFOW) processes. This procurement was also CM/GC different from the traditional Design-Bid- Build project delivery. This project was an administrative challenge with multiple Transit Agencies – such as AC Transit, MUNI, CALTRAIN, WestCat, Amtrak, Golden Gate Transit, etc. There was significant Caltrans and City of San Francisco Oversight on this project, as well as, coordination with 20 different Building Trade Packages all in a very congested and narrow urban environment. As a high-profile, high-visibility, high-risk project, the public outreach component on this project was critical. It was chosen by ENR Magazine for the Best California Projects in 2018 – Transit Structures.

Bon Air Rd Bridge Replacement (Federally Funded) City of Larkspur (Apr 2016 – Sep 2019) \$27M Sunny was involved in the Technical Submittal Review and As-Needed Inspection for the Bon Air Road Bridge Replacement project for the City of Larkspur. The project involved a 388ft long bridge replacement over Corte Madera Creek. The bridge is constructed in stages and involved driving piles for an access trestle, which allowed for drilling of the 8'0" diameter CIDH piles which were part of the bridge substructures. The superstructure consisted Precast Pre-stressed Tub Girders, which were then cast over with a Concrete Deck. Other aspects of this project included retaining walls, sidewalks, concrete barriers, approach slabs and HMA paving. The project has complex staging and limitations of work in the creek (June 15 to October 15th) and the access trestle had "fingers" designed to place the drilling equipment. These fingers were designed to counter the tremendous torque on achieved by the drilling equipment as the CIDH wet piles were 8'0" diameter and went



Marsh Creek Rd Bridge Replacement



Transbay Bus Ramp Viaduct



Bon Air Rd Bridge Replacement

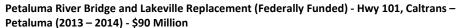




over 100ft below into the Bay Mud. The same CIDH drilling, slurry displacement, cage suspension, and tremie pour techniques will be employed on Southern Heights Blvd Bridge Replacement, just at a smaller scale. This provide has staged construction and demolition. This project was partially funded by Highway Bridge Program (HBP) Funds. This project is a very politically sensitive multi-year project over sensitive Corte Madera Creek in a very highly visible area next to Marin General Hospital and Redwood High School, approximately 1.8 miles from Southern Heights Bridge.

Orwood Rd Bridge Replacement (HBP Federally Funded) – Contra Costa County (Dec 2015 – July 2017) \$7.3 Million

Sunny was involved in the technical submittal review for the Trestle and CIDH Piles for the Orwood Road Bridge Replacement project for Contra Costa County. Sunny also performed QA Oversight on the field inspector provided by Substrate. The County project involved a 210ft long bridge replacement over the Sacramento Delta near Orwood Resort. The bridge was constructed in stages and involved driving piles for an access trestle, which allowed for drilling of the 6'0" diameter CIDH piles which were part of the bridge substructures. The superstructure consisted Precast Prestressed Slab Units, which were then cast over with a Concrete Deck. Other aspects of this project included retaining walls on driven piles, concrete barriers, approach slabs and HMA paving. Another critical part of the project was to ensure no concrete or debris entered the Delta, SWPPP compliance, and Biological Monitoring. Approached Paving. Sunny reviewed the complicated trestle design for the contractor, which involved vibrating the piles (rather than driving) to ensure no loss of fish habitat. This project won the 2018 APWA Project of the Year Award in the \$5-\$25 million dollar category.



Lead inspector and technical reviewer responsible for the construction of CIP Box girders and Precast California Bulb Tee-Girder segmentally pre-stressed bridge. This project is the longest (907ft) Precast Bulb Tee-Girder Segmental Bridge West of the Mississippi River, which the river span being 230 ft. The project included: bridge demolition over highway, railroad and waterway, bridge construction over Hwy 116 and railroad, bridge construction over Petaluma River, cofferdams, CIDH wet piles, driven piles, retaining walls, MSE walls, CIP-PS Box Girder, Precast California Bulb-Tee Girders — three new bridge — Kastania OC, Hwy 101/116 Separation and Overhead, and Petaluma River Bridge. Sunny performed role as chief submittal review and field lead. This project was awarded #2 of the Top Ten Bridges in the Nation by Road & Bridges Magazine 2015.

Other relevant federally funded bridge projects more than 5 years ago:

- I80 San Pablo Dam Rd Interchange Reconstruction Project Phase 1 CCTA (Feb 2016 August 2017) - \$20 Million – Project Manager – Constructability Review, AAA assistance, provided Lead Inspector and Office Engineer
- Bradley A. Moody Underpass City of Richmond (2014 2015) \$30 Million Structure's Representative – CDSM Piles
- Marin-Sonoma-Narrows A-1, Hwy 101, Caltrans Novato (2011-2012) \$24.2 million Principal Technical Reviewer and Lead Inspector – CIDH Piles
- 101/116 Separation, Sierra and Railroad UC Hwy 101 Central, Caltrans Cotati (2009-2011) \$57 Million - Principal Tech Reviewer & Lead Inspector - Driven Piles
- Wilfred Interchange and Hwy 101 Widening, Caltrans Rohnert Park (2008-2009) \$37
 Million Lead Inspector and Technical Reviewer CIDH Piles
- Maxwell Bridge Replacement Project, Caltrans Napa (2003-2005) \$36
 Million Resident Engineer and Structure's Representative Driven Piles,
 Trestle, Cofferdam
- Hwy 101 Widening from Wilfred Avenue to Hwy 12, Caltrans Santa Rosa (2001-2002) \$50 Million - Structure's Representative.

Affiliations

- Marin Builders Association (MBA)
- American Public Works Association (APWA)
- Construction Management Association of America (CMAA)



Orwood Rd Bridge Replacement



Petaluma River Bridge Replacement



I-80 San Pablo Dam Rd – POC Replacement





Edwin Ekberg – Full Time Bridge/Roadway Inspector

Intelligent, forward thinking, and proactive Senior Inspector with more than 30 years' experience specializing in large-scale public works construction. Proven record of accomplishment of completing projects on time and under budgets even in extraordinarily challenging circumstances and under near-impossible delivery schedules. Exemplary safety record. Trustworthy and professional with exceptional communication skills, eager to embrace new leadership role where execution, relationships, cost savings, and high standards matter. He has acted in the role of QA Manager, Senior Inspector, Lead Inspector, and Inspector on project ranging from \$2 million to \$220 million dollars.

Edwin has worked on projects of all delivery types including: Design-Bid-Build and Design-Build. He was worked with Caltrans, NDOT, TxDot, and Local Agencies (LAPM). Edwin is very familiar with the latest Caltrans Standard Specifications, Standard Plans, Construction Manual, Local Agency Procedure's Manual (LAPM), and the "Greenbook" Standard Specifications for Public Works Construction.

Competent in all aspects of Municipal Capital Improvement projects including: Bridges, Grade Separations, Fish-passages, Pedestrian Bridges, Pavement Rehabilitation, Overlays, HMA Paving, Concrete Sidewalks, Ramps, Pedestrian and Bike Facilities, Streetscaping and Beautification, ADA Compliance, Utilities, Drainage, Sewers, Storm Drains, Striping, etc.

Senior Construction Inspector, Napa CA (2019-2020)

- Inspected private development, capital improvement, Measure T and SB-1 projects
- Coordinated with engineers, contractors, local utilities and state organizations (Caltrans)
- Inspected temporary traffic control, oversaw SWPPP, and verified ADA compliance
- Reviewed plans for constructability
- Provided project updates to Public Works Director
- Performed all aspects of public works inspection for HMA, concrete, utilities and more

Projects

 HWY 29/3rd street Round-a-Bout, Trancas Street pavement rehabilitation, Dry Creek Road emergency storm drainpipe replacement, Trower Avenue pavement rehabilitation

TAM Junction Bicycle and Intersection Improvement project (Federally Funded), TAM, Mill Valley CA (2017-2018) (\$3 M)

Senior Inspector that:

- Inspected installation of bike path, ADA compliant ramps and hardscape improvements
- Oversaw directional drilling for conduits, milling, concrete placement and striping
- Constructed work in Caltrans right of way per TAM improvements (Caltrans Oversight)
- Coordinated with business owners and client weekly
- Reviewed submittals, contractor progress schedules and contractor monthly pay estimates

2016 Street and Sanitary Sewer Improvement Project, City of Mill Valley (2016) (\$3 M) Senior Inspector that:

- Inspected gravity and force sewer mains, full depth HMA and concrete placement
- Verified ADA compliance as required on new Sidewalk Ramps
- Rehabilitated existing sanitary sewer and storm drain manholes and piping by CIPP lining
- Scheduled third party testing services
- Pipe bursting
- Coordinated and conducted weekly contractor progress meetings
- Coordinated street closures and informed the public along with providing accurate information for the public works website.

E&C MOPAC - Central Texas Regional Mobility Authority, Austin, TX (2014-2017) (\$160 M) QA/QC Manager that:

Directed quality management of high-profile 11.2-mile highway widening, including new automated toll lanes, widening six existing bridges, construction of a new 600ft steel pedestrian bridge, storm sewer and potable water tunneling, mill and replacement of HMA, 3000ft of drilled shaft sound walls, overhead sign structures.

Education

A.A. – Construction Science (1985)Santa Rosa Junior College, Santa Rosa, CA

Specialized Training

- ISO 9001 Lead Auditor # Q06577
- OSHA: 10-Hour Safety & Health
- OSHA: 40-Hour HazWoper Training
- QSP Stormwater Training
- ACI: Concrete Field Testing Grade 1 #922343
- ASNT: Level II VT, UT, PT
- ATSSA: Traffic Control Supervisor # 189821
- AWS: Cert. Welding Inspector #0840821
- ICC: Cert. Structural Masonry Inspector #0186110-84
- ICC: Cert. Structural Steel & Welding Inspector #0186110-85
- ICC: Cert. Reinforced Concrete Inspector #0186110-49
- ICC: Cert. Spray Applied Fireproofing Inspector #0186110-86



MOPAC - Pedestrian Bridge





Fish Passage Improvement Project – Red Bluff Diversion Dam – US Bureau of Reclamation/Tehama-Colusa Canal Authority, Red Bluff, CA (2010-2012) (\$220 M)
Senior Inspector that:

- Inspected the construction of 11 gates on the Sacramento River at Red Bluff Diversion Dam (on time and under budget) that diverted water into the Tehama-Colusa and Corning Canals.
- Included a pumping plant, 1,400 LF flat-plate fish screen, 710 LF concrete girder bridge (CIDH Wet Piles), 1,800 LF sheet pile canal, mass- graded earth forebay, electrical, water and storm piping and remediation of 200,000 CY of soil.

Decatur/UPRR Grade Separation – Clark County Public Works, Las Vegas, NV (2010-2012) (\$30M) Senior Inspector that:

- Led inspection of six-lane roadway with grade separations at the Union Pacific Railroad (on time and under budget). Included traffic signal, waterline relocations, detention basin and storm drain facilities.
- Coordinated inspection, material testing, and field office support services.



Senior Inspector that:

 Managed new U.S. 395 freeway access at Clear Acre Lane and reconstructed the North McCarran Boulevard Bridge and interchange ramps (four bridges replaced), delivered on time and under budget within compliance of all NDOT and RTC specifications.

Truckee River Canal Bridge for Nevada Department of Transportation, Fernley, NV (2005 (\$4M)

Senior Inspector that:

 Led inspection services for replacement of Truckee River Canal Bridge on U.S. 95, and included removal of existing, substandard bridge, construction of new steel girder bridge, and widening of existing roadway.



Senior Inspector that:

- Replaced of 3 bridge structures on Bruce Woodbury Beltway (Pecos to I-35)
- Inspected and documented all aspects of the Bruce Woodbury Beltway (Pecos to I-35) project for Clark County Public Works, including mass excavation, drainage systems, utilities, and concrete and asphaltpaving.

Other relevant federally funded bridge projects more than 15 years ago:

- I-15 Loop Pecos to I-15 (3 bridges) Las Vegas, Lead Inspector (2003)
- Hwy 50 Bridge Replacement Reno, NV (2005)
- Pool Creek Bridge Windsor, CA (1998)
- I-580 Madison & Cypress Street Structures Retrofit Caltrans, Oakland, CA (1996)
- Booth Street Pedestrian Bridge Reno, NV (1993)

Affiliations

- American Construction Inspectors Association (ACIA)
- American Public Works Association (APWA)
- Construction Management Association of America (CMAA)
- American Welding Society (AWS)
- International Conference of Building Officials (ICBO)



Fish Passage - Red Bluff Diversion Dam



CIDH Bent for Fish Passage at Red Bluff



Decatur/UPRR Grade Separation





DAVE JAVID, AICP, LEED AP

Founder + Principal

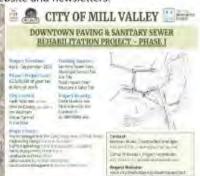
Dave has over 15 years of experience and invaluable insight on the opportunities and the challenges of balancing jurisdictional objectives while meeting community expectations. By implementing a range of engagement and communication platforms, Dave has forged relationships with key community leaders to establish partnerships and a common dialogue that has led to successful policy outcomes.

FEATURED PROJECTS

DOWNTOWN PAVING, SIDEWALK & UTILITY IMPROVEMENTS | MILL VALLEY

Implementing the community engagement strategy by preparing easily understood, and design-oriented project materials that is being shared door to door to local business and residents and through meetings, to distribute project information and updates and solicit the public's thoughts and concerns. Engagement activities have included focused discussions with stakeholders, decision-maker and committee member meetings and the preparation of user-friendly and interactive resources shared at meetings and through the City's project website and newsletters.





CLIENT

City of Mill Valley

SERVICES

Branding/Communication Tools Meeting Facilitation

TIMELINE

2018 - present

REFERENCE

Andrew Poster, P. E., T. E.,

Director of Public Works

email: aposter@cityofmillvalley.org phone: (415) 384-4848

ADDITIONAL RELEVANT PROJECTS

DOWNTOWN SPECIFIC PLAN AND EIR | San Mateo, CA

DIRIDON STATION AREA COMMUNITY ENGAGEMENT | San Jose, CA

DOWNTOWN VISION PLAN | Los Altos, CA

NORTH VENTURA COORDINATED AREA PLAN | Palo Alto, CA
EL CAMINO REAL CORRIDOR SPECIFIC PLAN AND EIR | Sunnyvale, CA
NORTH FAIR OAKS COMMUNITY PLAN AND EIR | San Mateo County, CA



www.plantoplace.com

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EXPERIENCE

PLAN TO PLACE

Founder + Principal, 2016 - present

M-GROUP

Principal Planner + Designer, 2013 - 2016

PMC

Senior Urban Planner, 2011 - 2013

MIG INC.

Project Manager, 2009 - 2011

RRM DESIGN GROUP

Senior Planner, 2004 - 2009

EDUCATION

MASTER OF ARTS

City and Regional Planning California Polytechnic State University San Luis Obispo, CA

BACHELOR OF ARTS

Urban Studies and Planning, Visual Arts Minor University of California, San Diego San Diego, CA

PRESENTATIONS

"Retooling the Outreach Toolkit" CCAPA Conference, Oakland, CA

"Achieving Sustainable Results: Public and Private Efforts & Coordination" CCAPA Conference, Hollywood, CA

"The Planner's Guide to Implementing Green Principles" CCAPA Conference, San José, CA

MEMBERSHIPS + ACCREDITATIONS

Co-Director, Sustainability Committee, APA, Cal Northern - 2012-2015 American Institute of Certified Planners (AICP)

Leadership in Energy and Environmental Design Accredited Professional (LEED AP) San Francisco Bay Area Planning and Urban Research (SPUR)





RELEVANT PROJECTS AND TECHNICAL COMPETENCE

| 21. TITLE AND LOCATION (City and State) | | | 22. YEAR COMPLETED | | | |
|--|---|----|---------------------------------|------------------------------|--|--|
| Project 1 – Marsh Creek Road Bridge Replacement, Clayton, CA | | | ONAL SERVICES 18-2019 | CONSTRUCTION (If applicable) | | |
| a. PROJECT OWNER Contra Costa County | b. POINT OF CONTACT NAME Neil Leary, PE Project Manage | er | c. POINT OF COI 925-313-2278 | NTACT TELEPHONE NUMBER | | |

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT

Substrate, Inc, provided comprehensive construction management services for the award-winning Marsh Creek Road Bridge Replacement for Contra Costa County. Substrate provided the Project Manager - Resident Engineer/Structure's Rep that oversaw the entire project from pre-construction to post-construction and successful Caltrans Audit. This project was originally intended to be a two-season project, but by utilizing Accelerated Bridge Construction (ABC) techniques, it was completed in one construction season. The public outreach component on this project was critical as there was significant local opposition. This project won the Northern California 2019 APWA Transportation Project of the Year Award in the \$5 million dollar category, as well as, at the National Level. This project was funded by Highway Bridge Program (HBP) Funds.



The project consisted of a constructing a new 91 ft long new California Bulb-Tee Girder bridge replacing the old bridge spanning over Marsh Creek. Project Elements included: temporary stream diversion, bridge demo, drilling and installing soldier-pile wall, soil nail wall shoring, roadway and channel excavation, rock slope protection, concrete bridge approach slab, Type 742 concrete barriers, tubular hand-railing, aggregate base, Hot Mix Asphalt, cold-planning AC, signing, striping, drainage, fencing, and MBGR. This project also included an 8" diameter CCWD water line bypass and relocation onto the new bridge that required significant coordination was at one time, the critical path of the project.

Project Duration: 10 Months, Contract Value: \$4.9 million. Schedule Performance: Finished 1 year ahead of schedule. Designer: Mark Thomas. Key Staff: Sunny Jhutti, PE, SE — Role: Project Manager - Resident Engineer/Structure Rep. Substrate CM Contract Value: \$655,000. Consultant: Substrate, Inc, Novato, CA

| | | | | , |
|--|--|--|---------------------------------|------------------------------|
| 21. TITLE AND LOCATION (City and State) | | | 22. YEAR (| COMPLETED |
| Project 2 – City of Larkspur – Bon Air Rd Bridge Replacement | | | | CONSTRUCTION (If applicable) |
| a. PROJECT OWNER City of Larkspur | b. POINT OF CONTACT NAME Julian Skinner, PE | | c. POINT OF COI 415-927-5020 | NTACT TELEPHONE NUMBER |

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT

The Bon Air Road Bridge Replacement project was partially funded by Highway Bridge Program (HBP) Funds. It involved a 388ft long bridge replacement over Corte Madera Creek. The bridge is constructed in stages and involved driving piles for an access trestle, which allowed for drilling of the 8'0" diameter CIDH piles which were part of the bridge substructures. The superstructure consisted Precast Pre-stressed Tub Girders, which were then cast over with a Concrete Deck. Other aspects of this project included retaining walls, sidewalks, concrete barriers, approach slabs and HMA paving. As the sub-consultant to Prescience Engineers, Substrate reviewed the complicated trestle design for the contractor, which was redesigned twice due to pile restrictions in the creek. This project is a multi-year project over sensitive Corte Madera Creek in a very highly visible area next to Marin General Hospital and Redwood High School. This was a very politically sensitive project.

One of the challenges of the project was to minimize the impact on the in-river fish and wildlife during the installation of the access trestle and drilling of the CIDH piles. It was determined that the trestle pipe piles could be vibrated in, and therefore, installed with a vibratory hammer. Substrate performed the submittal review for the in-river Access Trestle, CIDH Pile Placement Plan, Cofferdam Review, Trestle Ramp, and Girder Placement Plan. He will also be involved in inspection. This project is less than two miles away from the Southern Heights Bridge. Project Duration: 4 years, Contract Value: \$26.7 million. Largest bridge project in City of Larkspur's history. Key Staff: Sunny Jhutti, PE, SE – Role: Chief Technical Reviewer – Substrate CM Contract Value: \$106,768.





| 21. TITLE AND LOCATION (City and State) | | | 22. YEAR COMPLETED | | | |
|---|---|--|---------------------------------|------------------------------|--|--|
| Project 3 - Contra Costa County – Orwood Road Bridge Replacement | | | ONAL SERVICES 15-2017 | CONSTRUCTION (If applicable) | | |
| a. PROJECT OWNER Contra Costa County | b. POINT OF CONTACT NAME Kevin Emigh, PE | | c. POINT OF COI 925-313-2233 | NTACT TELEPHONE NUMBER | | |

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (*Include scope, size, and cost*)
Substrate, Inc, was involved in the Construction Inspection and Technical Submittal Review for the Orwood Road Bridge Replacement project for Contra Costa County. The County project involved a 210ft long bridge replacement over the Sacramento Delta near Orwood Resort. The bridge was constructed in stages and involved driving piles for an access trestle, which allowed for drilling of the 6'0" diameter CIDH piles which were part of the bridge substructures. The superstructure consisted Precast Pre-stressed Slab Units, which were then cast over with a Concrete Deck. Other aspects of this project included bridge demolition, retaining walls on driven piles, concrete barriers, approach slabs and HMA paving. This project was funded by Highway Bridge Program (HBP) Funds.

Substrate performed the submittal review for the in-river Access Trestles, provided support for the CCO's, and provided field inspection services. Substrate also provided an inspector that was intricately involved in field inspection. **This project won the Northern California 2018 APWA Transportation Project of the Year Award in the \$10 million dollar category.** Project Duration: 2 year, Contract Value: \$7.3 million, Adherence to Schedule: Completed on time. Key Staff: Sunny Jhutti, PE, SE – Role: Chief Technical Reviewer – Trestle, Cofferdam Shoring, CIDH Piles, CCO support, Inspection services. Substrate CM Contract Value: \$55,000.



| 21. TITLE AND LOCATION (City and State) | | | 22. YEAR COMPLETED | | | |
|--|--|--|---------------------------------|------------------------------|--|--|
| Project 4 - I-80 San Pablo Dam Road Interchange Reconstruction | | | ONAL SERVICES 15-2017 | CONSTRUCTION (If applicable) | | |
| a. PROJECT OWNER Contra Costa Transit Authority | b. POINT OF CONTACT NAME Ivan Ramirez, PE | | c. POINT OF COI 415-694-3945 | NTACT TELEPHONE NUMBER | | |

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)



Substrate, Inc., was involved in the Constructability Review and Construction Management & Inspection of the I-80 San Pablo Dam Road Interchange Reconstruction Project – Phase 1 Project in San Pablo. The project provided safe and efficient bicycle and pedestrian access across I-80 by the construction of the new Riverside Avenue Pedestrian Overcrossing, which spans I-80 into Riverside Elementary School.

Benefits to the owner, Contra Costa Transit Authority (CCTA), as a result of choosing

Substrate includes constructability review, assistance in performing AAA services as the project was Federally Funded. This included: Responding to bid

inquiries, issuing addendums, distributing the bidding documents; disseminating bid inquiries and addendums to the potential bidders; conducting the construction contract bid opening; performing a bid analysis and bid item tabulation & summaries; reviewing the overall bid package for completeness and responsiveness; preparing a contract award recommendation package for subsequent formal review, consideration, and action by the Board.



As part of Construction Management Services, Substrate provided the Lead Bridge and Roadway Inspector for the project, as well as, the Office Engineer who provided documentation on the project that met Caltrans 63-Category Filing System. The project included Bridge Removal and the Construction of a new CIP-PS Box Girder Bridge onto the Riverside Elementary School property (Foundations were CIDH Wet piles). This project included over 1 mile of HMA Paving, Soundwalls, new onramp, signals, and lighting. Project Duration: 1.5 years, Contract Value: \$20 million. Key Staff: Sunny Jhutti, PE, SE – Project Management/Constructability Review. Substrate CM Contract Value: \$709,000.





| 21. TITLE AND LOCATION (City and State) | | | 22. YEAR | R COMPLETED |
|--|--------------------|-----------------------------|-----------------|------------------------------|
| Project 5 – Transbay Bus Ramp Viaduct Bridge Replacement | | PROFESSI SERVICES 201 | | CONSTRUCTION (If applicable) |
| a. PROJECT OWNER b. POINT OF CONTACT NAME | | | c. POINT OF COM | NTACT TELEPHONE NUMBER |
| Transbay Joint Powers Authority | Dennis Turchon, PE | | 415-754-501 | .5 |

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Substrate, Inc., was involved in the Construction Management by providing the Resident Engineer/Structure's Representative of the Transbay Bus Ramps Viaduct Project, which provides and exclusive bus-only exit off WB I-80 and the Bay Bridge with direct connection to the Transbay Terminal Center. This exclusive bridge project was approximately \$60 million dollars, but part of the \$2.2 billion dollar Transbay Joint Powers Authority program whose goals is to create the "Grand Central Station of the West." The contract was part of a CM/GC, Construction Manager General Contractor procurement process in which the General Contractor Webcor-Obayashi Joint Venture, provided feedback to ARUP, the Engineer of Record, during the design phase.

The intent of the Bus Ramp Project was bypass all SF street traffic with elevated connectivity directly into and out of the Transit Center. The south end of the project start off with the Fremont St Offramp, which had to be widening to accommodate the exclusive bus-only traffic. There were 5 bridges on this project, which included: Harrison Street Left (CIP-PS-Box), Harrison Street Right (CIP-PS Box), Fremont Offramp Bridge Widening (CIP-PS Box Widening), Fremont Frame 2 (RC Box Girder), and the 1045 ft long Bus Ramp Viaduct (5 Frames), which consists of three CIP-PS Box Girders, one Stay-Cable Bridge Signature Span, and one "Drop-In-Span" – Composite Steel Plate-Girder Bridge. Frame 5, the Composite Steel Plate-Girder Bridge connected the viaduct to the Transit Center which is a 5-story - one city block wide by 4 city blocks long Multi-Modal Transit Terminal Building. There were also retaining walls and precast MSE Walls. The main feature of the Bus Ramps project is Frame 4 of the Viaduct, which is otherwise known as the "mini-Bay Bridge". The frame may resemble the Bay Bridge in Architecture, with its shallow depth to span ratios, sloped exterior girders, link beams, an S-Curve, a large Central Pylon, and various Stay Cables, however, this bridge is in fact a "Stay-Cable" bridge. Foundations were CIDH Wet-Piles and Barrett Piles.



Substrate, Inc. provided the Resident Engineer/Structure Representative, as well as, Field Inspection Support to ensure quality construction of this project. There were several unique document control and quality assurance programs used to ensure quality, such as BIM 360, Cdocs, and Constructware. Substrate was involved in key decisions with the Cable-Stayed Bridge Stress and Geometry Monitoring Procedures, Recording, and Acceptance Criteria, as the Specifications were not fully developed on this project. Other challenges included working in an urban environment with minimal areas for construction staging, construction adjacent to buildings, limited vertical clearances for Falsework, Falsework and Permanent Bridge feature built adjacent to the MUNI high-voltage OCS-lines, buried man-made objects, and coordination with 18 different trade packages, including demolition, temporary bridges, civil and building related activities. Finally, there was coordination with stakeholders as TJPA was the owner, but there was significant oversight by Caltrans, the City of San Francisco, and SFMTA. Moreover, there was significant coordination with AC Transit, WestCAT, GoldenGate Transit, etc. buses that will eventually occupy the new Transbay Terminal. This project was partially federally funded. Project Duration: 2 years, Contract Value: \$58 million. Adherence to Schedule: Completed on time. Key Staff: Sunny Jhutti, PE, SE – Resident Engineer/Structure Rep. Substrate CM Contract Value: \$425,000.





| 21. TITLE AND LOCATION (City and State) | | | 22. YEAR (| COMPLETED |
|--|--|---------------------------------------|-------------------------------|------------------------------|
| Project 6 – Petaluma River Bridge and Lakeville Replacement | | PROFESSIONAL SERVICES 2012-2014 | | CONSTRUCTION (If applicable) |
| a. PROJECT OWNER CA Department of Transportation b. POINT OF CONTACT NAME Jeff Kress, PE, Senior Bridge I | | Engineer | c. POINT OF 510-867-60 | CONTACT TELEPHONE |

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT

Sunny Jhutti provided principal technical submittal review support and field inspection for the construction of CIP Box girders and Precast California Bulb Tee-Girder segmentally pre-stressed bridge. This Petaluma River Bridge Replacement is the longest (907ft) Precast Bulb Tee-Girder Segmental Bridge West of the Mississippi River, which the river span being 230 ft. This project included multiple bridges including the Lakeville OC (also known as the Hwy 101/116 Separation and Overhead) which is a bridge over railroad and rural highway. Sunny reviewed all Falsework Shoring, Cofferdams, Pile Driving Submittal, Girder Placement Plan, Demolition Plan, etc. This project was awarded #2 of the Top Ten Bridges in the Nation by Road & Bridges Magazine 2015.



The project included: bridge demolition over highway, railroad and waterway, bridge construction over Hwy 116 and railroad, bridge construction over Petaluma River, cofferdams, CIDH, driven piles, retaining walls, MSE walls, CIP-PS Box Girder, Precast California Bulb-Tee Girders — three new bridges — Kastania OC, Hwy 101/116 Separation and Overhead,

and Petaluma River Bridge.

This project included CIDH wet pile construction, cofferdams and trestle access in the Petaluma River. It also included complex shoring and demolition plans.

This project is a combination of two projects, Petaluma Bridge Replacement and Lakeville Replacement. The combined contract value was \$90 million. The project completed on schedule. This project was federally funded.

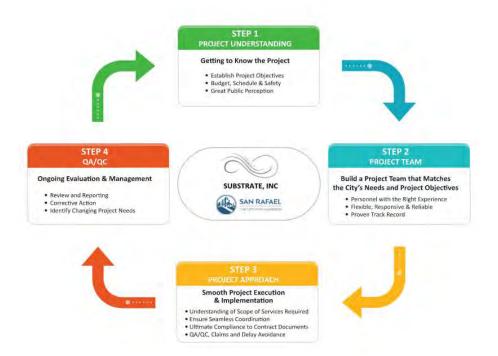


Key Staff: Sunny Jhutti, PE, SE – Principal Assistant Structure's Rep – Chief Technical Reviewer and all Falsework, Trestle, Shoring and CIDH pile inspection.





Project Management Strategy and Work Plan



PROJECT GOALS

Our project approach for the Southern Heights Boulevard Bridge Replacement is developed to achieve delivery while having the following goals in mind: A safely constructed project, with a "No Injury" goal. A high-quality project that meets all of the requirements of the contract documents, that is delivered on time with within budget. Positive public perception for the project as well as for the City of San Rafael. Be flexible and responsive to City of San Rafael, Caltrans, and any other stakeholders for issue resolution. Foster an atmosphere of trust and fairness among all project participants. Assist the Contractor to complete the project in the least amount of time possible, while not sacrificing quality. Complete the project to the satisfaction of City, Caltrans and other stakeholders.

The proposed personnel will serve as City's representatives in administering the construction contract to ensure that the requirements of the plans and specifications are met resulting in a high quality and fully functional facility. The construction management firm's responsibility is to ensure that the construction improvements are constructed in accordance with the plans and specifications, and delivered safely on time and within budget.

To meet this goal we will: Provide qualified, specialty inspectors or sub-consultants in all disciplines involved in the project. Have a project team that understands the work and potential difficulties encountered during construction. Create a collaborative team with all stakeholders, including the Contractor. Be proactive in identifying issues and finding solutions. Thoroughly document all activities and properly track all documents generated during construction. Coordinate with all involved entities (contractor, Caltrans, Resident, various regulatory agencies, utility companies, and other stakeholders). Effectively communicate with all involved entities. Manage changes to minimize costs. Dedicate the team for the entire length of the Project. Always keep the City of San Rafael's Project Manager, Hunter Young, fully informed to avoid surprises.

During the construction, it is our goal to work as a team with the Contractor; to try to prevent them from running into problems and delays; and to make sure that each new construction process starts out in conformance with the project documents. This will ensure that the rework is kept to a minimum and that the project stays on schedule and minimizes the issuance of "non-conformance" reports. The key attitude that allows us to work so effectively with the Contractor is that of being in "partnership" with him and his subcontractors, with a commitment to get the project completed on time and within budget.

As part of any construction management project, identifying and preparing for potential risks is an important early action. We at Substrate develop a project specific **Risk Register**. For each risk identified, we assess probability and impact, define party best able to manage the risk, and propose mitigation or elimination strategies. We have consistently satisfied our previous clients by reasons of experience in performing work of the same or similar nature and applying our "lessons learned" to each construction project we manage.





WORK PLAN

Phase 1

Construction Management Services

PRE-BID MEETING:

Per LAPM Chapter 15,

- Attend Meeting. Perform Bid Analysis, Tabulation, and Summary.
- Review the performance and payment bond documents for sufficiency.
- Review the DBE participation, and Good Faith Efforts.
- Review the overall bid package for completeness and responsiveness.
- Recommend project for formal review, consideration, and approval by the City.

PROJECT MEETINGS:

This shall include conducting and preparation of agenda and meeting minutes for:

- The Pre-Construction meeting (Contractor, City, Caltrans, Utilities and other stakeholders)
- Weekly Construction Coordination and Safety meetings with contractor.
- Pre-construction Utility Meeting with PG&E, Comcast, AT&T, and MMWD.
- Other project meetings, as needed.

SCHEDULE:

Create independent baseline schedule prior to review contractor's proposed baseline schedule. Review and analyze contractor's submitted construction schedule Review of contractor's schedule submittals for accuracy and reasonableness. Recommend changes as appropriate. Once satisfied that contractor has formulated a feasible plan, recommend concurrence of the contractor's schedule to the City.

Monitor the contractor's progress against their base-line schedules. Maintain an up to-date project schedule on a monthly basis with controlling operations clearly outlined. Construction management team shall use the latest version of Primavera Software for monitoring of the contractor's schedule. Alert contractor if progress slips below minimum requirements and take action to bring contractor back on schedule.

Evaluate forecasted costs at completion, on a monthly basis. Compare forecasts to the budget at the bid item level to identify areas of cost overruns/underruns and initiate corrective action as needed.

Contractor's progress schedule vs. the baseline schedule with the analysis of whether the contract is on schedule and corrective actions to be taken if not on schedule

PUBLIC OUTREACH AND PUBLIC RELATIONS:

• Provide a singular direct contact line (phone and email) for public questions/inquires shall be provided and should be capable of responding to public questions/inquires within 24 hours. (Sunny Jhutti – Substrate: 415-246-4920, sunny@substrateinc.com)

Weekly progress/status update to the City containing the following information:

- What is happening that coming week? (Substrate)
- What to expect with regards to the work? (detours, expected traffic delays, lane closures, etc.) (Substrate)
- Map of work areas, detours, lane closures, with clearly defined labels. (Substrate and Plan to Place)
- Big picture progress and milestone completions. (Substrate)
- Project information conforming with the above should be presented in a visually desirable way with easy to understand text and graphical elements suitable for website publication or as a handout to the public. (Plan to Place)
- Timely supplied information for City staff for review and approval. (Substrate and Plan to Place)
- Approved content will be made available for public access during the preceding the week for which the content was generated (Plan to Place)
- Coordinate & communicate with adjacent residents to minimize impact & maintain a positive perception with neighbors. (Substrate & Plan to Place)
- Substrate to confirm Notifications have been received two weeks prior in writing and 72 hours verbally prior to work.

CONSTRUCTION MANAGEMENT AND RECORDS MANAGEMENT

Act as liaison with the City, Caltrans, Contractor, regulatory agencies, utilities and other entities during construction.

Record and Maintain construction documents per Chapter 16 of Local Assistant Procedure Manual.

Document control for all construction correspondences, documents, contractor's submittals and activities. Substrate shall provide web-based document management software for this project and provide an access to the City representatives, the contractors, and designers. The software will be used for submittal tracking, RFIs, change orders, daily and weekly reports, etc. This filing system shall be approved by City of San Rafael prior to work.

Review, respond and maintain a record of all contractor's RFIs. Provide field recommendations for those RFIs that need to be responded by the City or Designer. Consult with the Designer and the City if the Contractor requests interpretation of the meaning and intent of the drawings and specifications, and assist in the resolution of questions which may arise.

Maintain project records in accordance with the Caltrans Construction Manual and Local Assistance Procedures Manual – 63 Category Filing System.

Monitor contractor for labor compliance including posting of posters, conducting Employee Interviews, and checking Certified Payrolls and Statement of Compliance.

 $Preconstruction\ Walk\ Through\ and\ Photographic\ Documentation\ of\ pre-existing\ conditions,\ especially\ in\ TCE\ and\ adjacent\ neighbors.$

Check contractor compliance with Federal Aid Trainee requirements.

Daily verification that the Traffic Control is installed per the approved plan.

CONSTRUCTION INSPECTION:

Provide Quality Assurance Inspection for contract compliance on a continuous basis. Keep daily records of inspection, labor, equipment and material provided by the contractor. Provide a weekly summary of all construction activities.

Inspect material and equipment upon delivery for compliance to construction contract documents. Collect delivery records and certificates of compliance.

Recommend acceptance of the work when it is satisfactorily completed. Track noncompliant work separately until work is satisfactorily completed and accepted.

Conduct substantial completion and final inspections, preparing punch lists and monitoring their completion.

Monitor and inspect the contrator's daily progress. Measure field quantities for payment.

Prepare Daily Diaries. Prepare daily project RE reports documenting daily activity, conversations, and coordination. Prepare Weekly Statement of Working Days (WSOD). Prepare weekly Newsletter identifying the following: Project time elapsed (%), Portion of project completed (%), Estimated date of completion. Prepare monthly project progress report identifying the following:

- Contractor's construction progress in the month with supporting progress photographs.
- Summary of project issues and status of their resolutions.
- Construction costs spent to date and the projected completion cost including comparison of forecasts to the budgets at the bid item level to identify areas of cost overruns/underruns and listing of corrective actions taken or to be taken.

Assist in preparing monthly estimates Review Extra Work Bills. Conduct quantity calculations and prepare daily and monthly estimates.

Take adequate photographs to illustrate construction progress, construction problems and solutions to form a record of critical activities that could support City's position in potential claims.

Track potential changes and potential claims Review and respond to contractor's claims Process Design Change Notices.

Prepare and process all Change Orders including required support documentation and Change Order Memorandums. Negotiate Change Orders as directed by the City Engineer

UTILITY AND ROW COORDINATION

Our RE and inspector will coordinate with utility owners as necessary. Major coordination with PG&E (Joint Pole), MMWD (Waterline on Bridge) and with the adjacent property owners. Review invoices from stakeholders.

LABOR COMPLIANCE:

Monitoring and Auditing Certified Payrolls in Category 25 per DIR prevailing wage requirements. And Review Field Labor Compliance and EEO Interviews.

CHANGE ORDER MANAGEMENT:

Status of contractor's Change Orders / Status of contractor's potential claims and their resolutions / Status of Change Request and Change Notices / Status of contractor's submittals and their reviews / Status of RFIs and their responses.

Establish an agreed upon scope of work for any changes and perform an independent cost estimate and schedule impact for all contractor's Change Orders. Prior to Change Order negotiations make appropriate recommendations to City as to the value of all changes, additive or deductive and any impact on schedule.

Monitor project for compliance with Environmental requirements, Biological Requirements, WPCP/SWPPP, and all other regulatory agencies requirements.

Maintain a record set of conformed contract documents continually updated with all revisions and change orders. Monitor contractor's records of "as-builts" conditions on the contract drawings and specifications.

QA SURVEYING: Review Construction Staking. Contractor to provide Survey Control, Abutment Layouts, Pile Locations and Cut-Off, Soffit Grades, Edge of Deck, Lost Deck and various required Bridge, Wall, and Roadway Surveying. Substrate will be performing QA Bridge Surveying as required for bridge and wall construction.

SUBMITTALS:

Review of all contractor's submittals (with assistance from design consultant on design-related submittals) and maintain a record of all the submittals. Check for compliance with Buy America requirements. Submittals to be reviewed by the construction manager include but are not limited to Shop Drawings and Submittals for: 1). CPM Progress Schedule. 2). Traffic Control and Detour Plan. 3). Pedestrian Access Plan. 4). Stage Construction Plan. 5). Public Notification. 6). SWPPP/WPCP Plan. 7). Spill and Countermeasure Plan. 8). Temporary Access Wall Plan. 9). Temporary Shoring Plan. 10). Falsework. 11). Bridge Removal Plan 12). CIDH Pile Placement Plan. 13). Shotcrete. 14). HMA Mix Design. 15). Concrete Mix Design. 16). Other Plans (see expected submittal list for complete list).

SAFETY

Ensure safe implementation of the traffic control plans. Develop a site specific Code of Safety Practice (IIPP) for the jobsite and ensure everyone reads and signs. File in Category 6. Conduct regular safety reviews of the entire project site for Cal OSHA compliance.

MATERIALS TESTING:

Provide materials testing for the project. These include and are not limited to: Compaction Testing, Gradation and SE, AC Temperature, AC and Concrete Batch Plant Inspections, HMA Core Density, Stabiliometer, Concrete Compressive Strength, CT-233 GGL, R-Value, and various other required CTM or ASTM tests, Etc. Review materials testing results in compliance with contract requirements.

Retain qualified testing laboratory (Caltrans of AMRL), subject to City's approval, to provide for testing by the Engineer as required in the construction contracts and other testing necessary to monitor the contractor's quality control plan in accordance with the City's and Substrate's Quality Assurance Program.

Coordinate Source Inspection as required per the SIQMP. Deliverables: All Test Results, Logs, QAP, and SIQMP.

Phase 2
Post-Construction Management Services

Contract's Approved As-Builts to the City and Caltrans

• Finalize Redline As-Builts and transmit

- Prepare Final Pay DocumentsFinalize all contract bid items
- Finalize Change Orders and assist with resolution of claims, if regd.
- Finalize and resolve all punch list items
- Prepare all final reports including report of completion for acceptance of the Project. This includes written certification of substantial conformance with PS&E.
- Assist in project closeout documents in accordance with Chapter 17 of the Local Assistance Procedures Manual
- Prepare Final Report of Expenditures for reimbursement in accordance with Chapter 17 of Local Assistance Procedures Manual (LAPM)
- Package all Deliverables







PROJECT APPROACH AND KEY ISSUES

The proposed Southern Heights Boulevard Bridge Replacement consists of replacing the current one-lane structurally-deficient Timber Braced-Frame Trestle Bridge, which has sustained structural damage and is functionally obsolete. The original Southern Heights Bridge (Bridge No. 27C-0148) is a multi-span wood stringer structure with a timber deck and railings supported on timber bents with concrete pedestal footings and concrete abutments. It was originally built in 1930; concrete substructure portions were replaced in 1958, and in 1981 the bridge was reinforced with concrete wall abutments.

In late 2017, Caltrans Office of Structure Maintenance and Investigations (OSMI) performed a routine bridge inspection on the existing bridge and discovered that the bridge exhibited severe deterioration and loss of connection with the superstructure. Caltrans immediately closed the bridge and notified the City of San Rafael. It has been determined to be unsafe for vehicular loading. The replacement of the Southern Heights Bridge is fully-funded by the Highway Bridge Program (HBP), a federally funded program that enables States to improve the condition of their bridges.



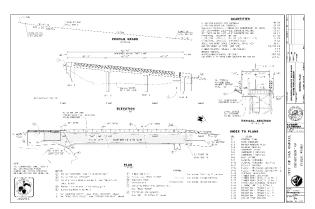
The purpose of this project is to improve driver and pedestrian safety by providing a safe and cost effective solution to replace this substandard bridge.

The new bridge will be a 3-span, cast-in-place concrete slab bridge 12ft wide by 127 ft long. The foundation will be diaphragm type abutments and columns on deep CIDH shafts. The bridge is designed for a HL-93 and permit low-boy loading, which helps bring the bridge up



to current load rating. This will help serve the local residents with providing a through route along Southern Heights Boulevard, as well as, Emergency (Fire Truck) Access the area. The bridge also serves a pedestrian access along Southern Heights Boulevard, as well as, direct access to 122 Southern Heights Boulevard (which is connected directly to the bridge).

This project has procured Highway Bridge Program Funding, meaning that all Construction will have to conform to the requirements of the Caltrans Local Assistance Procedures Manual (LAPM) for Federally Funded Projects.



The first order of work on this project will be to: notify the residences of the work, remove large trees to provide access, relocate a PG&E/AT&T/Comcast Joint Pole, and ensure pedestrian and driveway access at all times for the adjacent residents of the bridge.

After that is complete, the next stage is to create temporary access to the existing bridge substructures via a temporary wall, in order to demolish the existing bridge. Once the bridge is removed, then the bulk of the work starts by the drilling of foundations for the new bridge and the subsequent erection of Falsework.

After the bridge is completed, a new 6" diameter waterline is to be installed and put into service by MMWD, and then final TCE grading, irrigation, planting of new Live Oaks is to be performed prior to project

completion. The scope of work includes, but not limited to: utility relocation, temporary wall and ramp construction, construct soldier pile wall, demolish existing bridge, excavation for abutments, drilling of CIDH Wet pile foundations, building two diaphragm-type Abutments and wingwalls, pouring bridge columns, installing bridge Falsework, placing deck steel, pouring concrete deck, installing Type ST-70SM Steel barriers (with LED lighting), installing support bracket and 6" dia MMWD waterline pipe, installing timber approach railings, form, rebar and pour approach slabs, rebuilt pedestrian access deck, installing joint seals, paving bridge approaches and driveways, striping, signs, plant trees, erosion control and mailboxes. Additional work includes such other items that are required by the Plans, Standard Specifications, the Special Provisions, and as directed by the City Engineer.





Key Issues

As part of developing a work plan, it is essential for the construction management team to have a thorough understanding of the project along with key issues and challenges. Our detailed scope of services is provided in the following section with due consideration given to the following key issues:

Public Outreach

The Southern Heights Boulevard and Meyers Rd Residents will have to be continually engaged during all phases of the Bridge Replacement project. Residents and pedestrians will have concerns and questions about impacts during construction. We understand that there is neighborhood opposition to the project as they may not have fully digested the need for this bridge replacement. And no one wants this type of long-term disruption in their backyard. It is our expectation that local opposition and resentment against the project will be high. On recent high-profile projects we have been able to achieve a positive public perception during construction through:

- Timely notification of construction related activities and impacts.
- Proactively engaging and listening to the public's concerns.
- Providing a clear communication outlet to allow for responsiveness and resolution of issues.
- A "soft-gloves" approach to address adjacent Resident's frustrations.

Sunny will introduce himself to the local community members and will provide his contact information for project inquiry. He will be the singular direct contact. Sunny will perform daily job site visits, and will always maintain 24 contact for Emergency and after hours communications with the Residents. The fact that Sunny lives exactly 15 miles from the site make him an ideal candidate for the singular direct contact. In addition to Sunny, Edwin Ekberg, our proposed Full-Time Inspector will be the "Eyes and Ears" for Sunny and also deal with day to day resident management.

With the "soft-gloves" approach, we will exercise empathy and professionalism on a daily basis with language skills that are conducive to making the residents feel engaged as part of the project, rather than viewing it as a nuisance. We will maintain a neighborly relationship with all residents. Sunny was instrumental in preserving Contra Costa County's reputation and image on the Marsh Creek bridge project where adjacent neighbors who had an impacted driveway needed to have access throughout the project, similar to the residents at 116 Southern Heights Blvd. The Marsh Creek adjacent residents were by far the most impacted by construction as the bridge Abutment and Water Line Valves were directly adjacent to their property. As they had lived in the area for over 50 years, they created significant opposition to the project during preconstruction as it would increase traffic speeds in the area. Managing their frustration against County became a daily task. Sunny worked by developing rapport with the residents, provided them with weekly schedule updates, collected their mail, made sure their garbage cans were taken out and collected, which eventually led to a positive perception of the project. Little efforts like these go a long way in building trust with the neighbors.

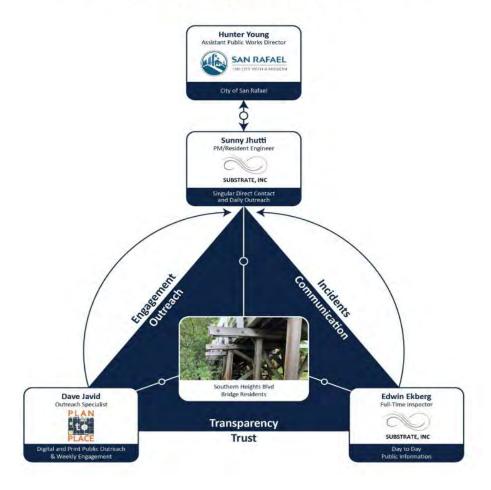
While Sunny and Edwin will handle the day-to-day public outreach and management (coordination and communication), Dave Javid will help with digital and print media, constant contact, and weekly engagement, including working with Substrate to develop content for the City of San Rafael's website. He has recently done a stellar job for Downtown Mill Valley, in one of the most politically plugged in communities of Marin. Dave Javid, with the support of the Substrate, will work closely with the Residents and the City of San Rafael, in setting up, implementing and maintaining a public outreach program for the project. Sunny Jhutti has worked directly with Dave and is sensitive to the concerns of local residents and pedestrians. Dave will prepare easily understood, and design-oriented project materials that is being shared door to door to local residents and through meetings, to distribute project information and updates and solicit the public's thoughts and concerns. He will also prepare of user-friendly and interactive resources shared through the City's project website and newsletters.

The goal for this project is ensure minimum disruption to driveways access, parking, and pedestrian access throughout all phases of construction. Since land-rights are in an issue with the TCE, to ensure very little disruption to the TCE during construction and restoration of the TCE prior to final Erosion Control and Planting. Documentation of existing TCE conditions & restoring the TCE to pre-construction condition is critical. Since the neighborhood is residential and close-knit, there is going to be a natural paranoia about personnel showing up the jobsite who they are not familiar with. It is for this reason we will work with the Contractor to make sure the site is secure at the end of every shift and that we discourage any parking on Southern Heights Boulevard or Meyer Road. We will encourage workers and our own personnel to walk up to the bridge site from the Construction Laydown area near D street and leave room for actual equipment performing the work such as excavators, drill-rigs, bobcats, concrete trucks, and concrete pumps. Because the area is so tight, we will need to have flaggers at all time for equipment, driveway access and pedestrians.





Strategic Communication, Public Outreach and Community Relations Plan



Sunny and Dave will implement lessons-learned from award-winning Marsh Creek bridge project and the City of Mill Valley Downtown project will be employed to make sure a positive perception of this project is achieved. Dave is currently helping the City of Mill Valley with managing public outreach on the Mill Valley Downtown Paving, Sidewalk, and Utility Improvements and has received outstanding reviews on his efforts which a very challenging and politically plugged in community.

Substrate will provide Dave (Plan to Place) with what working is coming that week, what to expect with regards to work (closures, detours, delays, access, etc.), a map of work areas (closures, detours with labels, etc.) and milestones (schedule, etc.). They will work together to provide this project information timely to the City of San Rafael staff for their review. We have provided an example of the work below for the City of Mill Valley. On the ongoing Mill Valley Downtown Project, Dave, provided project information presented in a visually desirable way with easy to understand text and graphics. Below is a sample of the Constant Contact email that reaches all Stakeholders. If you click on this email, it takes you to a project landing page on the City of Mill Valley Website that provides all project information:













Public Notification and Access

By and large, the residents at 108, 116, 122, 126 Southern Heights Blvd and 75 Pleasant Lane will require the most Notification, Coordination and hand-holding for the duration of the project. Ensuring that we maintain their pedestrian and driveway access at all times in critical. Access is so important that the City has assigned Liquidated Damages of \$400/day of the residents have limited access to their residences. Also, ensuring we stay within land rights and restore their TCE is critical. Notification is required 30 Calendar Days prior to work in writing and 72 hours before work verbally.









Emergencies

Substrate will review the contractor's Emergency Response Plan for thoroughness and contact information (along with construction notifications) to all emergency responders (ie. Police, Fire, etc.). Once the existing bridge is removed entirely we will have to notify the emergency responders that the bridge is out.

Traffic Control and Pedestrian Access/Public Accessibility



An approved Traffic Control and Pedestrian Access Plan is required as part of the first over of work. CMS Boards will be required on D/Street & Meyer Rd, Octavia Street & Martens Blvd, and 3rd CMS board will be placed at the City's discretion.

The driveways at 108 and 116 Southern Heights are



to remain accessible at all times with a moveable barrier. Pedestrian Access is required at all times and as, aforementioned, a \$400/day LD's charge will be

levied on the Contractor for each day of limited access to the driveway. A TCE has been procured through 126 Southern Height to allow Pedestrian Access 122 Southern Heights for the duration of the project. All pedestrian accesses (especially at 108, 116, 122, and 126 Southern Heights) need to be maintained and ADA compliant for the duration of construction activities. Continuous flagging will be required during the construction activities to allow access and maintain safety.

Safety

The most critical aspect of every construction project is safety. For this project, the safety of the traveling public, residents, pedestrians, construction workers, and all individuals involved is of paramount importance to the Substrate team. Our team will ensure strict adherence to Cal-OSHA standards along with all Caltrans policies and procedures regarding fall protection, excavations, and Falsework. Our proposed Inspector is intimately familiar with current Caltrans and Cal-OSHA policies and procedures and will be present at all times. It is important for the contractor to be aware of safety with respect to drilling operations, pile cage handling, and Falsework/Trestle construction. Since the cages are almost 50 ft long, this will be a challenge. Substrate has dealt with 100 ft long cages on Bon Air and Petaluma River Bridge. Substrate will develop a site specific Code of Safe Practices and file in Category 6 for all visitors and personnel to review, read, and sign prior to stepping foot on the site.



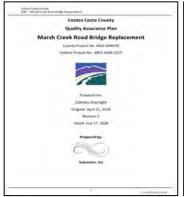




Expertise with Local Agency, Caltrans Procedures, and Quality Assurance Program

Per the Co-op agreement, all the work performed on the City's behalf, shall be performed in accordance with all applicable State and Federal laws, regulations, policies, procedures and standards that CALTRANS would normally follow. Construction inspection, materials sampling and testing, and contract administration shall be in accordance with the current Caltrans Construction Manual and its revisions, the Bridge Construction Records and Procedures Manual and other Caltrans Policies and Procedures. All of our key personnel have worked directly for Caltrans and are thoroughly familiar with Caltrans and Local Agency document control procedures and policies.

The governing document for the Southern Heights Blvd Bridge is the Local Agency Procedures Manual Chapters 15, 16, and 17, of which Substrate, Inc is specialized in. Though this is a Non-Highway System Bridge, the Funding Source (HBP), requires that all Quality Assurance meets the testing frequency of the LAPM Exhibit 16R. This is what the City of San Rafael's QAP calls "Large Federally Funded Projects".





If we are selected, we will develop a Quality Management Plan (QAP) specifically for the Southern Heights Bridge Replacement Project. As sample of what is contained in the QAP includes: Scope of Work, Org Charts and Responsibilities, Items, Testing Frequencies, Testing Standards, Identifying SMR, Source Inspection with Priority Level, Roles and Responsibilities, Qualified Testing Agency (MPEG and ACS), Caltrans Certified Laboratory Requirements, Tester Certifications, Buy America Requirements and how to handle NCR's, We will follow a similar system to the Caltrans procedure for identifying items that will require Source Inspection, which details the frequency of verification inspection for source inspected items. We find this comprehensive QAP goes a long way in

ensuring trust, transparency and trust with the Caltrans Division of Local Assistance.

Tree Removal and Relations with Regulatory Agencies



The Contractor must be conscious of the environmental clearance and mitigation measures for this project as it relates to the various Regulatory and Local Agencies: In particular, Regional Water Quality Control Board, US Fish and Wildlife Service, and Army Corp of Engineers. It appears that City of San Rafael has already applied for the Army Corp 404 Permit and the USFWS 401 permit. Our team has significant experience working with regulatory agencies on our previous project. In order to make sure, significant number of large trees must be removed partially to help facilitate bridge construction, but also as fire block. Sheet DM-1 and the Bid Schedule identified 24 trees to be removed. 9 of these trees are greater than 24" in diameter. These trees must be removed after the Nesting Season, which is February 15th to August 31st. Even though we will be out the nesting season

during tree removal we have to ensure the Contractor engages the required Constructor Supplied Biologist to ensure we don't impact any nesting birds. This work becomes critical path work as construction as anticipated NTP is mid-August. Tree Removal and the PG&E Joint Pole Relocation are the first order of work and the entire project's schedule success hinges upon these two tasks performed early and seamlessly.

Storm Water Pollution Prevention/Water Pollution Control Plan (SWPPP/WPCP)

Prior to the start of work, the Contractor must submit an approved Storm Water Pollution Prevention Plan to allow the City to obtain a Notice of Intent (NOI) from the Water Board. Prior to clearing and grubbing the Contractor must have a WDID number issued. The SWPPP must be adhered to at all times and any modifications due to changes in construction sequence, weather, or new information, must be documented. In addition, there are certain fundamental requirements common to all SWPPPs such as training, key personnel identification, emergency response measures, and regular or special site inspections and maintenance of "Best Management Practices" (BMPs). All inspection staff are QSD/QSP trained in the latest storm water pollution control requirements. Moreover, since this Project is a Risk Level 2, we have included Verux, Inc on our team to help with SWPPP QA inspections. Verux performed well on the Marsh Creek Road Bridge Replacement Project. Street-sweeping, dust control, inlet protection, erosion control, etc. will be critical on this project.





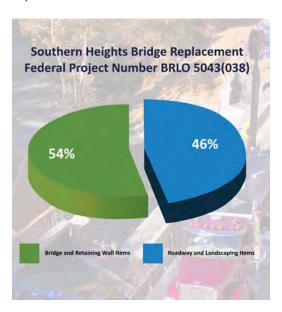


Highway Bridge Program - Bridge Replacement Project

While other firms simply offer bridge construction management services, Substrate, Inc specializes in it. We have chosen to focus on Bridge Construction Management Service as the core focus of our business. Being former Caltrans Office of Structure Construction (Bridge Department) Employee, this is our niche. We never put ourselves in a perceived conflict or real conflict of interest by performing bridge design services and that allows us to focus on what were are good at, delivering bridge or heavy structure's related construction projects.

While other firms simply offer Bridge Construction Management, we at Substrate, Inc specialize in it

Below is a pie chart indicating the actual analysis of the Bid Schedule Item list to determine the percentage of structure's items vs civil or roadway item. We believe we are the best CM team tooled to deliver this type of Federally Funded project, namely a Bridge Replacement:



Cellular Concrete Backfill



The use of cellular concrete by the Designer (Mark Thomas) is an innovative idea and if done incorrectly can lead to poor drainage characteristics, which is not desirable by Caltrans. On the recent award-winning Marsh Creek Bridge project, Substrate and the Contractor (BCCI) utilized an innovative method of using a flowable self-consolidating backfill similar to Cellular Concrete. The Soil-Cement method used on Marsh Creek allowed the contractor to mix native soil with cement and making it

flowable. We developed our own drainage strategy and testing criteria for compressive strength and density and this method was concurred by our Caltrans Oversight Engineer, Geotechnical Engineer of

Record, and Designer (Mark Thomas). We saved several weeks of backfill time utilizing this method of Soil-Cement Backfill. For Cellular Concrete Backfill the same rules apply, and very few other CM consultants have the background and critical know-how of what is important for this item to be performed correctly. If done improperly, it will lead to potential ground water and seasonal water to be capped-off and could result in long-term maintenance issues.







CIDH Wet Piles







The Southern Heights Blvd Bridge Replacement calls for CIDH Wet Piles for Abutment and Bent Foundations.

Abutment 1 and 4 have a couple of 24" diameter shafts and Bents 2 and 3 have 36" diameter shafts. The plans show inspection tubes and the Specifications indicate Hard Drilling and the need for Drilling Slurry to prevent caving. This what Caltrans calls CIDH-Wet

This what Caltrans calls CIDH-Wet Piles. **No other firm has as much CIDH Pile experience as Substrate**

in the past 6 years. For example, in the last 6 years, Substrate has recently worked on over 50 CIDH Wet Piles on: Bon Air Bridge Replacement, Transbay Busramp, I-80 San Pablo Dam Rd Interchange, Orwood Road Bridge Replacement, and Petaluma River Bridge Replacement.



We are thoroughly familiar with everything from trestle access and CIDH Pile Installation Plans to Slurry Displacement and Gamma-Gamma Testing (CT-233). For the Slurry Displacement method, we will need a suspension slurry to be tested for PH, Viscosity, Density and Sand Content. We also need the slurry that is displaced to be pumped into a Baker Tank with Active Treatment System to ensure no discharge into the adjacent area, as per the Regulatory Requirements.

CONDON JOHNSON

CAST-IN-DRILLED-HOLE
CONORRETE PILES

96" / 90" PILE INSTALLATION PLAN

Only of Landauer Public Works Department

New 2018

New 2018

Only of Landauer Public Works Department

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Finally, we will have to pour concrete under tremie pour to displace the slurry and prevent anomalies (i.e. defects in the piles). After pouring concrete the pile are testing per CT-233 and that is why we have engaged Steve Abe (ACS) who is a statewide specialist in Gamma-Gamma Logging Testing. Sunny is also a specialist on pile defects.

Water Line



This project calls for a new 6" diameter water line installed on brackets on the new bridge and bring the new MMWD Waterline into service, which includes pressure and Bacti testing. The current waterline on the existing bridge is abandoned. On the Marsh Creek Bridge Sunny coordinated a Temporary Waterline Bypass and Permanent Steel Waterline pipe installation on the new bridge and coordinated all testing with



CCWD. The same level of coordination and testing will be required on this project.

ST-70SM Barrier

One of the interesting aesthetic features of this new bridge are the ST70SM Steel Barrier with LED Lights installed to illuminate the bridge at night. We admire this feature from an aesthetic and functional perspective. Sunny just recently installed similar LED lighting in the steel ST-10 Barriers on the Transbay Busramp Cable-Stayed Bridge. Sunny was involved in all electrical routing and components that power the barrier light and many other project components. Attached are some time-lapsed photographs taken recently of the Busramp at night.









Deck Construction

This bridge project is unique in that the profile of the bridge has a 9% running slope. This will pose a challenge during the deck concrete pour to ensure that the concrete can be finished properly and concrete does not flow to the lowest part of the bridge.



This challenge will be mitigated by keeping the concrete slump as low as practical such that is limits flowability, but still have enough workability to strike off and finish it to Caltrans requirements. The concrete will also have to be placed from the Abutment 4 toward Abutment 1 to ensure quality control. In addition, the bridge width is too narrow at 12'3" wide and, therefore, a traditional Bidwell



Finishing machine cannot be used. A Roller or Bunyan Screed will have to be used to finish the bridge deck. Sunny successfully poured the Fremont Off-ramp Bridge on the Transbay project, which had up to a 9% cross-fall and 6% profile fall. Finally, Sunny is up to date with Caltran's latest deck curing specification of water-mist cure with post-applied curing compound from Marsh Creek Bridge.

Expected Submittal List

During submittal review process (much of which will be concurrent with construction work), Substrate will streamline the review process. Sunny will review these submittals faster than the review time indicated in the Specifications. We have identified the Priority Submittals that need be approved prior to work, which include: CPM Progress Schedule, Traffic Control Plan, SWPPP/Water Pollution Control Plan, Detailed Work/Stage Construction Plan, Pedestrian Access Plan, Spill Prevention and Counter Measure Plan, Neighborhood Notification, Potholing Results. Safety Related Submittals: Contractor's Authorized Onsite Rep, Contractor's Emergency Contact Numbers, Contractor's IIPP, Name of Safety Officer, Emergency Medical Plan, Traffic Control Devices/Product COC's, Health & Safety Plan, and Trench/Excavation Safety Plan. Material Submittals: Notice of Materials to be Used, Concrete Mix Designs, Rebar COC and Mill Certs, HMA (Type A) Mix Design, SWPPP/WPCP Erosion Control Products, Steel Pile Mill Certs and COC, Structure Backfill, Class 2 AB, Electrical Materials (conduit, fixtures, pull boxes, etc.), Joint Seal Materials, ST-70SM Barrier Rail, Steel/Timber Rail, Temp ESA Fence, Drainage Structure and Products COC, Traffic Stripe Materials, Permanent Pedestrian Access Deck Materials, Cellular Concrete Mix Design, Water Storage Tank COC, Irrigation Products COC, Buy America Requirements/COC's, 6" Steel Water Line Materials, Temporary Structure Backfill, Waste Management Plan, Solid Waste Disposal and Recycling. Technical Submittals: CIDH Pile Placement Plan, CIDH Pile Mitigation Plan, Bridge Removal Plan, Cellular Concrete Quality Control and Placement Plan, Waterline System Work Plan and Quality Control Plan, Waterline System Shop Drawings, Gravity Block Wall Quality Control Plan, Precast Quality Control Plan (Gravity Block), Federal Apprenticeship Training Plan, Welding Quality Control Plan, Falsework/Trestle Plan, Temporary Access Wall Plans, Daily Reports and CIDH Record Reports, Temporary Shoring Plan, HMA (Type A) QC/QA Plan, Gravity Block Retaining Wall Shop Drawing, Shotcrete Placement Plan, As-Built, Contractor's Biologist Qualifications.

Utility Coordination

Careful and deliberate coordination is a prerequisite for project success. It is very important to maintain the construction schedule, avoid any surprises and ensure no Right-of-Way delay claims. The coordination of the moving of the PG&E/AT&T/Comcast Joint Pole is the first order of work. That is the most critical utility relocation required immediately at the beginning of the project. We can't remove the existing bridge and build the new bridge until that joint pole is moved. PG&E gas has already been relocated by the City and PG&E and the existing MMWD Waterline has been abandoned. That being said there is still coordination required for:



- Putting into service the new 6" diameter MMWD waterline on the bridge (including pressure and Bacti testing)
- Restoring and PG&E gas service.
- Raising manholes and MMWD water valve caps.
- Relocating the PG&E/AT&T/Comcast Joint Pole back to its final location.
- Any unknown utilities in the areas where excavation for the new bridge abutment installation is to be performed.

Once construction begins, Substrate will setup a utility coordination meeting with all the utility companies (PG&E, Comcast, AT&T, MMWD, etc.) involved to confirm all live and dead utilities are identified and as-builts updated. Substrate will ensure the contractor determines and locates through potholing the location of other such "live" utilities in the area of the new bridge abutments.







Bridge Removal

A critical part of this project is it the removal of the existing Southern Heights Blvd bridge after the construction temporary retaining wall and access ramp. A well-developed bridge demolition plan is the first step to any bridge removal operation. Critical coordination will be required with all the utility companies, as well as, all the adjacent neighbors, particularly 108, 116, 122, and 126 Southern Heights Blvd and 75 Pleasant Lane. The City has TCE's in all these adjacent properties and at all times we will have to adhere to Land Rights. Review of the Bridge Removal Plan will be in accordance with the contract documents as well as the procedures set forth in the Bridge Construction Records Procedures Manual, Memo BCM 124-2, and Standard Specifications Section 60-2.02 "Bridge Removal". We will critically review this Submittal and ensure that the bridge is removed in a safe manner with no impact to the residents.

Limited Laydown Areas

It was determined during a field visit that there are limited laydown areas for piles, materials, etc. This will prove to be a challenge for CIDH Pile Drilling and Cage Placement, during Falsework erection, and during concrete pours. There also seems to be no real-estate for Contractor's Truck and Equipment and the Access Ramp will essentially be the only place to park drilling equipment after hours. The public outreach components have already been discussed, as well as the requirement to keep local driveways open. There will be

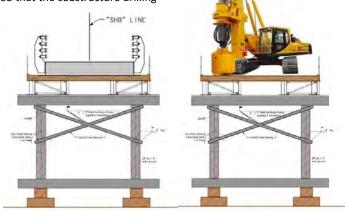
a lot of flagging required to get Equipment and Concrete Truck in and out and significant reversing of equipment, which makes this job challenging from a logistics and safety perspective. It is for this reason, the Falsework Trestle has been suggested to improve maneuverability on-site and to allow more real-estate to park equipment, see next item.

Innovative Idea - Temporary Access Trestle Doubling as Falsework

As will be discussed below, based a comprehensive independent Baseline Schedule developed by Substrate, Inc for this project, it was determined that the substructure drilling

operations for Abutment and Bent Piers will be performed in the middle the winter raining season. The access is so tight that only a small size driller (wheelbase of 7ft or less) can get access via the temporary access ramp. A small drill may not have sufficient torque and Kelly-bar extension to drill the holes the required 47 ft into hard rock as is suggested in the Specifications. A trestle will allow proper sized equipment access to do the work.

Coupling the limited access and steep adjacent slope, with the potential for muddy conditions, the practicality of perform safe drilling down at base level may prove to be difficult. There is a potential for the drill rig to end up on the neighbor's property (75 Pleasant Lane) if is not properly rigged and secured with anchor piles during



access and staging. We want to minimize this risk to the City of San Rafael. One opportunity to do so is utilizing the required Falsework installation (for Bridge Deck Construction) to double as an Access Trestle for the Drilling Rig. It would require the Contractor to beef up the Falsework (typical stringers will be larger, perhaps using steel pipe posts, and adding additional stability X-bracing) but will go a long way to ensure safety to the workers and equipment and mitigate any potential accidents. This will also allow for normal sized drilling equipment to be used as the Falsework/Trestle will be at least 14'0" wide.

Schedule

Having a clear understanding of construction methods, constraints, duration and logic is imperative in reviewing and accepting a contractor's baseline schedule. As part of the project understanding, we have developed a comprehensive baseline schedule, to assess the critical path and determine the duration of the project and any potential pitfalls or issues before they happen. It also doubles to help us understand what kind of resources we need to staff the project and how the Contractor intends to perform the work. Through developing this schedule, we determined that this project is feasible and can be completed in approximately 229 working days. Four things become apparent with this schedule: 1) Neighborhood Notification becomes the first order of work after the NTP, as there is a 30 calendar day notification period. 2) Tree removal work becomes critical path work as construction as anticipated NTP is mid-August, the trees must be removed to perform the work. 3) the PG&E Joint Pole Relocation is an early order of work, as the pole has to be moved out of the way in order to demolish the bridge, and 4) the temporary wall and access road to get access to substructure is critical path as the new bridge work will be hard to construct without having some form of base access for materials and light equipment. The entire project's schedule success hinges upon these four tasks performed early and seamlessly. The entire project should finish by the end of June/early July (total of 9-1/2 months of construction), if everything goes as expected.



Southern Heights Blvd. Bridge Replacement - Fed No. BRLO 5043 (038)



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| SHBB1260 Place Rehetr Cage and Termie Pour Abutment4 CDH Place SHBB1270 Samma Cagging Testing -CT233 for AbutmentPlace (First Mobilization) 1 27-Nov-20 27-Nov-20 SHBB1280 Place Abutment Taphragm Robar, Form and Pour SHBB1280 Place Abutment 1 Daphragm Robar, Form and Pour SHBB1300 Place Abutment 1 Apphragm Robar, Form and Pour SHBB1301 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar, Form and Pour SHBB1310 Place Abutment and Wingwell Rehar Form and Pour SHBB1310 Place Abutment and Wingwell Rehar Form and Pour SHBB1310 Place Abutment and Wingwell Rehar Form and Pour SHBB1310 Place Abutment and Wingwell Rehar Form and Pour SHBB1310 Shottler Face of Solder Place Wall near Abutment SHBB1310 Shottler Face of Solder Place Wall near Abutment SHBB1310 Place and Supperd Rehar Form and Pour SHBB1310 Place and Supperd Rehar And Temine Pour Bent 2 Synthetic Stury Displacement Mehod SHBB1310 Place and Supperd Rehar and Temine Pour Bent 2 Synthetic Stury Displacement Mehod SHBB1310 Place and Supperd Rehar and Temine Pour Bent 2 CDH Place SHBB1310 Place and Supperd Rehar and Temine Pour Bent 3 CDH Place SHBB1310 Place and Supperd Rehar and Temine Pour Bent 3 CDH Place SHBB1310 Place and Supperd Rehar and Temine Pour Bent 3 CDH Place SHBB1310 Place and Supperd Rehar and Temine Pour Bent 3 CD | The state of the s | • | | 23-Nov-20 | |
| SHBB.1270 Gamma Gamma Logging Testing-CT-233 for Abutment Plase (First Mobilization) 1 27-Nov-20 27-Nov-20 5 30-Nov-20 40-Dec 20 40-Dec 2 | ■ SHBB.1250 | | 2 24-Nov-20 | 25-Nov-20 | ► Layout and Drill CIDH Piles at Abutment 4 - Synthetic Slurry Displacement Method, Layout and Drill CID |
| SHBB.1200 Place Abutment 1 Diaphragm Rebar, Form and Pour 5 30 Ahov-20 04-Dec-20 Place Abutment 1 Diaphragm Rebar, Form and Pour 5 30 Ahov-20 04-Dec-20 Place Abutment 1 and Wingwell Rebar, Form and Pour 4 07-Dec-20 10-Dec-20 10-Dec-20 Place Abutment 1 and Wingwell Rebar, Form and Pour 4 07-Dec-20 10-Dec-20 10-Dec- | | · · · · · · · · · · · · · · · · · · · | | | |
| SHBB 1290 Place Abutment 14 Disphragm Rebar, Form and Pour SHBB 1300 Place Abutment 14 mg/wgal Rebar, Form and Pour 4 07-Dec-20 1-Dec-20 SHBB 1310 Place Abutment 14 and Wingwal Rebar, Form and Pour SHBB 1310 Walting period to backfill Abutments Wingwal Rebar, Form and Pour SHBB 1310 Walting period to backfill Abutments Wingwal Rebar, Form and Pour SHBB 1310 Walting period to backfill Abutments Wingwal Rebar, Form and Pour SHBB 1310 Walting period to backfill Abutments 44 Geocomposite Drains SHBB 1320 Walting period to backfill Abutments 45 Geocomposite Drains SHBB 1330 Install Borth Abutment 14 4 Geocomposite Drains SHBB 1330 Backfill Abutments and Wingwalls up to bottom of deck with Cellular Concrete SHBB 1330 Shorter Face of Soldier Pile Wall near/Abutment 1 SHBB 1350 Shorter Face of Soldier Pile Wall near/Abutment 1 SHBB 1350 Exert Existed Facework to Access Bent 2 SHBB 1370 Reil Canematuloist SHBB 1380 Leyottand Drill 30° Diameter Bent 2 - Synthetic Stury DisplacementMethod SHBB 1380 Leyottand Drill 30° Diameter Bent 2 - Synthetic Stury DisplacementMethod SHBB 1340 Canematuloist SH | - Carrier - Carr | , , , | | 27-Nov-20 | |
| S-RBB.1300 Place Abutment 1 and Wingwall Rebar, Form and Pour | ■ SHBB.1280 | Place Abutment 1 Diaphragm Rebar, Form and Pour | 5 30-Nov-20 | 04-Dec-20 | |
| SHBB.1310 Place Abutment 4 and Wingwall Rebar, Form and Pour 4 07-Dec-20 17-Dec-20 17-Dec-2 | ■ SHBB.1290 | Place Abutment 4 Diaphragm Rebar, Form and Pour | 5 30-Nov-20 | 04-Dec-20 | |
| SHBB.1320 Walting period to backfill Abutments Mingwalls SHBB.1330 Install Borh Abutment 1 & 4 Geocomposite Drains SHBB.1340 Backfill Abutments and Wingwalls up to bottom of deck with Cellular Concrete 2 22-bee-20 23-bee-20 SHBB.1350 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 24-bee-20 SHBB.1350 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 24-bee-20 SHBB.1350 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 24-bee-20 SHBB.1350 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 24-bee-20 SHBB.1350 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 24-bee-20 SHBB.1350 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 Shotzreb Face of Soldier File Wall near Abutment 1 2 4-bee-20 Shotzreb Face of Soldier File Wall near Abutment 1 2 5-bBB.1350 Christmas / New Year Break / Thirtismas / New | ■ SHBB.1300 | Place Abutment 1 and Wingwall Rebar, Form and Pour | 4 07-Dec-20 | 10-Dec-20 | Place Abutment 1 and Wingwall Rebar, Form and Pour, Place Abutment 1 and Wingwall Rebar, |
| SHBB.1330 Install Both Abutment 1 & 4 Geocomposite Drains 2 18-Dec-20 21-Dec-20 23-Dec-20 32-Dec-20 | | • | 4 07-Dec-20 | | |
| SHBB.1360 Backfill Abutments and Wingwalls up to bottom of deck with Cellular Concrete SHBB.1350 Shotzrete Face of Soldier Pile Wall near Abutment 1 SHBB.1350 Christmas / New Year Break SHBB.1350 Christmas / New Year Break SHBB.1350 Christmas / New Year Break SHBB.1360 Erect Trestler-Falsework to Access Bent 2 SHBB.1370 Roll Canemat Joist SHBB.1390 Layout and Drill 30" Diameter Bent 2 - Synthetic Sturry Displacement Method 1 15-Jan-21 15-Jan-21 SHBB.1390 Place and Suspend Rebar and Tremie Pour Bent 2 CDH Pile SHBB.1400 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1410 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1400 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1401 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1401 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1401 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1401 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1401 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1402 Roll Cranemat Joists SHBB.1403 Layout and Drill 30" Diameter Bent 3 - Synthetic Sturry Displacement Method SHBB.1403 Layout and Drill 30" Diameter Bent 3 - Synthetic Sturry Displacement Method SHBB.1403 Layout and Drill 30" Diameter Bent 3 - Synthetic Sturry Displacement Method SHBB.1403 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1404 Place and Suspend Rebar and Tremie Pour Bent 3 CDH Pile, Place and Suspend Rebar and Tremie Pour Bent 3 CDH Pile, Place and Suspend Rebar and Tremie Pour Bent 3 CDH Pile, Place and Suspend Rebar and Tremie Pour Bent 3 CDH Pile, Place and Suspend Rebar and Tremie Pour Columns (Bent 2 and 3) SHBB.1407 Form-RebarPour Columns (Bent 2 and 3) SHBB.1408 Finish Falsework Pomental Pour Bent 2 Syntheti | ■ SHBB.1320 | Waiting period to backfill Abutments/Wingwalls | 5 11-Dec-20 | 17-Dec-20 | |
| SHBB.1350 Shotzrels Face of Soldier Pile Wall near Abutment 1 2 4-Dec-20 1 Jan-21 SHBB.1355 Christmas / New Year Break SHBB.1350 Christmas / New Year Break SHBB.1350 Roll Cranemat Joists SHBB.1370 Roll Cranemat Joists SHBB.1370 Roll Cranemat Joists SHBB.1380 Layout and Dill 30" Diameter Bent 2 - Synthetic Slurry Displacement Method SHBB.1390 Place and Suspend Rebar and Tremie Pour Bent 2 - Clith Pile SHBB.1390 Roll Cranemat Joists SHBB.1400 Guy Bent 2 Cage SHBB.1410 Continue to Erect TrestleFalsework to Access Bent 3 (from either Eastor West) SHBB.1420 Roll Cranemat Joists SHBB.1430 Layout and Dill 30" Diameter Bent 2 - Synthetic Slurry Displacement Method SHBB.1430 Layout and Dill 30" Diameter Bent 2 - Synthetic Slurry Displacement Method SHBB.1420 Roll Cranemat Joists SHBB.1430 Layout and Dill 30" Diameter Bent 3 - Synthetic Slurry Displacement Method SHBB.1430 Layout and Dill 30" Diameter Bent 3 - Synthetic Slurry Displacement Method SHBB.1430 Layout and Dill 30" Diameter Bent 3 - Synthetic Slurry Displacement Method SHBB.1430 Layout and Dill 30" Diameter Bent 3 - Synthetic Slurry Displacement Method SHBB.1430 Layout and Dill 30" Diameter Bent 3 - Synthetic Slurry Displacement Method SHBB.1440 Place and Suspend Rebar and Timerie Pour Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 Cage SHBB.1450 G | ■ SHBB.1330 | Install Both Abutment 1 & 4 Geocomposite Drains | 2 18-Dec-20 | 21-Dec-20 | |
| SHBB.1355 Christmas / New Year Break SHBB.1355 Christmas / New Year Break SHBB.1356 Christmas / New Year Break SHBB.13570 Roll Cranemat Joists SHBB.1370 Roll Cranemat Joists SHBB.1380 Layout and Drill 30" Diameter Bent2 - Synthetic Sturry Displacement Method 1 15-Jan-21 15-Jan-2 | ■ SHBB.1340 | Backfill Abutments and Wingwalls up to bottom of deck with Cellular Concrete | 2 22-Dec-20 | 23-Dec-20 | |
| SHBB.1360 | SHBB.1350 | Shotcrete Face of Soldier Pile Wall near Abutment 1 | 1 24-Dec-20 | 24-Dec-20 | — |
| SHBB.1370 Roll Cranemat Joists SHBB.1380 Layout and Drill 30° Diameter Bent 2 - Synthetic Slurry Displacement Method 1 15-Jan-21 15-Jan-21 SHBB.1390 Place and Suspend Rebar and Tremie Pour Bent 2 CIDH Pile 1 15-Jan-21 15-Jan-21 SHBB.1410 Continue b Erect Trestle/Falsework to Access Bent 3 (from either Eastor West) SHBB.1410 Continue b Erect Trestle/Falsework to Access Bent 3 (from either Eastor West) SHBB.1420 Roll Cranemat Joists SHBB.1430 Layout and Drill 30° Diameter Bent 3 - Synthetic Slurry Displacement Method 1 28-Jan-21 27-Jan-21 SHBB.1430 Layout and Drill 30° Diameter Bent 3 - Synthetic Slurry Displacement Method 1 28-Jan-21 28-Jan-21 SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent 3 CIDH Pile 1 28-Jan-21 28-Jan-21 SHBB.1450 Gay Bent 3 Cage 1 28-Jan-21 28-Jan-21 SHBB.1450 Gamma Logging Testing - CT-233 for Bent 28.3 Piers (2nd Mobilization) 1 01-Feb-21 01-Feb-21 SHBB.1450 Finish Falsework 1 02-Feb-21 SHBB.1450 Finish Falsework 1 02-Feb-21 SHBB.1450 Finish Falsework 1 02-Feb-21 SHBB.1450 Finish Falsework Remaining Level of Effort Remaining Work Actual Level of Effort Remaining Work Milestone | | Christmas / New Year Break | | 01-Jan-21 | ─ │ |
| SHBB.1380 Layoutand Drill 3'0" Diameter Bent 2 - Synthetic Slurry Displacement Method 1 15-Jan-21 15-Jan-21 SHBB.1390 Place and Suspend Rebar and Tremie Pour Bent 2 CIDH Pile 1 15-Jan-21 15-Jan-21 SHBB.1400 Guy Bent 2 Cage SHBB.1410 Continue to Erect Trestler-Falsework to Access Bent 3 (from either Eastor West) SHBB.1410 Roll Cranemat Joists SHBB.1430 Layoutand Drill 3'0" Diameter Bent 2 - Synthetic Slurry Displacement Method SHBB.1410 Roll Cranemat Joists SHBB.1430 Layoutand Drill 3'0" Diameter Bent 2 - Synthetic Slurry Displacement Method SHBB.1430 Layoutand Drill 3'0" Diameter Bent 2 - Synthetic Slurry Displacement Method SHBB.1430 Roll Cranemat Joists SHBB.1430 Layoutand Drill 3'0" Diameter Bent 2 - Synthetic Slurry Displacement Method SHBB.1430 Layoutand Drill 3'0" Diameter Bent 2 - Synthetic Slurry Displacement Method SHBB.1440 Roll Cranemat Joists SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent 3 - Synthetic Slurry Displacement Method SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent 3 - Synthetic Slurry Displacement Method SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent 3 - Synthetic Slurry Displacement Method SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent 3 - Synthetic Slurry Displacement Method SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent 3 - Synthetic Slurry Displacement Method SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic Slurry Displacement Method SHBB.1450 Guy Bent 3 - Synthetic | | | | 12-Jan-21 | |
| SHBB.1390 Place and Suspend Rebar and Tremie Pour Bent 2 CIDH Pile 1 15-Jan-21 15-Jan | ■ SHBB.1370 | Roll Cranemat Joists | | 14-Jan-21 | |
| SHBB.1400 Guy Bent2 Cage SHBB.1410 Continue to Erect Trestle/Falsework to Access Bent3 (from either Eastor West) SHBB.1410 Continue to Erect Trestle/Falsework to Access Bent3 (from either Eastor West) SHBB.1420 Roll Cranemat Joists 2 26-Jan-21 27-Jan-21 SHBB.1430 Layout and Drill 3'0" Diameter Bent3 - Synthetic Slurry Displacement Method 1 28-Jan-21 28-Jan-21 SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent3 CIDH Pile SHBB.1450 Guy Bent3 Cage SHBB.1450 Guy Bent3 Cage SHBB.1460 Gamma Gamma Logging Testing - CT-233 for Bent2&3 Piers (2nd Mobilization) 1 01-Feb-21 01-Feb-21 SHBB.1470 Form/Rebar/Pour Columns (Bent2 and 3) SHBB.1480 Finish Falsework Remaining Level of Effort Actual Work Actual Level of Effort Remaining Work Milestone | | | | | Layout and Drill 3'0" Diameter Bent 2 - Synthetic Slurry Displacement Method |
| SHBB.1410 Continue to Erect Trestle/Falsework to Access Bent3 (from either Eastor West) SHBB.1420 Roll Cranemat.Joists SHBB.1430 Layoutand Drill 30" Diameter Bent3 - Synthetic Slurry DisplacementMethod 1 28-Jan-21 SHBB.1430 Layoutand Drill 30" Diameter Bent3 - Synthetic Slurry DisplacementMethod 1 28-Jan-21 SHBB.1450 Guy Bent3 Cage 1 28-Jan-21 SHBB.1460 Gamma Gamma Logging Testing - CT-233 for Bent2&3 Piers (2nd Mobilization) SHBB.1470 Form/Rebar/Pour Columns (Bent2 and 3) SHBB.1480 Finish Falsework Remaining Level of Effort Actual Level of Effort Remaining Work ◆ Milestone SHBB.1480 Finish Falsework Actual Level of Effort Remaining Work ◆ Milestone | ■ SHBB.1390 | · | | 15-Jan-21 | Place and Suspend Rebar and Tremie Pour Bent 2 CIDH Pile, Place and Suspend |
| SHBB.1420 Roll Cranemat Joists 2 26-Jan-21 27-Jan-21 SHBB.1430 Layout and Drill 3'0" Diameter Bent3 - Synthetic Slurry Displacement Method 1 28-Jan-21 28-Jan-21 SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent3 CIDH Pile 1 28-Jan-21 28-Jan-21 SHBB.1450 Guy Bent3 Cage 1 28-Jan-21 28-Jan-21 SHBB.1460 Gamma Gamma Logging Testing - CT-233 for Bent2&3 Piers (2nd Mobilization) 1 01-Feb-21 01-Feb-21 SHBB.1470 Form/Rebar/Pour Columns (Bent2 and 3) SHBB.1480 Finish Falsework Remaining Level of Effort Remaining Level of Effort Remaining Work Milestone 2 26-Jan-21 27-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 28-Jan-21 29-Jan-21 28-Jan-21 29- | ■ SHBB.1400 | Guy Bent 2 Cage | 1 15-Jan-21 | 15-Jan-21 | |
| SHBB.1430 Layout and Drill 3'0" Diameter Bent3 - Synthetic Slurry Displacement Method 1 28-Jan-21 28-Jan-21 SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent3 CIDH Pile SHBB.1450 Guy Bent3 Cage 1 28-Jan-21 28-Jan-21 SHBB.1450 Gamma Gamma Logging Testing - CT-233 for Bent2&3 Piers (2nd Mobilization) SHBB.1460 Gamma Gamma Logging Testing - CT-233 for Bent2&3 Piers (2nd Mobilization) SHBB.1470 Form/Rebar/Pour Columns (Bent2 and 3) SHBB.1480 Finish Falsework Remaining Level of Effort Actual Work Actual Level of Effort Remaining Work Milestone | ■ SHBB.1410 | Continue to Erect Trestle/Falsework to Access Bent 3 (from either East or West) | | 25-Jan-21 | Continue to Erect Trestle/Falsework to Access Bent 3 (from either East or West) |
| SHBB.1440 Place and Suspend Rebar and Tremie Pour Bent 3 CIDH Pile 1 28-Jan-21 28-Jan- | ■ SHBB.1420 | Roll Cranemat Joists | 2 26-Jan-21 | 27-Jan-21 | Roll Cranemat Joists |
| SHBB.1450 Guy Bent3 Cage SHBB.1460 Gamma Gamma Logging Testing - CT-233 for Bent2&3 Piers (2nd Mobilization) SHBB.1470 Form/Rebar/Pour Columns (Bent2 and 3) SHBB.1480 Finish Falsework Remaining Level of Effort Actual Work Actual Work Actual Level of Effort Remaining Work Milestone | ■ SHBB.1430 | Layout and Drill 3'0" Diameter Bent 3 - Synthetic Slurry Displacement Method | | 28-Jan-21 | Layout and Drill 3'0" Diameter Bent 3 - Synthetic Sturry Displacement Method |
| SHBB.1460 Gamma Gamma Logging Testing - CT-233 for Bent 2&3 Piers (2nd Mobilization) 1 01-Feb-21 01-Feb-21 SHBB.1470 Form/Rebar/Pour Columns (Bent2 and 3) SHBB.1480 Finish Falsework Remaining Level of Effort Actual Work Actual Level of Effort Remaining Work Milestone Orgale | ■ SHBB.1440 | Place and Suspend Rebar and Tremie Pour Bent 3 CIDH Pile | 1 28-Jan-21 | 28-Jan-21 | Place and Suspend Rebar and Tremie Pour Bent 3 CIDH Pile, Place and Susp |
| SHBB.1470 Form/Rebar/Pour Columns (Bent2 and 3) SHBB.1480 Finish Falsework Remaining Level of Effort Actual Work Actual Level of Effort Remaining Work Milestone | ■ SHBB.1450 | | 1 28-Jan-21 | 28-Jan-21 | |
| SHBB.1470 Form/Rebar/Pour Columns (Bent2 and 3) SHBB.1480 Finish Falsework Remaining Level of Effort Actual Work Actual Level of Effort Remaining Work Milestone | ■ SHBB.1460 | Gamma Gamma Logging Testing - CT-233 for Bent 2&3 Piers (2nd Mobilization) | 1 01-Feb-21 | 01-Feb-21 | Gamma Gamma Logging Testing - CT-233 for Bent 2&3 Piers (2nd Mobilizat |
| Remaining Level of Effort Actual Work Critical Remaining Actual Level of Effort Remaining Work Milestone | ■ SHBB.1470 | | 4 02-Feb-21 | 05-Feb-21 | Form/Rebar/Pour Columns (Bent 2 and 3) |
| Actual Level of Effort Remaining Work ♦ ♦ Milestone | ■ SHBB.1480 | Finish Falsework | 2 08-Feb-21 | 09-Feb-21 | Finish Falsework |
| Actual Level of Effort Remaining Work ♦ ♦ Milestone | | | | | TASK filter: All Activities |
| | Remaining Lev | vel of Effort Actual Work Critical Remaining | | | TAON IIILEI. AII ACLIVILIES |
| Page 1 of 2 | Actual Level of | Effort Remaining Work ♦ ♦ Milestone | | | © Oracle Corpora |
| | | | Page 1 of | 2 | Solution Colipon |



Southern Heights Blvd. Bridge Replacement - Fed No. BRLO 5043 (038)



| Activity ID | Activity Name | Original Start | Finish | 3,2020 | | Qtr 4, 2020 |) | | Qtr1,2021 Qtr2,2021 Qtr3,2021 |
|------------------------|---|----------------------------|------------------------|-------------|-------------|-------------|-------------|------------|---|
| , | | Duration | | Aug Sep | Oct | Nov | Dec | Jan | Feb Mar Apr May Jun Jul Aug Sep |
| ■ SHBB.1490 | Form and Place Rebar Dropped Bents | 3 10-Feb-21 | 12-Feb-21 | | ! | | <u>.</u> | | Form and Place Rebar Dropped Bents, Form and Place Rebar Dropped Ben |
| ■ SHBB.1500 | Install Bridge Camber Sleeper Strips and Place Soffit Plywood | 2 11-Feb-21 | 12-Feb-21 | | : | | : | | Install Bridge Camber Steeper Strips and Place Soffit Ptywood |
| SHBB.1510 | Place Deck Reinforcement | 10 15-Feb-21 | 26-Feb-21 | | : | | | | Place Deck Reinforcement |
| SHBB.1520 | SetEdge of Deck Panels | 2 01-Mar-21 | 02-Mar-21 | - : | : | : | : | | SetEdge of Deck Panels, SetEdge of Deck Panels |
| SHBB.1530 | Place Barrier Rebar and ST-70SM Railing Inserts and Set Pour Strips | 2 02-Mar-21 | 03-Mar-21 | | : | : | | | Place Barrier Rebar and ST-70SM Railing Inserts and Set Pour Strips |
| SHBB.1540 | Install Grading Rails for Deck Finishing (Bunyan Roller Rail) | 2 04-Mar-21 | 05-Mar-21 | | | | <u> </u> | | Install Grading Rails for Deck Finishing (Bunyan Roller Rail) |
| SHBB.1550 | Pour Deck | 1 08-Mar-21 | 08-Mar-21 | - | : | | : | | Pour Deck |
| SHBB.1560 | Cure Deck (Forms-In-Place) New Water-Cure Method per CT and Fiber Reinforced | 5 09-Mar-21 5 16-Mar-21 | 15-Mar-21 22-Mar-21 | - | | | | | Cure Deck (Forms-In-Place) New Water-Cure Method per CT and I |
| SHBB.1570 SHBB.1580 | Strip Forms and Class 1 Finish Edge of Deck and Columns Release and Remove Falsework | 5 10-Mar-21 | 22-Mar-21 | - | | | | | Release and Remove Falsework |
| SHBB.1590 | Form, Rebar, Pour Railling End Blocks | 3 30-Mar-21 | 01-Apr-21 | - : | : | | | | Form, Rebar, Pour Railing End Blocks, Form, Rebar, Pour Ra |
| SHBB.1600 | Install ST70SM Railing | 3 01-Apr-21 | 05-Apr-21 | | | | | | Install ST70SM Railing, Install ST70SM Railing |
| SHBB.1610 | Install bracket for new 6" Waterline MMWD | 3 01-Apr-21 | 05-Apr-21 | | : | : | : : | | Install bracket for new 6" Waterline MMWD |
| SHBB.1620 | Install new 6" Waterline (MMWD) and Coordinate Bacti & Pressure Testing and Service | 25 06-Apr-21 | 10-May-21 | | : | : | : | | Install new 6" Waterline (MMWD) and Coordina |
| SHBB.1630 | Install Electrical Conduits for Bridge Lighting | 7 08-Apr-21 | 16-Apr-21 | | : | : | : | | Install Electrical Conduits for Bridge Lighting |
| SHBB.1640 | Install cross drainage pipe at Approach Slab 1 | 3 08-Apr-21 | 12-Apr-21 | 1 | : | 1 | : | | Install cross drainage pipe at Approach Slab 1, Install cross |
| SHBB.1650 | Place CTPB under newApproach Slabs | 2 19-Apr-21 | 20-Apr-21 | 1 | ; : | | | | Place CTPB under newApproach Slabs |
| SHBB.1660 | Form, Rebar, Pour Approach Slabs | 4 21-Apr-21 | 26-Apr-21 | 1 | | | | | Form, Rebar, Pour Approach Slabs |
| SHBB.1670 | Form, Rebar Pour Approach Slab Curbs for Timber Barrier | 2 27-Apr-21 | 28-Apr-21 | | : | | : | | Form, Rebar Pour Approach Slab Curbs for Timber |
| SHBB.1680 | Install Timber Barrier Railings on Approach Slab and Approaches | 2 29-Apr-21 | 30-Apr-21 | | | | | | Install Timber Barrier Railings on Approach Slab ar |
| ■ SHBB.1690 | Install Joint Seals | 2 29-Apr-21 | 30-Apr-21 | | : | : | : | | ► Install Joint Seals, Install Joint Seals |
| ■ SHBB.1700 | Construct New Permanent Pedestrian Access from Bridge to 122 Southern Heights Blvd | 4 29-Apr-21 | 04-May-21 | : | ; | ; | | | Construct New Permanent Pedestrian Access from |
| ■ SHBB.1710 | Grind and Remove existing AC at bridge approaches include cold planing | 2 29-Apr-21 | 30-Apr-21 | : | : | | : | | Grind and Remove existing AC at bridge approach |
| ■ SHBB.1720 | Grind Driveway at 116 Southern Heights | 1 29-Apr-21 | 29-Apr-21 | | : | | : | | Grind Driveway at 116 Southern Heights |
| ■ SHBB.1730 | Grade Approaches to Bridge Both Sides | 3 29-Apr-21 | 03-May-21 | | : | | | | Grade Approaches to Bridge Both Sides |
| ■ SHBB.1740 | Place and CompactAB where required. | 3 04-May-21 | 06-May-21 | | : : : | | ! ! | | Place and CompactAB where required. |
| ■ SHBB.1750 | Place HMA | 2 07-May-21 | 10-May-21 | | : | | | | Place HMA |
| ■ SHBB.1760 | Construct any required Driveways | 1 10-May-21 | 10-May-21 | | | | | | I ⋖ Construct any required Driveways, Construct an |
| SHBB.1770 | HMADike | 1 10-May-21 | 10-May-21 | | | | | | _ I≺HMADike |
| SHBB.1780 | Install Drainage Boxes and New Pipes on downslope side of bridge | 5 11-May-21 | 17-May-21 | | : | | | | Install Drainage Boxes and New Pipes on do |
| SHBB.1790 | Grind and Groove Bridge Per Contract Specifications | 1 12-May-21 | 12-May-21 | ; | : : | | <u> </u> | | Grind and Groove Bridge Per Contract Specific |
| SHBB.1800 | CT-342 (Skid Test) | 1 13-May-21 | 13-May-21 | - : | : | : | 1 | | CT-342 (Skid Test), CT-342 (Skid Test) |
| SHBB.1810 | Restore Pedestrian Access | 2 18-May-21 | 19-May-21 | | : | | : | | Restore Pedestrian Access, Restore Pedestr |
| SHBB.1820 | Rebuild any required gates or fence | 2 20-May-21 | 21-May-21 | _ | : | | | | Rebuild any required gates or fence, Rebuil |
| SHBB.1830 | Bridge Finishing and Paint Bridge Numbers | 4 18-May-21 | 21-May-21 | - | : | | : | | Bridge Finishing and Paint Bridge Numbers |
| SHBB.1840 | Install Bridge Lighting and Electrical Components | 5 14-May-21 | 20-May-21 | | | | | | Install Bridge Lighting and Electrical Compo |
| SHBB.1850 | Detour Traffic onto new Permanent Bridge Alignment | 1 21-May-21 | 21-May-21 | - | | | | | Detour Traffic onto new Permanent Bridge / |
| SHBB.1860 SHBB.1870 | Cat-Tracking and Install Permanent Striping Finish any Contour Grading Below the Bridge and Restore TCE's and ROW to pre-existing conditions | 2 24-May-21 3 24-May-21 | 25-May-21 26-May-21 | - | | | | | Cat-Tracking and Install Permanent Stripin Finish any Contour Grading Below the Bri |
| SHBB.1880 | Remove Temporary Ramp and Access Ramp (Remove all gravel and non-native material) | 5 31-May-21 | 04-Jun-21 | | : | : | : | | Remove Temporary Ramp and Access |
| SHBB.1890 | Grade and Compact Embankment at former Access Location | 5 07-Jun-21 | 11-Jun-21 | | : | : | 1 | | Grade and Compact Embankmenta |
| SHBB.1895 | Add Permanent Signs | 3 24-May-21 | 26-May-21 | | | | | ¦ | Add Permanent Signs, Add Permanent S |
| SHBB.1896 | Add Permanent Mailboxes (coordinate with USPS and Owner) | 2 24-May-21 | 25-May-21 | | : | | 1 | | Add Permanent Mailboxes (coprdinate wi |
| | NSTRUCTION STAGE 3 - IRRIGATION & PLANT ESTABLISHMENT | 17 14-Jun-21 | 06-Jul-21 | | : | : | : | | ▼ 06-Jul-21,SHBB.4 CONST |
| <u> </u> | | | | | | | | | |
| SHBB.1900 | Install WaterTank and Irrigation | 5 14-Jun-21 | 18-Jun-21 | - : | : | | | | Install WaterTank and Irrigation |
| SHBB.1910 | Plant Establishment (Live Oaks) PCS E ATS T Compact I pint Pola Polacetian pact Construction | 2 21-Jun-21 | 22-Jun-21 | | | | | | Plant Establishment (Live Oaks) |
| SHBB.1920 SHBB.1930 | PG&E,AT&T, Comcast Joint Pole Relocation post Construction Install Permanent Erosion Control | 1 23-Jun-21 3 24-Jun-21 | 23-Jun-21 28-Jun-21 | - : | : | | : | | PG&E,AT&T, Comcast Joint Pole |
| SHBB.1930 SHBB.1960 | Punchlist | 5 29-Jun-21 | 28-Jun-21 05-Jul-21 | - : | | | 1 | | Punchlist |
| SHBB.1960 | Remove Construction Area Signs | 1 06-Jul-21 | 06-Jul-21 | - | : | : | | | Function Area |
| SHBB.1980 | Clean up & restore site | 3 29-Jun-21 | 01-Jul-21 | 1 | | : | | | Clean up & restore site, Clean |
| SHBB.1990 | Remove and Restore Construction Stage Area | 3 29-Jun-21 | 01-Jul-21 | | | | | | Remove and Restore Constru |
| | | | | , | | | · | | |
| Remaining Lev | vel of Effort Actual Work Critical Remaining | | | | | TASK | filter: All | Activities | |
| Actual Level of | - | Page 2 of | 2 | | | | | | © Oracle Corporatio |

EXHIBIT 10-O1 CONSULTANT PROPOSAL DBE COMMITMENT

| Local Agency: City of San Rafael | | 2. Contract DBE Goal: 6% | |
|--|-----------------------------------|---|---------------|
| 3. Project Description: | • . | FED No. BRLO 5043(038) | |
| 4. Project Location: City of San Rafael (Southern | Heights Boulevard) | | |
| 5. Consultant's Name: Substrate, Inc (Dynamic | : Dzyne Associates, Inc) | 6. Prime Cer | tified DBE: ☑ |
| 7. Description of Work, Service, or Materials Supplied | 8. DBE Certification Number | 9. DBE Contact Information | 10. DBE % |
| RE/Structure's Rep & Bridge/Roadway Inspector | DBE 38385 | Dynamic Dzyne Associates, Inc, dBA Substrate, Inc – 270 Crest Rd, Novato, CA 94945 | 75% |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Local Agency to Complete this | Section | | |
| 17. Local Agency Contract Number: | Section | | |
| 18. Federal-Aid Project Number: | | 11. TOTAL CLAIMED DBE PARTICIPATION | 75% |
| 19. Proposed Contract Execution Date: | | | |
| 20. Consultant's Ranking after Evaluation: | ····· | IMPORTANT: Identify all DRF firms being eleimed | for aradit |
| Local Agency certifies that all DBE certifications are this form is complete and accurate. | e valid and information on | IMPORTANT: Identify all DBE firms being claimed regardless of tier. Written confirmation of each liste required. Servleep Journal 6/29/2 | ed DBE is |
| 21. Local Agency Representative's Signature | 22. Date | 12. Preparer's Signature 13. Date | 46-4920 |
| 23. Local Agency Representative's Name | 24. Phone | 14. Preparer's Name 15. Phor President | ne |
| 25. Local Agency Representative's Title | | 16. Preparer's Title | |

DISTRIBUTION: Original – Included with consultant's proposal to local agency.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

INSTRUCTIONS - CONSULTANT PROPOSAL DBE COMMITMENT

CONSULTANT SECTION

- 1. Local Agency Enter the name of the local or regional agency that is funding the contract.
- 2. Contract DBE Goal Enter the contract DBE goal percentage as it appears on the project advertisement.
- 3. Project Location Enter the project location as it appears on the project advertisement.
- **4. Project Description** Enter the project description as it appears on the project advertisement (Bridge Rehab, Seismic Rehab, Overlay, Widening, etc.).
- **5. Consultant's Name** Enter the consultant's firm name.
- **6. Prime Certified DBE** Check box if prime contractor is a certified DBE.
- 7. Description of Work, Services, or Materials Supplied Enter description of work, services, or materials to be provided. Indicate all work to be performed by DBEs including work performed by the prime consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.
- 8. DBE Certification Number Enter the DBE's Certification Identification Number. All DBEs must be certified on the date bids are opened.
- **9. DBE Contact Information** Enter the name, address, and phone number of all DBE subcontracted consultants. Also, enter the prime consultant's name and phone number, if the prime is a DBE.
- 10. DBE % Percent participation of work to be performed or service provided by a DBE. Include the prime consultant if the prime is a DBE. See LAPM Chapter 9 for how to count full/partial participation.
- 11. Total Claimed DBE Participation % Enter the total DBE participation claimed. If the total % claimed is less than item "Contract DBE Goal," an adequately documented Good Faith Effort (GFE) is required (see Exhibit 15-H DBE Information - Good Faith Efforts of the LAPM).
- 12. Preparer's Signature The person completing the DBE commitment form on behalf of the consultant's firm must sign their name.
- **13. Date** Enter the date the DBE commitment form is signed by the consultant's preparer.
- 14. Preparer's Name Enter the name of the person preparing and signing the consultant's DBE commitment form
- 15. Phone Enter the area code and phone number of the person signing the consultant's DBE commitment form.
- **16. Preparer's Title** Enter the position/title of the person signing the consultant's DBE commitment form.

LOCAL AGENCY SECTION

- 17. Local Agency Contract Number Enter the Local Agency contract number or identifier.
- **18. Federal-Aid Project Number** Enter the Federal-Aid Project Number.
- 19. Proposed Contract Execution Date Enter the proposed contract execution date.
- **20.** Consultant's Ranking after Evaluation Enter consultant's ranking after all submittals/consultants are evaluated. Use this as a quick comparison for evaluating most qualified consultant.
- 21. Local Agency Representative's Signature The person completing this section of the form for the Local Agency must sign their name to certify that the information in this and the Consultant Section of this form is complete and accurate.
- **22.** Date Enter the date the DBE commitment form is signed by the Local Agency Representative.
- 23. Local Agency Representative's Name Enter the name of the Local Agency Representative certifying the consultant's DBE commitment form.
- **24. Phone** Enter the area code and phone number of the person signing the consultant's DBE commitment form.
- 25. Local Agency Representative Title Enter the position/title of the Local Agency Representative certifying the consultant's DBE commitment form.

LPP 18-01 Page 2 of 2

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

| 1. Type of Federal Action: 2. Status of F | Federal Action: 3. Report Type: |
|--|--|
| a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance a. bid/offer/a b. initial awa c. post-award Not-Applica | td b. material change |
| 4. Name and Address of Reporting Entity Prime Subawardee Tier, if known | 5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: |
| Congressional District, if known | Congressional District, if known |
| 6. Federal Department/Agency: | 7. Federal Program Name/Description: |
| | CFDA Number, if applicable |
| 8. Federal Action Number, if known: | 9. Award Amount, if known: |
| 10. Name and Address of Lobby Entity (If individual, last name, first name, MI) | 11. Individuals Performing Services (including address if different from No. 10) (last name, first name, MI) |
| (attach Continuation | Sheet(s) if necessary) |
| 12. Amount of Payment (check all that apply) | 14. Type of Payment (check all that apply) |
| \$ actual planned 13. Form of Payment (check all that apply): a. cash b. in-kind; specify: nature Value | a. retainer b. one-time fee c. commission d. contingent fee e deferred f. other, specify |
| 15. Brief Description of Services Performed or to be pofficer(s), employee(s), or member(s) contacted, fo | |
| (attach Continuati | on Sheet(s) if necessary) |
| 16. Continuation Sheet(s) attached: Yes 17. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any | No Sundeep Shath Signature: Print Name: |
| person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. | Title: Date: |
| | Authorized for Local Reproduction |
| Federal Use Only: | Standard Form - LLL |

Distribution: Orig- Local Agency Project Files

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

| 1. Type of Federal Action: 2. Status of F | ederal Action: 3. Report Type: |
|--|---|
| a. contract b. grant c. cooperative agreement a. bid/offer/ap b. initial awar c. post-award | b. material change |
| d. loan e. loan guarantee f. loan insurance No Lobbying A NOT APPLICAL | , <u> </u> |
| 4. Name and Address of Reporting Entity Miller Pacific Engineering Group X Prime X Subawardee Tier, if known 504 Redwood Blvd., Suite 220, Novato, CA 94947 Congressional District, if known | 5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: Sunny Jhutti, PE.SE Substrate, Inc. 270 Crest Rd. Novato, CA 94945 Congressional District, if known |
| 6. Federal Department/Agency: | 7. Federal Program Name/Description: |
| 8. Federal Action Number, if known: | 9. Award Amount, if known: |
| 10. Name and Address of Lobby Entity (If individual, last name, first name, MI) | 11. Individuals Performing Services (including address if different from No. 10) (last name, first name, MI) |
| (attach Continuation S | Sheet(s) if necessary) |
| 12. Amount of Payment (check all that apply) | 14. Type of Payment (check all that apply) |
| \$ actual planned 13. Form of Payment (check all that apply): a. cash b. in-kind; specify: nature Value | a. retainer b. one-time fee c. commission d. contingent fee e deferred f. other, specify |
| 15. Brief Description of Services Performed or to be peofficer(s), employee(s), or member(s) contacted, for | |
| (attach Continuation | on Sheet(s) if necessary) |
| 16. Continuation Sheet(s) attached: Yes 17. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress | No Signature: Print Name: |
| semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. | Title: Date: |
| | Authorized for Local Reproduction |
| Federal Use Only: | Standard Form - LLL |

Standard Form LLL Rev. 04-28-06

Distribution: Orig- Local Agency Project Files

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

| 1. Ty | rpe of Federal Action: 2. Status of F | ederal Action: 3. Report Type: |
|--------------------------|--|--|
| b. c. d. e. | contract grant cooperative agreement loan loan guarantee loan insurance Name and Address of Reporting Entity Prime Subwariee entity **Reporting Liberton's Subwariee **Reporting Liberton's Subwar | b. material change For Material Change Only: year quarter date of last report 5. If Reporting Entity in No. 4 is Subawardee, |
| | Congressional District, if known | Congressional District, if known |
| 6. | Federal Department/Agency: | 7. Federal Program Name/Description: |
| | | CFDA Number, if applicable |
| 8. | Federal Action Number, if known: | 9. Award Amount, if known: |
| 10. | Name and Address of Lobby Entity (If individual, last name, first name, MI) | 11. Individuals Performing Services (including address if different from No. 10) (last name, first name, MI) |
| | (attach Continuation S | Sheet(s) if necessary) |
| 12. 13. | Amount of Payment (check all that apply) \$ actual planned Form of Payment (check all that apply): a. cash b. in-kind; specify: nature Value | 14. Type of Payment (check all that apply) a. retainer b. one-time fee c. commission d. contingent fee e deferred f. other, specify |
| 13. | Brief Description of Services Performed or to be pe officer(s), employee(s), or member(s) contacted, for | |
| | (attach Continuatio | on Sheet(s) if necessary) |
| 3 w er 13 se | Continuation Sheet(s) attached: Yes Information requested through this form is authorized by Title 1 U.S.C. Section 1352. This disclosure of lobbying reliance as placed by the tier above when his transaction was made or ntered into. This disclosure is required pursuant to 31 U.S.C. 352. This information will be reported to Congress emiannually and will be available for public inspection. Any erson who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than | Signature: Signature: Print Name: Title: |
| | 100,000 for each such failure. | Telephone No.: Date: |
| | | Authorized for Local Reproduction |
| Feder | al Use Only: | Standard Form - LLL |

Standard Form LLL Rev. 04-28-06

Distribution: Orig- Local Agency Project Files

COMPLETE THIS FORM TO DISCLOSE COMINING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

| . Type n | f Federal Action: | 2. Status of F | ederal Action: | 3. Report | Type: | | | |
|--|---|--|---|---|------------------------------|--|--|--|
| d. loun | t terative agreement | a. bid/offer/ap b. initial awar c. post-award | d | For Materi | al change al Change Only: | | | |
| | guatantee insurance | NOT APP | LICABLE | date of | last report | | | |
| _ | me and Address of Reportions Substitute Tier | owardee | 5. If Reporting Enter Name : | Entity in No. 4 is and Address of P | | | | |
| Cor | gressional District, if know | MIT | Congressions | District, if know | Arth. | | | |
| 6. Fed | eral Department/Agency: | | 7. Federal Prog | ram Name/Descr | iption: | | | |
| | | | CEDA Numb | er, if applicable | | | | |
| 8. Fed | eral Action Number, if his | own: | | aut, if known | | | | |
| | ne and Address of Lubby individual, last name, first no | | 11. Individuals Performing Services (meluding address if different from No. 10) (last name, first name, MI) | | | | | |
| | | (attach Communion) | Shooms) if necessary) | | | | | |
| 1 | m of Payment (check all ri m of Payment (check all ri m cash b. in-kind; specify, natu | planned | il yan e defe | iner time lee unission tingent fee | that apply) | | | |
| | of Description of Services (cer(s), employee(s), or mer | nber(s) contacted, for | Payment Indicated | in Item 12: | ding | | | |
| | | | on Sheet(s) if necessar | y) | | | | |
| 17, Informa 31 U.S.6 was placentered 1352. T semiann person v | tinuation Sheet(s) attacher tion requested through this form C. Section 1352. This disclosur- ted by the tier above when his to into. This disclosure is required his information will be reported until and will be available for p who fails to file the required dis- | n is authorized by Trile e of lobbying reliance ransaction was made or I pursuant to 31 U.S.C. I to Congress sublic inspection. Any closure shall be subject | Signature: Print Name: Dave Title: Principal | Hui Javid |) | | | |
| | penulty of not less than \$10,00 0 for each tuch failure. | to and not more than- | Telephone No.: 41 | 5-889-0560 | Date: 06.22.20 | | | |
| | | | | Authorized for Lo | cal Reproduction | | | |
| ederal U | se Only: | | 3 | Standard Form - L | 1.1: | | | |

Santail (1000 | 1.1 | Rev. 04-25-06

Distribution: (Ing.) ocal Agency Project Files

Exhibit A: Cost Proposal





Construction Management, Inspection, and Testing Services for the Southern Heights Boulevard Bridge Replacement Project Federal Project No. BRLO 5043(038)

CITY OF SAN RAFAEL

COST PROPOSAL - July 20, 2020







July 20, 2020

Mr. Theo Sanchez
Assistant Public Works Director/City Engineer
City of San Rafael – Department of Public Works
1400 5th Avenue
San Rafael. CA 94901

Substrate, Inc. 270 Crest Rd Novato, CA 94945 T:415.246.4920 substrateinc.com

Sunny Jhutti, PE, SE President E: sunny@substrateinc.com

Subject: Cost Proposal for Construction Management, Inspection, and Testing

Services for the Southern Heights Boulevard Bridge Replacement Project -

Fed No. BRLO 5043 (038)

Dear Mr. Sanchez:

Substrate, Inc is pleased to submit this Cost Proposal to provide **Construction Management, Inspection, and Testing Services for the Southern Heights Boulevard Bridge Replacement Project for the City of San Rafael**. We thank you for selecting our team.

We are confident that we have organized the right team that is the right fit for the City of San Rafael's needs on this challenging Southern Heights Boulevard Bridge Replacement located in an a region of the city with limited access and a small footprint.

We are honored, and look forward to delivering this project for the City of San Rafael, along with your selected Bridge Construction Contractor.

Substrate, Inc, is pleased to submit this Cost proposal to provide Construction Management Services for the Southern Heights Boulevard Bridge Replacement Project. Per our proposal, we will be providing Sunny Jhutti, PE, SE, as the PM/Resident Engineer/Structure's Rep (Substrate). You get 2 positions for 1 with Sunny.

Substrate, will be providing Ed Ekberg as our Full-Time Inspector. Verux, Inc will be providing SWPPP QA. Cinquini and Passarino will be providing QA Surveying assistance. Miller Pacific Engineering Group (MPEG) will be providing Materials and Source Inspection. ACS will be providing Gamma-Gamma Logging. Finally, Plan-to-Place will be helping with Public Outreach.

We have submitted our revised Cost Proposal at "Specific Rates of Compensation", which indicates an amount of Not to Exceed \$425,000. This cost proposal is valid for 90 days. Thanks,

Thanks again for the opportunity.

Sincerely,

Sundeep Jhutti, President

Sunday Shuth

| Firm President Contact Information | | | | | | | |
|------------------------------------|----------------------------------|--|--|--|--|--|--|
| Name and Title: | Sunny Jhutti, PE, SE – President | | | | | | |
| Company Name: | Substrate, Inc | | | | | | |
| Address: | 270 Crest Rd, Novato, CA 94945 | | | | | | |
| Phone Number: | 415-246-4920 | | | | | | |
| Email: | sunny@substrateinc.com | | | | | | |

| SOUTHERN HEIGHTS BOULEVARD BRIDGE REPLACEMENT PROJECT - CITY OF SAN RAFAEL | | | | | | | | | | | | | | | | | | | |
|---|----------------------|----------------------|------------|--------|-------------------------------|--------|--------|--------|------------|--------|--------|------------|--------|--------|------------------------------|------------|-----------|----|------------|
| COST PROPOSAL SUMMARY & SCHEDULE | | | | | | | | | | | | | | | | | | | |
| | | | Pre-Constr | uction | Construction Services Post-CS | | | | | | | | | | | | | | |
| Name | Company | Classification | Aug-20 | Sep-20 | Oct-20 | Nov-20 | Dec-20 | Jan-21 | Feb-21 | Mar-21 | Apr-21 | May-21 | Jun-21 | Jul-20 | Subtotal Labor Hrs 2020/2021 | Bill Rates | 2020/2021 | | Total |
| Sunny Jhutti, PE, SE | Substrate, Inc | RE/Structure Rep | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 704 | \$ | 176.83 | \$ | 124,488.32 |
| Edwin Eckberg | Substrate, Inc | Full Time Inspector | 64 | 64 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | | 1504 | \$ | 150.15 | \$ | 225,825.60 |
| Materials Testing | Miller Pacific | Subconsultant Tester | | | | | | | | | | | | | | | Labor+ODC | \$ | 35,000.00 |
| Public Outreach | Plan to Place | ODC Vendor | | | | | | | | | | | | | | | ODC | \$ | 24,950.00 |
| Gamma-Gamma Testing | ACS | ODC Vendor | | | | | | | | | | | | | | | ODC | \$ | 5,370.00 |
| QA Surveying | Cinquini & Passarino | ODC Vendor | | | | | | | | | | | | | | | ODC | \$ | 5,400.00 |
| SWPPP (QA) | Verux | ODC Vendor | | | | | | | | | | | | | | | ODC | \$ | 3,250.00 |
| Sub | | | | | | | | | Subtotal | | \$ | 424,283.92 | | | | | | | |
| Assumptions: Pre-Construction: August & September - 16 hrs a week for Constructability, Bid Schedule Review and | | | | | | | | | 425,000.00 | | | | | | | | | | |
| recommendation for change. Pre-Bid Meeting Attendence. Help with Invitation to Bidders, Bid tabulation and Analysis | | | | | | | | | 0.82 | | | | | | | | | | |

October - Full Construction Management - Field Inspection, Meetings, Submittal Review, QA, Public Outreach, etc

Ed Eckberg Full-Time Inspector. Sunny Jhutti 2 days per week. No COLA.

PM Services included in Fee (No Charge). Future COVID19 related shutdowns subject to Force Majeure.

1st Working day to be Oct 1, 2020

9 month construction duration. No Saturday work or Overtime, included. If this is decided by the City, this cost proposal must be revised.

Date: 7/20/2020

MILLER PACIFIC ENGINEERING GROUP

Field Observation & Testing Budget Estimate Worksheet San Rafael San Rafael, California

| | | | | | | Pr | ojec | t Number: By: | 2 | 20-10983 sas |
|---|--|-------|-------------------------------|-------------------------|------|---|--|--|--|---|
| FIELD COST | S | | | DED | | OITE | | | | |
| | | PI | ER UNIT | PER HOUR | | SITE VISIT | | HALF DAY | | FULL DAY |
| Senior Technic | ian 2 | \$ | 120.00 | | | | | | | |
| Staff Engineer/ | | \$ | 120.00 | | | | | | | |
| Staff Engineer/ | | \$ | 110.00 | | | | | | | |
| Staff Engineer/ | | \$ | 100.00 | | | | | | | |
| Staff Technicia | | \$ | 100.00 | | | | | | | |
| Staff Technicia | | \$ | 95.00 | | | | | | | |
| Prevailing Wag | e Group 3 | \$ | 145.00 | | 1 | 2 | 2 | 4 | | |
| D/T \$35 - Weel | kend/Hol/Night \$45; 4 & 8 hr mins apply | \$ | 35.00 | | | | | | | |
| Field Vehicle/E | quipment | \$ | 9.00 | | | 2 | 2 | 4 | | |
| Nuclear Density | y Tests | \$ | 8.00 | | | 2 | 2 | 4 | | |
| Miles | | \$ | 0.80 | | | 30 |) | 30 | | |
| | | | | \$ 145.00 |) \$ | 348 | \$ | 672 | \$ | 1,38 |
| Nork Item | Description | E | stimated Days | HOURS | | SITE VISIT | | HALF DAY | | FULL DAY |
| | Description | | | | | VIOII | | DAI | | DAI |
| 1.0 | Preconstruction Meeting | | 1 | | 3 | | | | | |
| 2.0 | Foundation inspections | | 0 | | | | | | | |
| 3.0 | Batch Plant Inspection Concrete | | 2 | | | | | 2 | | |
| 4.0 | Steel Inspection | | 0 | | | | | | | |
| 5.0 | Concrete Sampling | | 6 | | | 6 | | 6 | | |
| 3.0 | Subsurface Drainage Inspection | | 2 | | | 2 | | | | |
| 7.0 | Embankment Slope Backfill | | 3 | | | 2 | | 2 | | |
| 8.0 | Utility trench Backfill | | 2 | | | 2 | 2 | 1 | | |
| 9.0 | Subgrade Compaction | | 2 | | | • | 1 | 1 | | |
| 10.0 | Baserock Compaction | | 2 | | | 2 | 2 | 1 | | |
| 11.0 | Batch Plant Inspection AC | | 1 | | | | | 1 | | |
| 12.0 | AC sampling and compaction | | 4 | | | | | 4 | | |
| 13.0 | AC coring | | 1 | | | | | 1 | | |
| 14.0 | Cellular Concrete Cylinders | | 1 | | | | 1 | 1 | | |
| | | | Totals OOLLARS | | 3 | 16 5,568 | | 20 13,440 | \$ | - |
| | | C | | | | 5,568 | \$ | | | |
| | | С | | | | 5,568 Total | \$ Fiel | 13,440 Id Costs: | | 19,44 |
| | TESTING Description | C | | | | 5,568 | \$ Fiel | 13,440 | | |
| LABORATORY Task 1.0 | Description Compaction Curve ASTM 1557 | C | | | | 5,568 Total | \$ Fiel | 13,440 Id Costs: Unit \$ | \$ | 19,44 Amoun |
| 1.0 2.0 | Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 | | OOLLARS | \$ 435.00 | | 5,568 Total Quantity | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 | \$ | 19,44 Amoun |
| 1.0 2.0 3.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation | | OOLLARS | \$ 435.00 | | 5,568 Total Quantity | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 | \$ | Amoun 1,680.0 |
| 1.0 2.0 3.0 4.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) | | OOLLARS | \$ 435.00 | | 5,568 Total Quantity | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 | \$ \$ \$ \$ | Amoun 1,680.0 1,000.0 2,070.0 |
| Task 1.0 2.0 3.0 4.0 5.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex | | OOLLARS | \$ 435.00 | | 5,568 Total Quantity | Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 | \$ \$ \$ \$ \$ \$ \$ | Amoun 1,680.0 - 1,000.0 2,070.0 |
| 1.0 2.0 3.0 4.0 5.0 3.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value | | OOLLARS | \$ 435.00 | | 5,568 Total Quantity | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 | \$ \$ \$ \$ \$ \$ | Amoun 1,680.0 1,000.0 2,070.0 780.0 |
| 1.0 2.0 3.0 4.0 5.0 3.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring | | OOLLARS | \$ 435.00 | | 5,568 Total Quantity | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 | \$ \$ \$ \$ \$ \$ \$ | 1,680.0 1,680.0 2,070.0 780.0 |
| 1.0 2.0 3.0 4.0 5.0 5.0 3.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability | | OOLLARS | \$ 435.00 | | 5,568 Total Quantity | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$195 | \$ \$\$ \$\$ \$\$ \$\$ | Amoun 1,680.0 1,000.0 2,070.0 780.0 1,200.0 195.0 |
| 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve | , M.C | OOLLARS | \$ 435.00 t. & % Oil | | 5,568 Total Quantity | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$1,200 \$1,200 \$1,200 \$1,200 \$1,200 | \$ \$\$ \$\$ \$\$ \$\$ \$\$ | Amoun 1,680.0 1,000.0 2,070.0 780.0 1,200.0 195.0 150.0 |
| 1.0 2.0 3.0 4.0 5.0 3.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability | , M.C | OOLLARS | \$ 435.00 t. & % Oil | | 5,568 Total Quantity | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$195 \$150 \$1,000 | \$ \$\$ \$\$ \$\$ \$\$ \$\$ | 1,000.0 2,070.0 1,200.0 1,200.0 1,200.0 1,200.0 1,200.0 2,000.0 |
| 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durability) | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$1,200 \$1,200 \$1,200 \$1,200 \$1,200 | \$ \$\$ \$\$ \$\$ \$\$ \$\$ | 1,000.0 2,070.0 1,200.0 1,200.0 1,200.0 1,200.0 1,200.0 2,000.0 |
| 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity | Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$195 \$150 \$1,000 | \$ \$\$ \$\$ \$\$ \$\$ \$\$ | 1,000.0 2,070.0 1,200.0 1,200.0 1,200.0 1,200.0 1,200.0 2,000.0 |
| 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue,Sieve, Durability, Consult, RFIs, Submittal Reviews, Re | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 46 C Tot | Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$195 \$150 \$1,000 ab Costs: | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | Amoun 1,680.0 1,000.0 2,070.0 780.0 1,200.0 1,50.0 2,000.0 7,075.0 |
| 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 Project Meeting | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Duratile) gs, Consult, RFIs, Submittal Reviews, Re Title | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 46 C Tot | \$ Fiel // | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$195 \$150 \$1,000 ab Costs: | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | Amoun 1,680.0 2,070.0 780.0 1,200.0 150.0 2,000.0 Amoun 3,000.0 |
| 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 Project Meeting Personnel SAS | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durability, Consult, RFIs, Submittal Reviews, ReTitle Principal Eng/Geologist 3 | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 46 C Tot | \$ Fiel // 66 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$195 \$150 \$1,000 ab Costs: | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | Amoun 1,680.0 1,000.0 2,070.0 - 780.0 1,200.0 150.0 2,000.0 7,075.0 Amoun 3,000.0 |
| Fask 1.0 2.0 3.0 3.0 6.0 6.0 6.0 6.0 9.0 9.0 9.0 9.0 Project Meeting | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durability) gs, Consult, RFIs, Submittal Reviews, Re Title Principal Eng/Geologist 3 Principal Eng/Geologist 2 | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 46 C Tot | \$ Fiel // 66 1 1 1 1 1 2 2 2 2 1 1 1 1 1 2 2 2 3 5 5 5 5 | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$2200 \$390 \$1,200 \$1,900 \$1,000 \$40.00 | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | Amoun 1,680.0 1,000.0 2,070.0 1,200.0 1,50.0 2,000.0 7,075.0 Amoun 3,000.0 |
| Fask 1.0 2.0 3.0 4.0 5.0 6.0 6.0 6.0 7.0 8.0 9.0 0.0 Project Meeting Personnel Fask Fask Fask Fask Fask Fask Fask Fask | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durability Js., Consult, RFIs, Submittal Reviews, Re Title Principal Eng/Geologist 3 Principal Eng/Geologist 2 Principal Eng/Geologist 1 | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 46 C Tot | \$ Fiel // / 6 6 1 1 1 1 2 2 2 2 2 3 4 1 La 5 5 5 5 5 | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$1,000 \$1,000 \$1,000 \$20,000 \$20,000 | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | 19,44 Amoun 1,680.0 1,000.0 2,070.0 780.0 1,200.0 195.0 2,000.0 7,075.0 Amoun 3,000.0 - |
| I.0 2.0 3.0 4.0 5.0 6.0 6.0 7.0 8.0 9.0 10.0 Project Meeting Personnel SAS APM JOSE / EAD SISP JAFJ | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Duratile) JR, Consult, RFIs, Submittal Reviews, Re Title Principal Eng/Geologist 3 Principal Eng/Geologist 2 Principal Eng/Geologist 1 Associate Engineer I | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 46 C Tot | \$ Fiel // / 6 6 1 1 1 1 2 2 2 2 2 3 3 5 5 5 \$ 5 | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$195 \$150 \$1,000 ab Costs: \$/Hour 250.00 240.00 230.00 205.00 | \$ \$ | 19,44 Amoun 1,680.0 1,000.0 2,070.0 195.0 150.0 2,000.0 Amoun 3,000.0 |
| I.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 Project Meeting Personnel SAS AIPM AIPM AIPM AIPM AIRGA AIRM AIRM AIRM AIRM AIRM AIRM AIRM AIR | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durability Gradation/Sieve Title Principal Eng/Geologist 3 Principal Eng/Geologist 2 Principal Eng/Geologist 1 Associate Engineer I Senior Geologist 2 | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 46 C Tot | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$445 \$200 \$390 \$1,200 \$1,200 \$1,000 ab Costs: \$/Hour 250.00 240.00 230.00 180.00 | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | 19,44 Amoun 1,680.0- 1,000.0- 2,070.0- 1,200.0- 195.0- 1,50.0- 2,000.0- 3,000.0- |
| 1.0 2.0 3.0 4.0 5.0 6.0 6.0 7.0 8.0 9.0 10.0 Project Meeting | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durability gradation/Sieve Title Principal Eng/Geologist 3 Principal Eng/Geologist 2 Principal Eng/Geologist 1 Associate Engineer I Senior Geologist 2 Senior Engineer I | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 46 C Tot | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$1905 \$1,000 ab Costs: \$/Hour 250.00 240.00 230.00 205.00 180.00 170.00 150.00 | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | 19,44 Amoun 1,680.0 1,000.0 2,070.0 1,200.0 1,200.0 155.0 2,000.0 7,075.0 Amoun 3,000.0 |
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| Fask 1.0 2.0 3.0 4.0 5.0 5.0 5.0 6.0 7.0 3.0 10.0 Project Meeting Personnel SAS APM JSEC / EAD SISP JOEC / MACH JSEC JOEC / NGK / SLM AJM / JTO | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durative) principal Eng/Geologist 3 Principal Eng/Geologist 2 Principal Eng/Geologist 1 Associate Engineer 1 Senior Engineer 1 Project Engineer 3 Project Engineer 2 Sr. Tech 2 | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 44 C Tot Hours | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$445 \$200 \$390 \$1,200 \$1,200 \$1,000 240,000 230,000 205,000 170,000 150,000 140,000 120,000 | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | 19,44 Amoun 1,680.0 1,000.0 2,070.0 195.0 150.0 2,000.0 Amoun 3,000.0 |
| I.0 2.0 3.0 4.0 5.0 6.0 6.0 6.0 7.0 8.0 9.0 10.0 Project Meeting Personnel SAS MPM SOSC / EAD SISSP AFFU RCA AGM / JTO MMT / ENE / ZMS | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durability Gradation/Sieve Title Principal Eng/Geologist 3 Principal Eng/Geologist 2 Principal Eng/Geologist 1 Associate Engineer I Senior Geologist 2 Senior Engineer I Project Engineer 3 Project Engineer 2 St. Tech 2 Staff Engineer/Geologist 3 | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 44 C Tot Hours | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$1,000 \$1,000 \$250,00 \$200,00 \$180,00 \$170,00 \$150,00 \$120,00 \$120,00 | \$ | 19,44 Amoun 1,680.0 1,000.0 2,070.0 1,200.0 1,200.0 7,075.0 Amoun 3,000.0 1,200.0 1,200.0 1,200.0 1,200.0 1,200.0 |
| Fask 1.0 2.0 3.0 3.0 4.0 5.0 5.0 6.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9 | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durability gradation/Sieve Title Principal Eng/Geologist 3 Principal Eng/Geologist 2 Principal Eng/Geologist 1 Associate Engineer I Senior Geologist 2 Senior Engineer I Project Engineer 3 Project Engineer 2 Sr. Tech 2 Staff Engineer/Geologist 3 Staff Technician 2 | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 44 C Tot Hours | \$ Field | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$1905 \$1,000 ab Costs: \$/Hour 250,00 240,00 230,00 180,00 170,00 170,00 120,00 120,00 100,00 | \$\$ \$ | 19,44 Amoun 1,680.0 1,000.0 2,070.0 1,200.0 1,200.0 1,550.0 2,000.0 7,075.0 Amoun 3,000.0 1,200.0 1,200.0 1,200.0 1,200.0 |
| Fask 1.0 2.0 3.0 4.0 5.0 5.0 5.0 6.0 7.0 3.0 10.0 Project Meeting Personnel SAS APM JSEC / EAD SISP JOEC / MACH JSEC JOEC / NGK / SLM AJM / JTO | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durability Gradation/Sieve Title Principal Eng/Geologist 3 Principal Eng/Geologist 2 Principal Eng/Geologist 1 Associate Engineer I Senior Geologist 2 Senior Engineer I Project Engineer 3 Project Engineer 2 St. Tech 2 Staff Engineer/Geologist 3 | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | | 5,568 Total Quantity 44 C Tot Hours | \$ Fiel | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$1,000 \$1,000 \$250,00 \$200,00 \$180,00 \$170,00 \$150,00 \$120,00 \$120,00 | \$ \$ | 19,44 Amoun 1,680.0 2,070.0 780.0 1,200.0 195.6 2,000.0 7,075.6 Amoun 3,000.0 |
| Project Meeting Project Meeting Personnel As AS AS DC / RAD DC / NGK / SLM JMM / JTO MAR AR WM / JMO / BPC | Description Compaction Curve ASTM 1557 Compaction Curve CalTrans 216 Asphalt Concrete - S-value, Gradation Concrete Compression (per Cylinder) Concrete Beam Flex R-value AC coring Durability Gradation/Sieve Class II AB Suite (Rvalue, Sieve, Durat Principal Eng/Geologist 3 Principal Eng/Geologist 2 Principal Eng/Geologist 1 Associate Engineer I Senior Geologist 2 Senior Engineer I Project Engineer 3 Project Engineer 2 St. Tech 2 Staff Engineer/Geologist 3 Staff Technician 2 Staff Technician 1 | , M.C | OOLLARS C., Unit W & Sand E | \$ 435.00 t. & % Oil | 9 | Total Quantity 46 Tot Hours 12 | \$ Fiel / / 6 1 1 6 1 1 1 2 2 1 1 1 1 2 2 2 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 13,440 Id Costs: Unit \$ \$280 \$350 \$1,000 \$45 \$200 \$390 \$1,200 \$195 \$1,000 ab Costs: \$/Hour 250.00 240.00 230.00 205.00 180.00 170.00 140.00 120.00 120.00 195.00 | \$ \$ | 19,44 Amoun 1,680.0 1,000.0 2,070.0 780.1,200.0 1,200.0 1,500.0 3,000.0 1,200.0 1,200.0 |

 Subtotal:
 \$ 31,918

 Contingency:
 10%
 \$ 3,192

 Total:
 \$ 35,110

Use for Budget:

\$ 35,000

Abe Construction Services, Inc.

5111 Doolan Rd., Livermore, CA 94551 Phone: 925-944-6363 Fax:925-476-1588 Email: SA.ACS@ATT.net

June 9, 2020

Estimate for CIDH Pile Testing Services GGL (Gamma-Gamma Logging)

Southern Heights Blvd. San Rafael, CA

Attn: CM Firms

Scope: Perform GGL on 6 CIDH Piles as follows:

Abutment 1 & 4- 2 piles each Abut. @ 24" x ~30' with 2

Bents 2 & 3- 1 pile each bent @ 36" x ~95' with 3 tubes/pile.

Assume 3 mobilizations and 3 reports, 1 for each abutment and 1 for Bents 2 & 3 same day.

| QTY. | DESCRIPTION | RATE / I | UNIT | COST |
|--------|--|----------------|------|---------------------|
| GGL FI | IELD TESTING | | | |
| 4 | GGL Equipment / Logging Charge (24" Abutment 1 Piles) | \$120.00 / | pile | NA- Min. Day Charge |
| 2 | GGL Equipment / Logging Charge (36" Bent Piles) | \$550.00 / | pile | \$1,100.00 |
| | (Assumes Bents 2 & 3 tested same day) | | | |
| 2 | Minimum daily field charge (if Per pile charge per day < \$1000) | \$1,000.00 / | day | \$2,000.00 |
| 0 | Weekend or holiday premium charge | \$300.00 / | day | \$0.00 |
| REPOF | RT / ANALYSIS/ ENGINEERING/ADMIN. CHARGES | | | |
| 1 | First GGLTest Report submittal | \$600.00 / 6 | each | \$600.00 |
| 2 | Additional GGLTest Reports submittal after 1st report | \$400.00 / 6 | each | \$800.00 |
| 0 | Engineer for meetings, standby at site, or PDDF forms | \$200.00 /I | 'hr | \$0.00 |
| 0 | Certified Payrol Reports (if required) | \$150.00 / 6 | each | \$0.00 |
| TRAVE | EL / MOB EXPENSES | | | |
| 3 | Equipment Mobilization/vehicle/ travel costs | \$290.00 /1 | trip | \$870.00 |
| 0 | Overnight charge for consecutive field days out of town | \$150.00 / | day | \$0.00 |
| | | Total Estimate | | \$5,370.00 |

Notes & Terms:

- a) At least 7 days notice; the job may then be postponed with 24 hrs notice if necessary without charges. If we receive less than 7 days notice, additional mobilization expenses may be negotiated.
- b) Standby charge of \$200/ hr will be charged if engineer must wait for access to piles for testing
- c) Working conditions for our engineer which conform with OSHA requirements AND SAFE ACCESS TO PILES This quote is valid for 90 days.
- d) All PVC inspection tubes **must** be BLOWN DRY PRIOR TO TESTING AND SOUNDED WITH A DUMMY PROBE TO ENSURE THE TUBES ARE CLEAR AND STRAIGHT. THE DUMMY PROBE MUST BE A 60-INCH LONG BY 1.25-INCH PIECE OF STEEL PIPE AND PASS FREELY FROM TOP TO BOTTOM OF EACH TUBE.
- e) Quote assumes ACS insurance per attached certificate is acceptable as-is.
- f) Quote assumes that ACS is charging lump sum per test under a subcontract agreement as a non-A&E service providor not subject to 10H or safe habor rates and that client will list ACS as a direct cost vendor rather than a subconsultant/ sub contractor, and that FAR Title 48 & 49 requirements do not apply to ACS.

Please sign below indicating you accept the above rates and terms and agree to pay in full within 30 days of receipt of invoice. Please return signed qote by email.

This quote is valid for 90 days.

| Company | Date |
|--------------------|-----------|
| Print name & title | Signature |





▲ TOPOGRAPHIC ▲ INFRASTRUCTURE ▲ CONSTRUCTION ▲ HYDROGRAPHIC LAND SURVEYING

EXHIBIT C HOURLY FEE SCHEDULE

MARCH 1, 2020 TO FEBRUARY 29, 2021

OFFICE AND PROFESSIONAL

Professional Land Surveyor (4 HOUR MINIMUM)

\$460.00 per hour

EXPERT WITNESS, DEPOSITIONS & CONSULTATIONS

\$260.00 per hour

Professional Land Surveyor LEGAL RESEARCH & COURT EXHIBITS

Principal Professional Land Surveyor

\$200.00 per hour

Senior Professional Land Surveyor

\$190.00 per hour

Professional Land Surveyor

\$160.00 - \$180.00 per hour

\$118.00 - \$160.00 per hour

(PLUS MATERIAL)

GIS Analyst

Survey Technician

\$134.00 per hour

Remote Pilot

\$185.00 - \$205.00 per hour

INCLUDES MISSION PLANNING, VEHICLES, UAS/DRONE, MILEAGE & MATERIAL

Word Processing, Clerical and Deliveries

\$ 98.00 per hour

FIELD CREWS

THE FOLLOWING INCLUDES VEHICLES, EQUIPMENT, MILEAGE & MATERIAL

1 Person Field Party

\$190.00 per hour

1 Person GPS Party

\$215.00 per hour

2 Person Field Party

3 Person Field Party

\$285.00 per hour

FIELD CREW CONSISTS OF PARTY CHIEF & CHAINMAN

\$395.00 per hour

FIELD CREWS CONSIST OF PARTY CHIEF, 2 CHAINMEN OR CHAINMAN & FLAGPERSON.

4 - Person Field Party

\$460.00 per hour

FIELD CREWS CONSIST OF PARTY CHIEF, 3 CHAINMEN OR CHAINMAN & 2 FLAGPERSONS.

SUPPLEMENTAL ITEMS

Outside Contract Work

Cost plus 15% 1.2 x base rate

Overtime Work Over 8 Hours on Saturday, all day on Sundays or Holiday Night Work (*shifts starting after 4 PM or before 5 AM*)

10% additional over base rates

Travel Time for 2-Man Crew

\$120.00 per hour

1.4 x base crew rate

(beyond 1 hour of travel outside an 8 hour workday)

GEDO Scan Equipment is subject to a \$1,000.00 per day usage charge

UAS Equipment subject to a \$750.00 per day usage charge

Schedule 2020/2021

Sunny Jhutti

From: Sunny Jhutti

Sent: Sunday, July 19, 2020 12:21 PM

To: Sunny Jhutti

Subject: FW: Southern Heights Blvd Bridge

From: Bob Shults [mailto:bob@veruxinc.com]

Sent: Monday, June 15, 2020 10:14 AM

To: Sunny Jhutti

Subject: RE: Southern Heights Blvd Bridge

Sunny,

The price per site visit, assuming one hour of time at the site for an inspection and a follow-up inspection report with photos, would be \$325/each. So no we wouldn't charge for all the drive time to and from Sacramento. If you need me to assume more time at the site let me know and I can adjust the price.

Thanks,

Bob Shults, PE, QSD, TOR | Partner



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San Rafael Bridge Project

Proposed Scope and Budget Assumptions (revised 07.20.20)

Engagement Scope of Work and Budget Assumptions

The following presents our proposed tasks for community engagement for the San Rafael Bridge Improvement project.

TASK 1 – PROJECT INITIATION

Task 1.1: Kick-off Meeting

Plan to Place will participate in a kick-off meeting with the Substrate team and City staff to:

- Identify potential stakeholders;
- Review outreach opportunities and discuss the engagement strategy;
- Confirm expectations for work products and refine the scope of work and budget as necessary; and
- Discuss project roles and responsibilities.

Task 1.1 Budget = \$1,750 (5 Hours @ \$200/hr = \$1,000 + 5 Hours @ \$150/hr = \$750)

Task 1.2: Branding + Project Awareness

In order to prepare an identifiable and consistent brand for this project, Plan to Place will assist with the following tasks:

- **Style Guide** The first step to creating branding materials will be to prepare a Style Guide that identifies the fonts, color schemes, and graphic design elements. The proposed Style Guide will build off of city-wide branding resources.
- **Project logo and Outreach templates** once the Style Guide is approved, Plan to Place can create document templates and graphic style guidelines to be used for all project related meeting materials such as information flyers and postcards, to share with the community through the field visits, and digital media for the City's social media and project webpage and other digital platforms.

Task 1.2 Budget = \$4,200 (6 Hours @ \$200/hr = \$1,200 + 20 hours @ \$150/hr = \$3,000)

Task 1 Deliverables:

- ✓ Final refined scope and budget
- ✓ Draft and Final Branding Materials

TASK 2 – IMPLEMENT ENGAGEMENT STRATEGY

Task 2.1: Weekly Project Updates

Plan to Place will work with the Substrate team to prepare weekly progress updates to share with the community through mailers, flyers, the project website and social media. Its anticipated that the City and Substrate team will supply all of the material and updates, and Plan to Place will put them in an easy to understand and approachable format. The budget assumes that the Plan to Place team will be on site up to four times a month **for up to 2 1/2 months** to help with distribution of material.

Task 2.1 Budget = \$15,500 (50 Hours @ \$200/hr = \$9,200 + 42 hours @ \$150/hr = \$6,300)

Task 2.2: Project Website Updates

It's assumed that the City will set up a project page on the City's website for this project. Plan to Place will assist project team with preparing web ready material to provide updates (based on information receive from the City and Substrate team)

Task 2.2 Budget = \$3,000 (6 Hours @ \$200/hr = \$1,200 + 12 hours @ \$150/hr = \$1,800)

Task 2 Deliverables:

- ✓ Weekly Project Updates
- ✓ Project Website updates

BUDGET

Task 1 = \$5.950

Task 2 = \$18,500

Direct costs (for travel, assume that City or Substrate Inc. will incur costs related to printing and website maintenance) = \$500

TOTAL BUDGET = \$24,950