

**CITY OF CORONA  
PROFESSIONAL SERVICES AGREEMENT  
WITH BIGGS CARDOSA ASSOCIATES, INC.  
ENVIRONMENTAL, RIGHT-OF-WAY & ENGINEERING DESIGN SERVICES  
FOR MCKINLEY GRADE SEPARATION  
CITY OF CORONA PROJECT NO. 2012-12**

**1. PARTIES AND DATE.**

This Agreement is made and entered into this **18th** day of **July, 2018** (“Effective Date”) by and between the City of Corona, a municipal corporation organized under the laws of the State of California with its principal place of business at 400 South Vicentia Avenue, Corona, California 92882 (“City”) and **Biggs Cardosa Associates, Inc.**, a California corporation with its principal place of business at 500 S. Main Street, Suite 400, Orange, California 92868-4507 (“Consultant”). City and Consultant are sometimes individually referred to as “Party” and collectively as “Parties” in this Agreement.

**2. RECITALS.**

**2.1 Consultant.**

Consultant desires to perform and assume responsibility for the provision of certain professional services required by the City on the terms and conditions set forth in this Agreement. Consultant represents that it is experienced in providing **Civil Engineering, Environmental, Right-of-Way and Engineering Design** services to public clients, is licensed in the State of California, and is familiar with the plans of City.

**2.2 Project.**

City desires to engage Consultant to render such services for the **Environmental, Right-of-Way & Engineering Design Services for the McKinley Grade Separation, City of Corona Project No. 2012-12, RFP No. 18-046CA** (“Project”) as set forth in this Agreement.

**3. TERMS.**

**3.1 Scope of Services and Term.**

3.1.1 General Scope of Services. Consultant promises and agrees to furnish to the City all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional services for the **Environmental, Right-of-Way & Engineering Design Services for the McKinley Grade Separation, City of Corona Project No. 2012-12, RFP No. 18-046CA** consulting services necessary for the Project (“Services”). The Services are more particularly described in Exhibit “A” attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, the exhibits attached hereto and incorporated herein by reference, and all applicable local, state and federal laws, rules, and regulations.

3.1.2 Term. The term of this Agreement shall be from **July 18, 2018 to June 30, 2021** ("Term"), unless earlier terminated as provided herein. Consultant shall complete the Services within the Term of this Agreement and shall meet any other established schedules and deadlines. The Parties may, by mutual, written consent, extend the Term of this Agreement one or more times by executing a written amendment pursuant to Section 3.6.8 below (each a "Renewal Term"). The terms "Term" and "Renewal Term" may sometimes be generally and collectively referred to as "Term" in this Agreement.

### **3.2 Responsibilities of Consultant.**

3.2.1 Control and Payment of Subordinates; Independent Contractor. The Services shall be performed by Consultant or under its supervision. Consultant will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. City retains Consultant on an independent contractor basis and not as an employee. Consultant retains the right to perform similar or different services for others during the Term of this Agreement. Any additional personnel performing the Services under this Agreement on behalf of Consultant shall also not be employees of City and shall at all times be under Consultant's exclusive direction and control. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.

3.2.2 Schedule of Services. Consultant shall perform the Services within the Term of this Agreement, in accordance with the Schedule of Services set forth in Exhibit "B" attached hereto and incorporated herein by reference, and in accordance with any other completion schedule or milestones which may be separately agreed upon in writing by the Parties. Consultant represents that it has the professional and technical personnel required to perform the Services in conformance with such conditions. In order to facilitate Consultant's conformance with the Schedule, City shall respond to Consultant's submittals in a timely manner. Upon request of City, Consultant shall provide a more detailed schedule of anticipated performance to meet the Schedule of Services.

3.2.3 Conformance to Applicable Requirements. All Services performed by Consultant shall be subject to the approval of City.

3.2.4 Substitution of Key Personnel. Consultant has represented to City that certain key personnel will perform and coordinate the Services under this Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence upon written approval of City. In the event that City and Consultant cannot agree as to the substitution of key personnel, City shall be entitled to terminate this Agreement for cause. As discussed below, any personnel who fail or refuse to perform the Services in a manner acceptable to the City, or who are determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project or a threat to the safety of persons or

property, shall be promptly removed from the Project by the Consultant at the request of the City. The key personnel for performance of this Agreement are as follows: **Michael Thomas, PE, SE.**

3.2.5 City's Representative. The City hereby designates **Nelson D. Nelson, PE, Public Works Director/City Engineer**, or his or her designee, to act as its representative for the performance of this Agreement ("City's Representative"). City's Representative shall have the power to act on behalf of the City for all purposes under this Contract. Consultant shall not accept direction or orders from any person other than the City's Representative or his or her designee.

3.2.6 Consultant's Representative. Consultant hereby designates **Michael Thomas, PE, SE**, or his or her designee, to act as its representative for the performance of this Agreement ("Consultant's Representative"). Consultant's Representative shall have full authority to represent and act on behalf of the Consultant for all purposes under this Agreement. The Consultant's Representative shall supervise and direct the Services, using his best skill and attention, and shall be responsible for all means, methods, techniques, sequences, and procedures and for the satisfactory coordination of all portions of the Services under this Agreement.

3.2.7 Coordination of Services. Consultant agrees to work closely with City staff in the performance of Services and shall be available to City's staff, Consultants and other staff at all reasonable times.

3.2.8 Standard of Care; Performance of Employees. Consultant shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Consultant represents and maintains that it is skilled in the professional calling necessary to perform the Services. Consultant agrees that all employees and subconsultants shall have sufficient skill and experience to perform the Services assigned to them. Finally, Consultant represents that it, its employees and subconsultants shall have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services, including a City Business License, and that such licenses and approvals shall be maintained throughout the Term of this Agreement. As provided for in the indemnification provisions of this Agreement, Consultant shall perform, at its own cost and expense and without reimbursement from the City, any services necessary to correct errors or omissions which are caused by the Consultant's failure to comply with the standard of care provided for herein. Any employee of the Consultant or its sub-Consultants who is determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project, a threat to the safety of persons or property, or any employee who fails or refuses to perform the Services in a manner acceptable to the City, shall be promptly removed from the Project by the Consultant and shall not be re-employed to perform any of the Services or to work on the Project.

3.2.9 Laws and Regulations; Employee/Labor Certifications. Consultant shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements, and shall give all notices required by law. Consultant shall be liable for all violations of such laws and regulations in connection with Services. If the Consultant performs any work or Services knowing them to be contrary to such laws, rules and regulations and without

giving written notice to the City, Consultant shall be solely responsible for all costs arising therefrom. Consultant shall defend, indemnify and hold City, its officials, directors, officers, employees, and agents free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.2.9.1 Employment Eligibility; Consultant. By executing this Agreement, Consultant verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time. Such requirements and restrictions include, but are not limited to, examination and retention of documentation confirming the identity and immigration status of each employee of the Consultant. Consultant also verifies that it has not committed a violation of any such law within the five (5) years immediately preceding the date of execution of this Agreement and shall not violate any such law at any time during the Term of the Agreement. Consultant shall avoid any violation of any such law during the Term of this Agreement by participating in an electronic verification of work authorization program operated by the United States Department of Homeland Security, by participating in an equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, or by some other legally acceptable method. Consultant shall maintain records of each such verification and shall make them available to the City or its representatives for inspection and copy at any time during normal business hours. The City shall not be responsible for any costs or expenses related to Consultant's compliance with the requirements provided for in Section 3.2.9 or any of its subsections.

3.2.9.2 Employment Eligibility; Subcontractors, Consultants, Sub-subcontractors and Subconsultants. To the same extent and under the same conditions as Consultant, Consultant shall require all of its subcontractors, Consultants, sub-subcontractors and subconsultants performing any work or Services relating to the Project or this Agreement to make the same verifications and comply with all requirements and restrictions provided for in Section 3.2.9.1.

3.2.9.3 Employment Eligibility; Failure to Comply. Each person executing this Agreement on behalf of Consultant verifies that they are a duly authorized officer of Consultant, and understands that any of the following shall be grounds for the City to terminate the Agreement for cause: (1) failure of Consultant or its subcontractors, Consultants, sub-subcontractors or subconsultants to meet any of the requirements provided for in Sections 3.2.9.1 or 3.2.9.2; (2) any misrepresentation or material omission concerning compliance with such requirements (including in those verifications provided to the Consultant under Section 3.2.9.2); or (3) failure to immediately remove from the Project any person found not to be in compliance with such requirements.

3.2.9.4 Labor Certification. By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance

in accordance with the provisions of that Code and agrees to comply with such provisions before commencing the performance of the Services.

3.2.9.5 Equal Opportunity Employment. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subconsultant, employee or applicant for employment because of race, religion, color, national origin, handicap, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of City's Minority Business Enterprise program, Affirmative Action Plan or other related programs or guidelines currently in effect or hereinafter enacted.

3.2.9.6 Air Quality. To the extent applicable, Consultant must fully comply with all applicable laws, rules and regulations in furnishing or using equipment and/or providing services, including, but not limited to, emissions limits and permitting requirements imposed by the South Coast Air Quality Management District (SCAQMD) and/or California Air Resources Board (CARB). Although the SCAQMD and CARB limits and requirements are more broad, Consultant shall specifically be aware of their application to "portable equipment", which definition is considered by SCAQMD and CARB to include any item of equipment with a fuel-powered engine. Consultant shall indemnify City against any fines or penalties imposed by SCAQMD, CARB, or any other governmental or regulatory agency for violations of applicable laws, rules and/or regulations by Consultant, its subconsultants, or others for whom Consultant is responsible under its indemnity obligations provided for in this Agreement.

### 3.2.10 Insurance.

3.2.10.1 Time for Compliance. Promptly following the Effective Date of this Agreement, but in no event before Consultant commences any Services under this Agreement, Consultant shall provide evidence satisfactory to the City that it has secured all insurance required under this section. Failure to provide and maintain all required insurance shall be grounds for the City to terminate this Agreement for cause.

3.2.10.2 Minimum Requirements. Consultant shall, at its expense, procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Consultant, its agents, representatives, employees or subconsultants. Consultant shall also require all of its subconsultants to procure and maintain the same insurance for the duration of the Agreement. Such insurance shall meet at least the following minimum levels of coverage:

(A) Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability*: Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001); (2) *Automobile Liability*: Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto), or if Consultant has no owned autos, Code 8 (hired) and 9 (non-owned); and (3) *Workers'*

*Compensation and Employer's Liability:* Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

(B) Minimum Limits of Insurance. Consultant shall maintain limits no less than: (1) *General Liability:* **\$2,000,000** per occurrence for bodily injury, personal injury, advertising injury and property damage. If Commercial General Liability Insurance or other form with general aggregate limit is used including, but not limited to, form CG 2503, either the general aggregate limit shall apply separately to this Agreement/location or the general aggregate limit shall be twice the required occurrence limit; (2) *Automobile Liability:* **\$1,000,000** per accident for bodily injury and property damage; and (3) *Workers' Compensation and Employer's Liability:* Workers' Compensation limits as required by the Labor Code of the State of California. Employer's Liability limits of **\$1,000,000** per accident for bodily injury or disease.

3.2.10.3 Professional Liability. Consultant shall procure and maintain, and require its sub-Consultants to procure and maintain, for a period of five (5) years following completion of the Project, errors and omissions liability insurance appropriate to their profession. Such insurance shall be in an amount not less than **\$3,000,000** per claim or occurrence, **\$3,000,000** aggregate minimum.

3.2.10.4 Contractors Pollution Liability. Coverage shall be at least as broad as Contractor's Pollution/Asbestos Liability/Errors and Omissions as applicable to the work being performed with a limit of no less than **\$1,000,000** per claim or occurrence and **1,000,000** aggregate per policy period of one year for firms or subcontractors conducting site assessment and test borings. As respects Contractors Pollution Liability and Asbestos Pollution Liability, coverage must be maintained for a minimum of five years after contract completion. The Contractors Pollution shall not contain a lead or asbestos exclusion.

3.2.10.5 Insurance Endorsements. The insurance policies shall contain or be endorsed (amended) to include the following provisions:

(A) General Liability. The general liability policy shall state that: (1) the City, its directors, officials, officers, employees, agents, and volunteers shall be covered as additional insured with respect to liability arising out of work or operations performed by or on behalf of the Consultant, including materials, parts or equipment furnished in connection therewith and Products and Completed Operations hazards (the endorsement form shall be at least as broad as ISO Form CG 20 10 11 85 or both CG 20 37 and one of the following: CG 20 10, CG 20 26, CG 20 33 or CG 20 38); and (2) the insurance coverage shall be primary insurance coverage as respects the City, its directors, officials, officers, employees, agents, and volunteers (the endorsement form shall be at least as broad as ISO CG 20 01 04 13). Any insurance or self-insurance maintained by the City, its directors, officials, officers, employees, agents, and volunteers shall be excess of the Consultant's insurance and shall not be called upon to contribute with it in any way.

(B) Waiver of Subrogation – Workers' Compensation and Employer's Liability Coverage. The insurer shall agree to waive all rights of subrogation against

the City, its directors, officials, officers, employees, agents, and volunteers for losses paid under the terms of the insurance policy which arise from work or Services performed by the Consultant.

(C) All Coverages. If Consultant maintains broader coverage and/or higher limits than the minimums shown above, the City is entitled to the broader coverage and/or higher limits maintained by Consultant. Thus, any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

3.2.10.6 Other Provisions; Endorsements Preferred. Consultant shall endeavor to provide endorsements regarding the following provisions, but nonetheless understands, acknowledges and agrees that the following provisions shall apply and that failure to comply shall be considered to be a breach of this Agreement by Consultant:

(A) Waiver of Subrogation – All Other Policies. Consultant hereby waives all rights of subrogation any insurer of Consultant's may acquire against the City, its directors, officials, officers, employees, agents, and volunteers for losses paid under the terms of any insurance policy which arise from work or Services performed by the Consultant. Consultant understands, acknowledges and agrees that this provision is in full force and effect even if the City does not receive a waiver of subrogation endorsement from the insurer.

(B) Notice. Consultant shall either: (1) require its insurer to provide thirty (30) days prior written notice to the City before coverage is suspended, voided, or canceled; or (2) notify City in writing that such notice is not available and forward any notice of such actions to the City within two (2) business days from date of receipt by Consultant. Consultant understands, acknowledges and agrees that this provision is in full force and effect even if the City does not receive a waiver of subrogation endorsement from the insurer.

(C) Contractors Pollution Liability. If coverages are written on a Claims Made form, retroactive date must be shown and must be before the date of the contract or beginning of contract work. If coverage is cancelled or non-renewed, or not replaced with another claims made form with a retroactive date prior to the contract effective date, the Contractor must purchase an extended reporting period coverage for a minimum of five years after completion of contract work.

3.2.10.7 Claims Made Policies. The following provisions shall apply to all policies that provide coverage on a claims-made basis: (A) the retroactive date must be shown and must be before the date on which any Services under this Agreement commence; (B) the insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the Project; and (C) if coverage is canceled or not renewed and is not replaced with another claims-made policy with a retroactive date prior to the date on which any Services under this Agreement commence, Consultant must purchase "extended reporting" coverage for a minimum of five (5) years after completion of Project.

3.2.10.8 Deductibles and Self-Insurance Retentions. Any deductibles or self-insured retentions must be declared to and approved by the City. The City may require the Consultant to provide proof of ability to pay losses and related investigation, claims administration

and defense expenses within the deductible or self-insured retention. The deductible or self-insured retention may be satisfied by either the named insured or the City.

3.2.10.9 Acceptability of Insurers. Unless under the circumstances a different rating is otherwise acceptable to the City in its sole and absolute discretion, insurance is to be placed with insurers which are satisfactory to the City and which meet either of the following criteria : (1) an insurer with a current A.M. Best's rating no less than A-:VII and licensed as an admitted insurance carrier in California; or (2) an insurer with a current A.M. Best's rating no less than A-:X and authorized to issue the required policies in California.

3.2.10.10 Verification of Coverage. Consultant shall furnish City with original certificates of insurance, as well as amendatory endorsements or copies of the applicable policy language effecting coverage required by this Agreement. All documents must be received and approved by the City before any Services commence; provided, however, that failure to obtain the required documents prior to the commencement of Services shall not waive Consultant's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

3.2.10.11 Reporting of Claims. Consultant shall report to the City, in addition to Consultant's insurer, any and all insurance claims submitted by Consultant in connection with the Services under this Agreement.

3.2.10.12 Sub-Consultants. All sub-Consultants shall comply with each and every insurance provision of this Section 3.2.10. Consultant shall therefore not allow any sub-Consultant to commence work on any subcontract to perform any part of the Services until it has provided evidence satisfactory to the City that the sub-Consultant has secured all insurance required under this Agreement.

3.2.10.13 Special Risk or Circumstances. The City reserves the right, in its sole and absolute discretion, to modify the requirements of this Section 3.2.10, including limits, based on any of the following: (A) the nature of the risk of the Services; (B) the prior experience of the insured; (C) the rating or other quality or characteristic of the insurer; (D) any special or unique coverage issues; and (E) any other special or unique circumstances.

3.2.11 Safety. Consultant shall execute and maintain its work and Services so as to avoid injury or damage to any person or property. In carrying out its Services, the Consultant shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the Services and the conditions under which the Services are to be performed.

3.2.12 Accounting Records. Consultant shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of City during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents,

proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

### **3.3 Fees and Payments.**

3.3.1 Rates & Total Compensation. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit "C" attached hereto and incorporated herein by reference. The total compensation, including authorized reimbursements, shall not exceed **Nine Million Eight Hundred Thirty-Three Thousand Three Hundred Ninety-Three Dollars (\$9,833,393)** ("Total Compensation"), without written approval of City's Representative. Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.

3.3.2 Payment of Compensation. Consultant shall submit to City a monthly itemized statement which indicates work completed and hours of Services rendered by Consultant. The statement shall describe the amount of Services and supplies provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. City shall, within 30 days of receiving such statement, review the statement and pay all approved charges thereon.

3.3.3 Reimbursement for Expenses. Consultant shall not be reimbursed for any expenses unless authorized in writing by City.

3.3.4 Extra Work. At any time during the Term of this Agreement, City may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by City to be necessary for the proper completion of the Project, but which the Parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization from City's Representative.

3.3.5 Prevailing Wages. Consultant is aware of the requirements of Chapter 1 (beginning at Section 1720 et seq.) of Part 7 of Division 2 of the California Labor Code, as well as Title 8, Section 16000 et seq. of the California Code of Regulations ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the Services involve federal funds or otherwise require compliance with the Davis-Bacon Fair Labor Standards Act, the Consultant and its subconsultants shall comply with the higher of the state or federal prevailing wage rates, and the "Prevailing Wage Laws" shall be deemed to include such federal wages laws. Consultant and its subconsultants shall also be responsible for any and all violations and fines imposed on them pursuant to the Prevailing Wage Laws. Pursuant to SB 854, which amended the Prevailing Wage Laws, this Agreement would also be subject to compliance monitoring and enforcement by the California Department of Industrial Relations ("DIR"). Beginning April 1, 2015, no Consultant or subconsultant may be awarded this Agreement unless registered with the DIR pursuant to Labor Code Section 1725.5. The City will report all necessary agreements to the DIR as required by the Prevailing Wage Laws. Consultant shall make copies of the prevailing rates of per diem wages

for each craft, classification or type of worker needed to execute the Services available to interested parties upon request and shall post copies at the Consultant's principal place of business and at the Project site. It is most efficient for the Consultant to obtain a copy of the prevailing wages in effect at the commencement of this Agreement from the website of the Division of Labor Statistics and Research of the DIR located at [www.dir.ca.gov/dlsr/](http://www.dir.ca.gov/dlsr/). In the alternative, Consultant may obtain a copy of the prevailing wages from the City's Project Manager. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

### **3.4 Termination of Agreement.**

3.4.1 Grounds for Termination. City may, by written notice to Consultant, terminate the whole or any part of this Agreement at any time and without cause by giving written notice to Consultant of such termination, and specifying the effective date thereof, at least seven (7) days before the effective date of such termination. Upon termination, Consultant shall be compensated only for those Services which have been adequately rendered to City, as well as any authorized reimbursable expenses, and Consultant shall be entitled to no further compensation. Consultant may not terminate this Agreement except for cause.

3.4.2 Effect of Termination. If this Agreement is terminated as provided herein, City may require Consultant to provide all finished or unfinished Documents and Data and other information of any kind prepared by Consultant in connection with the performance of Services under this Agreement. Consultant shall be required to provide such document and other information within fifteen (15) days of the request.

3.4.3 Additional Services. In the event this Agreement is terminated in whole or in part as provided herein, City may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.

### **3.5 Ownership of Materials and Confidentiality.**

3.5.1 Documents & Data; Licensing of Intellectual Property. This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically, electronically or otherwise recorded or stored, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). All Documents & Data shall be and remain the property of City and shall not be used in whole or in substantial part by Consultant on other projects without the City's express written permission. Within thirty (30) days following the completion, suspension, abandonment or termination of this Agreement, Consultant shall provide to City reproducible copies of all Documents & Data, in a form and amount required by City. City reserves the right to select the method of document reproduction and to establish where the reproduction will be accomplished. The reproduction expense shall be borne by City at the actual cost of duplication. In the event of a dispute regarding the amount of compensation to which the

Consultant is entitled under the termination provisions of this Agreement, Consultant shall provide all Documents & Data to City upon payment of the undisputed amount. Consultant shall have no right to retain or fail to provide to City any such documents pending resolution of the dispute. In addition, Consultant shall retain copies of all Documents & Data on file for a minimum of five (5) years following completion of the Project and shall make copies available to City upon the payment of actual reasonable duplication costs. In addition, before destroying the Documents & Data following this retention period, Consultant shall make a reasonable effort to notify City and provide City with the opportunity to obtain the documents.

3.5.2 Subconsultants. Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were prepared by design professionals other than Consultant or its subconsultants, or those provided to Consultant by the City.

3.5.3 Right to Use. City shall not be limited in any way in its use or reuse of the Documents and Data or any part of them at any time for purposes of this Project or another project, provided that any such use not within the purposes intended by this Agreement or on a project other than this Project without employing the services of Consultant shall be at City's sole risk. If City uses or reuses the Documents & Data on any project other than this Project, it shall remove the Consultant's seal from the Documents & Data and indemnify and hold harmless Consultant and its officers, directors, agents and employees from claims arising out of the negligent use or re-use of the Documents & Data on such other project. Consultant shall be responsible and liable for its Documents & Data, pursuant to the terms of this Agreement, only with respect to the condition of the Documents & Data at the time they are provided to the City upon completion, suspension, abandonment or termination. Consultant shall not be responsible or liable for any revisions to the Documents & Data made by any party other than Consultant, a party for whom the Consultant is legally responsible or liable, or anyone approved by the Consultant.

3.5.4 Indemnification. Consultant shall defend, indemnify and hold the City, its directors, officials, officers, employees, volunteers and agents free and harmless, pursuant to the indemnification provisions of this Agreement, for any alleged infringement of any patent, copyright, trade secret, trade name, trademark, or any other proprietary right of any person or entity in consequence of the use on the Project by City of the Documents & Data, including any method, process, product, or concept specified or depicted.

3.5.5 Confidentiality. All Documents & Data, either created by or provided to Consultant in connection with the performance of this Agreement, shall be held confidential by Consultant. All Documents & Data shall not, without the prior written consent of City, be used or reproduced by Consultant for any purposes other than the performance of the Services. Consultant shall not disclose, cause or facilitate the disclosure of the Documents & Data to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Consultant that is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia,

photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of City.

### **3.6 General Provisions.**

3.6.1 Delivery of Notices. All notices permitted or required under this Agreement shall be given to the respective Parties at the following address, or at such other address as the respective Parties may provide in writing for this purpose:

**Consultant:**

Biggs Cardosa Associates, Inc.  
500 S. Main Street, Suite 400  
Orange, CA 92868  
Attn: Michael Thomas, PE, SE

**City:**

City of Corona  
400 South Vicentia Avenue  
Corona, CA 92882  
Attn: Nelson D. Nelson, PE, Public Works Director/City Engineer  
Public Works Department

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the Party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.6.2 Indemnification. To the fullest extent permitted by law, Consultant shall defend (with counsel of City's choosing), indemnify and hold the City, its directors, officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, to the extent arising out of, pertaining to, or incident to any alleged willful misconduct or negligent acts, errors or omissions of Consultant, its officials, officers, employees, subcontractors, Consultants or agents in connection with the performance of the Consultant's Services, the Project or this Agreement, including without limitation the payment of all settlement amounts, expert witness fees and attorney's fees and other related costs and expenses. Notwithstanding the foregoing, to the extent Consultant's Services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant. Consultant's obligation to indemnify shall survive expiration or termination of this Agreement, and shall not be restricted to insurance proceeds, if any, received by the City, its directors, officials, officers, employees, agents, or volunteers.

3.6.3 Governing Law; Government Code Claim Compliance. This Agreement shall be governed by the laws of the State of California. Venue shall be in Riverside County. In addition to any and all contract requirements pertaining to notices of and requests for compensation or payment for extra work, disputed work, claims and/or changed conditions, Consultant must comply with the claim procedures set forth in Government Code Sections 900 et seq. prior to filing any lawsuit against the City. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to extra work, disputed work, claims, and/or changed conditions have been followed by Consultant. If no such Government Code claim is submitted, or if any prerequisite contractual requirements are not otherwise satisfied as specified herein, Consultant shall be barred from bringing and maintaining a valid lawsuit against the City.

3.6.4 Time of Essence. Time is of the essence for each and every provision of this Agreement.

3.6.5 City's Right to Employ Other Consultants. City reserves right to employ other Consultants in connection with this Project.

3.6.6 Successors and Assigns. This Agreement shall be binding on the successors and assigns of the Parties.

3.6.6.1 Subconsultants; Assignment or Transfer. Consultant shall not subcontract any portion of the Services required under this Agreement, except as expressly authorized herein, without the prior written approval of the City. Subcontracts, if any, shall include a provision making them subject to all provisions of this Agreement. Consultant shall also not assign, hypothecate or transfer, either directly or by operation of law, this Agreement or any interest herein without the prior written consent of the City. Any attempt to subcontract or take any other action not authorized herein shall be null and void, and any subconsultants, assignees, hypothecates or transferees shall acquire no right or interest by reason of such action.

3.6.7 Construction; References; Captions. Since the Parties or their agents have participated fully in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term referencing time, days or period for performance shall be deemed calendar days and not work days. All references to Consultant include all personnel, employees, agents, and subconsultants of Consultant, except as otherwise specified in this Agreement. All references to City include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content or intent of this Agreement.

3.6.8 Amendment; Modification. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties.

3.6.9 Waiver. No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit,

privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel or otherwise.

3.6.10 No Third-Party Beneficiaries. Except to the extent expressly provided for in Section 3.6.6, there are no intended third-party beneficiaries of any right or obligation assumed by the Parties.

3.6.11 Invalidity; Severability. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

3.6.12 Prohibited Interests. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. Consultant further agrees to file, or shall cause its employees or subconsultants to file, a Statement of Economic Interest with the City's Filing Officer as required under state law in the performance of the Services. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the Term of this Agreement, no member, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

3.6.13 Cooperation; Further Acts. The Parties shall fully cooperate with one another and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.

3.6.14 Attorney's Fees. If either Party commences an action against the other Party, either legal, administrative or otherwise, arising out of or in connection with this Agreement, the prevailing Party in such litigation shall be entitled to have and recover from the losing Party reasonable attorney's fees and all other costs of such action.

3.6.15 Authority to Enter Agreement. Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.

3.6.16 Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original.

3.6.17 Entire Agreement. This Agreement contains the entire Agreement of the Parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Agreement may only be modified by a writing signed by both Parties.

**[SIGNATURES ON NEXT 2 PAGES]**

**CITY'S SIGNATURE PAGE FOR**  
**CITY OF CORONA**  
**PROFESSIONAL SERVICES AGREEMENT**  
**WITH BIGGS CARDOSA ASSOCIATES, INC.**  
**ENVIRONMENTAL, RIGHT-OF-WAY & ENGINEERING DESIGN SERVICES**  
**FOR MCKINLEY GRADE SEPARATION**  
**CITY OF CORONA PROJECT NO. 2012-12**

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the date first written above.

**CITY OF CORONA**

By: \_\_\_\_\_  
Nelson D. Nelson, PE  
Public Works Director/City Engineer

Reviewed By:

\_\_\_\_\_  
Tom Koper, PE  
Assistant Public Works Director

Reviewed By:

\_\_\_\_\_  
Cita Longsworth  
Purchasing Manager

Attest:

\_\_\_\_\_  
Sylvia Edwards, City Clerk  
City of Corona, California

**CONSULTANT'S SIGNATURE PAGE FOR**  
**CITY OF CORONA**  
**PROFESSIONAL SERVICES AGREEMENT**  
**WITH BIGGS CARDOSA ASSOCIATES, INC.**  
**ENVIRONMENTAL, RIGHT-OF-WAY & ENGINEERING DESIGN SERVICES**  
**FOR MCKINLEY GRADE SEPARATION**  
**CITY OF CORONA PROJECT NO. 2012-12**

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the date first written above.

**BIGGS CARDOSA ASSOCIATES, INC.**  
a California corporation

By: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title (President, Vice President or CEO)

By: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title (Secretary, Treasurer or CFO)

## **EXHIBIT “A” SCOPE OF SERVICES**

### **1. PROJECT ADMINISTRATION**

This task includes the day-to-day management of the Project. The Consultant Project Manager shall maintain ongoing liaison with the City Project Manager, agency contacts, railroad, regulatory agencies and utility companies to promote effective coordination during the course of project development. The following management and administrative duties shall be performed:

- Supervise project staff, subconsultants, coordinate, and monitor work for conformance with set standards and policies.
- Conduct internal meetings with project staff and subconsultants.
- Prepare, circulate, and file correspondence and memoranda, as appropriate.
- Maintain Project files using specified Project Filing System.

Applying for and obtaining permits necessary for design is included under Task 7.

#### **1.1. PROJECT MANAGEMENT PLAN**

A comprehensive Project Management Plan (PMP) will be prepared to communicate this scope of services and technical requirements to project participants. The PMP shall identify the procedures and technical requirements that are to be followed in developing project deliverables. The PMP shall also describe the responsibilities of each participant in the project. The following items shall be in the PMP:

- Scope of Services
- Log of Deliverables
  - Consultant shall prepare a list of deliverables indicating the applicable Scope of Services section, dates submitted/approved, and file locations conforming to the Project's electronic filing system.
- Baseline Project Schedule
  - A Critical Path Method (CPM) schedule shall be prepared by the Consultant and shall be updated on a monthly basis. The initial CPM schedule shall be provided within two (2) weeks from Notice to Proceed (NTP). This schedule shall be included in the PMP and will serve as the baseline schedule for the Project. The schedule shall include a list of tasks and sub-tasks, milestones, major activities and deliverables. Agency review times of each submittal shall be included in the schedule. Four (4) weeks shall be assumed for Caltrans and agency review of each submittal package. Issuance of needed permits shall also be included.
- Project Electronic Filing System
  - Project files shall be indexed in accordance with Caltrans' Project Development Uniform File System.
- CADD Procedures
  - Plans shall be prepared in AutoCAD 2015 .dwg format. All plans within Caltrans right-of-way will be prepared in conformance with the latest Caltrans CADD User's Manual and the Caltrans Drafting Manual. For items outside of Caltrans right-of-way, plans shall be prepared according to City Standards.
- Invoicing Instructions
  - Consultant monthly invoices shall be reported by task and shall be accompanied by a progress report. The City shall supply invoicing requirements for inclusion in the PMP.
- Design Standards

- Consultant shall prepare a list of applicable design standards. Plans and specifications shall be prepared in accordance with current AASHTO and Caltrans' regulations, policies, procedures, manuals, and standards. Compliance with AREMA, BNSF/UPRR Guidelines for Railroad Grade Separation Projects and/or County or City Standards shall also be required, as appropriate.
  - Plans, specifications, and estimates for the bridge shall be prepared in accordance with current Caltrans standards.
  - Roadway, water, sewer, lighting, signal, landscape, traffic striping and signage, traffic control, erosion control and drainage plans shall be prepared on City standard plan and profile sheets. Design of improvements within RCFC&WCD and within Caltrans rights of way maybe required per to be prepared per their respective standard drawings and plans.
- Health and Safety Plan
  - General Prevailing Wage Determinations
  - Risk Assessment Register

The PMP shall be distributed to each project participant at the beginning of the project.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"> <li>▪ Project Management Plan</li> <li>▪ Baseline Project Schedule</li> </ul>

## 1.2. QUALITY CONTROL PLAN

As part of the Quality Control Plan, the Consultant shall prepare and maintain a Quality Management System (QMS) Manual throughout performance of services. The intent is to monitor quality to ensure that reports, plans, studies, estimates, and other deliverables submitted are complete, accurate, checked, conform to Caltrans and City standards, and meet professional engineering practice standards in effect at the time of execution. The QMS Manual shall be submitted to the City within thirty (30) calendar days of NTP. Consultant shall hold a training session with all project participants responsible for the development and/or checking of deliverables to ensure the appropriate procedures are followed.

Assumptions	N/A
Deliverables	Quality Management System Manual

## 1.3. PROJECT CONTROLS (BUDGETING, COST ACCOUNTING, AND PROGRESS REPORTING)

This task will establish the baseline project controls for which the project performance will be measured against on a monthly basis.

Consultant shall prepare budgets for each task and milestone for the Project. Such budgets will be entered into the Consultant's Management Information System along with actual costs incurred and used a basis for cost monitoring and control.

Consultant shall prepare monthly reports of expenditures for the Project by task and milestone. Expenditures include direct labor costs, other direct costs, and subconsultant costs. These reports will be included as supporting data for invoices presented to the City every month and shall be in accordance with the City's invoicing requirements.

Progress reports shall also be prepared in accordance with City guidelines and shall accompany monthly invoices. The project schedule shall be updated on a monthly basis as well and shall show actual progress to-date versus the baseline project schedule.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"> <li>▪ Baseline Project Controls</li> <li>▪ Monthly Invoices</li> <li>▪ Monthly Progress Reports</li> <li>▪ Monthly Project Schedule Updates</li> </ul>

#### **1.4. PROJECT DEVELOPMENT TEAM MEETINGS**

Project Development Team (PDT) meetings shall be conducted throughout the environmental, right-of-way, and PS&E phases of the Project. The City shall identify the members of the PDT, which shall include the City Project Manager, the Consultant team, and other representatives from affected agencies. PDT meetings will be held at least once a month and may be held on a bi-weekly basis. The Consultant shall provide the meeting agenda and will prepare exhibits (as needed) for discussion. The Consultant shall prepare meeting minutes and shall distribute the minutes to all attendees within five (5) working days after the meeting. Minutes shall include, at a minimum:

- A list of attendees with phone numbers and email.
- A synopsis of discussion items.
- Any pertinent information, action items, and all follow-ups to the action items.

Assumptions	Up to twenty-five (25) PDT meetings are included in this scope.
Deliverables	<ul style="list-style-type: none"> <li>▪ PDT Meeting Agendas</li> <li>▪ PDT Meeting Minutes</li> </ul>

## 2. DATA COLLECTION

The Project will involve the review and assimilation of a large amount of existing data and the generation of new data. The Consultant shall perform research of agency records, as necessary, to secure the information, clearances, and/or plan review services required to identify, locate, and accurately layout improvements above and underground within City Right-of-Way (ROW), private properties affected by the Project, BNSF, County of Riverside, RCFC&WCD, and within Caltrans ROW. Consultant shall layout easements, centerline, ROW, addresses and private property lines.

Consultant shall perform research of records including utilities, and other agency records as necessary to secure information required to identify, locate, and accurately layout existing utilities, improvements, easements, and rights-of-way within project limits that may interfere with the proposed improvements. The information to be researched includes the following:

- Review existing utility and street record drawing plans.
- Review existing As-Built bridge drawing/inspection reports.
- Perform utility investigation/utility coordination and provide utility relocation recommendations.
- Perform an existing utility easement investigation (Prior Rights for proposed relocation).
- Coordinate with City's Right-of-Way Acquisition Consultant to perform field investigation and measurement to assess existing site conditions.
- Provide a copy of utility notification letters prior to first progress payment request.

Previous studies, relevant reports, and existing data will be evaluated in order to capture elements and information that can be useful in developing the project. Consultant shall make the best use of existing data to minimize waste and duplication of work efforts.

### 2.1. AERIAL MAPPING

The project alignment will be flown to produce topographic mapping with a 1-foot contour interval. The anticipated Project limits are: McKinley Street between Costco Shopping Center/Griffin Way and Magnolia Avenue; along Sampson Avenue between Promenade Avenue and Magnolia; and along Estelle Street.

Softcopy aerotriangulation will be performed from scanned and collected visible planimetric detail within the delineated boundary per the provided photo layout map. Digital Terrain Model (DTM) data, consisting of break lines and mass points will be collected at a density that will be sufficient to create 1-foot contours to meet or exceed industry standards.

The site will be flown twice, once to develop a base to be used in preliminary design and a second time, following approval by Caltrans of Consultant's ABC Mapping plan. Caltrans review and approval may take anywhere from 4 to 6 months, therefore the need for the initial base mapping in areas where information will be necessary for critical design and conforms.

Pre-ABC Mapping aerial topo will be collected per City Standards. The data will be collected and provided to the design team, while awaiting approval on the Caltrans ABC Mapping submittals. Once Caltrans approves proposed ABC Mapping, Consultant will fly the larger proposed Caltrans ABC Mapping area to prepare an aerial that will adhere to Caltrans design standards. Consultant shall coordinate with the City and Caltrans staff to perform ABC Mapping based on Caltrans Requirements.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"><li>▪ Digital Terrain Model (.dtm) in CADD format</li><li>▪ Digital orthophoto in digital (.tif) format</li></ul>

Surveys shall be performed by Consultant in accordance with the current Caltrans "Survey Manual" and its revisions. Work not covered by the manual shall be performed in accordance with accepted professional surveying standards. The Consultant shall be responsible to verify datum with the City. Consultant shall obtain applicable encroachment permits prior to beginning any field investigation. Consultant and Subconsultants shall obtain necessary training including applicable rail safety program prior to performing field investigations. All said training shall be at the sole cost of the Consultant and at no additional cost to the City.

Consultant shall perform design surveys including mapping and mapping updates, necessary to complete a constructible PS&E. This includes horizontal and vertical control, drainage surveys, topographical surveys, cross sections, grid grades, open-ended traverses, profile data sheets and required documentation. Surveys performed by Consultant shall conform to the requirements of the Land Surveyors Act and per Authority's direction. In accordance with the Act, "responsible charge" for the work shall reside with a Registered Civil Engineer registered prior to January 1, 1982, or a Licensed Land Surveyor, in the State of California.

The surveyor shall complete a topographic survey map of the site to prepare a base map for the street improvement demolition and construction plans, bridge plans, utilities existing and new and relocation plans, landscape and irrigation plans, aesthetics plans, and right-of-way engineering. The field survey will also be required to provide existing property corners (for determination of right-of-way take), spot elevations, identify any unknown features, identify all known existing utilities in the street and on private property, cross sections, and add a greater level of detail for the Riverside County Flood Control and Water Conservation District (RCFC&WCD) channel crossing. Develop a base map of the proposed alignment, including public right-of-way and proposed right-of-way take with new legal descriptions. Plats, Record of Survey, property lot lines, street centerlines, bench marks, monuments, and control points shall be confirmed and shown on the plans. Conduct site visits to identify all existing improvements and conditions that may affect the design and construction of the proposed project and existing site conditions. Provide one (1)-foot contours based on City of Corona vertical datum. Establish street centerlines, right-of-way lines existing and proposed, and all easements from available record information. Provide the basis-of-bearing and benchmark information used for the survey and necessary for construction. Consultant shall locate and tie any features that would affect the design or construction.

Conduct a thorough independent field investigation of the project site to identify pre-existing site conditions and physical constraints of the project area. Consultant shall obtain Record of Surveys, benchmark and centerline tie information.

#### Site Control

Consultant shall establish a site-wide network of horizontal/vertical control to serve as the basis for any subsequent boundary, topographic, or construction staking surveys that may be required throughout the course of the project. Unless otherwise specified by the City, all horizontal control established for this project will be based on the North American Datum of 1983 (NAD83), Zone 6 State Plane Coordinates. Unless otherwise specified by the City, elevations will be based on the North American Vertical Datum of 1988 (NAVD 88).

#### Tie Out Monument

Consultant will tie-out monuments for right-of-way and parcel line delineation.

Design level surveys provided within the proposed project limits shall include the following:

- Full cross sections within the street improvements
- Top of rail elevations
- Off-site survey to assist in restoration of impacted improvements
- All surface utilities including overhead lines as necessary to verify clearances
- Maintenance hole rim and inverts for all sewer and storm drain facilities

Pothole and geotechnical boring locations shall be surveyed to the maximum extent feasible.

Assumptions	<ul style="list-style-type: none"> <li>▪ Five (5) days of BNSF Flagmen services are included in this scope.</li> <li>▪ Five (5) days of traffic control are included in this scope.</li> <li>▪ Engineer Stamped Traffic Control Plans are not included. Any field survey requiring traffic control is assumed to be performed in accordance with the WATCH Manual. If required, Consultant can prepare Traffic Control Plans signed by a licensed Civil or Traffic Engineer for field survey work for an additional fee.</li> <li>▪ Consultant shall be responsible, with City's assistance (as needed), for obtaining permits to survey within BNSF, Caltrans, and RCFC&amp;WCD right-of-way.</li> <li>▪ Aerial mapping shall be used as a base map and spliced with ground survey data.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Survey base map in CADD format</li> <li>▪ Survey points in CADD format</li> <li>▪ Diagrams of maintenance holes with flow direction and invert data</li> </ul>

### 2.3. POTHOLING

The Consultant will perform utility investigation services (per ASCE 38-02, Level "B") using industry acceptable methods (i.e., electronic pipe and cable locating equipment, Ground Penetrating Radar (GPR), Pipeline Current Mapper (PCM), etc.) to determine the approximate horizontal position and count of existing utilities within the project limits. The Consultant's field crews will use a combination of water-based paint and pin flags (in the appropriate APWA color) to mark the results of our investigation on the ground surface. Consultant will compare any available utility record information with the results of field investigation services to ensure utilities have been accounted for. Utilities not identifiable by Consultant's field crews due to lack of utility record information or above ground appurtenances will be marked with pink paint on the ground surface and annotated as "Unknown" on project deliverables.

Gravity lines such as sewer, storm sewer, irrigation, etc., typically cannot be located using the above methods due to lack of tracer wire or depth of the utility being beyond the limitations for GPR. In the event these utilities cannot be located, and precise location and depth is needed, vacuum excavation (potholing) will be provided from Potholing Task. If CCTV pipeline inspection would be required it can also be provided for an additional fee.

The Consultant will perform utility potholes (per ASCE 38-02, Level "A") of up to 200 locations using air-vacuum excavation at predetermined locations to document the precise horizontal and vertical position of existing utilities within the investigation area. Data collected as a result of potholing activities will be presented in a Portable Document Format (PDF) report that will include: utility type, size, material, depth and pictures of the exposed utility. Pothole locations (in the field) will be marked with wooden lath and ribbon marked with the pothole number, utility size and depth or MAG nail with pertinent utility data annotated on the ground surface. Once the utility data has been collected the pothole will be restored to its previous condition using native backfill and in-kind surface restoration materials.

Once utilities have been marked, the Consultant will perform a topographic survey of the area of interest to document the utilities using a combination of RTK GPS, Robotic Total Station, IPS2 Mobile LiDAR, FARO X300 scanner, IDS Stream EM (GPR utility mapper) and UAV Photogrammetry for the data collection. The Consultant will provide an AutoCAD 2015 drawing with utility mapping. The Consultant will also provide a PDF or TIF file of the AutoCAD drawing printable to scale on standard title block. Point cloud, 3D terrain models and 3D utility models are not included in this scope.

Consultant shall coordinate the use of field survey crews to locate potholed utilities by coordinates and elevations based on the project's survey controls.

Assumptions	<ul style="list-style-type: none"> <li>▪ Up to 200 potholes are included in this scope.</li> <li>▪ CCTV Pipeline Inspection is not included but can be provided for an additional cost.</li> <li>▪ Right-of-entry to private properties shall be obtained by the City or the City's Right-of-Way Consultant prior to commencing Utility locations activities.</li> <li>▪ Engineer Stamped Traffic Control Plans are not included. Any potholing requiring traffic control is assumed to be performed in accordance with the WATCH Manual. If required, Consultant can prepare Traffic Control Plans signed by a licensed Civil or Traffic Engineer for potholing work for an additional fee.</li> <li>▪ Complex traffic control and traffic calming devices beyond the use of arrow boards, traffic cones and advanced warning signage are not anticipated and are not included. Complex traffic control items include, but are not limited to: <ul style="list-style-type: none"> <li>▪ Message Boards</li> <li>▪ Police Officers</li> <li>▪ Attenuators</li> <li>▪ Traffic Barrels</li> <li>▪ Concrete Barricades</li> <li>▪ Flaggers (BNSF Flagmen included under railroad permitting costs)</li> </ul> </li> <li>▪ Removal of locate and/or USA markings</li> <li>▪ Additional utility potholes and/or crew hours without written approval</li> <li>▪ Special backfill and/or asphalt restoration requirements (e.g., hot patch asphalt, half-sack slurry, aggregate base backfill...etc.)</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Matrix of Pothole Information</li> <li>▪ Pothole Data Plan (to be included in milestone PS&amp;E submittals)</li> </ul>

## 2.4. RIGHT-OF-WAY BASE MAPPING

The Consultant shall perform research of private development plans adjacent to or affecting the Project site, as necessary, to secure the information, clearances, and/or plan review services required to identify, locate, and accurately layout above and underground improvements and easements, centerline, ROW, and private property lines. Consultant shall research and review previous work performed to date in the Project vicinity that impacts the design of the improvements, including:

- Existing improvement plans/engineering reports of record
- Right-of-way mapping, ownership records (Title Reports)
- Preliminary engineering and reports for this Project
- Environmental clearance and mitigation measures
- City/other agency engineering design standards, codes, and plan processing procedures

- Existing topographic mapping, photos, reports, maintenance reports, "as-built" plans, record maps and surveys, study reports, assessor maps, contract documents, utility index maps, local street improvement/development plans and other pertinent data will be obtained and reviewed.

Cadastral research will be conducted at the County Surveyor's Office and the City to obtain copies of any available record maps, including Assessors Maps, Tract Maps, Parcel Maps, Records of Survey, Centerline Ties and Benchmark Data.

Key centerline monuments will be located along the street segments and calculate the centerline and record right-of-way alignments of the same. The centerline will be established from a combination of found monuments, centerline ties, and record data obtained during the data collection phase. Street and railroad rights-of-way and adjoining parcel lines will be established from record cadastral research and assessor data where applicable.

The Consultant shall prepare right-of-way base maps in accordance with Caltrans requirements. Base maps shall show existing features consisting of lots along McKinley Street with all right-of-way and easement areas, assessor's parcel numbers, addresses, types of businesses, property lines, footprints of buildings, setback distances from right-of-way to buildings, vegetation, and improvements in the take areas and existing driveways. Utility easements and other encumbrances shall be identified and plotted on the Right-of-Way Base Map.

Assumptions	<ul style="list-style-type: none"> <li>Right-of-way base mapping shall be based on record data.</li> <li>Title Reports shall be provided by the City or the City's Right-of-Way Consultant.</li> </ul>
Deliverables	Right-of-Way Base Map in CADD format

## 2.5. UTILITY NOTIFICATION

Consultant will initiate the utility company notification process early in the design process and identify potential conflicts. Consultant will maintain a utility agency tracking matrix to indicate the status of communication and add a contact list for substructure and utility owner-operators for the specifications. Consultant will assist the City with utility notification letters consisting of the following:

- Utility Information Request
- Prepare to Relocate Notice/Final Utility Notice Form
- Notice to Relocate

Assumptions	<ul style="list-style-type: none"> <li>Letters to be printed on City letterhead and signed by City official for distribution.</li> <li>All related fees from utility companies are excluded from this scope.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>Utility Contact Matrix</li> <li>PDF copies of correspondence and data provided in responses to letters</li> </ul>

## 2.6. UTILITY BASE MAPPING

In addition to information provided by the owning utility companies and through research of other record maps, field surveys shall be used to locate utility surface features such as manholes, valves, fire hydrants, poles, risers, etc., which shall be reflected on the plans. Consultant shall prepare preliminary plans, which shall include existing utilities (above ground and below ground) identified by location, size, type, and owner, as appropriate.

Assumptions	Content is based on readily available record drawings and field surveys.
Deliverables	Utility Base Map in CADD format

## 2.7. GEOTECHNICAL RECORDS RESEARCH & FINDINGS

Consultant will collect and review existing pertinent subsurface and groundwater data from nearby structures or published geologic maps to determine general subsurface conditions at the Project site.

Assumptions	Borings are not need at this stage. Borings shall be performed once the Project has been fully defined for the PS&E phase.
Deliverables	None.

## 2.8. TRAFFIC ANALYSES

### 2.8.1. Preliminary Traffic Analyses

Consultant shall prepare preliminary traffic analysis using existing data to confirm six traffic lanes along McKinley Street, and preliminary intersection analyses to confirm Level of Service (LOS) of proposed connector road concepts.

Assumptions	N/A
Deliverables	None.

### 2.8.2. Update Traffic Analyses

Consultant shall:

- Collect traffic counts at intersections and roadway segments.
- Update traffic analysis confirming six traffic lanes along McKinley Street.
- Update intersection analysis along McKinley Street for intersections including and between Griffin Way and Magnolia Avenue and the intersection of Sampson Avenue and Anselmo Drive.
- Evaluate existing, opening year, and future year analysis conditions.

A Draft and Final Traffic Analysis Report shall be prepared.

Assumptions	<ul style="list-style-type: none"> <li>▪ Traffic counts include up to seven (7) intersections and up to eight (8) roadway segments.</li> <li>▪ Future RIVTAM traffic model volumes to be obtained from County of Riverside.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Draft Traffic Analysis Report</li> <li>▪ Final Traffic Analysis Report</li> </ul>

## 2.9. CALTRANS TRAFFIC REPORTS

Consultant shall prepare traffic reports for Caltrans review and approval. The following reports are included in this scope:

- Intersection Control Evaluation
- Traffic Forecasting Volumes Report

- Ramp Meter and Merge Analysis

### 2.9.1. Intersection Control Evaluation

Consultant shall prepare Caltrans Intersection Control Evaluation for the SR-91 EB Off-ramp/Loop Road intersection and Roundabout intersection with the proposed SR-91 EB On-ramp. A separate analysis report shall be prepared to document findings and recommendations to be submitted to Caltrans for review and approval.

Assumptions	N/A
Deliverables	Intersection Control Evaluation

### 2.9.2. Traffic Forecasting Volumes Report

A Caltrans Traffic Forecasting Volumes Report will be prepared to be used for the Traffic Operations Analysis Report. The report will be submitted to Caltrans for review and approval.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"> <li>▪ Traffic Forecasting Volumes Report</li> <li>▪ Traffic Operations Analysis Report</li> </ul>

### 2.9.3. Ramp Meter and Merge Analysis

A ramp meter and merge analysis report will be prepared for the proposed configuration of the SR-91 EB On-ramp. Consultant shall evaluate existing, opening year, and future year analysis conditions. Existing ramp and mainline volumes will be obtained from the Caltrans PeMS database. A separate analysis report shall be prepared to document findings and recommendations to be submitted to Caltrans for review and approval.

Assumptions	N/A
Deliverables	Ramp Meter and Merge Analysis

### 2.9.4. Roundabout Analysis

Conduct a roundabout analysis, using the Sidra software, for the proposed configuration of the SR-91 EB On-ramp/Loop Road intersection. Evaluate existing, opening year, and future year analysis conditions. Existing ramp volumes to be obtained from the Caltrans PeMS database and forecasted volumes will be used from the Traffic Forecasting Volumes Report. The findings and recommendations will be incorporated into the Intersection Control Evaluation report to be submitted to Caltrans for review and approval.

Assumptions	N/A
Deliverables	Intersection Control Evaluation Report (Task 2.9.1)

### 3. CONCEPT DEVELOPMENT & PROJECT APPROVAL

This task involves further development of the Roundabout Loop Option to more accurately define project limits, right-of-way needs, and cost, among other items. It is assumed that City Council will approve the concept, permitting the project to move into the Plans, Specifications & Estimates task.

#### 3.1. GEOMETRIC CONCEPTS

Consultant shall develop up to four viable alternatives for the connector road between McKinley Street and Sampson Avenue.

Assumptions	N/A
Deliverables	Four conceptual exhibits for viable connector road alternatives (Plan Views)

#### 3.2. BRIDGE AND RETAINING WALL CONCEPTS

Consultant shall develop preliminary structural design and layout to assess feasibility of network tied-arch bridge.

Assumptions	N/A
Deliverables	None

#### 3.3. PROJECT CONCEPT REPORT

A Project Concept Report will be prepared. This report will include roadway, right-of-way, utility, and structure exhibits.

##### 3.3.1. Plan and Profile Exhibits

Consultant shall further develop the Roundabout Loop Option to account for future SR-91 widening and obtain general concurrence from Caltrans. Review of the plan view exhibit is anticipated with City staff and then one meeting with Caltrans for input. Input from the meeting will be incorporated and redistributed via pdf files.

Plan and profile exhibits will be prepared for McKinley Street and the Roundabout Loop Road.

Assumptions	N/A
Deliverables	Updated Roundabout Loop Option (Plan View) Plan and Profile Exhibits (to be included in the Project Concept Report)

##### 3.3.2. Right-of-Way Exhibits

Preliminary right-of-way exhibits shall be prepared depicting preliminary right-of-way needs for the Project.

Assumptions	N/A
Deliverables	Right-of-Way Exhibits (to be included in the Project Concept Report)

### 3.3.3. Utility Exhibits

Utility exhibits shall be prepared depicting existing utilities and conceptual relocation routes.

Assumptions	N/A
Deliverables	Utility Exhibits (to be included in the Project Concept Report)

### 3.3.4. Structure Exhibits

Consultant shall further define the network tied-arch bridge, and shall prepare a plan exhibit depicting approximate type and length of retaining walls.

Structure exhibits shall include a plan, section, and elevation for the McKinley Street Overpass and a plan view depicting type and length of retaining walls.

Assumptions	<ul style="list-style-type: none"><li>▪ The bridge will be a network tied-arch.</li><li>▪ Up to three (3) retaining wall types are included in this scope. Potential types include lightweight cellular concrete embankments with precast concrete facing, Mechanically Stabilized Embankments, cast-in-place cantilevered retaining walls, and segmental (precast block) retaining walls.</li></ul>
Deliverables	Bridge and Retaining Wall Exhibits (to be included in the Project Concept Report)

### 3.3.5. Preliminary Geotechnical Report

Consultant shall prepare a Preliminary Geotechnical Report for the project to provide preliminary geotechnical information for the Project Concept Report and Type Selection process. This report will be prepared using the available subsurface data.

Assumptions	N/A
Deliverables	Preliminary Geotechnical Report (to be included in the Project Concept Report)

### 3.3.6. Preliminary Traffic Analysis Report

The Traffic Analysis Report prepared under Task 2.8.2 shall be included as part of the Project Concept Report.

Assumptions	N/A
Deliverables	Preliminary Traffic Analysis Report (to be included in the Project Concept Report)

### 3.3.7. Construction Cost Estimates

Rough order of magnitude costs shall be prepared based on the exhibits listed above to refine the project costs.

Assumptions	N/A
Deliverables	Construction Cost Estimates (to be included in the Project Concept Report)

### 3.3.8. Right-of-Way Cost Estimates

Rough order of magnitude right-of-way cost estimates shall be prepared based on the right-of-way exhibit to refine the project costs.

Assumptions	The City's Right-of-Way Consultant shall perform right-of-way cost estimates.
Deliverables	Right-of-Way Cost Estimates (to be included in the Project Concept Report)

### 3.3.9. Project Concept Report

The Project Concept Report shall include the exhibits, reports, and cost estimates included above. This report shall be submitted to the City for review. It is assumed that this report will be presented to City Council for approval.

Assumptions	N/A
Deliverables	Draft Project Concept Report Final Project Concept Report

## 3.4. PROJECT CONCEPT APPROVAL

The City shall present the Project Concept Report to City Council. Consultant shall support the City at City Council. City Council approval is anticipated prior to Environmental Technical Studies and proceeding with Plans, Specifications & Estimates.

Consultant shall organize meeting at Caltrans to review the updated roundabout concept. Key functional units, such as geometrician shall be in attendance. Consultant shall present proposed concept and obtain confirmation that Caltrans has no objection to the proposed concept.

Assumptions	▪ Caltrans will confirm that updated roundabout concept and proposed design exceptions will be acceptable in principle.
Deliverables	Meeting handouts and minutes

## 3.5. DESIGN BASIS MEMORANDUM

Consultant shall prepare a Design Basis Memorandum indicating the applicable design standards for various items of work for the approved project concept.

Plans and specifications shall be prepared in accordance with current AASHTO and Caltrans' regulations, policies, procedures, manuals, and standards. Improvements of local roads may be prepared in accordance with City standards in lieu of Caltrans standards as directed by the City. All documents shall be prepared using US standards and dimensions. Compliance with AREMA, BNSF-UPRR Guidelines for Railroad Grade Separation Projects and/or County or City Standards shall also be required, as appropriate.

In event that non-standard features become apparent during the initial design, Consultant shall prepare the necessary design exceptions following Caltrans or BNSF and the respective city's guidelines.

Assumptions	N/A
Deliverables	Design Basis Memorandum

## 4. ENVIRONMENTAL DOCUMENTATION

The Consultant will prepare a thorough project description defining the limits of project-related activities, which will be used as the basis for environmental technical studies conducted for this project. Pursuant to section 21080.13 of the California Environmental Quality Act (CEQA) and CEQA Guidelines Section 15282(g), the state legislature has determined that railroad grade separations shall be statutorily exempt from CEQA documentation and public disclosure requirements. Accordingly, a more formal CEQA environmental document is not required for this project. However, in certain instances and at the discretion of the sponsoring agency, it is sometimes prudent to undertake certain limited environmental studies in order to better understand and manage the consequences of a particular proposed railroad grade separation. Such is the case for the Project, for which the City and Caltrans has determined that certain selected studies should be undertaken. This scope of work responds to that decision.

### 4.1. CEQA STATUTORY EXEMPTION

Consultant shall prepare a Notice of Exemption (NOE) and provide to the City for approval and submittal to the State Clearinghouse. In addition, once biological, cultural, noise, and community impact reports have been completed and approved by the City, the Consultant will prepare a letter report summarizing the findings of these reports, as well as general information related to public outreach that was conducted in support of the project.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"><li>▪ CEQA Notice of Exemption</li><li>▪ Summary of Reports &amp; Public Outreach</li></ul>

### 4.2. TECHNICAL STUDIES

The Project will not receive federal funds and therefore NEPA compliance is not required and Caltrans Local Assistance involvement is not anticipated. Unless otherwise specified, scope of work tasks will be completed by Consultant's staff. Consultant shall develop Project Vicinity and Project Location Maps, as well as a set of maps that clearly shows the location and features of the alternative under consideration. Additionally, base mapping of the environmental components/data. These components/data include hazardous materials sites, and land uses and right-of-way sites. Data from publicly available sources will be used and adjusted, where appropriate, based on field surveys and observations conducted by the Consultant.

The following list includes the studies included in this scope:

- Natural Environment Study/Minimal Impacts
- Jurisdictional Delineation Report
- Initial Site Assessment
- Visual Impact Assessment
- Relocation Impact Statement
- Community Impact Assessment
- Cultural Resources
- Noise Study Report
- Air Quality
- Water Quality Assessment

- **Paleontological Resources**

Assumptions	<ul style="list-style-type: none"> <li>▪ Environmental Documentation (Technical Studies) shall be prepared for only the approved project concept.</li> <li>▪ NEPA/404 integration process will not be required.</li> <li>▪ Only the studies specifically identified in this scope are included.</li> <li>▪ Two (2) draft versions and one (1) final version of each study are assumed.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Technical Studies/Analyses</li> </ul>

## 5. PLANS, SPECIFICATIONS & ESTIMATES (PS&E)

This task shall include detailed engineering calculations, design, construction plans, specifications and special provisions and engineer's construction cost estimate for the project that will enable the City to advertise and award the construction contract for the project.

The responsible Consultant/Engineer shall sign all Plans, Specifications, and Estimates (PS&E) and engineering data furnished by him/her, and where appropriate, indicate his/her California registration number. The Consultant shall prepare and furnish Special Provisions for items of work included in the plans which are not covered in the Standard Specifications, Caltrans-approved standard special provisions, and City approved standard special provisions.

Federal regulations require a Value Analysis study on all federal aided projects with a total cost (construction, right-of-way, and support) exceeding \$50 million. The McKinley Street Grade Separation is not anticipated to be federally funded. Value Analysis is excluded from this scope.

### 5.1. REPORTS

#### 5.1.1. Water Quality Management Plan

Consultant will prepare a Water Quality Management Plan (WQMP) for the project as required for urban runoff from municipal separate storm sewer systems (MS4 permit). The scope of the WQMP will include recommendations for post-construction permanent best management practices (BMPs), including source control (structural and non-structural) and treatment BMPs. Recommendations for BMPs will be incorporated into the project's PS&E. This work includes documentation and incorporation of environmental requirements and mitigation measures, NPDES, temporary and permanent BMPs, air/water quality, erosion/sediment control) into the Project construction documents.

Assumptions	<ul style="list-style-type: none"><li>▪ Consultant shall provide base Project data (areas, slopes, etc.) for the Storm Water Pollution Prevention Plan (SWPPP). The Contractor shall be required to engage a licensed engineer to prepare the SWPPP.</li><li>▪ City shall provide input on their preferred BMPs to be incorporated (if needed).</li></ul>
Deliverables	<ul style="list-style-type: none"><li>▪ Water Quality Management Plan</li><li>▪ Storm Water Pollution Control Plans</li><li>▪ Storm Water BMP Plans</li><li>▪ Storm Water Pollution Plan Preparation</li><li>▪ Notice of Intent</li></ul>

#### 5.1.2. Hydrology & Hydraulics Reports

The Hydrology and Hydraulics Report shall quantify the magnitude and frequency of design flows from adjacent areas for the Project area, as well as the peak flows and volumes attributable to the proposed improvements. It will also include a description of the proposed on-site drainage improvements and any treatment Best Management Practices (BMPs) to be incorporated into the design to satisfy National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Permit (MS4 Permit) requirements.

Consultant will investigate hydrologic and hydraulic features of the site as necessary to accommodate the grade separation.

Consultant shall perform hydrology and hydraulic studies to obtain and provide design solutions which will remove surface runoff from the upstream side of the highway to the downstream side.

Assumptions	<ul style="list-style-type: none"> <li>City shall provide previous hydrology/drainage studies performed for the project area.</li> <li>Design flow for the double 8'x4' RCB will be provided by the City.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>Draft Hydrology &amp; Hydraulics Report</li> <li>Final Hydrology &amp; Hydraulics Report</li> </ul>

### 5.1.3. Traffic Management Plan

A Traffic Management Plan (TMP) will be developed with the objective of the TMP being to provide continuous traffic circulation and access, with adequate space for safe and efficient construction. The TMP will be coordinated with project stakeholders. Development of the staged construction and traffic detours or alterations to traffic patterns will be included.

The TMP shall be developed according to Caltrans TMP Guidelines. TMP strategies include:

- Public Information
- Motorist Information
- Incident Management
- Construction Strategies
- Demand Management
- Alternate Routes (or Detours)

Assumptions	<ul style="list-style-type: none"> <li>Although the TMP shall be prepared per Caltrans guidelines, it is anticipated that Caltrans review and approval of the TMP shall be limited to portions impacting their right-of-way only.</li> <li>Analysis of one (1) alternate route will be provided</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>Draft Traffic Management Plan</li> <li>Final Traffic Management Plan</li> </ul>

### 5.1.4. Geotechnical Investigations & Report

Consultant shall conduct geotechnical investigation, and shall report findings to support structures, pavement, and other portions of the Project requiring geotechnical support.

Consultant will provide geotechnical, geologic and seismic design recommendations. Consultant will provide geotechnical and foundation recommendations for roadway, bridge, retaining walls, and other structures, as required.

Consultant will prepare a geotechnical, materials and bridge foundation report with information gathered during the site visit and review of existing subsurface data, geotechnical borings, results obtained from the alternative analysis, and the preliminary bridge and retaining wall foundation data.

#### Geotechnical Field Exploration & Laboratory Testing

Consultant will prepare and submit a geotechnical review and exploration plan for the City review. Consultant will obtain right-of-entry permits prior to exploration. Consultant will conduct subsurface investigation and evaluate the results in accordance with specified testing criteria.

The Consultant will perform a total of 34 borings. The field exploration program is tabulated below.

Design Element	Number of Borings	Approximate Boring Depth Below Existing Ground Surface (feet)
Bridge	4	150
Embankment (North)	3	50
Embankment (South)	4	50
Retaining Walls	18	40
Roadway Improvements	5	10

It will be the responsibility of the Consultant to notify Underground Service Alert (USA) and provide traffic control. The approved locations will be marked in the field and USA will be notified. Traffic control in the City right-of-way (when required) for the field investigation will be performed in accordance with the California Joint Utility Traffic Control Manual, the Manual on Uniform Traffic Control Devices and the Standard Specifications for Public Works Construction per City requirements. Traffic control in Caltrans right-of-way will be performed in accordance with Caltrans Standard Plans.

The deep boreholes will be excavated using a truck-mounted rotary-wash drill rig. Soil cuttings will be temporarily stored onsite in 55-gallon drums, tested for contaminants, then dispose offsite. The shallow boreholes will be excavated using a truck-mounted or track-mounted drilling rig equipped with 8-inch diameter hollow-stem augers. Spoils generated from the hollow-stem auger borehole excavations will be mixed with cement and water and used to backfill the boreholes. Asphalt concrete cold-patch will be used to replace asphalt that is removed by excavations, and quick-set cement will be used to replace concrete that is removed by excavations.

#### Laboratory Testing

Consultant field personnel will collect soil samples for laboratory testing, including bulk samples of near surface soils and small disturbed and relatively undisturbed ring samples of deeper soils. The small disturbed and relatively undisturbed soil samples will be collected using split-spoon samplers at a vertical interval of about 5 feet, alternating between the Standard Penetration Test (SPT) sampler and the Modified California Drive (MCD) sampler. Samples of subsurface soils will be logged during the field investigation, secured in their containers or collected in plastic bags, and transported to the Consultant laboratory.

Consultant will select representative soil samples for laboratory testing. Various laboratory tests will be performed to determine or derive physical and engineering characteristics of soils. Anticipated laboratory soil tests include: in-situ moisture content and density, grain size distribution, Atterberg limits, direct shear, consolidation, unconsolidated-undrained triaxial, R-value, maximum density and optimum moisture content, and soil corrosion tests. Tests will be conducted in general accordance with California Test methods or ASTM standards.

#### Field Soil Percolation Testing

Consultant shall estimate the infiltration rate of onsite soils at each specified site. Up to eight (8) infiltration test sites are included in this scope.

Consultant will drill a boring and three temporary wells at each basin site. Maximum targeted borehole depth is estimated to be 30 feet. Depth of the wells will depend on the design invert elevation of the proposed basin but is assumed to be no more than 15 feet below existing ground. Sampling schedule will be at 5-foot intervals in the soil boring. The three wells will not be sampled, though the soil type will

be observed for comparison and documented in well logs. Each well will be soaked overnight and infiltration testing will commence the following day. Well infiltration testing will be performed following USBR 7300-89 method.

#### Aerially Deposited Lead (ADL) Investigation and Reporting

*Soil Samples:* Caltrans requires ADL boring intervals to be 300 feet or less and, depending on the lateral distance of the excavation, more than one-line of borings can be required. This scope assumes only one line of borings is required.

According to the Caltrans Guidance, samples for ADL testing should be obtained from depths extending to the bottom of proposed construction excavations. Since higher ADL concentrations are usually found near the ground surface and the ADL concentration usually diminishes with depth, Consultant shall use a two-phase program to reduce costs. The boring and sampling depth for the first phase will be limited to 4 feet. If soils are determined to have high levels of lead, then a second phase field sampling would be required to collect samples from greater depths (to proposed excavation depths). The scope given below is for the first phase of work only.

Consultant shall excavate up to sixteen (16) shallow borings to collect near-surface material samples for ADL testing. Samples will be collected from borings excavated using a 3-inch stainless steel hand-auger. Near-surface soil samples will be collected approximately at 0.5, 1.5, 3 and 4-foot depths from each boring. Consultant shall forward the soil samples to a California Certified analytical laboratory for testing:

- All samples shall be tested for total lead using U.S.EPA Method 6010B,
- Samples that contain greater than or equal to 80 mg/kg of total lead shall be analyzed for soluble lead using California Waste Extraction Test (citric acid extraction) for extractable lead,
- Samples that contain greater than or equal to 5 mg/l of extractable lead using CA WET (citric acid), shall be analyzed using CA WET (de-ionized extraction) for de-ionized extractable lead,
- Samples that contain greater than or equal to 1,000 mg/kg of total lead, or greater than or equal to 5 mg/l of extractable lead using CA WET (Citric acid) shall be analyzed using the EPA Toxic Characteristic Leaching Procedure (TCLP) for leachable lead, and
- Ten percent of soil samples collected shall be analyzed using U.S.EPA Method 9045C for pH.

*Yellow Thermoplastic Striping Samples:* Yellow thermoplastic traffic stripes will be sampled McKinley Street and ramps within the project improvements. The sampled yellow thermoplastic traffic striping will be tested for concentrations of lead and chromium.

The retrieved paint samples will be immediately placed in clean glass jars with teflon lids. Jars will be labeled with project information including the project name and number, sample number, location from which the sample was collected, and date and time of sampling. All samples will be entered on chain-of-custody forms and transported to a certified laboratory for testing.

- Samples shall be analyzed for total lead using U.S.EPA Method 6010B,
- Samples shall be analyzed for Chromium using U.S.EPA Method 6010B,
- Samples that contain greater than or equal to 50 mg/kg total lead shall be analyzed for soluble lead using California Waste Extraction Test (Citric acid extraction) for extractable lead,
- Samples that contain greater than or equal to 50 mg/kg total chromium shall be analyzed for soluble lead using CA WET (Citric acid extraction),
- Samples that contain greater than or equal to 100 mg/kg of total lead, or greater than or equal to 5 mg/l of extractable lead using CA WET (Citric acid) shall be analyzed using the EPA Toxic characteristic Leaching Procedure (TCLP) for leachable lead, and

- Samples that contain greater than or equal to 100 mg/kg of total chromium, or greater than or equal to 5 mg/l of extractable lead using CA WET (Citric acid) shall be analyzed using TCLP for leachable lead.

Consultant will prepare an ADL investigation work plan and a Health and Safety plan and submit to Caltrans for review. Following the ADL investigation, Consultant will prepare a report for the project, summarizing the findings of the lead testing investigation. The report will include findings of the field sampling, results of laboratory tests and the statistical analysis, and recommendations for reuse of on-site soils excavated during construction.

#### Preliminary Foundation Reports

PFRs are required for non-standard design elements located within Caltrans right-of-way only. Based on current project layout, Consultant will prepare a Preliminary Foundation Report (PFR) to provide preliminary geotechnical information to assist structural designers in the Type Selection process. These PFRs will be prepared using the available subsurface data and the format will be in accordance with the current Caltrans Guidelines.

#### Geotechnical Engineering Analyses

Results obtained from the field investigation and laboratory testing will be used to characterize subsurface soils and conditions and create idealized soil profiles for design purpose. The following analyses will be performed for the project:

- Evaluation of seismicity and estimation of Peak Ground Acceleration based on the Caltrans design criteria, and recommendations of an ARS curve for the bridge structural design.
- Assessment of soil liquefaction potential, seismic settlement, and lateral spreading.
- Foundation analysis for bridge and retaining walls.
- Assessment of global slope stability and settlement of embankments.
- Evaluation of soil corrosivity conditions and recommendations for mitigation measures.
- Design of pavement structural section in accordance with the Caltrans method.

#### Report Preparation

Consultant will analyze the results and present them in the geotechnical report. The geotechnical report will be prepared to include recommendations for design and construction of bridge foundations, bridge type selection, earth retaining structures, cut and fill slopes, pavement, and drainage facilities.

Consultant will prepare the reports listed in the table on the following page. It is assumed that Caltrans will review only the improvements in their right-of-way; therefore, a Foundation Report will be prepared for retaining walls within Caltrans right-of-way. A Geotechnical Design Report and a Materials Report will be prepared for the improvements within Caltrans right-of-way. A Geotechnical Report will be prepared to include all other improvements within the project. The Foundation Report for non-standard retaining walls within Caltrans right-of-way will be prepared in accordance with the Caltrans Guideline – Foundation Reports for Earth Retaining Systems (ERS) dated June 2017. The Geotechnical Design Report (GDR) will be prepared in accordance with Caltrans guideline dated December 2006. The Materials Report will be prepared in accordance with Caltrans Highway Design Manual Topic 114 dated November 2017.

<b>Design Element</b>	<b>Review Agency</b>	<b>Deliverables</b>
All work outside of Caltrans Right-of-Way	City of Corona	Geotechnical Report
Retaining Walls within Caltrans Right-of-Way	Caltrans / City of Corona	Foundation Report (FR)
Roadway Improvements within Caltrans Right-of-Way	Caltrans / City of Corona	Geotechnical Design Report (GDR)
Pavement Structural Sections within Caltrans Right-of-Way	Caltrans / City of Corona	Materials Report (MR)

Assumptions	<ul style="list-style-type: none"> <li>▪ Geotechnical Investigation is allowed between 9am and 3pm on weekdays.</li> <li>▪ No investigation of hazardous materials is included in this scope of work. If hazardous materials are encountered during field investigations, work will immediately be terminated and the City will be notified. Soil cuttings are assumed to be non-hazardous for disposal purposes. Remedial mitigation plans for any removal of hazardous waste are not included in the scope of work.</li> <li>▪ Borings will be located outside of the railroad right-of-way.</li> <li>▪ Engineer Stamped Traffic Control Plans are not included. Any borings requiring traffic control are assumed to be performed in accordance with the WATCH Manual. If required, Consultant can prepare Traffic Control Plans signed by a licensed Civil or Traffic Engineer for geotechnical boring work for an additional fee.</li> <li>▪ Special procedures for field investigation, laboratory testing, and disposal of investigation derived waters if soil or groundwater is hazardous is not included in this scope.</li> <li>▪ Life-cycle cost analyses for pavement are not included in this scope.</li> <li>▪ Falling weight deflector (FWD) testing of existing pavements and recommendations for rehabilitation based on FWD results are not included.</li> <li>▪ Existing pavement rehabilitation recommendations, if required, will be provided by others.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Geotechnical Report</li> <li>▪ Foundation Report (FR)</li> <li>▪ Geotechnical Design Report (GDR)</li> <li>▪ Materials Report (MR)</li> <li>▪ Aerially Deposited Lead (ADL) Testing Report</li> </ul>

#### **5.1.5. Landscape & Aesthetic Concepts**

Based on input provided by the City, the stakeholders and the information gathered during the site reconnaissance, the Consultant shall define opportunities and constraints including site features and context, climatic influences, pedestrian and vehicular circulation systems, landscape planting, and view corridors for use in the preparation of the landscape concept plan. Conceptual plans or exhibits shall be

submitted. The landscape concept shall contain an initial plant palette, planting design, and median hardscape treatments. Consultant shall prepare an image board composed of relevant imagery. Proposed hardscape and softscape materials and finishes shall be included to further illustrate the design intent. Image board may be presented at community outreach meetings, at the City's discretion.

Colored 2D exhibits shall be prepared for bridge and retaining wall aesthetics. Preferred options shall be developed into 3D renderings. Aesthetic options may be presented at community outreach meetings for stakeholder input.

Assumptions	<ul style="list-style-type: none"> <li>One (1) revision to the landscape concepts is included in this scope.</li> <li>Up to three (3) bridge and three (3) retaining wall aesthetic options are included in this scope.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>Landscape Concepts</li> <li>Bridge and Retaining Wall Aesthetic Concepts</li> </ul>

#### 5.1.6. Structure Type Selection Report

A Structure Type Selection Report will be prepared for the McKinley Street Overpass. The bridge type report will include a discussion of foundation and falsework requirements, seismic and aesthetic considerations, traffic handling requirements, staging, and construction cost. Anticipated construction methods for building the bridge off-site and moving it into place will be identified in the Type Selection process and coordinated with the project geometry. Consultant will submit Type Selection documents to the City, BNSF, and RCFC&WCD for review and approval.

Assumptions	<ul style="list-style-type: none"> <li>The Structure Type Selection Report shall evaluate only a network tied-arch structure. Other structure types have been deemed infeasible for this project.</li> <li>The approved Structure Type Selection Report shall not be updated throughout the course of PS&amp;E. Any changes resulting from further development of the PS&amp;E shall not require updates to the Structure Type Selection Report.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>Structure Type Selection Report</li> </ul>

## 5.2. CALCULATIONS

All roadway calculations and structural analyses and design will be performed using Caltrans current standards and requirements.

### 5.2.1. Civil/Survey Calculations

The Consultant shall provide the following roadway calculations:

- Geometric traverse and right-of-way
- Template notes and slope staking note
- Profile
- Grid grades

Survey calculations shall include measurements of square footage for certain fee takes and the associated closure reports necessary for PS&E.

Quantity calculations shall be submitted with the Cost Estimates.

Calculations shall be submitted at the 65% and 95% milestones, and updated as required beyond the 95% milestone. The 65% calculations (Draft) shall undergo a cursory QA/QC review. The 95% (Final) calculations shall be fully checked and reconciled.

Assumptions	Cross sections for proposed roadway features (CL, TC, FL) will be provided at 25-foot intervals and key points.
Deliverables	<ul style="list-style-type: none"> <li>▪ Draft Civil/Survey Calculations</li> <li>▪ Final Civil/Survey Calculations</li> </ul>

### 5.2.2. Structural Calculations

Structural calculations shall be provided for the bridge and any retaining walls that are not covered by Caltrans Standard Plans or are manufacturer-/contractor-designed retaining walls. AASHTO and Caltrans criteria shall govern the design of the structures.

Calculations shall be submitted at the 65% and 95% milestones, and updated as required beyond the 95% milestone. The 65% calculations (Draft) shall undergo a cursory QA/QC review. The 95% (Final) calculations shall be fully checked and reconciled with the Independent Checker. Supplemental calculations will be submitted at 100% as needed.

Assumptions	<ul style="list-style-type: none"> <li>▪ This scope assumes that the bridge is a network tied-arch bridge.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Draft Structural Calculations at 65%</li> <li>▪ Final Structural Calculations at 95%</li> <li>▪ Supplemental (or Updated) Structural Calculations at 100%</li> </ul>

### 5.2.3. Independent Check

Independent Structural Calculations shall be performed between the 65% and 95% milestones.

Assumptions	<ul style="list-style-type: none"> <li>▪ The bridge shall undergo a full independent check, and the deliverable shall include a second set of independent structural check calculations.</li> <li>▪ Retaining walls and other structures shall be checked using a procedure similar to "Red-Blue-Yellow", as outlined in the Quality Control Procedures. A second set of structural check calculations shall not be submitted for retaining walls and other structures.</li> <li>▪ This scope assumes that the bridge is a network tied-arch bridge.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Independent Structural (Bridge) Calculations</li> </ul>

### 5.3. PLAN PREPARATION

Plans shall be prepared and submitted for the 35%, 65%, 95%, 100%, and Issued for Bid (IFB) (or Final) milestones. Six (6) sets of 24-inch x 36-inch and three (3) sets of 11-inch x 17-inch Plans shall be provided at each milestone, except one (1) set of 24-inch x 36-inch original signed/sealed plans shall be submitted for the IFB submittal.

Plan shall be prepared electronically according to the CADD Standards established in the approved Project Management Plan.

The following sections of this Scope of Services describe specific categories of plans (e.g. Roadway Plans). Consultant shall not submit plans separately; all plans noted shall be submitted as a combined set at each milestone submittal.

#### 5.3.1. General Plans

General plans may include title sheet, vicinity and location map, sheet index, location map, construction notes, construction legend, standard symbols, telephone numbers of utilities and other affected agencies and businesses, basis of bearing and bench mark, general notes and abbreviations.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"><li>▪ 35% Plans</li><li>▪ 65% Plans</li><li>▪ 95% Plans</li><li>▪ 100% Plans</li><li>▪ IFB Plans</li></ul>

#### 5.3.2. Survey Control Plan

Survey and horizontal control plan shall be developed to provide street and rail centerlines and bridge ties to establish project control points.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"><li>▪ 65% Plans</li><li>▪ 95% Plans</li><li>▪ 100% Plans</li><li>▪ IFB Plans</li></ul>

#### 5.3.3. Right-of-Way Plans

Sheets shall delineate the existing right-of-way, and the acquisitions and easements (specifically Temporary Construction Easements) that are available for the Contractor's use.

Assumptions	Temporary Construction Easements will not be shown elsewhere in the plans. If the City desires to show them in the plans, they will appear only on the Right-of-Way Plans.
Deliverables	<ul style="list-style-type: none"><li>▪ 65% Plans</li><li>▪ 95% Plans</li></ul>

- 100% Plans
- IFB Plans

#### 5.3.4. Roadway Plans

Roadway or related facilities plans shall be prepared in conformance with the current City Design and Standard Plans for roadway within City right-of-way, and shall be per Caltrans standards and requirements within Caltrans right-of-way.

Roadway plans may include:

- Demolition and Removal Plans\*
- Typical Sections
- Plan and Profile
- Intersection Details\*
- Off-Site Improvement Plans
- Grading Plans\*
- Erosion Control Plans\*
- Construction Details\*

\* Indicates plans that may not be included in the 35% submittal.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"> <li>▪ 35% Plans</li> <li>▪ 65% Plans</li> <li>▪ 95% Plans</li> <li>▪ 100% Plans</li> <li>▪ IFB Plans</li> </ul>

#### 5.3.5. Traffic Plans

Traffic plans may include:

Traffic plans may include:

- Traffic Signal Plans
- Ramp Metering Modification Plans
- Pavement Delineation & Signing Plans
- Overhead Sign Plan
- Sign Panel Detail Plans \*
- Signal Interconnect Plans \*
- Stage Construction Plans
- Traffic Handling Plans
- Temporary Traffic Signal Plans \*
- Detour and Construction Area Sign Plans \*
- Street Lighting Plans
- Parking Lot Lighting Plans

\* Indicates plans that may not be included in the 35% submittal.

Traffic signal modification plans will be prepared at McKinley Street/SR-91 EB Off-ramp and McKinley Street/Magnolia Avenue. New traffic signal design plans will be prepared at McKinley Street Side Ramp/Sampson Avenue, Loop Road/Sampson Avenue, and McKinley Street/Estelle Street.

Ramp metering modification plans will be prepared for the McKinley Street to SR-91 EB loop on-ramp and the SR-91 EB on-ramp from the new roundabout.

Pavement delineation & signage plans will be prepared for McKinley Street from SR-91 WB Ramps to Magnolia Avenue, Sampson Avenue from McKinley Street Side Ramp to New Loop Road, New Loop Road, new portion of Anselmo Drive, 300' of Estelle Street west of McKinley Street and east into shopping center, SR-91 WB off-ramp, and SR-91 EB on-ramp from the new roundabout.

Overhead sign plan will be prepared for a new sign structure over the SR-91 WB off-ramp lanes with lane designation signs. One plan sheet is assumed.

Sign panel detail plans will be prepared to show sign heights and widths and letter heights for proposed mounted guide signs for the project. Two sheets of details are assumed.

Signal Interconnect plans will be prepared for McKinley Street from SR-91 EB Off-ramp to Magnolia Avenue, along the Loop Road between McKinley Street and Sampson Avenue, and along Sampson Avenue between McKinley Street side ramp and the Loop Road.

Stage Construction Plans shall identify the general sequence of work. The Construction Schedule shall be based on the stages shown in the plans.

Traffic Handling Plans will be prepared for the project along McKinley Street from SR-91 WB ramps to Magnolia Avenue, Sampson Avenue 500 west of McKinley Street to Anselmo Drive, along Estelle Street, and along the SR-91 EB off-ramp. A total of 14 traffic handling sheets are anticipated.

Temporary Traffic Signals will be prepared at McKinley Street/SR-91 EB Off-ramp, McKinley Street/Sampson Avenue, and McKinley Street/Estelle Street.

Detour and Construction Area Signage Plans will be provided showing routing (detours) for any full closures (such as long term, overnight, or weekend closures). Detour Plans will be provided for Estelle Street Closure, SR-91 EB On-ramp closure, and SR-91 EB Off-ramp closure.

Street Lighting Plans shall be provided for new and modified roadways within the project limits. Lighting may be required under the bridge structure. It is assumed that no temporary lighting will be required. Lighting on private properties affected by the Project is anticipated. Photometrics will be developed and the plans will depict pole and luminaire type and locations, pull box and power source locations, and wiring/circuit diagrams, schedules, and details (as necessary).

Parking Lot Lighting Plans will be prepared to reestablish the impacted parking lot lights at the Food 4 Less Center, Los Arcos Plaza, and the shopping center at the northwest corner of McKinley Street/Sampson Avenue. A total of three sheets are anticipated.

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| Assumptions | <ul style="list-style-type: none"><li>▪ A maximum of three (3) stages of construction are assumed.</li><li>▪ Improvements along Sampson Avenue are limited to removal of the existing intersections with McKinley Street and KPC Parkway, and the addition of two new intersections with the side ramp and loop connector road.</li><li>▪ Temporary street lighting is not included in this scope.</li><li>▪ Separate traffic signal removal plans are not included in this scope.</li></ul> |
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	<ul style="list-style-type: none"> <li>▪ No specialty lighting on the bridge structure is included in this scope.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ 35% Plans</li> <li>▪ 65% Plans</li> <li>▪ 95% Plans</li> <li>▪ 100% Plans</li> <li>▪ IFB Plans</li> </ul>

### 5.3.6. Utility Plans

*Existing Composite Utility Plans:* Consultant shall identify existing utilities based on collected record, survey, and pothole data. Disposition (protect-in-place, abandon, relocate, relocate by others, etc.) of existing utilities shall be identified.

*Proposed Composite Utility Plans:* Proposed utility locations shall be based upon the Consultant's designed elements as well as information provided by third-party utility companies, including the undergrounding of electrical, telephone, and cable facilities. Consultant shall design the City Utility relocations per the Cities' standards. Any new utilities (e.g. water mains and fire hydrant connections in the Connector Road) shall be depicted.

*Sanitary Sewer Plans:* Existing City and County sanitary sewer facilities are located along McKinley St and Sampson Ave. There are four sewer mains that will require relocation, two are north of the tracks and the other two are south of the tracks. The existing 15-inch sewer line along McKinley between SR-91 and Magnolia Ave will be relocated in sections to re-establish connection outside of the proposed McKinley St embankment areas. The 15-inch sewer line north of the tracks will be relocated alongside the relocated 4'x8' double box storm drain culvert along the new McKinley side ramp. The 15-inch sewer line south of the track will be relocated to a proposed utility easement east of McKinley St. The line will be relocated from Magnolia Ave and tie into the existing sewer siphon crossing south of the tracks. The 4-inch sewer force main will need to be partially relocated south of the tracks to provide clearance for the new bridge abutments. Private property sewer lateral detail plans will be provided for re-establishing sewer lateral connections for the existing buildings adjacent to McKinley St to the newly relocated mainlines.

*Water Plans:* Existing City and County water line facilities are located along McKinley St, Sampson Ave, Magnolia Ave, and Estelle St. The existing 12-inch water main along McKinley between Sampson Ave and SR-91 will be relocated within the proposed Loop Rd alternative and re-connected to the existing water line along Sampson Ave to re-establish the water main loop. The 12-inch water main along McKinley Ave south of the tracks will be relocated to the east and/or west within a proposed utility easement. Private party water line details plans will be provided for re-establishing water services for the existing buildings adjacent to McKinley St to the newly relocated mainlines.

*Pothole Data Sheet(s):* The potholes shall be identified on the plans. A pothole log shall be provided depicting station/offset or coordinates of pothole, utility information such as size, material, and depth, and elevations of existing ground and top of utility.

Assumptions	<ul style="list-style-type: none"> <li>▪ Buildings that are not along McKinley St frontage are assumed to have utility services provided from another location and are not anticipated to have any service relocations.</li> <li>▪ Existing utilities will be protected when possible.</li> <li>▪ Sewer capacity modeling or calculations are not anticipated or included in this scope of work.</li> </ul>
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	<ul style="list-style-type: none"> <li>▪ Water line capacity modeling or calculation are not anticipated or included in this scope of work.</li> <li>▪ Sewer and water proposed relocations will be done in-kind for pipe size and materials.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ 35% Plans</li> <li>▪ 65% Plans</li> <li>▪ 95% Plans</li> <li>▪ 100% Plans</li> <li>▪ IFB Plans</li> </ul>

### 5.3.7. Landscaping & Irrigation Plans

Landscape and Irrigation plans shall be prepared in conformance with City's Specific Plan, City's Water Conservation Ordinance and Caltrans standards and requirements.

Landscaping Plans shall indicate plant species, sizes, quantities and locations with notes, legends, detail reference call-outs and planting details.

Irrigation Plans shall be prepared based on use of City's Reclaimed Water, and in conformance with standards of the Department of Health Services. Irrigation Plans shall indicate all components and facilities for a permanent automatic irrigation system to support the improvements. Irrigation system includes, but is not limited to, sprinkler head layout, piping, valves, water supply Point-of-Connection(s), irrigation controllers with notes and call-outs. Irrigation system design shall incorporate current industry technology and installation methods to produce an efficient system operating within a public environment. Also included shall be the equipment and material legends, and installation details for proposed irrigation facilities.

Assumptions	<ul style="list-style-type: none"> <li>▪ Off-site landscaping is limited to restoring existing landscaping within the areas of disturbance for the proposed improvements.</li> <li>▪ Reclaimed Water lines do not currently existing within the project limits.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ 65% Plans</li> <li>▪ 95% Plans</li> <li>▪ 100% Plans</li> <li>▪ IFB Plans</li> </ul>

### 5.3.8. Drainage Plans

Plans shall be provided for the any proposed storm drain facilities, including incorporation of Post Construction Structural BMPs. Plan and profile sheets shall be provided for all mainline storm drains. Plans shall include connector pipe profile sheets and miscellaneous construction detail sheets, as required, for detailing connections to existing facilities, and other miscellaneous details.

The 35% plans shall include layouts, but profiles and details may not be provided.

The primary conveyance system within the project area is the Arlington Channel, which is owned and maintained by RCFC & WCD. North of Arlington Channel, a City of Corona double 8-ft x4-ft reinforced box culvert collects stormwater along McKinley and adjacent properties. This system collects runoff from the north extending all the way to the communities of Northeast Corona and Corona Ranch and

discharges directly into Arlington Channel west of the existing McKinley Street bridge across the channel. The box culverts will be realigned and moved west of McKinley Street along the proposed side ramp in order to avoid conflicts with the proposed bridge abutment and embankment.

Part of the plaza east of McKinley and north of Sampson drains to two existing catch basins directly connected to the existing double box culvert. These catch basins and lateral will need to be replaced and connected to the re-located double box culvert. The new lateral will need to be encased or sleeved to withstand the embankment loading. The majority of the Quickie's Quality Car Wash/Carl's Jr. plaza drains south towards Sampson and discharges to a catch basin independent of the box culvert system. Other existing city storm drain systems along Sampson drain directly into the Channel and will not be impacted. An existing City of Corona storm drain line collects stormwater along the east side of McKinley, south of the tracks in the Food 4 Less Plaza. There are two curb opening catch basins and two parkway culverts that will need to be removed. The proposed roadway profile will not allow for the direct discharge of plaza stormwater onto McKinley; and, the private storm drain system will be expanded and connected to the public storm drain system.

The majority of the private properties west of McKinley, south of the tracks, drain towards Estelle Street, where stormwater is conveyed west. These properties would not be impacted by the project. Driveways and adjacent areas that drain directly onto McKinley Street will either be regraded to drain towards Magnolia Avenue or Estelle Street, or on-site storm drains added where feasible.

The roundabout loop connector road option will require the replacement of an existing concrete ditch that conveys flow emanating from Caltrans right-of-way to an existing storm drain located within McKinley Street. The proposed improvements will require the demolition of the existing ditch and design a new storm drain system aligned along the frontage road and new eastbound on-ramp.

Assumptions	Arlington Channel realignment is excluded from this scope.
Deliverables	<ul style="list-style-type: none"> <li>▪ 35% Plans</li> <li>▪ 65% Plans</li> <li>▪ 95% Plans</li> <li>▪ 100% Plans</li> <li>▪ IFB Plans</li> </ul>

### 5.3.9. Bridge Plans

Layout sheets, elevations and details shall be provided for the structure selected in the Structure Type Selection Report.

The 35% plans shall consist of the General Plan and Foundation Plan.

Caltrans Standard Plans and City/County Standards may be referenced, where applicable.

Assumptions	This scope assumes that the selected bridge type is network tied-arch bridge.
Deliverables	<ul style="list-style-type: none"> <li>▪ 35% Plans</li> <li>▪ 65% Plans</li> <li>▪ 95% Plans</li> <li>▪ 100% Plans</li> <li>▪ IFB Plans</li> </ul>

### 5.3.10. Retaining Wall Plans

Layout sheets, elevations and details shall be provided for the necessary retaining walls on the project. The analysis, design, and layout of three (3) retaining wall types are included in this scope:

- Caltrans Type 1 or 5 cast-in-place concrete cantilevered retaining walls.
- Mechanically Stabilized Earth (MSE) walls or precast concrete walls with lightweight cellular concrete fill.
- Segmental Retaining Walls (also known as Precast Modular Block Walls)

Caltrans Standard Plans and City/County Standards may be referenced, where applicable.

35% plans shall show preliminary layouts but retaining wall details will not be included at that submittal milestone.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"><li>▪ 35% Plans</li><li>▪ 65% Plans</li><li>▪ 95% Plans</li><li>▪ 100% Plans</li><li>▪ IFB Plans</li></ul>

### 5.3.11. Log of Test Borings

Log of Test Borings sheets will be included as part of the structure plans. Consultant shall prepare the Log of Test Borings sheets in accordance with Caltrans Standard Procedures.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"><li>▪ 65% Plans</li><li>▪ 95% Plans</li><li>▪ 100% Plans</li><li>▪ IFB Plans</li></ul>

## 5.4. SPECIFICATIONS

The Consultant shall prepare and furnish Special Provisions for items of work included in the plans which are not covered in the Standard Specifications, Caltrans-approved standard special provisions, and City approved standard special provisions.

Technical Specifications and Special Provisions shall conform to the Greenbook and the City of Corona Department of Public Works Modifications to Standard Specifications for Public Works Construction, latest edition and Caltrans Standard Specifications and standards for the bridge and retaining wall portions of the design.

Specifications shall be provided at the 65%, 95%, 100%, and IFB milestones. Six (6) sets of Specifications shall be provided at each milestone, except one (1) set of signed/sealed Specifications shall be provided for the IFB submittal. Electronic submittals shall include both PDF and Word formats.

Assumptions	<ul style="list-style-type: none"><li>▪ Technical Specifications and Special Provisions shall be prepared in Microsoft Word format.</li></ul>
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	<ul style="list-style-type: none"> <li>▪ General Conditions (boilerplate) shall be provided by the City, and shall be updated by the Consultant.</li> <li>▪ Specifications shall reference Greenbook and Caltrans Standards where applicable. However, the General Conditions shall indicate that any standard payment clauses are void, and custom payment clauses shall be developed for each item listed in the Bid Schedule.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ 65% Specifications</li> <li>▪ 95% Specifications</li> <li>▪ 100% Specifications</li> <li>▪ IFB Specifications</li> </ul>

## 5.5. COST ESTIMATES

Throughout development of the PS&E, the Consultant shall update the preliminary cost estimate.

For construction costs, Consultant shall provide detailed project quantity estimates and cost estimates at the 65%, 95%, 100% and IFB milestones. Bid Schedules shall also be provided with each line item referenced to a payment item in the Specifications. The 35% Cost Estimate shall be detailed, but will not include cross-references with the Specifications and the Bid Schedule.

In addition to construction cost, overall capital costs (including right-of-way and soft costs) shall also be provided at each milestone. Costs other than construction costs will require input and direction from the City and the City's Right-of-Way Consultant.

Assumptions	<ul style="list-style-type: none"> <li>▪ Cost Estimates shall be prepared in MS Excel format.</li> <li>▪ The City shall provide input on soft costs. The City's Right-of-Way Consultant shall provide input on right-of-way costs.</li> <li>▪ Because the Consultant does not control the cost of labor, materials, equipment or services furnished by others, methods of determining prices, or competitive bidding or market conditions, any opinions rendered as to costs, including but not limited to opinions as to the costs of construction and materials, shall be made on the basis of its experience and represent its judgment as an experienced and qualified professional, familiar with the industry. The Consultant cannot and does not guarantee that proposals, bids or actual costs will not vary from its opinions of cost. If the City wishes greater assurance as to the amount of any cost, it shall employ an independent cost estimator. Consultant's services required to bring costs within any limitation established by the City will be paid for as Additional Services.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ 35% Cost Estimate</li> <li>▪ 65% Cost Estimate, Quantities &amp; Bid Schedule</li> <li>▪ 95% Cost Estimate, Quantities &amp; Bid Schedule</li> <li>▪ 100% Cost Estimate, Quantities &amp; Bid Schedule</li> <li>▪ IFB Cost Estimate, Quantities &amp; Bid Schedule</li> </ul>

## 5.6. CONSTRUCTION SCHEDULE

The Consultant shall prepare a minimally detailed construction Critical Path Method (CPM) schedule to support the calculation of the number of Working Days for the Project construction. The CPM schedule shall be provided at the 65%, 95%, and 100% milestones.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"><li>▪ 65% Construction Schedule</li><li>▪ 90% Construction Schedule</li><li>▪ 100% Construction Schedule</li></ul>

## 6. RIGHT-OF-WAY

Licensed land surveyors will perform right-of-way engineering, mapping, and field surveys required for this task. This Project will require the acquisition of additional right-of-way. The acquisition process shall be conducted in accordance with California Government Code, Code of Civil Procedure and corresponding Regulations, including but not limited to California Relocation Assistance law. City will review and approve all right-of-way-related work and deliverables.

### 6.1. RIGHT-OF-WAY REQUIREMENTS

The Consultant shall determine right-of-way needs and prepare exhibit strip plot map for submittal to Caltrans Right-of-Way. The Consultant shall identify the need for new right-of-way, new access control, permanent easements, and temporary construction easements. The Consultant shall coordinate with affected agencies to determine right-of-way impacts (including utility right-of-way needs). Caltrans will approve right-of-way requirements prior to initiating preparation of right-of-way maps.

Assumptions	N/A
Deliverables	Right-of-Way Requirements Map

### 6.2. RIGHT-OF-WAY MAPS

The Right-of-Way Base Map prepared during the data collection phase shall serve as the base map indicating existing features. Right-of-Way Maps shall include the following:

- Consultant shall identify improvements including monument signs, cell towers, business signs etc. that will be removed and or relocated as a part of the Project.
- Consultant shall prepare right-of-way maps at a scale approved by Caltrans reflecting right-of-way for the Project, including acquisitions and easements required for maintenance access, drainage, material sites, utilities, and construction work areas, as necessary. The Consultant shall also show access control. Dimensions are to be shown in English units.
- Consultant shall perform the Pre-Construction Record of Survey.

Assumptions	N/A
Deliverables	Right-of-Way Maps

### 6.3. APPRAISAL MAPS, PLATS, AND DESCRIPTIONS

- The Consultant shall coordinate with City's Right-of-Way Acquisition Consultant to prepare legal descriptions, plats, deeds, and maps for each parcel acceptable to Caltrans and the City for conveyance of marketable title interests and for accurate representation of right-of-way necessary for construction of the Project.
- The Consultant shall prepare legal descriptions, plats, and maps acceptable to utility companies (as required) and the City for conveyance of marketable title interests and accurate representation of easements necessary for construction of the Project.
- The Consultant shall prepare a right-of-way maps acceptable to Caltrans.
- A licensed Appraiser hired by the City will be responsible preparation of appraisals as required by Caltrans. The appropriately licensed appraiser shall be used for cell towers (if any), signs, etc. Consultant shall provide required documentation to City's Right-of-Way Acquisition Consultant to allow them to prepare the necessary appraisals for any property required for the Project.
- An experienced Right-of-Way Acquisition Consultant hired by the City shall be responsible for right-of-way negotiations and coordination with City representatives.
- An experienced Relocation Consultant hired by the City shall be responsible for all effort associated with relocations, negotiations and coordination with City representatives.
- The Consultant shall prepare necessary Caltrans Local Assistance Paperwork associated with utility relocations.

Consultant shall prepare exhibits and descriptions for Temporary Construction Easements (TCE) to assist the City's Right-of-Way Consultant in performing appraisals and acquisitions.

Assumptions	<ul style="list-style-type: none"> <li>▪ Up to 40 plats and legal descriptions are included in this scope. Anticipated plats and legal descriptions include: <ul style="list-style-type: none"> <li>▪ Nine (9) Roadway Easements</li> <li>▪ Four (4) Maintenance &amp; Access Easements</li> <li>▪ Two (2) Utility Easements</li> <li>▪ Twenty (20) Temporary Construction Easements</li> <li>▪ Two (2) plats and legal descriptions are included for the BNSF right-of-way: An Aerial Easement, and a Temporary Construction License.</li> <li>▪ Two (2) plats and legal descriptions for RCFC&amp;WCD: a temporary easement and a permanent easement for bridge aerial rights.</li> <li>▪ One (1) plat and legal description for Caltrans relinquishment.</li> </ul> </li> <li>▪ Any parcels that may ultimately require full acquisition shall not require plats and legal descriptions.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Plats and Legal Descriptions</li> <li>▪ TCE Descriptions &amp; Exhibits</li> </ul>

## 7. COORDINATION, AGREEMENTS & PERMITS

This task encompasses coordination with the City and its various departments (such as Community Development, Transportation, Traffic, DWP, etc.), other involved agencies, Right-of-Way Acquisition Consultant, private property owners, business owners and developers for compatible design and phasing of construction with existing and proposed conditions. This task also encompasses the agreements and permits necessary to design and construct the Project.

Coordination may include:

- BNSF Railway (BNSF), Metrolink, and the California Public Utilities Commission (CPUC)
- Caltrans District 8 (Caltrans)
- Riverside County Flood Control and Water Conservation District (RCFC&WCD)
- United States Army Corps of Engineers (USACE)
- Regional Water Quality Control Board (RWQCB)
- California Department of Fish and Game
- Utility Companies
- Riverside County Transportation Commission (RCTC) including rail and bus services
- County of Riverside including bus services
- Property and business owners, and residents

The Consultant shall provide technical support and prepare documents necessary for executing agreements and obtaining permits needed for the construction of the Project. Permits anticipated for the construction of the Project include:

- BNSF Construction & Maintenance Agreement
- CPUC General Order 88-B Application
- Caltrans Encroachment Permit
- RCFC&WCD Encroachment Permit

Permits necessary for the design of the project shall be obtained by the Consultant (with City assistance, as required). Permits anticipated for the design of the Project include:

- BNSF Right-of-Entry Permit
- RCFC&WCD No-Fee Access Permit
- Caltrans Encroachment Permit (for surveying, potholing, etc.)

The Consultant shall provide technical support and required documentation to the City's Right-of-Way Acquisition Consultant for escrow agreements, relocation agreements, temporary and permanent easements, County recordation, all required notices associated with the acquisitions and permits.

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| Assumptions | <ul style="list-style-type: none"><li>▪ Channel relocation is not required, therefore the following permits are not included in this scope:<ul style="list-style-type: none"><li>▪ USACE Section 404 of the Clean Water Act</li><li>▪ RWQCB Section 401 Water Quality Certification</li><li>▪ California Department of Fish and Game Streambed Alteration Agreement</li><li>▪ California Department of Fish and Game 1600, 1602</li></ul></li><li>▪ City shall pay for (or reimburse) any permit fees required for design and construction.</li><li>▪ City shall waive (or pay other departments for) any permit fees related to survey, potholing, geotechnical investigation, etc. within City right-of-way.</li></ul> |
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Deliverables	<ul style="list-style-type: none"> <li>Permits, as required for design and construction</li> </ul>
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## 7.1. BNSF RAILWAY

Coordination with BNSF Railway will include a Right-of-Entry Agreement, the preparation and execution of a Construction & Maintenance Agreement, and plan submittals and review.

The Right-of-Entry Agreement (also referred to as a Temporary Occupancy Permit) will be executed between BNSF Railway and the Consultant, permitting access for data collection (e.g. survey). All personnel entering BNSF's right-of-way shall complete the safety orientation program at the website "www.BNSFcontractor.com" within one (1) year prior to entering the right-of-way.

Assumptions	<ul style="list-style-type: none"> <li>The Consultant shall pay the License Fee and shall be reimbursed by the City.</li> <li>Use of the BNSF right-of-way during design shall be limited to survey and field inspection. Geotechnical investigations and potholing shall be performed outside of the BNSF right-of-way.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>BNSF Right-of-Entry Agreement</li> </ul>

### 7.1.1. Construction & Maintenance Agreement

Review and approval of the design by BNSF will be required. Formal approval is expected to be provided through execution of a Construction and Maintenance Agreement. The Consultant shall prepare the text and associated exhibits. The Consultant shall prepare the Theoretical Structure Estimate which, pursuant to 23 CFR §646.210, defines the railroad's share in the cost of the Project.

Assumptions	<ul style="list-style-type: none"> <li>The City and the City's Right-of-Way Consultant shall be responsible for negotiating the cost of the Temporary Construction License and Aerial Easement with BNSF through their right-of-way consultant (Jones Lang LaSalle)</li> <li>The City shall be responsible for negotiating the railroad's share with BNSF.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>BNSF Construction &amp; Maintenance Agreement</li> <li>Theoretical Structure Estimate</li> </ul>

### 7.1.2. Submittals

The Consultant shall submit plans to BNSF via the City for review and approval. The requirements of the BNSF/UPRR Guidelines for Railroad Grade Separation Projects shall be followed, which includes the following submittals for Overpass structures:

- Concept Submittal
- 30% Submittal
- Final Plans Submittal

The Concept submittal shall include the following:

- Plan, Elevation, and Typical Section of proposed grade separation.
- Photo log with pictures of the proposed project location. Site pictures shall be in all controlling directions including North, East, South, and West. The plan view should show a reference location and direction for each picture.

The 30% submittal shall include the following:

- Applicant response to Railroad review comments on the concept submittal. The 30% submittal shall reflect concept review comments.
- Design Plans showing a Plan View, Elevation View, Typical Section, Construction Notes and Railroad Profile Grade Diagram.
- Project Specifications and/or Special Provisions, including Railroad coordination requirements.
- Drainage Report (as required).
- Construction Phasing Plans must show all required phasing, construction procedures, temporary shoring layout, controlling dimensions and elevations.

The Final Plans submittal shall include the following:

- Applicant response to Railroad review comments on the 30% submittal. The Final Plans submittal shall reflect all previous review comments.
- Design Plans showing a Plan View, Elevation View, Typical Section, Construction Notes and Railroad Profile Grade Diagram.
- Project Specifications and/or Special Provisions, including Railroad coordination requirements.
- Drainage Report (as required).
- Construction phasing plans must show all required phasing, construction procedures, temporary shoring layout, controlling dimensions and elevations.

At the conclusion of plan review and comment resolution, it is expected that BNSF will issue a letter of project acceptance.

Assumptions	N/A
Deliverables	<ul style="list-style-type: none"> <li>▪ BNSF Concept Submittal</li> <li>▪ BNSF 30% Submittal</li> <li>▪ BNSF Final Plans Submittal</li> </ul>

## 7.2. CALIFORNIA PUBLIC UTILITIES COMMISSION

The Consultant shall provide the City with the necessary support, applications, drawings, exhibits, meetings, and other material required to obtain CPUC approval. For a General Order 88-B, the application package may include:

- Request to CPUC Staff for Authorization to Alter Highway-Rail Crossing Pursuant to General Order 88-B (Application Form)
- Vicinity Map
- General Plan & Profiles
- CEQA Notice of Exemption
- Traffic Handling Plans
- Interim Conditions

Assumptions	<ul style="list-style-type: none"> <li>▪ It is anticipated that approval will be provided through the General Order 88-B process.</li> <li>▪ This scope assumes that the crossing warning devices will remain active and in-place during construction. Crossing warning device relocations and pre-emption calculations are excluded from this scope.</li> </ul>
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Deliverables	<ul style="list-style-type: none"> <li>▪ CPUC Field Diagnostic Meeting</li> <li>▪ CPUC General Order 88-B Application</li> </ul>
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### 7.3. CALTRANS DISTRICT 8

Caltrans may exercise review and approval function through the City Project Manager at key points in the development process. All contacts with Caltrans will be directed through the City Project Manager.

The Consultant shall complete a Design Information Bulletin (DIB) 78-03 checklist for the geometric design. Once the DIB 78 is reviewed by Caltrans, a fact sheet for mandatory design exceptions and for advisory design exceptions will be prepared for Caltrans approval.

The Consultant shall complete the Permit Engineering Evaluation Report, and shall support the City in obtaining an Encroachment Permit.

Assumptions	<ul style="list-style-type: none"> <li>▪ The Project will be processed and reviewed by Caltrans via the Permit Engineering Evaluation Report (PEER) process in-lieu of a Project Initiation Document.</li> <li>▪ Additional documentation related to modified access along SR-91 with the ramp relocation is not necessary.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Caltrans Permit Engineering Evaluation Report</li> <li>▪ Caltrans Encroachment Permit</li> </ul>

### 7.4. RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

The Consultant shall coordinate with RCFC&WCD for access to their right-of-way during the design phase via an Access Permit. A No Fee Access Permit typically covers:

- Environmental or Engineer surveys
- Site reconnaissance
- Water sampling
- Temporary access for staging work

The Consultant shall assist the City in obtaining an Encroachment Permit (if required) for construction. An Encroachment Permit typically covers:

- Trenching for installation of water, sewer, storm drain, cable, and other utilities
- Aerial utility crossings
- Water monitoring and extraction wells, soil sample borings, and potholes
- Construction of trails, bridges, and other recreation/transportation features
- Installation of landscape/hardscape, curbs, driveways, sidewalk, pavements and fences or walls.

Assumptions	<ul style="list-style-type: none"> <li>▪ A No Fee Access Permit will be granted for surveying, site reconnaissance, water sampling, etc.</li> <li>▪ This scope assumes that the Arlington Flood Control Channel is not relocated, and that the existing McKinley Street bridge over the channel will remain in-place.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ RCFC&amp;WCD No Fee Access Permit</li> <li>▪ RCFC&amp;WCD Encroachment Permit (if required)</li> </ul>

## 7.5. UTILITY COORDINATION

The Consultant shall provide utility coordination that entails coordinating the protection and relocation of existing facilities as described herein except for those procedures that must be performed by the City.

The Consultant shall coordinate with utility owners and the City with respect to utility related matters. Consultant shall provide copies of all correspondence with utility companies and other utility related information to the City. Correspondence, as described herein, shall be prepared by the Consultant for either Consultant or City signature, as appropriate, as directed by the City's Project Manager.

Consultant shall monitor responses of utility notices received and make recommendations for mitigating conflicts. Consultant shall provide written responses to utility companies with regard to stated concerns and conduct design coordination meetings with utility companies as needed. Unresolved issues shall be brought to the attention of the City's Project Manager as early as practical. Utility conflict issues shall be resolved prior to the completion of the final design plans as follows:

- Consultant, through City staff, shall request and obtain a written acknowledgement of any conflicts from the respective utility owners.
- Reasonable efforts shall be taken to accommodate utility company requests for minor design changes to accommodate their facilities. Consultant understands that the utility companies are generally operating within the City right-of-way but may have prior rights to that of the City in some cases.
- Consultant shall monitor each utility owner that has conflicting facilities and shall obtain relocation plans and other relevant information from utility owner. Consultant shall review relocation plans for conformance with the requirements of the project.
- Consultant will provide support to review and comment on third-party utility design plans provided by the utility companies (SCE, SoCal Gas, Time Warner Cable, and AT&T). Plan review will consider routes; conflicts with other utilities; impacts to existing and proposed improvements; and potential easements.
- Consultant shall coordinate inclusion of special provisions in City's bid documents for adjustments and relocations of utility facilities as alternate bid items, if requested by the owning utility. Said work may require that cooperative agreements be prepared by City between the City and the owning utility companies. Engineer shall provide information and exhibits as required to support the preparation of cooperative agreements, if needed.
- For utility conflicts that require relocating, City staff will submit the official notice / order to the utility companies to relocate conflicting facilities.
- Consultant shall make recommendations for special provision language with regard to utility issues, recommendations for construction windows of time for utility relocation activities, recommendations for inclusion of utility bid items, etc.
- For utility conflicts with City owned water, sewer, signal electrical, or storm drain that require relocating, Consultant shall prepare the required relocation plans or new installation plans as necessary to provide biddable Plans and Specifications. City staff will submit the official notice / order to the utility companies to relocate conflicting facilities.
- For utility conflicts or improvements within properties that will be affected with the Project, the Consultant is responsible to prepare the needed plans for relocation or demolitions and re-establishment (such as water, sewer, electrical services, gas services, and communication).

Consultant shall develop and maintain a master utility matrix throughout the life of the project as described in Task 2.5.

Assumptions	<ul style="list-style-type: none"> <li>▪ The City shall be responsible for any design fees assessed by third-party utility companies.</li> <li>▪ This scope includes up to eight (8) meetings with utility companies.</li> <li>▪ For budgeting purposes, this scope anticipates four (4) review packages (plans and estimates) from each utility company (SCE, AT&amp;T, TWC, and SoCal Gas) for total of twelve (12) review packages.</li> <li>▪ Right-of-way and property documentation to be provided by City's Right-of-Way Consultant.</li> <li>▪ Utility Easement and Franchise Agreements to be provided by the Utility Owner or City's Right-of-Way Consultant.</li> <li>▪ Review of third-party utility plans will focus on impacts to City facilities with respect to existing and proposed roadway improvements and utility conflicts. Technical reviews for adequacy or completeness of the proposed utility facility itself (electrical and structural engineering) is not within the scope or purview of this work.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Utility Meeting Minutes</li> <li>▪ Supporting documentation for cooperative agreements (as required)</li> </ul>

## 7.6. COMMUNITY ENGAGEMENT

The Consultant shall coordinate and manage the community engagement component in conjunction with the City. Consultant shall prepare for, schedule, produce, and manage Community Engagement Meetings at key decision points. Renderings for public meetings showing the selected plan shall be provided. The Consultant shall host and/or participate in community meetings, one-on-one meetings with property owners and/or business owners, as well as presentations to the City's Infrastructure Committee, Planning Commission, and City Council during various progress phases. Based on input, the Consultant will incorporate changes to the design (when possible) and present the final schematic design to the Community and City Council using colored 3D interactive viewing/navigation of project design alternatives and phases depicting overall look and feel to aide in stakeholders' and public's understanding of the proposed Improvements.

The 3D virtual model developed by the Consultant must have the ability to:

- Interactively view, analyze and present the Project;
- Animate simulations to depict existing and proposed conditions within the Project boundary (buildings, landscape, signage, vehicles, signals, pavement, sidewalk, striping, relevant design features); create virtual tours for public access, create 360° and Virtual Reality videos;
- Present multiple viewpoints or animation paths;
- View existing conditions and design alternatives;
- Generate unlimited still images and clipped simulation videos; and
- Be accessible to City and public audiences from any web connected device. A cloud collaboration service shall be provided to enable City to view and navigate the visualization models using standard internet browsers. This service needs to be able to extend to public stakeholders and engage in web-based meetings with shared model viewing, view, and navigate on local desktop computers. Training shall also be provided to city staff in order to utilize the service.

consultant shall maintain positive public relations during design through an effective public information program. The Consultant will work with the City to develop the detailed outreach approach, which is anticipated to include:

- *Public Outreach Plan:* A detailed Public Outreach Plan will serve as the guiding blueprint and document for informing and engaging the public and project stakeholders.
- *Stakeholder Database:* A comprehensive stakeholder database for the project will include elected officials, city offices, businesses, schools, civic groups, residents, emergency responders, and other sensitive receptors and interested stakeholders in the project area.
- *Notification:* Consultant will design, produce and send out notices to stakeholders, as required and coordinated with the City.
- *Collateral Materials:* A set of collateral and presentation materials will be developed to support all phases of the project including a project factsheet and frequently asked question form.
- *Elected Officials/Government Agencies Presentations:* AA will support the Project Team, by working with the City, with coordination of up to eight (8) presentations to the City Council, planning commission and infrastructure committee as directed.
- *Public Meetings:* Up to four (4) public meetings will be coordinated at strategic times during the project such as when a project milestone is reached for when significant impacts are expected.
- *Tabling Events:* Up to four (4) neighborhood tabling events at locations where community members already congregate will be coordinated to reach project neighbors to answer questions, provide accurate information and explain how to stay connected to the project.
- *Key Stakeholder/Business Support Briefings:* Up to twelve (12) key stakeholder/business support briefings will be coordinated with the most impacted businesses.
- *Webpage Support/Social Media Engagement:* Consultant will support the project website and the City's existing social media venues by providing/updating content as needed.

Assumptions	<ul style="list-style-type: none"> <li>▪ Renderings for public meetings shall consist of photosimulations (rendering superimposed on photograph) from ground and aerial perspectives.</li> <li>▪ This scope assumes that the 3D virtual model will be hosted by the cloud-based service Modelo for approximately 24 months (with option to extend as needed).</li> <li>▪ Up to four (4) Community Outreach Meetings are included in this scope.</li> <li>▪ Up to twelve (12) one-on-one meetings with property and business owners are included in this scope.</li> <li>▪ Up to two (2) presentations to the Infrastructure Committee are included in this scope.</li> <li>▪ Up to three (3) presentations to the Planning Commission are included in this scope.</li> <li>▪ Up to three (3) presentations to the City Council are included in this scope.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>▪ Renderings/Visualization (Including 3D Virtual Model)</li> <li>▪ Public Outreach Plan, Stakeholder Database, Collateral Materials</li> <li>▪ Community Outreach Meetings</li> <li>▪ Neighborhood Tabling Events</li> <li>▪ City Council, Planning Commission, Infrastructure Committee Presentations</li> <li>▪ One-on-One Meetings with Property/Business Owners</li> </ul>

## 8. BIDDING SERVICES

### 8.1. RESIDENT ENGINEER (RE) PENDING FILE

The consultant shall provide the RE Pending File to the City for use by the Construction Management team during construction. It is assumed that the following will be provided:

- Permits
- Surveying Notes
- Copies of As-Built Data
- Geotechnical Report
- Drainage Report
- Relevant Correspondence and Memoranda
- Quantity Calculations
- Cross Sections
- Environmental Agreements & Reports
- Right-of-Way Agreements (by Others)

Assumptions	City's Right-of-Way Consultant shall provide the documents relating to their scope for the RE Pending File.
Deliverables	RE Pending File

### 8.2. BIDDING PHASE SUPPORT

Consultant shall assist the City in providing clarification and prepare information to be used in addenda based on questions that may arise during the bidding process.

Consultant shall attend the pre-bid meeting and assist the City with bid evaluations and recommendation of bid award.

Assumptions	<ul style="list-style-type: none"><li>▪ This scope includes one (1) addendum and one (1) pre-bid meeting.</li><li>▪ Clarification and addenda for up to twenty-five (25) questions are included in this scope.</li><li>▪ City shall prepare, and make available to plan holders, any required addenda.</li></ul>
Deliverables	Response to questions and addenda

### 8.3. CONFORMED PLANS AND SPECIFICATIONS

Consultant shall prepare conformed plans and specifications for use in constructing the project. The Issued for Construction (IFC) conformed plans and specifications shall reflect changes made during bidding and will be noted as a revision to the final design plans.

Assumptions	IFC plans and specifications shall be provided in .pdf format.
Deliverables	<ul style="list-style-type: none"><li>▪ IFC Plans</li><li>▪ IFC Specifications</li></ul>

**EXHIBIT “B”  
SCHEDULE OF SERVICES**

**[PROJECT SCHEDULE ON NEXT FOUR (4) PAGES]**





Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021				2022				2023				4			
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	1				
McKinley Street Grade Separation						1180d	16-Jul-18	20-Jan-23	114d																								
Key Milestones						1180d	16-Jul-18	20-Jan-23	114d																								
KM-0-NTP	Notice to Proceed	0d	16-Jul-18*		0d	◆ Notice to Proceed																											
KM-1100	Alternative Selected	0d		30-Nov-18	1194d	◆ Alternative Selected																											
KM-2000	35% PS&E Submission	0d		08-Mar-19	1124d	◆ 35% PS&E Submission																											
KM-2010	65% PS&E Submission	0d		09-Aug-19	1014d	◆ 65% PS&E Submission																											
KM-2020	90% PS&E Submission	0d		06-Dec-19	929d	◆ 90% PS&E Submission																											
KM-2030	100% PS&E Submission	0d		14-Feb-20	879d	◆ 100% PS&E Submission																											
KM-2050	Issued for Bid	0d		30-Oct-20	694d	◆ Issued for Bid																											
KM-3000	Issued for Construction (Conformed Plans and Specs)	0d		22-Mar-21	594d	◆ Issued for Construction (Conformed Plans and Specs)																											
KM-3100	Project Completed	0d		20-Jan-23	114d	◆ Project Completed																											
Task 1 - Project Administration						1180d	16-Jul-18	20-Jan-23	114d																								
1-1000	Project Management Plan (PMP)	15d	16-Jul-18	03-Aug-18	149d	□																											
1-1010	Quality Control Plan	15d	16-Jul-18	03-Aug-18	149d	□																											
1-1020	Project Controls (Budgeting, Cost Accounting, etc.)	1180d	16-Jul-18	20-Jan-23	114d	■																											
1-1030	Project Development Team Meetings	1180d	16-Jul-18	20-Jan-23	114d	■																											
Task 2 - Data Collection						200d	16-Jul-18	19-Apr-19	304d																								
2-1000	Aerial Mapping	10d	13-Aug-18	24-Aug-18	114d	■																											
2-1010	Field Survey	20d	25-Mar-19	19-Apr-19	304d	■																											
2-1020	Potholing	10d	03-Dec-18	14-Dec-18	144d	■																											
2-1030	Right-of-Way Base Mapping	10d	16-Jul-18	27-Jul-18	134d	■																											
2-1040	Utility Notifications	20d	16-Jul-18	10-Aug-18	124d	■																											
2-1050	Utility Base Mapping	10d	13-Aug-18	24-Aug-18	124d	■																											
2-1060	Geotechnical Records Research & Findings	15d	16-Jul-18	03-Aug-18	139d	■																											
2-1070	Traffic Analyses	30d	16-Jul-18	24-Aug-18	124d	■																											
Task 3 - Concept Development & Project Approval						70d	27-Aug-18	30-Nov-18	114d																								
Concept Development						10d	27-Aug-18	07-Sep-18	114d																								
3-1000	Geometric Concepts	10d	27-Aug-18	07-Sep-18	114d	■																											
3-1010	Bridge & Retaining Wall Concepts	10d	27-Aug-18	07-Sep-18	114d	■																											
Alternatives Development Report						30d	27-Aug-18	05-Oct-18	114d																								
3-2000	Plan and Profile Exhibits	5d	10-Sep-18	14-Sep-18	114d	■																											
3-2010	Right-of-Way Exhibits	5d	10-Sep-18	14-Sep-18	114d	■																											
3-2020	Utility Exhibits	5d	27-Aug-18	31-Aug-18	124d	■																											
3-2030	Structure Exhibits	5d	10-Sep-18	14-Sep-18	114d	■																											
3-2040	Preliminary Geotechnical Memorandum	10d	27-Aug-18	07-Sep-18	124d	■																											
3-2050	Preliminary Traffic Analysis Memorandum	10d	27-Aug-18	07-Sep-18	124d	■																											
3-2060	Construction Cost Estimates	5d	17-Sep-18	21-Sep-18	114d	■																											
3-2070	Right-of-Way Cost Estimates	5d	17-Sep-18	21-Sep-18	114d	■																											
3-2080	Prepare Alternatives Analysis Report	5d	17-Sep-18	21-Sep-18	114d	■																											
3-2090	Level 2 QA/QC Reviews	5d	24-Sep-18	28-Sep-18	114d	■																											
3-2100	Level 1 QA/QC Reviews	5d	01-Oct-18	05-Oct-18	114d	■																											
3-2110	Submit Alternatives Development Report	0d		05-Oct-18	114d	◆ Submit Alternatives Development Report																											
Alternative Selection						40d	03-Oct-18	30-Nov-18	114d																								
3-3000	Agency Review and Comment Period	20d	08-Oct-18	02-Nov-18	114d	■																											
3-3010	Stakeholder Meetings	20d	05-Nov-18	30-Nov-18	114d	■																											
3-3020	Alternative Selection	0d		30-Nov-18	114d	◆ Alternative Selection																											
Task 4 - Environmental Documentation						200d	03-Dec-18	06-Sep-19	414d																								
4-0000	CEQA Statutory Exemption	30d	03-Dec-18	11-Jan-19	584d	■																											
4-0010	Environmental Clearance	0d		11-Jan-19	584d	◆ Environmental Clearance																											




■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining Work
 ■ Summary

■ Actual Level of Effort
 ■ Remaining Work
 ◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018		2019				2020				2021				2022				2023				4
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
4-0020	Technical Studies	200d	03-Dec-18	06-Sep-19	414d																							
Task 5 - Plans, Specifications & Estimates		500d	03-Dec-18	30-Oct-20	114d																							
35% Design Documents		70d	03-Dec-18	08-Mar-19	114d																							
Reports		20d	03-Dec-18	28-Dec-18	149d																							
5-1000	Water Quality Management Plan	20d	03-Dec-18	28-Dec-18	149d																							
5-1010	Hydrology & Hydraulics Report	20d	03-Dec-18	28-Dec-18	134d																							
P2-1220	Landscaping & Aesthetic Concepts	20d	03-Dec-18	28-Dec-18	114d																							
P2-1230	Structure Type Selection Report	20d	03-Dec-18	28-Dec-18	114d																							
Plan Preparation		50d	03-Dec-18	08-Feb-19	114d																							
P2-1300	General Plans	5d	03-Dec-18	07-Dec-18	159d																							
P2-1310	Roadway Plans	30d	03-Dec-18	11-Jan-19	134d																							
P2-1330	Overpass Structural Plans	30d	31-Dec-18	08-Feb-19	114d																							
P2-1340	Retaining Wall Plans	20d	31-Dec-18	25-Jan-19	124d																							
P2-1350	Drainage Plans	10d	31-Dec-18	11-Jan-19	134d																							
P2-1360	Utility Plans	10d	31-Dec-18	11-Jan-19	134d																							
Cost Estimating		5d	11-Feb-19	15-Feb-19	114d																							
P2-1370	Quantities & Cost Estimate	5d	11-Feb-19	15-Feb-19	114d																							
QA/QC Procedures		15d	18-Feb-19	08-Mar-19	114d																							
P2-1380	Level 2 QA/QC Review	10d	18-Feb-19	01-Mar-19	114d																							
P2-1390	Level 1 QA/QC Review	5d	04-Mar-19	08-Mar-19	114d																							
Submittal		0d	08-Mar-19	08-Mar-19	114d																							
P2-1400	Submit 35% PS&E	0d		08-Mar-19	114d																							
65% Design Documents		110d	11-Mar-19	09-Aug-19	264d																							
P2-2000	Agency Review & Comment Period	20d	11-Mar-19	05-Apr-19	264d																							
Calculations		30d	08-Apr-19	17-May-19	284d																							
A100	Civil/Survey Calculations	20d	08-Apr-19	03-May-19	294d																							
A110	Structural Calculations	30d	08-Apr-19	17-May-19	284d																							
Reports		40d	08-Apr-19	31-May-19	294d																							
5-1020	Traffic Management Plan	20d	08-Apr-19	03-May-19	294d																							
P2-2010	Geotechnical Investigations (Borings)	10d	08-Apr-19	19-Apr-19	294d																							
P2-2020	Geotechnical Report	30d	22-Apr-19	31-May-19	294d																							
P2-2030	Update Reports	20d	08-Apr-19	03-May-19	314d																							
Plan Preparation		50d	08-Apr-19	14-Jun-19	264d																							
P2-2050	General Plans	10d	08-Apr-19	19-Apr-19	304d																							
P2-2060	Survey Control Plan	10d	08-Apr-19	19-Apr-19	304d																							
P2-2070	Right-of-Way Impact Sheets	15d	06-May-19	24-May-19	279d																							
P2-2080	Traffic Handling Plans	20d	22-Apr-19	17-May-19	284d																							
P2-2090	Roadway Plans	50d	08-Apr-19	14-Jun-19	264d																							
P2-2100	Construction Staging Plans	40d	22-Apr-19	14-Jun-19	264d																							
P2-2110	Overpass Structural Plans	50d	08-Apr-19	14-Jun-19	264d																							
P2-2120	Retaining Wall Plans	40d	22-Apr-19	14-Jun-19	264d																							
P2-2130	Cross Sections	20d	29-Apr-19	24-May-19	279d																							
P2-2140	Drainage Plans	20d	08-Apr-19	03-May-19	294d																							
P2-2150	Utility Plans	20d	08-Apr-19	03-May-19	294d																							
P2-2160	Signing & Striping Plans	10d	22-Apr-19	03-May-19	294d																							
P2-2170	Traffic Signal & Street Lighting Plans	15d	22-Apr-19	10-May-19	289d																							
P2-2180	Landscaping & Irrigation Plans	15d	22-Apr-19	10-May-19	289d																							
Specifications		20d	17-Jun-19	12-Jul-19	264d																							
P2-2200	Technical Specifications & Special Conditions	20d	17-Jun-19	12-Jul-19	264d																							

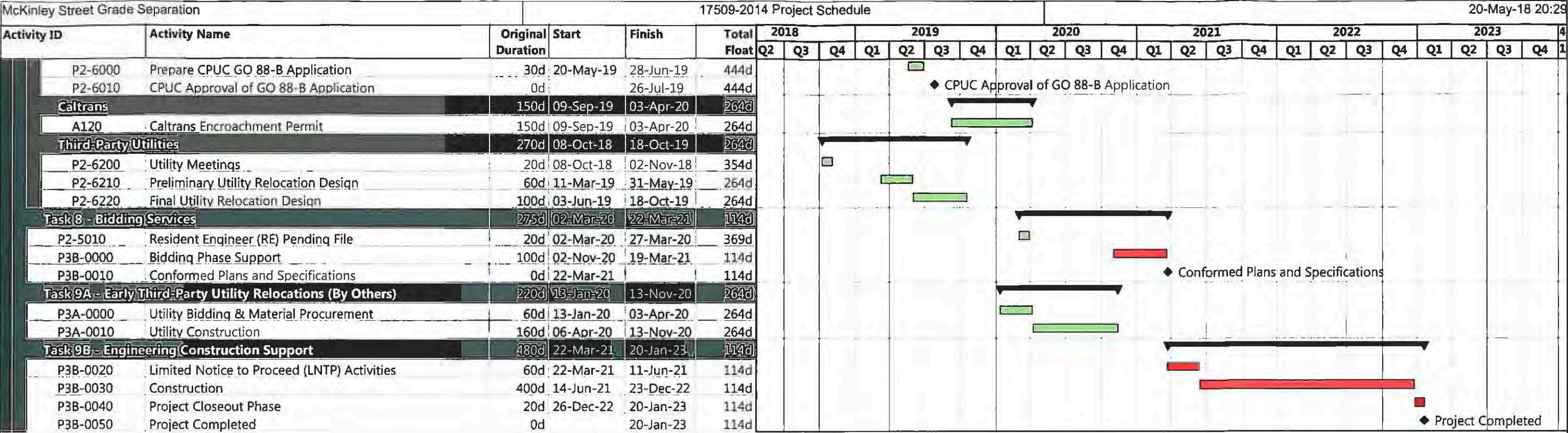
■ Remaining Level of Effort 
 ■ Actual Work 
 ■ Critical Remaining Work 
 ▶ Summary 
 ■ Actual Level of Effort 
 ■ Remaining Work 
 ◆ Milestone

 Remaining Level of Effort
  Actual Work
  Critical Remaining Work
  Summary

 Actual Level of Effort
  Remaining Work
  Milestone

Page 3 of 4

**BCA**



## EXHIBIT “C” COMPENSATION

Total Compensation shall not exceed Nine Million Eight Hundred Thirty-Three Thousand Three Hundred Ninety Three Dollars without written authorization from City’s Representative.

McKinley Street Grade Separation  
Fee Proposal | Summary

S.O.W. Phase / Task	Biggs Cardosa Associates	Subconsultant Task Totals						Task Totals	
		Kimley-Horn & Associates	David Evans & Associates	ICF	Earth Mechanics	BKF Engineers	Arellano Associates		
Task 1 - Project Administration									\$784,460
1.1 Project Management Plan	\$52,367	\$4,564	\$4,497	\$0	\$2,143	\$0	\$0	\$63,571	
1.2 Quality Control Plan	\$89,705	\$10,880	\$14,324	\$0	\$545	\$9,744	\$0	\$125,198	
1.3 Project Controls	\$108,366	\$88,550	\$7,362	\$30,444	\$1,636	\$20,507	\$17,363	\$274,228	
1.4 Project Development Team Meetings	\$130,166	\$109,128	\$0	\$25,518	\$0	\$12,655	\$43,996	\$321,463	
Task 2 - Data Collection									\$853,357
2.1 Aerial Mapping	\$3,133	\$4,313	\$0	\$0	\$0	\$69,377	\$0	\$76,825	
2.2 Field Survey	\$5,723	\$9,669	\$0	\$0	\$0	\$106,089	\$0	\$121,480	
2.3 Potholing	\$1,485	\$271,890	\$0	\$0	\$0	\$10,769	\$0	\$284,144	
2.4 Right-of-Way Base Mapping	\$4,798	\$4,313	\$0	\$0	\$0	\$156,622	\$0	\$165,735	
2.5 Utility Notification	\$5,121	\$19,640	\$0	\$0	\$0	\$0	\$0	\$24,761	
2.6 Utility Base Mapping	\$1,477	\$24,643	\$0	\$0	\$0	\$0	\$0	\$26,120	
2.7 Geotechnical Records Research & Findings	\$0	\$0	\$0	\$0	\$4,287	\$0	\$0	\$4,287	
2.8 Traffic Analyses									
2.8.1 Preliminary Traffic Analyses	Task performed pre-contractually. No cost to the City.								\$0
2.8.2 Update Traffic Analyses	\$5,307	\$61,538	\$0	\$0	\$0	\$0	\$0	\$66,844	
2.9 Caltrans Traffic Reports									
2.9.1 Intersection Control Evaluation	\$2,048	\$18,507	\$0	\$0	\$0	\$0	\$0	\$20,554	
2.9.2 Traffic Forecasting Volumes Report	\$2,048	\$14,127	\$0	\$0	\$0	\$0	\$0	\$16,174	
2.9.3 Ramp Meter and Merge Analysis	\$2,048	\$14,968	\$0	\$0	\$0	\$0	\$0	\$17,016	
2.9.4 Roundabout Analysis	\$2,604	\$26,813	\$0	\$0	\$0	\$0	\$0	\$29,416	
Task 3 - Concept Development & Project Approval									\$293,470
3.1 Geometric Concepts	Task performed pre-contractually. No cost to the City.								\$0
3.2 Bridge and Retaining Wall Concepts	Task performed pre-contractually. No cost to the City.								\$0
3.3 Project Concept Report									
3.3.1 Plan and Profile Exhibits	\$13,439	\$13,532	\$0	\$0	\$0	\$0	\$0	\$26,971	
3.3.2 Right-of-Way Exhibits	\$10,374	\$0	\$0	\$0	\$0	\$0	\$0	\$10,374	
3.3.3 Utility Exhibits	\$5,587	\$4,542	\$0	\$0	\$0	\$0	\$0	\$10,129	
3.3.4 Structure Exhibits	\$56,666	\$0	\$13,730	\$0	\$0	\$0	\$0	\$70,396	
3.3.5 Preliminary Geotechnical Report	\$3,152	\$0	\$0	\$0	\$10,679	\$0	\$0	\$13,831	
3.3.6 Preliminary Traffic Analysis Report	\$3,343	\$0	\$0	\$0	\$0	\$0	\$0	\$3,343	
3.3.7 Construction Cost Estimates	\$13,227	\$2,487	\$0	\$0	\$0	\$0	\$0	\$15,715	
3.3.8 Right-of-Way Cost Estimates	\$11,588	\$0	\$0	\$0	\$0	\$0	\$0	\$11,588	
3.3.9 Project Concept Report	\$55,488	\$0	\$0	\$0	\$0	\$0	\$0	\$55,488	
3.4 Project Concept Approval	\$17,922	\$14,562	\$0	\$0	\$0	\$0	\$0	\$32,484	
3.5 Design Basis Memorandum	\$28,892	\$9,961	\$4,298	\$0	\$0	\$0	\$0	\$43,150	
Task 4 - Environmental Documentation									\$509,875
4.1 CEQA Statutory Exemption	\$1,112	\$0	\$0	\$875	\$0	\$0	\$0	\$1,988	
4.2 Technical Studies	\$71,894	\$11,163	\$0	\$393,124	\$31,705	\$0	\$0	\$507,887	

McKinley Street Grade Separation  
Fee Proposal | Summary

S.O.W. Phase / Task	Biggs Cardesa Associates	Subconsultant Task Totals						Task Totals	
		Kimley-Horn & Associates	David Evans & Associates	ICF	Earth Mechanics	BKF Engineers	Avellano Associates		
Task 5 - Plans, Specifications & Estimates (PS&E)									\$5,916,455
5.1 Reports									
5.1.1 Water Quality Management Plan	\$2,971	\$29,845	\$0	\$0	\$0	\$0	\$0	\$32,816	
5.1.2 Hydrology & Hydraulics Reports	\$2,598	\$57,765	\$0	\$0	\$0	\$0	\$0	\$60,363	
5.1.3 Traffic Management Plan	\$7,053	\$51,188	\$0	\$0	\$0	\$0	\$0	\$58,242	
5.1.4 Geotechnical Investigations & Report	\$11,474	\$0	\$0	\$0	\$460,332	\$0	\$0	\$471,806	
5.1.5 Landscaping & Aesthetic Concepts	\$13,954	\$13,497	\$0	\$0	\$0	\$0	\$0	\$27,452	
5.1.6 Structure Type Selection Report	\$51,624	\$0	\$18,040	\$0	\$0	\$0	\$0	\$69,663	
Task 5 -- 35% PS&E									
5.2 Calculations									
5.2.1 Civil/Survey Calculations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5.2.2 Structural Calculations	\$74,943	\$0	\$0	\$0	\$0	\$0	\$0	\$74,943	
5.3 Plan Preparation									
5.3.1 General Plans	\$3,117	\$2,141	\$0	\$0	\$0	\$0	\$0	\$5,258	
5.3.4 Roadway Plans	\$2,604	\$145,894	\$0	\$0	\$0	\$0	\$0	\$148,498	
5.3.5 Traffic Plans	\$2,604	\$80,896	\$0	\$0	\$0	\$0	\$0	\$83,500	
5.3.6 Utility Plans	\$2,604	\$81,813	\$0	\$0	\$0	\$0	\$0	\$84,418	
5.3.8 Drainage Plans	\$1,302	\$72,677	\$0	\$0	\$0	\$0	\$0	\$73,979	
5.3.9 Bridge Plans	\$35,018	\$4,607	\$0	\$0	\$0	\$0	\$0	\$39,625	
5.3.10 Retaining Wall Plans	\$57,647	\$4,607	\$0	\$0	\$0	\$0	\$0	\$62,254	
5.3 Cost Estimates	\$9,138	\$37,565	\$0	\$0	\$0	\$0	\$0	\$46,703	
Task 5 - 65% PS&E									
5.2 Calculations									
5.2.1 Civil/Survey Calculations	\$0	\$12,221	\$0	\$0	\$0	\$0	\$0	\$12,221	
5.2.2 Structural Calculations	\$428,974	\$0	\$0	\$0	\$0	\$0	\$0	\$428,974	
5.3 Plan Preparation									
5.3.1 General Plans	\$4,967	\$0	\$0	\$0	\$0	\$0	\$0	\$4,967	
5.3.2 Survey Control Plan	\$1,302	\$0	\$0	\$0	\$0	\$0	\$0	\$1,302	
5.3.3 Right-of-Way Plans	\$4,841	\$0	\$0	\$0	\$0	\$0	\$0	\$4,841	
5.3.4 Roadway Plans	\$11,140	\$215,002	\$0	\$0	\$0	\$0	\$0	\$226,143	
5.3.5 Traffic Plans	\$2,604	\$119,289	\$0	\$0	\$0	\$0	\$0	\$121,893	
5.3.6 Utility Plans	\$7,432	\$109,286	\$0	\$0	\$0	\$0	\$0	\$116,718	
5.3.7 Landscaping & Irrigation Plans	\$2,421	\$50,560	\$0	\$0	\$0	\$0	\$0	\$52,981	
5.3.8 Drainage Plans	\$4,268	\$114,177	\$0	\$0	\$0	\$0	\$0	\$118,445	
5.3.9 Bridge Plans	\$365,897	\$9,214	\$0	\$0	\$0	\$0	\$0	\$375,112	
5.3.10 Retaining Wall Plans	\$180,250	\$9,214	\$0	\$0	\$0	\$0	\$0	\$189,464	
5.3.11 Log of Test Borings	\$2,048	\$0	\$0	\$0	\$15,755	\$0	\$0	\$17,803	
5.4 Specifications									
5.4 Specifications	\$59,781	\$53,084	\$0	\$0	\$100	\$0	\$0	\$113,265	
5.5 Cost Estimates									
5.5 Cost Estimates	\$45,575	\$37,565	\$0	\$0	\$0	\$0	\$0	\$83,140	
5.6 Construction Schedule									
5.6 Construction Schedule	\$15,963	\$0	\$0	\$0	\$0	\$0	\$0	\$15,963	

**McKinley Street Grade Separation**  
Fee Proposal | Summary

S.O.W. Phase / Task	Biggs Cardosa Associates	Subconsultant Task Totals						Task Totals
		Kimley-Horn & Associates	David Evans & Associates	ICF	Earth Mechanics	BKF Engineers	Arellano Associates	
Task 5 - 95% PS&E								
5.2 Calculations								
5.2.1 Civil/Survey Calculations	\$2,781	\$5,992	\$0	\$0	\$0	\$13,038	\$0	\$21,810
5.2.2 Structural Calculations	\$159,609	\$0	\$0	\$0	\$0	\$0	\$0	\$159,609
5.2.3 Independent Check	\$108,274	\$0	\$192,949	\$0	\$0	\$0	\$0	\$301,223
5.3 Plan Preparation								
5.3.1 General Plans	\$4,967	\$0	\$0	\$0	\$0	\$0	\$0	\$4,967
5.3.2 Survey Control Plan	\$1,302	\$0	\$0	\$0	\$0	\$9,339	\$0	\$10,641
5.3.3 Right-of-Way Plans	\$3,350	\$0	\$0	\$0	\$0	\$15,307	\$0	\$18,656
5.3.4 Roadway Plans	\$6,320	\$215,002	\$0	\$0	\$0	\$0	\$0	\$221,322
5.3.5 Traffic Plans	\$2,604	\$102,959	\$0	\$0	\$0	\$0	\$0	\$105,563
5.3.6 Utility Plans	\$5,208	\$93,712	\$0	\$0	\$0	\$0	\$0	\$98,920
5.3.7 Landscaping & Irrigation Plans	\$2,048	\$63,646	\$0	\$0	\$0	\$0	\$0	\$65,694
5.3.8 Drainage Plans	\$3,716	\$79,166	\$0	\$0	\$0	\$0	\$0	\$82,882
5.3.9 Bridge Plans	\$176,995	\$9,214	\$64,220	\$0	\$0	\$0	\$0	\$250,430
5.3.10 Retaining Wall Plans	\$73,707	\$9,214	\$0	\$0	\$0	\$0	\$0	\$82,921
5.3.11 Log of Test Borings	\$2,048	\$0	\$0	\$0	\$1,855	\$0	\$0	\$3,903
5.4 Specifications	\$63,258	\$53,084	\$18,374	\$0	\$400	\$0	\$0	\$135,116
5.5 Cost Estimates	\$27,674	\$37,565	\$0	\$0	\$0	\$0	\$0	\$65,239
5.6 Construction Schedule	\$11,870	\$0	\$0	\$0	\$0	\$0	\$0	\$11,870
Task 5 - 100% PS&E								
5.2 Calculations								
5.2.1 Civil/Survey Calculations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5.2.2 Structural Calculations	\$77,992	\$0	\$0	\$0	\$0	\$0	\$0	\$77,992
5.3 Plan Preparation								
5.3.1 General Plans	\$3,863	\$0	\$0	\$0	\$0	\$0	\$0	\$3,863
5.3.2 Survey Control Plan	\$1,302	\$0	\$0	\$0	\$0	\$0	\$0	\$1,302
5.3.3 Right-of-Way Plans	\$2,604	\$0	\$0	\$0	\$0	\$0	\$0	\$2,604
5.3.4 Roadway Plans	\$4,162	\$124,156	\$0	\$0	\$0	\$0	\$0	\$128,318
5.3.5 Traffic Plans	\$2,231	\$50,182	\$0	\$0	\$0	\$0	\$0	\$52,413
5.3.6 Utility Plans	\$3,906	\$71,703	\$0	\$0	\$0	\$0	\$0	\$75,609
5.3.7 Landscaping & Irrigation Plans	\$1,302	\$52,345	\$0	\$0	\$0	\$0	\$0	\$53,647
5.3.8 Drainage Plans	\$2,787	\$54,616	\$0	\$0	\$0	\$0	\$0	\$57,403
5.3.9 Bridge Plans	\$89,322	\$4,607	\$26,391	\$0	\$0	\$0	\$0	\$120,320
5.3.10 Retaining Wall Plans	\$41,987	\$4,607	\$0	\$0	\$0	\$0	\$0	\$46,594
5.3.11 Log of Test Borings	\$1,302	\$0	\$0	\$0	\$1,855	\$0	\$0	\$3,157
5.4 Specifications	\$36,540	\$26,637	\$10,047	\$0	\$400	\$0	\$0	\$73,624
5.5 Cost Estimates	\$16,488	\$18,669	\$0	\$0	\$0	\$0	\$0	\$35,157
5.6 Construction Schedule	\$10,271	\$0	\$0	\$0	\$0	\$0	\$0	\$10,271

**McKinley Street Grade Separation**  
Fee Proposal | Summary

S.O.W. Phase / Task		Biggs Cardosa Associates	Subconsultant Task Totals						Task Totals
			Kimley-Horn & Associates	David Evans & Associates	ICF	Earth Mechanics	BKF Engineers	Arellano Associates	
Task 5 - Issued for Bid (IFB)									
5.3 Plan Preparation									
5.3.1 General Plans		\$1,850	\$0	\$0	\$0	\$0	\$0	\$1,850	
5.3.2 Survey Control Plan		\$746	\$0	\$0	\$0	\$0	\$0	\$746	
5.3.3 Right-of-Way Plans		\$1,491	\$0	\$0	\$0	\$0	\$0	\$1,491	
5.3.4 Roadway Plans		\$2,604	\$54,994	\$0	\$0	\$0	\$0	\$57,598	
5.3.5 Traffic Plans		\$0	\$16,141	\$0	\$0	\$0	\$0	\$16,141	
5.3.6 Utility Plans		\$3,160	\$12,113	\$0	\$0	\$0	\$0	\$15,273	
5.3.7 Landscaping & Irrigation Plans		\$746	\$17,055	\$0	\$0	\$0	\$0	\$17,801	
5.3.8 Drainage Plans		\$746	\$14,470	\$0	\$0	\$0	\$0	\$15,216	
5.3.9 Bridge Plans		\$64,313	\$2,304	\$10,207	\$0	\$0	\$0	\$76,824	
5.3.10 Retaining Wall Plans		\$33,426	\$2,304	\$0	\$0	\$0	\$0	\$35,729	
5.3.11 Log of Test Borings		\$0	\$0	\$0	\$0	\$1,191	\$0	\$1,191	
5.4 Specifications		\$15,557	\$11,183	\$5,024	\$0	\$400	\$0	\$32,163	
5.5 Cost Estimates		\$9,472	\$8,567	\$0	\$0	\$0	\$0	\$18,038	
Task 6 - Right-of-Way								\$414,004	
6.1 Right-of-Way Requirements		\$8,570	\$76,213	\$0	\$0	\$0	\$24,614	\$109,397	
6.2 Right-of-Way Maps		\$33,702	\$0	\$0	\$0	\$0	\$56,540	\$90,242	
6.3 Appraisal Maps, Plats, and Descriptions		\$91,217	\$0	\$0	\$0	\$0	\$123,148	\$214,365	
Task 7 - Coordination, Agreements & Permits								\$877,394	
7.1 BNSF Railway									
7.1.1 Construction & Maintenance Agreement		\$81,025	\$0	\$13,796	\$0	\$0	\$0	\$94,822	
7.1.2 Submittals		\$70,880	\$0	\$5,332	\$0	\$0	\$0	\$76,213	
7.2 California Public Utilities Commission		\$23,402	\$0	\$0	\$0	\$0	\$0	\$23,402	
7.3 Caltrans District 8		\$70,823	\$161,576	\$0	\$0	\$0	\$0	\$232,399	
7.4 Riverside County Flood Control & WCD		\$14,107	\$20,332	\$0	\$0	\$0	\$0	\$34,439	
7.5 Utility Coordination		\$68,474	\$119,311	\$0	\$0	\$0	\$0	\$187,785	
7.6 Community Engagement		\$101,589	\$0	\$0	\$0	\$0	\$126,745	\$228,335	
Task 8 - Bidding Services								\$184,379	
8.1 Resident Engineer (RE) Pending File		\$32,878	\$24,150	\$0	\$0	\$0	\$0	\$57,027	
8.2 Bidding Phase Support		\$13,411	\$35,778	\$0	\$0	\$0	\$0	\$49,189	
8.3 Conformed Plans and Specifications		\$43,631	\$34,532	\$0	\$0	\$0	\$0	\$78,163	
	Design (Tasks 1 - 8) Totals	\$3,885,101	\$3,740,305	\$408,591	\$449,962	\$533,582	\$627,748	\$9,833,393	

**McKinley Street Grade Separation**  
Fee Proposal | Summary

S.O.W. Phase / Task		Biggs Cardosa Associates	Subconsultant Task Totals						Task Totals
			Kimley-Horn & Associates	David Evans & Associates	ICF	Earth Mechanics	BKF Engineers	Arellano Associates	
Task 9 - Engineering Construction Services									
9.1	Engineering Support (RFIs, Shop Drawings...)	\$371,495	\$247,437	\$41,776	\$0	\$5,377	\$0	\$0	\$666,085
9.2	Preparation of Record Documents (As-Built)	\$64,688	\$39,342	\$0	\$0	\$0	\$0	\$0	\$104,030
Const. Support (Task 9) Totals		\$436,182	\$286,779	\$41,776	\$0	\$5,377	\$0	\$0	\$770,116
Task 10 - Optional Services									
10.1	Construction Staking	\$0	\$0	\$0	\$0	\$0	\$201,782	\$0	\$201,782
10.2	Right-of-Way Staking for Partial Acquisitions	\$0	\$0	\$0	\$0	\$0	\$38,165	\$0	\$38,165
10.3	Project Closeout Items	\$0	\$0	\$0	\$0	\$0	\$86,843	\$0	\$86,843
Optional Services (Task 10) Totals		\$0	\$0	\$0	\$0	\$0	\$326,789	\$0	\$326,789

Notes:

1. Costs for printing, mileage, telephone, mailing and other expenses incidental to the performance of the main items of the Engineering Services to be rendered are included in the hourly rates.
2. All charges for subconsultants/subcontract services shall be in the same amount as actually invoiced to and paid by Biggs Cardosa, plus a 5% markup.

**McKinley Street Grade Separation**  
 Fee Proposal | Biggs Cardosa Associates

S.O.W. Phase / Task	S. Biggs Principal-In- Charge Principal II	M. Thomas Project Manager Principal II	D. Davlin QA Manager Principal II	D. De Vera QC Manager Associate	R. Rattling BIM/Coord Railroad Coordinator	E. Pfeiffer Struct. Mgr. Engineering Manager	Senior Engineer	Project Engineer	Staff Engineer	Assistant Engineer	Senior Computer Drafters	Project Admin.	Project Coordinator	Secretarial	Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals
	\$305.00	\$270.00	\$270.00	\$210.00	\$263.00	\$181.00	\$164.00	\$147.00	\$134.00	\$124.00	\$134.00	\$147.00	\$122.00	\$97.00					
<b>Task 1 - Project Administration</b>																			<b>\$380,605</b>
1.1 Project Management Plan	2	80	4	8		80				40			40	16	276	\$50,842	\$1,525	\$0	\$52,367
1.2 Quality Control Plan	1	80	16	16		160	16	16	104	24			8	16	484	\$87,692	\$2,613	\$0	\$89,705
1.3 Project Controls	30	180				60						120	60	120	570	\$105,216	\$3,156	\$0	\$108,366
1.4 Project Development Team Meetings		150			50	200							200	125	725	\$126,375	\$3,791	\$0	\$130,166
<b>Task 2 - Data Collection</b>																			<b>\$35,790</b>
2.1 Aerial Mapping						2			16		4				22	\$3,842	\$91	\$0	\$3,933
2.2 Field Survey		4				4			24		4				36	\$5,566	\$167	\$0	\$5,723
2.3 Pot-holing		4				2									6	\$1,442	\$43	\$0	\$1,485
2.4 Right-of-Way Base Mapping		4				2			8		16				30	\$4,658	\$140	\$0	\$4,798
2.5 Utility Notation		8				4	8							8	28	\$4,972	\$149	\$0	\$5,121
2.6 Utility Base Mapping						2					8				10	\$1,414	\$43	\$0	\$1,457
2.7 Geotechnical Records Research & Findings															0	\$0	\$0	\$0	\$0
2.8 Traffic Analyses																			
2.8.1 Preliminary Traffic Analyses	Task performed pre-contractual by Biggs Cardosa. No cost to the City.														0	\$0	\$0	\$0	\$0
2.8.2 Update Traffic Analyses		4				8	16								28	\$5,152	\$165	\$0	\$5,307
2.9 Caltrans Traffic Reports																			
2.9.1 Intersection Control Evaluation		2				8									10	\$1,988	\$60	\$0	\$2,048
2.9.2 Traffic Forecasting Volumes Report		2				8									10	\$1,988	\$60	\$0	\$2,048
2.9.3 Ramp Meter and Merge Analysis		2				8									10	\$1,988	\$60	\$0	\$2,048
2.9.4 Roundabout Analysis		4				8									12	\$2,528	\$76	\$0	\$2,604
<b>Task 3 - Concept Development &amp; Project Approval</b>																			<b>\$219,678</b>
3.1 Geometric Concepts	Task performed pre-contractual by Biggs Cardosa. No cost to the City.														0	\$0	\$0	\$0	\$0
3.2 Bridge and Retaining Wall Concepts	Task performed pre-contractual by Biggs Cardosa. No cost to the City.														0	\$0	\$0	\$0	\$0
3.3 Project Concept Report																			
3.3.1 Plan and Profile Exhibits		32				16					4		8		60	\$15,018	\$391	\$0	\$15,409
3.3.2 Right-of-Way Exhibits		24				8					16				48	\$10,672	\$302	\$0	\$10,974
3.3.3 Utility Exhibits		4				24									28	\$5,424	\$163	\$0	\$5,587
3.3.4 Structure Exhibits		12	2	16		60	80			120	60		8		358	\$55,018	\$1,650	\$0	\$56,666
3.3.5 Preliminary Geotechnical Report		2				8			8						18	\$3,060	\$92	\$0	\$3,152
3.3.6 Preliminary Traffic Analysis Report		8				6									14	\$3,246	\$97	\$0	\$3,343
3.3.7 Construction Cost Estimates		8	2	4	2	16		40							72	\$12,842	\$385	\$0	\$13,227
3.3.8 Right-of-Way Cost Estimates		8	1	2		8		40			8				67	\$11,256	\$338	\$0	\$11,588
3.3.9 Project Concept Report		16	4	20		80	80		40				80	16	336	\$53,872	\$1,616	\$0	\$55,488
3.4 Project Concept Approval		16				16	20				8		16	40	116	\$17,400	\$522	\$0	\$17,922
3.5 Design Basis Memorandum	2	16	4	8		40	80								150	\$23,050	\$642	\$0	\$23,692
<b>Task 4 - Environmental Documentation</b>																			<b>\$73,006</b>
4.1 CEQA Statutory Exemption		4													4	\$1,086	\$32	\$0	\$1,112
4.2 Technical Studies		120	40			120							40		320	\$69,806	\$2,094	\$0	\$71,894
<b>Task 5 - Plans, Specifications &amp; Estimates (PS&amp;E)</b>																			<b>\$2,522,313</b>
5.1 Reports																			
5.1.1 Water Quality Management Plan		8				4									12	\$2,880	\$87	\$0	\$2,971
5.1.2 Hydrology & Hydraulics Reports		8				2									10	\$2,522	\$76	\$0	\$2,598
5.1.3 Traffic Management Plan		20				8									28	\$6,848	\$205	\$0	\$7,053
5.1.4 Geotechnical Investigations & Report		8				20			40						68	\$11,140	\$334	\$0	\$11,474
5.1.5 Landscaping & Aesthetic Concepts		12	2	4		16				40	8				82	\$13,548	\$406	\$0	\$13,954
5.1.6 Structure Type Selection Report	4	8	4	16		80	80	8		80	24			4	368	\$50,120	\$1,504	\$0	\$51,624
<b>Task 5 - 35% PS&amp;E</b>																			
5.2 Calculations																			
5.2.1 Civil/Survey Calculations															0	\$0	\$0	\$0	\$0
5.2.2 Structural Calculations		8	8			40	80	80	160	120					480	\$72,760	\$2,189	\$0	\$74,943

McKinley Street Grade Separation  
 Fee Proposal / Biggs Cardoso Associates

S.O.W. Phase / Task	S. Biggs Principal In Charge Principal III	M. Thomas Project Manager Principal II	J. Devlin QA Manager Principal II	D. De Vera QC Manager Associate	R. Kelling RHSF Coord. Railroad Coordinator	E. Pfeiffer Struct. Man. Engineering Manager	Senior Engineer	Project Engineer	Staff Engineer	Assistant Engineer	Senior Computer Drafter	Project Admin.	Project Coordinator	Secretarial	Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals
	\$305.00	\$270.00	\$270.00	\$210.00	\$263.00	\$181.00	\$164.00	\$147.00	\$134.00	\$124.00	\$134.00	\$147.00	\$122.00	\$97.00					
5.3 Plan Preparation											8				17	\$3,026	\$91	\$0	\$3,117
5.3.1 General Plans		2	1	2		4									12	\$2,528	\$76	\$0	\$2,604
5.3.4 Roadway Plans		4				8									12	\$2,528	\$76	\$0	\$2,604
5.3.5 Traffic Plans		4				8									12	\$2,528	\$76	\$0	\$2,604
5.3.6 Utility Plans		4				8									6	\$1,264	\$38	\$0	\$1,302
5.3.8 Drainage Plans		2				4									292	\$53,416	\$1,602	\$0	\$55,018
5.3.9 Bridge Plans		24	40			80	40	48			60				360	\$55,968	\$1,679	\$0	\$57,647
5.3.10 Retaining Wall Plans		16	8	40		40	8	8	80	80	80				36	\$8,672	\$266	\$0	\$9,138
5.5 Cost Estimates	4	8	4	16	4														
Task 5 - 85% PS&E																			
5.2 Calculations															0	\$0	\$0	\$0	\$0
5.2.1 Civil/Survey Calculations															2800	\$416,480	\$12,494	\$0	\$428,974
5.2.2 Structural Calculations		80	40	40		400	320	240	720	960									
5.3 Plan Preparation											16				29	\$4,822	\$145	\$0	\$4,967
5.3.1 General Plans		2	1	2		8									6	\$1,264	\$38	\$0	\$1,302
5.3.2 Survey Control Plan		2				4									20	\$4,700	\$141	\$0	\$4,841
5.3.3 Right-of-Way Plans		4				20									52	\$10,816	\$324	\$0	\$11,140
5.3.4 Roadway Plans		20				24					8				12	\$2,528	\$76	\$0	\$2,604
5.3.5 Traffic Plans		4				8									32	\$7,216	\$216	\$0	\$7,432
5.3.6 Utility Plans		16				16									12	\$2,350	\$71	\$0	\$2,421
5.3.7 Landscaping & Irrigation Plans		2				10									20	\$4,144	\$124	\$0	\$4,268
5.3.8 Drainage Plans		8				8					4				2440	\$355,240	\$10,657	\$0	\$365,897
5.3.9 Bridge Plans		80	60	20		200	160	240	480	960	240				1188	\$175,000	\$5,250	\$0	\$180,250
5.3.10 Retaining Wall Plans		16	12	80		80	80	120	300	180	320				10	\$1,988	\$60	\$0	\$2,048
5.3.11 Log of Test Borings		2				8									340	\$58,040	\$1,741	\$0	\$59,781
5.4 Specifications		80	4	16		40	80							120	264	\$44,248	\$1,327	\$0	\$45,575
5.5 Cost Estimates	8	40	8	24		16			8	160					98	\$15,500	\$465	\$0	\$15,965
5.6 Construction Schedule		8	2	8		40													
Task 5 - 95% PS&E																			
5.2 Calculations															10	\$2,700	\$81	\$0	\$2,781
5.2.1 Civil/Survey Calculations		2	8												1008	\$154,960	\$4,649	\$0	\$159,609
5.2.2 Structural Calculations		8	40			200	160	120	240	240					656	\$105,120	\$3,154	\$0	\$108,274
5.2.3 Independent Check			16	120			120	240	80	80									
5.3 Plan Preparation											16				29	\$4,822	\$145	\$0	\$4,967
5.3.1 General Plans		2	1	2		8									6	\$1,264	\$38	\$0	\$1,302
5.3.2 Survey Control Plan		2				4									16	\$3,252	\$98	\$0	\$3,350
5.3.3 Right-of-Way Plans		4				12									28	\$6,136	\$184	\$0	\$6,320
5.3.4 Roadway Plans		12				16									12	\$2,528	\$76	\$0	\$2,604
5.3.5 Traffic Plans		4				8									24	\$5,056	\$152	\$0	\$5,208
5.3.6 Utility Plans		8				16									10	\$1,988	\$60	\$0	\$2,048
5.3.7 Landscaping & Irrigation Plans		2				8									16	\$3,608	\$108	\$0	\$3,716
5.3.8 Drainage Plans		8				8									1176	\$171,840	\$5,155	\$0	\$176,995
5.3.9 Bridge Plans		40	16			120	80	200	200	400	120				496	\$71,560	\$2,147	\$0	\$73,707
5.3.10 Retaining Wall Plans		16				40	40	80	80	120	120				10	\$1,988	\$60	\$0	\$2,048
5.3.11 Log of Test Borings		2				8									328	\$61,416	\$1,842	\$0	\$63,258
5.4 Specifications		48	16	120		40	24							80	196	\$26,868	\$806	\$0	\$27,674
5.5 Cost Estimates	4	20	8	20		16			8	80					78	\$11,524	\$346	\$0	\$11,870
5.6 Construction Schedule		4	2	8		24													
Task 5 - 100% PS&E																			
5.2 Calculations															0	\$0	\$0	\$0	\$0
5.2.1 Civil/Survey Calculations																			

McKinley Street Grade Separation  
Fee Proposal | Biggs Cardosa Associates

S.O.W. Phase / Task	S. Biggs Principal in Charge Principal III	M. Thomas Project Manager Principal II	D. Davlin QA Manager Principal II	D. De Vera QC Manager Associate	R. Kelling BNSF Coord. Railroad Coordinator	E. Pfeiffer Struct. Mgr. Engineering Manager	Senior Engineer	Project Engineer	Staff Engineer	Assistant Engineer	Senior Computer Drafter	Project Admin.	Project Coordinator	Secretarial	Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals
5.2.2 Structural Calculations	\$305.00	\$270.00	\$270.00	\$210.00	\$263.00	\$181.00	\$164.00	\$147.00	\$134.00	\$124.00	\$134.00	\$147.00	\$122.00	\$97.00	500	\$75,720	\$2,272	\$0	\$77,992
5.3 Plan Preparation																			
5.3.1 General Plans		2	1	2		8					8				21	\$3,750	\$113	\$0	\$3,863
5.3.2 Survey Control Plan		2				4									6	\$1,264	\$38	\$0	\$1,302
5.3.3 Right-of-Way Plans		4				8									12	\$2,528	\$76	\$0	\$2,604
5.3.4 Roadway Plans		8				12									20	\$4,332	\$130	\$0	\$4,462
5.3.5 Traffic Plans		4				6									10	\$2,166	\$65	\$0	\$2,231
5.3.6 Utility Plans		6				12									18	\$4,792	\$114	\$0	\$4,906
5.3.7 Landscaping & Irrigation Plans		2				4									6	\$1,264	\$38	\$0	\$1,302
5.3.8 Drainage Plans		6				6									12	\$2,776	\$81	\$0	\$2,787
5.3.9 Bridge Plans		16	16			40	40	120	120	160	80				592	\$86,720	\$2,602	\$0	\$89,322
5.3.10 Retaining Wall Plans		12	12	24		20	24	24	40	60	40				256	\$40,764	\$1,223	\$0	\$41,987
5.3.11 Log of Test Borings		2				4									6	\$1,264	\$38	\$0	\$1,302
5.4 Spec Locations		24	8	60		32	16							60	200	\$35,476	\$1,064	\$0	\$36,540
5.5 Cost Estimates		16	4	8		16			8	40					92	\$16,008	\$480	\$0	\$16,488
5.6 Construction Schedule		4	2	8		24								24	62	\$9,972	\$299	\$0	\$10,271
<b>Task 5 - Issued for Bid (IFB)</b>																			
5.3 Plan Preparation																			
5.3.1 General Plans						4					8				12	\$1,796	\$54	\$0	\$1,850
5.3.2 Survey Control Plan						4									4	\$724	\$22	\$0	\$746
5.3.3 Right-of-Way Plans						8									8	\$1,448	\$43	\$0	\$1,491
5.3.4 Roadway Plans		4				8									12	\$2,528	\$76	\$0	\$2,604
5.3.5 Traffic Plans															0	\$0	\$0	\$0	\$0
5.3.6 Utility Plans		6				8									14	\$3,068	\$92	\$0	\$3,160
5.3.7 Landscaping & Irrigation Plans						4									4	\$724	\$22	\$0	\$746
5.3.8 Drainage Plans						4									4	\$724	\$22	\$0	\$746
5.3.9 Bridge Plans		8	4			40	40	80	80	120	60				432	\$62,440	\$1,873	\$0	\$64,313
5.3.10 Retaining Wall Plans		8	8	12		20	24	24	32	48	32				208	\$32,452	\$974	\$0	\$33,426
5.3.11 Log of Test Borings															0	\$0	\$0	\$0	\$0
5.4 Spec Locations		20	4	8		16			8	24					80	\$15,104	\$453	\$0	\$15,557
5.5 Cost Estimates		4	2	8		24								16	54	\$9,196	\$276	\$0	\$9,472
<b>Task 6 - Right-of-Way</b>																			
6.1 Right-of-Way Requirements		4				40									44	\$8,320	\$250	\$0	\$8,570
6.2 Right-of-Way Maps		8				80					120				208	\$32,720	\$982	\$0	\$33,702
6.3 Appraisal Maps, Plats, and Descriptions		16	40			80	80			240	120				576	\$88,560	\$2,657	\$0	\$91,217
<b>Task 7 - Coordination, Agreements &amp; Permits</b>																			
7.1 BNSF Railway																			
7.1.1 Construction & Maintenance Agreement	8	40			160	80		40							328	\$75,680	\$2,270	\$3,075	\$81,025
7.1.2 Submittals		60				80		80		120	80			8	428	\$68,816	\$2,064	\$0	\$70,880
7.2 California Public Utilities Commission		8				40		40		60					148	\$22,720	\$682	\$0	\$23,402
7.3 Caltrans District 8		80				120	60		80				40		380	\$68,760	\$2,063	\$0	\$70,823
7.4 Riverside County Food Control & WCD		40				16									56	\$13,696	\$411	\$0	\$14,107
7.5 Utility Coordination		80				80	120				80				360	\$66,480	\$1,994	\$0	\$68,474
7.6 Community Engagement***		20				100		120		240	120				600	\$86,980	\$2,609	\$12,000	\$101,589
<b>Task 8 - Bidding Services</b>																			
8.1 Resident Engineer (RE) Pending File		8	4	8		40	60			80					200	\$31,920	\$958	\$0	\$32,878
8.2 Bidding Phase Support		8				60									68	\$13,020	\$391	\$0	\$13,411
8.3 Co-formed Plans and Specifications		4	4	8		40	60		80		80				276	\$42,360	\$1,271	\$0	\$43,631
<b>Design (Tasks 1 - 8) Totals</b>	66	2,014	499	758	216	3,962	2,176	2,068	3,164	4,996	2,004	120	500	733	23,296	\$3,757,307	\$112,719	\$15,075	<b>\$3,885,101</b>

**McKinley Street Grade Separation**  
 Fee Proposal | Biggs Cardosa Associates

S.O.W. Phase / Task	S. Biggs Principal in Charge Principal III	M. Thomas Project Manager Principal II	D. Devlin QA Manager Principal II	D. De Vera QC Manager Associate	R. Ketting BNSF Coord. Railroad Coordinator	E. Pfeiffer Struct. Mgr. Engineering Manager	Senior Engineer	Project Engineer	Staff Engineer	Assistant Engineer	Senior Computer Drafter	Project Admin.	Project Coordinator	Secretarial	Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals
	\$305.00	\$270.00	\$270.00	\$210.00	\$263.00	\$181.00	\$164.00	\$147.00	\$134.00	\$124.00	\$134.00	\$147.00	\$122.00	\$97.00					
<b>Task 9 - Engineering Construction Services</b>																			
9.1 Engineering Support (RFIs, Shop Drawings...)		120			24	600		600		600	80		200		2224	\$345,032	\$26,463	\$0	\$371,495
9.2 Preparation of Record Documents (As-Built)		16	8	16		80	120				120				360	\$60,080	\$4,608	\$0	\$64,688
<b>Const. Support (Task 9) Totals</b>	0	136	8	16	24	680	120	600	0	600	200	0	200	0	2584	\$405,112	\$31,071	\$0	<b>\$436,182</b>

<b>Task 10 - Optional Services</b>																			
10.1 Construction Staging															0	\$0	\$0	\$0	\$0
10.2 Right-of-Way Staging for Partial Acquisitions															0	\$0	\$0	\$0	\$0
10.3 Project Closeout Items															0	\$0	\$0	\$0	\$0
<b>Optional Services (Task 10) Totals</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	<b>\$0</b>

<b>Expenses Breakdown*</b>	BNSF Temporary Occupancy Permit	\$2,500
	BNSF Railroad Protective Liability Insurance	\$575
	Modelo   3D Interactive Cloud-Based Model (2 Years)	\$12,000
	<b>Expense Subtotal</b>	<b>\$15,075</b>

Notes:

\* Costs for printing, mileage, telephone, mailing and other expenses incidental to the performance of the main items of the Engineering Services to be rendered are included in the hourly rates.

\*\* Escalation is based on 3.0%/year (latest table 5 of Bureau of Labor Statistics). Design (Tasks 1 - 8) are escalated to the mid-point of design (1 year). Const. Support (Task 9) is escalated to the mid-point of the contract (2.5 years).

\*\*\* The initial 3D Interactive model was developed pre-contractual at no cost to the City. This fee includes updates/refinements to the initial model.

McKinley Street Grade Separation  
Fee Proposal | Kimley-Horn

S.O.W. Phase / Task	Project Manager	Sr. Tech. Advisor	Senior Professional II	Senior Professional I	Professional II	Professional I	Senior Analyst	Analyst	Senior Designer	Designer	Project Support	Clerical				Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals
<b>Task 1 - Project Administration</b>	\$310.00	\$351.00	\$265.00	\$225.00	\$210.00	\$145.00	\$130.00	\$115.00	\$150.00	\$125.00	\$180.00	\$88.00								<b>\$202,973</b>
1.1 Project Management Plan	8			4	4											16	\$4,220	\$127	\$0	\$4,347
1.2 Quality Control Plan	4		4	8	8	16	8	8								56	\$10,060	\$302	\$0	\$10,362
1.3 Project Controls	50	2	100	25	75						50	100				402	\$81,677	\$2,456	\$0	\$84,133
1.4 Project Development Team Meetings	100	4		100	150	100										454	\$100,904	\$3,027	\$0	\$103,931
<b>Task 2 - Data Collection</b>																				<b>\$448,023</b>
2.1 Aerial Mapping	2		2		8	8										20	\$3,990	\$120	\$0	\$4,110
2.2 Field Survey	2		4		18	24										48	\$8,940	\$268	\$0	\$9,208
2.3 Potholing	6		6	6	80		50									148	\$28,100	\$843	\$230,000	\$258,943
2.4 Right-of-Way Base Mapping	2		2		8	8										20	\$3,990	\$120	\$0	\$4,110
2.5 Utility Notification	6				20		40	60								126	\$18,160	\$545	\$0	\$18,705
2.6 Utility Base Mapping	4		6	4	30		90					12				146	\$22,786	\$684	\$0	\$23,470
2.7 Geotechnical Records Research & Findings																0	\$0	\$0	\$0	\$0
2.8 Traffic Analyses																				
2.8.1 Preliminary Traffic Analyses	Task performed pre-contractual by Kimley-Horn. No cost to the City.															0	\$0	\$0	\$0	\$0
2.8.2 Update Traffic Analyses	10		6	80		100		120				12				328	\$52,046	\$1,561	\$5,000	\$58,607
2.9 Caltrans Traffic Reports																				
2.9.1 Intersection Control Evaluation	6			20		40		40				4				110	\$17,132	\$513	\$0	\$17,625
2.9.2 Traffic Forecasting Volumes Report	6			20		20		30				4				80	\$13,062	\$392	\$0	\$13,454
2.9.3 Ramp Meter and Merge Analysis	4			20		40		20								84	\$13,840	\$415	\$0	\$14,255
2.9.4 Roundabout Analysis	4		40	20		40		20				4				128	\$24,792	\$744	\$0	\$25,536
<b>Task 3 - Concept Development &amp; Project Approval</b>																				<b>\$42,938</b>
3.1 Geometric Concepts	Task performed pre-contractual by Kimley-Horn. No cost to the City.															0	\$0	\$0	\$0	\$0
3.2 Bridge and Retaining Wall Concepts																0	\$0	\$0	\$0	\$0
3.3 Project Concept Report																				
3.3.1 Plan and Profile Exhibits	4	2	8	6	20	20										60	\$12,512	\$375	\$0	\$12,887
3.3.2 Right-of-Way Exhibits																0	\$0	\$0	\$0	\$0
3.3.3 Utility Exhibits	2		4		12											18	\$4,200	\$126	\$0	\$4,326
3.3.4 Structure Exhibits																0	\$0	\$0	\$0	\$0
3.3.5 Preliminary Geotechnical Report																0	\$0	\$0	\$0	\$0
3.3.6 Preliminary Traffic Analysis Report																0	\$0	\$0	\$0	\$0
3.3.7 Construction Cost Estimates	2				8											10	\$2,300	\$69	\$0	\$2,369
3.3.8 Right-of-Way Cost Estimates																0	\$0	\$0	\$0	\$0
3.3.9 Project Concept Report																0	\$0	\$0	\$0	\$0
3.4 Project Concept Approval	20		6	3	10	20										59	\$13,465	\$404	\$0	\$13,869
3.5 Design Basis Memorandum	4		6	8	8	20										46	\$9,210	\$276	\$0	\$9,486
<b>Task 4 - Environmental Documentation</b>																				<b>\$10,632</b>
4.1 CEQA Statutory Exemption																0	\$0	\$0	\$0	\$0
4.2 Technical Studies	8	2	4	8	8		20									50	\$10,322	\$310	\$0	\$10,632
<b>Task 5 - Plans, Specifications &amp; Estimates (PS&amp;E)</b>																				<b>\$2,408,209</b>
<b>5.1 Reports</b>																				
5.1.1 Water Quality Management Plan	4			8	50		100					12				174	\$27,596	\$828	\$0	\$28,424
5.1.2 Hydrology & Hydraulics Reports	8			12	100		200					14				334	\$53,412	\$1,602	\$0	\$55,014
5.1.3 Traffic Management Plan	8			52	12	85		150				12				319	\$47,331	\$1,420	\$0	\$48,751
5.1.4 Geotechnical Investigations & Report																0	\$0	\$0	\$0	\$0
5.1.5 Landscaping & Aesthetic Concepts	8				20	40										68	\$12,480	\$374	\$0	\$12,854
5.1.6 Structure Type Selection Report																0	\$0	\$0	\$0	\$0
<b>Task 5 - 35% PS&amp;E</b>																				
<b>5.2 Calculations</b>																				
5.2.1 Civil/Survey Calculations																0	\$0	\$0	\$0	\$0
5.2.2 Structural Calculations																0	\$0	\$0	\$0	\$0

McKinley Street Grade Separation  
Fee Proposal | Kimley-Horn

S.O.W. Phase / Task	Project Manager	Sr. Tech. Advisor	Senior Professional II	Senior Professional I	Professional II	Professional I	Senior Analyst	Analyst	Senior Designer	Designer	Project Support	Clerical				Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals
	\$310.00	\$351.00	\$265.00	\$225.00	\$210.00	\$145.00	\$130.00	\$115.00	\$150.00	\$125.00	\$180.00	\$88.00								
5.3 Plan Preparation																				
5.3.1 General Plans			4					8								12	\$1,980	\$59	\$0	\$2,039
5.3.4 Roadway Plans	40		100		100	180		160	120	100						800	\$134,900	\$4,047	\$0	\$138,947
5.3.5 Traffic Plans	20			80		120		180		100						500	\$74,800	\$2,244	\$0	\$77,044
5.3.6 Utility Plans	30				150		220			50						450	\$75,650	\$2,270	\$0	\$77,920
5.3.8 Drainage Plans	30			20	80	100	170									400	\$67,200	\$2,016	\$0	\$69,216
5.3.9 Bridge Plans	2		4	4	8											18	\$4,260	\$128	\$0	\$4,388
5.3.10 Retaining Wall Plans	2		4	4	8											18	\$4,260	\$128	\$0	\$4,388
5.5 Cost Estimates	8		10	10	25	20	60	80	10			8				231	\$34,734	\$1,042	\$0	\$35,776
Task 5 - 65% PS&E																				
5.2 Calculations																				
5.2.1 Civil/Survey Calculations	1		6					60		20						87	\$11,300	\$339	\$0	\$11,639
5.2.2 Structural Calculations																0	\$0	\$0	\$0	\$0
5.3 Plan Preparation																				
5.3.1 General Plans																0	\$0	\$0	\$0	\$0
5.3.2 Survey Control Plan																0	\$0	\$0	\$0	\$0
5.3.3 Right-of-Way Plans																0	\$0	\$0	\$0	\$0
5.3.4 Roadway Plans	60		120		160	300	100	220	120	120						1200	\$198,800	\$5,964	\$0	\$204,764
5.3.5 Traffic Plans	40			140		180		220		120						700	\$110,300	\$3,309	\$0	\$113,609
5.3.6 Utility Plans	50				180		300			70						600	\$101,050	\$3,032	\$0	\$104,082
5.3.7 Landscaping & Irrigation Plans	10				80	90		120								300	\$46,750	\$1,403	\$0	\$48,153
5.3.8 Drainage Plans	50			40	160	150	200									600	\$105,850	\$3,176	\$0	\$109,026
5.3.9 Bridge Plans	4		8	8	16											36	\$8,520	\$256	\$0	\$8,776
5.3.10 Retaining Wall Plans	4		8	8	16											36	\$8,520	\$256	\$0	\$8,776
5.3.11 Log of Test Borings																0	\$0	\$0	\$0	\$0
5.4 Specifications	20	4	40	40	100							10				214	\$49,084	\$1,473	\$0	\$50,557
5.5 Cost Estimates	8		10	10	25	20	60	80	10			8				231	\$34,734	\$1,042	\$0	\$35,776
5.6 Construction Schedule																0	\$0	\$0	\$0	\$0
Task 5 - 95% PS&E																				
5.2 Calculations																				
5.2.1 Civil/Survey Calculations	1		2					30		10						43	\$5,540	\$166	\$0	\$5,706
5.2.2 Structural Calculations																0	\$0	\$0	\$0	\$0
5.2.3 Independent Check																0	\$0	\$0	\$0	\$0
5.3 Plan Preparation																				
5.3.1 General Plans																0	\$0	\$0	\$0	\$0
5.3.2 Survey Control Plan																0	\$0	\$0	\$0	\$0
5.3.3 Right-of-Way Plans																0	\$0	\$0	\$0	\$0
5.3.4 Roadway Plans	60		120		160	300	100	220	120	120						1200	\$198,800	\$5,964	\$0	\$204,764
5.3.5 Traffic Plans	40			120		140		200		100						600	\$95,200	\$2,856	\$0	\$98,056
5.3.6 Utility Plans	40		20		150		240			50						500	\$86,650	\$2,600	\$0	\$89,250
5.3.7 Landscaping & Irrigation Plans	10				80	110		200								400	\$58,850	\$1,766	\$0	\$60,616
5.3.8 Drainage Plans	20		10	30	80	120	180									440	\$73,200	\$2,196	\$0	\$75,396
5.3.9 Bridge Plans	4		8	8	16											36	\$8,520	\$256	\$0	\$8,776
5.3.10 Retaining Wall Plans	4		8	8	16											36	\$8,520	\$256	\$0	\$8,776
5.3.11 Log of Test Borings																0	\$0	\$0	\$0	\$0
5.4 Specifications	20	4	40	40	100							10				214	\$49,084	\$1,473	\$0	\$50,557
5.5 Cost Estimates	8		10	10	25	20	60	80	10			8				231	\$34,734	\$1,042	\$0	\$35,776
5.6 Construction Schedule																0	\$0	\$0	\$0	\$0
Task 5 - 100% PS&E																				
5.2 Calculations																				
5.2.1 Civil/Survey Calculations																0	\$0	\$0	\$0	\$0

McKinley Street Grade Separation  
 Fee Proposal | Kinney-Horn

S.O.W. Phase / Task	Project Manager	Sr. Tech. Advisor	Senior Professional II	Senior Professional I	Professional II	Professional I	Senior Analyst	Analyst	Senior Designer	Designer	Project Support	Clerical				Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals
5.2.2 Structural Calculations	\$310.00	\$351.00	\$265.00	\$225.00	\$210.00	\$145.00	\$130.00	\$115.00	\$150.00	\$125.00	\$180.00	\$88.00				0	\$0	\$0	\$0	\$0
5.3 Plan Preparation																0	\$0	\$0	\$0	\$0
5.3.1 General Plans																0	\$0	\$0	\$0	\$0
5.3.2 Survey Control Plan																0	\$0	\$0	\$0	\$0
5.3.3 Right-of-Way Plans																0	\$0	\$0	\$0	\$0
5.3.4 Roadway Plans	40		80		60	200	40	160	40	80						700	\$114,800	\$3,444	\$0	\$118,244
5.3.5 Traffic Plans	20			50		60		100		70						300	\$46,400	\$1,392	\$0	\$47,792
5.3.6 Utility Plans	20		10		120		200			50						400	\$66,300	\$1,989	\$0	\$68,289
5.3.7 Landscaping & Irrigation Plans	20				80	80		120								300	\$48,400	\$1,452	\$0	\$49,852
5.3.8 Drainage Plans	20			20	60	80	120									300	\$50,500	\$1,515	\$0	\$52,015
5.3.9 Bridge Plans	2		4	4	8											18	\$4,260	\$128	\$0	\$4,388
5.3.10 Retaining Wall Plans	2		4	4	8											18	\$4,260	\$128	\$0	\$4,388
5.3.11 Log of Test Borings																0	\$0	\$0	\$0	\$0
5.4 Specifications	10	2	20	20	50							6				108	\$24,630	\$739	\$0	\$25,369
5.5 Cost Estimates	4		5	5	12	10	30	40	5			4				115	\$17,262	\$518	\$0	\$17,780
5.6 Construction Schedule																0	\$0	\$0	\$0	\$0
<b>Task 5 - Issued for Bid (IFB)</b>																				
5.3 Plan Preparation																0	\$0	\$0	\$0	\$0
5.3.1 General Plans																0	\$0	\$0	\$0	\$0
5.3.2 Survey Control Plan																0	\$0	\$0	\$0	\$0
5.3.3 Right-of-Way Plans																0	\$0	\$0	\$0	\$0
5.3.4 Roadway Plans	20		40		30	100	20	60		30						300	\$50,850	\$1,526	\$0	\$52,376
5.3.5 Traffic Plans	5			15		20		40		20						100	\$14,925	\$448	\$0	\$15,373
5.3.6 Utility Plans	10				20		30			20						60	\$11,200	\$336	\$0	\$11,536
5.3.7 Landscaping & Irrigation Plans	6				20	40		34								100	\$15,770	\$473	\$0	\$16,243
5.3.8 Drainage Plans	8			6	20	10	30									74	\$13,380	\$401	\$0	\$13,781
5.3.9 Bridge Plans	1		2	2	4											9	\$2,130	\$64	\$0	\$2,194
5.3.10 Retaining Wall Plans	1		2	2	4											9	\$2,130	\$64	\$0	\$2,194
5.3.11 Log of Test Borings																0	\$0	\$0	\$0	\$0
5.4 Specifications	4		10	10	20											44	\$10,340	\$310	\$0	\$10,650
5.5 Cost Estimates	2		2	2	6	5	12	20	2			2				53	\$7,921	\$238	\$0	\$8,159
<b>Task 6 - Right-of-Way</b>																				
6.1 Right-of-Way Requirements	28		46		100		220									394	\$70,470	\$2,114	\$0	\$72,584
6.2 Right-of-Way Maps																0	\$0	\$0	\$0	\$0
6.3 Appraisal Maps, Plats, and Descriptions																0	\$0	\$0	\$0	\$0
<b>Task 7 - Coordination, Agreements &amp; Permits</b>																				
7.1 BNSF Railway																0	\$0	\$0	\$0	\$0
7.1.1 Construction & Maintenance Agreement																0	\$0	\$0	\$0	\$0
7.1.2 Submittals																0	\$0	\$0	\$0	\$0
7.2 California Public Utilities Commission																0	\$0	\$0	\$0	\$0
7.3 Caltrans District 8	188	6	60	10	123	246		60				28				721	\$149,400	\$4,482	\$0	\$153,882
7.4 Riverside County Flood Control & WCD	20				60											80	\$18,800	\$564	\$0	\$19,364
7.5 Utility Coordination	40				400		80					40				560	\$110,320	\$3,310	\$0	\$113,630
7.6 Community Engagement																0	\$0	\$0	\$0	\$0
<b>Task 8 - Bidding Services</b>																				
8.1 Resident Engineer (RE) Pending File	8		20	10	20	20	40									118	\$22,330	\$670	\$0	\$23,000
8.2 Bidding Phase Support	20	2		24	68		50									164	\$33,082	\$992	\$0	\$34,074
8.3 Conform Plans and Specifications	8		20	10	20	20	40	40		40						198	\$31,930	\$958	\$0	\$32,888
<b>Design (Tasks 1 - 8) Totals</b>	1,375	28	1,055	1,178	3,697	3,322	3,110	2,980	437	1,150	50	298	0	0	0	18,680	\$3,230,287	\$96,909	\$235,000	<b>\$3,562,196</b>

McKinley Street Grade Separation  
 Fee Proposal | Kinley-Horn

S.O.W. Phase / Task	Project Manager	Sr. Tech. Advisor	Senior Professional II	Senior Professional I	Professional II	Professional I	Senior Analyst	Analyst	Senior Designer	Designer	Project Support	Clerical				Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals
	\$310.00	\$351.00	\$265.00	\$225.00	\$210.00	\$145.00	\$130.00	\$115.00	\$150.00	\$125.00	\$180.00	\$88.00								
<b>Task 9 - Engineering Construction Services</b>																				
9.1 Engineering Support (RFIs, Shop Drawings, etc.)	78	8	158	186	226	260	40				50	100				1106	\$218,868	\$16,786	\$0	\$235,654
9.2 Preparation of Record Documents (As-Builts)	20		20	10	20	40	40	40		10						200	\$34,800	\$2,669	\$0	\$37,469
<b>Const. Support (Task 9) Totals</b>	<b>98</b>	<b>8</b>	<b>178</b>	<b>196</b>	<b>246</b>	<b>300</b>	<b>80</b>	<b>40</b>	<b>0</b>	<b>10</b>	<b>50</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,306</b>	<b>\$253,668</b>	<b>\$19,455</b>	<b>\$0</b>	<b>\$273,123</b>

<b>Task 10 - Optional Services</b>																				
10.1 Construction Staking																0	\$0	\$0	\$0	\$0
10.2 Right-of-Way Staking for Partial Acquisitions																0	\$0	\$0	\$0	\$0
10.3 Project Closeout Items																0	\$0	\$0	\$0	\$0
<b>Optional Services (Task 10) Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>Expenses Breakdown*</b>	Patrolling	\$230,000
	Traffic Counts	\$5,000
	<b>Expense Subtotal</b>	<b>\$235,000</b>

Notes:

\* Costs for printing, mileage, telephone, mailing and other expenses incidental to the performance of the main items of the Engineering Services to be rendered are included in the hourly rates.

\*\* Escalation is based on 3.0%/year (latest table 5 of Bureau of Labor Statistics). Design (Tasks 1 - 8) are escalated to the mid-point of design (1 year). Const. Support (Task 9) is escalated to the mid-point of the contract (2.5 years).

1. Quantities within task descriptions above indicate portion of work within prime agreement for Kinley-Horn and is the basis for our agreed upon fees.

2. Kinley-Horn will not exceed the total maximum fee shown without authorization from the City. Individual task amounts are provided for budgeting purposes only. Kinley-Horn reserves the right to reallocate amounts among tasks as necessary.

McKinley Street Grade Separation

Fee Proposal | David Evans and Associates

S.O.W. Phase / Task	Lyvin Lasso PM	Jim Elberbrock Rail Principal Engineer	Guido Porter Task Lead	Amenda Limburg Senior Rail Engineer	Karl Tobias Br Engr	Sr Greg Griffin Br Engr	Sr Ari Perold Br Engr	Rachel Bassil Des Engr	Dylan Anderson Junior Rail Engineer	Angie Jones Proj Ad						Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals
<b>Task 1 - Project Administration</b>	\$282.06	\$279.86	\$193.25	\$155.00	\$198.07	\$190.63	\$194.35	\$117.49	\$103.35	\$94.55										<b>\$24,936</b>
1.1 Project Management Plan	12		4													16	\$4,158	\$125	\$0	\$4,283
1.2 Quality Control Plan			8	8	8	8	8	8								48	\$8,390	\$252	\$5,000	\$13,642
1.3 Project Controls										72						72	\$6,808	\$204	\$0	\$7,012
<b>Task 3 - Concept Development &amp; Project Approval</b>																				<b>\$17,169</b>
3.3 Project Concept Report																				
3.3.4 Structure Exhibits	2		31		31											64	\$12,695	\$381	\$0	\$13,076
3.5 Design Basis Memorandum	1		7		7	5										20	\$3,974	\$119	\$0	\$4,094
<b>Task 5 - Plans, Specifications &amp; Estimates (PS&amp;E)</b>																				<b>\$328,811</b>
5.1 Reports																				
5.1.6 Structure Type Selection Report	4		30		30	20										84	\$16,680	\$500	\$0	\$17,181
<b>Task 5 - 95% PS&amp;E</b>																				
5.2 Calculations																				
5.2.3 Independent Check			40		160	300	300	200								1000	\$178,409	\$5,352	\$0	\$183,761
5.3 Plan Preparation																				
5.3.9 Bridge Plans			72		102	90	26	26								316	\$59,381	\$1,781	\$0	\$61,162
5.4 Specifications			8		8	36	36									88	\$16,989	\$510	\$0	\$17,499
<b>Task 5 - 100% PS&amp;E</b>																				
5.3 Plan Preparation																				
5.3.9 Bridge Plans			20		40	40	16	16								132	\$24,402	\$752	\$0	\$25,154
5.4 Specifications			8		8	16	16									48	\$9,290	\$279	\$0	\$9,569
<b>Task 5 - Issued for Bid (IFB)</b>																				
5.3 Plan Preparation																				
5.3.9 Bridge Plans			8		8	20	8	8								52	\$9,438	\$283	\$0	\$9,721
5.4 Specifications			4		4	8	8									24	\$4,645	\$139	\$0	\$4,784
<b>Task 7 - Coordination, Agreements &amp; Permits</b>																				<b>\$18,218</b>
7.1 BNSF Railway																				
7.1.1 Construction & Maintenance Agreement		1	20	10	20				30							81	\$12,757	\$383	\$0	\$13,139
7.1.2 Submittals		1		10					30							41	\$4,930	\$148	\$0	\$5,078
<b>Design (Tasks 1 - 8) Totals</b>	19	2	260	28	426	543	418	258	60	72	0	0	0	0	0	2,086	\$372,946	\$11,188	\$5,000	<b>\$389,134</b>
<b>Task 9 - Engineering Construction Services</b>																				
9.1 Engineering Support (RFIs, Shop Drawings...)			50		50	100										200	\$38,628	\$1,159	\$0	\$39,787
<b>Const. Support (Task 9) Totals</b>	0	0	50	0	50	100	0	0	0	0	0	0	0	0	0	200	\$38,628	\$1,159	\$0	<b>\$39,787</b>
<b>Task 10 - Optional Services</b>																				
<b>Optional Services (Task 10) Totals</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	<b>\$0</b>
<b>Expenses Breakdown*</b>	Travel (2 people, 1 nights each, 2 trips each)																			\$5,000
	Expense Subtotal																			\$5,000

Notes:

\* Costs for printing, mileage, telephone, mailing and other expenses incidental to the performance of the main items of the Engineering Services to be rendered are included in the hourly rates.

\*\* Escalation is based on 3.0%/year (latest table 5 of Bureau of Labor Statistics). Design (Tasks 1 - 8) are escalated to the mid-point of design (1 year). Const. Support (Task 9) is escalated to the mid-point of the contract (2.5 years).

McKinley Street Grade Separation  
Fee Proposal | JCF

S.O.W. Phase / Task	Calvin B. Proj Dir	Frank V. Sr Consult III	Patrick J. Sr Consult III	Hughson J. Sr Consult III	Richard K. Assoc Consult III	Buckley D. Proj Dir	Solomon S. Sr Consult I	John F. Assoc Consult I	Cooper K. Sr Tech Analyst	William B. Sr Consult II	Seaton J. Admin Tech	Reidy K. Mng Consult	Torg V. Assoc Consult I	Hobington G. Mng Consult	Richard P. Sr Consult II	Harri M. Sr Consult I	Hickman J. Sr Consult II	Schwartz R. Sr Consult II	Jensen M. Mng Consult	Good S.B. Sr Consult II	Coyne J.K. Proj Dir	Charles K. Sr Consult I
<b>Task 1 - Project Administration</b>	\$289.32	\$181.45	\$179.65	\$177.08	\$97.91	\$264.94	\$109.34	\$137.30	\$210.91	\$134.49	\$63.59	\$177.69	\$114.16	\$185.24	\$151.13	\$121.68	\$148.63	\$145.39	\$173.42	\$176.95	\$205.04	\$112.70
1.3 Project Controls	36	96																				
1.4 Project Development Team Meetings	84																					
<b>Task 4 - Environmental Documentation</b>																						
4.1 CEQA Statutory Exemption	1	3																				
4.2 Technical Studies	50	166	213	20	196	8	152	254	36	84	36	20	150	34		188					8	20
<b>Design (Tasks 1 - 8) Totals</b>	171	265	213	20	196	8	152	254	36	84	36	20	150	34	0	188	0	0	0	0	8	20
<b>Task 9 - Engineering Construction Services</b>																						
Const. Support (Task 9) Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Task 10 - Optional Services</b>																						
Optional Services (Task 10) Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

McKinley Street Grade Separation  
Fee Proposal | JCF

S.O.W. Phase / Task	Frank V. Sr Consult II	Schwartz R. Sr Proj Dir	Andrew M. Asst. Consult	Richard K. Sr Consult I	Good S.B. Admin Tech	Cooper K. Consult I	Hickman J. Sr Consult II	Schwartz R. Sr Consult II	Charles K. Sr Tech Analyst	Harri M. Sr Consult II	Reidy K. Sr Consult II	Johnson R. Sr Consult I	Good S.B. Sr Tech Analyst	Total Hours	Labor Subtotal	Escalation	Expenses	Task Totals
<b>Task 1 - Project Administration</b>	\$155.27	\$310.53	\$92.29	\$144.88	\$96.62	\$81.90	\$148.63	\$145.39	\$223.51	\$128.74	\$164.04	\$90.62	\$206.76					<b>\$53,298</b>
1.3 Project Controls					12									144	\$20,898	\$0	\$0	\$20,898
1.4 Project Development Team Meetings														84	\$24,303	\$0	\$0	\$24,303
<b>Task 4 - Environmental Documentation</b>																		<b>\$375,238</b>
4.1 CEQA Statutory Exemption														4	\$834	\$0	\$0	\$834
4.2 Technical Studies	84	8	128	140		48	18	28	48	122	36	222	48	2505	\$355,194	\$0	\$19,300	\$374,494
<b>Design (Tasks 1 - 8) Totals</b>	84	8	128	140	12	48	18	28	48	122	36	222	48	2,797	\$439,216	\$0	\$19,300	<b>\$458,516</b>
<b>Task 9 - Engineering Construction Services</b>																		
Const. Support (Task 9) Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0
<b>Task 10 - Optional Services</b>																		
Optional Services (Task 10) Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0

Expenses Breakdown*	EDR Search	\$500
	Cultural Records Search	\$800
	Subconsultant (San Diego Natural History Museum)	\$18,300
	Expense Subtotal	\$19,300

Notes:

\* Costs for printing, mileage, telephone, mailing and other expenses incidental to the performance of the main items of the Engineering Services to be rendered are included in the hourly rates.

**McKinley Street Grade Separation**  
 Fee Proposal | Earth Mechanics

S.O.W. Phase / Task	Principal In Charge	Project Manager	Project Geologist	Senior Technician	Staff Engineer												Total Hours	Labor Subtotal	Escalation	Expenses	Task Totals
	\$250.68	\$129.82	\$125.34	\$117.88	\$93.26																
Task 1 - Project Administration																					
1.1 Project Management Plan	4	8															12	\$2,041	\$0	\$0	\$2,041
1.2 Quality Control Plan		4															4	\$519	\$0	\$0	\$519
1.3 Project Controls		12															12	\$1,558	\$0	\$0	\$1,558
Task 2 - Data Collection																					
2.7 Geotechnical Records Research & Findings	8	16															24	\$4,083	\$0	\$0	\$4,083
Task 3 - Concept Development & Project Approval																					
3.3 Project Concept Report																					\$10,171
3.3.5 Preliminary Geotechnical Report	16	32	16														64	\$10,171	\$0	\$0	\$10,171
Task 4 - Environmental Documentation																					
4.2 Technical Studies	48	88	24		40												200	\$30,195	\$0	\$0	\$30,195
Task 5 - Plans, Specifications & Estimates (PS&E)																					
5.1 Reports																					\$459,606
5.1.4 Geotechnical Investigations & Report	534	632	276	440	120												2002	\$313,562	\$0	\$124,850	\$438,412
Task 5 - 85% PS&E																					
5.3 Plan Preparation																					
5.3.11 Log of Test Borings	22	30			60												112	\$15,005	\$0	\$0	\$15,005
5.4 Specifications	1	1															2	\$381	\$0	\$0	\$381
Task 5 - 95% PS&E																					
5.3 Plan Preparation																					
5.3.11 Log of Test Borings	2	8			8												14	\$1,767	\$0	\$0	\$1,767
5.4 Specifications	1	1															2	\$381	\$0	\$0	\$381
Task 5 - 100% PS&E																					
5.3 Plan Preparation																					
5.3.11 Log of Test Borings	2	4			8												14	\$1,767	\$0	\$0	\$1,767
5.4 Specifications	1	1															2	\$381	\$0	\$0	\$381
Task 5 - Issued for Bid (IFB)																					
5.3 Plan Preparation																					
5.3.11 Log of Test Borings	2	2			4												8	\$1,134	\$0	\$0	\$1,134
5.4 Specifications	1	1															2	\$381	\$0	\$0	\$381
Design (Tasks 1 - 8) Totals																					
	642	836	316	440	240	0	0	0	0	0	0	0	0	0	0	0	2,474	\$383,323	\$0	\$124,850	\$508,173
Task 9 - Engineering Construction Services																					
9.1 Engineering Support (RPIs, Shop Drawings...)	8	24															32	\$5,121	\$0	\$0	\$5,121
Const. Support (Task 9) Totals																					
	8	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	\$5,121	\$0	\$0	\$5,121
Task 10 - Optional Services																					
Optional Services (Task 10) Totals																					
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0
Expenses Breakdown*	Mud Rotary Drill Rig Rental					\$37,290															
	Hollow-Stem Auger Drill Rig Rental					\$30,800															
	Caltrans Permit (Assumed)					\$1,000															
	Soil Cuttings Contaminants Testing					\$1,260															
	Soil Cuttings (Drums) Disposal					\$3,960															
	Traffic Control					\$19,740															
	Drill Rig Rental for Infiltration Testing					\$30,800															
	Expense Subtotal					\$124,850															

**Notes:**  
 \* Costs for printing, mileage, telephone, mailing and other expenses incidental to the performance of the main items of the Engineering Services to be rendered are included in the hourly rates.

**McKinley Street Grade Separation**  
Fee Proposal | BKF Engineers

S.O.W. Phase / Task	Principal	Associate	Project Manager	Surveyor III	Surveyor II	Surveyor I	Field Party Chief	Field Chairman									Total Hours	Labor Subtotal	Escalation**	Expenses	Task Totals				
	\$237.00	\$206.00	\$197.00	\$168.00	\$148.00	\$129.00	\$169.00	\$109.00																	
Task 1 - Project Administration																					\$40,862				
1.1 Project Management Plan																	6	\$0	\$0	\$0	\$0				
1.2 Quality Control Plan	8	4	16		8		8	8									52	\$9,280	\$0	\$0	\$9,280				
1.3 Project Controls	2	16	80														98	\$19,516	\$0	\$0	\$19,516				
1.4 Project Development Team Meetings	4	8	48														60	\$12,052	\$0	\$0	\$12,052				
Task 2 - Data Collection																					\$326,530				
2.1 Aerial Mapping	1	4	8	4	16		32	32									97	\$14,573	\$0	\$15,500	\$66,073				
2.2 Field Survey	1	8	24	48	160	80	120	120									561	\$82,037	\$0	\$19,000	\$101,037				
2.3 Potholing		4	8		8		24	24									68	\$16,256	\$0	\$0	\$16,256				
2.4 Right-of-Way Base Mapping	8	8	120	296	276	140	48	48									944	\$149,164	\$0	\$0	\$149,164				
Task 5 - Plans, Specifications & Estimates (PS&E)																					\$35,889				
Task 5 - 95% PS&E																									
5.2 Calculations																									
5.2.1 Civil/Survey Calculations	1	2	16	24	24	8											75	\$12,417	\$0	\$0	\$12,417				
5.3 Plan Preparation																									
5.3.2 Survey Control Plan	2	4	4	8	16	24											58	\$8,894	\$0	\$0	\$8,894				
5.3.3 Right-of-Way Plans	2	4	8	16	40	24											94	\$14,578	\$0	\$0	\$14,578				
Task 6 - Right-of-Way																					\$194,574				
6.1 Right-of-Way Requirements	2	8	40	80													130	\$23,442	\$0	\$0	\$23,442				
6.2 Right-of-Way Maps	4	4	60	120	80	64											332	\$53,848	\$0	\$0	\$53,848				
6.3 Appraisal Maps, Plans, and Descriptions	4	16	80	280	200	160											740	\$117,284	\$0	\$0	\$117,284				
Design (Tasks 1 - 8) Totals	39	90	512	876	828	500	232	232	0	0	0	0	0	0	0	3,309	\$527,355	\$0	\$70,500	\$597,855					
Task 9 - Engineering Construction Services																									
Const. Support (Task 9) Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0				
Task 10 - Optional Services																									
10.1 Construction Staking	2	16	80	240	120	80	280	280									1098	\$165,770	\$26,403	\$0	\$182,173				
10.2 Right-of-Way Staking for Partial Acquisitions	2	4	8	16	24		80	80									214	\$31,854	\$4,994	\$0	\$36,848				
10.3 Project Closeout Items	16	32	80	120	64		56	56									424	\$71,344	\$11,363	\$0	\$82,707				
Optional Services (Task 10) Totals	20	52	168	376	208	80	416	416	0	0	0	0	0	0	0	1,736	\$268,468	\$42,760	\$0	\$311,228					
Expenses Breakdown*	Aerial Topographic Survey - ABC Mapping						\$40,000																		
	Aerial Mapping Miscellaneous Expenses						\$5,000																		
	Aerial Topographic Survey						\$6,500																		
	BNSF Flagman (5 Days @ \$1,800/Day)						\$9,000																		
	Traffic Control (5 Days @ \$2,000/Day)						\$10,000																		
Expense Subtotal						\$70,500																			

Notes:

\* Costs for printing, mileage, telephone, mailing and other expenses incidental to the performance of the main items of the Engineering Services to be rendered are included in the hourly rates.

\*\* Escalation is based on 3.0%/year (latest table 5 of Bureau of Labor Statistics). Post-Construction Services (Task 10) are escalated to the end of construction (5 years).

**McKinley Street Grade Separation**  
 Fee Proposal | Arellano Associates

S.O.W. Phase / Task	Principal-in-Charge	Senior Project Coordinator	Project Coordinator	Graphic Designer	Assistant Project Coordinator	Assistant Project Coordinator											Total Hours	Labor Subtotal	Escalation	Expenses	Task Totals
	\$306.76	\$115.54	\$76.08	\$76.08	\$53.99	\$49.08															
<b>Task 1 - Project Administration</b>																				<b>\$58,437</b>	
1.3 Project Controls	10	100	20			8											138	\$16,536	\$0	\$0	\$16,536
1.4 Project Development Team Meetings	20	183	96	42	40	40											421	\$41,901	\$0	\$0	\$41,901
<b>Task 7 - Coordination, Agreements &amp; Permits</b>																				<b>\$120,710</b>	
7.6 Community Engagement	8	292	224	50	320	440											1,334	\$95,910	\$0	\$24,800	\$120,710
<b>Design (Tasks 1 - 8) Totals</b>	<b>38</b>	<b>575</b>	<b>340</b>	<b>92</b>	<b>360</b>	<b>488</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,893</b>	<b>\$150,346</b>	<b>\$0</b>	<b>\$24,800</b>	<b>\$179,146</b>

<b>Task 9 - Engineering Construction Services</b>																				
<b>Const. Support (Task 9) Totals</b>																				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0
<b>Task 10 - Optional Services</b>																				
<b>Optional Services (Task 10) Totals</b>																				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0

<b>Expenses Breakdown*</b>	Collateral Material/Exhibits	\$7,500
	Parcel Data	\$1,500
	Notice Distribution	\$10,000
	Facility Rental	\$2,000
	Supplies and Refreshments	\$800
	Translation/Interpretation (as needed)	\$3,000
	<b>Expense Subtotal</b>	<b>\$24,800</b>

Notes:  
 \* Costs for printing, mileage, telephone, mailing and other expenses incidental to the performance of the main items of the Engineering Services to be rendered are included in the hourly rates.

## CONSULTANT'S HOURLY RATE SCHEDULE

Principal III	\$305.00
Principal II	270.00
Principal I	235.00
Associate	210.00
Railroad Coordinator	263.00
Engineering Manager	181.00
Senior Engineer	164.00
Project Engineer	147.00
Staff Engineer	134.00
Assistant Engineer	124.00
Junior Engineer	116.00
Senior Computer Drafter	134.00
Computer Drafter	116.00
Junior Computer Drafter	105.00
Project Administrator	147.00
Project Coordinator	122.00
Secretarial Services	97.00
Construction Manager	218.00
Senior Structural Representative	191.00
Structural Representative	170.00
Assistant Structures Representative	137.00

Subconsultants Cost Plus 5%

Costs for printing, mileage, telephone, and mailing are included in the hourly rates.

Other Reimbursables are billed At Cost

Charge Rates Applicable October 1, 2017 Thru September 30, 2019, after which rates will be escalated yearly per latest Table 5 of Bureau of Labor Statistics.

**CONSULTANT'S SUBCONTRACTOR, KIMLEY-HORN & ASSOCIATES, INC.  
HOURLY RATE SCHEDULE**

<u>CATEGORY</u>	
CLERICAL .....	\$ 88.00
PROJECT SUPPORT.....	\$ 180.00
DESIGNER .....	\$ 125.00
SENIOR DESIGNER .....	\$ 150.00
ANALYST.....	\$ 115.00
SENIOR ANALYST .....	\$ 130.00
PROFESSIONAL I .....	\$ 145.00
PROFESSIONAL II .....	\$ 210.00
SENIOR PROFESSIONAL I .....	\$ 225.00
SENIOR PROFESSIONAL II .....	\$ 265.00
SENIOR TECHNICAL ADVISOR .....	\$ 351.00
PROJECT MANAGER.....	\$ 310.00

Cost for printing, mileage, telephone and mailing are included in the hourly rates.  
Other reimbursables are billed at cost.

Rates are applicable through September 30, 2019, after which rates will be escalated  
yearly per latest Table 5 of Bureau of Labor Statistics.

**CONSULTANT'S SUBCONTRACTOR, DAVID EVANS & ASSOCIATES, INC.  
HOURLY RATE SCHEDULE**

**CHARGE RATE SCHEDULE 2018**

The Rates for Personnel used as a basis for payment are set forth below (these rates are subject to adjustment annually or subject to additions based on new specialties needed):

Rail Principal Engineer	\$279.86-288.26
Project Manager	\$282.06-290.52
Sr. Bridge Engineer	\$190.63-204.01
Structural Task Lead	\$193.25-199.05
Senior Rail Engineer	\$155.00-159.65
Bridge Design Engineer	\$117.49-121.01
Junior Rail Engineer	\$103.35-106.45
Project Coordinator	\$94.55-97.39
Accounting Specialist	\$86.24-88.83

Rates are applicable through September 30, 2019, after which rates will be escalated yearly per latest Table 5 of Bureau of Labor Statistics.

**CONSULTANT'S SUBCONTRACTOR, ICF JONES & STOKES, INC.  
HOURLY RATE SCHEDULE**

**MCKINLEY STREET GRADE SEPARATION | CITY OF CORONA  
FEE SCHEDULE\***

**Effective January 1, 2018**

Labor Classification	Per Hour
Senior Project Director	\$310.53
Project Director	\$205 - \$290
Technical Director	\$240
Senior Technical Analyst	\$206 - \$222
Managing Consultant	\$173 - \$186
Senior Consultant III	\$177 - \$182
Senior Consultant II	\$128 - \$180
Senior Consultant I	\$92 - \$160
Associate Consultant III	\$97 - \$150
Associate Consultant II	\$130 - \$140
Associate Consultant I	\$80 - \$138
Assistant Consultant	\$92 - \$115
Administrative Technician	\$63 - \$98
Technician	\$75
Intern	\$65
<b>Other Direct Expenses</b>	
Costs for printing, mileage, telephone, and mailing are included in the hourly rates. Other expenses are billed at cost.	
Billing rates are applicable thru September 30, 2019, after which rates will be escalated yearly per latest Table 5 of Bureau of Labor Statistics.	

**CONSULTANT'S SUBCONTRACTOR, EARTH MECHANICS, INC.  
HOURLY RATE SCHEDULE**

City of Corona  
McKinley Street Grade Separation Project (PS&E)

LABOR CATEGORY	FULLY BURDENED HOURLY RATE
Principal/Senior Consultant (Principal In Charge)	\$250.68
Principal Engineer/Geologist	\$217.85
Senior Engineer/Geologist	\$185.03
Senior Project Engineer/Geologist (Project Manager)	\$152.95
Project Engineer/Geologist	\$138.77
Senior Staff Engineer/Geologist	\$105.94
Staff Engineer/Geologist	\$95.50
Senior Technician	\$117.88
Technician	\$56.70
Clerical	\$98.48

Rates are applicable through September 30, 2019, after which rates will be escalated yearly per latest Table 5 of Bureau of Labor Statistics.

# CONSULTANT'S SUBCONTRACTOR, BKF ENGINEERS HOURLY RATE SCHEDULE

<u>PERSONNEL</u>	<u>HOURLY RATES</u>
<b>ENGINEERING</b>	
Senior Associate	\$212.00
Associate	\$206.00
Project Manager	\$197.00 - \$202.00
Engineer IV	\$182.00
Engineer I, II, III	\$129.00 - \$148.00 - \$168.00
Engineering Assistant	\$79.00
Junior Engineer	\$67.00
<b>PLANNING</b>	
Planner I, II, III, IV	\$129.00 - \$148.00 - \$168.00 - \$182.00
<b>SURVEYING</b>	
Senior Associate	\$212.00
Associate	\$206.00
Project Manager	\$197.00 - \$202.00
Surveyor I, II, III, IV	\$129.00 - \$148.00 - \$168.00 - \$181.00
Survey Party Chief	\$169.00
Survey Chainman	\$109.00
Apprentice I, II, III, IV	\$67.00 - \$90.00 - \$99.00 - \$105.00
Instrumentman	\$145.00
Surveying Assistant	\$79.00
Junior Surveyor	\$67.00
Utility Locating Superintendent	\$170.00
Utility Locator I, II, III	\$88.00 - \$124.00 - \$149.00
BIM Specialist I, II, III	\$129.00 - \$148.00 - \$168.00
<b>DESIGN AND DRAFTING</b>	
Technician I, II, III, IV	\$123.00 - \$131.00 - \$143.00 - \$155.00
Drafter I, II, III, IV	\$96.00 - \$106.00 - \$114.00 - \$127.00
<b>CONSTRUCTION ADMINISTRATION/QSP-QSD</b>	
Senior Construction Administrator	\$191.00
Resident Engineer	\$142.00
Field Engineer I, II, III	\$129.00 - \$148.00 - \$168.00
Senior Consultant	\$221.00
<b>SERVICES AND EXPENSES</b>	
Project Assistant	\$79.00
Clerical/Administrative Assistant	\$67.00
Delivery Services	\$35.00

Principals' time on projects is chargeable at \$237.00- \$260.00 per hour.

Rates are applicable through September 30, 2019, after which rates will be escalated yearly per latest Table 5 of Bureau of Labor Statistics.

**CONSULTANT'S SUBCONTRACTOR, ARELLANO ASSOCIATES  
HOURLY RATE SCHEDULE**

<b><u>Title</u></b>	<b><u>Hourly Rate</u></b>
Executive/Principal-in-Charge	\$306.76
Senior Project Manager - High	\$245.41
Senior Project Manager - Mid	\$220.87
Senior Project Manager - Entry	\$196.33
Project Manager - High	\$196.33
Project Manager - Mid	\$171.79
Project Manager - Entry	\$147.25
Senior Project Coordinator - High	\$147.25
Senior Project Coordinator - Mid	\$122.71
Senior Project Coordinator - Entry	\$98.16
Project Coordinator/Graphic Designer - High	\$98.16
Project Coordinator/Graphic Designer - Mid	\$79.76
Project Coordinator/Graphic Designer - Entry	\$61.35
Assistant Project Coordinator - High	\$61.35
Assistant Project Coordinator – Mid	\$55.22
Assistant Project Coordinator – Entry	\$49.08

Rates are applicable through September 30, 2019, after which rates will be escalated yearly per latest Table 5 of Bureau of Labor Statistics.