SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

ITEM
3.17
(ID # 6053)

MEETING DATE:
Tuesday, January 30, 2018

FROM : TLMA-TRANSPORTATION:

SUBJECT: TRANSPORTATION AND LAND MANAGEMENT AGENCY - TRANSPORTATION: Approval of the Engineering Services Agreement between the County of Riverside and Michael Baker International, Inc., for the preparation of a Project Approval/Environmental Document for proposed improvements to the Monroe St / I-10 Interchange. 4th District. [$1,838,017 -Total]; Local Funds 100%

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the Engineering Services Agreement between the County of Riverside (County) and Michael Baker International, Inc., (Michael Baker) for the preparation of a Project Approval/Environmental Document for proposed improvements to the Monroe St / I-10 Interchange; and

2. Authorize the Chairman of the Board to execute the same.

ACTION: Policy

Patricia Romo, Director of Transportation 1/22/2018

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Perez, seconded by Supervisor Ashley and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes:	Jeffries, Tavaglione, Washington, Perez and Ashley
Nays:	None
Absent:	None
Date:	January 30, 2018
xc:	Transp.

Kecia Harper-Ihem
Clerk of the Board
By: Deputy

SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	$ 700,000	$ 700,000	$ 1,838,017	$ 0
NET COUNTY COST	$ 0	$ 0	$ 0	$ 0

SOURCE OF FUNDS: Coachella Valley Association of Governments (CVAG) (75%), City of Indio (25%). There are no General Funds used in this project.	**Budget Adjustment:** No **For Fiscal Year:** 17/18 to 19/20

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

The Monroe Street Interchange is located on I-10 between Jefferson Street and Jackson Street in the City of Indio. The interchange is a major access point for existing residential and retail sites. Significant growth and development has taken place in the past 30 years and has resulted in traffic congestion at the interchange. The interchange was originally constructed in 1972. Immediate and long-term growth in the area will cause an increase in traffic volume throughout the City. Constructing improvements to the Monroe Street interchange and Whitewater River bridge will address existing deficiencies, remove the existing bottleneck, and accommodate future growth and development.

The City of Indio (City) in cooperation with the California Department of Transportation (Caltrans) and the Coachella Valley Association of Governments (CVAG) are proposing to construct a new interchange on Interstate 10 (I-10) at Monroe Street (Project) in replacement of the existing interchange. Interchange improvements will include the construction of new structures crossing I-10 and the Whitewater River and construction of associated on- and off-ramps. The project will also include pedestrian and golf cart facilities compatible with CV Link.

The County issued a Request for Proposals (RFP) in compliance with Caltrans Local Assistance Procedures Manual to select a consulting firm for two major interchange projects on the I-10 Corridor, at Monroe Street and Jackson Street, in the City of Indio. The RFP was also used to establish a pre-qualified list of consultants that could be engaged in the future for the development of environmental and engineering documents. Eight qualified firms submitted written proposals and the top six firms, based on the evaluation of the written proposals, were interviewed. The written proposals and interviews were evaluated by representatives from Caltrans, the City of Indio, and the County.

Michael Baker International, Inc., was one of the two highest ranked firms and the one selected to provide the necessary environmental and engineering services for the Monroe Street Interchange Project. All six of the short-listed firms demonstrated their ability to provide the necessary services and were placed on the prequalified list where they will remain eligible to receive work from the County for a period of five years.

The detailed scope, proposed schedule and negotiated fee for performing the preliminary engineering and environmental services for the project are provided in Appendices "A", "B" and "C" respectively of the subject agreement.

On January 9, 2018 (Agenda Item No. 3.28), the County Board of Supervisors approved the Amended and Restated Reimbursement Agreement Amendment to an Inter-Agency Cooperative Agreement between the Coachella Valley Association of Governments (CVAG), City of Indio, and the County of Riverside for the Monroe St project. This amendment delegated the County as lead Agency for this project and provided the funding for the project.

On January 9, 2018 (Agenda Item No. 3.29), the County Board of Supervisors approved an Inter-Agency Cooperative Agreement between Caltrans and the County of Riverside establishing the terms, conditions and responsibilities for implementing the project improvements within Caltrans right-of-way.

Monroe Street / I-10 Interchange Project Number: C7-0048

Impact on Residents and Businesses

The proposed improvements will improve safety and enhance operational efficiency for local, regional, and interregional traveling motorists. The project will also incorporate a pedestrian, bicycle, and Neighborhood Electric Vehicle (NEV) connection with the Coachella Valley (CV) Link project along the Whitewater River. The mixed-use path is designed to encourage alternative forms of transportation and recreation.

SUPPLEMENTAL:

Additional Fiscal Information

The consultant's proposed fee for preliminary engineering and environmental documentation is $1,670,924. The contract is not to exceed $1,838,017 and includes a 10% contingency to be used only with prior written approval from the Director of Transportation. Funding will be provided by CVAG, $1,378,513 (75%), and the local share provided by the City, $459,504 (25%). The County will invoice CVAG for 100% of the project cost. No County funds will be used for this contract. The work under this agreement is required to be completed within four years of approval of the funding agreement.

The estimated cost breakdown by fiscal year is:

• FY 17/18	$ 700,000
• FY 18/19	$ 700,000
• FY 19/20	$ 270,924
• Contingency	$ 167,093
Total Budget:	**$1,838,017**

Contract History and Price Reasonableness

The consultant's negotiated fee of $1,670,924, excluding contingency, proposed for this contract is comparable to work performed on similar projects.

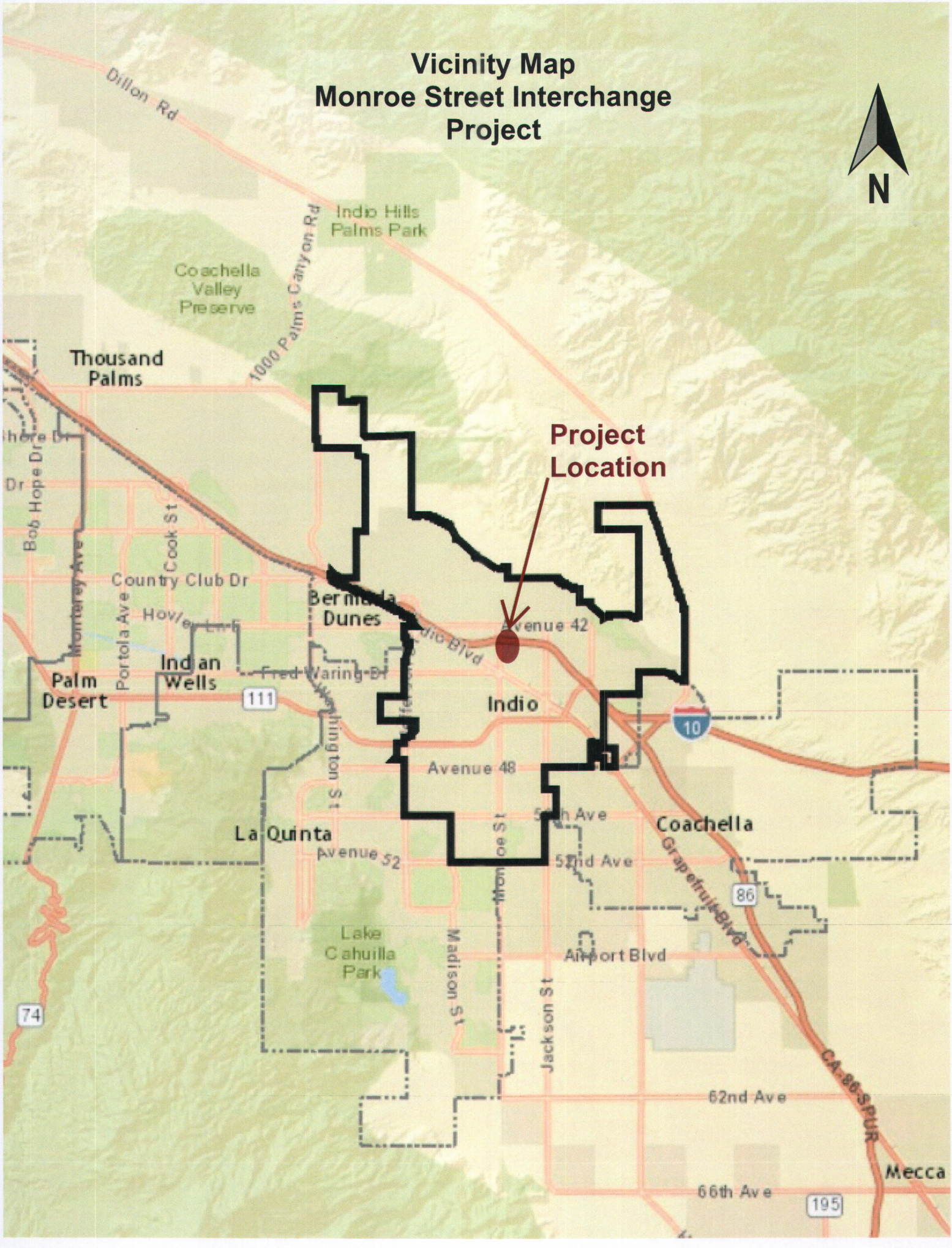
ATTACHMENTS:
Monroe St Consultant Services Agreement
Monroe Vicinity Map

Kristine Bell-Valdez 1/23/2018

Synthia M Gunzel, Supervising Deputy County Counsel 1/23/2018

Scott Bruckner 1/23/2018

Vicinity Map
Monroe Street Interchange Project



Contract No. _____

Riverside County Transportation

ENGINEERING SERVICES AGREEMENT

for

Monroe Street Interchange

between

County of Riverside • Transportation Department

and

Michael Baker International, Inc.

JAN 3 0 2018 3.17

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ENGINEERING SERVICES AGREEMENT

COUNTY OF RIVERSIDE, hereinafter referred to as "COUNTY", and MICHAEL BAKER INTERNATIONAL INC., hereinafter referred to as "ENGINEER", located at the following addressees:

County of Riverside • Transportation Department
4080 Lemon Street, 8th Floor
Riverside, CA 92502

MICHAEL BAKER INTERNATIONAL INC.
3536 Concourse, Suite 100
Ontario, CA 91764

do hereby agree as follows:

ARTICLE I • DESIGNATED CONTACTS

Coordination of ENGINEER, and COUNTY activities shall be accomplished through an ENGINEERING PROJECT MANAGER, and a COUNTY PROJECT MANAGER.

The ENGINEERING PROJECT MANAGER for ENGINEER shall be:

Rebecca M. Young, PE

The COUNTY PROJECT MANAGER for COUNTY shall be:

John Ashlock, PE

ARTICLE II • PROJECT DEFINITION

ENGINEER shall furnish all technical and professional services including labor, material, equipment, transportation, supervision, and expertise to fully and adequately perform and complete the covenants set forth in Appendix A, Scope of Services, which is attached hereto and incorporated herein by reference. All services and deliverables associated with the performance and accomplishment of the covenants described in the Scope of Services is hereinafter collectively referred to as the "PROJECT".

ARTICLE III • COOPERATIVE AGENCIES

A. Lead Agency

COUNTY is designated as the lead agency for PROJECT and is working cooperatively with other agencies in the effort to complete PROJECT.

B. Cooperative Agencies

The cooperating agencies are listed below and will hereinafter be collectively referred to as the "AGENCIES".

Federal Highway Administration

CALTRANS

City of Indio

Coachella Valley Water District

Coachella Valley Association of Governments

Union Pacific Railroad

Regional Water Quality Control Board

U.S. Fish & Wildlife Services

Army Corps of Engineers

Coachella Valley Water District

Utility Companies

Coachella Valley Conservation Commission

C. COUNTY/AGENCIES Standards

All deliverables shall be prepared in accordance with the current COUNTY and AGENCIES practices, regulations, policies, procedures, manuals and standards where applicable. All deliverables are subject to review and approval by COUNTY.

ARTICLE IV • CONDITIONS

A. Notifications

All notices hereunder and communications regarding interpretation of the terms of this contract and changes thereto shall be effected by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid and addressed to the attention of the ENGINEERING PROJECT MANAGER or the COUNTY PROJECT MANAGER at the respective addresses provided on page one of this contract.

B. Assignment

Without written consent of COUNTY, this contract is not assignable by ENGINEER either in whole or in part.

C. Subcontracts

1. ENGINEER shall perform the services contemplated with resources available within its own organization. No portion of the services pertinent to this contract shall be subcontracted without written authorization by the COUNTY PROJECT MANAGER, except that which is expressly identified in this contract.
2. In the event ENGINEER subcontracts any portion of ENGINEER's duties under this contract, ENGINEER

shall require its subcontractors to comply with the terms of this contract in the same manner as required of ENGINEER including, but not limited to; indemnification of the COUNTY, requiring the same insurance of Subcontractors as required of ENGINEER, and having Subcontractor's insurance name the COUNTY as Additional Insured for each type of insurance where this Agreement requires ENGINEER's insurance to name COUNTY as Additional Insured.

D. Modifications

1. This contract may be amended or modified only by mutual written agreement of the parties. No alteration or variation of the terms of this contract will be valid unless made in writing and signed by the parties hereto and no oral understanding or agreement not incorporated herein, will be binding on any of the parties hereto.
2. Minor modifications are changes that do not substantially affect the Scope of Service. Minor modifications may be: a shift of funds between tasks within a budget category; the shifting of work and/or funding from one phase to another; use of contingency pursuant to Article VI.B.1. All requests for minor modifications must be approved in writing by the Director of Transportation, or his designee, prior to implementing the change.
3. There shall be no change in the ENGINEERING PROJECT MANAGER or key members of the PROJECT team without prior written approval by the COUNTY PROJECT MANAGER.
4. All modifications that do not fit within the definition of a minor modification to the contract shall be considered a major change and must be approved in writing by the ENGINEER and COUNTY Board of Supervisors prior to implementing the major change.

E. COUNTY Directives

ENGINEER shall receive contract directions and interpretations from the COUNTY PROJECT MANAGER.

F. Liability

1. ENGINEER has total responsibility for the accuracy and completeness of all data, reports, plans, specifications and estimates prepared for this PROJECT and shall check all such material accordingly. COUNTY will review all work product deliverables. The responsibility for accuracy and completeness of such items remains solely that of ENGINEER. Neither COUNTY'S review or approval shall give rise to any liability or responsibility on the part of COUNTY, or waive any of COUNTY'S rights, or relieve

ENGINEER of its professional responsibilities or obligations under this contract.

2. The plans, designs, estimates, calculations, reports and other documents furnished in accordance with the Scope of Services shall meet the criteria for acceptance and be a product of neat appearance, well organized, technically and grammatically correct, checked, and having the preparer and checker identified. The minimum standard of appearance, organization and contents shall be of similar types produced by COUNTY and AGENCIES. If any work product submitted is not complete and ready for use by COUNTY, it shall be marked "Draft" or similar designation to indicate it is not ready for use by COUNTY. COUNTY expects that all work product not so designated is ready for and can be used on PROJECT.

5. The page identifying preparers of engineering reports, the title sheet for specifications and each sheet of plans, shall bear the professional seal, certificate number, registration classification, expiration date of the certificate, and signature of the professional engineer(s) responsible for their preparation.

6. COUNTY and ENGINEER agree that plans, drawings or other work products prepared by ENGINEER are for the exclusive use of COUNTY and will be used by COUNTY for the project for which they were specifically designed. ENGINEER shall not be responsible for use of such plans, drawings or other work products if used on a different project without the written authorization or approval by ENGINEER.

7. ENGINEER acknowledges that the plans, drawings and/or other work products may be used by COUNTY for the PROJECT regardless of any disputes that may develop between ENGINEER and COUNTY. All plans, drawings, or other work product shall be deemed the sole and exclusive property of COUNTY and ownership thereof is irrevocably vested in COUNTY whether the PROJECT is executed or not.

8. ENGINEER, and the agents and employees of ENGINEER, in the performance of this contract, shall act in an independent capacity and not as officers, employees or agents of COUNTY.

G. Indemnification and Defense

1. To the fullest extent permitted by applicable law, ENGINEER agrees to and shall indemnify, defend and hold harmless the County of Riverside, its Agencies, Districts, Departments and Special Districts, their respective directors, officers, Board of Supervisors, elected and appointed officials, employees, agents, volunteers and representatives (hereinafter individually and collectively referred to as "Indemnitees") from all liability, including, but not limited to loss, suits, claims, demands, actions, or proceedings caused by any alleged or actual negligence, recklessness, or willful misconduct of ENGINEER, its directors,

officers, partners, employees, agents, subconsultants or representatives or any person or organization for whom ENGINEER is responsible, arising out of or from the performance of services under this Agreement.

2. The duty to indemnify does not include loss, suits, claims, demands, actions, or proceedings caused by actual negligence of Indemnitees; however, any actual negligence of Indemnitees will only affect the duty to indemnify for the specific act adjudged by the findings of a court of competent jurisdiction to be negligence of the Indemnitees, and will not preclude a duty to indemnify for any negligence, recklessness, or willful misconduct of ENGINEER.

3. To the fullest extent permitted by applicable law, ENGINEER shall defend and pay, at its sole expense, all costs and fees, including but not limited to attorney fees, cost of investigation, and defense, in any loss, suits, claims, demands, actions, or proceedings based or alleged to be based on any negligence, recklessness, or willful misconduct of ENGINEER arising out of or from the performance of services under this Agreement. The duty to defend applies to any alleged or actual negligence, recklessness, or willful misconduct of ENGINEER. The duty to defend shall apply whether or not ENGINEER is a party to the lawsuit, and shall apply whether or not ENGINEER is directly liable to the plaintiffs in the lawsuit. The duty to defend applies even if Indemnitees are alleged or found to be actively negligent, unless the negligent act, error or omission at issue was caused by the sole active negligence of Indemnitees.

4. The specified insurance provisions and limits required in this Agreement shall in no way limit or circumscribe ENGINEER'S obligations to indemnify and hold harmless Indemnitees from third party claims.

5. In the event there is conflict between the indemnity and defense provisions and California Civil Code Sections 2782 and 2782.8, the indemnity and defense provisions shall be interpreted to comply with Civil Code sections 2782 and 2782.8.H. Quality Control

ENGINEER shall implement and maintain the following quality control procedures during the preparation of the plans and documents relating to PROJECT. ENGINEER shall have a quality control plan in effect during the entire time services are being performed under this contract. The plan shall establish a process whereby calculations are independently checked, plans checked, corrected and back-checked, and all job related correspondence and memoranda routed and received by affected persons and then bound in appropriate job files. Where several drawings show different work in the same area, means

shall be provided to avoid conflicts and misalignment in both new and existing improvements. Evidence that the quality control plan is functional may be requested by the COUNTY PROJECT MANAGER. All plans, calculations documents and other items submitted to the COUNTY PROJECT MANAGER for review shall be marked clearly as being fully checked and that the preparation of the material followed the quality control plan established for the work.

I. Value Engineering

1. Elements of PROJECT may be considered for Value Engineering Studies. To this end, the COUNTY PROJECT MANAGER may direct the ENGINEER to examine the various elements of a design segment and submit an informal written statement or memorandum addressing those elements where it appears significant savings and other advantages can be realized. The statement shall be sufficiently informative to enable COUNTY to determine whether to direct a detailed Value Engineering Study or possibly direct immediate design changes where the value of the change is apparent without the need of detailed study and analysis.
2. ENGINEER or its subcontractors shall not incorporate in the design materials or equipment of single or sole source origin without written approval of COUNTY. Proprietary names of material or equipment shall not be used in the plans and specifications.

J. Extra Work

1. ENGINEER shall not perform Extra Work until receiving written authorization from the COUNTY PROJECT MANAGER.
2. In the event that COUNTY directs ENGINEER to provide services constituting Extra Work, COUNTY shall provide extra compensation to the ENGINEER. Allowable compensation for approved extra work will be based on the provisions of Appendix C, Budget, which is attached hereto and incorporated herein by reference.
3. An amendment to this contract providing for such compensation for Extra Work shall be issued by COUNTY to ENGINEER. Such Amendment shall not be effective until executed by both parties.

K. Disputes

1. In the event ENGINEER considers any work demanded of him to be outside the requirements of the contract, or if he considers any order, instruction, or decision of COUNTY to be unfair, he shall promptly upon receipt of such order, instruction or decision, ask for a written confirmation of the same whereupon

he shall proceed without delay to perform the work or to conform to the order, instruction, or decision; but unless ENGINEER finds such order, instruction, or decision satisfactory, he shall within 20 days after receipt of same, file a written protest with COUNTY stating clearly and in detail his objections and reasons therefore. Except for such protests or objections as are made of record in the manner specified and within the time stated herein, and except for such instances where the basis of a protest could not reasonably have been foreseen by ENGINEER within the time limit specified for protest, ENGINEER hereby waives all grounds for protests or objections to the orders, instruction, or decisions of COUNTY and hereby agrees that, as to all matters not included in such protests, the orders, instructions and decisions of COUNTY will be limited to matters properly falling within COUNTY's authority.

2. Any controversy or claim arising out of or relating to this contract which cannot be resolved by mutual agreement may be settled by arbitration in accordance with the rules of the American Arbitration Association, provided that the parties mutually agree to submit to arbitration.
3. Neither the pendency of a dispute nor its consideration by arbitration will excuse ENGINEER from full and timely performance in accordance with the terms of the contract.

L. Termination Without Cause

1. COUNTY reserves the right to terminate this contract at COUNTY's discretion and without cause, upon thirty (30) calendar days written notice to ENGINEER.
2. In the event of termination of the Agreement, upon demand, ENGINEER shall deliver to COUNTY all field notes, surveys, studies, reports, plans, drawings, specifications, and all other materials and documents prepared by or provided to ENGINEER in the performance of this contract. All such documents and materials shall be property of COUNTY.
3. In the event that this contract is terminated, ENGINEER is entitled to full payment for all services performed up to the time written notice of contract cancellation is received by ENGINEER. Payment shall be made for services performed to date based upon the percentage ratio that the basic services performed bear to the services contracted for, less payments made to date; plus any amount for authorized, but unpaid, extra work performed and costs incurred.

M. Termination for Lack of Performance

COUNTY may terminate this contract and be relieved of the payment of any consideration to ENGINEER should ENGINEER fail to perform the covenants herein contained at the time and in the manner herein

provided. In the event of such termination, COUNTY may proceed with the work in any manner deemed proper by COUNTY. In such event, ENGINEER shall be paid only for work completed and delivered to COUNTY in a timely and successful manner.

N. Insurance

Without limiting or diminishing the ENGINEER'S obligation to indemnify or hold the COUNTY harmless, ENGINEER shall procure and maintain or cause to be maintained, at its sole cost and expense, the following insurance coverage's during the term of this Agreement. As respects to the insurance section only, the COUNTY herein refers to the County of Riverside, its Agencies, Districts, Special Districts, and Departments, their respective directors, officers, Board of Supervisors, employees, elected or appointed officials, agents or representatives as Additional Insureds.

1. Workers' Compensation:

   If the ENGINEER has employees as defined by the State of California, the ENGINEER shall maintain statutory Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than $1,000,000 per person per accident. The policy shall be endorsed to waive subrogation in favor of The County of Riverside.

2. Commercial General Liability:

   Commercial General Liability insurance coverage, including but not limited to, premises liability, unmodified contractual liability, products and completed operations liability, personal and advertising injury, and cross liability coverage, covering claims which may arise from or out of ENGINEER'S performance of its obligations hereunder. Policy shall name the COUNTY as Additional Insured. Policy's limit of liability shall not be less than $1,000,000 per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit.

3. Vehicle Liability:

   If vehicles or mobile equipment are used in the performance of the obligations under this Agreement, then ENGINEER shall maintain liability insurance for all owned, non-owned or hired vehicles so used in an amount not less than $1,000,000 per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the

occurrence limit. Policy shall name the COUNTY as Additional Insureds.

4. Professional Liability

ENGINEER shall maintain Professional Liability Insurance providing coverage for the ENGINEER's performance of work included within this Agreement, with a limit of liability of not less then $1,000,000 per occurrence and $2,000,000 annual aggregate. If ENGINEER's Professional Liability Insurance is written on a claims made basis rather than an occurrence basis, such insurance shall continue through the term of this Agreement and ENGINEER shall purchase at his sole expense either 1) an Extended Reporting Endorsement (also, known as Tail Coverage); or 2) Prior Dates Coverage from new insurer with a retroactive date back to the date of, or prior to, the inception of this Agreement; or 3) demonstrate through Certificates of Insurance that ENGINEER has Maintained continuous coverage with the same or original insurer. Coverage provided under items; 1), 2), or 3) will continue as long as the law allows.

5. General Insurance Provisions - All lines:

   a. Any insurance carrier providing insurance coverage hereunder shall be admitted to the State of California and have an A M BEST rating of not less than A: VIII (A:8) unless such requirements are waived, in writing, by the County Risk Manager. If the County's Risk Manager waives a requirement for a particular insurer such waiver is only valid for that specific insurer and only for one policy term.

   b. The ENGINEER must declare its insurance self-insured retention for each coverage required herein. If any such self-insured retention exceed $500,000 per occurrence each such retention shall have the prior written consent of the County Risk Manager before the commencement of operations under this Agreement. Upon notification of self-insured retention unacceptable to the COUNTY, and at the election of the Country's Risk Manager, ENGINEER'S carriers shall either; 1) reduce or eliminate such self-insured retention as respects this Agreement with the COUNTY, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses.

   c. ENGINEER shall cause ENGINEER'S insurance carrier(s) to furnish the County of Riverside with either 1) a properly executed original Certificate(s) of Insurance and certified original copies of Endorsements effecting coverage as required herein, and 2) if requested to do so orally or in writing by the County Risk Manager, provide original Certified copies of policies including all Endorsements and all attachments thereto, showing such insurance is in full force and effect. Further, said

Certificate(s) and policies of insurance shall contain the covenant of the insurance carrier(s) that thirty (30) days written notice shall be given to the County of Riverside prior to any material modification, cancellation, expiration or reduction in coverage of such insurance. In the event of a material modification, cancellation, expiration, or reduction in coverage, this Agreement shall terminate forthwith, unless the County of Riverside receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverage's set forth herein and the insurance required herein is in full force and effect. ENGINEER shall not commence operations until the COUNTY has been furnished original Certificate (s) of Insurance and certified original copies of endorsements and if requested, certified original policies of insurance including all endorsements and any and all other attachments as required in this Section. An individual authorized by the insurance carrier to do so on its behalf shall sign the original endorsements for each policy and the Certificate of Insurance.

d. It is understood and agreed to by the parties hereto that the ENGINEER'S insurance shall be construed as primary insurance, and the COUNTY'S insurance and/or deductibles and/or self-insured retention's or self-insured programs shall not be construed as contributory.

e. If, during the term of this Agreement or any extension thereof, there is a material change in the scope of services; or, there is a material change in the equipment to be used in the performance of the scope of work; or, the term of this Agreement, including any extensions thereof, exceeds five (5) years; the COUNTY reserves the right to adjust the types of insurance and the monetary limits of liability required under this Agreement, if in the County Risk Manager's reasonable judgment, the amount or type of insurance carried by the ENGINEER has become inadequate.

f. ENGINEER shall pass down the insurance obligations contained herein to all tiers of subconsultants working under this Agreement.

g. The insurance requirements contained in this Agreement may be met with a program(s) of self-insurance acceptable to the COUNTY.

h. ENGINEER agrees to notify COUNTY of any claim by a third party or any incident or event that may give rise to a claim arising from the performance of this Agreement.

O. Conflict of Interest

ENGINEER warrants, by execution of this contract, that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by ENGINEER for the purpose of securing business. For breach or violation of this warranty, COUNTY has the right to annul this contract without liability, pay only for the value of the work actually performed, or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee. ENGINEER may be requested to complete a Conflict of Interest Statement prior to, during, or after execution of this contract. ENGINEER understands that as a condition of this contract ENGINEER agrees to complete the Conflict of Interest Statement when requested to do so by COUNTY.

P. Legal Compliance

ENGINEER shall comply with all Federal, State and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals currently in effect and in any manner affecting the performance of this contract, including, without limitation, workers' compensation laws and licensing and regulations.

Q. Nondiscrimination

1. During the performance of this contract, ENGINEER and its Subcontractors shall not act unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, age or sex. ENGINEER and Subcontractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code, Section 12900 et seq.) and applicable regulations promulgated thereunder (California Administrative Code, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12900, set forth in Chapter 5 of Division 4 of Title 2 of the California Administrative Code are incorporated into this contract by reference and made a part hereof as if set forth in full. ENGINEER and its Subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
2. ENGINEER will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts, other sources of

information, and its facilities as may be determined by COUNTY or AGENCIES to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of ENGINEER is in the exclusive possession of another who fails or refuses to furnish this information, ENGINEER shall so certify to COUNTY, or the Federal Highway Administration as appropriate and shall set forth what efforts he has made to obtain the information.

3. In the event of ENGINEER's noncompliance with the nondiscrimination provisions of this contract, COUNTY shall impose such contract sanctions as it determines to be appropriate, including, but not limited to:
    - Withholding of payments to ENGINEER under the contract until ENGINEER complies;
    - Cancellation, termination, or suspension of the contract in whole or in part.
4. ENGINEER shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this contract.
5. ENGINEER shall comply with Title VI of the Civil Rights Act of 1964, as amended. Accordingly, 49 CFR 21 through Appendix H and 23 CFR 710.405(b) are applicable to this contract by reference.

R. Labor Code and Prevailing Wages

1. Certain Classifications of Labor under this contract may be subject to prevailing wage requirements.
2. Reference is made to Chapter 1, Part 7, Division 2, of the California Labor Code (commencing with Section 1720). By this reference said Chapter 1 is incorporated herein with like effect as if it were here set forth in full. The parties recognize that said Chapter 1 deals, among other things with discrimination, penalties and forfeitures, their disposition and enforcement, wages, working hours, and securing worker's compensation insurance and directly effect the method of prosecution of the work by ENGINEER and subject it under certain conditions to penalties and forfeitures. Execution of the contract by the parties constitutes their agreement to abide by said Chapter 1, their stipulation as to all matters which they are required to stipulate as to by the provisions of said Chapter 1, constitutes ENGINEER's certification that he is aware of the provisions of said Chapter 1 and will comply with them and further constitutes ENGINEER's certification as follows: "I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract."

3. Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates, including the per diem wages applicable to the work, and for holiday and overtime work, including employer payments for health and welfare, pension, vacation, and similar purposes, in the county in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are available from the California Department of Industrial Relations' Internet website at http://www.dir.ca.gov.
4. Should a portion of the project contain Federal funding, Federal minimum wages shall be used. The Federal minimum wage rates for this project as determined by the United States Secretary of Labor are available from the U.S Department of Labor, Employment Standards Administration, Wage and Hour Division's Internet website at http://www.access.gpo.gov/davisbacon. If there is a difference between the minimum wage rates determined by the Secretary of Labor and the general prevailing wage rates determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the ENGINEER and subcontractors shall pay not less than the higher wage rate. The Department will not accept lower State wage rates determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the ENGINEER and subcontractors, the ENGINEER and subcontractors shall pay not less than the Federal minimum wage rate which most closely approximates the duties of the employees in question.

S. Review and Inspection

ENGINEER and any Subcontractors shall permit COUNTY and/or AGENCIES to review and inspect PROJECT activities including review and inspection on a daily basis.

T. Record Retention / Audits

1. ENGINEER's and subconsultants' contracts, including cost proposals and indirect cost rates (ICR), are subject to audits or reviews such as, but not limited to, a Contract Audit, an Incurred Cost Audit, an ICR Audit, or a certified public accountant (CPA) ICR Audit Workpaper Review. If selected for audit or review, the contract, cost proposal and ICR and related workpapers, if applicable, will be reviewed to verify compliance with 48 CFR, Part 31 and other related laws and regulations. In the instances of a CPA ICR Audit Workpaper Review, it is ENGINEER's responsibility to ensure federal, state, or local government officials are allowed full access to the CPA's workpapers. The contract, cost proposal, and ICR shall be

adjusted by ENGINEER and approved by COUNTY contract manager to conform to the audit or review recommendations. ENGINEER agrees that individual terms of costs identified in the audit report shall be incorporated into the contract by this reference if directed by COUNTY at its sole discretion. Refusal by ENGINEER to incorporate audit or review recommendations, or to ensure that the Federal, State, or local governments have access to CPA workpapers, will be considered a breach of contract terms and cause for termination of the contract and disallowance of prior reimbursed costs.

2. ENGINEER, Subcontractors, and COUNTY shall maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of the contract, but not limited to, the costs of administering the contract. All parties shall make such materials available at their respective offices at all reasonable times during the contract period and for ten years from the date of final payment under the contract or ten years from project closeout, whichever is later.
3. COUNTY, Caltrans, the State Auditor General, FHWA or any duly authorized representative of the Federal Government shall have access to any books, records, and documents of ENGINEER that are pertinent to the contract for audits, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested.

U. Rebates, Kickbacks, or Other Unlawful Consideration

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

V. Prohibition of Expending Local Agency, State, or Federal Funds for Lobbying

1. ENGINEER certifies to the best of his or her knowledge and belief that:
   a. No state, federal or local agency appropriated funds have been paid, or will be paid by-or-on behalf of ENGINEER to any person for influencing or attempting to influence an officer or employee of any state or federal agency; a Member of the State Legislature or United States Congress; an officer or employee of the Legislature or Congress; or any employee of a Member of the Legislature or Congress, in connection with the awarding of any state or federal contract; the making of any state or federal grant; the making of any state or federal loan; the entering into of any cooperative agreement,

and the extension, continuation, renewal, amendment, or modification of any state or federal contract, grant, loan, or cooperative agreement.

b. If any funds other than federal appropriated funds have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency; a Member of Congress; an officer or employee of Congress, or an employee of a Member of Congress; in connection with this federal contract, grant, loan, or cooperative agreement; ENGINEER shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, US. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. ENGINEER also agrees by signing this document that he or she shall require that the language of this certification be included in all lower-tier subcontracts, which exceed $100,000, and that all such sub recipients shall certify and disclose accordingly.

W. Ownership of Data

Ownership and title to all reports, documents, plans, specifications, and estimates produced as part of this contract will automatically be vested in COUNTY and no further agreement will be necessary to transfer ownership to COUNTY.

X. Confidentiality of Data

1. All financial, statistical, personal, technical or other data and information which is designated confidential by COUNTY or AGENCIES, and made available to ENGINEER in order to carry out this contract, shall be protected by ENGINEER from unauthorized use and disclosure.

2. Permission to disclose information on one occasion for a public hearing held by COUNTY or AGENCIES relating to the contract shall not authorize ENGINEER to further disclose such information or disseminate the same on any other occasion.

3. ENGINEER shall not comment publicly to the press or any other media regarding the contract, including COUNTY or Agencies actions regarding this contract. Communication shall be limited to COUNTY,

Agency or ENGINEER's staff that are involved with the project, unless ENGINEER shall be requested by COUTY to attend a public hearing or respond to questions from a Legislative committee.

4. Each subcontract shall contain provisions similar to the foregoing related to the confidentiality of data and nondisclosure of the same.
5. ENGINEER shall not issue any news release or public relations item of any nature whatsoever regarding work performed or to be performed under this contract without prior review of the contents thereof by COUNTY and receipt of COUNTY's written permission.

Y. Funding Requirements

1. All obligations of COUNTY are subject to appropriation of resources by various Federal, State and local agencies.
2. This contract is valid and enforceable only if sufficient funds are made available to COUNTY for the purpose of this PROJECT. In addition, this contract is subject to any additional restrictions, limitations, conditions or any statute enacted by Congress, State Legislature or COUNTY that may affect the provisions, terms or funding of this contract in any manner.
3. It is mutually agreed that if sufficient funds for the program are not appropriated, this contract will be amended or terminated to reflect any reduction in funds.

ARTICLE V • PERFORMANCE

A. Performance Period

1. This contract shall begin upon notification to proceed by the COUNTY PROJECT MANAGER.
2. ENGINEER is advised that any recommendation for contract award is not binding on COUNTY until the proposed contract is fully executed and approved by COUNTY.
3. ENGINEER shall perform PROJECT services in accordance with the provisions set forth in Appendix B, Schedule of Services, which is attached hereto and incorporated herein by reference.
4. Where ENGINEER is required to prepare and submit studies, reports, plans, etc., to COUNTY, these shall be submitted in draft as scheduled, and the opportunity provided for COUNTY to offer comments prior to final submission.
5. When COUNTY determines that ENGINEER has satisfactorily completed the PROJECT services, COUNTY may give ENGINEER a written Notice of Final Acceptance. ENGINEER shall not incur any further costs hereunder unless so specified in the Notice of Final Acceptance. ENGINEER may request a

Notice of Final Acceptance determination when, in its opinion, it has satisfactorily completed all covenants as stipulated in this contract.

6. Time is of the essence in this contract.

B. Time Extensions

1. Any delay in providing PROJECT services required by this contract occasioned by causes beyond the control and not due to the fault or negligence of ENGINEER, shall be the reason for granting an extension of time for the completion of the aforesaid work. When such delay occurs, ENGINEER shall promptly notify COUNTY in writing of the cause and of the extent of the delay whereupon COUNTY shall ascertain the facts and the extent of the delay and grant an extension of time for the completion of the work when, in COUNTY's judgment, their findings of fact justify such an extension of time.
2. COUNTY's findings of fact shall be final and conclusive to the parties hereto. However, this is not intended to deny ENGINEER it's civil legal remedies in the event of a dispute.

C. Reporting Progress

1. As part of the monthly invoice ENGINEER shall submit a progress report in accordance with COUNTY Engineering Services Progress Reporting Guidelines. Progress Reports shall indicate the progress achieved during the previous month in relation to the Schedule of Services. Submission of such progress report by ENGINEER shall be a condition precedent to receipt of payment from COUNTY for each monthly invoice submitted.
2. To ensure understanding and performance of the contract objectives, meetings between COUNTY, AGENCIES, and ENGINEER shall be held as often as deemed necessary. All work objectives, ENGINEER's work schedule, the terms of the contract and any other related issues will be discussed and/or resolved. ENGINEER shall keep minutes of meetings and distribute copies of minutes as appropriate.

D. Evaluation of ENGINEER

ENGINEER's performance will be evaluated by COUNTY for future reference.

ARTICLE VI • COMPENSATION

A. Work Authorization

ENGINEER shall not commence performance of any work or project services until so directed by the County Project Manager. No payment will be made prior to approval of this contract.

B. Basis of Compensation

1. PROJECT services as provided under this contract and as described in the Scope of Services, shall be compensated for as defined in Appendix C, Budget, which is attached hereto and incorporated herein by reference. The total amount of the contract is not to exceed $1,838,016.52 and reimbursement is to be made at actual cost plus fixed fee for the following contractors:

• Michael Baker International, Inc.	$ 902,813.47
• Applied Earthworks, Inc.	$ 30,785.53
• Converse Consultants	$ 71,517.12
• Fehr & Peers	$ 68,640.92
• Overland Pacific & Cutler, Inc.	$ 6,731.12
• Parsons Transportation Group, Inc.	$ 319,688.51
• POWER Engineers	$ 228,011.12
• Value Management Strategies, Inc.	$ 42,736.31
• Contingency (10%)	$167,092.41

If a contingency budget is provided, COUNTY shall hold such contingency in reserve for unforeseen Extra Work that may arise during the performance of this agreement. Contingency budget shall only be used at the discretion of the COUNTY PROJECT MANAGER, and with prior written authorization by the COUNTY PROJECT MANAGER.

No additional compensation for Extra Work will be paid except upon the issuance of an Extra Work Order by COUNTY.

2. Prior authorization in writing by the COUNTY PROJECT MANAGER will be required before ENGINEER enters into any non-budgeted purchase order or subcontract exceeding $500 for supplies, equipment or consultant services. ENGINEER shall provide an evaluation of the necessity or desirability of incurring such costs.

3. For purchase of any item, service or consulting work not covered in ENGINEER's proposal and exceeding $500, with prior authorization by the COUNTY PROJECT MANAGER, three competitive quotations shall be submitted with the request, or the absence of bidding shall be adequately justified.

4. Any equipment purchased as a result of this contract is subjected to the following: ENGINEER shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a

useful life of at least two years and an acquisition cost of $500 or more. If the purchased equipment needs replacement and is sold or traded in, COUNTY shall receive a proper refund or credit. At the conclusion of the contract or if the contract is terminated, ENGINEER may either keep the equipment and credit COUNTY in an amount equal to its fair market value or sell such equipment at the best price obtainable at a public or private sale in accordance with established COUNTY procedures and credit COUNTY in an amount equal to the sales price. If ENGINEER elects to keep the equipment, fair market value shall be determined, at ENGINEER's expense, on the basis of a competent independent appraisal of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable by COUNTY, and ENGINEER. If it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by COUNTY and AGENCIES.

5. The consideration to be paid ENGINEER, as provided herein, shall be in compensation for all of ENGINEER's expenses incurred in the performance hereof, including travel and per diem, unless otherwise expressly so provided.
6. ENGINEER agrees that the Contract Cost Principles and Procedures, CFR 48, Federal Acquisition Regulations Systems, Chapter 1, Part 31, shall be used to determine the allowability of individual items of cost.
7. ENGINEER also agrees to comply with Federal procedures in accordance the Code of Federal Regulations Section 49, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments
8. In the event of errors or omissions in the plans for PROJECT, ENGINEER shall perform the necessary engineering services required to correct such errors and omissions without additional charge to COUNTY.

C. Progress Payments

1. ENGINEER shall submit monthly invoices for PROJECT Services in accordance with Appendix C, Budget, and in accordance with COUNTY Engineering Services Invoicing Procedures.
2. ENGINEER shall submit an invoice each month for PROJECT services performed during the preceding month. Invoices shall be submitted to the COUNTY PROJECT MANAGER and shall be included with a Progress Report covering the same period as the submitted invoice.
3. Progress payments will be based on PROJECT services provided and actual costs incurred. Payments made prior to the completion of each phase will not exceed the amount allowed in ENGINEER's cost

proposal for the completion of that phase and prior phases, unless approved in writing by the COUNTY PROJECT MANAGER.

4. Progress payments will be made as promptly as fiscal procedures will permit upon receipt by the COUNTY PROJECT MANAGER of itemized invoices.
5. COUNTY will withhold the last 10 percent of the budget for preparation of PS&E documents. The 10 percent retainage is to be held after 90% of the PS&E phase has been billed and is not to be deducted from each invoice. The amount retained will be paid to ENGINEER after COUNTY has approved ENGINEER's plans, specifications and estimate.

ARTICLE VII • GIS INFORMATION

A. "GIS Information" shall include GIS digital files (including the information or data contained therein) and any other information, data, or documentation from County GIS (regardless of medium or format) that is provided pursuant to this contract.

B. ENGINEER acknowledges that the unauthorized use, transfer, assignment, sublicensing, or disclosure of the GIS information, documentation, or copies thereof will substantially diminish their value to COUNTY. ENGINEER acknowledges and agrees that COUNTY GIS information is a valuable proprietary product, embodying substantial creative efforts, trade secrets, and confidential information and ideas. COUNTY GIS information is and shall remain the sole property of COUNTY; and there is no intention of COUNTY to transfer ownership of COUNTY GIS information.

C. COUNTY GIS information is made available to ENGINEER solely for use in the normal course of ENGINEER's business to produce reports, analysis, maps and other deliverables only for this PROJECT and as described within the Scope of Services.

D. ENGINEER agrees to indemnify and hold harmless COUNTY, its officers, employees and agents from any and all liabilities, claims, actions, losses or damages relating to or arising from ENGINEER's use of COUNTY GIS information.

E. GIS information cannot be used for all purposes; and GIS information may not be complete for all purposes. Additional investigation or research by ENGINEER into other sources will be required. GIS information is intended only as an information base and is not intended to replace any legal records. COUNTY has used and will continue to use its best efforts to correctly input into COUNTY GIS the information contained in various legal and other records; but COUNTY accepts no responsibility for any conflict with actual legal

records or for information not transferred from legal records to COUNTY GIS. COUNTY has attempted to update GIS information as often as is practically feasible. However, ENGINEER should be aware that GIS information may not be current and changes or additions to the information contained in COUNTY GIS may not yet be reflected in COUNTY GIS.

F. COUNTY accepts no responsibility for the use of GIS information; and COUNTY provides no warranty for the use of COUNTY GIS or COUNTY GIS information by ENGINEER. THE WARRANTIES SPECIFICALLY SET FORTH IN THIS AGREEMENT ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE; AND SUCH OTHER WARRANTIES ARE HEREBY EXCLUDED.

G. Final plans, drawings or PROJECT work products will be provided in an electronic format suitable for inclusion within the COUNTY GIS or CADD Systems by ENGINEER and will contain the appropriate meta data and will be geographically registered using a appropriate coordinate system such as the California State Plane Coordinate System NAD 83.

ARTICLE VIII • APPROVALS

COUNTY Approvals

RECOMMENDED FOR APPROVAL:

Dated: 1/10/18

Patricia Romo

Director of Transportation

APPROVED AS TO FORM:

Dated: 1/23/18

~~Marsha L. Victor,~~

~~Chief~~ Deputy County Counsel

APPROVAL BY THE BOARD OF SUPERVISORS:

Dated: JAN 30 2018

Chuck Washington

PRINTED NAME

Chairman, Riverside County Board of Supervisors

ATTEST:

Dated: JAN 30 2018

KECIA HARPER-IHEM

Clerk of the Board (SEAL)

ENGINEER Approvals

ENGINEER:

Dated: 10/16/2017

Darin Johnson

PRINTED NAME

Vice President

TITLE

ENGINEER:

Dated: 10/16/2017

Gary Warkentin

PRINTED NAME

Vice President

TITLE

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APPENDIX A • ARTICLE AI • INTRODUCTION

A. PROJECT DESCRIPTION

This PROJECT will reconstruct the existing interchange at Monroe Street and Interstate 10. The proposed improvements will increase the capacity of the general area in order to reduce local street congestion and accommodate projected growth in the area. Michael Baker International (ENGINEER) shall perform professional and technical services to provide support to the COUNTY required to prepare the Environmental Document, the Project Report, and, if the COUNTY chooses to do so at a later date, the Plans, Specifications and Estimates (PS&E) necessary to complete construction.

B. LOCATION

This PROJECT is located on Interstate 10 at Monroe Street between Jefferson Street and Jackson Street in the City of Indio.

C. COORDINATION

ENGINEER shall coordinate with other involved agencies for compatible design and phasing of construction with existing conditions. Coordination may include, but will not necessarily be limited to the following:

- Caltrans
- Federal Highway Administration
- U.S. Fish & Wildlife Service
- Army Corps of Engineers
- Coachella Valley Water District
- County of Riverside
- California Dept. of Fish and Wildlife
- Regional Water Quality Control Board
- Utility Companies
- Coachella Valley Conservation Commission
- City of Indio

CALTRANS will exercise review and approval function through the COUNTY PROJECT MANAGER at key points in the development process. All contacts with CALTRANS will be directed through COUNTY. Milestone PROJECT design reviews will be performed for the specific products and deliverables listed herein. The COUNTY PROJECT MANAGER will conduct these reviews, in addition to the monthly project status reports and meetings. All meetings with other outside agencies will be scheduled by ENGINEER with approval of COUNTY.

D. PHASES

The services performed by ENGINEER will be accomplished in Four Phases:

Phase I • Preliminary Engineering & Environmental

Phase II • Plans, Specifications and Estimates

Phase III • Bid Support

Phase IV • Construction Support

Phase I will proceed upon written notice to proceed. Phase II will not proceed until authorized in writing by COUNTY. Phase III & IV will be provided as directed by COUNTY.

E. STANDARDS

The project report, environmental document, plans specifications and estimates shall be prepared in accordance with CALTRANS regulations, policies, procedures, manuals and standards including compliance with Federal Highway Administration (FHWA) requirements. Improvements of local roads may be prepared in accordance with COUNTY standards in lieu of CALTRANS standards as directed by COUNTY. All documents shall be prepared using English standards and dimensions.

1. Environmental

The procedures to be followed and the content of the environmental surveys, environmental technical reports, and environmental documents are set forth in CALTRANS "Project Development Procedures Manual", CALTRANS "Environmental Handbooks", CALTRANS Transportation Laboratory technical manuals for environmental studies, CALTRANS Standard Environmental Reference (SER), and FHWA's "Technical Advisory T6640.8A". Federal and state requirements for environmental analysis and impact assessment, as set forth in the National Environmental Policy Act, the California Environmental Quality Act and other applicable federal and state regulations, must be satisfied.

2. Survey

All surveys (including aerial topography and corresponding CALTRANS submittals) shall be performed by COUNTY in accordance with the current Department of Transportation (CALTRANS) "Survey Manual" and its revisions. Work not covered by the manual shall be performed in accordance with accepted professional surveying standards as approved by CALTRANS.

3. Design

Roadway design shall be in accordance with the current CALTRANS Highway Design Manual and its revisions. Basic design shall be in accordance with the approved Project Report and final environmental document with supplements and updates.

4. PS&E

Plans and specifications shall be prepared in conformance with the current editions of the CALTRANS Guide for Submittal of Plans, Specifications and Estimates, Standard Plans, Standard Specifications and Standard Special Provisions.

5. Geotechnical Design Report

The Geotechnical Design Report shall be prepared in conformance with current editions of the State Manual of Test, California Test 130.

6. Project Files

Project Files shall be indexed in accordance with CALTRANS' Project Development Uniform File System.

Items 1 through 6 are not all-inclusive but are intended only to illustrate types of sources.

F. KEY PERSONNEL

The ENGINEER has represented to the COUNTY that certain key personnel will perform the services and if one or more of such personnel should become unavailable, ENGINEER may substitute other personnel of at least equal competence only after prior written approval by the COUNTY PROJECT MANAGER has been secured. The key personnel for performance of this PROJECT are:

Project Manager	Rebecca Young
Environmental Lead	Court Morgan
Engineering Lead	Paul Mittica
Traffic Lead	Jason Pack

ARTICLE AII • PROJECT ADMINISTRATION

TASK 1.0 PROJECT MANAGEMENT

1.1 PROJECT ADMINISTRATION AND CONTROL

ENGINEER will be responsible for overall project management, liaison with the COUNTY and other affected agencies, and progress monitoring and maintenance of PROJECT files. ENGINEER will supervise, coordinate, monitor and review PROJECT for conformance with COUNTY and CALTRANS standards, policies and procedures.

The ENGINEERING PROJECT MANAGER will maintain ongoing liaison with the COUNTY PROJECT MANAGER, AGENCIES contacts and utility companies to promote effective coordination during the course of project development.

Progress meetings with ENGINEER's staff, subconsutlants and the COUNTY PROJECT MANAGER will be held regularly.

ENGINEER will develop an Action Item Log. The log will be maintained on a weekly basis and distributed electronically or at meetings as necessary.

ENGINEER will maintain project documents in accordance with the CALTRANS Project Development Uniform Filing System (UFS). At completion of PA/ED, a CD/DVD will be provided to CALTRANS and COUNTY containing all project files organized with the UFS.

Deliverables:

- Action Item Log
- CD/DVD containing all project files in UFS format

1.2 PROJECT MEETINGS

Project Development Team (PDT) meetings with the COUNTY PROJECT MANAGER, the California Department of Transportation (CALTRANS) Project Manager and other representatives from affected agencies will be held at least once a month. ENGINEER will prepare and electronically distribute agendas at least two (2) working days prior to each meeting. COUNTY will lead these meetings with support from ENGINEER. ENGINEER will prepare draft meeting minutes one (1) day following the PDT meeting, and final meeting minutes will be electronically distribute to the appropriate parties within five (5) working days after the meetings. ENGINEER will provide hardcopies of meeting agendas, the prior meeting's minutes, deliverables log, action items log, and Sixty (60)-day look ahead schedule at each PDT meeting. A total of 24 PDT meetings will be attended by three (3) ENGINEER's team staff, including the Environmental team leader and/or subconsultants as appropriate.

Individual focused meetings will be held with various agencies and stakeholders involved in the project. These may include State and/or Federal Resource agencies, FHWA, Flood Control and Water Conservation Districts, utility companies, City of Indio and others identified in C. COORDINATION. ENGINEER will prepare and electronically distribute agendas at least two working days prior to each stakeholder and other coordination meeting. ENGINEER will schedule these meetings as required and prepare meeting minutes and electronically distribute them within five (5) working days after each meeting in which it attends. A total of ten (10) individual focused meetings are anticipated to be attended by up to two (2) ENGINEER's team staff.

Deliverables:

- Twenty-four (24) Monthly PDT Meetings and Meeting Agendas/Minutes,
- Deliverables Log
- Ten (10) Stakeholder/Focused Coordination Meetings and Meeting Agendas/Minutes

1.3 BUDGETING

The ENGINEER will prepare budgets for each task and milestone for the PROJECT. Such budgets will be entered in to the ENGINEER's Management Information System along with actual costs incurred, and used as a basis for cost monitoring and control.

1.4 COST ACCOUNTING AND PROJECT REPORTING

The ENGINEER will 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 COUNTY every month. Progress reports shall be prepared in accordance with COUNTY guidelines. Reports will be required monthly and shall be accompanied by an invoice.

Deliverables:

- Twenty-four (24) Progress Reports prepared in COUNTY Guidelines including monthly PROJECT expenditures and invoices.

1.5 SCHEDULING

Within one (1) month from the Notice to Proceed (NTP), the ENGINEER will provide a detailed project schedule, which indicates milestones, major activities and deliverables, to the COUNTY for review and comments. This schedule will reflect assumed review times necessary by all of the agencies involved. Review of the schedule will occur at subsequent PDT meetings to obtain concurrence of the baseline project schedule. Adjustments will be made, if necessary, due to changing circumstances.

ENGINEER will continue to monitor and track all tasks and update the project schedule accordingly. ENGINEER will prepare a 60-day outlook summary schedule for the monthly PDT meetings.

Deliverables:

- Baseline Project Schedule
- Twenty-four (24) Monthly Sixty (60)-day Look Ahead Schedules for Monthly PDT Meetings

1.6 RISK MANAGEMENT

ENGINEER will update the Risk Register prepared for the PSR-PDS in accordance with Caltrans Project Risk Management Handbook: A Scalable Approach. The project is identified as a Level 2 scalability level and requires a Risk Register with qualitative analysis. A risk assessment for the process and potential impacts to the overall project needs to be completed to identify the risk, define the probability, classify and quantify the risks, identify who or what the risk will impact, and identify the ownership of the risk. ENGINEER will refer to the Project Risk Management Handbook and use the Risk Register template in completing the risk register. ENGINEER shall coordinate with the COUNTY and project team members to jointly develop a Risk Register that enables them to identify, assess, quantify, prepare a response to, monitor, and control capital project risks with the Risk Register. A Risk Management Workshop will be held at the COUNTY or at CALTRANS. The purpose of the Risk Management Workshop is for the Risk Management Team (comprised of members of the PDT) to evaluate and discuss the risks identified, identify additional risks, provide consensus on the scores for each risk and confirm ownership of each risk. As identified in the Project Risk Management Handbook, "managing risks in a workshop environment will ensure that all members of the team understand the risks and their potential impact on their functional areas." ENGINEER will review the Risk Register on a quarterly, or as needed basis at PDT Meetings. A Risk Management Plan is not required and excluded from this Scope of Work

Deliverables:

- Risk Management Workshop
- Risk Register
- Review and Update Risk Register on a quarterly, or as needed basis

1.7 QUALITY CONTROL PLAN

A Quality Control Plan (QCP) will be established for this PROJECT in accordance with the provisions of Article IV, Section G of the Agreement. It will be provided to the COUNTY within two (2) weeks after NTP or review and approval.

ENGINEER will maintain and implement the QCP which will identify the quality control and quality assurance procedures to be implemented by the team during the preparation of all deliverables and other pertinent documents relating to the PA/ED phase of the project. ENGINEER will have the QMP in effect during the entire time services are being performed in performance of the contract. The QMP will identify the processes and procedures to be followed whereby calculations are independently checked, documents

and reports are checked, corrected and back-checked, and all job related correspondence and memoranda routed and received by affected persons and then bound in appropriate job files. All calculations, documents and other items submitted to project stakeholders for review, will be marked clearly as being fully checked and that the preparation of the material followed the processes and procedures established for the work as identified in the QCP.

Deliverables:

- Quality Management Plan
- Implementation of Quality Management Plan

ARTICLE AIII • PLANNING AND PROJECT DEVELOPMENT

TASK 2.0 PERFORM PRELIMINARY ENGINEERING

2.1 RESEARCH AND DATA GATHERING

ENGINEER will obtain and review existing topographic mapping, photos, bridge reports, maintenance reports, right-of-way maps, "as-build" plans, record maps and surveys, study reports, assessor maps, contract documents, accident data, and any other pertinent data will be obtained and reviewed.

ENGINEER shall perform field reconnaissance when necessary. Field reviews will be limited to publicly accessible proposed arterial intersection, freeway/highway interchange improvement locations and private property in accordance to executed right of entries.

2.2 PROJECT DEVELOPMENT TEAM (PDT)

A PDT shall include representatives from the COUNTY, RCTC, CALTRANS Division of Structures (DOS), Federal Highway Administration (FHWA), and City of Indio (CITY) and be established within fifteen (15) days after NTP.

A kick off meeting with the PDT will be held as soon as possible after NTP.

Deliverables:

- PDT Distribution List
- Re-occurring monthly PDT meeting calendar appointment
- PDT kick off meeting and meeting minutes

2.3 PERMITS AND RIGHTS OF ENTRY

Following the receipt of the NTP, the ENGINEER will submit an Encroachment Permit application to the

COUNTY to be forwarded to CALTRANS to allow field staff to conduct environmental site visits and geotechnical samplings and surveys within the freeway right-of-way. Concurrently, the ENGINEER will submit an encroachment permit application to the City of Indio to perform environmental site visits and geotechnical samplings and surveys within the CITY's public right-of-way.

It is assumed that a Coachella Valley Water District encroachment permit is not required for PA/ED, and excluded from this scope of work.

Additionally, the ENGINEER will identify additional locations outside the freeway right-of-way where it will be necessary to obtain specific rights-of-entry from affected property owners. The listing of the candidate locations will be furnished to the COUNTY. The COUNTY will be informed if their support is required to obtain rights-of-entry. Right-of-Entries forms will be mailed on COUNTY letterhead. The requested Right of Entries will be for a duration of twelve (12) months. It is assumed that extension requests will not be required. ENGINEER will obtain right of entries for fifteen (15) affected parcels for I-10/Monroe Street to support environmental and engineering studies. The following are the tasks involved:

- Creation of necessary Right of Entry documents and securing approval as to form from Project Development Team.
- Support the COUNTY to contact and negotiate with private property owners and securing execution of required agreements.
- Provision of regular status updates to any relevant parties part of the Project Development Team.
- If necessary, facilitation of any payments from the COUNTY to private property owners via mail.
- Reasonable assistance to project survey team with special owner requests and access concerns.

Deliverables:

- Executed CALTRANS Encroachment Permit
- Executed CITY Encroachment Permit
- Executed Rights-of-Entry for fifteen (15) parcels

2.4 TRAFFIC ANALYSIS

Study Area

The following study locations will be included in the PA/ED analysis:

Intersections

Monroe Interchange:

- Monroe Street / Avenue 42
- Monroe Street / Street A (Originally Showcase Parkway)
- Monroe Street / I-10 Westbound Ramps
- Monroe Street / I-10 Eastbound Ramps
- Monroe Street / Oleander Avenue
- Monroe Street / Avenue 44
- Jackson Street / I-10 Westbound Ramps
- Jackson Street / I-10 Eastbound Ramps
- Jefferson Street / I-10 Westbound Ramps
- Jefferson Street / I-10 Eastbound Ramps

In addition to the study intersections noted above, counts will be collected at the Union 76 gas station driveways, Mobile gas station driveways, the self storage driveway, Dollar General driveway, Universal Brakes driveway, and the driveway at Mercado de Monroe shopping center. Although these driveways will not be reported in the technical report, they will be included in the analysis to ensure that they are accounted for in the operations assessment.

Freeway

Westbound Direction

- I-10 Merge from Golf Center Parkway
- I-10 Mainline between Golf Center Parkway and Jackson Street
- I-10 Diverge to Jackson Street
- I-10 Merge from Jackson Street
- I-10 Mainline between Jackson Street and Monroe Street
- I-10 Diverge to Monroe Street
- I-10 Merge from Monroe Street
- I-10 Mainline between Monroe Street and Jefferson Street
- I-10 Diverge to Jefferson Street

Eastbound Direction

- I-10 Merge from Jefferson Street
- I-10 Mainline between Jefferson Street and Monroe Street

- I-10 Diverge to Monroe Street
- I-10 Merge from Monroe Street
- I-10 Mainline between Monroe Street and Jackson Street
- I-10 Diverge to Jackson Street
- I-10 Merge from Jackson Street
- I-10 Mainline between Jackson Street and Golf Center Parkway
- I-10 Diverge to Golf Center Parkway

Data Collection

ENGINEER will collect AM (6:00 AM – 9:00 AM) and PM (3:00 PM – 6:00 PM) peak period turning movement counts at all study intersections plus the driveways noted above. ENGINEER will obtain new mainline counts on I-10 during both AM and PM peak hours and on a daily basis using PeMS data or other CALTRANS data source. ENGINEER will also collect a vehicle classification count on the freeway overcrossing in the area to obtain vehicle fleet mix information. The vehicle classification for I-10 will be obtained from CALTRANS' truck count database.

Please note that traffic counts are usually collected in the Coachella Valley region during the winter months when population increases and traffic volumes can increase by as much as 20%. ENGINEER proposes to collect the counts in December or January to account for the winter season traffic patterns.

ENGINEER will collect existing traffic signal timings for study intersections from CALTRANS and the CITY.

ENGINEER will conduct site reconnaissance of the project location and surrounding roadway network to verify existing intersection control, lane configurations, traffic signal timings, and other roadway characteristics. ENGINEER will observe peak hour traffic operations and vehicle queue lengths to help calibrate/ validate the traffic operations models.

ENGINEER will prepare a collision summary based on CALTRANS TASAS data for the most recent available three-year period for I-10 in the study area.

<u>Analysis Scenario</u>

This scope assumes that a No Build and two (2) Build Alternatives will be evaluated for each interchange in the PA/ED. The analysis scenario during the PA/ED stage includes:

- Existing Conditions
- Opening Year (2025) Conditions – No Build Alternative

- Opening Year (2025) Conditions – Build Alternative (up to two build alternatives)
- Design Year (2045) Conditions – No Build Alternative
- Design Year (2045) Conditions – Build Alternative (up to two build alternatives)

Traffic Analysis Assumptions and Methodologies

ENGINEER will prepare a Draft Traffic Analysis Assumptions and Methodologies Memorandum and submit to CALTRANS for one round review at the beginning of the PA/ED phase. The memorandum will contain a list of assumptions and recommended methodologies to use for traffic forecasting and operations analysis. ENGINEER will respond to one round of written comments from CALTRANS and prepare the Final Memorandum.

Traffic Forecasting Model Development

ENGINEER will discuss with the project team to apply the appropriate travel demand forecasting (TDF) models to develop Year 2045 AM and PM peak hour traffic forecasts. The land use and roadway improvements assumptions contained in the TDF model will be reviewed prior to developing the traffic forecasts. Forecasts will be prepared for the I-10 mainline and ramps and the study intersections.

Year 2045 peak hour traffic forecasts will be developed for the No Build and two Build Alternatives for both interchanges. Year 2025 forecasts will be estimated through linear interpolation between existing counts and Year 2045 forecasts.

ENGINEER will submit a Draft Traffic Forecasting Report to CALTRANS for two rounds of review and written comments. ENGINEER will respond to one round of written comments and prepare a Final Traffic Forecasting Report. Once approved, ENGINEER will proceed with the technical evaluation of the PROJECT.

This scope of work assumes minimal modifications to the selected travel demand model and anticipate that either the RIVTAM model, SCAG model, or the CVAG TPPS/RACE/TUMF model will be used to develop travel forecasts. If an alternative model is more appropriate than those noted above, it is assumed that those models will be provided to ENGINEER for use in this forecasting effort.

In addition to traffic forecasts, the selected Model will be used to determine the regional implications of the project by examining additional measures of effectiveness (MOEs) such as vehicle miles of travel (VMT) and vehicle hours of traveled (VHT) with and without the Project per PA/ED requirements. The VMT and VHT will be estimated for existing, opening year, and design year conditions. Requirements for SR 743 are

assumed to not be included in this scope of work.

Early Alternative Screening

After the initial forecasts have been developed, ENGINEER will conduct an early screening assessment of alternatives. The goal of this exercise is to work collaboratively with the designers to identify the suite of interchange alternatives that could be considered. This scope assumes the interchange will be evaluated at a macro level; evaluating the ramp terminal intersections in Synchro and identifying potential configurations that would meet the purpose and need for the PROJECT. This screening assumes up to three interchange alternatives to be evaluated in Synchro to determine the likelihood of these alternatives providing acceptable operations. Additionally, ENGINEER will identify the appropriate treatments to best accommodate bicycles and pedestrians under each alternative and will qualitatively evaluate how each treatment serves those modes.

The result of the alternative screening assessment will be a matrix identifying how well each alternative meets criteria developed. It is assumed that one (1) PDT meeting will be dedicated to discussing the screening process that will narrow the ultimate alternatives that should be carried forward into the traffic operations analysis.

Traffic Operations Analysis

ENGINEER will analyze the study intersections under AM and PM peak hour conditions using the VISSIM software, consistent with what was identified in the PSR-PDS. The VISSIM simulation analysis will model the effects of vehicle queues on intersection capacity more accurately than the macroscopic equations provided by the Highway Capacity Manual (HCM). Peak hour factors will be based on the traffic counts. Peak hour delay and level of service will be calculated for each intersection consistent with HCM analysis procedures. The traffic simulation results will be based on a statistically valid set of multiple runs using different random value seeds. The micro-simulation model will also be used to determine intersection queuing and delay where appropriate. The freeway analysis will be conducted using HCM 6th Edition methodologies for mainline, ramp junction, and weaving segment analysis. Traffic operations analysis will be conducted under existing, opening year, and design year conditions for the analysis scenarios identified above.

A qualitative assessment of pedestrian, bicycle, and transit facilities will also be performed as part of the PA/ED phase of the project to determine if either of the proposed build alternatives hinder or eliminate

existing or proposed bikeways, result in unsafe conditions for bicyclists or pedestrians, or cause a substantial delay in service. An assessment of how each build alternative would influence safety within the study area will also be performed. In addition, pedestrian delay impacts from signal timing will be assessed for future year conditions.

Develop Draft and Final TOAR

ENGINEER will prepare the Traffic Operations Analysis Report (TOAR) summarizing the results and findings. ENGINEER will prepare a Draft TOAR to submit to CALTRANS and other PDT members for two rounds of review and comments. ENGINEER will submit the Final TOAR in both hard copy and electronic format.

Step 1 and Step 2 Intersection Control Evaluation (ICE)

ENGINEER will evaluate the project in accordance with CALTRANS Traffic Operations Policy Directive 13-02: Intersection Control Evaluation. ENGINEER will provide the appropriate Step 1 ICE information upon completion of the approved traffic forecasting efforts.

Once the Step 1 ICE assessment has been approved by CALTRANS, ENGINEER will complete a Step 2 ICE assessment for any traffic control that is not screened out as part of the Step 1 ICE assessment. ENGINEER will prepare a Step 2 ICE assessment and submit to CALTRANS for review.

Deliverables:

- Traffic Counts
- Traffic Analysis Assumptions and Methodologies Memorandum
- Traffic Forecasting Report
- Alternative Screening Matrix
- Traffic Operations Report
- Step 2 ICE Assessment

2.5 VALUE ANALYSIS

The Value Engineering (VE) Study is to follow the activities as defined by the Society of American Value Engineers (SAVE) International. The list of VE Study participants will be developed by the ENGINEER and COUNTY. Anticipated participants include representatives from COUNTY, ENGINEER, City of Indio, Project Development Team staff and key outside project stakeholders. The VE study will be attended by two (2) ENGINEER's team staff.

The VE study will be five (5) days. A pre-study meeting will be scheduled no later than the week prior to the start of the study. Once the Draft report has been reviewed the project stakeholders, and implementation meeting will be conducted to resolve the disposition of the VE alternatives presented in the report.

Deliverables:

- Pre-study Meeting
- Value Engineering Study Agenda
- Value Engineering Distribution List
- Five (5) day Value Engineering study
- Implementation Meeting
- Value Engineering Report

2.6 GEOMETRIC ALTERNATIVES ANALYSIS AND PROJECT FOOTPRINT

ENGINEER will prepare preliminary interchange design for two (2) build alternatives, including proposed lane configurations at ramp intersections, exit and entrance ramp designs, and truck turning templates at intersections at the interchanges, as appropriate. The approximate location of, retaining walls, sound walls, sidewalks, curb ramps, and line of cut/fill catch slopes will be developed for the two (2) build alternatives. ENGINEER will prepare geometric exhibit of selected Build Alternatives at 1"=200' scale in 36"x 48" format for presentations and meetings. The exhibits will be updated and refined based on project discussions. ENGINEER will develop the following in support of and inclusion into the environmental technical studies:

- Concept plans for the alternatives to be analyzed in the environmental document at a scale of 1 inch to 200 feet or larger (full-size hard copy and electronic file in Microstation [.dgn file extension]). The plans should clearly show the limits of work, including construction access, staging, cut and fill lines (Microstation), excess dirt disposal areas (including all areas to be disturbed by the project), BMPs, permanent easements, and temporary construction easements (TCEs). Existing and proposed state and city right-of-way lines (Microstation) will be clearly shown on the plans, including partial and full parcel acquisitions (including parcel boundaries in Microstation) (with sq ft being taken from each parcel) with corresponding assessor's parcel numbers (APNs). The plans will show the roadway centerline, centerline station numbers and the locations of any retaining walls (Microstation). The plans will show all affected structures. The data listed above is required for the build alternatives to be evaluated.

- Shape file, GIS Geodatabase, or Microstation/CAD file (.dgn or .dwg) for the maximum footprint of project disturbance. The footprint will distinguish between the direct impacts (areas of physical disturbance such as from grading and excavation and including construction access and staging areas) and the indirect impacts (areas for restriping and advance signage only).
- The footprints of proposed excavation areas including the depth of excavation (roadways, bridges, drainage structures and other structures, walls, BMPs, utilities, etc.).
- List of businesses and residences affected by APN (for both alternatives to be evaluated) preferably with the name of each business.
- Prior to submittal of the first draft technical studies to Caltrans for review: One set of 11 x 17 layout sheets (Caltrans format) showing existing conditions and proposed improvements (for build alternatives to be evaluated) for use in the technical studies.
- Amount of impervious surface area for both the existing condition and the post project condition
- Total disturbed surface area

Deliverables:

- Geometric development for two (2) build alternatives
- 36"x48" alternative exhibit of two (2) build alternatives for presentations and meetings

2.7 STORM WATER DATA REPORT

ENGINEER shall identify potential storm water quality impacts and develop options to avoid, reduce or minimize the potential for storm water quality impacts. ENGINEER shall ensure that the programmed project includes sufficient right-of-way and budget for required storm water controls and identify project-specific permanent and temporary Best Management Practices (BMPs) that may be required to mitigate impacts. Drainage areas and total disturbed area shall be defined, as shall climatic conditions, existing drainage site conditions, site permeability, soil texture, existing vegetation and groundwater.

Evaluation Documentation Form

ENGINEER shall determine hydraulic conditions, disturbed soil areas, local pollution control requirements and total maximum daily loads (TMDLs) within the project vicinity.

Site Data and Storm Water Quality Design Issues

ENGINEER shall define site data and storm water quality design issues in accordance with checklists SW-1, SW-2 and SW-3 from the CALTRANS Project Planning and Design Guide:

- Receiving water bodies/303(d) list/Pollutants of Concern Regional Water Quality Control Board (RWQCB) special requirements/concerns
- Local agency requirements/concerns
- Project design considerations (climate, soil, topography, geology, groundwater, right of way requirements, slope stabilization)
- Right-of-way BMP costs and funding
- Measures for avoiding or reducing potential storm water impacts

Hydromodification/Rapid Stability Assessment (RSA)

ENGINEER will document findings of a Level 1 Rapid Stability Assessment.

Construction Cost Information

ENGINEER shall prepare a summary of construction costs included in the Preliminary Construction Cost Estimate Summary associated with storm water pollution prevention.

After review by the COUNTY and CALTRANS, ENGINEER shall incorporate all comments into a final report.

ENGINEER will update the SWDR based on comments received during circulation of the DPR and in accordance with the Project Planning and Design Guide. The approved SWDR will be included as an attachment to the final Project Report.

Deliverables:

- Storm Water Data Report

2.8 PRELIMINARY RIGHT OF WAY ENGINEERING

ENGINEER will assess right-of-way impacts for two (2) build alternatives and prepare preliminary right of way requirements maps. Right of way requirements may include the need for new right of way, permanent easements, slope easement, and temporary construction easements. It is assumed that existing right of way and centerline alignments will be provided by the COUNTY.

Right of Way Data Sheet will be prepared for two (2) build alternatives in accordance with Caltrans standards and procedures, including Utility Information Sheets. ENGINEER'S Sub-consultant (Overland, Pacific, and Cutler, Inc.) is an approved right of way engineer, will assist in evaluating and determining cost estimates for the Right of Way Data Sheets.

ENGINEER will secure preliminary design plans, as well as a list of impacted parcels and the square

footages associated with each right of way impact. ENGINEER will use this information to evaluate and analyze right of way impacts, direct and indirect. Additionally, ENGINEER will review findings with the Project Development Team for consensus understanding of impacted properties prior to any cost estimate preparation. Because of the early phase for which these estimates will be provided, a conservative approach to potential impacts will be taken and ENGINEER will work with the design staff to identify potential costly right of way impacts to avoid through alternative design methods.

Property values for these parcels will be estimated using traditionally accepted property valuation techniques for full and partial acquisitions, as well as permanent and temporary easement interests. Once a general understanding of market values is arrived at and applied to the subject properties, the cost study will estimate the probable values of land and any impacted improvements, as well as associated damages and cost-to-cure remediation costs, if applicable. ENGINEER will then work closely with the Project Development Team, securing any pertinent information (i.e. utility information sheets) to complete the latest Caltrans Right of Way Data Sheet according to the Caltrans Right of Way Manual and all applicable findings. The Scope of Work necessary to complete the preliminary right of way cost estimate and corresponding Caltrans Right of Way Data Sheet for each of the design alternatives, as required by the CALTRANS Right of Way Manual, is as follows:

1. Take an inventory of the affected properties. Approximately fifteen (15) parcels are anticipated to be impacted, consisting of commercial retail, gas station/automotive repairs, the Coachella Valley Stormwater Channel, and vacant lands.
2. Secure preliminary parcel information from online database sources and investigate current ownerships. Utilizing this information and Assessor's Roll information, determine other valuation considerations such as zoning, lot and building size, current usage, and other relevant factors.
3. Visually inspect each property (aerial and street-level views based upon Google Earth and other available internet resources) and note the effects of all proposed acquisitions.
4. Sort each property into product types to determine the set of real estate data to be researched and create valuation data sets for each product type.
5. Review proposed project design right of way impacts with Project Design Team for consensus prior to cost estimate preparation.

6. Prepare an estimate of the probable cost of each partial acquisition, as well as permanent and temporary easement interests, including (for partial acquisitions) damages to the remaining parcel, using created data sets from various real estate value databases.
7. Prepare an estimate of the probable relocation assistance (if applicable) for each residential or non-residential occupant located on each property.
8. Prepare an estimate of the total probable loss of business goodwill (if applicable) attributable to each operating business.
9. Prepare an estimate of the inspection and demolition costs (if applicable) associated with delivering each cleared site.
10. Prepare an estimate of the total services and incidental costs associated with each real estate acquisition program (appraisals, acquisition and relocation ENGINEERs, title/escrow, legal services, etc.).
11. Prepare the latest Caltrans Right of Way Data Sheet according to the Caltrans Right of Way Manual.

Upon completion of CALTRANS review of the Project Report, ENGINEER shall revise Right of Way Cost Estimate/Caltrans Data Sheets if necessary for up to two (2) reviews. It is generally assumed that reviews will not result in additional properties, types of acquisition, and will occur within six (6) months of initial submittal.

Prior to proceeding with any revisions, ENGINEER shall develop a mutually agreed management strategy with the COUNTY that shall include an estimated schedule, scope, and budget for revision. It is assumed that up to eight (8) hours for the Right of Way Engineering Analyst position is required to provide as-needed updates.

Deliverables:

- Preliminary Right of Way Requirement Maps for two (2) build alternatives
- Right-of-way Data Sheets for two (2) build alternatives

2.9 PRELIMINARY DRAINAGE

Conceptual Drainage Report

ENGINEER will identify drainage impacts including the relocation or realignment of adjacent channels, storm drains, retention/detention/retarding basins, and determine the drainage improvements for on-site and off-site drainage facilities. This will be identified in coordination with Water Quality Best Management

Practices and is required for each build alternative. ENGINEER will conduct field reconnaissance of the project to study the existing drainage facilities. Impacts on and replacement of these facilities will be analyzed and included in the cost estimate. CALTRANS drainage will be reviewed to assess the adequacy of the existing systems. CALTRANS and COUNTY drainage systems will be reviewed and the impacts of the proposed alternatives on these facilities will be studied. Necessary replacements and/or improvements including incorporation of Water Quality Best Management practices will be reflected in the cost estimates. ENGINEER will coordinate with other agencies regarding their plans for drainage improvements affecting the ENGINEER.

On-site hydrology will be performed to identify the approximate quantity and location of the drainage inlets. Because final slopes and cross falls are not developed until the PS&E phase, the existing slope and cross-fall will be used to estimate the likely location of the inlets. The time of concentration will be a minimum of 5-minutes per the June 26, 2006 update to the Highway Design Manual (changing the minimum Tc from 10 minutes to 5 minutes). NOAA Atlas 14 will be used to determine the design intensities.

Coachella Valley Stormwater Channel Scour and Hydraulics Analysis

ENGINEER will perform scour and hydraulics analysis on the Coachella Valley Stormwater Channel. Results of the analysis will be summarized in the Preliminary Hydraulics Report.

Discharge values for the Coachella Valley Stormwater Channel will be obtained from Coachella Valley Water District (CVWD) and will not be updated for this project. Hydraulics for the Coachella Valley Stormwater Channel will be based on an existing HEC-RAS model to be provided by CVWD. Cross sections to reflect the proposed project will be added or edited. The Jackson Street bridge will be assumed to be unchanged for this model to accurately reflect the potential impacts to the channel resulting from the Monroe Street project alone.

Geotechnical investigation is not anticipated to be accomplished during PA/ED. The Monroe Street Bridge over the channel will be evaluated for scour on a preliminary basis using adopted grain size parameters from the CVWD report for the Whitewater River Stormwater Channel Bank Protection Project (Bechtel, 1995). Likewise, infiltration testing will be deferred to PS&E for any permanent treatment BMP sites.

Off-site hydrology for cross culverts and drainage features is not anticipated to be required by CALTRANS for PA/ED. The off-site culverts will be evaluated for condition in accordance with CALTRANS guidelines, and information regarding historic flooding will be researched with the CITY and CALTRANS to accurately

program the probable construction costs and considerations.

The PA/ED drainage plans will be prepared in plan view only, drainage profiles, drainage details, and drainage quantities will not be prepared. The drainage plans will display the existing and proposed drainage schematically with information to identify the existing pipe sizes and probable proposed pipe diameters and inlet locations. Details of any special structure required in the conceptual drainage design will be provided.

Deliverables:

- Conceptual Drainage Report
- Preliminary Hydraulics Report

2.10 UTILITY COORDINATION

ENGINEER will establish communications with all utility companies and agencies known to have wet and dry utilities in the vicinity. ENGINEER will obtain from the utility owners, the available as-built plans and atlases for these existing facilities and proposed plans for any future changes to overhead and underground lines in the area. The data including available horizontal and vertical dimensions will be used to prepare 22" x 34" (1"=100') base mapping of the existing and proposed wet and dry utilities within the project area. ENGINEER will finalize the list of existing utilities and expected involvements with respect to the build alternatives. ENGINEER will investigate the likely implications to the utility facilities as a result of the proposed interchange improvements including possible utility relocation alternatives and their associated timing and costs. ENGINEER will coordinate with the utility owners to confirm the impact to the utility facility as a result of the proposed improvements. ENGINEER will determine the existing high and low risk underground facilities per CALTRANS policy. ENGINEER will prepare the utility information sheet to be included in the right of way data sheet. This will include the name of all utility companies involved, the types of facilities and agreements required, determination of any existing or proposed longitudinal encroachment, additional information regarding utility involvements, cost responsibility of project, and information on the utility involvements. ENGINEER will update the project utility base mapping with any updated available information. Utility cost estimate will be prepared for utility information sheet.

Potholing is not provided as part of the PA/ED scope.

Deliverables:

- Preliminary Utility Cost Estimate
- Utility Information Sheets

- Utility Matrix

2.11 PRELIMINARY GEOTECHNICAL INVESTIGATIONS AND EVALUATION

Preliminary Materials Report

ENGINEER will calculate the Traffic Index for Monroe Street, and the entrance and exit ramps with I-10. The Traffic Index calculations will be based upon the approved forecasts and the CALTRANS HDM. The approved Traffic Index numbers will be documented in the Preliminary Materials Report.

A Preliminary Materials Report (PMR) will be prepared in accordance with CALTRANS Test Methods to provide preliminary design and construction recommendations for embankments and pavement structural sections. The report will be prepared based on review of available existing report(s). No field investigation is planned.

Preliminary Geotechnical Report

The Preliminary Geotechnical Report (PGR) will be used for the Project Report and Environmental Documents. The scope of work will include the following tasks.

Task I: Existing Document Review

Review available geologic and geotechnical literature pertaining to the project site. Review published soil and geologic data in existing files and as available from appropriate public agencies. This will include a review of literature prepared by the California Geological Survey, the U.S. Geological Survey, County of Riverside, Caltrans, City of Indio, and other government agencies. An aerial photograph analysis will be performed to evaluate the site geomorphology, history of development, and presence of potential geologic hazards (i.e., fault lineaments, slope instability). Review As-Built data (As-Built LOTB, existing types of shallow or deep foundation, As-Built geotechnical, ultimate compressive, tensile, and lateral capacities of existing foundations, recommendations for the ultimate lateral passive resistance of soil locate behind abutments, construction records such as pile driving logs, pile load test reports, settlement monitoring data, groundwater monitoring notes, etc.)

Task II: Site Reconnaissance

ENGINEER will conduct a site reconnaissance to:

- Document the existing site condition, such as access to future field investigation location.
- Map the various surface elements within the project areas.

Task III: Seismic Hazard Assessment

The geologic/seismic hazard evaluation will be conducted for this project. This will include evaluations of the potential for surface fault rupture, seismic-induced ground deformation or settlement related to liquefaction, seismic compaction, lurching or lateral spreading.

Task IV: Report

The PGR will be prepared to document anticipated geotechnical conditions based on site reconnaissance and available as-built plans.

Structures Preliminary Geotechnical Report

ENGINEER will update the Structures Preliminary Geotechnical Report (SPGR) as was drafted during the PSR-PDS phase. The report will be updated with current project information.

Deliverables:

- TI Calculations
- Preliminary Materials Report
- Preliminary Geotechnical Report
- Structures Preliminary Geotechnical Report

2.12 STRUCTURES ADVANCE PLANNING STUDIES

Based upon the review of existing information and proposed project improvements ENGINEER will prepare two Advance Planning Studies (APS); one for the Monroe Street Bridge over the Coachella Valley Stormwater Channel and one for the Monroe Street Bridge over I-10. The APS deliverables will present the most feasible structure type and cost considering the existing bridge constraints and project requirements. Up to two build alternatives will be evaluated for each bridge. Bridge replacement alternatives will not be included in the APS, however, a preliminary evaluation of a potential replacement option will occur. The APS will investigate and determine the preliminary structure length, width and type, structure depth, railing types, including temporary rails, types of footing supports, falsework, vertical and horizontal clearances, location and slopes of cuts and fills, slope paving, approach slabs, and stage construction requirements. ENGINEER will coordinate with the roadway engineer on roadway issues and the geotechnical engineer for bridge foundations. The APS will consist of a general plan showing the basic bridge plan, elevation, profile, typical section and estimated cost summary in accordance with guidelines set forth in Caltrans Memo to Designers 1-8 and Caltrans Office of Special Funded Projects (OSFP) Information and Procedures Guide 3-2. The APS will include a Design Memo summarizing all the critical assumptions of the design.

Deliverables:

- Advance Planning Studies for the Monroe Street Bridge over the Coachella Valley Stormwater Channel
- Advance Planning Studies for the Monroe Street Bridge over I-10

2.13 LIFE CYCLE COST ANALYSIS FOR PAVEMENT

ENGINEER will prepare a Life Cycle Cost Analysis. ENGINEER will utilize the current Life Cycle Cost Analysis Procedures Manual, Project Development Procedures Manual (PDPM) and the Highway Design Manual, (6th Edition) to prepare and document life cycle costs for pavement for review and approval by Caltrans. Four pavement alternatives will be analyzed for the project. A Methodology Memorandum will be prepared for preliminary concurrence by CALTRANS and will identify the project description, proposed project segments, proposed pavement alternatives, propose unit costs. Each alternative will be analyzed using RealCost software provided by Caltrans to determine the initial construction costs, project support costs, future maintenance and rehabilitation costs, total agency costs, user costs, and total life cycle costs. The results of the approved LCCA will be incorporated into the development of the Materials Report.

Deliverables:

- Life Cycle Cost Analysis Methodology Memorandum
- Life-Cycle Cost Analysis Report

2.14 PRELIMINARY TRANSPORTATION MANAGEMENT PLAN

ENGINEER shall prepare a Preliminary Transportation Management Plan (TMP). The Preliminary TMP shall address development of a public awareness campaign, proper identification of detour routes and lane closures, scheduling of construction activities during off-peak hours, emergency access, development of traffic contingency plans and other factors related to traffic management during construction.

Deliverable:

- Preliminary TMP

2.15 GEOMETRIC APPROVAL DRAWINGS (GAD'S)

ENGINEER will prepare geometric approval drawings (GAD) at a scale of 1" = 100' in accordance with Caltrans plan preparation criteria for GAD for the preferred build alternative for the I-10/Monroe Street Interchange. The GAD will include existing topographic and planimetric mapping, approximate right-of-way acquisition lines, center lines, calculated geometric layouts, and typical sections. ENGINEER will design

roadway geometry including horizontal and vertical geometry for ramps, connectors and cross streets, including profile and superelevation diagrams. Conceptual grading utilizing 2:1 or 4:1 slopes will be developed to establish preliminary right-of-way limits. Typical cross sections will be prepared to illustrate lane and shoulders in the lane configurations and other basic cross sectional data.

GAD will be prepared according to Caltrans District 8 GAD guidelines with the intent of establishing an approved scope relative to geometric project features and the ability to move directly to the basemaps required for PS&E. This effort provides equivalent detail to 30% PS&E requirements for Cross Sections, Layouts, Profiles, and Superelevation Diagrams. Additional detail will be provided indicating pavement delineation, truck turning radii, traffic volumes, and corner sight distance exhibits. Approval will be obtained from Caltrans Offices of Traffic Operations and Design, HQ Geometric Reviewer and FHWA Local Oversight Liaison. Up to three submittals (two review cycles) of the GADs are anticipated.

The drawings will reflect CALTRANS standards and criteria for freeway facilities and COUNTY standards and criteria for local facilities.

Deliverables:

- Geometric Approval Drawings
- Truck Turning Template Exhibits
- Corner Sight Distance Exhibits
- Completed DIB 78 Checklist

TASK 3.0 PREPARE DRAFT PROJECT REPORT

3.1 COST ESTIMATES FOR ALTERNATIVES

ENGINEER will prepare cost estimates for the two (2) build alternatives for I-10/Monroe Street to be analyzed in the Project Report. Project Report level cost estimates shall be prepared based on the preliminary engineering plans and in conformance with the 11-Page Preliminary Cost estimate Template per the CALTRANS Cost Estimating website.

Deliverables:

- Cost Estimates for two (2) build alternatives

3.2 GEOMETRIC PLANS FOR PROJECT ALTERNATIVES

ENGINEER will prepare geometric plans at 1"=100' scale for two (2) build alternatives and will be included in the Draft Project Report (DPR). Geometric layout plans will be developed in accordance with Caltrans

Plans Preparation Manual and Project Development Procedures Manual in the level of detail required for PA/ED. Plans will illustrate and label the developed geometries, lane configurations, bike lanes, recreational trails, sidewalks, existing and proposed right-of-way limits, grading limits, as well as any retaining wall locations. Comments received from the submittal of geometric plans as part of the Draft Project Report and final Project Report will be reviewed and incorporated for final approval.

Two (2) geometric workshops are anticipated for the two (2) build alternatives.

The following geometric plans will be prepared for each of the two (2) build alternatives:

Plan Sheet Type	Number of Sheets	Format/Scale
Typical Section	3	11x17/No Scale
Key Map	1	11x17/No Scale
Layout Sheets	3	11x17/100 Scale
Profile Sheets	10	11x17/50 Scale

Deliverable:

- Cut sheets for DPR for two (2) build alternatives

3.3 FACT SHEET FOR DESIGN EXCEPTIONS

The geometric designs will be checked using CALTRANS Design Information Bulletin Number 78-03 (Design Checklist for the Development of Geometric Plans) and Design Information Bulletin Number 82-05 (Pedestrian Accessibility Guidelines for Highway Projects) for the I-10/Monroe Street Interchange and. Fact Sheets shall be developed to document reduced standard features within the build alternatives. Fact Sheets shall be prepared in conformance with the Caltrans Project Development Procedures Manual (PDPM) Chapter 21. It is assumed that this project will include up to five (5) Mandatory and up to five (5) Advisory standard design exceptions per alternative.

Exceptions to mandatory design standards will be prepared detailing nonstandard design elements. Revisions will be made as appropriate and documented in the Mandatory Fact Sheets. Mandatory Fact Sheets shall be prepared in conformance with PDPM Chap 21, Section 1.

Exceptions to advisory design standards will be prepared detailing nonstandard design elements. Revisions will be made as appropriate and documented in the Advisory Fact Sheets. Advisory Fact Sheets shall be prepared in conformance with PDPM Chapter 21, Section 3.

Deliverables:

- Mandatory Fact Sheets
- Advisory Fact Sheets

3.4 DRAFT PROJECT REPORT

A DPR will be prepared in accordance with the CALTRANS PDPM. The Administrative DPR will contain a discussion of the existing conditions, the need for improvements, and the alternatives considered. Two (2) reviews by CALTRANS are assumed. One (1) workshop will be conducted with CALTRANS and the COUNTY to discuss responses to CALTRANS comments on the DPR. Once concurrence has been reached on all outstanding issues, the DPR will be signed by a Registered Civil Engineer and submitted to CALTRANS for signature and approval.

Deliverable:

- Draft Project Report

3.5 MODIFIED ACCESS REPORT

ENGINEER will prepare a Modified Access Report (MAR) for the proposed project in accordance with FHWA policy regarding modified access to interstate highway facilities. The MAR will be submitted to FHWA as a stand-alone report and will address the eight-points for modified access justification. This report will be submitted independent of the Project Report for a Finding of Acceptability and Final Approval after completion of the final Project Report.

Deliverables:

- Draft Modified Access Report
- Final Modified Access Report

TASK 4.0 PERFORM PRELIMINARY ENVIRONMENTAL STUDIES

4.1 FARMLAND TECHNICAL MEMORANDUM

ENGINEER will analyze potential impacts to farmlands per Chapter 23 of Caltrans' SER. In accordance with the Farmland Protection Policy Act, federal programs are required to minimize the unnecessary and irreversible conversion of farmland to non-agricultural uses. Based on preliminary project layouts, property acquisitions are required at the northeastern and northwestern quadrants of the interchange. These areas are identified as Riverside County Important Farmland. ENGINEER will complete a Farmland Technical Memorandum including discussion of a Conversion Impact Rating for approval to Natural Resource

Conservation Service (NRCS).

Deliverable:

- Farmland Technical Memorandum

4.2 NOISE STUDY

Prior to initiating the noise technical study, ENGINEER will prepare a noise workplan outlining details of the noise analysis, including noise measurement locations (long term and short term) and noise analysis methodology. ENGINEER will consult with the Caltrans District 8 noise specialist assigned to this project to ensure that specific District 8 requirements are understood. ENGINEER will obtain approval of the noise workplan from Caltrans prior to initiating the noise study.

ENGINEER shall prepare a noise technical study evaluating the noise impacts and potential noise abatement/mitigation measures, if any, associated with the proposed project. Because federal and Caltrans oversight is involved, the report shall be prepared in accordance with procedures specified by FHWA in Title 23, Section 772 of the Code of Federal Regulations (CFR) (23 CFR 772) and the Caltrans Traffic Noise Analysis Protocol (Protocol). ENGINEER shall conduct a site visit to identify noise sensitive land uses and other features of the project area relevant to the noise study. Preliminary review of the project area indicates that land uses in the project area are either agricultural or commercial. Prior to conducting existing noise measurements, ENGINEER will obtain right-of-entry from the property owner where the noise measurement will be conducted. ENGINEER shall conduct a field noise study to quantify and assess existing noise conditions at the noise-sensitive areas described above. Sound-level data shall be collected over a 10 to 15 minute period at 13 locations throughout the day. In addition continuous 24-hour noise monitoring shall be conducted at two locations. ENGINEER shall conduct traffic noise modeling related to the proposed project using the FHWA Traffic Noise Model (TNM) Version 2.5 and traffic data to be provided by the project traffic engineer. TNM shall be used to model worst-noise-hour noise conditions at selected receiver locations under existing conditions and design-year conditions with and without the proposed project. Traffic noise impacts of the proposed project under 23CFR772 shall be assessed by determining if implementation of the project is projected to result in traffic noise levels under design-year conditions that approach or exceed the FHWA noise abatement criteria or if implementation of the project is predicted to result in a substantial increase in noise at noise-sensitive uses. If traffic noise impacts are projected to occur, information on the preliminary feasibility and reasonableness of noise abatement as defined in the Protocol

shall be evaluated and presented. ENGINEER shall also evaluate potential construction noise impacts using methods recommended by the U.S. Department of Transportation. The noise study report shall include a preliminary noise abatement design to schematically identify the location, height, and extent of noise barriers needed to abate noise impacts. In accordance with Protocol guidance, the description of noise barriers shall be sufficient for environmental review of the proposed project, but not for final design of the walls. Abatement allowances shall be provided for each barrier evaluated. ENGINEER shall prepare a noise study report addressing the requirements of 23CFR772 in accordance with guidance in the Protocol and following the noise analysis report format outline in the Caltrans Technical Noise Supplement (TeNS). After review by the COUNTY and CALTRANS, ENGINEER shall incorporate comments into a final report.

Deliverables:

- Noise Study Work Plan
- Noise Study

4.3 NOISE ABATEMENT DECISION REPORT

ENGINEER shall prepare a NADR following criteria described in the CALTRANS Traffic Noise Analysis Protocol (TNAP) for New Highway Construction and Reconstruction Projects, and the Technical Noise Supplement (TeNS), both dated May 2011 to determine whether a noise abatement measure is reasonable to construct.

ENGINEER shall conduct a cost-benefit analysis taking the following criteria into account: absolute noise level, build versus existing noise, environmental impacts of abatement, newly constructed development versus development pre-dating 1978 and the total noise abatement allowance versus the project cost. The work shall be performed according to the tasks described below:

- Determine appropriate soundwall foundation type based upon existing geotechnical conditions.
- Complete a cost-benefit analysis using the five reasonableness factors described the TNAP for noise barriers determined to be feasible as described in the Noise Impact Analysis.
- Complete exhibits to be included in the NADR, depicting the location of all sound barriers, location of easements and receptor locations investigated in the Noise Impact Analysis.
- Determine accessibility and required easements, including the development of costs for maintenance and construction easements for the proposed noise barriers.
- Conduct soundwall surveys to solicit input from all homeowners and property owners impacted by

soundwalls whether they agree/disagree with the construction of the soundwall.

Deliverable:

- Noise Abatement Decision Report

4.4 AIR QUALITY STUDY

ENGINEER will prepare an air quality technical report that analyzes air emissions associated with changes in vehicle traffic patterns resulting from the proposed project. ENGINEER will refer to CALTRANS' SER, Chapter 11 for the latest guidance in preparing the Air Quality Study. ENGINEER will use data developed by the California Air Resources Board (CARB) and the South Coast Air Quality Management District (SCAQMD) to portray existing air quality conditions and to explain how those conditions are affected by local climate and topography. ENGINEER will summarize the existing federal, state, and local air quality regulatory environment as it affects the proposed project and will also describe the location of sensitive receptors in the project vicinity. ENGINEER will use the procedure outlined in the CALTRANS Transportation Project Level Carbon Monoxide Protocol to determine if CO modeling is needed. It is anticipated that some intersections may require CO modeling. The CALINE4 model and California Air Resources Board emission factors will be used to estimate CO concentrations at sensitive receptors near the project. It is assumed in this scope and cost that up to three intersections would be modeled. The CO modeling analysis will focus on completion-,and design-horizon-year conditions as modeled in the traffic analysis, and the results of the air quality analysis will be summarized in tables showing CO concentrations. CALTRANS will address PM2.5/PM10 based on the United States Environmental Protection Agency (EPA) guidance document titled Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas and will also address Mobile Source Air Toxins (MSATs) based on the Federal Highway Administration (FHWA) interim guidance dated February 2006. This scope and cost assumed that no modeling will be required by Caltrans or FHWA to address PM2.5/PM10 or MSATs and that the screening level methodology will be appropriate for analyzing PM2.5/PM10 and MSATs. A detailed description of the methodology used to estimate air emissions will be developed prior to analysis.

Significance thresholds for air quality impacts will be identified using the SCAQMD's Air Quality Analysis Guidance Handbook (formerly the CEQA Air Quality Handbook) and the SCAQMD's transportation conformity requirements. ENGINEER will evaluate whether the project meets transportation conformity

requirements by determining whether it is included, as currently defined, in the most recent Regional Transportation Plan and the Federal Transportation Improvement Plan (FTIP) prepared by the Southern California Association of Governments and by examining whether the project would cause or contribute to an exceedance of state or federal CO standards as required by Section 176(c) of the federal Clean Air Act. Mitigation measures will be identified, if necessary, to reduce or eliminate any significant air quality impacts. Construction-related emissions will be analyzed quantitatively, based on the guidelines provided by the SCAQMD. ENGINEER will estimate air emissions from demolition, grading, and road construction activities using the following information:

- Type of equipment used
- Length of time for each construction task
- Equipment power type (gasoline or diesel engine and horsepower)
- Equipment emission factors approved by the California Air Resources Board and/or SCAQMD
- Equipment load factors.

Exhaust and dust emissions from worker commutes and equipment travel will be calculated based on available information regarding these activities. Fugitive dust emissions would result from wind erosion of exposed soil and soil storage piles, grading operations, and vehicles traveling on paved and unpaved roads. Emissions associated with asphalt paving will be calculated when specific data are available. Mitigation measures for construction impacts, if appropriate, will be recommended that are consistent with the SCAQMD's applicable rules and regulations for fugitive dust.

Prior to the circulation of the Draft Environmental Document, ENGINEER will prepare the necessary documentation for TCWG to obtain a Project air quality determination finding. After the circulation of the draft environmental document, ENGINEER will prepare an Air Quality Conformity Report in accordance with FHWA requirements.

Deliverable:

- Air Quality Report
- PM10/PM2.5 documentation for TCWG meeting
- PM10/PM2.5 Hot Spot Analysis
- Air Quality Conformity Analysis Report

4.5 VISUAL TECHNICAL MEMORANDUM

ENGINEER will prepare a Preliminary Visual Evaluation Memorandum for the proposed project as identified in the approved Preliminary Environmental Analysis Report (PEAR). Pursuant to the Caltrans' SER, ENGINEER will provide the Memorandum consistent with the guidelines set forth by the Federal Highway Administration (FHWA) Visual Impact Assessment for Highway Projects Guidelines. The Memorandum will be prepared consistent with the current Caltrans Landscape Architecture Program's recommended Memorandum Annotated Outline.

The Memorandum will briefly discuss the existing visual setting for the project site, immediate vicinity, as well as the general regional setting. Based on aerial imagery and land use maps available online, sensitive receptors will be documented. The project's visual change will be analyzed qualitatively for each of the two build alternatives. An analysis of visual impacts from surrounding public views will be included. This analysis will summarize the project's visual change, potential sensitivity of viewers, and the resultant visual impacts.

This scope excludes formal report preparation, viewshed mapping analysis, Key View analysis, and photosimulations. This scope assumes that all information will be obtained via desktop review; this scope of work excludes a site visit.

Deliverables:

- Preliminary Visual Evaluation Memorandum

4.6 PHASE I INITIAL SITE ASSESSMENT (ISA)

ENGINEER will prepare a Phase I Initial Site Assessment (ISA) for the PROJECT as identified in the approved Preliminary Environmental Analysis Report (PEAR). The ISA will be prepared in accordance with the ASTM International (ASTM) Standard Practice E 1527-13 and CALTRANS' Standard Environmental Reference (SER). It should be noted that the completion of this Phase I ISA is only one component of the process required to satisfy the AAI Rule.

The goal of a Phase I ISA is to evaluate site history, existing observable conditions, current site use, and current and former uses of surrounding properties to identify the potential presence of recognized environmental conditions (RECs) associated with the subject site. RECs are defined in the ASTM E 1527-13 Standard as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the

environment." De minimis conditions are not RECs. This Phase I ISA is not intended to provide specific qualitative or quantitative information as to the actual presence of hazardous substances at the subject site, but is to merely identify the potential presence based on available information.

The Phase I ISA will consist of four components: Records Review; Site Reconnaissance; Interviews; and Report Preparation. ENGINEER will document past activities, facilities, and/or waste disposal practices, which may have resulted in soil or groundwater contamination. Past site usage will be investigated through an aerial photograph review, interviews, review of former permits, review of documents on file with applicable agencies, and research of former citations from State and local agencies. Current site conditions will be documented by an on-site inspection of the project area. A review of the commercial database summaries, provided by Environmental Data Resources, Inc. (EDR), regarding public agency records will be included. Regulatory sites within and surrounding the project area will be mapped within a one-mile radius (as required by the ASTM E 1527-13 search radius requirements). Potential hazardous materials conditions within the project site will be considered based on the EDR database search. The report will include a summary of the report findings and a discussion of our opinions and conclusions regarding the absence or presence of RECs in connection with the subject site. Documentation supporting the conclusions presented will be appended to the report.

This scope excludes environmental lien searches and chain of title documents.

The COUNTY shall provide a contact with good knowledge of the uses and physical characteristics of the property (the Key Site Manager). Often the Key Site Manager is the property manager, the chief physical plant supervisor, or head maintenance person. If the user is the current property owner, the user has an obligation to identify a key site manager, even if it is the user himself or herself.

The scope of work will be performed in accordance with the standards and practices set forth in 40 CFR Part 312, and consistent with the ASTM E 1527-13 Standard Practice for Phase I ESAs. The following list of "additional issues" are non-scope considerations outside of the ASTM Phase I practice: asbestos-containing materials (ACMs) sampling, radon sampling, lead-based paints (LBPs) sampling, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, bio-agents, and mold. Assessment of these items are not included in the proposed scope of work.

Current data in the approved Phase I ISA (database info, interviews, site visit, etc) are accurate for six (6)

months from approval of the deliverable. Historical data is accurate for one (1) year from approval of the deliverable. One (1) Phase I ISA update memorandum is anticipated prior to approval of the Draft Environmental Document and assumes that conditions identified in the approved Phase I ISA have not changed.

Deliverable:

- Phase I ISA

4.7 WATER QUALITY ASSESSMENT REPORT (WQAR)

ENGINEER will evaluate the effects that the proposed PROJECT may have on water quality, hydrology and storm water runoff in the Project area. The Water Resources and Hydrology Technical Study will be prepared in accordance to the Caltrans Environmental Handbook, Volume 1, Storm Water Quality Handbook Project Planning and Design Guide, and Caltrans Storm Water Quality Handbooks.

The WQAR will also include discussions on the PROJECT's potential water quality impacts to storm water runoff during construction activities and operations of the PROJECT. Construction will be conducted in accordance with all applicable water quality requirements of the Section 401 permit issued by the RWQCB and the provisions of the NPDES General Permit for Construction Activities. Implementation of Best Management Practices (BMPs) would minimize erosion of exposed soils, sediment, and surface contaminant loading into the storm drain system and downstream water bodies. Correspondence with local agencies will also be identified in the study.

The WQAR will also include discussions on the potential for the build alternative(s) to result in impacts to local hydrology and drainage during construction and operation. Rough hydrologic calculations (suitable for determination of estimated storm water runoff volumes) will be performed based upon topography and preliminary engineering plans. The impacts of the build alternative(s) will be evaluated and potential mitigation measures will be identified to alleviate both short-term (during construction) and long-term impacts.

Deliverables:

- Water Quality Assessment Report

4.8 LOCATION HYDRAULICS STUDY & SUMMARY FLOODPLAIN ENCROACHMENT REPORT

ENGINEER will evaluate historical flooding records, such as aerial photographs and high watermarks covering a span of several years. A preliminary hydraulic analysis will be conducted to estimate the size

and cost of needed cross-culverts and/or bridges for the build alternatives. The findings from this drainage study will be documented in a Location Hydraulic Study. The report will address issues on the build alternatives that will be included in the draft environmental document.

ENGINEER will prepare a Summary Floodplain Encroachment Report based on Location Hydraulic Study in support of the Environmental Document and Project Report. This scope of work assumes that the proposed alternative will not cause a significant floodplain encroachment as defined by 23 CFR 650.105 and is not inconsistent with the existing watershed and floodplain management programs. This scope also assumes the Location Hydraulic Study will contain the requisite information for two (2) build alternatives as described in Chapter 17 of the SER and 23 CFR 650A, Section 650.111 (b) (c). The technical memorandum will discuss potential impacts for two (2) build alternatives and recommend mitigation measures related to floodplain encroachment, flood-related hazards, natural or beneficial floodplain values, access interruption, and the community floodplain development plan.

Deliverables:

- Location Hydraulic Study
- Summary Floodplain Encroachment Report

4.9 Asbestos, Lead-Based Paint, and Aerially Deposited Lead Memorandum

The PROJECT areas will be surveyed to evaluate for the presence of asbestos-containing materials (ACMs) and lead-base paints (LBPs). If present, ACMs and LBPs will require special handling and disposal. Samples for suspect ACMs may include the following materials: abutment forms, cement pipes, deck expansion joints, electrical insulation, geotextiles, grout, shims, textured surfaces, sealants and waterproof/deck membranes. Up to eighteen (18) bulk asbestos samples will be collected and analyzed. Work will be completed by a California Division of Occupations Safety and Health Certified Asbestos Consultant (CAC). Underground utilities will be located for sampling conflicts. Proposed sampling locations will be marked and Underground Service Alert (USA) notified prior to sampling.

ENGINEER will utilize a portable XRF device to collected readings of lead concentrations in suspect painted components and highway stripping. Work will be completed by a California Department of Public Health Lead Inspector/Assessor.

ENGINEER will collect soil samples from various depths along the abutments to evaluate presence of Aerially Deposited Lead (ADL). The soil samples will be collected to a maximum depth of approximately 3-

feet below ground surface. Up to 20 soil sample will be submitted to a laboratory and analyzed for lead content by EPA Test Method 6010. The ADL work will be completed under the supervision of a Professional Geologist (PG).

ENGINEER will prepare a task-specific work plan (methods and means and task specific project description), maps (1"= 300' or greater), and a task-specific Natural Environment Study-Minimal Impacts (NES-MI) report for environmentally clearing sampling activities. An NES-MI report will document baseline conditions of the habitat, and be used to identify sensitive habitats and/or special-status species potentially occurring within the Biological Study Area (BSA) that could pose a constraint to implementation of the sampling and testing activities. A Proposed Sampling Location Map with anticipated ADL, ACM's and LCB's will be prepared identifying sampling locations.

Proposed task-specific work plan and NES-MI will be submitted for CALTRANS review and environmental clearance. Two CALTRANS reviews are anticipated.

It is assumed that CALTRANS will prepare a task-specific Categorical Exemptions/Categorical Exclusion (CE/CE) for the ADL, ACM's and LCB's samplings.

CALTRANS encroachment permits are assumed to be cleared and executed under task 2.3 Permits and Rights of Entry.

Deliverables:

- Sampling Workplan and Maps
- NES-MI to support task-specific CE/CE
- Summary Memorandum for the Asbestos/LBP Sampling and ADL Sampling

4.10 Biological Studies

Natural Environment Study – Minimal Impacts (NES-MI)

ENGINEER will prepare a Natural Environment Study-Minimal Impacts (NES-MI) report in accordance with the SER to address biological resources occurring within the Biological Study Area (BSA), as listed in the approved Preliminary Environmental Analysis Report (PEAR) for the proposed project.

ENGINEER will prepare a NES-MI report that will include a description of the field methods used and the results of the biological evaluation of the BSA. The NES-MI report will be prepared with the results from the habitat assessment/field investigation that will characterize existing site conditions and identify special-status habitats and/or species (including State, federally, and Coachella Valley Multiple Species

Habitat Conservation Plan (CVMSHCP) listed species) potentially occurring within the project boundaries that could pose a constraint to development. The NES-MI will also include a CVMSHCP Consistency Analysis to demonstrate the Project's consistency with the CVMSHCP.

Literature Review

ENGINEER will review all technical survey reports and regulatory approvals previously prepared for the project, and any data for the site to determine which special-status biological resources are likely to occur on or within the general vicinity of each basin, if available. A database search of the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California listings regarding special-status biological resources known to occur in the region and vicinity of the site will be conducted. Additional information sources will be consulted including the California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), and historic/current aerial photographs as appropriate to define the habitat requirements for special-status species potentially occurring on-site. ENGINEER will focus its field investigation on those biological resources and habitats known to occur or that have the potential to occur within the vicinity of the BSA.

The PROJECT is identified as a "Covered Activity" in Table 7-3, CVAG Regional Road Projects, under the CVMSHCP. Covered Activities are not likely to result in "Take" of "Covered Species" as long as applicable avoidance, minimization, and mitigation measures described in Section 4.4 of the CVMHSCP are implemented. A detailed review of the CVMSHCP will be conducted prior to the field investigation. The CVMSCHP will be queried to determine if the BSA has the potential to provide suitable habitat for any potentially occurring special-status biological resources identified in the CVMSHCP, and to determine if the BSA is located within any CVSMCHP designated Conservation Areas, Sand Transport Areas, and/or designated Corridors/Linkages.

In accordance with Caltrans guidelines, a species lists will be obtained from the USFWS of threatened and endangered species known from the project vicinity that is no more than 180 days old. Updated lists will be obtained after 180 days, it is assumed the species on the updated lists are identical to the original list obtained. ENGINEER will query the USFWS Information for Planning and Conservation (IPaC) project planning tool to help streamline the USFWS environmental review process. The results of the records search will be summarized in a table and included in the NES-MI.

Habitat Assessment/Field Investigation

ENGINEER will survey the BSA to document baseline conditions from which to evaluate the sites potential to support federally, State, and CVMSHCP listed species, special-status habitat types, and document the limits of jurisdiction with the White Water River (Coachella Valley Stormwater Channel). The fieldwork will be conducted by qualified biologists in order to document the presence/absence of special-status biological resources, or to determine the potential for occurrence of such resources that may not be detectable when the literature review is conducted. Particular attention will be given to undeveloped areas that have a higher potential to provide suitable habitat for special-status plant and wildlife species. The location of any special-status biological resources, if present on-site (i.e., plants, plant communities, drainage features, wildlife) will be mapped. Additionally, the BSA will be evaluated for its potential to support both local and regional wildlife movement opportunities.

The suitability of the vegetation on and surrounding the proposed BSA will be surveyed for its ability to provide suitable avian nesting opportunities. Emphases will be given to the suitability of the habitat to support burrowing owl (Athene cunicularia). Notes will be taken on all plant and wildlife species observed on-site during the survey. This survey will provide an understanding of the overall project setting and biological resources occurring in the area. This data will be used to devise an appropriate clearance/conservation strategy for implementation of the proposed project. The habitat assessment does not include focused surveys.

Natural Environment Study – Minimal Impacts Report

A NES-MI report will be prepared with the results from the habitat assessment, delineation of State and federal jurisdictional waters, and any focused surveys conducted for the project. These technical reports will be included as an appendices to the NES-MI. The NES-MI will document all plant and wildlife species, all habitats occurring on-site, the site's potential to support any special-status species, and the limits of the Whitewater River within the BSA. The report will include a map of the plant communities and limits of jurisdiction of the Whitewater River occurring within the BSA and their respective acreages. The report will include a brief analysis of project impacts to biological resources (i.e., jurisdictional waters, burrowing owl), suggestions for further studies that may be needed prior to development, and mitigation measures, if necessary. This report will also address all CVMSHCP requirements for the proposed project, and if required, an equivalency analysis will be included in the report that will review proposed conservation

measures to demonstrate that the proposed Project complies with the conservation goals of the CVMSHCP. The report will be sufficient to make the appropriate consistency determination for compliance with the CVMSHCP, and to allow Caltrans to make the appropriate impact/mitigation determinations under the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).

Jurisdictional Delineation (JD) Report

ENGINEER will conduct a site reconnaissance to perform a delineation that will determine jurisdictional "waters of the United States" and "waters of the State" (including potential wetlands), located within the boundaries of the BSA. The delineation will result in:

- A determination of the United States Army Corps of Engineers (Corps') ordinary high water mark (OHWM) and indicate the existence of any three (3) parameter wetlands on-site. The actual presence or absence of wetlands on-site will be verified through the determination of the presence of hydrologic conditions, hydrophytic vegetation, and hydric soils pursuant to the September 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0); and
- CDFW's jurisdiction will be identified via the top of bank of the on-site streambed or to the outer drip line of riparian vegetation (if present) pursuant to CDFW's 1994 A Review of Stream Processes and Forms in Dryland Watersheds (CDFW 2010).

ENGINEER will conduct a thorough literature review of relevant information that supports the site reconnaissance and report preparation. Sources reviewed are anticipated to include topographic maps, soil surveys, historic and current aerial photography, flood maps, hydrology/climate information and watershed data.

ENGINEER will prepare a comprehensive written report discussing on-site jurisdictional areas. The technical letter report will consist of the following Sections: 1) Introduction and Purpose; 2) Summary of Regulations; 3) Methodology; 4) Literature Review; 5) Site Conditions; 6) Findings 7) Regulatory Approval Process; 8) References; and 9) Appendices.

Pursuant to agency requirements, the delineation technical letter report will include a maximum of five (5) exhibits to enhance the written text and clarify the PROJECT, jurisdictional areas, and project impacts. Exhibits are anticipated to include: 1) Regional Vicinity Map; 2) Site Vicinity Map; 3) Site Plans (or aerial);

4) On-Site Photographs; and, 5) Jurisdictional Map. This task includes time for Geographic Information Systems (GIS) analysis associated with the delineation map. The delineation map will be a scale of 1"= 300' or greater and will consist of an aerial photograph. Drainages will be overlaid on the aerial photograph and each agency's jurisdiction will be identified by width and length.

The final delineation report will be included as an appendix to the NES.

Burrowing Owl Focused Survey

In order to comply with the conservation goals of the CVMSCHP, ENGINEER will conduct a focused survey for burrowing owl within the BSA prior to development. If burrowing owl are found to be occupying the BSA at the time of the focused survey, a relocation plan will need to be written, approved, and implemented prior to site development. If no burrowing owl are found during the focused survey, a final pre-construction burrowing owl clearance survey would be required to ensure burrowing owl remain absent from the BSA.

A burrowing owl focused survey will be conducted in accordance with the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) accepted protocols. The surveys will consist of four (4) visits between February 15 and July 15. The focused burrowing owl surveys will be conducted during the recognized timeframe in the morning one hour before sunrise to two hours after sunrise. Additionally, surveys are not accepted if they are conducted during rain, high winds (> 20 mph), dense fog, or temperatures over 90°F. The entire project site will be surveyed by walking transects in suitable habitat and in areas within 150 meters (500 feet) of the project site boundary, as applicable based on topography and site conditions. Walking transects will be spaced approximately 10 meters (33 feet) apart or less to ensure 100% visual coverage of all areas.

Areas providing potential habitat for burrowing owls will be surveyed for suitable burrows, consisting of natural and non-natural substrates in areas with low, open vegetation within the BSA. All burrows encountered will be examined for shape, scat, pellets, white-wash, feathers, tracks, and prey remains. The location of all suitable burrowing owl habitat, potential owl burrows, burrowing owl sign, and any owls observed will be recorded and mapped, with a hand-held GPS unit. Methods to detect presence of burrowing owls include direct observation, aural detection, and signs of presence. The survey will also include identification of avian species in the area and observing behaviors that suggested nesting activity. Binoculars will be used to observe distant birds and their activity around potential nesting habitat.

ENGINEER will prepare a report that will include a summary of the methods, conditions, and results of the surveys. An exhibit depicting the project site and survey area will be included in the report that will also include the location of any occupied or remnant burrows/nests, if found. This scope of work does not include the preparation and implementation of a burrowing owl relocation plan if burrowing owl are observed within the limits of disturbance.

The Burrowing Owl Focused Survey Report will be included as an appendix to the NES.

Coachella Valley Conservation Commission Coordination

Upon completion of the biological surveys, ENGINEER will coordinate project consistency with the CVMHSCP through the Coachella Valley Conservation Commission (CVCC), a joint powers authority. This task includes phone calls, emails, and two (2) in-person meetings between ENGINEER's staff, and the CVCC to help determine the appropriate avoidance and minimization measures, survey requirements, and any development constraints.

Deliverables:

- NES-MI
- Jurisdictional Delineation Report
- Burrowing Owl Focused Survey

4.11 CULTURAL RESOURCE STUDIES

Cultural and Paleontological Resources Inventory

ENGINEER will update the previous archaeological literature and records search (dated August 10, 2015) at the Eastern Information Center (EIC), housed at the University of California, Riverside. For purposes of this PROJECT, this search will encompass a one-mile radius of the PROJECT's Area of Potential Effects (APE). Copies of all previously recorded cultural resources records and relevant cultural resources reports not included in the original records search will be obtained. ENGINEER will also inspect any historical documents, USGS survey plats, and Government Land Office (GLO) plats that depict the PROJECT area. ENGINEER will request a museum records search at the nearest regional museum repository for potential paleontological resource localities in the vicinity of the PROJECT area. To supplement museum collections records, a review of published and unpublished geologic mapping and literature will be performed to identify the geology and paleontology of the PROJECT area. In addition, the PROJECT area will be placed on the Riverside County's Paleontological Sensitivity Map to determine whether or not it overlies areas of high,

low, or undetermined sensitivity.

It is assumed that no archaeological sites will be discovered that will require documentation. If archaeological resources are identified, scope would increase based on the site and complexity of the resources.

It is assumed that no significant fossils will be discovered on the surface of the PROJECT area during the course of the fieldwork and no excavation of or collecting fossil specimens is included in the current scope.

Native American Coordination

ENGINEER will contact the Native American Heritage Commission (NAHC) for a search of the Sacred Lands Files. ENGINEER will also assist the California Department of Transportation (Caltrans) in contacting individuals listed by the NAHC that may have an interest in the PROJECT. Consultation will be initiated by letter, and followed by telephone contact.

ENGINEER will provide Assembly Bill 52 (AB 52) assistance to the COUNTY. ENGINEER will prepare the AB 52 notification letters on behalf of the COUNTY. ENGINEER will assist in such tasks as attendance at two meetings, and participating in conference calls.

ENGINEER will coordinate directly with CALTRANS District 8 Native American Coordinator, Mr. Gary Jones, regarding the initiation of the Section 106 Consultation process for the PROJECT.

Cultural and Paleontological Resource Field Survey

ENGINEER will prepare an APE for the PROJECT that takes into account all direct and indirect impacts to potentially significant cultural resources.

A Phase-I cultural resource survey will entail a complete and intensive pedestrian survey of the PROJECT APE by a qualified archaeologist. Survey transect spacing will range from 10 to 15 m (30 to 50 ft), and all soils and landforms likely to contain or exhibit archaeologically or historically sensitive cultural resources will be inspected carefully to ensure that visible, potentially important cultural resources are discovered and documented. Additionally, the surveyors will investigate any unusual contours, soil changes, distinctive vegetation patterns, natural and man-made features, and other potential cultural site markers.

It is anticipated that no archaeological resources will be identified in the PROJECT APE that require documentation or evaluation. ENGINEER is aware of one known built environment resource, the railroad, located directly adjacent to the PROJECT APE. It is assumed that one known built environment resource

will require documentation and impact assessments. The resource will be assessed using significance criteria as set forth in the California Register of Historical Resources and the National Register of Historic Places to provide sufficient data to characterize the current status of the identified resources, to formally document known resource boundaries in relation to the PROJECT APE, to provide an evaluation of the resource' s significance and research potential, and to develop appropriate mitigation measures.

The paleontological resource survey will entail a visual inspection of the ground surface for exposed fossils and evaluation of geologic exposures for their potential to contain preserved fossil material at the subsurface. The survey will entail both a pedestrian walkover and a reconnaissance-level survey of the surrounding area. It is assumed that no significant fossils will be discovered on the surface of the project area during the course of the fieldwork and no excavation of or collecting fossil specimens is included in the current scope.

Report Preparation

ENGINEER will prepare an APE Map, an Archaeological Survey Report (ASR), a Historic Resources Evaluation Report (HRER), and a Historic Properties Survey Report (HPSR), to California Environmental Quality Act (CEQA) standards as well as the standards outlined in SER, Volume 2, Cultural Resources.

ENGINEER will prepare a Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER) to document the findings and to provide project-specific recommendations. The report will include a GIS map depicting areas where further mitigation is recommended, such as construction monitoring. All paleontological work will be conducted in accordance to the guidelines set for by the Society of Vertebrate Paleontology and will satisfy the requirements of the California Environmental Quality Act. The report will also comply with Chapter 8 of CALTRANS SER.

Deliverables:

- Area of Potential Effects / Study Area Map
- Archaeological Survey Report
- Historic Resources Evaluation Report
- Historic Properties Survey Report
- Paleontological Identification Report/Paleontological Evaluation Report

TASK 5.0 DRAFT ENVIRONMENTAL DOCUMENT

5.1 PREPARE DRAFT ENVIRONMENTAL DOCUMENT

ENGINEER will prepare a joint IS/routine EA (IS/EA), leading to issuance of a Mitigated Negative Declaration/Finding of No Significant Impact, respectively, utilizing the current IS/EA Annotated Outline included on CALTRANS' Standard Environmental Reference (SER); in accordance with Caltrans' SER, Volume 1, Chapter 37 (Preparing and Processing Joint NEPA/CEQA Documentation); and pursuant to FHWA's Technical Advisory T6640.8A [Guidance on Preparing and Processing Environmental and Section 4(f) Documents].

ENGINEER will prepare an Administrative Draft Environmental Document (IS/EA) for submittal to the COUNTY and CALTRANS for initial review based on the information contained in the requisite technical studies prepared by others. ENGINEER will address the topical areas included in the IS/EA Annotated Outline not otherwise addressed by the technical studies prepared by others.

An Environmental Commitments Record, prepared in accordance with current Caltrans' guidance and format requirements, will be included with each version of the Draft Environmental Document that is reviewed by CALTRANS.

Preparation of the Environmental Document will conform to CALTRANS' Environmental Document Quality Control Program. In accordance with that program, review of the Draft Environmental Document will be conducted in the following five-step process prior to public circulation: (1.) Caltrans Resource/Technical Specialist Review; (2.) Caltrans Internal Peer Review; (3.) Caltrans Supervisor Review; (4.) Caltrans Technical Editor Review; and (5.) NEPA Quality Control Review. Also in accordance with Caltrans' Environmental Document Quality Control Program, each submittal of the Draft Environmental Document will be accompanied by a completed Environmental Document Review Checklist and External Certifications Environmental Document Quality Control Reviews Form; submittal of the referenced form testifies to the adequacy of the environmental documentation prepared by the local agency and its representatives.

It is assumed that CALTRANS will issue no more than three rounds of comments on the Draft Environmental Document prior to its approval for public circulation. This scope of work assumes that no more than five (5) full-day comment resolution workshop meetings will be conducted at CALTRANS to resolve comments on the Draft Environmental Document prior to public circulation. This scope of work does not include submittal of the Draft Environmental Document to any agencies for review, with exception of the COUNTY, CITY, and CALTRANS.

Deliverables:

- Preliminary Administrative Draft IS/EA, including Environmental Document Review Checklist
- Administrative Draft IS/EA, including Environmental Document Review Checklist
- Revised Draft IS/EA, including External Quality Control Certification Form(s) and Environmental Document Review Checklist
- Revised/Final Draft IS/EA, including Environmental Document Review Checklist

5.2 PUBLIC CIRCULATION OF DRAFT ENVIRONMENTAL DOCUMENT

A State Clearinghouse Notice of Completion & Environmental Document Transmittal (NOC) and Summary Form will be prepared and submitted to the COUNTY and CALTRANS for concurrent review. The final NOC and Summary Form, along with 15 CDs that included electronic PDF copies of the Draft IS/EA, will be submitted by the ENGINEER to the State Clearinghouse on behalf of the COUNTY and CALTRANS to formally initiate the 30-day public review period of the Draft IS/EA.

ENGINEER will produce the Notice of Availability of the Draft IS/EA / Notice of Intent to Adopt a Mitigated Negative Declaration (NOA/NOI) and Announcement of Public Hearing for publication in a newspaper of local circulation, for posting at the Riverside County Clerk's office, and for distribution to those who filed a written request with the COUNTY or CALTRANS to receive such notice.

It is assumed that all filing and noticing fees will be paid by the COUNTY, and all newspaper advertisements noticing the availability of the Draft IS/EA for public review will be placed by and paid for by the COUNTY.

It is assumed that the ENGINEER will mail the NOA/NOI to agencies, property owners, and other interested parties, as directed by the COUNTY and CALTRANS.

Deliverables:

- NOC and Summary Form
- 15 CDs to include electronic PDF copies of the Draft IS/EA
- 10 hardcopies of the Draft IS/EA
- NOA/NOI

5.3 PUBLIC OUTREACH

ENGINEER and the COUNTY will conduct an Initial Public Meeting (Scoping Meeting) – the intent of the meeting is to introduce and obtain input from the public regarding the proposed project. ENGINEER will prepare meeting-related materials in advance of submittal to the COUNTY and CALTRANS.

A public information meeting and public hearing will be conducted during the 30-day Draft IS/EA public

review period.

The COUNTY will be responsible for securing the facility(ies), and paying all associated costs, at which the public information meeting and public hearing will be conducted. The ENGINEER will retain a court reporter for purposes of recording public input at the public hearing.

ENGINEER will provide a City Council briefing for the City of Indio. ENGINEER will prepare a video simulation of the proposed interchange. Up to two (2) alternatives will be modeled in the video simulation.

Deliverables:

- Distribution list for mailing of public notice
- Newspaper notice (English and Spanish)
- Exhibits and boards for public meeting/hearing (up to eight (8))
- Record of Public Hearing
- Video Simulation

5.4 Responses to Comments on Draft Environmental Document

Following the public review period for the Draft Environmental Document, ENGINEER will prepare responses to agency and public comments received on the Draft Environmental Document. The scope and extent of public and agency review comments on the Draft Environmental Document cannot be determined before their receipt. ENGINEER will prepare responses to comments received on the Draft Environmental Document for CALTRAN's review and prior to incorporation in the Final Environmental Document. The responses to comments will be included as an appendix to the Final Environmental Document.

It is assumed a maximum of 30 comments will be received on the Draft Environmental Document during the public review period, and that none of the comments received on the Draft Environmental Document will require additional technical analysis for inclusion in the Final Environmental Document.

Deliverables:

- Responses to Comments

TASK 6.0 Approved Project Report and Final Environmental Document

6.1 Update Draft Project Report

After circulation of the Draft ED and concurrent with the preparation of the Final ED, ENGINEER will document recommendation of the Build Alternative based on the public input on the Draft Environmental Document and concurrence by the PDT. ENGINEER shall prepare a final PR which includes the

recommendation of the Preferred Alternative. The report will review the development of the Preferred Alternative including public and agency comments obtained during the public meeting and environmental review period.

Deliverable:

- Draft Final Project Report

6.2 APPROVED PROJECT REPORT

Upon receipt of comments from CALTRANS, ENGINEER will develop a response matrix documenting the comments and response to each comment. It is assumed that one (1) workshop will be conducted with CALTRANS and the COUNTY to discuss responses to CALTRANS comments on the final PR. The final PR will be revised and submitted to CALTRANS for approval. The final PR will be signed by a Registered Civil Engineer and submitted to CALTRANS for approval and signature.

Deliverable:

- Final Project Report

6.3 FINAL ENVIRONMENTAL DOCUMENT

ENGINEER will prepare the Final Environmental Document, including Environmental Commitments Record, that incorporates responses to public and agency comments received on the Draft Environmental Document. It is anticipated that CALTRANS will review and approve the responses to comments prior to submittal of the Administrative Final Environmental Document to CALTRANS for review. In addition, and per directions included in the Caltrans' IS/EA Annotated Outline posted on the SER, the Final Environmental Document will identify any changes made to the document based on comments received from the public and reviewing agencies by placing a line in the margin of each respective page where changes to the Environmental Document were made.

The Final Environmental Document will be subject to Caltrans' Environmental Document Quality Control Program as detailed above in the Draft Environmental Document task (Task 2). As done for the Draft Environmental Document, and in support of CALTRANS' quality control program, pertinent revision submittals of the Final Environmental Document submitted to Caltrans will be accompanied by a completed Environmental Document Review Checklist and External Certifications Environmental Document Quality Control Reviews Form.

Pursuant to CEQA Guidelines Section 15094, ENGINEER will prepare a Notice of Determination (NOD) for

review and approval by CALTRANS – the NOD must be signed by the Caltrans District Environmental Branch Chief. The NOD will be submitted to the State Clearinghouse within five working days of Caltrans approving the Final Environmental Document. Filing of the NOD with the State Clearinghouse initiates the 30-day statute of limitations on court challenges to the approval under CEQA.

This scope of work assumes that no more than five (5) full-day comment resolution workshop meetings will be conducted at Caltrans District 8 to resolve comments on the Final Environmental Document prior to public circulation. This scope of work does not include submittal of the Final Environmental Document to any agencies for review, with exception of the COUNTY, CITY, and CALTRANS. The COUNTY/CITY will provide the check (filing fee) to cover California Department of Fish and Wildlife fees that will be required to file the NOD with the State Clearinghouse.

Deliverables:

- Preliminary Administrative Final IS/EA including Environmental Document Review Checklist
- Administrative Final IS/EA including Environmental Document Review Checklist
- Revised Final IS/EA including External Quality Control Certification Form(s) and Environmental Document Review Checklist

APPENDIX B • ARTICLE BI • INTRODUCTION

The Engineer shall perform the covenants set forth in Appendix A, Scope of Services in accordance with the performance requirements of Article V of this agreement and with the following Schedule of Services. All Covenants set forth in this agreement shall be completed by February 28, 2021, unless extended by supplemental agreement.

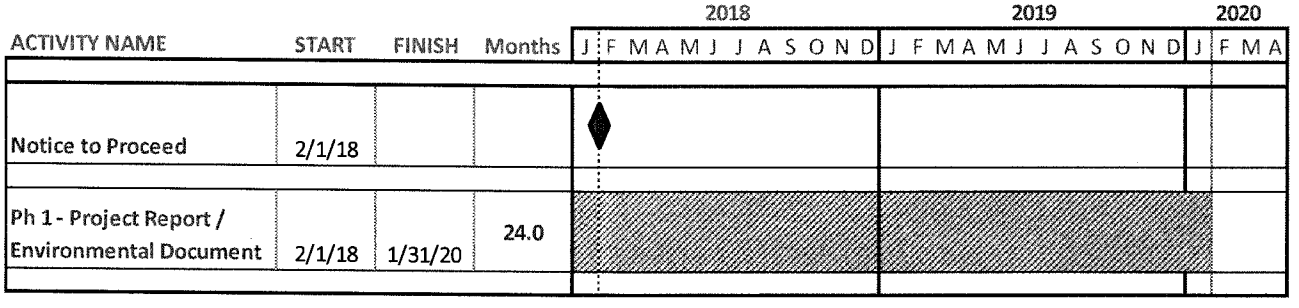
A. PHASES

The Schedule is represented by the following one phases:

1. Preliminary Engineering Report and Environmental Document

B. GANTT CHART

A gantt chart is provided below that graphically illustrates the sequencing and completion time for the project phases.



Satisfactory performance and completion of the Services under this Agreement shall be compensated based upon actual costs plus a fixed fee. COUNTY will reimburse ENGINEER for actual costs (including labor costs, overhead, and other direct costs) incurred by ENGINEER in performance of the work, exclusive of any fixed fee. A prorata portion of ENGINEER's fixed fee shall be included in the progress payments. Actual costs shall not exceed the estimated costs without prior written agreement between COUNTY and ENGINEER.

APPENDIX C • ARTICLE CI • ELEMENTS OF COMPENSATION

Compensation for the Services will be comprised of the following elements: DIRECT LABOR COSTS, FEES, OTHER DIRECT COSTS and OUTSIDE SERVICES.

A. DIRECT LABOR COSTS

Direct Labor costs shall be paid in an amount equal to the Direct Salary Costs plus the product of the Direct Salary Costs and the Multiplier which are defined as follows:

1. Direct Salary Costs

   Direct Salary Costs are the base salaries and wages actually paid to the ENGINEER's personnel directly engaged in performance of the Services under the Agreement. Salary rates for specific employees shall be provided on the Fee Proposal Worksheets included in ARTICLE CV • COST PROPOSAL. All Salary rates shall be in effect for three years following the effective date of the Agreement. Thereafter, ENGINEER may request adjustments to individual rates on an annual basis. ENGINEER shall notify COUNTY in writing requesting a change in the rates included herein. All adjustments to rates shall be subject to approval by the County Director of Transportation, or his designee.

2. Multiplier

   The Multiplier to be applied to the Direct Salary Costs to determine the Direct Labor Costs is the sum of the following components:

   PAYROLL ADDITIVES..... 44.49%

   The decimal ratio of Payroll Additives to Direct Salary Costs. Payroll Additives include all employee

benefits, allowances for vacation, sick leave, and holidays, and company portion of employee insurance and social and retirement benefits, all federal and state payroll taxes, premiums for insurance which are measured by payroll costs, and other contributions and benefits imposed by applicable laws and regulations.

OVERHEAD COSTS..... 96.95%

The decimal ratio of allowable Overhead Costs to ENGINEER firm's total direct salary costs. Allowable Overhead Costs include general, administrative and overhead costs of maintaining and operating established offices, and consistent with established firm policies, and as defined in the Federal Acquisitions Regulations, Part 31.2.

TOTAL MULTIPLIER ..... 141.44 %

(sum of Payroll Additives and Overhead Costs)

B. FIXED FEE

1. The Total Fixed Fee payable to the ENGINEER is $78,152.13 (PRIME CONSULTANT Profit)
2. A pro-rata share of the Fixed Fee shall be applied to the total Direct Labor Costs expended for services each month, and shall be included on each monthly invoice.

C. OTHER DIRECT EXPENSES

Additional Direct Costs, directly identifiable to the performance of the services of this Agreement, shall be reimbursed at the rates below, or at actual invoiced cost.

Rates for identified Additional Direct Costs are as follows:

Item	Rate	Unit
Mileage/Travel	$0.54	Mile
Reproductions	$30,000	Lump Sum
Postage/Mailing	$1,000	Lump Sum
Outreach Video Simulation	$10,000	Lump Sum

Travel by air and travel in excess of 100 miles from ENGINEER's office nearest to COUNTY's office must have COUNTY's prior written approval to be reimbursed under this Agreement.

D. OUTSIDE SERVICES

Outside services shall be paid in accordance with the cost proposals submitted by each Subconsultant. Billings for Outside Services shall be submitted along with the Prime Consultant's monthly Progress Report/Billing submittals and shall be in conformance with the COUNTY Engineering Services Invoicing Procedures.

ARTICLE CII • DIRECT SALARY RATES

Direct Salary Rates, which are the range of hourly rates to be used in determining Direct Salary Costs, are given below and are subject to the following:

A. PREMIUM OVERTIME

Direct Salary Rates shall be applicable to both straight time and overtime work, unless payment of a premium for overtime work is required by law, regulation or craft agreement, or is otherwise specified in this Agreement. In such event, the premium portion of Direct Salary Costs will not be subject to the Multiplier.

B. SALARY RATES

All Salary rates shall be in effect for three years following the effective date of the Agreement. Thereafter, ENGINEER may request adjustments to individual rates on an annual basis. ENGINEER shall notify COUNTY in writing requesting a change in the rates included herein. All adjustments to rates shall be subject to approval by the County Director of Transportation, or his designee.

POSITION OR CLASSIFICATION MAXIMUM HOURLY RATES

Principal in Charge	$90.00 -130.00
Project Manager	$50.00 - $100.00
Project Engineer	$45.00 - $100.00
Senior/Structural Engineer	$50.00 - $110.00

Associate Engineer	$35.00 - $55.00
Assistant Engineer	$25.00 – $40.00
Senior Environmental Planner	$40.00 - $80.00
Associate Environmental Planner	$35.00 - $55.00
Environmental Planner	$20.00 - $40.00
Senior CAD/Detailer	$40.00 - $60.00
Engineering Technician	$20.00 - $40.00
Clerical/Administrative	$15.00 - $40.00

The above rates are for ENGINEER only. All rates for subconsultants to ENGINEER will be in accordance with the subconsultants cost proposal.

ARTICLE CIII • INVOICING

ENGINEER shall submit invoices in accordance with the Engineering Services Agreement ARTICLE VI • COMPENSATION and with the following requirements.

1. Charges shall be billed in accordance with the terms and rates included herein, unless otherwise agreed in writing by the County Contract Administrator.
2. Base Work and Extra Work shall be charged separately, and the charges for each Phase listed in Appendix B, Schedule of Services, shall be listed separately. The charges for each individual assigned under this Agreement shall be listed separately.
3. Charges of $500.00 or more for any one item of Additional Direct Costs shall be accompanied by substantiating documentation such as invoices, telephone logs, etc.
4. Each invoice shall indicate payments to DBE subconsultants or supplies by dollar amount and as a percentage of the total invoice and shall state the DBE goals as a percentage of Total Agreement Value.
5. Each invoice shall bear a certification signed by the Engineering Contract Manager or an officer of

the firm which reads as follows:

"I hereby certify that the hours and salary rates charged in this invoice are the actual hours and rates worked and paid to the employees listed.

ARTICLE CIV • PAYMENT

Progress payments shall be made in accordance with the Engineering Services, Agreement ARTICLE VI • COMPENSATIONS.

ARTICLE CV • COST PROPOSAL

The following cost proposal reflects the negotiated targeted contract amount. The cost proposal will serve as a guideline and reference document during the execution of this contract. ENGINEER shall be compensated in accordance with the rates provided. The proposed contract fee is $1,670,924. The total amount of the contract is not to exceed $1,838,017 including a $167,092 contingency. Reimbursement is to be made at actual cost plus fixed fee, however, billing shall not exceed the rates provided in Section B above or the rates provided in the attached Fee Proposal Worksheets below. Written approval from the COUNTY PROJECT MANAGER is required to expend any contingency funds.

I-10/Monroe Interchange Improvements Fee Proposal Summary

November 16, 2017

COMPANIES	PHASE I	PHASE II	PHASE III	PHASE IV	TOTAL
Michael Baker International, Inc. Prime	$ 902,813.47				**$ 902,813.47**
Applied Earthworks, Inc. Cultural	$ 30,785.53				**$ 30,785.53**
Converse Consultants Geotechnical	$ 71,517.12				**$ 71,517.12**
Fehr & Peers Traffic	$ 68,640.92				**$ 68,640.92**
Overland Pacific & Cutler, Inc. Right of Way	$ 6,731.12				**$ 6,731.12**
Parsons Transportation Group, Inc. Civil	$ 319,688.51				**$ 319,688.51**
POWER Engineers Environmental	$ 228,011.12				**$ 228,011.12**
Value Management Strategies, Inc. Value Engineering	$ 42,736.31				**$ 42,736.31**
TOTAL	**$ 1,670,924.11**				**$ 1,670,924.11**

Phase I **Preliminary Engineering & Environmental**

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK:	PHASE:
Michael Baker International, Inc.	**Preliminary Engineering & Environmental**	**Phase I**
PROJECT:		DATE:
I-10/Monroe Interchange Improvements		**November 16, 2017**

DIRECT LABOR

PERSONNEL	POSITION	HOURS		RATE	AMOUNT
	Project Principal	254	@	$109.27	$27,754.58
	Project Manager	584	@	$72.50	$42,340.00
	Structural Engineer	34	@	$105.93	$3,601.62
	Technical Manager	365	@	$81.30	$29,674.50
	Senior Engineer	511	@	$60.11	$30,716.21
	Project Engineer	1,356	@	$54.00	$73,224.00
	Landscape Architect	8	@	$59.56	$476.48
	Biologist	147	@	$52.99	$7,789.53
	Environmental Specialist	193	@	$48.56	$9,372.08
	Design Engineer	659	@	$44.00	$28,996.00
	Environmental Analyst	48	@	$43.50	$2,088.00
	Designer/Planner	326	@	$41.60	$13,561.60
	Design Technician	474	@	$40.01	$18,964.74
	GIS Analyst	90	@	$38.56	$3,470.40
	Utility Coordinator	216	@	$36.72	$7,931.52
	Assistant Engineer/Planner	465	@	$35.24	$16,386.60
	Project Controls	96	@	$28.03	$2,690.88
	Administrative	100	@	$27.03	$2,703.00
	Office Support/Clerical	78	@	$25.00	$1,950.00
		TOTAL HOURS:	**6,004**	TOTAL AMOUNT:	**$323,691.74**

MULTIPLIERS

ESCALATION @		(of Direct Labor)	
OVERHEAD @	96.95%	(of Direct Labor + Escalation)	$313,819.14
PAYROLL ADDITIVES @	44.49%	(of Direct Labor + Escalation)	$144,010.46
PROFIT (FIXED FEE)	10.0%		$78,152.13
		TOTAL MULTIPLIERS:	**$535,981.73**

OTHER DIRECT COSTS

••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Mileage/Travel	4000		@	$0.54	$2,140.00
Reproductions	1	LS	@	$30,000.00	$30,000.00
Postage/Mailing	1	LS	@	$1,000.00	$1,000.00
Outreach Video Simulation	1	LS	@	$10,000.00	$10,000.00
			TOTAL ODC'S:		**$43,140.00**

SUB CONSULTANT SERVICES

COMPANY	LABOR	MULTIPLIERS	ODC's	TOTAL
Applied Earthworks, Inc.	$11,757.12	$17,600.41	$1,428.00	$30,785.53
Converse Consultants	$20,902.56	$47,839.06	$2,775.50	$71,517.12
Fehr & Peers	$20,686.70	$42,127.22	$5,827.00	$68,640.92
Overland Pacific & Cutler, Inc.	$2,334.08	$4,290.04	$107.00	$6,731.12
Parsons Transportation Group, Inc.	$125,208.92	$181,804.60	$12,675.00	$319,688.51
POWER Engineers	$70,082.58	$144,777.29	$13,151.25	$228,011.12
Value Management Strategies, Inc.	$12,417.40	$25,005.91	$5,313.00	$42,736.31
			TOTAL SUBCONSULTANT SERVICES:	**$768,110.64**

TOTAL **$1,670,924.11**

MANHOUR WORKSHEET		
COMPANY: **Michael Baker International, Inc.**	SCOPE OF WORK: **Manhour Summary**	PHASE: **All Phases**
PROJECT: **I-10/Monroe Interchange Improvements**		DATE: **November 16, 2017**

TASK	PROJECT PRINCIPAL	PROJECT MANAGER	STRUCTURAL ENGINEER	TECHNICAL MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	LANDSCAPE ARCHITECT	BIOLOGIST	ENVIRONMENTAL SPECIALIST	DESIGN ENGINEER	ENVIRONMENTAL ANALYST	DESIGNER/PLANNER	DESIGN TECHNICIAN	HOURS	(Top & Bottom) HOURS
	$290.20	$192.65	$281.33	$215.92	$159.64	$143.42	$158.18	$140.73	$128.97	$116.86	$115.53	$110.48	$106.26		
PHASE TOTALS	**254**	**584**	**34**	**365**	**511**	**1,356**	**8**	**147**	**193**	**659**	**48**	**326**	**474**	**4,959**	**6,004**
PHASE I	254	584	34	365	511	1,356	8	147	193	659	48	326	474	4,959	6,004
PHASE II															
PHASE III															
PHASE IV															

TASK	GIS ANALYST	UTILITY COORDINATOR	ASSISTANT ENGINEER/PLANNER	PROJECT CONTROLS	ADMINISTRATIVE	OFFICE SUPPORT/CLERICAL								HOURS
	$102.41	$97.52	$93.59	$74.44	$71.79	$66.40								
PHASE TOTALS	**90**	**216**	**465**	**96**	**100**	**78**								**1,045**
PHASE I	90	216	465	96	100	78								1,045
PHASE II														
PHASE III														
PHASE IV														

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK:	PHASE:
Michael Baker International, Inc.	Preliminary Engineering & Environmental	Phase I
PROJECT:		**DATE:**
I-10/Monroe Interchange Improvements		November 16, 2017

TASK	PROJECT PRINCIPAL	PROJECT MANAGER	STRUCTURAL ENGINEER	TECHNICAL MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	LANDSCAPE ARCHITECT	BIOLOGIST	ENVIRONMENTAL SPECIALIST	DESIGN ENGINEER	ENVIRONMENTAL ANALYST	DESIGNER/PLANNER	DESIGN TECHNICIAN	HOURS	COST
	$290.20	$192.55	$281.33	$215.92	$159.64	$143.42	$158.18	$140.73	$128.97	$116.86	$115.53	$110.48	$106.26		
Total Manhours	**254**	**584**	**34**	**365**	**511**	**1,356**	**8**	**147**	**193**	**659**	**48**	**326**	**474**	**4,959**	
1.0 Project Management															
1.1 Project Administration and Control	80	140				60				80				360	$ 68,127
1.2 Project Meetings	48		4	6		142								200	$ 36,716
1.3 Budgeting						20								20	$ 2,868
1.4 Cost Accounting and Project Reporting	24	35												59	$ 13,704
1.5 Scheduling						12				28				40	$ 4,993
1.6 Risk Management	4	20		4		20								48	$ 8,744
1.7 Quality Control Plan															
2.0 Perform Preliminary Engineering															
2.1 Research and Data Gathering		15		12		16				8				51	$ 8,709
2.2 Project Development Team (PDT)	2	2				2						14		20	$ 2,799
2.3 Permits and Right of Entry		24				40		40						104	$ 15,987
2.4 Traffic Analysis		8		4	8	28				14		10		72	$ 10,438
2.5 Value Analysis	48	28		20	20	16				8				140	$ 30,062
2.6 Geometric Alternatives Analysis and Project Footprint		40		40	40							50	48	218	$ 33,349
2.7 Storm Water Data Report															
2.8 Preliminary Right of Way Engineering		8			16							8		32	$ 4,979
2.9 Preliminary Drainage				60	72	120				100		124		476	$ 67,045
2.10 Utility Coordination		14		14		40								68	$ 11,455
2.11 Preliminary Geotechnical Investigations and Evaluation						34								34	$ 4,876
2.12 Structures Advanced Planning Study	8	16	30	35	50	50				80			80	349	$ 54,402
2.13 Life Cycle Cost Analysis for Pavement		48				54				45		16		163	$ 24,013
2.14 Preliminary Transportation Management Plan															
2.15 Geometric Approval Drawings (GAD's)					96	54						4	60	214	$ 29,888
3.0 Prepare Draft Project Report															
3.1 Cost Estimates for Alternatives		8		2	28					16				54	$ 8,312
3.2 Geometric Plans for Project Alternatives	8	16		48	40	118				80		40		350	$ 52,843

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK:	PHASE:
Michael Baker International, Inc.	Preliminary Engineering & Environmental	Phase I
PROJECT:		**DATE:**
I-10/Monroe Interchange Improvements		November 16, 2017

TASK	PROJECT PRINCIPAL	PROJECT MANAGER		STRUCTURAL ENGINEER	TECHNICAL MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	LANDSCAPE ARCHITECT	BIOLOGIST	ENVIRONMENTAL SPECIALIST	DESIGN ENGINEER	ENVIRONMENTAL ANALYST	DESIGNER/PLANNER	DESIGN TECHNICIAN	HOURS	COST
3.3 Fact Sheet for Exceptions	8	16		16		96				16					152	$ 24,495
3.4 Draft Project Report	24	48		40		120				60			220		512	$ 72,442
3.5 Modified Access Report		8		8		64				8					88	$ 13,381
4.0 Perform Preliminary Environmental Studies																
4.1 Farmland Technical Memorandum																
4.2 Noise Study																
4.3 Noise Abatement Decision Report																
4.4 Air Quality Study																
4.5 Visual Technical Memorandum							8		15		8				31	$ 4,124
4.6 Phase I Initial site Assessment (ISA)									88		32				120	$ 15,046
4.7 Water Quality Assessment Report (WQAR)																
4.8 Location Hydraulics Study & Summary Floodplain Encroachment Report		8		24	64	60				60		60			276	$ 39,185
4.9 Asbestos, Lead-Based Paint, and Aerially Deposited Lead Memorandum				4				15		10					29	$ 4,143
4.10 Biological Studies		12			44			92	90		8				246	$ 34,814
4.11 Cultural Resource Studies																
5.0 Draft Environmental Document																
5.1 Prepare Draft Environmental Document				8		40				16					64	$ 9,334
5.2 Public Circulation of Draft Environmental Document																
5.3 Public Outreach		16		12	25	40				30					123	$ 18,905
5.4 Responses to Comments on Draft Environmental Document		8		8	8										24	$ 4,545
6.0 Approved Project Report and Final Environmental Document																
6.1 Update Draft Project Report		16				40							22		78	$ 11,155
6.2 Approved Project Report		14				30							22		66	$ 9,336
6.3 Final Environmental Document		16				40							22		78	$ 11,155

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK:	PHASE:
Michael Baker International, Inc.	**Preliminary Engineering & Environmental**	**Phase I**
PROJECT:		DATE:
I-10/Monroe Interchange Improvements		**November 16, 2017**

TASK	GIS ANALYST	UTILITY COORDINATOR	ASSISTANT ENGINEER/PLANNER	PROJECT CONTROLS	ADMINISTRATIVE	OFFICE SUPPORT/CLERICAL									HOURS	COST
	$102.41	$97.52	$93.59	$74.44	$71.79	$66.40										
Total Manhours	**90**	**216**	**465**	**96**	**100**	**78**									**1,045**	
1.0 Project Management																
1.1 Project Administration and Control		**80**													**80**	**$ 7,802**
1.2 Project Meetings		**8**	**44**		**80**										**132**	**$ 10,641**
1.3 Budgeting																
1.4 Cost Accounting and Project Reporting				**96**											**96**	**$ 7,147**
1.5 Scheduling		**48**													**48**	**$ 4,681**
1.6 Risk Management																
1.7 Quality Control Plan																
2.0 Perform Preliminary Engineering																
2.1 Research and Data Gathering			**38**												**38**	**$ 3,556**
2.2 Project Development Team (PDT)			**2**												**2**	**$ 187**
2.3 Permits and Right of Entry			**30**												**30**	**$ 2,808**
2.4 Traffic Analysis			**8**												**8**	**$ 749**
2.5 Value Analysis			**14**												**14**	**$ 1,310**
2.6 Geometric Alternatives Analysis and Project Footprint			**80**												**80**	**$ 7,487**
2.7 Storm Water Data Report																
2.8 Preliminary Right of Way Engineering			**8**												**8**	**$ 749**
2.9 Preliminary Drainage																
2.10 Utility Coordination	**48**	**80**													**128**	**$ 12,717**
2.11 Preliminary Geotechnical Investigations and Evaluation																
2.12 Structures Advanced Planning Study			**40**		**20**	**20**									**80**	**$ 6,507**
2.13 Life Cycle Cost Analysis for Pavement			**24**												**24**	**$ 2,246**
2.14 Preliminary Transportation Management Plan																
2.15 Geometric Approval Drawings (GAD's)																
3.0 Prepare Draft Project Report																
3.1 Cost Estimates for Alternatives			**16**												**16**	**$ 1,497**
3.2 Geometric Plans for Project Alternatives			**40**			**24**									**64**	**$ 5,337**

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK:	PHASE:
Michael Baker International, Inc.	**Preliminary Engineering & Environmental**	**Phase I**
PROJECT:		DATE:
I-10/Monroe Interchange Improvements		**November 16, 2017**

TASK	GIS ANALYST	UTILITY COORDINATOR	ASSISTANT ENGINEER/PLANNER	PROJECT CONTROLS	ADMINISTRATIVE	OFFICE SUPPORT/CLERICAL								HOURS	COST
3.3 Fact Sheet for Exceptions		32			24									56	$ 4,588
3.4 Draft Project Report		24												24	$ 2,246
3.5 Modified Access Report		24												24	$ 2,246
4.0 Perform Preliminary Environmental Studies															
4.1 Farmland Technical Memorandum															
4.2 Noise Study															
4.3 Noise Abatement Decision Report															
4.4 Air Quality Study															
4.5 Visual Technical Memorandum															
4.6 Phase I Initial site Assessment (ISA)															
4.7 Water Quality Assessment Report (WQAR)															
4.8 Location Hydraulics Study & Summary Floodplain Encroachment Report															
4.9 Asbestos, Lead-Based Paint, and Aerially Deposited Lead Memorandum															
4.10 Biological Studies	30				10									40	$ 3,736
4.11 Cultural Resource Studies															
5.0 Draft Environmental Document															
5.1 Prepare Draft Environmental Document	12													12	$ 1,229
5.2 Public Circulation of Draft Environmental Document															
5.3 Public Outreach		15												15	$ 1,404
5.4 Responses to Comments on Draft Environmental Document		26												26	$ 2,433
6.0 Approved Project Report and Final Environmental Document															
6.1 Update Draft Project Report															
6.2 Approved Project Report															
6.3 Final Environmental Document															

SUBCONSULTANT FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK:	PHASE:
Applied Earthworks, Inc.	**Cultural**	**Phase I**
PROJECT:		DATE:
I-10/Monroe Interchange Improvements		**November 16, 2017**

DIRECT LABOR

PERSONNEL	POSITION	HOURS		RATE	AMOUNT
Tiffany Clark	Senior Archaeologist/Project Manager	41	@	$51.46	$2,109.86
Jessica DeBusk	Paleontology Program Manager	5	@	$58.90	$294.50
M. Colleen Hamilton	Senior Architectural Historian	3	@	$51.90	$155.70
John Eddy	Senior Archaeologist	4	@	$40.46	$161.84
Joan George	Associate Archaeologist	112	@	$37.17	$4,163.04
Heather Clifford	Associate Paleontologist/Geologist	42	@	$31.67	$1,330.14
Justin Castells	Associate Architectural Historian	50	@	$33.79	$1,689.50
Dennis McDougall	Field Supervisor	10	@	$34.95	$349.50
Cari Inoway	Graphics Specialist	27	@	$32.52	$878.04
Suzie Bircheff	Administrative Assistant	20	@	$31.25	$625.00
		TOTAL HOURS	**314**	TOTAL DIRECT LABOR	**$11,757.12**

MULTIPLIERS

ESCALATION @		(of Direct Labor)	
OVERHEAD @	127.00%	(of Direct Labor + Escalation)	$14,931.54
PAYROLL ADDITIVES @		(of Direct Labor + Escalation)	
PROFIT (FIXED FEE)	10.0%		$2,668.87
		TOTAL MULTIPLIERS	**$17,600.41**

OTHER DIRECT COSTS

••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Printing, Reporoduction, Shipping	1		@	$300.00	$300.00
Mileage (personal vehicle)	800		@	$0.54	$428.00
Museum Fee	1		@	$300.00	$300.00
Records Search Fee	1		@	$400.00	$400.00
			TOTAL ODC'S		**$1,428.00**

TOTAL **$30,785.53**

SUBCONSULTANT MANHOUR WORKSHEET SUMMARY

COMPANY:	SCOPE OF WORK:	PHASE:
Applied Earthworks, Inc.	**Cultural**	**All Phases**
PROJECT:		DATE:
I-10/Monroe Interchange Improvements		**November 16, 2017**

TASK	SENIOR ARCHAEOLOGIST/PROJECT MANAGER	PALEONTOLOGY PROGRAM MANAGER	SENIOR ARCHITECTURAL HISTORIAN	SENIOR ARCHAEOLOGIST	ASSOCIATE ARCHAEOLOGIST	ASSOCIATE PALEONTOLOGIST/GEOLOGIST	ASSOCIATE ARCHITECTURAL HISTORIAN	FIELD SUPERVISOR	GRAPHICS SPECIALIST	ADMINISTRATIVE ASSISTANT	HOURS
	$128.50	$147.07	$129.59	$101.03	$92.81	$79.08	$84.37	$87.27	$81.20	$78.03	
PHASE TOTALS	**41**	**5**	**3**	**4**	**112**	**42**	**50**	**10**	**27**	**20**	**314**
PHASE I	41	5	3	4	112	42	50	10	27	20	314
PHASE II											
PHASE III											
PHASE IV											