

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

522A



FROM: TLMA - Transportation Department

SUBMITTAL DATE:
February 27, 2014

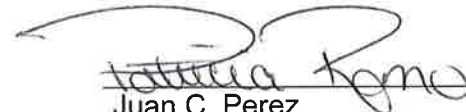
SUBJECT: Engineering Services Agreement by and between the County of Riverside and Falcon Engineering Services, Inc. to Perform Construction Management Services for the Magnolia Avenue Grade Separation Project. All Covenants Set Forth in the Agreement Shall be Completed by December 31, 2018. 2nd/2nd District. [\$4,931,900]; State Funds 100%

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the Engineering Services Agreement by and between the County of Riverside and Falcon Engineering Services, Inc.; and
2. Authorize the Chairman of the Board to execute the same; and
3. Authorize the Director of Transportation and Land Management, or his designee, to sign amendments up to \$450,000 for a maximum contract amount of \$4,931,900.

Departmental Concurrence

Patricia Romo
Assistant Director of Transportation



Juan C. Perez
Director of Transportation and Land Management

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost:	POLICY/CONSENT (Per Exec. Office)
COST	\$ 400,000	\$ 1,850,000	\$ 4,931,900	\$ 0	Consent <input type="checkbox"/> Policy <input checked="" type="checkbox"/>
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0	

SOURCE OF FUNDS: Prop. 1B [Trade Corridor Improvement Fund] (100%).
There are no General Funds used in this project.

Budget Adjustment: No
For Fiscal Year: 13/14

C.E.O. RECOMMENDATION:

APPROVE

BY: 
Tina Grande

County Executive Office Signature

MINUTES OF THE BOARD OF SUPERVISORS

FORM APPROVED COUNTY COUNSEL
BY:  MARSHALL VICTOR
DATE: 3/26/14

- Positions Added
- Change Order
- A-30
- 4/5 Vote

Prev. Agn. Ref.: 09/10/13, Item 3-94
12/10/13, Item 3-34

District: 2/2

Agenda Number:

3-36

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

FORM 11: Engineering Services Agreement by and between the County of Riverside and Harris & Associates to Perform Construction Management Services for the Magnolia Avenue Grade Separation Project. All Covenants Set Forth in the Agreement Shall be Completed by December 31, 2018. 1st/1st District [\$4,931,900]; State Funds 100%

DATE: February 27, 2014

PAGE: 2 of 2

BACKGROUND:

Summary

Magnolia Avenue is a four-lane major roadway in the City of Riverside and the Home Gardens area. This heavily traveled roadway carries close to 20,000 vehicles per day and connects the cities of Riverside and Corona. Magnolia Avenue crosses over two mainline BSNF Railway Company railway tracks that services freight trains as well as commuter trains. This project will separate the roadway grade of Magnolia Avenue from the BNSF Railway Company railway tracks and will provide uninterrupted flow for motorist, pedestrian, bicycle, emergency vehicle, and train traffic at this crossing.

The County of Riverside (County) issued a Request for Proposals (RFP) and selected Falcon Engineering Services, Inc. to provide the construction management services. The scope and the negotiated fee for performing construction management services to construct the grade separation project are provided in detail in the Appendices "A" and "B" of the subject agreement.

The Magnolia Avenue/BSNF Railway Company Grade Separation Project construction contract was awarded to OHL USA, Inc. on December 10, 2013 (Agenda Item 3-34). The project is anticipated to start construction in March 2014

Impact on Residents and Businesses

Currently, 63 freight trains and 23 passenger trains pass through this crossing on a daily basis. This frequency is projected to increase to 91 freight trains and 46 passenger trains by the year 2035. This grade separation project will generate the following benefits:

- Increased public safety by the elimination of the train and vehicle conflicts
- Reduced congestion on Magnolia Avenue, a heavily traveled corridor connecting Corona, Home Gardens, and Riverside
- Reduction of particulate matter from idling vehicles, causing a reduction in greenhouse gas emissions
- Reduced train noise

SUPPLEMENTAL:

Additional Fiscal Information

The consultant's negotiated fee for construction management services is \$4,481,900 and will be funded using Proposition 1B - Trade Corridor Improvement Funds. This item also provides for the Director of Transportation to execute contract amendments for contingencies related to claims, time extensions granted to the construction contractor and other unforeseen issues with the contractor that may arise to ensure completion of the construction contract with a total contract amount not to exceed \$4,931,900. The terms of the Agreement shall be completed by December 31, 2018.

The cost breakdown by fiscal year is:

• Current FY13/14	\$ 400,000
• FY14/15	\$ 1,850,000
• FY15/16	\$ 1,850,000
• FY 16/17	\$ 381,900
• <u>Contingency</u>	<u>\$ 450,000</u>
Total Budget:	\$ 4,931,900

Contract History and Price Reasonableness

The consultant's negotiated fee proposal of \$4,481,900 is below the County's independent estimate of \$5,043,000 and is 13.1% of the contractor's construction bid of \$34,167,622 for the project.

Federal Project No.: CMTCIFLN-5956 (193)

Caltrans EA No. 080020163L-N

Contract No. 13-11-012

Riverside County Transportation

ENGINEERING SERVICES CONTRACT



for

Construction Management Services

between

COUNTY OF RIVERSIDE • TRANSPORTATION DEPARTMENT

and

Falcon Engineering Services Inc.

Table of Contents

1		
2		
3	ARTICLE I • DESIGNATED CONTACTS.....	1
4	ARTICLE II • PROJECT DEFINITION.....	1
5	ARTICLE III • COOPERATIVE AGENCIES	2
6	A. Lead Agency.....	2
	B. Cooperative Agencies	2
	C. COUNTY/AGENCIES Standards	2
7	ARTICLE IV • CONDITIONS	2
8	A. Notifications	2
9	B. Assignment.....	2
10	C. Subcontracts.....	2
11	D. Modifications.....	3
12	E. COUNTY Directives.....	3
13	F. Liability.....	3
14	G. Indemnification and Defense.....	5
15	H. Quality Control.....	6
16	I. Extra Work.....	7
17	J. Disputes.....	7
18	K. Termination Without Cause	8
19	L. Termination for Lack of Performance	8
20	M. Insurance.....	8
21	N. Conflict of Interest.....	11
22	O. Legal Compliance.....	12
23	P. Nondiscrimination	12
24	Q. Labor Code and Prevailing Wages.....	13
25	R. Review and Inspection	14
26	S. Record Retention / Audits	14
27	T. Rebates, Kickbacks, or Other Unlawful Consideration	15
28	U. Prohibition of Expending Local Agency, State, or Federal Funds for Lobbying.....	15
	V. Ownership of Data.....	16
	W. Confidentiality of Data	16
	X. Funding Requirements	17
	ARTICLE V • PERFORMANCE.....	17
	A. Performance Period.....	17
	B. Time Extensions.....	18
	C. Reporting Progress.....	18
	D. Evaluation of ENGINEER.....	18
	ARTICLE VI • COMPENSATION	19
	A. Work Authorization	19
	B. Basis of Compensation	19
	C. Progress Payments	21
	ARTICLE VII • APPROVALS	22
	APPENDICES	
	A. Scope of Services	A1
	B. Budget.....	B1

ENGINEERING SERVICES CONTRACT

COUNTY OF RIVERSIDE, hereinafter referred to as "COUNTY", and Falcon Engineering Services Inc., hereinafter referred to as "ENGINEER", located at the following addresses:

County of Riverside • Transportation Department	Falcon Engineering Services Inc.
4080 Lemon Street, 8 th Floor	1020 Aquino Circle
Riverside, CA 92502	Corona, CA 92879

do hereby agree as follows:

ARTICLE I • DESIGNATED CONTACTS

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

The ENGINEERING PROJECT MANAGER for ENGINEER will be:

Wael Faqih, PE

The RESIDENT ENGINEER for ENGINEER will be:

Wael Faqih, PE

The STRUCTURES REPRESENTATIVE for ENGINEER will be:

Scott Walker, PE

The COUNTY PROJECT MANAGER for COUNTY will be:

Hugh M. Smith, 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, and Appendix C, Exhibits Required For Federal Funding, 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 and Exhibits Required for Federal Funding is hereinafter collectively referred to as the "PROJECT". All agents, employees or subcontractors, of ENGINEER doing work for COUNTY shall sign an Independent Contractor Agreement, in a form proscribed by COUNTY, acknowledging their status as independent contractors before commencing any work for COUNTY pursuant to

1 this contract or any work assignment associated with PROJECT.

2 **ARTICLE III • COOPERATIVE AGENCIES**

3 **A. Lead Agency**

4 COUNTY is the lead agency for PROJECT and is working independently and/or cooperatively with other
5 agencies in the performance of the PROJECT.

6 **B. Cooperative Agencies**

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

8 City of Riverside

BSNF Railway Company

9 City of Corona

10 **C. COUNTY/AGENCIES Standards**

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

14 **ARTICLE IV • CONDITIONS**

15 **A. Notifications**

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

20 **B. Assignment**

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

22 **C. Subcontracts**

- 23 1. ENGINEER shall perform the services contemplated with resources available within its own organization
24 and listed sub-consultants. No portion of the services pertinent to this contract shall be subcontracted
25 without written authorization by the COUNTY PROJECT MANAGER, except that which is expressly
26 identified in this contract.
- 27 2. In the event ENGINEER subcontracts any portion of ENGINEER's duties under this contract, ENGINEER
28 shall require its subcontractors to comply with the terms of this contract in the same manner as required

1 of ENGINEER including, but not limited to; indemnification of the COUNTY, requiring the same insurance
2 of Subcontractors as required of ENGINEER, and having Subcontractor's insurance name the COUNTY
3 as Additional Insured for each type of insurance where this Contract requires ENGINEER'S insurance to
4 name COUNTY as Additional Insured.

5 **D. Modifications**

- 6 1. This contract may be amended or modified only by mutual written agreement of the parties. No alteration
7 or variation of the terms of this contract will be valid unless made in writing and signed by the parties
8 hereto and no oral understanding or agreement not incorporated herein, will be binding on any of the
9 parties hereto.
- 10 2. Minor modifications are changes that do not substantially affect the Scope of Service or are an increase
11 in costs for services that are consistent with the overall scope and do not cumulatively exceed ten percent
12 (10%) of the total contract budget. Any modification that purports to delete any line item of work that was
13 included in the original Scope of Service shall be considered a major change. All requests for minor
14 modifications must be approved in writing by the Director of Transportation and Land Management prior
15 to implementing the change.
- 16 3. There shall be no change in the ENGINEERING PROJECT MANAGER, the identified RESIDENT
17 ENGINEER, the identified STRUCTURES REPRESENTATIVE or key members of the PROJECT team
18 without prior written approval by the COUNTY PROJECT MANAGER.
- 19 4. All modifications that do not fit within the definition of a minor modification to the contract shall be
20 considered a major change and must be approved in writing by the ENGINEER and COUNTY Board of
21 Supervisors prior to implementing the major change.

22 **E. COUNTY Directives**

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

25 **F. Liability**

- 26 1. ENGINEER has total responsibility for the accuracy and completeness of all documentation, reports,
27 plans, calculations and estimates prepared by or on behalf of ENGINEER for this PROJECT and shall
28 check all such material accordingly. The data and plans will be reviewed by COUNTY. The responsibility

1 for accuracy and completeness of such items remains solely that of ENGINEER. Neither COUNTY'S
2 review nor approval shall give rise to any liability or responsibility on the part of COUNTY, or waive any of
3 COUNTY'S rights, or relieve ENGINEER of its professional responsibilities or obligations under this
4 contract.

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

13 3. The page identifying preparers of engineering reports, the title sheet for calculations and/or each sheet of
14 plans prepared in the performance of this PROJECT, shall bear the professional seal, certificate number,
15 registration classification, expiration date of the certificate, and signature of the professional(s)
16 responsible for their preparation.

17 4. COUNTY and ENGINEER agree that reports, plans, drawings or other work products are for the exclusive
18 use of COUNTY and may be used by COUNTY for the PROJECT described on the face hereof. Such
19 plans, drawings or PROJECT work products may not be changed or used on a different project without
20 the written authorization or approval by ENGINEER.

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

25 6. ENGINEER, and the agents and employees of ENGINEER, in the performance of this contract, shall act
26 in an independent capacity as an independent contractor and not as officers, employees or agents of
27 COUNTY.

28 7. ENGINEER has the sole discretion to determine how, when, and where to perform services required to

1 achieve the final result specified in the Scope of Services for the PROJECT subject to Project timelines
2 and availability during COUNTY regular operating hours.

3 8. ENGINEER has the right to perform services for other clients during the term of this contract as long as
4 such services are not in direct conflict with the services provided to COUNTY.

5 9. ENGINEER shall not be entitled to and is not eligible for COUNTY employee benefits, including, but not
6 limited to, medical, dental or vision insurance, life insurance, retirement benefits, vacation or sick pay, or
7 any other benefit or compensation beyond that which is set forth explicitly in this contract.

8 10. ENGINEER shall provide and maintain, throughout the term of this contract, their own workspace, tools,
9 equipment and supplies necessary to perform the duties set forth for ENGINEER under this contract.
10 Notwithstanding the foregoing, COUNTY may, at its sole discretion, and with its prior consent, provide
11 access to COUNTY facilities, offices or meeting rooms during regular business hours for meetings,
12 conferences or other work of ENGINEER.

13 **G. Indemnification and Defense**

14 1. The ENGINEER agrees to and shall indemnify and hold harmless the County of Riverside, its Agencies,
15 Districts, Departments and Special Districts, their respective directors, officers, Board of Supervisors,
16 elected and appointed officials, employees, agents and representatives (hereinafter individually and
17 collectively referred to as "Indemnitees") from all liability, including, but not limited to loss, suits, claims,
18 demands, actions, or proceedings caused by any alleged or actual negligence, recklessness, willful
19 misconduct, errors or omissions of ENGINEER, its directors, officers, partners, employees, agents or
20 representatives or any person or organization for whom ENGINEER is responsible, arising out of or from
21 the performance of services under this contract. To the extent a loss, suit, claim, demand, action, or
22 proceeding is based on actual or alleged acts or omissions of ENGINEER which are not design
23 professional services, ENGINEER shall indemnify Indemnitees whether or not ENGINEER is negligent.

24 2. ENGINEER further agrees to and shall indemnify and hold harmless the County of Riverside, its
25 Agencies, Districts, Departments and Special Districts, their respective directors, officers, Board of
26 Supervisors, elected and appointed officials, employees, agents and representatives (hereinafter
27 individually and collectively referred to as "Indemnitees") from all liability arising from suits, claims,
28 demands, actions, or proceedings made by agents, employees or subcontractors of ENGINEER for

1 salary, wages, compensation, health benefits, insurance, retirement or any other benefit not explicitly set
2 forth in this contract and arising out of work performed for COUNTY pursuant to this contract or any Work
3 Assignment.

- 4 3. The duty to indemnify does not include loss, suits, claims, demands, actions, or proceedings caused by
5 actual negligence of Indemnitees; however, any actual negligence of Indemnitees will only affect the duty
6 to indemnify for the specific act found to be negligence, and will not preclude a duty to indemnify for any
7 act or omission of ENGINEER.
- 8 4. ENGINEER shall defend and pay, at its sole expense, all costs and fees, including but not limited to
9 attorney fees, cost of investigation, and defense, in any loss, suits, claims, demands, actions, or
10 proceedings based or alleged to be based on any act or omission of ENGINEER arising out of or from the
11 performance of services under this contract. The duty to defend applies to any alleged or actual
12 negligence, recklessness, willful misconduct, error or omission of ENGINEER. The duty to defend shall
13 apply whether or not ENGINEER is a party to the lawsuit, and shall apply whether or not ENGINEER is
14 directly liable to the plaintiffs in the lawsuit. The duty to defend applies even if Indemnitees are alleged or
15 found to be actively negligent, unless the act or omission at issue was caused by the sole active
16 negligence of Indemnitees.
- 17 5. The specified insurance provisions and limits required in this contract shall in no way limit or circumscribe
18 ENGINEER'S obligations to indemnify and hold harmless Indemnitees from third party claims.
- 19 6. In the event there is conflict between the indemnity and defense provisions and California Civil Code
20 Sections 2782 and 2782.8, the indemnity and defense provisions shall be interpreted to comply with Civil
21 Code sections 2782 and 2782.8.

22 **H. Quality Control**

23 ENGINEER shall implement and maintain the following quality control procedures during the preparation of
24 the reports, calculations, plans and other documents relating to PROJECT. ENGINEER shall have a quality
25 control plan in effect during the entire time services are being performed under the contract. The plan shall
26 establish a process whereby reports are reviewed and calculations are independently checked, plans
27 checked, corrected and back-checked, and all job related correspondence and memoranda routed and
28 received by affected persons and then bound in appropriate job files. The COUNTY PROJECT MANAGER

1 may request evidence that the quality control plan is functional.

2 **I. Extra Work**

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

11 **J. Disputes**

- 12 1. In the event ENGINEER considers any work demanded of him to be outside the requirements of the
13 contract, or if he considers any order, instruction, or decision of COUNTY to be unfair, he shall promptly
14 upon receipt of such order, instruction or decision, ask for a written confirmation of the same whereupon
15 he shall proceed without delay to perform the work or to conform to the order, instruction, or decision; but
16 unless ENGINEER finds such order, instruction, or decision satisfactory, he shall within 20 days after
17 receipt of same, file a written protest with COUNTY stating clearly and in detail his objections and reasons
18 therefore. Except for such protests or objections as are made of record in the manner specified and
19 within the time stated herein, and except for such instances where the basis of a protest could not
20 reasonably have been foreseen by ENGINEER within the time limit specified for protest, ENGINEER
21 hereby waives all grounds for protests or objections to the orders, instruction, or decisions of COUNTY
22 and hereby agrees that, as to all matters not included in such protests, the orders, instructions and
23 decisions of COUNTY will be limited to matters properly falling within COUNTY's authority. In the event
24 of a dispute or objection over work requested by COUNTY pursuant to this contract, ENGINEER agrees
25 to first consult with COUNTY PROJECT MANAGER regarding the dispute or objection and to take all
26 appropriate action to protect the interests of COUNTY and the PROJECT, including promptly complying
27 with COUNTY requests when time is of the essence.
- 28 2. Any controversy or claim arising out of or relating to this contract which cannot be resolved by mutual

1 agreement may be settled by arbitration in accordance with the rules of the American Arbitration
2 Association, provided that the parties mutually agree to submit to arbitration.

- 3 3. Neither the pendency of a dispute nor its consideration by arbitration will excuse ENGINEER from full and
4 timely performance in accordance with the terms of the contract.

5 **K. Termination Without Cause**

- 6 1. COUNTY reserves the right to terminate this contract at COUNTY's discretion and without cause, upon
7 thirty (30) calendar days written notice to ENGINEER.
- 8 2. In the event of termination of the contract, upon demand, ENGINEER shall deliver to COUNTY all field
9 notes, surveys, studies, reports, plans, drawings, specifications, and all other materials and documents
10 prepared or provided to ENGINEER in the performance of this contract. All such documents and
11 materials shall be property of COUNTY.
- 12 3. In the event that the contract is terminated, ENGINEER is entitled to full payment for all services
13 performed up to the time written notice of contract cancellation is received by ENGINEER. Payment shall
14 be made for actual services performed in the performance of the PROJECT to date based upon Appendix
15 A, Scope of Services, as contracted for, less payments made to date; plus any amount for authorized, but
16 unpaid, extra work performed and costs incurred.

17 **L. Termination for Lack of Performance**

18 COUNTY may terminate this contract and be relieved of the payment of any consideration to ENGINEER
19 should ENGINEER fail to perform the covenants herein contained at the time and in the manner herein
20 provided. In the event of such termination, COUNTY may proceed with the work in any manner deemed
21 proper by COUNTY. In such event, ENGINEER shall be paid only for work completed and delivered to
22 COUNTY in a timely and successful manner.

23 **M. Insurance**

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

1 representatives as Additional Insureds.

2 1. Workers' Compensation:

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

8 2. Commercial General Liability:

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

16 3. Vehicle Liability:

17 ENGINEER shall maintain Liability Insurance for all owned, non-owned or hired vehicles in an amount not
18 less than \$1,000,000 per occurrence combined single limit. If such insurance contains a general
19 aggregate limit, it shall apply separately to this contract or be no less than two (2) times the occurrence
20 limit. Policy shall name the COUNTY as Additional Insureds.

21 4. Professional Liability:

22 ENGINEER shall maintain Professional Liability Insurance providing coverage for ENGINEER'S
23 performance of work included within this contract, with a limit of liability of not less than \$1,000,000 per
24 occurrence and \$2,000,000 annual aggregate. If ENGINEER'S Professional Liability Insurance is written
25 on a claims-made basis rather than an occurrence basis, such insurance shall continue through the term
26 of this contract and ENGINEER shall purchase at his sole expense either 1) an Extended Reporting
27 Endorsement (also, known as Tail Coverage); or 2) Prior Dates Coverage from new insurer with a
28 retroactive date back to the date of, or prior to, the inception of this contract; or 3) demonstrate through

1 Certificates of Insurance that ENGINEER has Maintained continuous coverage with the same or original
2 insurer. Coverage provided under items; 1), 2), or 3) will continue as long as the law allows.

3 5. General Insurance Provisions - All lines:

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

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

16 c. The ENGINEER shall cause ENGINEER's insurance carrier(s) to furnish the COUNTY with either 1)
17 a properly executed original Certificate(s) of Insurance and certified original copies of Endorsements
18 effecting coverage as required herein; and, 2) if requested to do so orally or in writing by the County
19 Risk Manager, provide original Certified copies of policies including all Endorsements and all
20 attachments thereto, showing such insurance is in full force and effect. Further, said Certificate(s)
21 and policies of insurance shall contain the covenant of the insurance carrier(s) that thirty (30) days
22 written notice shall be given to the COUNTY prior to any material modification, cancellation,
23 expiration or reduction in coverage of such insurance. In the event of a material modification,
24 cancellation, expiration, or reduction in coverage, this contract shall terminate forthwith, unless the
25 COUNTY receives, prior to such effective date, another properly executed original Certificate of
26 Insurance and original copies of endorsements or certified original policies, including all
27 endorsements and attachments thereto evidencing coverages and the insurance required herein is in
28 full force and effect. ENGINEER shall not commence operations until the COUNTY has been

1 furnished original Certificate (s) of Insurance and certified original copies of endorsements and if
2 requested, certified original policies of insurance including all endorsements and any and all other
3 attachments as required in this Section. An individual authorized by the insurance carrier to do so on
4 its behalf shall sign the original endorsements for each policy and the Certificate of Insurance.

5 d. It is understood and agreed by the parties hereto and the ENGINEER's insurance shall be construed
6 as primary insurance, and the COUNTY's insurance and/or deductibles and/or self-insured retentions
7 or self-insured programs shall not be construed as contributory.

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

14 f. ENGINEER shall pass down the insurance obligations contained herein to all tiers of subcontractors
15 working under this contract.

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

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

20 **N. Conflict of Interest**

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

1 understands that as a condition of this contract ENGINEER agrees to complete the Conflict of Interest
2 Statement when requested to do so by COUNTY.

3 **O. Legal Compliance**

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

8 **P. Nondiscrimination**

- 9 1. During the performance of this contract, ENGINEER and its Subcontractors shall not act unlawfully
10 against any employee or applicant for employment because of race, religion, color, national origin,
11 ancestry, physical handicap, medical condition, marital status, age or sex. ENGINEER and
12 Subcontractor shall comply with the provisions of the Fair Employment and Housing Act (Government
13 Code, Section 12900 et seq.) and applicable regulations promulgated thereunder (California
14 Administrative Code, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment
15 and Housing Commission implementing Government Code, Section 12900, set forth in Chapter 5 of
16 Division 4 of Title 2 of the California Administrative Code are incorporated into this contract by reference
17 and made a part hereof as if set forth in full. ENGINEER and its Subcontractors shall give written notice
18 of their obligations under this clause to labor organizations with which they have a collective bargaining or
19 other agreement.
- 20 2. ENGINEER will provide all information and reports required by the Regulations, or orders and instructions
21 issued pursuant thereto, and will permit access to its books, records, accounts, other sources of
22 information, and its facilities as may be determined by COUNTY or AGENCIES to be pertinent to
23 ascertain compliance with such Regulations, orders and instructions. Where any information required of
24 ENGINEER is in the exclusive possession of another who fails or refuses to furnish this information,
25 ENGINEER shall so certify to COUNTY, or the Federal Highway Administration as appropriate and shall
26 set forth what efforts he has made to obtain the information.
- 27 3. In the event of ENGINEER's noncompliance with the nondiscrimination provisions of this contract,
28 COUNTY shall impose such contract sanctions as it determines to be appropriate, including, but not

1 limited to:

- 2 • Withholding of payments to ENGINEER under the contract until ENGINEER complies;
 - 3 • Cancellation, termination, or suspension of the contract in whole or in part.
- 4 4. ENGINEER shall include the nondiscrimination and compliance provisions of this clause in all
- 5 subcontracts to perform work under this contract.
- 6 5. ENGINEER shall comply with Title VI of the Civil Rights Act of 1964, as amended. Accordingly, 49 CFR
- 7 21 through Appendix H and 23 CFR 710.405(b) are applicable to this contract by reference.

8 **Q. Labor Code and Prevailing Wages**

- 9 1. Certain Classifications of Labor under this contract may be subject to prevailing wage requirements.
- 10 2. Reference is made to Chapter 1, Part 7, Division 2 of the California Labor Code (commencing with
- 11 Section 1720). By this reference said Chapter 1 is incorporated herein with like effect as if it were here
- 12 set forth in full. The parties recognize that said Chapter 1 deals, among other things with discrimination,
- 13 penalties and forfeitures, their disposition and enforcement, wages, working hours, and securing worker's
- 14 compensation insurance and directly affect the method of prosecution of the work by ENGINEER and
- 15 subject it under certain conditions to penalties and forfeitures. Execution of the contract by the parties
- 16 constitutes their agreement to abide by said Chapter 1, their stipulation as to all matters which they are
- 17 required to stipulate as to by the provisions of said Chapter 1, constitutes ENGINEER's certification that
- 18 he is aware of the provisions of said Chapter 1 and will comply with them and further constitutes
- 19 ENGINEER's certification as follows: "I am aware of the provisions of Section 3700 of the California Labor
- 20 Code which require every employer to be insured against liability for worker's compensation or to
- 21 undertake self-insurance in accordance with the provisions of that Code, and I will comply with such
- 22 provisions before commencing the performance of the work of this contract."
- 23 3. Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates, including the per diem
- 24 wages applicable to the work, and for holiday and overtime work, including employer payments for health
- 25 and welfare, pension, vacation, and similar purposes, in the county in which the work is to be done have
- 26 been determined by the Director of the California Department of Industrial Relations. These wages are
- 27 available from the California Department of Industrial Relations' Internet website at <http://www.dir.ca.gov>.
- 28 4. Should a portion of the project contain Federal funding, Federal minimum wages shall be used. The

1 Federal minimum wage rates for this project as determined by the United States Secretary of Labor are
2 available from the U.S Department of Labor, Employment Standards Administration, Wage and Hour
3 Division's Internet website at <http://www.access.gpo.gov/davisbacon>. If there is a difference between the
4 minimum wage rates determined by the Secretary of Labor and the general prevailing wage rates
5 determined by the Director of the California Department of Industrial Relations for similar classifications of
6 labor, the ENGINEER and subcontractors shall pay not less than the higher wage rate. The Department
7 will not accept lower State wage rates determinations. This includes "helper" (or other classifications
8 based on hours of experience) or any other classification not appearing in the Federal wage
9 determinations. Where Federal wage determinations do not contain the State wage rate determination
10 otherwise available for use by the ENGINEER and subcontractors, the ENGINEER and subcontractors
11 shall pay not less than the Federal minimum wage rate which most closely approximates the duties of the
12 employees in question.

13 **R. Review and Inspection**

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

16 **S. Record Retention / Audits**

- 17 1. ENGINEER's and subconsultants' contracts, including cost proposals and indirect cost rates (ICR), are
18 subject to audits or reviews such as, but not limited to, a Contract Audit, an Incurred Cost Audit, an ICR
19 Audit, or a certified public accountant (CPA) ICR Audit Workpaper Review. If selected for audit or review,
20 the contract, cost proposal and ICR and related workpapers, if applicable, will be reviewed to verify
21 compliance with 48 CFR, Part 31 and other related laws and regulations. In the instances of a CPA ICR
22 Audit Workpaper Review, it is ENGINEER's responsibility to ensure federal, state, or local government
23 officials are allowed full access to the CPA's workpapers. The contract, cost proposal, and ICR shall be
24 adjusted by ENGINEER and approved by COUNTY contract manager to conform to the audit or review
25 recommendations. ENGINEER agrees that individual terms of costs identified in the audit report shall be
26 incorporated into the contract by this reference if directed by COUNTY at its sole discretion. Refusal by
27 ENGINEER to incorporate audit or review recommendations, or to ensure that the Federal, State, or local
28 governments have access to CPA workpapers, will be considered a breach of contract terms and cause

1 for termination of the contract and disallowance of prior reimbursed costs

2 2. ENGINEER, Subcontractors, and COUNTY shall maintain all books, documents, papers, accounting
3 records, and other evidence pertaining to the performance of the contract, but not limited to, the costs of
4 administering the contract. All parties shall make such materials available at their respective offices at all
5 reasonable times during the contract period and for three years from the date of final payment under the
6 contract or three years from project closeout, whichever is later.

7 3. COUNTY, Caltrans, the State Auditor General, FHWA or any duly authorized representative of the
8 Federal Government shall have access to any books, records, and documents of ENGINEER that are
9 pertinent to the contract for audits, examinations, excerpts, and transactions, and copies thereof shall be
10 furnished if requested.

11 **T. Rebates, Kickbacks, or Other Unlawful Consideration**

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

17 **U. Prohibition of Expending Local Agency, State, or Federal Funds for Lobbying**

18 1. ENGINEER certifies to the best of his or her knowledge and belief that:

19 a. No state, federal or local agency appropriated funds have been paid, or will be paid by-or-on behalf of
20 ENGINEER to any person for influencing or attempting to influence an officer or employee of any
21 state or federal agency; a Member of the State Legislature or United States Congress; an officer or
22 employee of the Legislature or Congress; or any employee of a Member of the Legislature or
23 Congress, in connection with the awarding of any state or federal contract; the making of any state or
24 federal grant; the making of any state or federal loan; the entering into of any cooperative agreement,
25 and the extension, continuation, renewal, amendment, or modification of any state or federal contract,
26 grant, loan, or cooperative agreement.

27 b. If any funds other than federal appropriated funds have been paid, or will be paid to any person for
28 influencing or attempting to influence an officer or employee of any federal agency; a Member of

1 Congress; an officer or employee of Congress, or an employee of a Member of Congress; in
2 connection with this federal contract, grant, loan, or cooperative agreement; ENGINEER shall
3 complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with
4 its instructions.

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

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

13 **V. Ownership of Data**

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

17 **W. Confidentiality of Data**

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

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

24 6. ENGINEER shall not comment publicly to the press or any other media regarding this contract, including
25 COUNTY or Agencies actions regarding this contract. Communication shall be limited to COUNTY,
26 Agency or ENGINEER's staff that are involved with the project, unless ENGINEER shall be requested by
27 COUNTY to attend a public hearing or respond to questions from a Legislative committee.

28 7. Each subcontract shall contain provisions similar to the foregoing related to the confidentiality of data and

1 nondisclosure of the same.

- 2 8. ENGINEER shall not issue any news release or public relations item of any nature whatsoever regarding
3 work performed or to be performed under this contract without prior review of the contents thereof by
4 COUNTY and receipt of COUNTY's written permission.

5 **X. Funding Requirements**

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

14 **ARTICLE V • PERFORMANCE**

15 **A. Performance Period**

- 16 1. The Contract start date is **March 11, 2014**. Services shall begin upon notification to proceed by the
17 COUNTY PROJECT MANAGER.
- 18 2. ENGINEER is advised that any recommendation for contract award is not binding on COUNTY until the
19 proposed contract fully executed and approved by COUNTY.
- 20 3. ENGINEER shall perform PROJECT services in accordance with the provisions set forth in Appendix A,
21 Scope of Services, which is attached hereto and incorporated herein by reference. All Covenants set
22 forth in this agreement shall be completed by **December 31, 2018** unless extended by supplemental
23 agreement.
- 24 4. Where ENGINEER is required to prepare and submit studies, reports, plans, etc., to COUNTY, these
25 shall be submitted in draft as scheduled, and the opportunity provided for COUNTY to offer comments,
26 prior to final submission.
- 27 5. Where applicable, when COUNTY determines that ENGINEER has satisfactorily completed the
28 PROJECT services, COUNTY shall give ENGINEER a written Notice of Final Acceptance. ENGINEER

1 shall not incur any further costs hereunder unless so specified in the Notice of Final Acceptance.
2 ENGINEER may request a Notice of Final Acceptance determination when, in its opinion, it has
3 satisfactorily completed all covenants as stipulated in this Contract.

4 6. Time is of the essence in this agreement.

5 **B. Time Extensions**

- 6 1. Any delay in providing PROJECT services required by this contract occasioned by causes beyond the
7 control and not due to the fault or negligence of ENGINEER, shall be the reason for granting an extension
8 of time for the completion of the aforesaid work. When such delay occurs, ENGINEER shall promptly
9 notify COUNTY in writing of the cause and of the extent of the delay whereupon COUNTY shall ascertain
10 the facts and the extent of the delay and grant an extension of time for the completion of the work when,
11 in COUNTY's judgment, their findings of fact justify such an extension of time.
- 12 2. COUNTY's findings of fact shall be final and conclusive to the parties hereto. However, this is not
13 intended to deny ENGINEER its civil legal remedies in the event of a dispute.
- 14 3. The amended contract is not binding on COUNTY until the proposed amendment is fully executed and
15 approved by COUNTY.

16 **C. Reporting Progress**

- 17 1. As part of the monthly invoice, ENGINEER shall submit a progress report in accordance with COUNTY
18 Engineering Services Progress Reporting Guidelines. Progress Reports shall indicate the progress
19 achieved during the previous month in relation to the Scope of Services, Appendix A, which is attached
20 hereto and incorporated herein by reference. Submission of such progress report by ENGINEER shall be
21 a condition precedent to receipt of payment from COUNTY for each monthly invoice submitted.
- 22 2. To ensure understanding and performance of the contract objectives, meetings between COUNTY,
23 AGENCIES, and ENGINEER shall be held as often as deemed necessary. All work objectives,
24 ENGINEER's work schedule, the terms of the contract and any other related issues will be discussed
25 and/or resolved. ENGINEER shall keep minutes of meetings and distribute copies of minutes as
26 appropriate.

27 **D. Evaluation of ENGINEER**

28 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. The method of compensation is a specific rate of compensation contract. PROJECT services as provided under this agreement as described in the Appendix A, Scope of Services, shall be compensated for as defined in Appendix B, Budget, which is attached hereto and incorporated herein by reference. The total amount of the Contract is not to exceed \$ 4,481,899.92 and reimbursement is to be made at actual billed cost for the following contractors with not to exceed amounts as shown:

•	Falcon Engineering Services Inc.	\$ 1,887,228.20
•	DanKen Engineering	\$ 493,937.38
•	JACOBS	\$ 254,066.16
•	Z&K Consultants	\$ 356,738.40
•	MNS Engineering	\$ 262,568.00
•	CH2MHill	\$ 315,069.50
•	Converse Consultants	\$ 153,213.51
•	GeoMat Testing Laboratories, Inc.	\$ 151,978.72
•	EarthSpectives	\$ 39,975.00
•	DESI	\$ 133,617.60
•	Green Communications	\$ 29,975.25
•	Coory Engineering	\$ 403,532.20
	Engineer's Budget =	\$ 4,481,899.92

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 \$1000 for supplies, equipment or consultant services. ENGINEER shall provide an evaluation of the necessity or desirability of incurring

- 1 such costs.
- 2 3. For purchase of any item, service or consulting work not covered in ENGINEER's proposal and
3 exceeding \$10,000, with prior authorization by the COUNTY PROJECT MANAGER, three competitive
4 quotations shall be submitted with the request, or the absence of bidding shall be adequately justified.
- 5 4. Any equipment purchased as a result of this contract is subjected to the following: ENGINEER shall
6 maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a
7 useful life of at least two years and an acquisition cost of \$500 or more. If the purchased equipment
8 needs replacement and is sold or traded in, COUNTY shall receive a proper refund or credit. At the
9 conclusion of the contract or if the contract is terminated, ENGINEER may either keep the equipment and
10 credit COUNTY in an amount equal to its fair market value or sell such equipment at the best price
11 obtainable at a public or private sale in accordance with established COUNTY procedures and credit
12 COUNTY in an amount equal to the sales price. If ENGINEER elects to keep the equipment, fair market
13 value shall be determined, at ENGINEER's expense, on the basis of a competent independent appraisal
14 of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable by COUNTY, and
15 ENGINEER. If it is determined to sell the equipment, the terms and conditions of such sale must be
16 approved in advance by COUNTY and AGENCIES.
- 17 5. The consideration to be paid ENGINEER, as provided herein, shall be in compensation for all of
18 ENGINEER's expenses incurred in the performance hereof unless otherwise expressly so provided.
19 Travel and Subsistence are explicitly excluded from the contract.
- 20 6. ENGINEER agrees that the Code of Federal Regulations Section 49, Part 18, Uniform Administrative
21 Requirements for Grants and Cooperative Agreements to State and Local Governments shall be used to
22 determine the administrative requirements.
- 23 7. ENGINEER also agrees to comply with Federal procedures in accordance with Office of Management
24 and Budget Circular A-102, Uniform Administrative Requirements for Grants-in-Aid to State and Local
25 Governments.
- 26 8. In the event of errors or omissions in the plans or work product for PROJECT, ENGINEER shall perform
27 the necessary engineering services required to correct such errors and omissions without additional
28 charge to COUNTY.

1 **C. Progress Payments**

- 2 1. ENGINEER shall submit monthly invoices for PROJECT Services in accordance with Appendix B,
3 Budget, and in accordance with COUNTY Engineering Services Invoicing Procedures. Invoices shall
4 show amount billed to date for the current phase, amount invoiced for current period and amount
5 remaining for each phase of PROJECT, phases being defined as Pre-Construction, Construction and
6 Post-Construction.
- 7 2. ENGINEER shall submit an invoice each month for PROJECT services performed during the preceding
8 month. Invoices shall be submitted to the COUNTY PROJECT MANAGER and shall be included with a
9 Progress Report covering the same period as the submitted invoice. Invoices shall show separate line
10 item totals for each work order or extra work task. ENGINEER and ENGINEER's subconsultants shall
11 provide timesheets for all personnel listed in the invoice for the period invoiced showing the projects, days
12 and hours billed as well as a general description of work performed as related to Appendix B, Budget.
- 13 3. Progress payments will be based on PROJECT services provided and actual costs incurred. Payments
14 made prior to the completion of each phase will not exceed the amount allowed in the contract for the
15 completion of that phase and prior phases, unless approved in writing by the COUNTY.
- 16 4. Progress payments will be made as promptly as fiscal procedures will permit upon receipt by the
17 COUNTY PROJECT MANAGER of itemized invoices.
- 18 5. Payment of the post construction Services will be withheld until all documentation is submitted in an
19 acceptable format and COUNTY issues a Notice of Final Acceptance for PROJECT. The budgeted
20 amount will be paid to ENGINEER after COUNTY has approved ENGINEER's final documents and
21 estimate for PROJECT.
- 22
23
24
25
26
27
28

ARTICLE VII • APPROVALS

COUNTY Approvals

RECOMMENDED FOR APPROVAL:

 Dated: 2-5-14

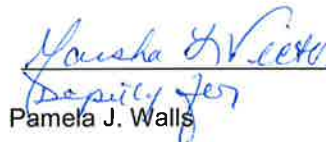
Juan C. Perez

Director of Transportation and Land Management

Patricia Romo

Assistant Director of Transportation

APPROVED AS TO FORM:

 Dated: 2/10/14
Pamela J. Walls

County Counsel

APPROVAL BY THE BOARD OF SUPERVISORS

_____ Dated: _____

PRINTED NAME

Chairman, Riverside County Board of Supervisors

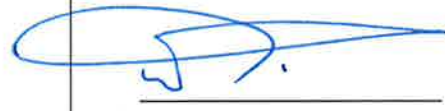
ATTEST:

_____ Dated: _____

Clerk of the Board (SEAL)

ENGINEER Approvals

ENGINEER:

 Dated: 1/28/2014

WAEL FA QIU
PRINTED NAME

V-President
TITLE

ENGINEER:

_____ Dated: _____

PRINTED NAME

TITLE

Appendix A
County of Riverside Transportation Department
Magnolia Avenue Grade Separation Scope of Services

<u>1 – Project Description</u>	A2
1.1 Project Controls System Development	A2
1.2 Monthly Project Progress Meetings and Reports	A4
1.3 Document Management System	A4
1.4 Neighborhood Liaison Strategy	A5
1.5 Sub-Consultant Management:	A5
<u>2 – Pre-Construction Phase Services</u>	A6
2.1 Constructability Review	A6
2.2 Construction Management Plan	A7
2.3 Storm Water Pollution Prevention Plan (SWPPP)	A7
2.4 Local Assistance Documentation / Federal Contract Management Requirements	A8
2.5 Pre-construction walk with contractor	A9
<u>3 – Construction Management Services</u>	A10
3.1 Pre-construction Conferences	A10
3.2 Communications and Correspondence	A11
3.3 Change Management	A11
3.4 Monthly Construction Progress Reports	A12
3.5 Schedule Monitoring	A12
3.6 Cost Monitoring	A13
3.7 Progress / Coordination Meetings	A13
3.8 Payment Recommendations	A14
3.9 Safety	A15
3.10 Environmental Coordination & Biological Monitoring	A15
3.11 Neighborhood Communication /Public Information	A18
3.12 Traffic Control and Signal Timing	A18
3.13 Submittal Management and Review	A19
3.14 Request for Information (RFI) Management and Review	A20
3.15 Document Management	A20
3.16 Construction Change Order Assistance	A21
3.17 Review Certified Payrolls	A22
<u>4 – Construction Inspection Services</u>	A23
4.1 Inspection and Documentation	A23
4.2 Materials Testing, Construction Testing & Quality Assurance Program (QAP)	A24
4.3 Surveying	A25
4.4 Review and maintain “As Constructed Schedule”	A26
4.5 Maintain Photographic and Video Records of Construction Progress	A26
4.6 Review and Maintain “As Built” Drawings	A27
4.7 Final Acceptance – Punch List Assistance	A27
4.8 Final Inspection and Punch-list	A28
<u>5 – Construction Closeout Activities</u>	A28
5.1 Contract Closeout	A28
5.2 Project As-Built Drawings	A29
5.3 Final Project Report	A29
5.4 Final Payment, Final Report of Expenditure Checklist	A30
<u>6 – Field Office and Employee Equipment</u>	A30

1 - Project Description

The COUNTY and the California Department of Transportation (Caltrans), on behalf of the Federal Highway Administration (FHWA), is proposing to construct a railroad grade separation at the Burlington Northern-Santa Fe Railroad (BNSF) and Magnolia Avenue at-grade crossing in Riverside County, California. The purpose of the proposed project is to remove the existing at-grade crossing to improve safety and traffic operations by eliminating the hazards and inefficiencies of trains passing through the flow of vehicular traffic. The proposed project will construct a new four-lane overhead (bridge) over the existing BNSF tracks, approximately 1,480 feet in length with a minimum 24-foot clearance above the entire BNSF right-of-way. The total length of the improvements will extend from approximately 500 feet west of Lincoln Street to approximately 550 feet east of Buchanan Street. The new bridge will be striped for four lanes of traffic on Magnolia Avenue. The length and clearance of the proposed bridge structure will accommodate the existing skewed railroad crossing, as well as the two existing railroad tracks and two additional future tracks (planned separately from this project), and will also provide space for frontage roads (proposed as part of this project). The total length of the elevated roadway and bridge will be approximately 2,850 feet, with approximately 1,450 feet west of the crossing and 1,350 feet east of the crossing. Excavations up to 20 feet below the present ground surface will be required in limited areas; however, at the bridge column placement locations, pile driving may reach a maximum of 100 feet below ground surface. Retaining walls will also be constructed along both sides of the approach embankments.

The COUNTY shall endeavor to provide copies of applicable permits and conditions of approval to the ENGINEER prior to commencement of the work contemplated by this Agreement.

1.1 Project Controls System Development

Purpose:

To provide ENGINEER managers and COUNTY staff with current information regarding schedule, budgets, expenditures, and change orders in an integrated cost and schedule information system.

The master schedule of the Project Controls System (PCS) will enable critical activities and interrelationships between the contractors, suppliers, the COUNTY, the COUNTY's Project Manager, design engineers, utility companies, railroad, biologist and construction manager (including its subcontractors) to be monitored efficiently during the construction phase of the project. The master schedule will identify permit constraints, work area restrictions and other known work and/or coordination constraints.

The cost-monitoring element of the PCS will enable project-wide monitoring of expenditures for comparison with the original budgets and budget updates resulting from change orders processed during the life of the project. Monthly reporting will enable accurate cost forecasting at any time.

The automation of the above information will enable timely analysis, intervention, and decision making to enable efficient control of the project.

Approach:

ENGINEER will develop the PCS using software similar to Primavera *P6* and *Expedition*, Microsoft *Word* and *Excel* software. A master schedule will be developed summarizing all significant activities of project related entities including the contractor, equipment suppliers, the **COUNTY** project manager, design consultants, biologist, and the construction manager. The schedule will be structured to include the following:

- Primary contractor work activities, including major submittals required accomplishing the work.
- Principal work activities of the **ENGINEER**'s construction manager, the **COUNTY**'s project manager, design consultants, biologist, contractors, and suppliers.
- Activities necessary for regulatory compliance.
- Activities related to utility relocations.
- Relationships between submittals, approvals, procurement, and delivery of materials.
- Milestones associated with permitting and approvals.
- Any activity requiring coordination with the **COUNTY**, Caltrans oversight, UPRR and other local utility/regulatory agencies.
- Substantial and final completion dates.

The cost accounting format will use a work breakdown structure and cost categories that will be compatible with the **COUNTY**'s cost accounting system. The work breakdown structure will be based on contractor's activities and will provide the basis for cost-loading activities in the schedule.

Assumptions:

1. The initial master project schedule will be developed based on information available before the award of contracts for construction.
2. The **COUNTY** will provide a description of the **COUNTY** invoicing requirements and guidelines for project work breakdown structure and cost reporting format.
3. **COUNTY** will provide copies of all consultant contracts including scope of services and budgets.

Deliverables:

1. Implementation of Project Control System.
2. Draft master project schedule.
3. Initial master project schedule following review and approval by the **COUNTY**.
4. Initial project cost.

1.2 Monthly Project Progress Meetings and Reports

Purpose:

To apprise COUNTY management and other stakeholders of ENGINEER's activities under this contract via written report and monthly meeting.

Approach:

ENGINEER will provide a brief written report covering a summary of the status and expenditures associated with each of the tasks described in this scope of work; including highlights of any unusual contractual issues that arise during the reporting period.

ENGINEER will schedule monthly progress meetings, which will provide for discussion of progress reports and issues related to (a) this agreement and (b) the construction agreements.

Assumptions:

1. The project monthly progress report will be provided throughout the contract period for an estimated duration of 18 months.
2. A regular monthly meeting date and time will be established. Meeting date is typically the first week of each month, the same day of the week, i.e., Monday, Tuesday, etc.
3. Written progress reports will be provided to the COUNTY at least 5 working days in advance of each progress meeting.
4. COUNTY to submit proposed changes/amendments to the monthly progress reports, in writing, to ENGINEER for its use.

Deliverables:

1. Monthly project progress report.
2. One page summary report.
3. Monthly progress review meetings with minutes/summaries.

1.3 Document Management System

Purpose:

To establish a system for the timely logging, filing, and tracking of project related correspondence to assure timely responses, and provide a record of communications to enable efficient retrieval and establish the chronology of events for use in dispute resolution.

Approach:

ENGINEER will set up a document tracking system; using software similar to Primavera Expedition to maintain project files.

Assumptions:

1. Actual logging, filing, and tracking of project information will be performed under separate tasks and subtasks.
2. The ENGINEER File Index will conform to the Caltrans filing numbering system.

Deliverables:

Implementation of a computerized document management system that includes written procedures for use of the ENGINEER project team.

1.4 Neighborhood Liaison Strategy

Purpose:

To provide a strategy for dealing with issues related to the impacts of construction on the residential neighborhoods and businesses located adjacent to and within the limits of the project.

Approach:

ENGINEER will develop in conjunction with the COUNTY a strategy for neighborhood and local community communication related to construction phase impacts and mitigation.

Assumptions:

ENGINEER will be responsible for development of the neighborhood liaison strategy. However, the COUNTY will provide general guidelines for community and neighborhood affairs, dictate protocol, and initiate contact with local elected officials, if required. The COUNTY will be responsible for the review and approval of the overall plan.

Deliverables:

1. ENGINEER: Draft Action Plan
2. COUNTY: Review and comment on action plan.
3. ENGINEER: Draft Neighborhood affairs strategy memorandum.
4. COUNTY: Comments on draft strategy memorandum.
5. ENGINEER: Final Neighborhood affairs strategy memorandum.

1.5 Sub-Consultant Management:

Purpose:

To coordinate and manage sub-consultant services contracted with ENGINEER. Sub-consultants include inspectors, materials testing consultants, and biologists, and /or others, to be determined at a later date and secured at reasonable rates.

Approach:

ENGINEER will coordinate and manage the utilization of sub-consultants for the COUNTY in order to comply with the terms of the contract documents and the requirements of regulatory agencies.

At the COUNTY's direction, ENGINEER will negotiate and enter into sub-consultant agreements with select sub-consultants.

ENGINEER will work with consultants contracted directly with the COUNTY. ENGINEER will review and approve invoices provided by COUNTY consultants and forward said invoices to the COUNTY for processing and payment.

Assumptions:

1. The COUNTY will retain final approval rights over invoices for COUNTY contracted consultants.

2. All costs associated with ENGINEER's sub-consultant services will be billed to the COUNTY in conjunction with ENGINEER's services on a monthly basis.

Deliverables:

1. Copies of all sub consultant reports. Original reports will remain with ENGINEER until project closeout, at which time all originals will be forwarded to the COUNTY with the project documentation.
2. Copies of all sub-consultant invoices billed through ENGINEER.
3. Original invoices reviewed and approved by ENGINEER for COUNTY contracted consultants.

2 – Pre-Construction Phase Services

ENGINEER shall provide specialized services during the project Pre-Construction phase, including the bidding periods of the project. These services are intended to involve the construction manager early in the project and to provide advanced planning for construction phase activities.

2.1 Constructability Review

Purpose:

To provide the COUNTY and ENGINEER with reasonable assurance that project can be adequately constructed as indicated on the Design Plans and to endeavor to minimize contract change orders. To enable changes to be made to the Project Documents by the Design Engineer before the construction contract bids are due.

Approach:

ENGINEER will perform a constructability review of the project, analyzing the phasing and staging of project construction for conflicts. The constructability review will also look for inconsistencies between the Project Plans (including construction notes), the Project Specifications, and applicable permits for the Project and the Engineer's Estimate. The ENGINEER will also perform an Independent Quantity Take-off of the major items of work on the Project.

Assumptions:

The Project Plans and Project Specifications are essentially complete and ready for advertisement.

Deliverables:

1. Constructability comments and report for review by the COUNTY and Design Engineer. ENGINEER will provide two (2) copies of the comments and report.
2. The Independent Quantity Take-off with comments and supporting calculations, wet stamped and signed by the ENGINEER's Engineer in Responsible Charge.

After COUNTY and Design Engineer have reviewed and/or made changes, log changes made and changes not made in the project records

2.2 Construction Management Plan

Purpose:

To provide the COUNTY and ENGINEER with uniform procedures and standards for the administration of the construction contract.

Approach:

ENGINEER will develop a procedures manual that is usable for the construction project utilizing the Caltrans Construction Management Manual and portions of the Local Assistance Manual. The Manual will be a compilation of both manuals, using various parts from both manuals as appropriate and incorporating a section concerning emergencies. The COUNTY approved manual will be used by the COUNTY, as it deems appropriate.

Assumptions:

The final project manual will be bound in a three ring binder to facilitate future revisions.

Deliverables:

1. Draft project manual for review by the COUNTY. ENGINEER will provide two (2) copies of the draft.
2. After review and comments, provide two (2) copies of final project manual to the COUNTY.

2.3 Storm Water Pollution Prevention Plan (SWPPP)

Purpose:

To protect the COUNTY from potential fines from regulatory agencies by monitoring contractors' activities regarding pollution prevention controls and/or activities for general compliance with the contractor's SWPPP Best Management Practices (BMP).

Approach:

ENGINEER will observe the contractor's work area for general compliance with the SWPPP Best Management Practices (BMP) and notify the contractor if the pollution prevention controls are not in accordance with the SWPPP. Failure to revise and correct conditions will be cause to have the COUNTY take corrective action. Immediate shutdown of the contractor's work may be required, if conditions are in non-compliance with the SWPPP or other permit conditions.

Assumptions:

1. ENGINEER will not provide full time inspections of contractor's work areas for compliance with the contractor(s) SWPPP and BMP.
2. ENGINEER will not be responsible for contractor(s) means and methods for complying with the BMP listed in the SWPPP.
3. ENGINEER will not be responsible for costs incurred by the contractor(s) for its failure to comply with its SWPPP.
4. ENGINEER will document site conditions with respect to SWPPP and BMP weekly and maintain a separate file for said reports.

Deliverables:

Contractor(s)' SWPPP monitoring reports and ENGINEER documentation of site conditions kept in project file for the record.

2.4 Local Assistance Documentation / Federal Contract Management Requirements

Purpose:

To assist the COUNTY in field observation, testing and preparation of documentation required for compliance with FHWA Contract Management Requirements as detailed in the Caltrans's Local Assistance Procedures Manual.

Approach:

ENGINEER in conjunction with the COUNTY will review the Local Assistance Procedures Manual to insure that all contract administration procedures, documentations, and filing system is being prepared in accordance with Chapters 15, 16, and 17 of the Local assistance Procedures Manual. All subsections included in these chapters have been discussed in details throughout various sections of this Scope of Services:

- Chapter 1, Introduction and Overview
- Chapter 5, Accounting/Invoices Contents
- Chapter 7, Field Review
- Chapter 12, Plans, Specifications & Estimate
- Chapter 14, Utility Facility
- Chapter 15, Advertise and Award Project; including the following sections:
 - Approval for Local Agency to Administer Projects.
 - Project Advertisement,
 - Contract Bid Opening, Contract Award, and Award Package
- Chapter 16, Administer Construction Contracts includes the following:
 - Project Supervision and inspection
 - Pre-construction meeting and partnering
 - Contract time
 - Sub-contractors
 - Engineer's daily reports
 - Project files
 - Construction records and procedures
 - Safety Provisions
 - Labor compliance
 - Equal employment opportunity
 - Quality Assurance Program
 - Contract claims
 - Traffic safety in highway and street work zones
 - Construction engineering review by the State.
- Chapter 17, Project Completion includes the following:
 - Acceptance procedures
 - As-built plans
 - Report of expenditures
 - Consequences
- Chapter 19, Progress Reviews

The COUNTY and ENGINEER will incorporate specific deliverables within the scope of services and designate the party or parties responsible.

Assumptions:

The COUNTY will review the attached scope of services and deliverables to ensure that all tasks required are identified and an individual party is assigned responsibility for that task.

Deliverables:

This Scope of Services. Individual tasks required for compliance with the Local Assistance Procedures Manual are identified as specific tasks including all required checklists, forms, filing system, procedures for progress payments, change orders, claims, correspondence, as-builts, reporting, permit compliance, permit renewals, final invoicing and claims mitigations and resolutions.

Also using the Caltrans Construction Manual, Traffic Manual, MUTCD, ADA Guidelines, CAL OSHA Safety Orders, SWPPP & PMP preparation Handbook, and all Bridge Manuals as applicable.

All above Chapters and sections have specific formats, checklists, and procedures that would be implemented as required by the Local Assistance Procedures Manual and Contract Provisions.

2.5 Pre-construction walk with contractor

Purpose:

To document existing project site and neighboring site conditions prior to the start of construction; to ensure that all parties are aware of and agree to the condition of existing project site and neighboring site conditions prior to the start of construction.

Approach:

Prior to the issuance of a Notice to Proceed, ENGINEER, the Contractor, Caltrans, UPRR, utility company representatives, biologist, COUNTY and City representatives will walk the entire project and record existing conditions via a written log, still photographs, and videotape where required. ENGINEER will provide copies of all documentation to the Contractor and the COUNTY. ENGINEER will keep documentation originals in the project files until project completion.

Assumptions:

Project walk will not take longer than two days with approximately the same amount of time to log, file and copy the information.

Deliverables:

A written log, still photographs and any videotape depicting existing site conditions, as recorded prior to the start of construction.

3 – Construction Management Services

ENGINEER, on behalf of the **COUNTY**, will provide construction management services for a single construction contract. The project involves the construction of the **Magnolia Avenue Grade Separation**, more completely described above. Construction Management services will encompass the Quality Assurance and enforcement of all construction contract requirements.

3.1 Pre-construction Conferences

Purpose:

To provide a forum for all essential project participants to meet prior to the start of work. This meeting will outline the **COUNTY**'s administration of the contract, introduction of the participants, and record all comments and questions submitted by the contractor. Provides an understanding of the procedures to be used on the project and what the Contractor can expect from the **COUNTY** and its consultants.

Approach:

ENGINEER will schedule, prepare the agenda, chair and take minutes of the pre-construction meeting. The meeting will outline project specifics and inform the Contractor of project administration procedures.

Assumptions:

1. The **COUNTY** will provide the meeting venue.
2. The **COUNTY** will assist **ENGINEER** in developing the attendee list.
3. **ENGINEER** will prepare a draft agenda for the **COUNTY** approval prior to the meeting.

Deliverables:

1. Written agenda and minutes of pre-construction conference.
2. Electronic copies of pre-construction meeting minutes to the attendees.
3. Review and comment on contractor's base-line schedule.
4. Establish ground rules of coordination & communications with contractor and designer concerning the processing and reviewing of submittals and RFI's.
5. Maintain construction documents per federal requirements and as detailed in Chapters 15, 16, 17 and other relevant Chapters of the Local Assistance procedures Manual.
6. Enforcement DBE requirements.
7. Enforcement of Labor Compliance Requirements, including completion federal Labor Compliance Pre-job Checklist.
8. Enforcement of Quality Assurance Program
9. Completion of the Federal Resident Bridge Engineer's Construction Contract Administration Checklist, including all necessary attachments as detailed in Local Assistance Procedures Manual.
10. Discussion of environmental permits requirements.
11. Discussion of utility company requirements.
12. Preparation of invoices for federal reimbursement.

3.2 Communications and Correspondence

Purpose:

To provide for and/or facilitate effective communication, on behalf of the COUNTY, and among all stakeholders in the administration of the construction contract.

Approach:

ENGINEER will obtain all pertinent information as required to develop a project directory of all key personnel working on the project. ENGINEER will develop a graphic chart indicating the proper flow of correspondence. ENGINEER will log all information received from the Contractor and others, in *Expedition*. Lastly, ENGINEER will prepare and/or forward appropriate responses, obtaining COUNTY approval when required.

Assumptions:

1. The ENGINEER Correspondence Log will be used for all correspondence received from the COUNTY, the Contractor and others.
2. All original correspondence will remain with the ENGINEER project files. Only copies will be distributed, with the exception of shop drawing submittals.
3. The ENGINEER project files will be turned over to the COUNTY upon the conclusion of the project.

Deliverables:

1. Communication flow chart.
2. Written logs of information received from the COUNTY, the Contractor, design consultants, biologist, testing firm, citizens and/or others.

3.3 Change Management

Purpose:

To provide a system for logging and tracking all changes on the project.

Approach:

ENGINEER will review potential change orders for contractual and technical merit, prepare independent cost estimates and schedule analysis of work as necessary, discuss with COUNTY, and negotiate change order costs with the Contractor. ENGINEER will prepare change orders with all required support documentation for execution by the COUNTY. ENGINEER will keep the COUNTY apprised of cumulative changes in project cost and project duration.

Assumptions:

1. ENGINEER will be allowed to use its own judgment regarding how best to handle cost negotiations with the Contractor, but will keep the COUNTY informed throughout the process.
2. ENGINEER will obtain final approval of all project cost and/or project time changes from the COUNTY prior to authorizing the Contractor to proceed with changes.
3. ENGINEER will prepare official change order documentation to be processed with the Contractor's regular application for payment.
4. ENGINEER will transmit electronic copies (MS Word *.docx files) of change order documentation to the COUNTY's capital project construction group.

5. Change Orders will require COUNTY's approval.

Deliverables:

1. Independent cost estimates.
2. Change orders ready for execution.
3. Change order summary reports.

3.4 Monthly Construction Progress Reports

Purpose:

To keep the COUNTY apprised of the project status during the prescribed construction period.

Approach:

ENGINEER will prepare a monthly report that provides construction status to the COUNTY and other involved parties. The monthly report shall contain the following:

1. Status of contractor's schedule and what the contractor is doing to maintain or catch up if the schedule has slipped. While the focus will be on critical path items, other items that might become critical will be discussed in the report.
2. Construction and construction manager's costs incurred for the month.
3. Cash flow projections for both the contractor and Construction manager.
4. Identify actual and potential problems associated with the construction project and consult with the Project Manager and design engineer.
5. Evaluate Cost Reduction Incentive Proposals (CRIP) and provide recommendations to the Engineer for acceptance or denial.
6. Potential Issues, pending change orders and executed change orders.
7. Photographs to show construction activities and for clarity for special issues.
8. Other information deemed necessary for the COUNTY to have a concise understanding of the construction Projects.

Assumptions:

The COUNTY will assist ENGINEER in the initial formatting of the first report.

Deliverables:

1. Monthly progress report.
2. One page summary report for distribution to Senior COUNTY staff or elected officials.

3.5 Schedule Monitoring

Purpose:

To monitor and review the Contractor's schedule, after acceptance of baseline schedule, to ensure project is not being delayed over issues within the control of the Contractor.

Approach:

ENGINEER will develop procedures, using available software, to review the Contractor's monthly schedule updates for logic, duration, and resource changes. ENGINEER will notify the Contractor of discovered changes and document the Contractor's response, for the record. ENGINEER will keep the COUNTY apprised of the Contractor's current construction schedule.

Assumptions:

Contract specifications will require the Contractor to use Critical Path Method (CPM) scheduling tools/software. The preferred scheduling software is P6 or Suretrak by Primavera. Gant charts will be strictly forbidden.

Deliverables:

1. **ENGINEER** will prepare and transmit to the Contractor schedule review comments.
2. Monthly review of contractor's schedule updates and provide summary to **COUNTY** on schedule status and impact of changes to completion date.
3. Monitor and facilitate utility coordination with various utility companies and the Contractor. Incorporate relocations in the schedule and report any delays and impacts to completion date.

3.6 Cost Monitoring

Purpose:

To provide the **COUNTY** with a system that is easy to understand and provides up-to-date cost information for making timely decisions.

Approach:

Using a combination of software like *Expedition* and *Excel*, **ENGINEER** will generate spreadsheets and graphs for the purpose of monitoring anticipated and actual cost outlays.

Assumptions:

The **COUNTY** will provide direction regarding desired cost monitoring information and report formats.

Deliverables:

1. Monthly cost monitoring reports in a format to be determined.
2. Monthly progress report for the **COUNTY** describing key issues, cost vs. budget status, and schedule status.

3.7 Progress / Coordination Meetings

Purpose:

To provide a forum for the review of the project status, the look-ahead schedule, outstanding RFIs and submittals, and project issues.

Approach:

ENGINEER will conduct regular progress/coordination meetings, to be attended by the **COUNTY**, the Contractor, **ENGINEER** and other invitees. **ENGINEER** will request the **COUNTY** and the Contractor to submit agenda items for the meetings. Using the proposed agenda items and agenda items developed in house, **ENGINEER** will prepare a comprehensive agenda for the meeting and distribute the agenda to all parties scheduled to attend. Following the meeting, **ENGINEER** will distribute meeting minutes, requesting either the concurrence of those who attended, or suggested corrections to the minutes. Minutes will be filed as either approved or amended.

Assumptions:

1. The COUNTY's and Contractor's staffs will be able to meet on a regular basis with minimal absences.
2. The meeting room will be able to seat a minimum of 15 people.
3. Meetings will not take place more than once a week and will not last longer than one hour.
4. The Contractor will submit a look-ahead schedule (2 or 3 week) at each meeting.

Deliverables:

1. Agenda with status of open items from previous meetings.
2. Meeting minutes, for review, with action items noted.
3. Amended meeting minutes, if required.
4. Submittal, Issues log, Change Order log and RFI and RFQ working logs.

3.8 Payment Recommendations

Purpose:

To verify that the Contractor's request for payment does not represent more than an amount that is reasonable for the work done on a monthly basis. To prepare progress payment recommendations on behalf of the COUNTY for work completed and materials stored on hand (if allowed).

Approach:

ENGINEER will review and approve the Contractor's monthly progress based on the percentage of work activities complete. The Contractor will submit a certified application for payment to ENGINEER for final review. Once approved, COUNTY will prepare a payment application certificate, using software similar to *Excel*, for approval and execution by the COUNTY.

Assumptions:

1. The COUNTY will make payments in accordance with the contract stipulations and State Law to the Contractor once each month.
2. The software is acceptable to the COUNTY for preparing progress payment application certificates.

Deliverables:

1. Contractor's certified application for payment.
2. Progress payment request documents suitable for approval and execution by the COUNTY.

3.9 Safety

Purpose:

To review the Contractor's work site safety and notify the Contractor of unsafe conditions, as observed. Implement the CAL OSHA Safety Orders requirements for providing safe work site conditions.

Approach:

ENGINEER will observe contractors' work area. Contractors to be informed if unsafe work conditions and/or areas are observed. Immediate shutdown of contractors' work may be required if conditions endanger property and/or life. Random attendance of contractor's tailgate meeting. **ENGINEER** will conduct its own bi-weekly staff safety meeting to discuss specific safety procedures and issues relating to current or upcoming construction activities requiring unique safety procedures.

Assumptions:

1. Contract document requires Contractor to submit its safety program and safety officer prior to the start of work
2. Contract documents or Contractor's safety program requires contractor to submit accident reports.
3. **ENGINEER** assumes no responsibility for safety of Contractor's work areas.
4. **ENGINEER** assumes no responsibility for implementation of Contractor safety program or its construction means and methods.

Deliverables:

1. Accident reports from Contractor.
2. Bi-weekly safety meeting minutes
3. Copies of safety issues discussed during contractors tailgate meetings.

3.10 Environmental Coordination & Biological Monitoring

Purpose:

To verify the contractor has copies of applicable permits and that the work activities abide by the requirements of the permits granted by regulatory agencies. All permits shall be kept current and renewed prior to expiration throughout the project duration.

Approach:

ENGINEER will review and enforce requirements stipulated in permits issued by regulatory agencies. **ENGINEER** will mobilize the services of its sub-consultant **ENGINEER** for Biological Monitoring who will provide a certified Biologist.

Assumptions:

1. All permits will be provided to **ENGINEER** for review.
2. All permits will be included in the contract documents.
3. A certified Biologist will be provided by **ENGINEER**'s sub-consultant **ENGINEER**.
4. The USFWS must approve the Biological monitor. Biological Monitor will be responsible for oversight of Programmatic Biological Opinion for **any listed or protected species within or adjacent to the PROJECT site.**

Deliverables:

1. Develop an employee education program. Each employee (including temporary, contractors, and subcontractors) will receive a training/awareness program within two weeks of working on the proposed project. They will be advised of the potential impact to the listed species and the potential penalties for taking such species. At a minimum, the program will include the following topics: occurrence of the listed and sensitive species in the area, their general ecology, sensitivity of the species to human activities, legal protection afforded these species, penalties for violation of Federal and State laws, reporting requirements, and project features designed to reduce the impacts to these species and promote continued successful occupation of the project area environs. Included in this program will be color photos of the listed species, which will be shown to the employees. Following the education program, the photos will be posted in the resident engineer's office and contractor's office, where they will remain throughout the duration of the project. The RESIDENT ENGINEER, CONTRACTOR, and Service-approved biological monitor will be responsible for ensuring that employees are aware of the listed species.
2. Be present for all ESA fence construction. Ensure all areas outside of the project footprint will be delineated as Environmentally Sensitive Areas (ESAs). Inform all parties associated with this project to strictly avoid these areas and that no construction activities, materials, or equipment will be permitted in the ESAs. Ensure that these areas must be placed on the design plans. Ensure that ESAs will be designated by erecting protective fencing delineating the project impact boundary and sensitive habitats and that this barrier fencing will be constructed in such a way as to restrict the movement of fauna into impacted areas. Minimum monitoring frequency after fence constructed: Weekly
3. Relocate any specified animal using traps or other methods acceptable to the USFWS if necessary. Relocation sites must be identified by the USFWS.
4. Be present at all pre-construction and pre-grade meetings and on site during vegetation removal.
5. Will have the authority to halt all associated project activities that may be in violation of any biological opinion. In such an event, the biologist will contact the Service within 24 hours.
6. Monitor that the construction work areas will be delineated and marked clearly in the field prior to any habitat removal, and the marked boundaries maintained and clearly visible to personnel on foot and be heavy equipment operators. Shall strictly limit their personal as well as the contractor personal from activities and vehicles to the proposed project areas, staging areas, and routes of travel. The biological monitor will work with the COUNTY to contact the Service to verify that the limits of construction have been properly staked and are readily identifiable.
7. Monitor construction to ensure that vegetation removal, Best Management Practices (BMPs), ESA fencing, and all avoidance and minimization measures are properly constructed and followed.
8. Monitor that all equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities, will occur in designated upland areas. The designated upland areas will be

located in such a manner as to prevent any runoff from entering waters of the United States, including wetlands.

9. Monitor that the typical erosion control measures, BMPs, in the vicinity of streams will be employed in accordance with the conditions in the 401 Water Quality Certification requirements of the Regional Water Quality Control Board.
10. Monitor the restriction of the use of invasive exotic plant species in landscaped areas adjacent to or near sensitive vegetation communities. In compliance with Executive Order 13112, impacted areas will be revegetated with plant species native to the area.
11. Monitor that all construction equipment will be inspected and cleaned prior to use in the proposed project footprint to minimize the importation of non-native plant material. Also monitor/verify that all mulch, topsoil and seed mixes used during post construction landscaping activities and erosion control BMPs will be free of invasive plant species propagules. Ensure that a weed abatement program will be implemented should invasive plant species colonize the area within the project footprint post-construction.
12. Monitor that no off-road vehicle activity from construction personnel or other persons affiliated with the project will occur outside of the project footprint.
13. Monitor that the all trash will be placed in raven-proof containers and promptly removed from the site to reduce the attraction of ravens and crows, which may eat protected species.
14. Monitor that no pets or firearms will be permitted inside the project's construction boundaries or other associated work areas.
15. Monitor that all soil/rock removal and storage activities will be restricted to the project footprint and that no maintenance activities will be authorized that extend beyond the boundaries of the project footprint.
16. Monitor that proper signage be implemented to advise motorists that the vehicle speeds on unpaved construction access roads will be restricted to a maximum of 25 MPH.
17. Monitor that all culverts, bridges, and associated water passage structures will be maintained such that water and sediment may pass between upstream and downstream locations and so as not to block the passage of wildlife.
18. Monitor is to insure compliance with any U.S. Army Corps of Engineers 404 permit authorization and the California Regional Water Quality Control.
19. Monitor shall wear Class II or Class III safety vests and hard hats at all times on the job site and shall be aware of the location of all heavy equipment in the vicinity as they may not be visible to the equipment operator.
20. All materials submitted will become the property of the COUNTY.

3.11 Neighborhood Communication /Public Information

Purpose:

To provide an efficient means for keeping traveling public, adjacent residents and businesses apprised of the work activities they will encounter during construction. To provide a local contact telephone number that residents and businesses may contact to pose questions and discuss concerns.

Approach:

Using the Neighborhood affairs strategy memorandum, developed in Task 1, **ENGINEER** will prepare “Dear Neighbor” letters and door hangers as a means to communicate with adjacent residents and businesses. Attending and facilitating public meetings, responding to citizens and business owner’s inquiries. Working with the **COUNTY**’s, Caltrans and City’s public information offices.

Assumptions:

Any **COUNTY** desired changes to the final memorandum of understanding will be communicated to **ENGINEER** in a timely manner.

Deliverables:

1. Attend weekly (as needed) Neighborhood/Business meetings.
2. Minutes of any meetings listing questions posed by residents and business owners.
3. Work progress flyers (Dear Neighbor letters).
4. Door hangers if not provided by the Contractor.
5. Local contact number for **ENGINEER**.
6. 24-hour hot line
7. Provide Draft “Friday” report items to the Council and draft news releases.
8. Provide project progress updates for website and/or newsletter.

3.12 Traffic Control and Signal Timing

Purpose:

To provide an efficient means for keeping traffic flowing through the site to adjacent residents and businesses during construction.

Approach:

Using a Traffic Engineer, **ENGINEER** will provide the necessary expertise to evaluate and modify permanent and temporary traffic controls, including signal timing as necessary to ensure the safe and efficient handling of traffic through the project site. Work with the **COUNTY**’s, Caltrans and City’s traffic engineering offices.

Assumptions:

Any **COUNTY** desired changes to the traffic handling will be communicated to **ENGINEER** in a timely manner.

Deliverables:

1. Monitor, review and provide recommendations for modifications to traffic handling during the course of construction.

2. Prepare signal timing charts for traffic signals within and adjacent to project site as necessary to promote improved traffic flow for the various phases of construction.
3. Work with the County, Caltrans and the City to implement those signal timing charts.
4. Provide a recommended signal timing chart for implementation at project completion based on the ultimate configuration.

3.13 Submittal Management and Review

Purpose:

To provide an efficient means of processing and reviewing submittals, including working drawings furnished in accordance with Sections 5-1.02 and 5-1.02A of the State Standard Specifications, from the Contractor and forwarding applicable submittals to the Project Designer as may be appropriate.

Approach:

Using software similar to *Expedition*, **ENGINEER** will develop a comprehensive submittal list for distribution to the Contractor and the Designer. **ENGINEER** will update and submit status submittal logs for review at each coordination meeting. **ENGINEER** will work with the Contractor and Designer (where applicable) to encourage timely submission, review and approval of submittals as outlined in the Contract Documents, prior to inclusion of submitted materials in the progress of the work. In addition, **ENGINEER** will perform the engineering reviews and approvals for working drawings and calculations provided by the Contractor in accordance with Sections 5-1.02 and 5-1.02A of the State Standard Specifications and within the review timeframes as specified in the applicable sections of the contract documents and specifications. The following steps will be taken in reviewing the Contractor's submittals:

1. Log all submittals by Specification Section.
2. Ensure that the Contractor has provided a complete submittal, coordinated with the work of other trades, and that all deviations have been noted. Submittal is returned to the contractor if it is not complete.
3. Construction Manager reviews submittal for general compliance with the specification.
4. Applicable Submittals are forwarded to Designer for formal review. Submittal status is logged.
5. Submittals sent to Designer are returned to **ENGINEER**. Submittal status is logged.
6. **ENGINEER** to perform engineering review of submittals consisting of working drawings and calculations furnished in accordance with Sections 5-1.02 and 5-1.02A of the State Standard Specifications. Such submittals shall be reviewed and approved by **ENGINEER**'s Resident Engineer in accordance the above sections, other applicable sections of the State Standard Specifications and the Caltrans Inspection Manuals for the associated work (ie. Falsework, Prestressing, Trenching and Shoring, etc.).
7. Approved submittals are returned to the Contractor for use in work. Submittal status is logged.
8. **ENGINEER** to inform Contractor if a re-submittal is required.

Assumptions:

1. **ENGINEER** will not be responsible for errors or omissions in submittal lists.
2. Coordination and submission of submittals in accordance with requirements of the contract is the responsibility of the Contractor.

3. COUNTY will provide a listing of submittals to be reviewed by the Designer or others including COUNTY staff.
4. ENGINEER will not make an exhaustive review of Contractor's submittals except as noted above.
5. ENGINEER will forward to the Designer all submittals designated by the COUNTY to be reviewed and approved by Designer. These submittals are typically for pre-manufactured materials and assemblies specified in the Contract.

Deliverables:

1. Submittal status log.
2. Check Calculations, where required.
3. Copy of all approval letters, approved working drawings, submittals and final submittal log.
4. Request for Information (RFI) Management

3.14 Request for Information (RFI) Management and Review

Purpose:

To provide an efficient means of processing Requests for Information (RFIs) submitted by the Contractor. The efficient management of RFIs permits timely communication between the Designer and the Contractor.

Approach:

ENGINEER will receive, log and review all RFIs for completeness and verify the question is reasonable and understandable. ENGINEER will provide a short technical review of the RFI to determine if the issue is addressed adequately in the contract documents. ENGINEER will return the RFI if the question is unclear or, in the opinion of ENGINEER staff, the answer is contained in the contract documents, noting where the requested information can be found in the contract documents. ENGINEER will track RFIs, using the software similar to Expedition, and facilitate the timely response from the Designer.

Assumptions:

The Designer will respond with an answer to all RFIs within the contract stipulated time period for response. Facsimile or e-mail will be used to forward RFIs to the Designer and return responses to the Contractor, with original documents to follow.

Deliverables:

1. Comprehensive log of all outstanding RFIs and their status.
2. Prepare responses to RFI's related construction issues
3. Transmit design related RFI's to design engineer and copy COUNTY Project Manager.
4. Conduct meetings with the Contractor and other parties as needed to discuss and resolve RFI's.

3.15 Document Management

Purpose:

To provide the COUNTY with an electronic means of tracking all documents exchanged between the parties involved in the construction of the project.

Approach:

ENGINEER will use software similar to Primavera *Expedition* and the **ENGINEER** File Index modified to conform to the Caltrans filing system to log all documents in the project field office. Documents will be scanned into the document control system and attached to the file index categories. All documents will be filed as an electronic file and hardcopy.

Assumptions:

1. **ENGINEER** will use software similar to *Expedition*.
2. The **COUNTY** may not use the chosen software.

Deliverables:

1. Comprehensive logs of all documents in the project files (electronic and hardcopy). Electronic files shall not require special software to read or access.
2. All hardcopy project documents exchanged on the project between the various parties.
3. Establish and process project control documents to include:
 - Daily inspection and Resident Engineer's diaries
 - Weekly News Letter and Weekly Statement of Working Days
 - Monthly progress report and monthly progress pay estimate
 - RFI's, Submittals
 - Correspondences with Contractor, Caltrans, Permitting Agencies, Utility Companies, Regulatory Agencies, and other stake holders
 - Survey requests and survey notes
 - Materials receipts, materials testing results, and certificate of compliance
 - Mix designs for PCC, CTPB, AC, AB

3.16 Construction Change Order Assistance

Purpose:

To provide the **COUNTY** with assurance that the Contractor is not presenting requests to be paid for additional work included in the original contract. To assure the **COUNTY** that the associated extra work costs and time extension requests are fair and reasonable to both the **COUNTY** and the Contractor.

Approach:

ENGINEER will negotiate change orders on behalf of the **COUNTY** and will use the following approach in assisting & coordinating the process with the **COUNTY**:

Requests for Changes by the **COUNTY**

1. **ENGINEER** will forward a Request for Quote (RFQ) to the Contractor for pricing and stipulation of proposed time extension, if requested work can be shown to impact the project's critical path. The RFQ shall contain a description of the extra work (normally provided by the Designer) to fairly price the work.
2. **ENGINEER** will prepare an independent cost estimate of the extra work.
3. **ENGINEER** will review the cost quote from the Contractor for completeness, negotiate cost and time extension requests as required and, obtaining **COUNTY** concurrence throughout the process. Obtain **COUNTY** authorization for proceeding with the change, based on definitive cost and time extension values.

4. Should **ENGINEER** and the Contractor be unable to negotiate a reasonable price, the **COUNTY** will be consulted prior to directing the work via alternative contract change options such as proceeding on a time and material basis or proceeding by force account.

Requests for Changes by Contractor

1. **ENGINEER** will review requests of proposed cost and/or time impacts for merit. If **ENGINEER** determines the request fails on merit, the Contractor will be informed of the reasons why the request is denied. Should **ENGINEER** determine the request has merit; **ENGINEER** will proceed with steps 2 and 3.
2. **ENGINEER** will prepare an independent cost estimate and schedule analysis of the work.
3. **ENGINEER** will negotiate extra work cost and time extensions with the Contractor.
4. **ENGINEER** will prepare change order documents for approval and execution by the **COUNTY**.

Assumptions:

1. **ENGINEER** will have authority to make minor changes to work that it determines to have no cost or time impacts to the construction project.
2. The contract will require the Contractor to submit a project schedule dragnet to demonstrate critical path impact to the project's schedule in order to substantiate any/all Contractor requests for contract time extension.
3. Extra work costs successfully negotiated between **ENGINEER** and the Contractor will be submitted to the **COUNTY** for approval.

Deliverables:

1. Perform quantity and cost analysis as required for negotiation of change orders
2. Analyze additional compensation claims that are submitted during construction period and prepare responses.
3. Perform claims administration including coordinating and monitoring claim responses, logging claims and tracking claim status.
4. Change order documentation ready for approval and execution by the **COUNTY**.

3.17 Review Certified Payrolls

Purpose:

To verify the Contractor provides certified payroll reports in conformance with the provisions of the contract and applicable State and Federal Law. To verify the certified payroll reports contain information required by the Labor Code.

Approach:

ENGINEER will receive and review certified payrolls from the Contractor and each of its subcontractors. **ENGINEER** will check for the "Statement of Compliance" from the Contractor and/or subcontractors, and spot-check wages for each classification of laborer or craftsperson. **ENGINEER** will notify the **COUNTY** and the Contractor of all discrepancies and/or errors and request a corrected Certified Payroll.

Assumptions:

1. ENGINEER will conduct employee interviews, for the purpose of verifying payment of prevailing wages. ENGINEER will perform a minimum of one interview per trade, per contractor per month.
2. ENGINEER will not be held responsible for enforcement of the Labor Code.
3. ENGINEER will maintain a weekly list of subcontractors working on the project.
4. ENGINEER will not be responsible for identifying every worker on site.

Deliverables:

Hardcopies of the Contractor's certified payrolls maintained in the project files.

4 – Construction Inspection Services

4.1 Inspection and Documentation

Purpose:

To provide the COUNTY with documentation of construction activities, duration of activities, manpower and equipment allocation, inspections, and work conditions.

Approach:

ENGINEER will provide the COUNTY with knowledgeable people, familiar with construction activities to be performed on the project. ENGINEER will document the Contractors' daily activities, manpower loading, on-site equipment and items considered pertinent to the project.

ENGINEER will either coordinate and manage the utilization of Sub-consultant's inspectors, including special inspectors, for the purpose of providing daily inspections and/or special inspections as deemed necessary and beneficial for proper completion of the project, or, at the COUNTY's direction, ENGINEER will negotiate and enter into a sub-consultant agreement(s) with a qualified Inspector(s), as defined in Task 1.5.

Assumptions:

1. ENGINEER shall provide inspectors who are experienced and qualified for the inspection required.
2. All inspections will be within the project limits.

Deliverables:

1. ENGINEER Resident Engineer's daily reports and Inspector's daily and/or special inspection reports maintained in the ENGINEER project files and turned over to the COUNTY at the completion of the project. Copies of these daily reports will be submitted to the on weekly basis or upon request.
2. Take and maintain digital photographs and videos as necessary to provide documentation of construction activities. All photos will be logged, dated and kept at the field office in a bound folder (hard copies and CD copy).
3. Verify field measurements for compliance with contract plans and specifications and provide quantity calculations for progress payment.
4. Continue to update an As-Built set of plans and review contractor's marked set.
5. Conduct weekly project meetings, prepare and distribute to all designated parties.
6. Review the updated construction schedule and maintain record.
7. Establish and process job control documents including:

- Daily inspection diaries
- Weekly Resident Engineers News Letter
- Monthly construction progress payment
- Request for information
- Survey requests
- Materials receipts
- Weigh master certificates
- Materials submittals
- Weekly statements of working days
- Construction change orders
- Review of certified payrolls

4.2 Materials Testing, Construction Testing & Quality Assurance Program (QAP)

Purpose:

To provide project site and laboratory testing of construction materials used in the project for the purpose of determining quality and acceptability of materials and workmanship incorporated into the project and in compliance with the contract documents.

Approach:

ENGINEER will coordinate and manage the utilization of the materials and testing laboratory for the purpose of providing laboratory and field-testing of materials in accordance with test methods and frequencies specified in the contract documents, as required by the California Test Methods, and Caltrans' Quality Assurance Manual.

Assumptions:

1. It is assumed that the **COUNTY** will **not provide** the Materials Testing services on this contract under the direction of the CM.
2. **ENGINEER** shall provide material testers and laboratory technicians who are experienced and qualified for the inspection required.
3. **ENGINEER** will insure the implementation of the Quality Assurance Program for source inspections, materials acceptance, and special inspections as required by the contract.
4. All material testing, materials acceptance and special inspections will be within the project limits or as required by the contract.

Deliverables:

1. Laboratory test reports maintained in the **ENGINEER** project files and turned over to the **COUNTY** at the completion of the project.
2. Summary sheet of all test reports submitted by others to substantiate compliance with contract documents.
3. Summary sheets of all Certificates of Compliance or source release tags furnished by the Contractor along with the applicable delivered materials at the job site.
4. Testing summary sheets.
5. Coordinate source inspections and special inspections as required by the contract document and the Quality Assurance Program.

4.3 Surveying

Purpose:

To provide construction survey staking services for the construction of storm drains, curb & gutters, other utilities, street sections, sub-grades, bridge, walls and for monitoring settlement and other appurtenances as may be required for completion the [Magnolia Avenue Grade Separation](#).

Approach:

[ENGINEER](#) will manage and provide all survey staking services necessary for the construction of this project. Resident Engineer will review contractor's survey staking request for completeness and schedule survey staking in a timely manner.

The survey staking services shall conform to Section 11 "Engineering Surveys" of the Caltrans Survey Manual and the following requirements:

1. Construction staking shall begin no later than two working days after the initial request is made through the [ENGINEER's](#) Resident Engineer.
2. [ENGINEER](#) will insure that all survey-staking services are coordinated to meet the contractor's operations schedule; staking requests are submitted and reviewed in a timely manner.
3. [ENGINEER](#) will provide field office support and office space to the survey crews and check field staking notes after staking.
4. [ENGINEER](#) survey staking sub-consultant, if required and approved by the [COUNTY](#), shall provide all labor, tools, equipment and other miscellaneous items necessary to perform their work, and providing one set of construction stakes as required by the construction contract.

Assumptions:

1. It is assumed that the [COUNTY](#) will **not provide** the Survey services on this contract under the direction of the CM.

Deliverables:

1. Maintain log of construction staking requests
2. Maintain a construction-staking plan set in the field office for review, reference, and document any as-built changes.
3. Maintain files of all field notes for review and reference.
4. Limits of clearing and grubbing will be flagged at 100-foot intervals
5. Slope Stakes will place at 100-foot intervals; intermediate slope stakes will not be required. Rough grade will be staked at all grade breaks and at 50-foot intervals. Slope stakes will be provided for roadway.
6. Finished grading stakes for curb and gutter and edge pavement will be placed at all grade breaks, at 50-foot intervals on straight sections, and 25-foot intervals on curved sections, and at the beginning and end of curves.
7. Utilities and storm drains will be staked at 25-foot intervals, ends of pipes, and at appurtenances, Drop inlets shall be staked with two 5-foot offset stakes parallel to curb, showing offset to curb line.
8. Waterline and Appurtenances will be staked at 50-foot intervals, at grade breaks, and at appurtenances (valves, crosses, ends, etc)
9. Retaining walls, bridge abutments and bents: one set of stakes will be provided for bridge construction as follows: Three stakes will be provided at each abutment, pier or bent. One

stake will be provided at the intersection of the control line and abutment/bent/pier centerline. The other two stakes will be placed on the centerline of the abutment/pier/bent, one on either side of the structure, offset as requested by the Contractor. Approach slabs will be established at limits of slabs, with one set of stakes to offset requested by the Contractor. The Contractor shall provide retaining wall staking and additional survey controls as required to construct the structure to the grades and tolerances required by the Standard Specifications and Special provisions.

10. Other improvements such as permanent delineation, signs, lighting, signals, traffic detector loops, guard rails, etc., will be staked by the Construction Engineer.

4.4 Review and maintain “As Constructed Schedule”

Purpose:

To track contractor’s progress during construction of the project.

Approach:

ENGINEER will use the daily inspection reports prepared by ENGINEER inspectors, the contractors’ schedule, site observations, and other sources of information, to track and document the contractor’s actual progress. The contractor’s baseline critical path schedule or most recent accepted update will be used as a basis for comparing planned versus actual progress. The CPM software described in Section 3 will be used to track the contractor’s progress and build a schedule based on the contractor’s activities.

Assumptions:

Monitoring will be on a continuous basis and the “as constructed” schedule will be updated monthly.

Deliverables:

An “As Constructed Schedule” with one electronic file (readable by software used by the COUNTY) and one hardcopy.

4.5 Maintain Photographic and Video Records of Construction Progress

Purpose:

To provide the COUNTY with a photographic record of the project, before, during and after construction.

Approach:

Using 35mm and/or digital photography, ENGINEER will record the Contractor's progress during construction. Care will be taken to record all items and/or conditions that have or may have a bearing on claimed extra work. Still photographs will be labeled with captions indicating subject matter, date taken, and any description required to further clarify the item/issue being photographed.

Assumptions:

All photographs will remain at the ENGINEER office until the end of the project.

Deliverables:

All photographic records.

4.6 Review and Maintain “As Built” Drawings

Purpose:

To provide the COUNTY with accurate record drawings for the project.

Approach:

ENGINEER will monitor the contractor’s required record drawings on a monthly basis. In addition to monitoring the contractor’s drawings, ENGINEER will maintain a copy of the contract plans for the project. ENGINEER will attempt to include items that are not normally shown on the contractor’s set of record drawings. This information is not necessarily construction related, but is project related and may be important in future maintenance and/or construction projects.

Assumptions:

1. The COUNTY will be responsible for making the changes to the drawings prepared by its design engineers.
2. ENGINEER will assist the design engineers in answering its questions regarding the record drawings, providing sketches or other clarifications.
3. Contract documents will require contractor to maintain redline as-built drawings.

Deliverables:

One set of marked up contract drawings. This set will be in addition to the contractor’s marked up set of contract drawings.

4.7 Final Acceptance – Punch List Assistance

Purpose:

To provide the COUNTY with reasonable assurance that the work of the project has been completed in compliance with the general intent of the contract documents.

Approach:

ENGINEER will coordinate a walk-through with the COUNTY, the Designer, Caltrans, the City, UPRR and the Contractor. ENGINEER, with assistance from the COUNTY, the Designer and Caltrans will prepare a punch list indicating all deficiencies and/or omissions noted in the walk-through. ENGINEER will then forward the punch list to the Contractor for correction of the work in accordance with timelines defined in the contract. ENGINEER, in conjunction with the COUNTY, the City and Caltrans as necessary, will inspect items on the punch list once the Contractor has notified ENGINEER that the work is complete. Completed items on the punch list will be signed off by ENGINEER. Upon completion of the punch list work ENGINEER will notify the COUNTY the work is complete and forward a copy of the completed punch list.

Assumptions:

Contractor will provide a preliminary punch list of outstanding work items for review by **ENGINEER** prior to requesting a final walk-through from the **COUNTY**, the City, the Designer and Caltrans.

Deliverables:

Completed and signed-off punch-list submitted to the **COUNTY** with the closeout documents.

4.8 Final Inspection and Punch-list

Purpose:

To identify elements of construction requiring correction prior to final acceptance by the **COUNTY**.

Approach:

ENGINEER will perform a project inspection of the completed construction following substantial completion. During the inspection, **ENGINEER** will develop a list of contract work requiring correction or rework. The written list of deficient work (punch-list) will be delivered to the **COUNTY** and CONTRACTOR within three (3) working days of the final inspection. The final punch-list will include items to be corrected that were identified previously during the course of construction.

Assumptions:

1. The **COUNTY** will identify any key **COUNTY** or other permitting agency (Caltrans, City) personnel to be included in the final inspection.
2. **ENGINEER** will contact and schedule all required final inspection personnel 48 hour prior to the final inspection.
3. **ENGINEER** will prepare the final punch-list.

Deliverables:

Final punch-list.

5 – Construction Closeout Activities

5.1 Contract Closeout

Purpose:

To provide the **COUNTY** with final closeout documentation, including any permit completion documentation.

Approach:

ENGINEER will turn over all project files, contract correspondence and documents including final logs at time of project completion.

Assumptions:

COUNTY will file final Notice of Completion and Acceptance of Work.

Deliverables:

1. Notice of Completion form for COUNTY.
2. Notices of Completion for any Permits, including “duplicate” permits for project and documentation showing the NOT has been recorded.
3. Copy of the Contractor’s performance bond, good for the warranty period.
4. Final project documentation in accordance with the requirements of the Caltrans local assistance manual and FHWA requirements.

5.2 Project As-Built Drawings

Purpose:

To provide the COUNTY with accurate record drawings indicating all changes and as-built conditions.

Approach:

ENGINEER will monitor Contractor required record drawings on a monthly basis. In addition to monitoring the Contractor’s drawings, ENGINEER will maintain a copy of up-to-date contract plans for the purpose of aiding the Designer in final review of the record drawings.

Assumptions:

1. The Contractor will be responsible for preparing the record drawings in both reproducible and electronic formats.
2. ENGINEER will assist the Designer in review and final approval of the record drawings.

Deliverables:

One set of contract drawings indicating recorded changes to the contract, as maintained by ENGINEER. This set will be in addition to the Contractor’s marked up set of contract drawings. Provide one copy of the revised Mylar drawings. The design consultant will prepare the record drawings for the project.

5.3 Final Project Report

Purpose:

To provide the COUNTY with a written history of the construction contract. The contents of the final report are to fulfill federal requirements for federal financial participation.

Approach:

ENGINEER will review the project documents and prepare a written report for the COUNTY. As a minimum, the report will include the following:

1. Names of all organizations involved with the Projects, i.e., COUNTY managers, Caltrans, construction manager, contractor and any other parties that may have a significant part in the construction of the projects.
2. Chronological history of the construction effort, to include all significant dates.
3. Contract amounts at bid time with all other bids in tabular form.
4. Change order history, to include summary statement about each change, negotiated cost of each change and other information deemed necessary by ENGINEER and the COUNTY’s Project Manager.

5. Summary of Requests for Information, in tabular or matrix form.
6. Summary of outstanding claims not resolved when the notice of completion is filed.
7. Summary of final contract amount.
8. Final DBE Report.
9. Project photographs.
10. “Lessons learned”

Assumptions:

COUNTY will provide input to ENGINEER regarding the form of the final report and federal required documents to be included in the report.

Deliverables:

One hard copy and one electronic file will be provided.

5.4 Final Payment, Final Report of Expenditure Checklist

Purpose:

To provide the COUNTY with the final contract cost and final balance due the Contractor. Also prepare Report of Expenditure Checklist for federal reimbursement including all necessary attachments.

Approach:

Following completion of the contract work, ENGINEER will, in accordance with the Designer, determine the final quantities and cost of all outstanding unit price work and all outstanding approved change order work. ENGINEER will prepare for the COUNTY and the Contractor, a final balancing change order quantifying the final contract amount. Contractor will include amount of final balancing change order in submission of last certified application for payment, submitted to ENGINEER. Once approved, ENGINEER will forward application for payment to the COUNTY for final approval and processing.

Assumptions:

1. There are no outstanding issues or claims.
2. The COUNTY is responsible for filing Notice of Completion and addressing all subcontractor claims prior to release of final payment. The COUNTY will file the Report of Expenditure Checklist for federal reimbursement.

Deliverables:

1. Final Pay Estimate including finalized bid items, claims, change orders, punch-list items, and corrected shop drawings.
2. Contractor’s last certified application for payment with application certificate.
3. Report of Expenditure Checklist with attachments
4. Federal final report including all attachments.

6 – Field Office and Employee Equipment

The Construction Contractor will provide a construction trailer/office facility with sanitary facility, water supply, and air conditioning for the use of CM staff and provide venue for weekly

construction progress meetings, coordination meetings with local agencies, utility companies, local businesses, residents and other stake holders. Supplies include furniture, phones, computers, fax machine, Internet services, copying/reproduction machine, file cabinets, and site safety equipment required for field staff to perform their work.

Appendix B

Magnolia Avenue Grade Separation Proposed Budget for Construction Management & Inspection Services

Construction Manager		Pre-Construction			Construction			Post Construction			Total	
		Hours	Billing Rate	Total Cost	Hours	Billing Rate	Total Cost	Hours	Billing Rate	Total Cost	Hours	Total Cost
Prime FALCON Engineering Services, Inc.												
Wael Faqih, PE	Resident Engineer	80	\$ 240.00	\$ 19,200.00	1,000	\$ 240.00	\$ 240,000.00	40	\$ 240.00	\$ 9,600.00	1,120	\$ 268,800.00
Juan Rojas, PE	ARE/Principal	20	\$ 225.00	\$ 4,500.00	2,200	\$ 225.00	\$ 495,000.00	40	\$ 225.00	\$ 9,000.00	2,260	\$ 508,500.00
Ahmad Faqih	Roadway/Bridge Inspector		\$ 181.86	\$ -	2,300	\$ 181.86	\$ 418,278.00	-	\$ 181.86	\$ -	2,300	\$ 418,278.00
Janeen Obeld	Office/Admin /Insp.	40	\$ 148.29	\$ 5,931.60	3,000	\$ 148.29	\$ 444,870.00	80	\$ 148.29	\$ 11,863.20	3,120	\$ 462,664.80
Dion Castro	SWPPP Coordinator	40	\$ 181.86	\$ 7,274.40	500	\$ 181.86	\$ 90,930.00		\$ 181.86	\$ -	540	\$ 98,204.40
Steven Moore	Electrical & Utility Coord		\$ 153.86	\$ -	850	\$ 153.86	\$ 130,781.00		\$ 153.86	\$ -	850	\$ 130,781.00
SUBTOTAL		180		\$ 36,906.00	9,850		\$ 1,819,859.00	160		\$ 30,463.20	10,190	\$ 1,887,228.20
Inspection Subconsultants												
Structural DANKEN Engineering												
Scott Walker	Structures Rep	40	\$ 228.69	\$ 9,147.60	2,002	\$ 228.69	\$ 457,837.38	40	\$ 228.69	\$ 9,147.60	2,082	\$ 476,132.58
	ODC *Construction Vehicle*		\$ -	\$ -		\$ -	\$ 17,804.80		\$ -	\$ -		\$ 17,804.80
SUBTOTAL		40		\$ 9,147.60	2,002		\$ 475,642.18	40		\$ 9,147.60	2,082	\$ 493,937.38
Inspection Subconsultants												
Structural JACOBS												
Jose Fegueroa	Structures Inspection		\$ -	\$ -	1,808	\$ 126.67	\$ 229,019.36	40	\$ 126.67	\$ 5,066.80	1,848	\$ 234,086.16
	ODC (Vehicle, Phone, etc)		\$ -	\$ -		\$ -	\$ 19,980.00		\$ -	\$ -		\$ 19,980.00
SUBTOTAL				\$ -	1,808		\$ 248,999.36	40		\$ 5,066.80	1,848	\$ 254,066.16
Inspection Subconsultants												
Inspection Z&K Consultants												
Zeyad Faqih, PE	Roadway/Utility/RR Coord		\$ 184.80	\$ -	1,833	\$ 184.80	\$ 338,738.40		\$ -	\$ -	1,833	\$ 338,738.40
	ODC - Construction Vehicle		\$ -	\$ -		\$ -	\$ 18,000.00		\$ -	\$ -		\$ 18,000.00
SUBTOTAL				\$ -	1,833		\$ 356,738.40			\$ -	1,833	\$ 356,738.40
Inspection Subconsultants												
Inspection MNS Engineering												
Raul Estrada	Roadway/Bridge Inspector				1840	\$ 142.70	\$ 262,568.00				1,840	\$ 262,568.00
SUBTOTAL					1840		\$ 262,568.00				1,840	\$ 262,568.00
Environmental Support: CH2M-HILL												
Cat Quach	Task Manager		\$ 125.27	\$ -	24	\$ 125.27	\$ 3,006.48				24	\$ 3,006.48
Melisa Williams	Environmentalist	32	\$ 123.10	\$ 3,939.20	300	\$ 123.10	\$ 36,930.00		\$ -	\$ -	332	\$ 40,869.20
Clint Hilton	Architologist		\$ 175.96	\$ -	310	\$ 175.96	\$ 54,547.60				310	\$ 54,547.60
Mai Crumley	Scheduler	54	\$ 147.83	\$ 7,982.82	500	\$ 147.83	\$ 73,915.00				554	\$ 81,897.82
Ron Ballou	Inspector-Roadway		\$ 94.99	\$ -	1,100	\$ 94.99	\$ 104,489.00				1,100	\$ 104,489.00
Marea Garatea	Project Accountant		\$ 74.52	\$ -	53	\$ 74.52	\$ 3,949.56				53	\$ 3,949.56
Reina Sawyer	Project Coordinator		\$ 74.66	\$ -	24	\$ 74.66	\$ 1,791.84				24	\$ 1,791.84
	ODC (Travel, Mileage, Inspection Vehicle)		\$ -	\$ -		\$ -	\$ 24,518.00		\$ -	\$ -		\$ 24,518.00
SUBTOTAL		86		\$ 11,922.02	2,287		\$ 303,147.48			\$ -	2,373	\$ 315,069.50
Materials Testing (Converse Consultants)												
Brian Scott	Soils and Material Tech		\$ -	\$ -	650	\$ 107.35	\$ 69,777.50		\$ -	\$ -	650	\$ 69,777.50
Ruben Rocha	Plant Inspector		\$ -	\$ -	100	\$ 102.20	\$ 10,220.00		\$ -	\$ -	100	\$ 10,220.00
Danielle Ertl	Office/Admin		\$ -	\$ -	17	\$ 71.53	\$ 1,216.01		\$ -	\$ -	17	\$ 1,216.01
	Direct Expense (Material Testing)		\$ -	\$ -		\$ -	\$ 72,000.00		\$ -	\$ -		\$ 72,000.00
SUBTOTAL				\$ -	767		\$ 153,213.51			\$ -	767	\$ 153,213.51
Materials Testing (GeoMat Testing Laboratories)												
Tamer Khalil	Material Technician		\$ -	\$ -	468	\$ 102.69	\$ 48,058.92		\$ -	\$ -	468	\$ 48,058.92
Art Martinez	Plant Inspection		\$ -	\$ -	260	\$ 102.69	\$ 26,699.40		\$ -	\$ -	260	\$ 26,699.40
Seham Nabils	Office/Admin		\$ -	\$ -	140	\$ 65.86	\$ 9,220.00		\$ -	\$ -	140	\$ 9,220.00
	Direct Expense (Material Testing)		\$ -	\$ -		\$ -	\$ 68,000.00		\$ -	\$ -		\$ 68,000.00
SUBTOTAL				\$ -	868		\$ 151,978.72			\$ -	868	\$ 151,978.72
Gamma Testing Earthspective												
CIDH Piling- Gamma	Gamma Tetsing				40	\$ 165.00	\$ 6,600.00				40	\$ 6,600.00
Hossein Rashidi	Principal Engineer				150	\$ 110.00	\$ 16,500.00				150	\$ 16,500.00
Sammy Daghigh	Sr. Project Engineer				100	\$ 68.75	\$ 6,875.00				100	\$ 6,875.00
Umaipalan Sivarathnarajah	Staff Engineer						\$ 10,000.00					\$ 10,000.00
	ODC (Mileage & Equipment)						\$ 39,975.00				290	\$ 39,975.00
SUBTOTAL							\$ 39,975.00				290	\$ 39,975.00
Labor Complians & Electrical: DESI												
Chia-Chi Wang	Labor compliance		\$ -	\$ -	220	\$ 156.28	\$ 34,381.60		\$ -	\$ -	220	\$ 34,381.60
Victor Moore	Electrical Inspection		\$ -	\$ -	600	\$ 164.81	\$ 98,886.00		\$ -	\$ -	600	\$ 98,886.00
	ODC						\$ 350.00					\$ 350.00
SUBTOTAL				\$ -	820		\$ 133,617.60			\$ -	820	\$ 133,617.60
Public Outreach: Green Com												
Dennis Green	PM(Public Outreach)	24	\$ 140.00	\$ 3,360.00	60	\$ 140.00	\$ 8,400.00		\$ -	\$ -	84	\$ 11,760.00
Kimley Jones	Outreach Specialist	20	\$ 68.75	\$ 1,375.00	100	\$ 68.75	\$ 6,875.00				120	\$ 8,250.00
Angela Johns	Outreach Spec/Admin Asst		\$ 68.75	\$ -	47	\$ 68.75	\$ 3,231.25				47	\$ 3,231.25
	ODC						\$ 6,734.00					\$ 6,734.00
SUBTOTAL		24		\$ 4,735.00	60		\$ 25,240.25			\$ -	84	\$ 29,975.25
Construction Surveying: Coory Engineering												
Samir Khoury, PE	Project Manager	28	\$ 180.00	\$ 5,040.00	300	\$ 180.00	\$ 54,000.00		\$ 180.00	\$ -	328	\$ 59,040.00
Steven Sarley	Survey Analyst	40	\$ 125.00	\$ 5,000.00	300	\$ 125.00	\$ 37,500.00		\$ 125.00	\$ -	340	\$ 42,500.00
Shawn Eaton, LS	Party Chief	60	\$ 117.47	\$ 7,048.20	1,200	\$ 117.47	\$ 140,964.00		\$ 117.47	\$ -	1,260	\$ 148,012.20
Robert Wegehaupt	Chainman	60	\$ 108.90	\$ 6,534.00	1,200	\$ 108.90	\$ 130,680.00		\$ 108.90	\$ -	1,260	\$ 137,214.00
	ODC (Mileage, Survey supplies, Printing)		\$ -	\$ -		\$ -	\$ 16,766.00		\$ -	\$ -		\$ 16,766.00
SUBTOTAL		188		\$ 23,622.20	3,000		\$ 379,910.00			\$ -	3,188	\$ 403,532.20
TOTAL PROJECT COST		518		\$ 86,332.82	23,295		\$ 4,350,889.50	240		\$ 44,677.60	24,343	\$ 4,481,889.92

- 1) Cost Proposal is based on Average 160hrs/month for the entire project duration of a 400WD construction contract with consultant NTP on 12/2/2013 - Holidays include New Year's Day.
- 2) Costs for job-site construction management office, office equipment, and office furniture are not included in this estimate. Other Direct Costs are estimates, based on project duration.
- 3) Overtime, weather, holidays and potential time extensions or delays may result in additional construction management services.
- 4) Prevailing Wage - Wages for inspection subject to Calif. Labor Code Section 1772. Overtime will be paid in accordance with applicable labor laws.