CHARLES PARKIN, City Attorney Long Beach, CA 90802-4664

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<u>AGREEMENT</u>

35769

THIS AGREEMENT is made and entered, in duplicate, as of October 19. 2020 for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on January 21, 2020, by and between BURNS & MCDONNELL ENGINEERING COMPANY, INC., a Missouri corporation ("Consultant"), with a place of business at 140 S. State College Blvd., Suite 100, Brea, California 92821, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, the City requires specialized services requiring unique skills to be performed in connection with as-needed planning and design engineering services for various development projects at the Long Beach Airport ("Project"); and

WHEREAS, City has selected Consultant in accordance with City's administrative procedures and City has determined that Consultant and its employees are qualified, licensed, if so required, and experienced in performing these specialized services; and

WHEREAS, City desires to have Consultant perform these specialized services, and Consultant is willing and able to do so on the terms and conditions in this Agreement;

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, the parties agree as follows:

SCOPE OF WORK OR SERVICES.

Consultant shall furnish specialized services described in Request for Qualifications AP19-134, attached as Exhibit "A-1", and more particularly described in the Scope of Services, attached as Exhibit "A-2", both incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, in an amount not to exceed Five Hundred Thousand Dollars (\$500,000), at the rates or charges shown in Exhibit "B".

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- В. The City's obligation to pay the sum stated above for any one fiscal year shall be contingent upon the City Council of the City appropriating the necessary funds for such payment by the City in each fiscal year during the term of this Agreement. For the purposes of this Section, a fiscal year commences on October 1 of the year and continues through September 30 of the following year. In the event that the City Council of the City fails to appropriate the necessary funds for any fiscal year, then, and in that event, the Agreement will terminate at no additional cost or obligation to the City.
- C. Consultant may select the time and place of performance for these services provided, however, that access to City documents, records, and the like, if needed by Consultant, shall be available only during City's normal business hours and provided that milestones for performance, if any, are met.
- D. Consultant has requested to receive regular payments. City shall pay Consultant in due course of payments following receipt from Consultant and approval by City of invoices showing the services or task performed, the time expended (if billing is hourly), and the name of the Project. Consultant shall certify on the invoices that Consultant has performed the services in full conformance with this Agreement and is entitled to receive payment. Each invoice shall be accompanied by a progress report indicating the progress to date of services performed and covered by the invoice, including a brief statement of any Project problems and potential causes of delay in performance, and listing those services that are projected for performance by Consultant during the next invoice cycle. Where billing is done and payment is made on an hourly basis, the parties acknowledge that this arrangement is either customary practice for Consultant's profession, industry, or business, or is necessary to satisfy audit and legal requirements which may arise due to the fact that City is a municipality.
- E. Consultant represents that Consultant has obtained all necessary information on conditions and circumstances that may affect its

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performance and has conducted site visits, if necessary.

- F. CAUTION: Consultant shall not begin work until this Agreement has been signed by both parties and until Consultant's evidence of insurance has been delivered to and approved by the City.
- 2. TERM. The term of this Agreement shall commence at midnight on October 1, 2020, and shall terminate at 11:59 p.m. on September 30, 2022, unless sooner terminated as provided in this Agreement, or unless the services or the Project is completed sooner.

3. COORDINATION AND ORGANIZATION.

- Consultant shall coordinate its performance with City's representative, if any, named in Exhibit "C", attached to this Agreement and incorporated by this reference. Consultant shall advise and inform City's representative of the work in progress on the Project in sufficient detail so as to assist City's representative in making presentations and in holding meetings on the Project. City shall furnish to Consultant information or materials, if any, described in Exhibit "D" attached to this Agreement and incorporated by this reference, and shall perform any other tasks described in the Exhibit.
- В. The parties acknowledge that a substantial inducement to City for entering this Agreement was and is the reputation and skill of Consultant's key employee, named in Exhibit "E" attached to this Agreement and incorporated by this reference. City shall have the right to approve any person proposed by Consultant to replace that key employee.
- INDEPENDENT CONTRACTOR. In performing its services, Consultant is and shall act as an independent contractor and not an employee, representative, or agent of City. Consultant shall have control of Consultant's work and the manner in which it is performed. Consultant shall be free to contract for similar services to be performed for others during this Agreement provided, however, that Consultant acts in accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges

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and agrees that a) City will not withhold taxes of any kind from Consultant's compensation, b) City will not secure workers' compensation or pay unemployment insurance to, for or on Consultant's behalf, and c) City will not provide and Consultant is not entitled to any of the usual and customary rights, benefits or privileges of City employees. Consultant expressly warrants that neither Consultant nor any of Consultant's employees or agents shall represent themselves to be employees or agents of City.

5. INSURANCE.

As a condition precedent to the effectiveness of this Agreement, Consultant shall procure and maintain, at Consultant's expense for the duration of this Agreement, from an insurance company that is authorized to write insurance in the state of California or that has a rating of or equivalent to A:VII by A.M. Best and Company the following insurance:

- Commercial general liability insurance or self-insurance equivalent in coverage scope to ISO CG 00 01 04 13) naming the City of Long Beach, and their officials, employees, and agents as additional insureds on a form equivalent in coverage scope to ISO CG 20 10 07 04 and CG 20 37 07 04 from and against claims, demands, causes of action, expenses. costs, or liability for injury to or death of persons, or damage to or loss of property caused by activities performed by or on behalf of the Consultant in an amount of One Million Dollars (\$1,000,000.00) per occurrence and Two Million Dollars (\$2,000,000.00) in general aggregate.
- ii. Workers' Compensation coverage as required by the Labor Code of the State of California and Employer's liability insurance with limits of One Million Dollars (\$1,000,000.00) per accident of occupational illness disease - each employee and policy limit. The policy shall be endorsed with a waiver of insurer's right of subrogation against the City of Long Beach, and their officials and employees if allowed by law.
 - iii. Automobile liability insurance equivalent coverage

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scope to ISO CA 00 01 10 13 in an amount of Two Million Dollars (\$2,000,000) combined single limit (CSL) per accident for bodily injury and property damage covering Symbol 1 ("any auto").

iv. For the projects with costs < \$10 million, umbrella or excess liability (in excess of liability coverages as delineated otherwise in the Agreement) in an amount of Nine Million Dollars (\$9,000,000) per claim covering the services provided pursuant to this Agreement should be provided.

For the projects with cost \$10 million < \$25 million or any projects airside, umbrella liability (in access of liability coverages) in an amount of Nine Million Dollars (\$9,000,000) per claim covering the services provided pursuant to this Agreement should be provided.

For the projects with cost \$25 million < \$100 million, umbrella liability (in excess of liability coverages) in an amount of Fourteen Million Dollars (\$14,000,000) per claim covering the services provided pursuant to this Agreement should be provided.

- Professional liability or errors and omission liability insurance in an amount of Two Million Dollars (\$2,000,000.00) per claim and in an aggregate covering the services provided pursuant to this Agreement.
- В. Any self-insurance program or self-insurance retention must be approved separately in writing by City and shall protect the City of Long Beach, and their officials, employees, and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention or deductible provisions.
- C. Each insurance policy shall be endorsed to state that coverage shall not be canceled by either party except after thirty (30) days prior written notice to City, and such insurance providing additional insured coverage shall be primary and not contributing to any other insurance or self-insurance maintained by City.

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- D. Any subconsultant which Consultant may use in the performance of the Agreement shall be required to maintain insurance in compliance with the provisions of this section and to indemnify the City to the same extent as the Consultant with respect to this Agreement.
- E. Consultant shall deliver to City certificates of insurance and relevant endorsements for reasonable approval as to sufficiency and form prior to the start of performance hereunder. The certificates and endorsement for each insurance policy shall contain the original signature of a person authorized by that insurer to evidence coverage on its behalf.
- F. "Claims made" policies are not acceptable unless City Risk Manager determines that "occurrence" policies are not available in the market for the risk being insured, except for the Professional Liability policy, which shall be claims made. If a "Claims-made" policy is accepted, it must be maintained or provide for an extended reporting period of not less than three (3) years. Such insurance as required herein shall not be construed as sufficient to protect Consultant from liability relating to performance under this Agreement.
- G. City and Consultant release each other and waive all rights of subrogation against each other and their officers, directors, agents or employees for damage covered by property insurance during and after the completion of Consultant's services.
- Η. Any modification or waiver of the insurance requirements herein shall be made only with the approval of City's Risk Manager. The procuring of insurance shall not be construed as a limitation on liability or as full performance of the indemnification provisions of the Agreement.
- 6. ASSIGNMENT AND SUBCONTRACTING. This Agreement contemplates the personal services of Consultant and Consultant's employees, and the parties acknowledge that a substantial inducement to City for entering this Agreement was and is the professional reputation and competence of Consultant and Consultant's

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employees. Consultant shall not assign its rights or delegate its duties under this Agreement, or any interest in this Agreement, or any portion of it, without the prior approval of City, except that Consultant may with the prior approval of the City Manager of City, assign any moneys due or to become due the Consultant under this Agreement. Any attempted assignment or delegation shall be void, and any assignee or delegate shall acquire no right or interest by reason of an attempted assignment or delegation. Furthermore, Consultant shall not subcontract any portion of its performance without the prior approval of the City Manager or designee, or substitute an approved subconsultant or contractor without approval prior to the substitution. Nothing stated in this Section shall prevent Consultant from employing as many employees as Consultant deems necessary for performance of this Agreement.

- 7. CONFLICT OF INTEREST. Consultant, by executing this Agreement. certifies that, at the time Consultant executes this Agreement and for its duration, Consultant does not and will not perform services for any other client which would create a conflict, whether monetary or otherwise, as between the interests of City and the interests of that other client. Consultant further certifies that Consultant does not now have and shall not acquire any interest, direct or indirect, in the area covered by this Agreement or any other source of income, interest in real property or investment which would be affected in any manner or degree by the performance of Consultant's services hereunder. And, Consultant shall obtain similar certifications from Consultant's employees, subconsultants and contractors.
- 8. MATERIALS. Consultant shall furnish all labor and supervision, supplies, materials, tools, machinery, equipment, appliances, transportation, and services necessary to or used in the performance of Consultant's obligations under this Agreement, except as stated in Exhibit "D".
- 9. OWNERSHIP OF DATA. All materials, information and data prepared, developed, or assembled by Consultant or furnished to Consultant in connection with this Agreement, including but not limited to documents, estimates, calculations.

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studies, maps, graphs, charts, computer disks, computer source documentation, samples, models, reports, summaries, drawings, designs, notes, plans, information, material, and memorandum ("Data") shall be the exclusive property of City. Data shall be given to City, in a format identified by City, and City shall have the unrestricted right to use and disclose the Data in any manner and for any purpose without payment of further compensation to Consultant. Copies of Data may be retained by Consultant but Consultant warrants that Data shall not be made available to any person or entity for use without the prior approval of City. This warranty shall survive termination of this Agreement for five (5) years.

- 10. TERMINATION. Either party shall have the right to terminate this Agreement for any reason or no reason at any time by giving fifteen (15) calendar days prior written notice to the other party. In the event of termination under this Section, City shall pay Consultant for services satisfactorily performed and costs incurred up to the effective date of termination for which Consultant has not been previously paid. The procedures for payment in Section 1.B. with regard to invoices shall apply. On the effective date of termination, Consultant shall deliver to City all Data developed or accumulated in the performance of this Agreement, whether in draft or final form, or in process. And, Consultant acknowledges and agrees that City's obligation to make final payment is conditioned on Consultant's delivery of the Data to the City.
- 11. CONFIDENTIALITY. Consultant shall keep the Data confidential and shall not disclose the Data or use the Data directly or indirectly other than in the course of performing its services, during the term of this Agreement and for five (5) years following expiration or termination of this Agreement. In addition, Consultant shall keep confidential all information, whether written, oral, or visual, obtained by any means whatsoever in the course of performing its services for the same period of time. Consultant shall not disclose any or all of the Data to any third party, or use it for Consultant's own benefit or the benefit of others except for the purpose of this Agreement.
- 12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for breach of confidentiality with respect to Data that: (a) Consultant demonstrates

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Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available without breach of this Agreement by Consultant; or (c) a third party who has a right to disclose does so to Consultant without restrictions on further disclosure; or (d) must be disclosed pursuant to subpoena or court order.

13. ADDITIONAL COSTS AND REDESIGN.

- Any costs incurred by the City due to Consultant's failure to meet the standards required by the scope of work or Consultant's failure to perform fully the tasks described in the scope of work which, in either case, causes the City to request that Consultant perform again all or part of the Scope of Work shall be at the sole cost of Consultant and City shall not pay any additional compensation to Consultant for its re-performance.
- В. If the Project involves construction and the scope of work requires Consultant to prepare plans and specifications with an estimate of the cost of construction, then Consultant may be required to modify the plans and specifications, any construction documents relating to the plans and specifications. and Consultant's estimate, at no cost to City, when the lowest bid for construction received by City exceeds by more than ten percent (10%) Consultant's estimate. This modification shall be submitted in a timely fashion to allow City to receive new bids within four (4) months after the date on which the original plans and specifications were submitted by Consultant.
- 14. AMENDMENT. This Agreement, including all Exhibits, shall not be amended, nor any provision or breach waived, except in writing signed by the parties which expressly refers to this Agreement.
- 15. <u>LAW</u>. This Agreement shall be governed by and construed pursuant to the laws of the State of California (except those provisions of California law pertaining to conflicts of laws). Consultant shall comply with all laws, ordinances, rules and regulations of and obtain all permits, licenses, and certificates required by all federal, state and local governmental authorities.

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16. ENTIRE AGREEMENT. This Agreement, including all Exhibits, constitutes the entire understanding between the parties and supersedes all other agreements, oral or written, with respect to the subject matter in this Agreement.

17. INDEMNITY.

- A. Consultant shall indemnify, protect and hold harmless City, its Boards, Commissions, and their officials, employees and agents ("Indemnified Parties"), from and against any and all liability, claims, demands, damage, loss, obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Consultant's breach or failure to comply with any of its obligations contained in this Agreement, or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees. agents, subcontractors, or anyone under Consultant's control, in the performance of work or services under this Agreement (collectively "Claims" or individually "Claim").
- В. In addition to Consultant's duty to indemnify, Consultant shall have a separate and wholly independent duty to defend Indemnified Parties at Consultant's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Consultant shall be required for the duty to defend to arise. City shall notify Consultant of any Claim, shall tender the defense of the Claim to Consultant, and shall assist Consultant, as may be reasonably requested. in the defense.
- C. If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the

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percentage of willful misconduct attributed by the court to the Indemnified Parties.

- D. To the extent this Agreement is a professional service agreement for work or services performed by a design professional (architect, landscape architect, professional engineer or professional land surveyor), the provisions of this Section regarding Consultant's duty to defend and indemnify shall be limited as provided in California Civil Code Section 2782.8, and shall apply only to Claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.
- E. The provisions of this Section shall survive the expiration or termination of this Agreement.
- 18. AMBIGUITY. In the event of any conflict or ambiguity between this Agreement and any Exhibit, the provisions of this Agreement shall govern.

19. NONDISCRIMINATION.

- In connection with performance of this Agreement and subject to applicable rules and regulations, Consultant shall not discriminate against any employee or applicant for employment because of race, religion, national origin, color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap, or disability. Consultant shall ensure that applicants are employed, and that employees are treated during their employment, without regard to these bases. These actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
- В. It is the policy of City to encourage the participation of Disadvantaged, Minority and Women-owned Business Enterprises in City's procurement process, and Consultant agrees to use its best efforts to carry out this policy in its use of subconsultants and contractors to the fullest extent consistent with the efficient performance of this Agreement. Consultant may rely on written representations by subconsultants and contractors regarding their status.

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Consultant shall report to City in May and in December or, in the case of short-term agreements, prior to invoicing for final payment, the names of all subconsultants and contractors hired by Consultant for this Project and information on whether or not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

- 20. If any party fails to perform its obligations FORCE MAJEURE. because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain labor or materials or reasonable substitutes for labor materials, governmental restrictions, governmental regulations, governmental controls, judicial orders, enemy or hostile governmental action, pandemic, civil commotion, fire or other casualty, or other causes beyond the reasonable control of the party obligated to perform, then that party's performance will be excused for a period equal to the period of such cause for failure to perform.
- 21. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in accordance with the provisions of the Ordinance, this Agreement is subject to the applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seg. of the Long Beach Municipal Code, as amended from time to time.
 - A. During the performance of this Agreement, the Consultant certifies and represents that the Consultant will comply with the EBO. Consultant agrees to post the following statement in conspicuous places at its place of business available to employees and applicants for employment:

"During the performance of a contract with the City of Long Beach, the Consultant will provide equal benefits to employees with spouses and its employees with domestic partners. Additional information about the City of Long Beach's Equal Benefits Ordinance may be obtained from the City of Long Beach Business Services Division at 562-570-6200."

В. The failure of the Consultant to comply with the EBO will be deemed to be a material breach of the Agreement by the City.

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- If the Consultant fails to comply with the EBO, the City may C. cancel, terminate or suspend the Agreement, in whole or in part, and monies due or to become due under the Agreement may be retained by the City. The City may also pursue any and all other remedies at law or in equity for any breach.
- D. Failure to comply with the EBO may be used as evidence against the Consultant in actions taken pursuant to the provisions of Long Beach Municipal Code 2.93 et seq., Contractor Responsibility.
- E. If the City determines that the Consultant has set up or used its contracting entity for the purpose of evading the intent of the EBO, the City may terminate the Agreement on behalf of the City. Violation of this provision may be used as evidence against the Consultant in actions taken pursuant to the provisions of Long Beach Municipal Code section 2.93 et seq., Contractor Responsibility.
- 22. NOTICES. Any notice or approval required by this Agreement shall be in writing and personally delivered or deposited in the U.S. Postal Service, first class, postage prepaid, addressed to Consultant at the address first stated above, and to the City at 411 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager with a copy to the City Engineer at the same address. Notice of change of address shall be given in the same manner as stated for other notices. Notice shall be deemed given on the date deposited in the mail or on the date personal delivery is made, whichever occurs first.

23. COPYRIGHTS AND PATENT RIGHTS.

- Consultant shall place the following copyright protection on all Data: © City of Long Beach, California _____, inserting the appropriate year.
- B. City reserves the exclusive right to seek and obtain a patent or copyright registration on any Data or other result arising from Consultant's performance of this Agreement. By executing this Agreement, Consultant assigns any ownership interest Consultant may have in the Data to the City.
- C. Consultant warrants that the Data does not violate or infringe any patent, copyright, trade secret or other proprietary right of any other party.

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Consultant agrees to and shall protect, defend, indemnify and hold City, its officials and employees harmless from any and all claims, demands, damages, loss, liability, causes of action, costs or expenses (including reasonable attorneys' fees) whether or not reduced to judgment, arising from any breach or alleged breach of this warranty.

- 24. COVENANT AGAINST CONTINGENT FEES. Consultant warrants that Consultant has not employed or retained any entity or person to solicit or obtain this Agreement and that Consultant has not paid or agreed to pay any entity or person any fee, commission, or other monies based on or from the award of this Agreement. If Consultant breaches this warranty, City shall have the right to terminate this Agreement immediately notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments due under this Agreement or otherwise recover the full amount of the fee, commission, or other monies.
- 25. WAIVER. The acceptance of any services or the payment of any money by City shall not operate as a waiver of any provision of this Agreement or of any right to damages or indemnity stated in this Agreement. The waiver of any breach of this Agreement shall not constitute a waiver of any other or subsequent breach of this Agreement.
- 26. CONTINUATION. Termination or expiration of this Agreement shall not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11, 17, 19, 22, and 28 prior to termination or expiration of this Agreement.
- 27. TAX REPORTING. As required by federal and state law, City is obligated to and will report the payment of compensation to Consultant on Form 1099-Misc. Consultant shall be solely responsible for payment of all federal and state taxes resulting from payments under this Agreement. Consultant shall submit Consultant's Employer Identification Number (EIN), or Consultant's Social Security Number if Consultant does not have an EIN, in writing to City's Accounts Payable, Department of Financial Management. Consultant acknowledges and agrees that City has no obligation

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to pay Consultant until Consultant provides one of these numbers.

- 28. <u>ADVERTISING</u>. Consultant shall not use the name of City, its officials or employees in any advertising or solicitation for business or as a reference, without the prior approval of the City Manager or designee.
- 29. <u>AUDIT</u>. City shall have the right at all reasonable times during the term of this Agreement and for a period of five (5) years after termination or expiration of this Agreement to examine, audit, inspect, review, extract information from, and copy all books, records, accounts, and other documents of Consultant relating to this Agreement.
- 30. <u>THIRD PARTY BENEFICIARY</u>. This Agreement is not intended or designed to or entered for the purpose of creating any benefit or right for any person or entity of any kind that is not a party to this Agreement.

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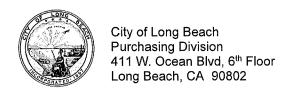
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1	IN WITNESS WHEREOF, the parties have caused this document to be duly	
2	executed with all formalities required by law a	s of the date first stated above.
3 4		BURNS & MCDONNELL ENGINEERING COMPANY, INC., a Missouri corporation
5		3 Kent M. Wollman
6	3 ·	Name Renita M. Mollman Title Chief Administrative Officer
7	, 2020 I	By Dashmi
8	-	Name Rashigi Menon Title Vice President
9 10	ti di	'Consultant"
11		CITY OF LONG BEACH, a municipal corporation
12		Ву
13		City Manager
14	- a	City"
15	This Agreement is approved as to	o form on, 2020.
16 17		HARLES PARKIN, City Attorney
18	B)	У
19		Deputy
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	II.	· · · · · · · · · · · · · · · · · · ·

	1	IN WITNESS WHEREOF, the parties have caused this document to be duly				
	2	executed with all formalities required by law as of the date first stated above.				
	3	BURNS & MCDONNELL ENGINEERING				
	4	COMPANY, INC., a Missouri corporation				
	5	2020 Bykent WW Olman				
	6	Name Renita M. Mollman Title Chief Administrative Officer				
	7	, 2020 By Dashmir				
	8	Name <u>Kashini Menon</u> Title <u>Vice Plesident</u>				
	9	"Consultant"				
	10					
, ե	11	CITY OF LONG BEACH, a municipal corporation				
ORNE) torney oth Floo	12	January 5 ,2020 By Sinda F. Jahren				
ECITY ATTORN KIN, City Attorn Boulevard, 9th F CA 90802-4664	13	EXECUTED! YUKSUARGET				
RKIN, Boule	14	"City" THE CITY CHARTER				
OFFICE OF THE CITY ATTORNEY CHARLES PARKIN, City Attorney 411 West Ocean Boulevard, 9th Floor Long Beach, CA 90802-4664	15	This Agreement is approved as to form on				
FICE HARLI West Long I	16	CHARLEC DARWIN CHARLE				
P 0 11	17	CHARLES PARKIN, City Attorney				
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EXHIBIT "A-1"

Request for Qualifications AP19-134



City of Long Beach

Request For Qualifications Number AP19-134

For Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

Release Date: Mandatory Pre-SOQ Conference: Questions Due to the City: Posting of the Q & A: Due Date:		10/15/2019 10/23/2019 10/30/2019
		562-570-6123
	okunthea Kol	okunthea Kol Buver II

See Section 4 for instructions on submitting SOQs.

Company Name	Contact Person			
Address	City	State	Zip	
Telephone ()	Fax ()	Federal Tax II	D No	
E-mail:				
Prices contained in this SOQ ar	e subject to acceptanc	e within 180 caler	ndar days.	
I have read, understand, and ag	gree to all terms and co	nditions herein.	Date	
Signed				
Print Name & Title				
				Rev 2016 0919

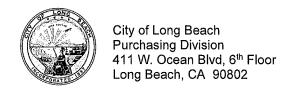


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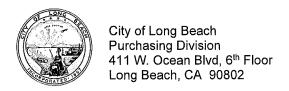
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1. OVERVIEW OF PROJECT

Project Overview

The City of Long Beach ("City"), sponsor for the Long Beach Airport ("Airport"), is soliciting Statements of Qualifications (SOQ) from qualified and experienced professional Consultants to provide various Engineering Planning and Design services, as well as other consulting services for Airport development projects. The nature of the Scope of Services will generally include, but are not limited to, architectural, civil, geotechnical, structural, mechanical, and electrical engineering. The City encourages businesses of all sizes to participate in the RFQ process. The City desires to enter into multiple non-exclusive contracts for the Scope of Services and will issue task orders based on available funding and phasing.

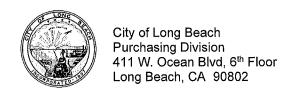
This RFQ shall include, but is not limited to, the following projects:

- Taxiway D Rehabilitation
- Runway 16R-34L Conversion to Taxiway B
- Taxiway L Improvements
- Taxiway and Taxilane F Reconstruction, and
- Additional unforeseen and as-needed projects that are not subject to federal grants

The Airport has identified the Runway 16R-34L Conversion to Taxiway B project as having the most rigorous design schedule, and therefore will require that the plans, specifications, and other required design and phasing documents for this project be completed and submitted to the Airport and FAA by April 30, 2020.

The Airport will issue a subsequent request for a general project proposal to a select number of Short-listed Consultants. Generally, the projects will focus on rehabilitating pavement to sustain a projected 20-year usable pavement life. The project will also include updating the runway and associated taxiways to the current FAA airport geometry and lighting standards while also incorporating the decisions derived from the Airfield Geometry Study (AGS) Preferred Alternative 3A. The value of the requested scope of services is anticipated to be \$4M total.

Airport sponsors must use qualifications based selection procedures in the selection and engagement of consultants in the same manner as Federal contracts for architectural and engineering services negotiated under Title IX of the Federal Property and Administration Services Act of 1949, or equivalent State/sponsor qualifications based requirements. The guidelines included in Chapter 2 of Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5100-14E Change 1 are recommended to comply with Title 49 Code of Federal Regulations (CFR) § 18.36 when selecting consultants for airport projects funded under Federal grant programs and are hereby incorporated by reference into this RFQ. Should any conflict arise between this RFQ and FAA AC 150/5100-14E Change 1, the more stringent requirement shall take precedence.



Consultant(s) will be tentatively selected based on qualifications and subsequent task order costs will be negotiated prior to contract award. The contract will be for a set period of time as agreed upon by the Airport and the selected Consultant(s). The selected Consultant(s) will be assigned tasks for the project at the sole discretion of the Airport. If a fee cannot be agreed upon between the Airport and the selected Consultant(s), then negotiations will be terminated, and the Airport will enter into negotiations with the firm ranked next.

2. ACRONYMS/DEFINITIONS

For purposes of this RFQ, the following acronyms/definitions will be used:

AC

Advisory Circular

ACIP

Airport Capital Improvement Plan

AGS

Airfield Geometry Study

Awarded Consultant The organization/individual that is awarded a contract with the City of Long Beach, California for the services identified in this

RFQ.

City

The City of Long Beach and any department or agency identified

herein.

Consultant

Organization/individual submitting qualifications in response to this RFQ. A firm, individual, partnership, corporation, or joint venture that performs architectural, engineering or planning services as defined in this RFQ, employed by the Airport to undertake work funded, wholly or in part, under the FAA airport

grant assistance program.

Contractor

See "Consultant"

CSPP

Construction Safety and Phasing Plan

DBE

Disadvantaged Business Enterprise

Department / Division

City of Long Beach, Long Beach Airport, Engineering Division.

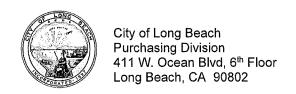
Engineer

The Airport Engineer of the City of Long Beach and designated

representatives.

Engineering Services

Professional services of an engineering nature, required to be performed or approved by a person licensed, registered, or



certified to provide such services associated with research. planning, development, design, construction, alteration, or repair of real property; and other professional or incidental services, which members of the engineering professions (and individuals in their employ) may logically or justifiably perform, including investigations, surveying studies. and mapping. evaluations, consultations, comprehensive planning, program management, conceptual design, plans and specifications, value engineering, construction phase services, soil engineering, drawing reviews, preparation of operating and maintenance manuals, and other related services.

Committee

Evaluation/Selection An independent committee comprised of representatives of the City and other qualified professionals established to review qualifications submitted in response to the RFQ, evaluate the SOQ, and select Consultant(s).

FAA Federal Aviation Administration

FBO Fixed Base Operator

Fee Compensation paid to the Consultant for professional services

rendered

Fixed Fee A percentage rate applied to all estimated costs, including

overhead, to determine payment for profit, willingness to serve,

and assumption of responsibility

LGB Long Beach Airport

May Indicates something that is not mandatory but permissible.

PFC Passenger Facility Charge. A passenger facility fee imposed by

> a public agency on passengers enplaned at a commercial service airport it controls for purposes of financing airport planning, land acquisition, development, or other approved

projects.

Primary

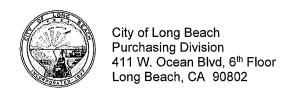
Engineer/Principal Consultant

A firm that is held responsible for the overall performance of the professional service including that which is accomplished by

others under separate or special services subcontracts.

See "Consultant". Proposer

RFQ Request for Qualifications.



Shall / Must Indicates a mandatory requirement. Failure to meet a mandatory

requirement may result in the rejection of a SOQ as non-

responsive.

Should Indicates something that is recommended but not mandatory. If

the Contractor fails to provide recommended information, the City may, at its sole option, ask the Contractor to provide the

information or evaluate the SOQ without the information.

SOQ Statement of Qualifications submitted in response to this RFQ

Sponsor A public agency or private owner of a public-use airport that

submits to the FAA an application for financial assistance for the airport (49 USC § 47102(19)). The City of Long Beach – Airport

Department is the Sponsor for the Long Beach Airport.

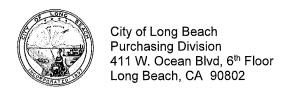
SRM Safety Risk Management

SSCP Security Screening Checkpoint

Subcontractor/ Third party not directly employed by the Consultant who will

Subconsultant provide services identified in this RFQ.

TAIP Terminal Area Improvements Project



3. SCOPE OF PROJECT

3.1 General Background

The Airport is a Department of the City. The Airport covers 1,166 acres of area and is centered between the major business and tourism areas of Orange and Los Angeles counties and has continued to serve as an economic engine for the region since 1923. Aviation activities are located just north of Interstate 405 (I-405) and generally bound by Cherry Avenue to the west, City of Lakewood and Douglas Park to the north, and Lakewood Boulevard to the east. The Airport and surrounding area are located in the City's Airport Land Use District, which the zoning code designates as Planned Development (PD). Allowed uses within the District (PD-12) include areas for commercial storage, general industrial, light industrial, medium industrial, park or planned development.

The Airport is slot regulated and currently allocates 50 daily slots for air carrier operations. Five major airlines (JetBlue, Southwest, American Airlines, Delta, and Hawaiian Airlines), along with smaller charter operators, served more than 3.9 million passengers in calendar year 2018. In addition to commercial operations, aircraft manufacturing and the completion center for Gulfstream corporate jets and four Fixed Base Operators (FBO) also operate at LGB. Cargo operations by FedEx and UPS handled just over 48 million pounds of cargo last year. This activity in 2018, combined with a healthy general aviation component, provided LGB with just over 274,000 aircraft operations.

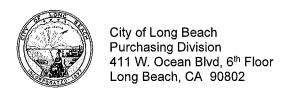
Terminal

The existing Long Beach Airport terminal building ("Terminal") was constructed in 1941 and was declared a local historic landmark in 1990. The existing 11-gate passenger concourse ("Concourse") and passenger security-screening checkpoint ("SSCP") were completed in 2012 as part of the first phase of the Terminal Area Improvements Program (TAIP).

The Airport is currently undergoing the second phase of the TAIP ("Phase II"), which is estimated to be complete in 2021. Phase II generally focuses on the pre-security side and is intended to increase operational efficiency and improve passenger experience at the Airport.

Airfield

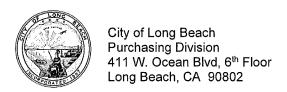
LGB has three runways, including one primary commercial runway of 10,000 feet, a secondary air-carrier with a length of 6,192 feet, and a 3,918 ft long General Aviation runway. As a small hub airport with 12.5 million square feet of airfield pavement, LGB relies on the FAA Airport Improvement Program (AIP) to ensure that the Airport



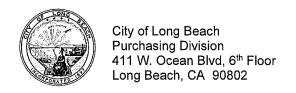
continues to conform to existing and future demands, facilitates safe and efficient operations, and maintains FAA compliant airfield.

In 2002, the FAA identified LGB as one of the sixteen assessed airports that would benefit from safety enhancements to prevent runway incursions. The FAA also identified multiple "Hot Spots" or high risk of incursion locations within the LGB airfield. The Airport subsequently completed a multi-year geometry study that was intended to address the complexities of the airfield geometry. In December 2014, City council approved the Alternative 3A recommendation from the AGS as the preferred solution. The solutions comprise numerous airfield reconfigurations to be implemented incrementally over 20+ years to construct. LGB has incorporated these recommendations into the LGB Airport Layout Plan (ALP) and the Airport Capital Improvement Plans (ACIP). Additional detailed information regarding each project are listed in Appendix A Project Descriptions.

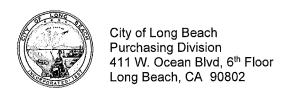
- 3.2 **General Scope.** The City desires to engage the services of professional consulting firms to provide Planning, Engineering and Specialized Professional Consultant services for various development projects at the Airport. Potential projects include, but are not limited to, those contained in the Airport's Capital Improvement Plan (ACIP) provided in Appendix A Project Descriptions. The work funded under Federal grant programs, are expected to be accomplished during the course of several grant cycles.
- 3.3 **Planning Services.** This category includes studies under the broad headings of airport system and master planning, airport noise compatibility planning and environmental assessments and related studies. These studies include, but are not limited to, the following activities:
 - 1. Design study to establish the framework and detailed work program.
 - 2. Airport data collection and facility inventories.
 - 3. Aeronautical activity forecasts and demand/capacity analyses.
 - 4. Facility requirements determination.
 - 5. Airfield modeling for capacity and delay.
 - 6. Airport layout and terminal area plan development.
 - 7. Airport noise studies under 14 CFR Parts 150 and 161.
 - 8. Compatible land-use planning in the vicinity of airports.
 - 9. Airport site selection studies.



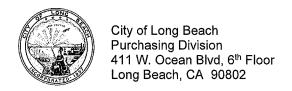
- 10. Airport development schedules and cost estimates.
- 11. Airport financial planning and benefit cost analysis.
- 12. Participation in public information and community involvement programs and/or public hearings relating to airport development and planning projects.
- 13. Environmental Assessments (EA), Environmental Impact Statements (EIS), and other studies in accordance with FAA Orders 5050.4B and 1050.1F.
- 14. Preparation of or updating of the airport layout plan.
- 15. Airspace analysis.
- 16.GIS data collection, entry, and analysis and other electronic graphical/mapping efforts.
- 3.4 **Architectural/Engineering Services.** The main category of Consultant services that are utilized for projects conducted under airport grant programs for this RFQ is Engineering Services. This category of basic services is discussed below.
 - 3.4.1 Engineering services for Airport development projects. This category includes the basic Engineering services normally required for Airport development projects. It involves services generally of a civil, geotechnical, structural, mechanical, and/or electrical engineering nature. In addition, there may be some services outside those normally considered basic that are discussed in Section 3.3 Planning Services. The basic services are usually conducted in, but are not limited to, the four distinct and sequential phases summarized below:
 - a. **Preliminary Phase.** This phase involves those activities required for defining the scope of a project and establishing preliminary requirements. Some examples of activities within this phase of a project include, but are not limited to:
 - Conferring with the City on project requirements, finances, schedules, early phases of the project, and other pertinent matters and meeting with FAA and other concerned agencies and parties on matters affecting the project.
 - 2. Planning, procuring, and/or preparing necessary surveys, geotechnical engineering investigations, field investigations, and architectural and engineering studies required for preliminary design considerations.



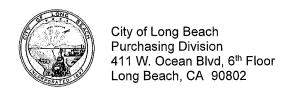
- 3. Developing design schematics, sketches, environmental and aesthetic considerations, project recommendations, and preliminary layouts and cost estimates.
- b. Design Phase. This phase includes all activities required to undertake and accomplish a full and complete project design. Examples include, but are not limited to, the below:
 - 1. Conducting and attending meetings and design conferences to obtain information and to coordinate or resolve design matters.
 - 2. Collecting engineering data and undertaking field investigations; performing geotechnical engineering studies; and performing architectural, engineering, and special environmental studies.
 - 3. Preparing necessary engineering reports and recommendations.
 - 4. Preparing detailed plans, specifications, cost estimates, design schedules, and construction schedules.
 - 5. Preparing construction safety plans and phasing plans (CSPP).
 - 6. Printing and providing necessary copies of engineering drawings and contract specifications.
 - 7. Conduct a Safety Risk Management (SRM) per FAA's Safety Risk Management Order, 8040.4 if necessary.
 - 8. Preparing the Engineer's Design Report.
- c. **Bidding and Negotiation Phase.** These activities are sometimes considered part of the construction phase. They involve assisting the City in advertising and securing bids, negotiating for services, analyzing bid results, furnishing recommendations on the award of contracts, and preparing contract documents.
- d. **Construction Phase.** This phase includes all basic services rendered after the award of a construction contract, including, but not limited to, the following activities:
 - 1. Providing consultation and advice to the City during all phases of construction.
 - 2. Representing the City at preconstruction conferences.



- 3. Inspecting work in progress periodically and providing appropriate reports to the City.
- 4. Reviewing and approving shop and erection drawings submitted by contractors for compliance with design concept / drawings.
- 5. Reviewing, analyzing, and approving laboratory and mill test reports of materials and equipment.
- 6. Preparing and negotiating change orders and supplemental agreements.
- 7. Observing or reviewing performance tests required by specifications.
- 8. Making final inspections and submitting punch-lists.
- 9. Preparing a Final Construction Report of the completed project to the City.
- 10. Reviewing operations and maintenance manuals.
- e. **Project Closeout Phase.** This phase includes all basic services rendered after the completion of a construction contract, including, but not limited to, the following activities:
 - 1. Making final inspections and submitting punch-lists and a report of the completed project to the sponsor.
 - 2. Providing record drawings.
 - 3. Preparing grant amendment request and associated justification, if applicable.
 - 4. Preparing final project reports including financial summary.
- 3.5 **Special Services.** Consultants performing special services may be employed directly by the Airport to implement one or more phases of a project or may be employed by the principal Consultant via a subcontract agreement. In certain instances, these services may also be performed by the principal Consultant. Some examples of special services that might be employed for Airport projects include, but are not limited to, the following:
 - 1. Soil investigations, including core sampling, laboratory tests, related analyses, and reports.



- 2. Land surveys and topographic maps.
- 3. Photogrammetry surveys.
- 4. Special environmental studies and analyses.
- 5. Expert witness testimony in litigation involving specific projects.
- 6. Project feasibility studies.
- 7. Public information and community involvement surveys, studies, and activities.
- 8. Preparation of record drawings.
- 9. Assisting the Sponsor in the preparation of necessary applications for local, State, and Federal grants.
- 10. Preparation of an as-built Airport layout plan.
- 11. Preparation of property maps.
- 12. Preparation of quality control plan.
- 3.6 **Division of Responsibility and Authority.** It is common to have one firm provide the basic services and one or more firms provide special services. In these cases, the firm providing the basic services is considered the primary engineer or principal consultant as defined above. As such, the principal consultant will represent the City in coordinating and overseeing the work of other engineering / consultant firms and has the overall responsibility to coordinate the work and to review the work products for general conformance to the requirements of the City. The subsequent task order assignments shall clearly specify the division of responsibility and authority between all parties involved in carrying out elements of the project.
- 3.7 **Expected Projects.** If multiple firms are selected, the expected projects to be performed by each firm will be defined, together with the statement of work and the required services, during the selection process, before the award of contracts. The Airport will provide notification to each firm of the projects they were awarded.
- 3.8 All prospective Consultants are advised that this RFQ does not guarantee work, and that some of the services may not be required. The City reserves the right to initiate additional procurement action for any of the services included in this RFQ.



4. SUBMITTAL INSTRUCTIONS

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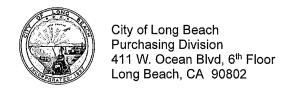
- 4.1 For questions regarding this RFQ, submit all inquiries via email to rfppurchasing@longbeach.gov by 4:00 PM (PST) on October 15, 2019. Responses to the questions will be posted on the City's website longbeach.gov/purchasing under the "Bids/RFPs" tab no later than the date and time shown below. All proposers are recommended to visit the abovementioned City website on a regular basis as the responses may be posted earlier than the date above.
 - 4.1.1 The City will not be responsible for or bound by (1) any oral communication or (2) any other information or contact that occurs outside the official communication process specified herein, unless confirmed in writing by the City Contact.

4.2 RFQ Timeline (times indicated are Pacific Time)

TASK	DA I E/ I IIVIE
Mandatory Pre-SOQ conference	October 10, 2019 at 10:00 am
Deadline for submitting questions	October 15, 2019 by 4:00 pm
Answers to all questions submitted available	October 23, 2019 by 4:00 pm
Deadline for submission of SOQ	October 30, 2019 by 11:00 am
Evaluation period	November 2019
Short-list and Invitation for Interview	Week of November 11, 2019
Interview Presentations	Week of November 18, 2019
Selection of Consultant	On or about November 2019

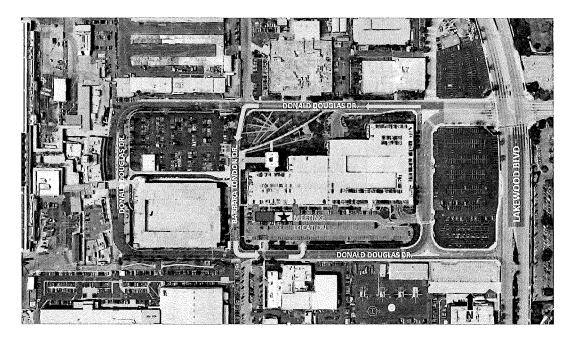
NOTE: These dates represent a tentative schedule of events. The City reserves the right to modify these dates at any time, with appropriate notice to prospective Contractors.

DATE/TIME



4.2.1 Mandatory Pre-SOQ Conference

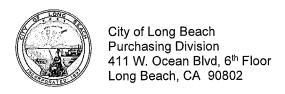
A mandatory pre-SOQ meeting is scheduled for October 10, 2019 at 10:00 AM at LGB Engineering Field Construction Office, 4339 Donald Douglas Dr., Long Beach CA 90808 (located on the surface parking lot directly south of Parking Structure B. Entrance is through eastbound Donald Douglas Drive). Attendees are encouraged to park at the surface lot adjacent to the LGB Field Construction Office. Parking at the surface lot is free of charge. Valet will NOT be validated.



RSVPs are required and helpful in determining the required resources needed to conduct the meeting. Please use the "RSVP" button on the PlanetBids site to RSVP prior to the pre-SOQ conference.

The purpose of this conference is to explain the scope of the project and provide answers to questions regarding the RFQ document. It is recommended that Consultants bring a copy of the RFQ document to this conference, as limited copies will be available.

Due to the nature of the scope of services and the specific standards required by the City, no SOQ will be accepted from a Consultant who fails to attend the Pre-SOQ Conference as scheduled. Consultants shall be required to sign-in at the Pre-SOQ Conference. Please note that attendance to the conference is only mandatory for Proposers submitting SOQs as Primary Consultants. Attendance to the conference is optional for prospective subconsultants.



4.3 Method of Submission

Electronic SOQs shall be submitted via the City's secure online bidding system. All required sections of the SOQ must be submitted via the website. Proposer is solely responsible for "on time" submission of their electronic SOQ. The Bid Management System will not accept late submittals and no exceptions shall be made. Proposers will receive an e-bid confirmation number with a time stamp from the Bid Management System indicating that their SOQ was submitted successfully. The City will only receive those SOQs that were transmitted successfully.

RFQ cover page shall be signed in ink, scanned and included with SOQ in the electronic submission.

Submit SOQ online at:

http://www.planetbids.com/portal/portal.cfm?CompanyID=15810

Technical support is available by phone at (818) 992-1771. A list of Frequently Asked Questions is also available by clicking on the red question mark icon for Support, located at the top-right corner once "Place eBid" has been selected and all terms and addenda have been acknowledged, as well as at the top-right corner of the "Bid Opportunities" tab.

- 4.4 SOQs must be received by 11:00 AM (PST) on October 30, 2019. SOQs that do not arrive by the specified date and time WILL NOT BE ACCEPTED. Consultants may submit their SOQ any time prior to the above stated deadline. The City will not be held responsible for SOQs mishandled as a result of technical error. Facsimile or telephone SOQs will NOT be considered unless otherwise authorized; however, SOQs may be modified by fax or written notice provided such notice is received prior to the opening of the SOQs.
- 4.5 SOQs are to be prepared in such a way as to provide a straightforward, concise delineation of capabilities to satisfy the requirements of this RFQ, per the evaluation criteria listed in Section 5.1. The SOQ should be presented in a format that corresponds to and references Section 3, Scope of Project; Section 7, Project Specifications; Section 8, Warranty/Maintenance and Service; Section 9, Company Background and References; and Section 10, Cost, and should be presented in the same order. Responses to each section and subsection should be labeled so as to indicate which item is being addressed.
- 4.6 Colored displays, promotional materials, etc., are not necessary or desired. Emphasis should be concentrated on conformance to the RFQ instructions, responsiveness to the RFQ requirements, and on completeness and clarity of content.



City of Long Beach Purchasing Division 411 W. Ocean Blvd, 6th Floor Long Beach, CA 90802

- 4.7 The SOQ must be signed by the individual(s) legally authorized to bind the Consultant. Consultants shall complete the cover page of the RFQ document, sign in ink, and submit electronically with their SOQ.
- 4.8 If complete responses cannot be provided without referencing supporting documentation, such documentation must be provided with the SOQ and specific references made to the tab, page, section and/or paragraph where the supplemental information can be found.
- 4.9 Descriptions on how any and all equipment and/or services will be used to meet the requirements of this RFQ shall be given, in detail, along with any additional information documents that are appropriately marked.
- 4.10 SOQs shall be submitted in three (3) distinct parts:

Part One (1) - Statement of Qualifications

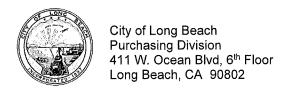
Part Two (2) - City Required Forms

Part Three (3) - Financial Documentation/Statements

THE SOQ MUST NOT INCLUDE COST AND PRICING INFORMATION. The City will request such information from selected Consultants prior to Contract award. *Inclusion of cost and pricing information will result in disqualification of the SOQ.*

4.11 A responsive SOQ will include the following completed documents:

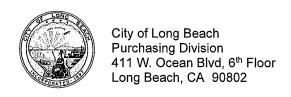
- SOQ
- **City Required Forms** shall be one separate file and uploaded separately from the SOQ on the general attachment tab in PlanetBids:
 - Attachment A Compliance with the Terms and Conditions of the RFQ, signed with any exceptions noted
 - Attachment C Statement of Non-Collusion, signed and dated
 - Attachment D Debarment, Suspension, Ineligibility and Voluntary Exclusion Certificate, signed and dated
 - o Attachment E Contractor's W-9
 - Attachment F Secretary of State Registration. Contractors must be registered with the California Secretary of State prior to contract execution. Submission of Attachment F with the is not mandatory; however, if the Contractor has already filed, it may be uploaded as a general attachment.
 - Attachment G Completed, signed and dated Equal Benefits Ordinance (EBO) Form.
 - Attachment H Insurance Requirements, Signed and dated
 - Attachment I Completed DBE Race-Neutral Participation Listing
 - Addenda (if applicable)



Financial Documentation/Statements.

5. SOQ EVALUATION AND AWARD PROCESS

- 5.1 SOQs shall be consistently evaluated based upon the following criteria:
 - 5.1.1 Demonstrated competence;
 - 5.1.2 Experience in performance of comparable engagements;
 - 5.1.3 Expertise and availability of key personnel;
 - 5.1.4 Financial stability;
 - 5.1.5 Conformance with the terms of this RFQ; and
- 5.2 SOQs shall be kept confidential until a contract is awarded.
- 5.3 The City may also contact the references provided in response to Section 9.3; contact any Consultant to clarify any response; contact any current users of a Consultant's services; solicit information from any available source concerning any aspect of an SOQ; and seek and review any other information deemed pertinent to the evaluation process. The City shall make an award in the best interests of the City of Long Beach.
- 5.4 The City reserves the right to request clarification of any SOQ term from prospective Consultants.
- 5.5 Selected Consultant(s) will be notified in writing. Any award is contingent upon the successful negotiation of final contract terms. Negotiations shall be confidential and not subject to disclosure to competing Consultants unless and until an agreement is reached. If contract negotiations cannot be concluded successfully, the City reserves the right to negotiate a contract with another Consultant or withdraw the RFQ.
- 5.6 Any contract resulting from this RFQ shall not be effective unless and until approved by the City Council / City Manager, as applicable.
- 5.7 Federal Procedures for Selection of Consultants. The procedures included in Chapter 2 of FAA AC 150/5100-14E Change 1 are hereby incorporated by reference into this RFQ. Should any conflict arise between this RFQ and FAA AC 150/5100-14E Change 1, the more stringent requirement shall take precedence.
- 5.8 **Selection Committee.** The Airport Director will appoint a selection committee to evaluate each SOQ. The selection committee will be comprised of Airport officials (management staff), licensed engineers, and other professionals qualified to evaluate the merits of the SOQ based on the criteria listed in Section 5.

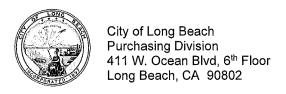


- 5.9 **SOQ Evaluation Criteria.** The criteria to be used in evaluating potential Consultants are listed below. Numerical rating factors have been assigned to each criterion on the basis of the City's priorities and conception of the importance of each factor in the attainment of a successful project.
 - 5.9.1 Proven experience in all aspects of Airport Engineering and capability to perform all or most aspects of the project and recent experience in airport projects comparable to the proposed task. (15 points)
 - 5.9.2 Key personnel's professional qualifications, experience, and availability for the proposed project; their reputation and professional integrity and competence; and their knowledge of FAA regulations, policies, and procedures. (20 points)
 - 5.9.3 Demonstrated understanding of project implementation, potential problems and the City's special concerns. (15 points)
 - 5.9.4 Quality of projects previously undertaken and capability to complete projects without having major cost escalations or overruns. (10 points)
 - 5.9.5 Current workload and demonstrated ability to meet scheduled deadlines. (10 points)
 - 5.9.6 Capability to conduct a Value Engineering (VE) study for projects that are particularly complex or have unique features. (10 points)
 - 5.9.7 Qualifications and experience of outside consultants regularly engaged by the Consultant under consideration. (10 points)
 - 5.9.8 Capability of a branch office that will do the work to perform independently of the home office, or conversely, its capability to obtain necessary support from the home office. (5 points)
 - 5.9.9 Degree of interest shown in undertaking the project and familiarity with and proximity to the geographic location of the project. (5 points)

Total Possible SOQ Evaluation Score

(100 Points)

5.10 **Pre-Selection Short List Procedure.** Members of the selection committee will rank prospective Consultants by their respective SOQ Evaluation Scores. The selection committee will convene to discuss and evaluate scoring, for purposes of developing pre-selection short lists of the top-ranked Consultants for basic and special services. Proposers who score less than 80 out of the possible 100 points on the SOQ Evaluation Criteria will not be eligible to the short list.



- Interview Presentations. Consultants from the short lists will be invited to present their general approach to providing professional services and discuss their approach to meeting the City's requirements. The invitation notification will include the location, date, time, and parameters for the presentation and subsequent interview. Presenters must participate in the interview to a degree commensurate with their role in the firm's performance of the professional services offered.
 - 5.11.1 Consultants from the short list will be invited to present their general approach to achieving design excellence, while successfully controlling time and costs for one of the projects listed in the ACIP. Short listed Consultants will be notified in writing of the project for which they are to prepare and present a general project proposal. The general project proposal must NOT include cost or pricing information.

The interview evaluation criteria include:

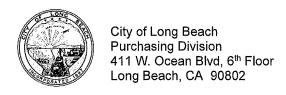
- a. Communication / interpersonal skills, including responses to questions. (20 points)
- b. Technical approach brief discussion of the tasks or steps the Consultant would take to accomplish the work described in the scope of services. (20 points)
- c. Team members, other key personnel, previous experience, and the role they would fill on the project. Qualifications and time commitment of the project manager proposed for the project. (15 points)
- d. Current workload of team members, key personnel, and project manager. (15 points)
- e. Proposed project schedule, including major tasks and target completion dates. (15 points)
- f. Value engineering brief discussion of the Consultant's capability, training, and experience to carry out value engineering studies.

(10 points)

g. A detailed description of the proposed scope of services required for the identified project. (5 points)

Total Possible Basic Services Interview Score

(100 Points)



- 5.12 Consultant Selection. Members of the selection committee will rank prospective Consultants by their respective Interview Scores. The selection committee will convene to discuss and evaluate scoring, for purposes of determining the highest qualified Consultant(s) for basic and special services. The City may select zero (0), one (1), or multiple Consultants. The Airport Director will submit the recommendation of the selection committee to the City Council for approval.
- 5.13 Following selection, prior to the start of contract negotiations, selected Consultants must submit to the City an initial cost proposal, required insurance certificates (including listed subconsultants), and the complete DBE list. It is anticipated that design phases will utilize the Fixed Lump-Sum Payment contracting methods; however, specific contracting methods will be agreed upon during contract negotiations.

6. PROTEST PROCEDURES

6.1 Who May Protest

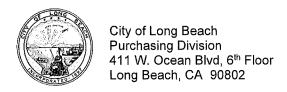
Only a proposer who has actually submitted a SOQ is eligible to protest a contract awarded through a Request for Qualifications (RFQ). A proposer may not rely on the protest submitted by another proposer but must pursue its own protest.

6.2 Time for Protest

The City will post a notice of the intent to award a contract at least ten (10) business days before an award is made. The notice will be available to all proposers who submitted an SOQ via the City's electronic bid notification system at http://www.longbeach.gov/purchasing/default.asp. A proposer desiring to submit a protest for an SOQ must do so within five (5) business days of the electronic notification of intent to award. The City Purchasing Agent must receive the protest by the close of business on the fifth (5th) business day following posting of notification of intent to award the contract. Proposers are responsible for registering with the City's electronic bid notification system and maintaining an updated Consultant profile. The City is not responsible for proposers' failure to obtain notification for any reason, including but not limited to failure to maintain updated email addresses, failure to open/read electronic messages and failure of their own computer/technology equipment. The City's RFQ justification memo will be available for review by protestors once the notification of intent to award has been posted via the City's electronic bid notification system.

6.3 Form of Protest

The protest must be in writing and signed by the individual who signed the SOQ or, if the proposer is a corporation, by an officer of the corporation, and addressed to the City Purchasing Agent. Protests may be submitted via US Mail, hand delivery or



email, and must include a valid email address, street address and phone number sufficient to ensure that the City's decision concerning the protest will be received. Protests must set forth a complete and detailed statement of the grounds for the protest and include all relevant information to support the grounds stated, and must refer to specific portions of the RFQ and attachments upon which the protest is based. Once the protest is received by the City Purchasing Agent, the City will not accept additional information on the protest unless the City requests it.

6.4 City Response to Protest

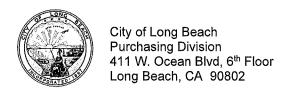
The City Purchasing Agent or designee will respond with a decision regarding the protest within five (5) business days of receipt of protest by email or US Mail to the address provided in the protest. This decision shall be final.

6.5 Limitation of Remedy

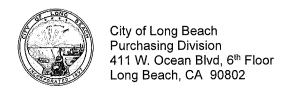
The procedure and time limits set forth herein are mandatory and are the proposer's sole and exclusive remedy in the event of a protest. The proposer's failure to comply with these procedures shall constitute a waiver of any right to further pursue a protest, including filing a Government Code Claim or initiation of legal proceedings.

7. PROJECT SPECIFICATIONS

- 7.1 Project Scope Definition. It is important for the City and Consultant(s) to reach a complete and mutual understanding of the scope of services to be provided. The general scope of services developed during the RFQ process is of necessity too broad to serve as the basis for a contractual agreement. A well-defined project description and scope of services shall be developed between the City and Consultant(s) prior to negotiating a project design fee. This may be accomplished during meetings with the Engineer or through investigation and/or study to clearly define the extent of the project. The project scope meeting will offer the opportunity for refinement, amendment, and allow for more detailed project definition of the services to be rendered.
- 7.2 The scope of the service(s) must be sufficiently detailed so that a reasonable fee estimate can be provided to the City (see Appendix F for Consultant Services Fee-Costs Samples). Although the scope of the service(s) will vary from project to project (see samples in Appendix E), the following items are typical of those that should be considered in developing the scope of services:
 - 7.2.1 Nature, extent, and character of the project, the location thereof, and time limitations.



- 7.2.2 Delineation of responsibilities of the Consultant, the City, and other Consultants and parties involved in the performance of the project, particularly key personnel such as the Project Manager.
- 7.2.3 List of meetings the Consultant is expected to attend.
- 7.2.4 Design schedule.
- 7.2.5 Special services required.
- 7.2.6 Complexity of design.
- 7.2.7 Safety and operational considerations.
- 7.2.8 Environmental considerations.
- 7.2.9 Survey and geotechnical testing requirements.
- 7.2.10 Delineation of the duties and responsibilities of the Consultant resident Engineer/Inspector.
- 7.2.11 Preparation of a Quality Control / Quality Assurance Plan.
- 7.2.12 Preparation of forms, letters, documents, and reports.
- 7.2.13 Preparation of an Engineer's Design Report and Final Report.
- 7.2.14 Quality Control during design.
- 7.2.15 Coordination with other Consultants and Agencies.
- 7.2.16 Deliverables.
- 7.2.17 Data and material furnished by the City.
- 7.2.18 Testing and commissioning requirements.
- 7.2.19 City / County requirements.
- 7.2.20 Number of bid packages.
- 7.2.21 Complexity of construction phasing to minimize impacts on Airport operations.



8. WARRANTY/MAINTENANCE AND SERVICE

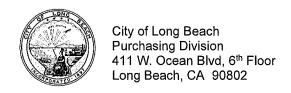
The Consultant shall maintain all warranties listed in the Pro-Forma Agreement attached to this RFQ. Consultants shall provide acknowledgement and acceptance of the full Pro Forma Agreement of the City of Long Beach on company letterhead as part of the SOQ.

9. COMPANY BACKGROUND AND REFERENCES

9.1 Primary Consultant Information

Consultants must provide a company profile. Information provided shall include:

- Company ownership. If incorporated, the state in which the company is incorporated and the date of incorporation. An out-of-state Consultant must register with the State of California Secretary of State before a contract can be executed (http://www.sos.ca.gov/business/).
- Location of the company offices.
- Location of the office servicing any California account(s).
- Number of employees both locally and nationally. Specify the number of full time and part-time employees residing in Long Beach.
- Location(s) from which employees will be assigned.
- Name, address and telephone number of the Consultant's point of contact for a contract resulting from this RFQ.
- Company background/history and why Consultant is qualified to provide the services described in this RFQ.
- Length of time Consultant has been providing services described in this RFQ to the **public and/or private sector**. Please provide a brief description.
- Resumes for key staff to be responsible for performance of any contract resulting from this RFQ.
- Financial stability: Proposers must provide financial statements giving the City enough information to determine financial stability. These statements may include, but are not limited to:
 - a) Financial Statement or Annual Report;
 - b) Business tax return;
 - c) Statement of income and related earnings;



- d) Statement of Changes in financial position;
- e) Letter from the proposer's banking institution;
- f) Statement from a certified public accounting firm.

The level and term of documentation required from the proposer to satisfy the City will be commensurate with the size and complexity of the contract and proposers should submit accordingly. If the information submitted by the proposer, or available from other sources, is insufficient to satisfy the City as to the proposer's contractual responsibility, the City may request additional information from the proposer or may deem the SOQ non-responsive. The City's determination of the proposer's responsibility, for the purposes of this RFQ, shall be final.

9.2 Subconsultant Information

921	Does this	SOO include	the use of	of subconsultants
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Yes	No	***************************************	Initials

If "Yes", Consultant must:

- 9.2.1.1 Identify specific subconsultants and the specific requirements of this RFQ for which each proposed subconsultant will perform services.
- 9.2.1.2 Provide the same information for any subconsultants as is indicated in Section 9.1 for the Consultant as primary consultant.
- 9.2.1.3 References as specified in Section 9.3 below must also be provided for any proposed subconsultants.
- 9.2.1.4 The City requires that the awarded Consultant provide proof of payment of any subconsultants used for this project. SOQs shall include a plan by which the City will be notified of such payments.
- 9.2.1.5 Primary Consultant shall not allow any subconsultant to commence work until all insurance required of subconsultant is obtained.

9.3 References

Consultants should provide a minimum of five (5) references from similar projects performed for state and/or large local government clients within the last three years. Information provided shall include:

Client name;



City of Long Beach Purchasing Division 411 W. Ocean Blvd, 6th Floor Long Beach, CA 90802

- Project description;
- Project dates (starting and ending);
- Technical environment
- Staff assigned to reference engagement that will be designated for work per this RFQ;
- Client project manager name and telephone number.

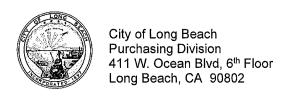
9.4 Business License

The Long Beach Municipal Code (LBMC) requires all businesses operating in the City of Long Beach to pay a business license tax. In some cases, the City may require a regulatory permit and/or evidence of a State or Federal license. Prior to issuing a business license, certain business types will require the business license application and/or business location to be reviewed by the Development Services, Fire, Health, and/or Police Departments.

For more information, go to www.longbeach.gov/finance/business license.

10. **COST**

- 10.1 THE SOQ <u>MUST NOT</u> INCLUDE COST AND PRICING INFORMATION. Inclusion of cost and pricing information shall result in disqualification of the SOQ. The below is for informational purposes only and will be requested only from the selected successful Consultant(s).
- 10.2 Upon selection of the successful Consultant and prior to the start of contract negotiations, the City and Consultant shall meet to develop a general forecast scope of services for the term of the Contract. The awarded Consultant shall submit a proposed general fee and supporting cost breakdown. The proposed general fee will be used to establish the overall contract value.
- 10.3 Compensation for various assigned tasks may be based on a fixed sum, paid monthly, or on some other mutually agreeable basis, with per diem or hourly rates in addition to time spent at the request of the City. The Consultant shall provide supporting per diem and hourly rate cost breakdown information following selection, prior to contract award. The Consultant may provide per diem or hourly rates on an annual basis or blended rates for the initial term.
- 10.4 A detailed scope of services, proposed fee, and supporting cost breakdown will be requested by the City on a task order basis. Subsequent fee review and negotiations will be conducted in accordance with FAA AC 150/5100-14E Change 1.



- 10.5 Allowable Costs. Costs incurred must be consistent with the Federal cost principles contained in 48 CFR part 31, Office of Management and Budget (OMB) Circular A- 87, and FAA Order 5100.38 to be reimbursable under an airport planning or development grant. Chapter 4 of FAA AC 150/5100-14E Change 1 contains examples of typical expenses allowable under the above regulations.
- 10.6 **Non-allowable Costs.** The expenses listed below are not allowable for reimbursement under an airport grant:
 - 10.6.1 Costs of amusement and social activities and incidental costs such as meals, lodging, rentals, transportation, and gratuities.
 - 10.6.2 Contributions and donations.
 - 10.6.3 Bad debts, including losses due to uncollectible customer's accounts and other claims, related collection costs, and related legal costs, arising from other businesses of the Consultant.
 - 10.6.4 Dividend provisions or payments and, in the case of sole proprietors and partners, distributions of profit.
 - 10.6.5 Interest on borrowed capital.
 - 10.6.6 Bonus payment for early completion of work.

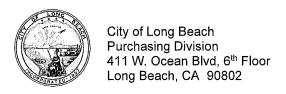
11. BONDS

Not Applicable.

12. ADDITIONAL REQUIREMENTS FROM FUNDING SOURCE

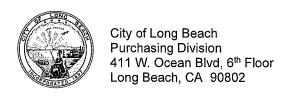
Any Contract arising from this procurement process shall be funded in whole or in part from grants awarded under FAA Airport Improvement Program (AIP) grant. Pursuant to said grants, the Awarded Consultant is required to comply with (and to incorporate into its agreements with any sub-consultants) the following provisions in the performance of the Contract, as applicable.

- 12.1 Order of Precedence In the event of conflicts or discrepancies between these Federal grant funding provisions and any other Contract document, the Federal grant provisions shall take precedence.
- 12.2 Access to Consultant's Records The Awarded Consultant shall provide the City, the Office of State and Local Government Coordination and Preparedness, the Comptroller General of the United States, or any of their authorized representatives, access to any books, documents, papers, and records of the Awarded Consultant



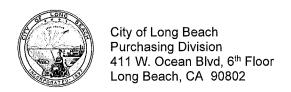
which are directly pertinent to the work performed under the Contract for the purposes of making audit, examination, excerpts or transcriptions.

- 12.3 Americans with Disabilities Act The Awarded Consultant hereby certifies that it will comply, as applicable, with the Americans with Disabilities Act of 1990 ("ADA"), 42 USC §§ 12101 et seq., and its implementing regulations, including Subtitle A, Title II of the ADA. The Awarded Consultant will provide, as applicable, reasonable accommodations to allow qualified individuals with disabilities to have access to and to participate in its programs, services and activities in accordance with the provisions of the ADA. The Awarded Consultant will not discriminate against persons with disabilities nor against persons due to their relationship to or association with a person with a disability. Any contract entered into by the Awarded Consultant (or any subcontract thereof), relating to this Agreement, shall be subject to the provisions of this paragraph.
- 12.4 Compliance with Contract Work Hours and Safety Standard Act The Awarded Consultant shall comply with the requirements of §§ 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C §§ 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5).
- 12.5 Compliance with Copeland "Anti-Kickback" Act The Awarded Consultant shall comply with the requirements of the Copeland "Anti-Kickback" Act (18 U.S.C. § 874) as supplemented in the Department of Labor regulations (29 CFR Part 3).
- 12.6 Compliance with Davis-Bacon Act The Awarded Consultant shall comply with the requirements of the Davis-Bacon ACT (40 U.S.C. §§ 276 to 276-a7) as supplemented by Department of Labor regulations (29 CFR Part 5) where applicable and shall provide the City with all applicable payroll records on a weekly basis.
- 12.7 Copyright The Awarded Consultant acknowledges the existence of requirements and regulations of the awarding Federal agency relating to copyrights and right in data, including, but not limited to those set forth in 44 CFR Part 13.34 which states: "The Federal awarding agency reserves royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes: (a) The copyright in any work developed under a grant, subgrant, or contract under a grant or subgrant; and (b) Any rights of copyright to which a grantee, subgrantee or a Consultant purchases ownership with grant support." The Awarded Consultant shall comply with 25 CFR 85.34.
- 12.8 Drug-Free Workplace The Awarded Consultant hereby certifies that it shall provide or shall continue to provide a drug-free workplace as required by the Drug-Free Workplace Act of 1988 (41 U.S.C. § 701), and implemented at 44 CFR Part 17.



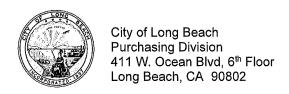
- 12.9 Energy Efficiency The Awarded Consultant shall comply with all mandatory standards and policies relating to energy efficiency that are contained in the State of California's energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L.94-163, 89 Stat. 871).
- 12.10 Environmental Legislation The Awarded Consultant shall comply with all applicable standards, orders or requirements issued under § 306 of the Clean Air Act (42 U.S.C. 1857 (h)), § 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15).
- 12.11 System for Award Management (SAM) In accordance with Executive Orders 12549 and 12689 concerning suspension and debarment, contracts must prohibit Consultants from awarding any subcontract to persons (individuals or organizations) listed as having an active exclusion of the Federal System for Awards Management Database (www.sam.gov).
- 12.12 Minority, Women and Other Business Enterprise Outreach In accordance with CalEMA/Grantor directives, as applicable, firms who represent small business enterprises (SBEs), minority business enterprises (MBEs) and women business enterprises (WBEs) are encouraged to participate in competition for this opportunity. Any such enterprise shall include the appropriate SBE/MBE/WBE certification along with its SOQ. The Awarded Consultant agrees that, to the extent consultants or subconsultants are utilized, the Awarded Consultants shall use small, minority, women-owned, or disadvantaged business concerns and consultants or subconsultants to the extent practicable and shall take the affirmative steps as set forth in 49 CFR §13.36(e).
 - 12.12.1 It is the policy of the City of Long Beach to encourage the use of Disadvantaged-, Minority- or Women-Owned Business Enterprises in all aspects of contracting relating to construction, materials and services, professional services, land development related activities, leases and concessions.
 - 12.12.2 The Airport has established a Triennial Disadvantaged Business Enterprise (DBE) Overall Goal of 8.0% applicable to U. S. Department of Transportation Federal Aviation Administration (FAA) assisted contracts for Federal Fiscal Years 2018-2020. However, bidders are urged to obtain DBE participation to the maximum extent possible.

The requirements of 49 CFR part 26 apply to this contract. It is the policy of the City of Long Beach to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

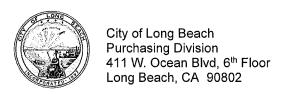


If the Contractor intends to utilize subconsultants during the performance of this contract, the Contractor is expected to afford DBEs equitable opportunity to compete and perform in these areas. To facilitate capturing Race-Neutral DBE participation under this Contract, the Contractor is requested to complete and submit the "DBE Race-Neutral Participation Listing" form (see Attachment I) with the executed contract documents, which includes the following information for each DBE listed:

- 12.12.2.1 The name, address, and telephone number of the firm
- 12.12.2.2 Type of work to be performed:
- 12.12.2.3 The estimated dollar amount of work to be performed
- 12.12.2.4 Number of years in business.
- 12.12.2.5 DBE certification eligibility status, in conformance with 49 CFR Part 26
- 12.12.2.6 Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed to meet the Owner's overall goal.
- 12.13 National Preservation Acts The Awarded Consultant shall assist City (if necessary) in assuring compliance with § 106 of the National Historic Preservation Act of 1966 (16 U.S.C. § 470), Executive Order 11593 (identification and protection of historic properties), the Archeological and Historical Preservation Act of 1974 (16 U.S.C. § 469 a-1 et seq.), and the National Environmental Policy Act of 1969 (42 U.S.C. § 4321).
- 12.14 Non-discrimination; Equal Employment Opportunity The Awarded Consultant hereby assures the City that in performing its obligations pursuant to the Contract, it will comply with all applicable nondiscrimination requirements as set forth in 44 CFR Part 13,36. In addition, the Awarded Consultant shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Opportunity Employment," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60), and where applicable to the nondiscrimination provisions of the Omnibus Crime Control and Safe Street Acts of 1968 (42 U.S.C. § 3789d), the Victims of Crimes Act (42 U.S.C. § 10604(e)), the Juvenile Justice and Delinquency Prevention Act (42 U.S.C. § 5672(b)), the Civil Rights Act of 1964 (42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (29 U.S.C. § 794), the Americans with Disabilities Act of 1990 (42 U.S.C. §§ 12131-34), the Education Amendments of 1972 (20 U.S.C. §§ 1681, 1683, 1685-86), and the Age Discrimination Act of 1975 (42 U.S.C. §§ 6101-07), see Executive Order 13279 (equal protection of the laws for faith-based and community organizations). This provision must be incorporated by Awarded Consultant into any subcontract exceeding \$10,000.



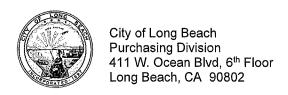
- 12.15 Patent Rights The Awarded Consultant acknowledges the existence of requirements and regulations of the awarding Federal agency relating to patent rights with respect to any discovery or invention which arises or is developed in the course or under this Contract, including, but not limited to those regulations and requirements set forth in 44 CFR Part 13.36. Any discovery or invention that arises during the course of this Contract shall be immediately reported to the Department's project management team. The awarding Federal agency shall determine how rights in the invention/discovery shall be allocated consistent with "Government Patent Policy" and 37 CFR Part 401.
- 12.16 Payments, Reports, Records, Retention and Enforcement The Awarded Consultant acknowledges the requirements and regulations set forth in 44 CFR Parts 13.36 through 13.42 and 49 CFR Part 18 and agrees to cooperate with the City in order to allow the City to comply with said requirements. The Awarded Consultant shall retain all of its records relating to the project for a period of five (5) years after City makes final payment to the Awarded Consultant and all other pending matters are closed.
- 12.17 Publications All publications created and/or published with funding under any contract arising from this RFQ shall prominently contain the following statement: "This document was prepared under a grant from FEMA's Grant Programs Directorate, U.S. Department of Homeland Security. Points of view or opinions in this document are those of the author(s) and do not necessarily represent the official position or policies of FEMA's Grant Programs Directorate or the U.S. Department of Homeland Security."
- 12.18 Rights to Data The Grantor and the City shall have unlimited rights or copyright license to any data first produced or delivered under this Agreement. "Unlimited rights" means the right to use, disclose, reproduce, prepare derivative works, distribute copies to the public and perform and display publicly, or permit others to do so; as required by 48 CFR 27.401. Where the data are not first produces under this Contract or are published copyrighted data with the notice of 17 U.S.C § 401 or 402, the Grantor acquires the data under copyright license as set forth in 48 CFR 27.404(f)(2) instead of unlimited rights (4 CFR 27.404(a)).
- 12.19 Rights to Use Inventions City and all grantors and/or awarding Federal Agency shall have an unencumbered right, and a non-exclusive, irrevocable, royalty –free license, to use, manufacture, improve upon and all others to do so for all governmental purposes, any invention developed under the Contract.
- 12.20 All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.



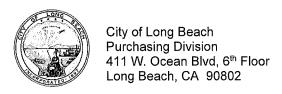
The Consultant has full responsibility to monitor compliance to the referenced statute or regulation. The Consultant must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

13. TERMS, CONDITIONS AND EXCEPTIONS

- 13.1 This contract will be for a period of two (2) years with three (3) annual renewal options at the discretion of the City. The contract term will not exceed 5 years.
- 13.2 The City reserves the right to alter, amend, or modify any provisions of this RFQ, or to withdraw this RFQ, at any time prior to the award of a contract pursuant hereto, if it is in the best interest of the City to do so.
- 13.3 The City reserves the right to waive informalities and minor irregularities in SOQs received.
- 13.4 The City reserves the right to reject any or all SOQs received prior to contract award.
- 13.5 The City will make an award in the best interests of the City of Long Beach after all factors have been evaluated.
- 13.6 Any irregularities or lack of clarity in the RFQ should be brought to the Purchasing Division designee's attention as soon as possible so that corrective addenda may be furnished to prospective Consultants.
- 13.7 SOQs must include any and all proposed terms and conditions, including, without limitation, written warranties, maintenance/service agreements, license agreements, lease purchase agreements and the Consultant's standard contract language. The omission of these documents may render a SOQ non-responsive.
- 13.8 Alterations, modifications or variations to a SOQ may not be considered unless authorized by the RFQ or by addendum or amendment.
- 13.9 SOQs which appear unrealistic in the terms of technical commitments, lack of technical competence, or are indicative of failure to comprehend the complexity and risk of this contract, may be rejected.
- 13.10 SOQs may be withdrawn by written or facsimile notice received prior to the SOQ opening time.
- 13.11 The price and amount of this proposal must have been arrived at independently and without consultation, communication, agreement or disclosure with or to any other consultant, Consultant or prospective Consultant.

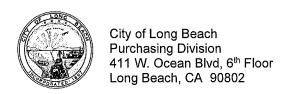


- 13.12 No attempt may be made at any time to induce any firm or person to refrain from submitting an SOQ or to submit any intentionally high or noncompetitive proposal. All SOQs must be made in good faith and without collusion.
- 13.13 Prices offered by Consultants in their proposals are an irrevocable offer for the term of the contract and any contract extensions. The awarded Consultant agrees to provide the purchased services at the costs, rates and fees as set forth in their proposal in response to this RFQ. No other costs, rates or fees shall be payable to the awarded Consultant for implementation of their proposal.
- 13.14 The City is not liable for any costs incurred by Consultants prior to entering into a formal contract. Costs of developing the SOQs or any other such expenses incurred by the Consultant in responding to the RFQ, are entirely the responsibility of the Consultant, and shall not be reimbursed in any manner by the City.
- 13.15 SOQ will become public record after staff proposes the award of a contract unless the SOQ or specific parts of the SOQ can be shown to be exempt by law. Each Consultant may clearly label all or part of a SOQ as "CONFIDENTIAL" provided that the Consultant thereby agrees to indemnify and defend the City for honoring such a designation. The failure to so label any information that is released by the City shall constitute a complete waiver of any and all claims for damages caused by any release of the information.
- 13.16 An SOQ submitted in response to this RFQ must identify any subconsultants, and outline the contractual relationship between the awarded Consultant and each subconsultant. An official of each proposed subconsultant must sign, and include as part of the SOQ submitted in response to this RFQ, a statement to the effect that the subconsultant has read and will agree to abide by the awarded Consultant's obligations.
- 13.17 The awarded Consultant will be the sole point of contract responsibility. The City will look solely to the awarded Consultant for the performance of all contractual obligations which may result from an award based on this RFQ, and the awarded Consultant shall not be relieved for the non-performance of any or all subconsultants.
- 13.18 The awarded Consultant must maintain, for the duration of its contract, insurance coverages as required by the City. Work on the contract shall not begin until after the awarded Consultant has submitted acceptable evidence of the required insurance coverages.
- 13.19 Each Consultant must disclose any existing or potential conflict of interest relative to the performance of the contractual services resulting from this RFQ. Any such relationship that might be perceived or represented as a conflict should be disclosed.



The City reserves the right to disqualify any Consultant on the grounds of actual or apparent conflict of interest.

- 13.20 Each Consultant must include in its SOQ a complete disclosure of any alleged significant prior or ongoing contract failures, any civil or criminal litigation or investigation pending which involves the Consultant or in which the Consultant has been judged guilty or liable. Failure to comply with the terms of this provision will disqualify any SOQ. The City reserves the right to reject any SOQ based upon the Consultant's prior history with the City or with any other party, which documents, without limitation, unsatisfactory performance, adversarial or contentious demeanor, significant failure(s) to meet contract milestones or other contractual failures.
- 13.21 The City will not be liable for Federal, State, or Local excise taxes.
- 13.22 Execution of **Attachment A** of this RFQ shall constitute an agreement to all terms and conditions specified in the RFQ, including, without limitation, the **Attachment B** contract form and all terms and conditions therein, except such terms and conditions that the Consultant expressly excludes.
- 13.23 The City reserves the right to negotiate final contract terms with any Consultant selected. The contract between the parties will consist of the RFQ together with any modifications thereto, and the awarded Consultant's SOQ, together with any modifications and clarifications thereto that are submitted at the request of the City during the evaluation and negotiation process. In the event of any conflict or contradiction between or among these documents, the documents shall control in the following order of precedence: the final executed contract, the RFQ, any modifications and clarifications to the awarded Consultant's SOQ, and the awarded Consultant's SOQ. Specific exceptions to this general rule may be noted in the final executed contract.
- 13.24 Consultant understands and acknowledges that the representations above are material and important, and will be relied on by the City in evaluation of the SOQ. Any Consultant misrepresentation shall be treated as fraudulent concealment from the City of the true facts relating to the SOQ.
- 13.25 No announcement concerning the award of a contract as a result of this RFQ may be made without the prior written approval of the City.
- 13.26 Proposers are advised that any contract awarded pursuant to this procurement process that exceeds \$100,000 shall be subject to the applicable provisions of Long Beach Municipal Code Section 2.73 et seq, the Equal Benefits Ordinance. Proposers shall refer to **Attachment G** for further information regarding the requirements of the ordinance.



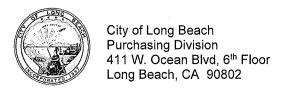
All Proposers shall complete and return, with their bid, the Equal Benefits Ordinance Compliance form contained in **Attachment G**. Unless otherwise specified in the procurement package, Proposers do not need to submit with their bid supporting documentation proving compliance. However, supporting documentation verifying that the benefits are provided equally shall be required if the proposer is selected for award of a contract.

13.27 All work performed in connection with construction shall be performed in compliance with all applicable laws, ordinances, rules and regulations of federal, state, county or municipal governments or agencies (including, without limitation, all applicable federal and state labor standards, including the prevailing wage provisions of sections 1770 et seq. of the California Labor Code), and (b) all directions, rules and regulations of any fire marshal, health officer, building inspector, or other officer of every governmental agency now having or hereafter acquiring jurisdiction.

Consultant shall indemnify, protect and hold harmless City, its Boards, Commissions, and their officials, employees and agents ("Indemnified Parties"), from and against any and all liability, claims, demands, damage, loss, obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, including attorneys' fees, court costs, expert and witness fees, and other costs and fees of litigation, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Consultant's breach or failure to comply with any of its obligations contained in this Contract, including any obligations arising from the Project's Consultant's compliance with or failure to comply with applicable laws, including all applicable federal and state labor requirements including, without limitation, the requirements of California Labor Code section 1770 et seq. or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees, agents, subconsultants, or anyone under Consultant's control, in the performance of work or services under this Contract (collectively "Claims" or individually "Claim").

In addition to Consultant's duty to indemnify, Consultant shall have a separate and wholly independent duty to defend Indemnified Parties at Consultant's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Consultant shall be required for the duty to defend to arise. City shall notify Consultant of any Claim, shall tender the defense of the Claim to Consultant, and shall assist Consultant, as may be reasonably requested, in the defense.

If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties.



If the Consultant elects to use subconsultants, Consultant agrees to require its subconsultants to indemnify Indemnified Parties and to provide insurance coverage to the same extent as Consultant.

The provisions of this Section shall survive the expiration or termination of this Contract.

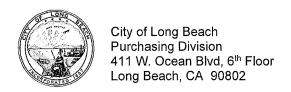
Consultant agrees that all public work (as defined in California Labor Code section 1720) performed pursuant to this Agreement (the "Public Work"), if any, shall comply with the requirements of California Labor Code sections 1770 *et seq*. City makes no representation or statement that the project or any portion thereof, is or is not a "public work" as defined in California Labor Code section 1720.

In all bid specifications, contracts and subcontracts for any such Public Work, Consultant shall obtain the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification or type of worker needed to perform the Public Work, and shall include such rates in the bid specifications, contract or subcontract. Such bid specifications, contract or subcontract must contain the following provision: "It shall be mandatory for the consultant to pay not less than the said prevailing rate of wages to all workers employed by the consultant in the execution of this contract. The Consultant expressly agrees to comply with the penalty provisions of California Labor Code section 1775 and the payroll record keeping requirements of California Labor Code section 1771."

13.28. The City of Long Beach has a Project Labor Agreement (PLA) that establishes the labor relations Policies and Procedures for the City, the Contractor and subcontractors awarded contracts for the Work and for the craft persons employed by the Contractor or subcontractor while engaged in the Work. The goal of the PLA is to provide that the Work brings full employment and economic benefit to the City and its residents. With the PLA, the parties have established a framework for fair wages, hours and working conditions through which these goals may be achieved, and which will permit the utilization of the most modern, efficient and effective procedures for construction, assure a sufficient supply of skilled craft persons, and reduce or eliminate the causes of disruptions or interference with the Work.

In the instances where a specific project is subject to the PLA, the awarded firm(s) may be subject to the terms of PLA Agreement depending on their scope of work for that particular task order. A copy of the City PLA can be found at http://www.longbeach.gov/globalassets/finance/media-library/documents/business-info/compliance/project-labor-agreement/2015-0526-copy-of-approved-pla





Attachment B

PRO-FORMA AGREEMENT

[Attached for reference; to be completed upon Contract Award]

OFFICE OF THE CITY ATTORNEY CHARLES PARKIN, City Attorney 411 West Ocean Boulevard, 9th Floor Long Beach. CA 90802-4664

AGREEMENT

THIS AGREEMENT is made and entered, in duplicate, as of,
20 for reference purposes only, pursuant to a minute order adopted by the City Council
of the City of Long Beach at its meeting on, 20, by and between
, acorporation
("Consultant"), with a place of business at
, and the CITY OF LONG
BEACH, a municipal corporation ("City").
WHEREAS, the City requires specialized services requiring unique skills to
be performed in connection with
("Project"); and
WHEREAS, City has selected Consultant in accordance with City's
administrative procedures and City has determined that Consultant and its employees are
qualified, licensed, if so required, and experienced in performing these specialized
services; and
WHEREAS, City desires to have Consultant perform these specialized
services, and Consultant is willing and able to do so on the terms and conditions in this
Agreement;
NOW, THEREFORE, in consideration of the mutual terms, covenants, and
conditions in this Agreement, the parties agree as follows:
1. SCOPE OF WORK OR SERVICES.
A. Consultant shall furnish specialized services more particularly
described in Exhibit "A", attached to this Agreement and incorporated by this
reference, in accordance with the standards of the profession, and City shall pay for
these services in the manner described below, not to exceed
Dollars (\$), at the rates or charges shown in Exhibit "B".
B. The City's obligation to pay the sum stated above for any one

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fiscal year shall be contingent upon the City Council of the City appropriating the necessary funds for such payment by the City in each fiscal year during the term of this Agreement. For the purposes of this Section, a fiscal year commences on October 1 of the year and continues through September 30 of the following year. In the event that the City Council of the City fails to appropriate the necessary funds for any fiscal year, then, and in that event, the Agreement will terminate at no additional cost or obligation to the City.

- C. Consultant may select the time and place of performance for these services provided, however, that access to City documents, records, and the like, if needed by Consultant, shall be available only during City's normal business hours and provided that milestones for performance, if any, are met.
- D. Consultant has requested to receive regular payments. City shall pay Consultant in due course of payments following receipt from Consultant and approval by City of invoices showing the services or task performed, the time expended (if billing is hourly), and the name of the Project. Consultant shall certify on the invoices that Consultant has performed the services in full conformance with this Agreement and is entitled to receive payment. Each invoice shall be accompanied by a progress report indicating the progress to date of services performed and covered by the invoice, including a brief statement of any Project problems and potential causes of delay in performance, and listing those services that are projected for performance by Consultant during the next invoice cycle. Where billing is done and payment is made on an hourly basis, the parties acknowledge that this arrangement is either customary practice for Consultant's profession, industry, or business, or is necessary to satisfy audit and legal requirements which may arise due to the fact that City is a municipality.
- E. Consultant represents that Consultant has obtained all necessary information on conditions and circumstances that may affect its performance and has conducted site visits, if necessary.

	F.	CAUTION:	Consultant	shall	not begin	work unti	i this
Agreemer	nt has b	een signed by	both parties	and u	ntil Consult	ant's evider	nce of
insurance	has bee	n delivered to a	and approved	by the	City.		
2.	TER	M. The term o	f this Agreem	ent sh	all commen	ce at midniç	ght on

2. <u>TERM.</u> The term of this Agreement shall commence at midnight on ______, 20_, and shall terminate at 11:59 p.m. on ______, 20__ , unless sooner terminated as provided in this Agreement, or unless the services or the Project is completed sooner.

3. COORDINATION AND ORGANIZATION.

A. Consultant shall coordinate its performance with City's representative, if any, named in Exhibit "C", attached to this Agreement and incorporated by this reference. Consultant shall advise and inform City's representative of the work in progress on the Project in sufficient detail so as to assist City's representative in making presentations and in holding meetings on the Project. City shall furnish to Consultant information or materials, if any, described in Exhibit "D" attached to this Agreement and incorporated by this reference, and shall perform any other tasks described in the Exhibit.

- B. The parties acknowledge that a substantial inducement to City for entering this Agreement was and is the reputation and skill of Consultant's key employee, named in Exhibit "E" attached to this Agreement and incorporated by this reference. City shall have the right to approve any person proposed by Consultant to replace that key employee.
- 4. <u>INDEPENDENT CONTRACTOR</u>. In performing its services, Consultant is and shall act as an independent contractor and not an employee, representative, or agent of City. Consultant shall have control of Consultant's work and the manner in which it is performed. Consultant shall be free to contract for similar services to be performed for others during this Agreement provided, however, that Consultant acts in accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges and agrees that a) City will not withhold taxes of any kind from Consultant's compensation,

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b) City will not secure workers' compensation or pay unemployment insurance to, for or on Consultant's behalf, and c) City will not provide and Consultant is not entitled to any of the usual and customary rights, benefits or privileges of City employees. Consultant expressly warrants that neither Consultant nor any of Consultant's employees or agents shall represent themselves to be employees or agents of City.

5. INSURANCE.

A. As a condition precedent to the effectiveness of this Agreement, Consultant shall procure and maintain, at Consultant's expense for the duration of this Agreement, from insurance companies that are admitted to write insurance in California and have ratings of or equivalent to A:V by A.M. Best Company or from authorized non-admitted insurance companies subject to Section 1763 of the California Insurance Code and that have ratings of or equivalent to A:VIII by A.M. Best Company the following insurance:

i. Commercial general liability insurance (equivalent in scope to ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less than \$1,000,000 per each occurrence and \$2,000,000 general aggregate. This coverage shall include but not be limited to broad form contractual liability, cross liability, independent contractors liability, and products and completed operations liability. The City, its boards and commissions, and their officials, employees and agents shall be named as additional insureds by endorsement (on City's endorsement form or on an endorsement equivalent in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85 or both CG 20 10 07 04 and CG 20 37 07 04 or both CG 20 33 07 04 and CG 20 37 07 04), and this insurance shall contain no special limitations on the scope of protection given to the City, its boards and commissions, and their officials, employees and agents. This policy shall be endorsed to state that the insurer waives its right of subrogation against City, its boards and commissions, and their officials, employees and agents.

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ii. Workers' Compensation insurance as required by the California Labor Code and employer's liability insurance in an amount not less than \$1,000,000. This policy shall be endorsed to state that the insurer waives its right of subrogation against City, its boards and commissions, and their officials, employees and agents.

- Professional liability or errors and omissions insurance iii. in an amount not less than \$1,000,000 per claim.
- iv. Commercial automobile liability insurance (equivalent in scope to ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in an amount not less than \$500,000 combined single limit per accident.
- B. Any self-insurance program, self-insured retention. or deductible must be separately approved in writing by City's Risk Manager or designee and shall protect City, its officials, employees and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention or deductible provisions.
- C. Each insurance policy shall be endorsed to state that coverage shall not be reduced, non-renewed, or canceled except after thirty (30) days prior written notice to City, shall be primary and not contributing to any other insurance or self-insurance maintained by City, and shall be endorsed to state that coverage maintained by City shall be excess to and shall not contribute to insurance or selfinsurance maintained by Consultant. Consultant shall notify the City in writing within five (5) days after any insurance has been voided by the insurer or cancelled by the insured.
- D. If this coverage is written on a "claims made" basis, it must provide for an extended reporting period of not less than one hundred eighty (180) days, commencing on the date this Agreement expires or is terminated, unless Consultant guarantees that Consultant will provide to the City evidence of uninterrupted, continuing coverage for a period of not less than three (3) years,

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commencing on the date this Agreement expires or is terminated.

- E. Consultant shall require that all subconsultants or contractors which Consultant uses in the performance of these services maintain insurance in compliance with this Section unless otherwise agreed in writing by City's Risk Manager or designee.
- F. Prior to the start of performance, Consultant shall deliver to City certificates of insurance and the endorsements for approval as to sufficiency and form. In addition, Consultant, shall, within thirty (30) days prior to expiration of the insurance, furnish to City certificates of insurance and endorsements evidencing renewal of the insurance. City reserves the right to require complete certified copies of all policies of Consultant and Consultant's subconsultants and contractors, at any time. Consultant shall make available to City's Risk Manager or designee all books, records and other information relating to this insurance, during normal business hours.
- G. Any modification or waiver of these insurance requirements shall only be made with the approval of City's Risk Manager or designee. Not more frequently than once a year, the City's Risk Manager or designee may require that Consultant, Consultant's subconsultants and contractors change the amount, scope or types of coverages required in this Section if, in his or her sole opinion, the amount, scope, or types of coverages are not adequate.
- Η. The procuring or existence of insurance shall not be construed or deemed as a limitation on liability relating to Consultant's performance or as full performance of or compliance with the indemnification provisions of this Agreement.
- ASSIGNMENT AND SUBCONTRACTING. 6. This Agreement contemplates the personal services of Consultant and Consultant's employees, and the parties acknowledge that a substantial inducement to City for entering this Agreement was and is the professional reputation and competence of Consultant and Consultant's employees. Consultant shall not assign its rights or delegate its duties under this

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Agreement, or any interest in this Agreement, or any portion of it, without the prior approval of City, except that Consultant may with the prior approval of the City Manager of City, assign any moneys due or to become due the Consultant under this Agreement. Any attempted assignment or delegation shall be void, and any assignee or delegate shall acquire no right or interest by reason of an attempted assignment or delegation. Furthermore, Consultant shall not subcontract any portion of its performance without the prior approval of the City Manager or designee, or substitute an approved subconsultant or contractor without approval prior to the substitution. Nothing stated in this Section shall prevent Consultant from employing as many employees as Consultant deems necessary for performance of this Agreement.

- 7. CONFLICT OF INTEREST. Consultant, by executing this Agreement, certifies that, at the time Consultant executes this Agreement and for its duration, Consultant does not and will not perform services for any other client which would create a conflict, whether monetary or otherwise, as between the interests of City and the interests of that other client. Consultant further certifies that Consultant does not now have and shall not acquire any interest, direct or indirect, in the area covered by this Agreement or any other source of income, interest in real property or investment which would be affected in any manner or degree by the performance of Consultant's services hereunder. And, Consultant shall obtain similar certifications from Consultant's employees, subconsultants and contractors.
- 8. Consultant shall furnish all labor and supervision. MATERIALS. supplies, materials, tools, machinery, equipment, appliances, transportation, and services necessary to or used in the performance of Consultant's obligations under this Agreement, except as stated in Exhibit "D".
- 9. OWNERSHIP OF DATA. All materials, information and data prepared, developed, or assembled by Consultant or furnished to Consultant in connection with this Agreement, including but not limited to documents, estimates, calculations, studies, maps, graphs, charts, computer disks, computer source documentation, samples,

models, reports, summaries, drawings, designs, notes, plans, information, material, and memorandum ("Data") shall be the exclusive property of City. Data shall be given to City, and City shall have the unrestricted right to use and disclose the Data in any manner and for any purpose without payment of further compensation to Consultant. Copies of Data may be retained by Consultant but Consultant warrants that Data shall not be made available to any person or entity for use without the prior approval of City. This warranty shall survive termination of this Agreement for five (5) years.

- Agreement for any reason or no reason at any time by giving fifteen (15) calendar days prior written notice to the other party. In the event of termination under this Section, City shall pay Consultant for services satisfactorily performed and costs incurred up to the effective date of termination for which Consultant has not been previously paid. The procedures for payment in Section 1.B. with regard to invoices shall apply. On the effective date of termination, Consultant shall deliver to City all Data developed or accumulated in the performance of this Agreement, whether in draft or final form, or in process. And, Consultant acknowledges and agrees that City's obligation to make final payment is conditioned on Consultant's delivery of the Data to the City.
- shall not disclose the Data or use the Data directly or indirectly other than in the course of performing its services, during the term of this Agreement and for five (5) years following expiration or termination of this Agreement. In addition, Consultant shall keep confidential all information, whether written, oral, or visual, obtained by any means whatsoever in the course of performing its services for the same period of time. Consultant shall not disclose any or all of the Data to any third party, or use it for Consultant's own benefit or the benefit of others except for the purpose of this Agreement.
- 12. <u>BREACH OF CONFIDENTIALITY</u>. Consultant shall not be liable for a breach of confidentiality with respect to Data that: (a) Consultant demonstrates Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available

without breach of this Agreement by Consultant; or (c) a third party who has a right to disclose does so to Consultant without restrictions on further disclosure; or (d) must be disclosed pursuant to subpoena or court order.

13. <u>ADDITIONAL COSTS AND REDESIGN.</u>

- A. Any costs incurred by the City due to Consultant's failure to meet the standards required by the scope of work or Consultant's failure to perform fully the tasks described in the scope of work which, in either case, causes the City to request that Consultant perform again all or part of the Scope of Work shall be at the sole cost of Consultant and City shall not pay any additional compensation to Consultant for its re-performance.
- B. If the Project involves construction and the scope of work requires Consultant to prepare plans and specifications with an estimate of the cost of construction, then Consultant may be required to modify the plans and specifications, any construction documents relating to the plans and specifications, and Consultant's estimate, at no cost to City, when the lowest bid for construction received by City exceeds by more than ten percent (10%) Consultant's estimate. This modification shall be submitted in a timely fashion to allow City to receive new bids within four (4) months after the date on which the original plans and specifications were submitted by Consultant.
- 14. <u>AMENDMENT</u>. This Agreement, including all Exhibits, shall not be amended, nor any provision or breach waived, except in writing signed by the parties which expressly refers to this Agreement.
- 15. <u>LAW</u>. This Agreement shall be governed by and construed pursuant to the laws of the State of California (except those provisions of California law pertaining to conflicts of laws). Consultant shall comply with all laws, ordinances, rules and regulations of and obtain all permits, licenses, and certificates required by all federal, state and local governmental authorities.
 - 16. <u>ENTIRE AGREEMENT</u>. This Agreement, including all Exhibits,

constitutes the entire understanding between the parties and supersedes all other agreements, oral or written, with respect to the subject matter in this Agreement.

17. INDEMNITY.

A. Consultant shall indemnify, protect and hold harmless City, its Boards, Commissions, and their officials, employees and agents ("Indemnified Parties"), from and against any and all liability, claims, demands, damage, loss, obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Consultant's breach or failure to comply with any of its obligations contained in this Agreement, or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees, agents, subcontractors, or anyone under Consultant's control, in the performance of work or services under this Agreement (collectively "Claims" or individually "Claim").

- B. In addition to Consultant's duty to indemnify, Consultant shall have a separate and wholly independent duty to defend Indemnified Parties at Consultant's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Consultant shall be required for the duty to defend to arise. City shall notify Consultant of any Claim, shall tender the defense of the Claim to Consultant, and shall assist Consultant, as may be reasonably requested, in the defense.
- C. If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties.

- E. The provisions of this Section shall survive the expiration or termination of this Agreement.
- 18. <u>AMBIGUITY</u>. In the event of any conflict or ambiguity between this Agreement and any Exhibit, the provisions of this Agreement shall govern.

19. <u>NONDISCRIMINATION</u>.

- A. In connection with performance of this Agreement and subject to applicable rules and regulations, Consultant shall not discriminate against any employee or applicant for employment because of race, religion, national origin, color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap, or disability. Consultant shall ensure that applicants are employed, and that employees are treated during their employment, without regard to these bases. These actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
- B. It is the policy of City to encourage the participation of Disadvantaged, Minority and Women-owned Business Enterprises in City's procurement process, and Consultant agrees to use its best efforts to carry out this policy in its use of subconsultants and contractors to the fullest extent consistent with the efficient performance of this Agreement. Consultant may rely on written representations by subconsultants and contractors regarding their status. Consultant shall report to City in May and in December or, in the case of short-term

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agreements, prior to invoicing for final payment, the names of all subconsultants and contractors hired by Consultant for this Project and information on whether or not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

- EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in 20. accordance with the provisions of the Ordinance, this Agreement is subject to the applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the Long Beach Municipal Code, as amended from time to time.
 - During the performance of this Agreement, the Consultant Α. certifies and represents that the Consultant will comply with the EBO. Consultant agrees to post the following statement in conspicuous places at its place of business available to employees and applicants for employment:

"During the performance of a contract with the City of Long Beach, the Consultant will provide equal benefits to employees with spouses and its employees with domestic partners. Additional information about the City of Long Beach's Equal Benefits Ordinance may be obtained from the City of Long Beach Business Services Division at 562-570-6200."

- B. The failure of the Consultant to comply with the EBO will be deemed to be a material breach of the Agreement by the City.
- C. If the Consultant fails to comply with the EBO, the City may cancel, terminate or suspend the Agreement, in whole or in part, and monies due or to become due under the Agreement may be retained by the City. The City may also pursue any and all other remedies at law or in equity for any breach.
- Failure to comply with the EBO may be used as evidence D. against the Consultant in actions taken pursuant to the provisions of Long Beach Municipal Code 2.93 et seq., Contractor Responsibility.
- E. If the City determines that the Consultant has set up or used its contracting entity for the purpose of evading the intent of the EBO, the City may

terminate the Agreement on behalf of the City. Violation of this provision may be used as evidence against the Consultant in actions taken pursuant to the provisions of Long Beach Municipal Code section 2.93 et seq., Contractor Responsibility.

21. <u>NOTICES</u>. Any notice or approval required by this Agreement shall be in writing and personally delivered or deposited in the U.S. Postal Service, first class, postage prepaid, addressed to Consultant at the address first stated above, and to the City at 411 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager with a copy to the City Engineer at the same address. Notice of change of address shall be given in the same manner as stated for other notices. Notice shall be deemed given on the date deposited in the mail or on the date personal delivery is made, whichever occurs first.

22. COPYRIGHTS AND PATENT RIGHTS.

- A. Consultant shall place the following copyright protection on all Data: © City of Long Beach, California $\frac{2,104}{1}$, inserting the appropriate year.
- B. City reserves the exclusive right to seek and obtain a patent or copyright registration on any Data or other result arising from Consultant's performance of this Agreement. By executing this Agreement, Consultant assigns any ownership interest Consultant may have in the Data to the City.
- C. Consultant warrants that the Data does not violate or infringe any patent, copyright, trade secret or other proprietary right of any other party. Consultant agrees to and shall protect, defend, indemnify and hold City, its officials and employees harmless from any and all claims, demands, damages, loss, liability, causes of action, costs or expenses (including reasonable attorneys' fees) whether or not reduced to judgment, arising from any breach or alleged breach of this warranty.
- 23. <u>COVENANT AGAINST CONTINGENT FEES</u>. Consultant warrants that Consultant has not employed or retained any entity or person to solicit or obtain this Agreement and that Consultant has not paid or agreed to pay any entity or person any fee, commission, or other monies based on or from the award of this Agreement. If Consultant

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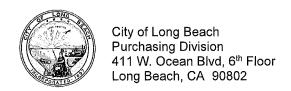
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breaches this warranty, City shall have the right to terminate this Agreement immediately notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments due under this Agreement or otherwise recover the full amount of the fee, commission, or other monies.

- 24. WAIVER. The acceptance of any services or the payment of any money by City shall not operate as a waiver of any provision of this Agreement or of any right to damages or indemnity stated in this Agreement. The waiver of any breach of this Agreement shall not constitute a waiver of any other or subsequent breach of this Agreement.
- 25. **CONTINUATION**. Termination or expiration of this Agreement shall not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11, 17, 19, 22, and 28 prior to termination or expiration of this Agreement.
- 26. TAX REPORTING. As required by federal and state law, City is obligated to and will report the payment of compensation to Consultant on Form 1099-Misc. Consultant shall be solely responsible for payment of all federal and state taxes resulting from payments under this Agreement. Consultant shall submit Consultant's Employer Identification Number (EIN), or Consultant's Social Security Number if Consultant does not have an EIN, in writing to City's Accounts Payable, Department of Financial Management. Consultant acknowledges and agrees that City has no obligation to pay Consultant until Consultant provides one of these numbers.
- 27. ADVERTISING. Consultant shall not use the name of City, its officials or employees in any advertising or solicitation for business or as a reference, without the prior approval of the City Manager or designee.
- 28. AUDIT. City shall have the right at all reasonable times during the term of this Agreement and for a period of five (5) years after termination or expiration of this Agreement to examine, audit, inspect, review, extract information from, and copy all books, records, accounts, and other documents of Consultant relating to this Agreement.
 - THIRD PARTY BENEFICIARY. This Agreement is not intended or 29.

1 designed to or entered for the purpose of creating any benefit or right for any person or 2 entity of any kind that is not a party to this Agreement. 3 IN WITNESS WHEREOF, the parties have caused this document to be duly 4 executed with all formalities required by law as of the date first stated above. 5 (NAME OF CONSULTANT) 6 , 20 By_____ Name____ 7 Title_____ 8 , 20 By_____ 9 Name_____ Title _____ 10 11 "Consultant" OFFICE OF THE CITY ATTORNEY CHARLES PARKIN, City Attorney 411 West Ocean Boulevard, 9th Floor Long Beach. CA 90802-4664 12 CITY OF LONG BEACH, a municipal corporation 13 By_____City Manager , 20 14 15 "Citv" 16 This Agreement is approved as to form on ______, 20_. 17 18 CHARLES PARKIN, City Attorney 19 Ву _____ Deputy 20 21 22 23 24 25 26 27 28



Attachment C

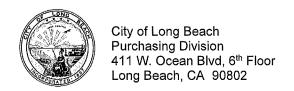
Statement of Non-collusion

The SOQ is submitted as a firm and fixed request valid and open for 180 days from the submission deadline.

This SOQ is genuine, and not sham or collusive, nor made in the interest or in behalf of any person not herein named; the proposer has not directly or indirectly induced or solicited any other proposer to put in a sham SOQ and the proposer has not in any manner sought by collusion to secure for himself or herself an advantage over any other proposer.

In addition, this organization and its members are not now and will not in the future be engaged in any activity resulting in a conflict of interest, real or apparent, in the selection, award, or administration of a subcontract.

Authorized signature and date		A STATE OF THE STA
Print Name & Title		



Attachment D

Debarment, Suspension, Ineligibility and Voluntary Exclusion Certification

Please read Acceptance of Certification and Instructions for Certification before completing

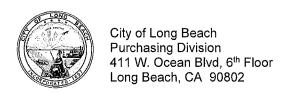
As a current or potential vendor for the City of Long Beach (City) your firm, through its business relationship with the City, may be the recipient of federal grant funds. As such, the City is required to document that neither your business entity or organization, nor any of your principals are debarred, suspended, ineligible, or have voluntarily been excluded from receiving federal grant funds. Consistent with Executive Order No. 12549 Title 2 CFR Part 180 Subpart C, all potential recipients of federal grant funds are required to comply with the requirements specified below. By submission of proposal/bid/agreement, the undersigned, under penalty of perjury, certifies that the participant, nor any of its principals in the capacity of owner, director, partner, officer, manager, or other person with substantial influence in the development or outcome of a covered transaction, whether or not employed by the participant:

- Are not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal department or agency;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, been suspended, debarred, voluntarily excluded or declared ineligible by a federal agency;
- Do not presently have a proposed debarment proceeding pending;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, been indicted or convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, had one or more public transactions (Federal, State, or local) terminated for cause or default.

If reorganization, management turnover, or a shift or change of principals' status occurs, written notice must be submitted within 21 days. Subsequent disclosure of unfavorable information will be subject to thorough review and remedial action. Updated versions of this certification may be requested on a routine basis.

Where the potential prospective recipient of Federal assistance funds is unable to certify to any of the statement in this certification, such prospective participant shall attach an explanation to the applicable bid/agreement/proposal.

Business/Contractor/Agency		
Name of Authorized Representative	Title of Authorized Representative	_
Signature of Authorized Representative	Date	r20141001



Acceptance of Certification

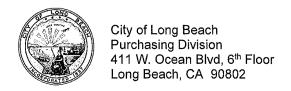
- 1. This bid/agreement/SOQ or like document has the potential to be a recipient of Federal funds. In order to be in compliance with Code of Federal Regulations, the City requires this completed form. By signing and submitting this document, the prospective bidder/proposer is providing the certification and acknowledgement as follows:
- 2. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549.
- 3. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- 4. The potential recipient of Federal assistance funds agrees by submitting this bid/agreement/proposal or like document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

Instructions for completing the form, Attachment –Debarment Certification

- 1. The City of Long Beach sometimes receives Federal funding on certain purchases/projects. To ensure that the City is in compliance with Federal regulations we require this form to be completed.
- 2. The City of Long Beach checks the <u>System for Award Management</u> at <u>www.sam.gov</u> to make sure that Consultants who are awarded City contracts and/or purchase orders are not debarred or suspended. Prospective consultants should perform a search on this website for your company and or persons associated with your business.
- 3. If your business is in compliance with the conditions in the form, please have the appropriate person complete and sign this form and return with your bid/proposal/agreement.
- 4. If at any time, your business or persons associated with your business become debarred or suspended, we require that you inform us of this change in status.
- 5. If there are any exceptions to the certification, please include an attachment. Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception, indicate to whom it applies, initiating agency and dates of action.
- 6. Note: Providing false information may result in criminal prosecution or administrative sanctions.

If you have any questions on how to complete this form, please contact the Purchasing Division in the City of Long Beach Business Services Bureau at 562-570-6200.

Rev 12.11.13



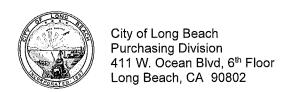
Attachment E

W-9 Request for Taxpayer Identification Number and Certification

[W-9 Form must be signed and dated.]

[Form-Fillable PDF available at http://www.irs.gov/pub/irs-pdf/fw9.pdf]

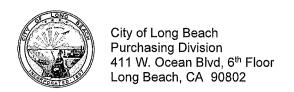
[Vendor Application Form is for internal City use only.]



Request for Taxpayer Identification Number and Certification

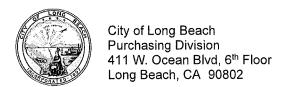
Give Form to the requester. Do not

	nt of the Treasury evenue Service	/9 for instructions and the latest inform	send to the IRS,		
	Name (as shown on your income tax return). Name is required on		I make the second of the secon		
1	2 Business name/disregarded entity name, if different from above				
e	Check appropriate box for federal tax classification of the person	whose name is entered on line 1. Check only or	of the 4 Exemptions (codes apply only to		
Specific Instructions on page	following seven boxes.		certain entities, not individuals; see instructions on page 3):		
S S	S C Corporation 5 C	restate page of			
4 E	single-member LLC	4 *************************************	Exempt payee code (if any)		
Print or type. clastuctions	Umited liability company. Enter the tax classification (C-C corr	poration, S-S corporation, P-Partnership) ►	- Option and a state of the sta		
2 1	Note: Check the appropriate box in the fine above for the tax of				
臣皇	11.C if the 11.C is classified as a single-member 11.C that is disc another LLC that is not disregarded from the owner for U.S. fe	regarded from the owner unless the owner of the detail tax purposes. Otherwise, a single-member	LLC is LLC that code (if any)		
7 8	is disregarded from the owner should check the appropriate bi				
- S	[] Other (see instructions) ▶		Paperson to account to marriage and action the LLA.		
05	5 Address (number, street, and apt. or suite no.) See instructions.	Pequede	r's name and address (optional)		
8					
1	City, state, and ZIP code				
Ļ					
	List account number(s) here (optional)				
Part	Taxpayer Identification Number (TIN) our TIN in the appropriate box. The TIN provided must mate	h the name of an are first to avoid	Social security number		
	our risk in the appropriate dox, the risk provided must make withholding. For individuals, this is generally your social se		Partition Secretary Manager		
	lation, sole proprietor, or disregarded entity, see the instruc				
ntities. 7N. late	it is your employer identification number (EIN). If you do no	of have a number, see How to get a L			
		for line 1. Also see What Name and	Employer identification number		
	r To Give the Requester for guidelines on whose number to	The second of the second secon			
Part	Certification				
Jinder p	cenalties of perjury, I certify that:		and the second s		
i. The r	number shown on this form is my correct taxpayer identifica	dion number (or I am waiting for a number	to be issued to me); and		
Servi	not subject to backup withholding becauser (a) I am exemp oe (IRS) that I am subject to backup withholding as a result nger subject to backup withholding; and				
	a U.S. citizen or other U.S. person (defined below); and				
	ATCA code(s) entered on this form (if any) indicating that I	am exempt from FATCA reporting is corre	ct.		
	ation instructions. You must cross out item 2 above if you ha				
you hav acquisit	e failed to report all interest and dividends on your tax return. I ion or abandonment of secured property, cancellation of debt, an interest and dividends, you are not required to sign the cert	For real estate transactions, item 2 does not contributions to an individual retirement are	apply. For mortgage interest paid, angement (IPA), and generally, payments		
Sign Here	Signature of U.S. person ►	Date ►			
Gen	eral Instructions	Form 1099-DN (dividends, i funds)	ncluding those from stocks or mutual		
noted.	references are to the Internal Revenue Code unless otherw	proceeds)	Form 1099-MISC (various types of income, prizes, awards, or gross		
related	developments. For the latest information about developme to Form W-9 and its instructions, such as legislation enacts by were published, go to www.irs.gov/FormW9.		Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)		
	*	 Form 1099-S (proceeds from 			
urp	ose of Form	*	d and third party network transactions)		
боппа	vidual or entity (Form W-9 requester) who is required to file a tion return with the IRS must obtain your correct taxpayer.	1098-T (tuition)	Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition) Form 1099-C (canceled debt)		
Deninic SSM: i	ation number (TIN) which may be your social security number (TIN), adoption	a distriction of formal section as a section			
axpaye	er identification humber (ATIN), or employer identification nu	17 12 300 f	abandonment of secured property)		
amount	report on an information return the amount paid to you, or reportable on an information return. Examples of information include, but are not limited to, the following.	on alien), to provide your correct			
	include, but are not limited to, the tollowing. 1099-INT (interest earned or paid)	If you do not return Form W be subject to beckup withhold	If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding,		



VENDOR APPLICATION FORM

Company Name	
Company Name	
(same as line 1 on W9):	
DBA Name	
(same as line 2 on W9):	leave blank if not applicable
Federal Tax ID Number (or SSN):	required (this number is a fed tax ID: O SSN: O
Web Address:	
Purchase Order Address:	
Attn:	
City:	
State:	Zip Code:
Contact Name:	—·P
Email:	
Phone Number:	
Fax:	
Toll Free:	
TOIL FIEE.	If 'remit to' address is the same as the purchase order address, put SAME in first box only
'Remit to' Address :	in remit to address is the same as the purchase order address, put SAME in hist box only
Attn:	
City:	
State:	7in Codo:
	Zip Code:
Contact Name:	
Email:	
Phone Number:	
Fax:	
Toll Free:	
Type of Ownership:	
Individual Partnership	Corporation LLC Nonprofit Government
Composition of Ownership (at leas	st 51% of ownership of the organization) (check all that apply)
MBE O WBE O	Local O DBE O Certified SBE O Certified Micro O
	State certification number:



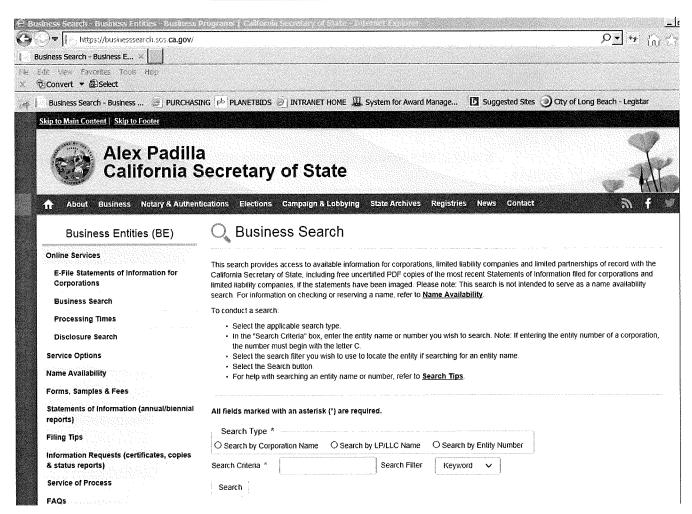
Attachment F

Secretary of State Certification

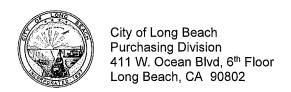
Please provide print out showing your business is registered with the California Secretary of State.

Awarded vendors/contractors must be registered with the California Secretary of State prior to contract execution. For more information, please consult:

https://businesssearch.sos.ca.gov/



(Note, individual and sole proprietor companies are not required to register)



Attachment G

Equal Benefits Ordinance (EBO) Compliance Form

EQUAL BENEFITS ORDINANCE DISCLOSURE FORM

As a condition of being awarded a contract with the City of Long Beach ("City"), the selected Contractor/Vendor ("Contractor") may be required during the performance of the Contract, to comply with the City's nondiscrimination provisions of the Equal Benefits Ordinance ("EBO") set forth in the Long Beach Municipal Code section 2.73 et seq. The EBO requires that during the performance of the contract, the Contractor shall provide equal benefits to its employees with spouses and employees with domestic partners. Benefits include but are not limited to, health benefits, bereavement leave, family medical leave, member ship and membership discounts, moving expenses, retirement benefits and travel benefits. A cash equivalent payment is permitted if an employer has made all reasonable efforts to provide domestic partners with access to benefits but is unable to do so. A situation in which a cash equivalent payment might be used if where the employer has difficulty finding an insurance provider that is willing to provide domestic partner benefits.

The EBO is applicable to the following employers:

- For-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements and other construction projects in the amount of \$100,000 or more
- For-profit entities that generate \$350,000 or more in annual gross receipts leasing City property pursuant to a written agreement for a term exceeding 29 days in any calendar year

Contractors who are subject to the EBO must certify to the City before execution of the contract that they are in compliance with the EBO by completing the EBO Certification Form, attached, or that they have been issued a waiver by the City. Contractors must also allow authorized City representatives access to records so the City can verify compliance with the EBO.

The EBO includes provisions that address difficulties associated with implementing procedures to comply with the EBO. Contractors can delay implementation of procedures to comply with the EBO in the following circumstances

- 1) By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor/vendor submits evidence of taking reasonable measures to comply with the EBO; or
- 2) At such time that the administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor/vendor's infrastructure, not to exceed three months; or
- 3) Upon expiration of the contractor's current collective bargaining agreement(s).

Compliance with the EBO

If a contractor has not received a waiver from complying with the EBO and the timeframe within which it can delay implementation has expired but it has failed to comply with the EBO, the

Contractor may be deemed to be in material breach of the Contract. In the event of a material breach, the City may cancel, terminate or suspend the City agreement, in whole or in part. The City also may deem the Contractor an irresponsible bidder and disqualify the Contractor from contracting with the City for a period of three years. In addition, the City may assess liquidated damages against the Contractor which may be deducted from money otherwise due the Contractor. The City may also pursue any other remedies available at law or in equity.

By my signature below, I acknowledge that the Contractor understands that to the extent it is subject to the provisions of the Long Beach Municipal Code section 2.73, the Contractor shall comply with this provision.

Printed Name:	Title:
Signature:	Date:
Business Entity Name:	

CERTIFICATION OF COMPLIANCE WITH THE EQUAL BENEFITS ORDINANCE

Section 1. CONTRACTOR/VENDOR INFORMATION

Name:	Federal Tax ID No
Address:	Olahar 7ID.
City:	State:ZIP:
Contact I	Person:Telephone:
Email:	Fax:
Section 2	. COMPLIANCE QUESTIONS
Α.	The EBO is inapplicable to this Contract because the Contractor/Vendor has no employeesYesNo
В.	Does your company provide (or make available at the employees' expense) any
	employee benefits?YesNo (If "yes," proceed to Question C. If "no," proceed to section 5, as the EBO does not apply to you.)
C.	Does your company provide (or make available at the employees' expense) any benefits to the spouse of an employee? Yes No
D.	Does your company provide (or make available at the employees' expense) any benefits to the domestic partner of an employee? YesNo (If you answered "no" to both questions C and D, proceed to section 5, as the EBO is not applicable to this contract. If you answered "yes" to both Questions C and D, please continue to Question E. If you answered "yes" to Question C and "no" to Question D, please continue to section 3.)
E.	Are the benefits that are available to the spouse of an employee identical to the benefits that are available to the domestic partner of an employee?YesNo (If "yes," proceed to section 4, as you are in compliance with the EBO. If "no," continue to section 3.)
Section 3	. PROVISIONAL COMPLIANCE
Α.	Contractor/vendor is not in compliance with the EBO now but will comply by the following date:
	By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor/vendor submits evidence of taking reasonable measures to comply with the EBO; or
	At such time that the administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor/vendor's infrastructure, not to exceed three months; or

	Upon agreement(s).	expiration	of th	e c	contractor's	current	collective	bargaining
B.	If you have taken do so, do you a equivalent is the unavailable for doYes N	gree to pro amount of i omestic part	vide e money	mplo	oyees with	a cash e	quivalent?	(The cash
Section 4	. REQUIRED DO	CUMENTA	TION					
provide d	f issuance of purc ocumentation (co provider stateme	py of emplo	oyee h	andl	book, eligibi	ility state	ment from	your plans,
Section 5.	CERTIFICATIO	N						
true and certification Ordinance	I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I am authorized to bind this entity contractually. By signing this certification, I further agree to comply with all additional obligations of the Equal Benefits Ordinance that are set forth in the Long Beach Municipal Code and in the terms of the contract of purchase order with the City.							
Executed	this day of _		, 20_	_, a	t	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Name	***************************************		Signa	ture_				
Title			Feder	al Ta	ax ID No			

OFFICE OF THE CITY ATTORNEY ROBERT E. SHANNON, City Attorney 33 West Ocean Boulevard, 11th Floor Long Beach, CA 90802-4864

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ORDINANCE NO. ORD-09-0036

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LONG BEACH AMENDING THE LONG BEACH MUNICIPAL CODE BY ADDING CHAPTER 2.73 ESTABLISHING AN "EQUAL BENEFITS ORDINANCE" REQUIRING CONTRACTORS ON CITY CONTRACTS TO PROVIDE EMPLOYEE BENEFITS TO THEIR EMPLOYEES WITH DOMESTIC PARTNERS EQUIVALENT TO THOSE PROVIDED TO THEIR EMPLOYEES WITH SPOUSES

WHEREAS, employee benefits comprise a significant portion of total employee compensation; and

WHEREAS, discrimination in the provision of employee benefits between employees with domestic partners and employees with spouses results in unequal pay for equal work; and

WHEREAS, the City of Long Beach prohibits discrimination based on marital status and/or sexual orientation; and

WHEREAS, contractors with the City of Long Beach are required to comply with the City's nondiscrimination laws; and

WHEREAS, the City Council finds and determines that the public, health, safety and welfare will be furthered by requiring that public funds be expended in such a manner as to prohibit discrimination in the provision of employee benefits by City contractors between employees with spouses and employees with domestic partners, and between domestic partners and spouses of such employees;

NOW, THEREFORE, the City Council of the City of Long Beach ordains as follows:

III

ARB:bg A09-01827 L:\Appa\CiyLaw32\\\PDocs\D023\\P009\\00171620.DOG 1

Section 1. Chapter 2.73 is added to the Long Beach Municipal Code to read as follows:

Chapter 2.73

EQUAL BENEFITS TO EMPLOYEES OF CITY CONTRACTORS

2,73,010 Title and purpose.

This ordinance shall be known as the "Long Beach Equal Benefits Ordinance". The purpose of this Chapter is to protect the public health, safety and welfare by requiring that public funds be expended in such a manner as to prohibit discrimination in the provision of employee benefits by City contractors between employees with spouses and employees with domestic partners, and/or between domestic partners and spouses of such employees.

2.73.020 Definitions.

- A. "Contractor" shall mean any person or persons, firm, partnership, corporation, or combination thereof, who enters into a contract with the City.
- B. "Domestic partner" shall mean any person who has a currently registered domestic partnership with a governmental body pursuant to state or local law authorizing such registration or with his or her employer or his or her domestic partner's employer.
- C. "Non-profit" shall mean a non-profit organization described in Section 501(c)(3) of the Internal Revenue Code of 1954 which is exempt from taxation under Section 501(c)(3) of that Code, or any nonprofit educational organization qualified under Section 23701(d) of the Revenue and Taxation Code.

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Contractors subject to requirements. 2.73.030

- A. The following contractors are subject to this Chapter:
- 1. For-profit entities which enter into an agreement with the City for public works or improvements to be performed, or for goods or services to be purchased, for an amount of One Hundred Thousand Dollars (\$100,000) or more; and
- 2. For-profit entitles which generate Three Hundred Fifty Thousand Dollars (\$350,000) or more in annual gross receipts and which occupy City property pursuant to a written agreement for the exclusive use or occupancy of said property for a term exceeding twenty-nine (29) days in any calendar year.
- B, The requirements of this Chapter shall only apply to those portions of a contractor's operations that occur (i) within the City; (II) on real property outside the City if the property is owned by the City or if the City has a right to occupy the property, and if the contractor's presence at that location is connected to a contract with the City; and (iii) elsewhere in the United States where work related to a City contract is being performed. The requirements of this Chapter shall not apply to subcontracts or subcontractors of any contract or contractor.
- C. The City Manager or designee will provide a report to the City Council regarding the implementation of this ordinance no later than one year following the effective date of this Ordinance, and will consider among other items, whether the dollar thresholds set forth in subsections (A) and (B) should be modified.
- 2.73.040 Non-discrimination in provision of benefits.
- No contractor subject to this Chapter pursuant to Section A. 2.73.030 shall discriminate in the provision of bereavement leave, family

medical leave, health benefits, membership or membership discounts, moving expenses, pensions and retirement benefits or travel benefits or in the provision of any benefits other than bereavement leave, family medical leave, health benefits, membership or membership discounts, moving expenses, pensions and retirement benefits or travel benefits between employees with domestic partners and employees with spouses, and/or between the domestic partners and spouses of such employees except as set forth in Subsections 2.73.040.A.1 and 2 below;

- 1. In the event that the contractor's actual cost of providing a particular benefit for the domestic partner of an employee exceeds that of providing it for the spouse of an employee, or the contractor's actual cost of providing a particular benefit for the spouse of an employee exceeds that of providing it for the domestic partner of an employee, the contractor shall not be deemed to discriminate in the provision of employee benefits if the contractor conditions providing such benefit upon the employee agreeing to pay the excess costs.
- 2. The contractor shall not be deemed to discriminate in the provision of employee benefits if, despite taking reasonable measure to do so, the contractor is unable to extend a particular employee benefit to domestic partners, so long as the contractor provides the employee with a cash equivalent.
- B. Provided that a contractor does not discriminate in the provision of benefits between employees with spouses and employees with domestic partners, a contractor may:
- Elect to provide benefits to individuals in addition to employees' spouses and employees' domestic partners;
- 2. Allow each employee to designate a legally domiciled member of the employee's household as being eligible for spousal

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equivalent benefits; or

- Provide benefits neither to employees' spouses nor to employees' domestic partners.
- C. A contractor will not be deemed to be discriminating in the provision of benefits where the Implementation of policies ending discrimination in benefits is delayed following the first award of a City contract to a contractor after the effective date of this Chapter:
- 1. Until the first effective date after the first open enrollment process following the date the contract with the City is executed. provided that the contractor submits evidence that it is making reasonable efforts to end discrimination in benefits. This delay may not exceed two (2) years from the date the contract with the City is executed and only applies to benefits for which an open enrollment process in applicable.
- 2. Until administrative steps can be taken to incorporate nondiscrimination in benefits in the contractor's infrastructure. The timer allotted for these administrative steps shall apply only to those benefits for which administrative steps are necessary and may not exceed three (3) months. An extension of this time may be granted at the discretion of the City Manager upon the written request of a contractor, setting forth the reasons that additional time is required.
- 3. Until the expiration of a contractor's current collective bargaining agreement(s) where all of the following conditions have been met:
- The provision of benefits is governed by one or more collective bargaining agreement(s); and
- The contractor takes all reasonable measures to end discrimination in benefits by either requesting that the union(s) involved agree to reopen the agreement(s) in order for the contractor to take

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whatever steps are necessary to end discrimination in benefits or by ending discrimination in benefits without reopening the collective bargaining agreement(s); and

- ¢. In the event that the contractor cannot end discrimination in benefits despite taking all reasonable measure to do so, the contractor provides a cash equivalent to eligible employees for whom benefits are not available. Unless otherwise authorized, in writing by the City Manager, this cash equivalent payment must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened, or in any case no longer than three (3) months from the date the contract with the City was executed. This cash equivalent payment shall not be required where it is prohibited by federal labor law.
- D. Employers subject to this Chapter pursuant to Section 2.73.030 shall give written notification to each current and new employee of his or her potential rights under this Chapter in a form specified by the City. Such notice shall also be posted prominently in areas where it may be seen by all employees.

2.73,050 Required contract provisions.

Every contract subject to this Chapter shall contain provisions requiring it to comply with the provisions of this Chapter as they exist on the date when the contractor entered the contract with the City or when such contract is amended. Such contract provisions may include but need not be limited to the contractor's duty to promptly provide to the City documents and information verifying its compliance with the requirements of this Chapter and sanctions for noncompliance.

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ROBERT E SHANNON, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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2.73.060 Waivers and exemptions.

A. The City may walve the requirements of this Chapter where the City Manager makes one or more of the following findings:

- Award of a contract or amendment is necessary to respond to an emergency;
 - 2. The contractor is a sole source;
- 3. The contractor is a non-profit entity as defined in Section 2.73.020, above;
- Non compliant contractors are capable of providing goods or services that respond to the City's requirements;
 - The contractor is a public entity;
- 6. The requirements of this Chapter are inconsistent with a grant, subvention or agreement with a public agency;
- 7. The City is purchasing through a cooperative or joint purchasing agreement;
- 8. The contract involves specialized legal services such that it would be in the best interests of the City to waive the requirements of this Chapter, as determined by the City Attorney;
- 9. The contract involves investment of trust moneys or agreements relating to the management of trust assets, City moneys invested in U.S. government securities or under pre-existing investment agreements, or the investment of City moneys where no person, entity or financial institution doing business with the City which is in compliance with this Chapter is capable of performing the desired transactions or the City will incur financial loss if the requirements of this Chapter are enforced;
- 10. After taking all reasonable measures to find an entity that complies with this Chapter, the City may waive any or all requirements of this Chapter for any contract or bid package advertised and made

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available to the public, or any competitive or sealed bids received by the City as of the effective date of this Chapter under the following circumstances:

- a. There are no qualified responsive bidders or prospective contractors who comply with this Chapter and the contract is for goods, a service or a project that is essential to the City or City residents; or
- The requirements of this Chapter would result in the City's entering into a contract with an entity that was set up, or is being used for the purpose of evading the intent of this Chapter.
- B. The requirements of this Chapter shall not be applicable to contracts executed or amended prior to the effective date of this Chapter, or to bid packages advertised and made available to the public, or any competitive or sealed bids received by the City prior to the effective date of this Chapter, unless and until such contracts are amended after the effective date of this Chapter and would otherwise be subject to this Chapter.
- C. The City Manager or designee may issue regulations from time to time implementing the provisions of this ordinance.
- D. The City Manager shall report to the City Council annually on the status of walvers and exemptions.
- 2.73,070 Retaliation and discrimination prohibited.
- No employer shall retaliate or discriminate against an A. employee in his or her terms and conditions of employment by reason of the person's status as an employee protected by the regulrements of this Chapter.
- No employer shall retaliate or discriminate against a person in В. his or her terms and conditions of employment by reason of the person reporting a violation of this Chapter or for prosecuting an action for

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 enforcement of this Chapter.

2.73,080 Employee complaints to City.

- A. An employee who alleges violation of any provision of the requirements of this Chapter may report such acts to the City. The City Manager may establish a procedure for receiving and investigating such complaints and take appropriate enforcement action.
- B. The City shall have the power to examine contractors' benefit programs covered by this Chapter.
- C. Any complaints received shall be treated as confidential matters, to the extent permitted by law. Any complaints received and all investigation documents related thereto shall be deemed exempt from disclosure pursuant to California Government Code Sections 6254 and 6255.

2.73.090 Remedies.

- A. Upon a finding by the City Manager that a contractor has violated the requirements of this Chapter, the City shall have the rights and remedies described in this Section, in addition to any rights and remedies provided at law or in equity.
- 1. The City Manager shall be authorized to terminate said contract and bar the contractor from bidding on future contracts with the City for three (3) years from the effective date of the contract termination.
- 2. In the City Manager's sole discretion, a contractor found to have willfully violated the requirements of this Chapter may be required to pay liquidated damages.
- The City may seek recovery of reasonable attorneys' fees and costs necessary for enforcement of this Chapter.

В,	Notwithstanding any provision of this Chapter or any other
Chapter to th	e contrary, no criminal penalties shall attach for any violation of
this Chapter.	

- C. No remedy set forth in this Chapter is intended to be exclusive or a prerequisite for asserting a cause of action to enforce any rights hereunder in a court of law. This Chapter shall not be construed to limit an employee's right to bring a common law cause of action for wrongful termination.
- D. Nothing in this Chapter shall be interpreted to authorize a right of action against the City.

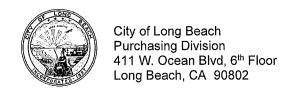
Section 2. The City Clerk shall certify to the passage of this ordinance by the City Council and cause it to be posted in three (3) conspicuous places in the City of Long Beach, and it shall take effect on the thirty-first (31st) day after it is approved by the Mayor.

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1	l here	eby certify that the fo	regoing ordinance was adopted by the City
2	}	•	meeting of <u>December 8</u> , 20 <u>.09,</u> by the
3	following vote:		
4	_		
5	Ayes:	Councilmembers:	Garcia, Lowenthal, DeLong,
6			O'Donnell, Schipske, Andrews,
7			Reyes Uranga, Gabelich, Lerch.
8			
9	Noes:	Councilmembers:	None.
10			
11	Absent:	Councilmembers:	None.
12			
13			•
14			1. 1
15			City Clerk
16			1
17	Approved: 12/1	1/189	Ble Ete
18	Approved: Z Z Z	Date)	Mayor
19			V
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Attachment H

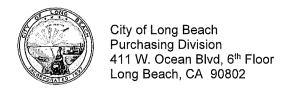
Insurance Requirements

[This replaces the insurance requirements of the Proforma Agreement]

INDEMNIFICATION: Consultant shall defend, indemnify, and hold harmless the City, its Commissions and Boards, and their officials, employees, and agents from and against any and all demands, claims, causes of action, liability, loss, liens, damage, costs, and expenses (including attorney's fees) arising from or in any way connected or alleged to be connected with Consultant's performance of the work under this Agreement and from any act or omission, willful misconduct, or negligence (active or passive) by or alleged to be by Consultant, its employees, agents, or subconsultants either as a sole or contributory cause, sustained by any person or entity (including employees or representatives of City or Consultant). The foregoing shall not apply to claims or causes of action caused by the sole negligence or willful misconduct of the City, its Commissions and Boards, or their officials, employees, or agents.

INSURANCE: As a condition precedent to the effectiveness of this Agreement, Consultant shall procure and maintain at Consultant's expense for the duration of this Agreement from an insurance company that is admitted to write insurance in the State of California or that has a rating of or equivalent to an A:VIII by A.M. Best and Company the following insurance:

- (a) Commercial general liability insurance or self-insurance equivalent in coverage scope to ISO CG 00 01 10 93 naming the City of Long Beach, and their officials, employees, and agents as additional insureds on a form equivalent in coverage scope to ISO CG 20 10 11 85 from and against claims, demands, causes of action, expenses, costs, or liability for injury to or death of persons, or damage to or loss of property arising out activities performed by or on behalf of the Consultant in an amount not less than One Million Dollars (US \$1,000,000) per occurrence and Two Million Dollars (US \$2,000,000) in general aggregate.
- (b) Workers' compensation coverage as required by the Labor Code of the State of California and Employer's liability insurance with minimum limits of One Million Dollars (US \$1,000,000) per accident or occupational illness. The policy shall be endorsed with a waiver of the insurer's right of subrogation against the City of Long Beach, and their officials, employees, and agents.
- (c) Automobile liability insurance equivalent in coverage scope to ISO CA 00 01 06 92 in an amount not less than Two Million Dollars (US \$2,000,000) combined single limit (CSL) per accident for bodily injury and property damage covering Symbol 1 ("any auto").
- (d) For the projects with costs < \$ 10 million, umbrella liability (In excess of liability coverages as delineated otherwise in the Agreement) in an amount not less than Four Million Dollars (\$4,000,000) per claim covering the services provided pursuant to this Agreement should be provided.



For the projects with costs \$ 10 million to < \$ 25 million or any projects airside, umbrella liability (In excess of liability coverages as delineated otherwise in the Agreement) in an amount not less than Nine Million Dollars (\$9,000,000) per claim covering the services provided pursuant to this Agreement should be provided.

For the projects with costs \$ 25 million to \$ 100 million, umbrella liability (In excess of liability coverages as delineated otherwise in the Agreement) in an amount not less than Fourteen Million Dollars (\$14,000,000) per claim covering the services provided pursuant to this Agreement should be provided.

(e) Professional liability or errors and omissions liability insurance in an amount not Two Million Dollars (\$2,000,000) per claim and in aggregate covering the services provided pursuant to this Agreement.

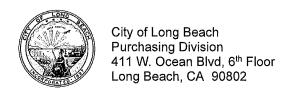
Any self-insurance program or self-insurance retention must be approved separately in writing by City and shall protect the City of Long Beach, and their officials, employees, and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention provisions. Each insurance policy shall be endorsed to state that coverage shall not be suspended, voided, or canceled by either party except after thirty (30) days prior written notice to City, and shall be primary and not contributing to any other insurance or self- insurance maintained by City.

Any subconsultants which Consultant may use in the performance of this Agreement shall be required to maintain insurance in compliance with the provisions of this section and to indemnify the City to the same extent as the Consultant with respect to this Agreement.

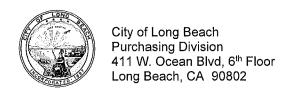
Consultant shall deliver to City certificates of insurance and original endorsements for approval as to sufficiency and form prior to the start of performance hereunder. The certificates and endorsements for each insurance policy shall contain the original signature of a person authorized by that insurer to bind coverage on its behalf. "Claims-made" policies are not acceptable unless City Risk Manager determines that "Occurrence" policies are not available in the market for the risk being insured. In a "Claims-made" policy is accepted, it must provide for an extended reporting period of not less than one hundred eighty (180) days. Such insurance as required herein shall not be deemed to limit Consultant's liability relating to performance under this Agreement. City reserves the right to require complete certified copies of all said policies at any time. Any modification or waiver of the insurance requirements herein shall be made only with the approval of City Risk Manager. The procuring of insurance shall not be construed as a limitation on liability or as full performance of the indemnification provisions of this Agreement.

By submitting a signature below, Bidder agrees that insurance requirements can be provided as requested.

Printed Name:	Title:
Signature:	Date:



Attachment I DBE Instructions and Form



DBE Instructions to Proposers

If the Proposer intends to utilize subconsultants during the performance of this contract, the Proposer is expected to afford DBEs equitable opportunity to compete and perform in these areas. To facilitate capturing Race-Neutral DBE participation under this Contract, the Proposer is requested to complete and submit the "DBE Race-Neutral Participation Listing" form with the SOQ, which shall include the following information for each DBE listed:

- The name and address of each DBE who will participate in the contract;
- A clearly defined scope of work to be performed by the DBE;
- The estimated value of the work to be performed by the DBE; and,
- DBE certification eligibility status, in conformance with 49 CFR Part 26

All Contractors that are certified DBEs in accordance with eligibility standards set forth in 49 CFR Part 26, and, which are responsible for a commercially useful function (i.e. a distinct element of the actual scope of work), are to be listed in the "DBE Race-Neutral Participation Listing" regardless of contract amount. In addition, a copy of the DBE certification for each proposed Contractor must be enclosed with the "DBE Race-Neutral Participation Listing". Additional pages may be duplicated if needed to list additional DBE Contractors.

DBE RACE-NEUTRAL PARTICIPATION LISTING

time. DBEs must be certified on the date SOQs are due to the City. In the event of no race-neutral DBE participation, Proposers must mark "None" under the column entitled "DBE Firm Name." The DBE information and content provided under "DBE Race-Neutral Participation Listing" will not be considered in the Proposers should complete and submit "DBE Race-Neutral Participation Listing" with their SOQ, but no later than 48 hours following the RFQ due date and evaluation of the SOQ or determination of award of any contract.

DBE Firm Name*:	Provide Complete Description of Work to be Performed:	rt Work to be Pertormed:			
Business Address:					
Contact Person:					
Telephone:					
Email:	Check Appropriate Box Describing: Subcontractor/Supplier Activity:	ng: Subcontractor/Supplie	er Activity:		
DBE Certification No.:	□ Subcontractor (100%)	☐ Manufacturer (100%)		□ Broker	
Subcontract %:	□ Supplier (60%)	☐ Regular Dealer (60%)		□ Trucker	
DBE Firm Name*:	Provide Complete Description of Work to be Performed:	f Work to be Performed:			
Business Address:					
Contact Person:					
Telephone:					
Email:	Check Appropriate Box Describing: Subcontractor/Supplier Activity:	ng: Subcontractor/Supplie	er Activity:		
DBE Certification No.:	□ Subcontractor (100%)	☐ Manufacturer (100%)		□ Broker	
Subcontract %:	□ Supplier (60%)	☐ Regular Dealer (60%)	(9)	Trucker	
DBE Firm Name*:	Provide Complete Description of Work to be Performed:	f Work to be Performed:			
Business Address:					
Contact Person:					
Telephone:					
Email:	Check Appropriate Box Describing: Subcontractor/Supplier Activity:	ng: Subcontractor/Supplie	er Activity:		
DBE Certification No.:	□ Subcontractor (100%)	☐ Manufacturer (100%)		□ Broker	
Subcontract %:	□ Supplier (60%)	☐ Regular Dealer (60%)	□ (9	Trucker	
DBE Firm Name*:	Provide Complete Description of Work to be Performed:	if Work to be Performed:			
	alitate de la companya de la company				

RFQ No. AP19-134

Engineering Planning and Design Services

Attachment I

DBE RACE-NEUTRAL PARTICIPATION LISTING

column entitled "DBE Firm Name." The DBE information and content provided under "DBE Race-Neutral Participation Listing" will not be considered in the time. DBEs must be certified on the date SOQs are due to the City. In the event of no race-neutral DBE participation, Proposers must mark "None" under the Proposers should complete and submit "DBE Race-Neutral Participation Listing" with their SOQ, but no later than 48 hours following the RFQ due date and evaluation of the SOQ or determination of award of any contract.

Business Address:			
Contact Person:			
Telephone:			
Email:	Check Appropriate Box Describing: Subcontractor/Supplier Activity:	ig: Subcontractor/Supplier Activ	/ity:
DBE Certification No.:	☐ Subcontractor (100%)	☐ Manufacturer (100%)	□ Broker
Subcontract %:	☐ Supplier (60%)	□ Regular Dealer (60%)	□ Trucker
DBE Firm Name*:	Provide Complete Description of Work to be Performed:	Work to be Performed:	
Business Address:			
Contact Person:			
Telephone:			
Email:	Check Appropriate Box Describing: Subcontractor/Supplier Activity:	g: Subcontractor/Supplier Activ	ıity:
DBE Certification No.:	☐ Subcontractor (100%)	☐ Manufacturer (100%)	□ Broker
Subcontract %:	☐ Supplier (60%)	□ Regular Dealer (60%)	□ Trucker
DBE Firm Name*:	Provide Complete Description of Work to be Performed:	Work to be Performed:	
Business Address:			
Contact Person:			
Telephone:			
Email:	Check Appropriate Box Describing: Subcontractor/Supplier Activity:	ig: Subcontractor/Supplier Activ	ıity:
DBE Certification No.:	☐ Subcontractor (100%)	☐ Manufacturer (100%)	□ Broker
Subcontract %:	☐ Supplier (60%)	□ Regular Dealer (60%)	□ Trucker



Appendix A

PROJECT DESCRIPTIONS (2020-2023 ACIP Data Sheets)



Airport Nan	1 e	Long Beach Airport (LGB)	Fiscal Year 2	019	
Shown On ALP	Project Type*	Project Description	Share		
Yes	D	Taxiway D Rehabilitation between Runway 8L-26R and Taxiway J (National Priority Rating Code: SA TW IM/SF/SZ = 66)			
		Administration / Design (10%)		\$37,695	\$403,589
		Construction	\$3,658,939	\$376,952	\$4,035,892
		Construction Engineering/Inspection (12%)	\$439,073	\$45,234	\$484,307
		TOTAL	\$4,463,906	\$459,882	\$4,923,788
* D - Develo	pment; P - Pl	anning; E - Environmental			
	PROVIDE 1	THE FOLLOWING DETAILED INFORMATION FOR PROJECTS AN	TICIPATED WITH	IN 1-2 YEARS	
Detail Project	t Description	(Square/Lineal Footage or Length/Width)			
Taxiway D Rehabilitation - Approximately 500,000 sf of Taxiway D pavement requires rehabilitation. The mid section of Taxiway D between Runway 8L-					
		milled 3" and overlayed with Asphalt Concrete (AC) pavement. This pavement			
2017 PCI of	51. It is proje	cted to have a PCI of 48 in 2019. The project includes improvements and	modifications to she	oulders, adjacen	t infield areas,
		, signage, and drainage systems. Resurfacing of the connecting Midfield Engi			
		tilized by general aviation, FBO FedEx, and as an alternative commercial			

Also included will be be the removal of approximately 45,000 sf of Runway 16R-34L pavement (between TWY D and RWY 12-30, including shoulders). Approximately 25,000 sf of Taxiway B pavement (between TWY K and RWY 12-30, including shoulders) will be removed. In addition, the west section of Taxiway G between Taxiway D and Taxiway B will be milled 6" and overlayed with AC pavement. The shoulders within this section of Taxiway G will be fully reconstructed. Approximately 100,000 sf of Taxiway B (between Taxiway G and Taxiway J) will be milled 3" and overlayed with AC. The project will enhance airfield safety, address complex taxiway geometry, and preserve capacity.

Project Schedule (Anticipated date for bids or negotiated prices, consultant selection for planning or environmental projects, length of construction or design, planning or environmental process)

Grant Application DEC 2019 Grant Execution JUL 2020
Bid Opening MAY 2020 Construction Commencement OCT 2020
Grant Offer JUN 2020 Construction Completion FEB 2021

NEPA Environmental Status (With grant application include copy of ROD, FONSI or CATEX letter of approval)

CATEX documentation will be completed and submitted to the FAA for a determination on the Taxiway D Rehabilitation project prior to submission of the grant application.

Date of Last ALP Approval Depicting Proposed Projects

rehabilitation will assist in continued extension of pavement life.

July 6, 2017

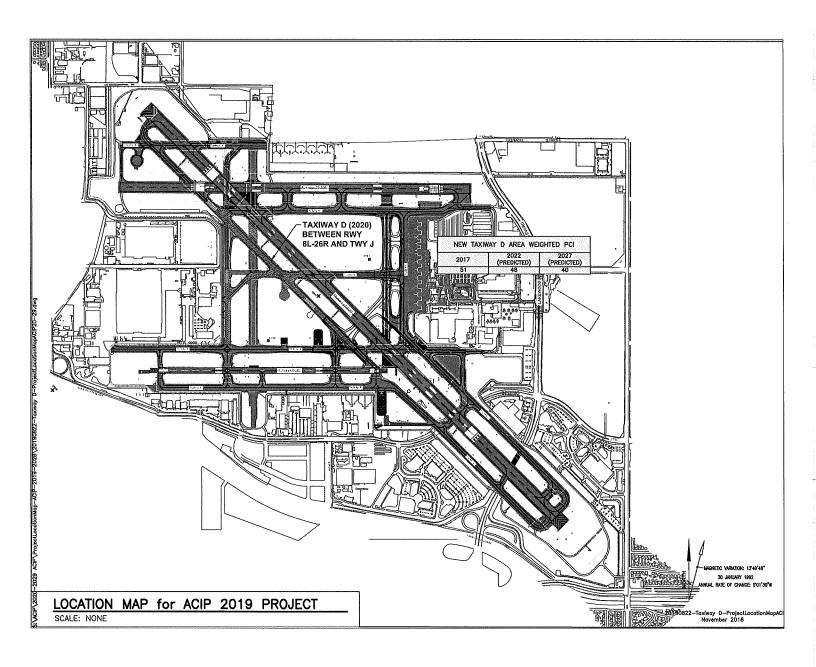
Land Title Status & Date of Exhibit "A" Status Date

Exhibit "A" Property Map Drawing No new R/W is required for this project. June 18, 2012

Open AIP Funded Project	s (include grant number and grant description)	Expected Close-out Date
3-06-0127-043-2015	Geometry Study Phase 2	DEC 2018
3-06-0127-044-2017	Runway 7R-25L Improvements	JUNE 2019

Certification: To the best of my knowledge and belief, all information shown in the ACIP Data Sheet is true and correct and had been duly authorized by the Sponsor.

Cynthia Guidry	Stephan G. Lum, P.E.	
Director, Long Beach Airport	Senior Civil Engineer, Long Beach Airport	
Name / Title of Authorized Representative (Print or Type)	Contact Name and Title (Print or Type)	
	562.570.2682	
Signature Date	Contact Phone (Print or Type)	



Airport Nam	ie	Long Beach Airport (LGB)	Fiscal Year	2020	
Shown On ALP	Project Type*	Project Description	Federal Share	Local Share	Total
Yes	D	Runway 16R-34L Conversion to Taxiway B (National Priority Rating Code: SA TW IM/SF/SZ = 89) Administration / Design (15%) Construction Construction Engineering/Inspection (15%)	\$5,113,224	\$526,776	\$846,000 \$5,640,000 \$846,000
		TOTAL	\$6,647,191	\$684,809	\$7,332,000

* D - Development; P - Planning; E - Environmental

PROVIDE THE FOLLOWING DETAILED INFORMATION FOR PROJECTS ANTICIPATED WITHIN 1-2 YEARS

Detail Project Description (Square/Lineal Footage or Length/Width)

Runway 16R-34L Conversion to Taxiway B - Reconstruction of approximately 250,000 sf of runway pavement (2,000'x125', including shoulders) and the construction of approximately a 67,500 sf of a new taxiway connector (500'x75', including shoulders). The project includes improvements to adjacent infield areas, pavement markings, lighting, signage, and drainage systems. AIP and future PFC funds will be used.

Runway 16R-34L was last rehabilitated in 1985. A PMMS report completed in August 2017 determined the Area-weighted PCI value for Runway 16R-34L to be 18, with a predicted Area-weighted PCI of 13 and 7 in 2022 and 2027, respectively. Conversion of Runway 16R-34L to new Taxiway B will preserve safety and capacity. Taxiway B serves as access to Fixed Base Operrators on the west side of the airfield and many of the 300,000 general aviation operations at the Airport.

Project Schedule (Anticipated date for bids or negotiated prices, consultant selection for planning or environmental projects, length of construction or design, planning or environmental process)

Grant Application

DEC 2020

Grant Execution

JUL 2021

Bid Opening Grant Offer MAY 2021 JUN 2021 Construction Commencement Construction Completion

NOV 2021 AUG 2022

NEPA Environmental Status (With grant application include copy of ROD, FONSI or CATEX letter of approval)

CATEX documentation will be completed and submitted to the FAA for a determination on the Conversion of Runway 16R-34L to Taxiway B prior to submission of the grant application.

Date of Last ALP Approval Depicting Proposed Projects

7/6/2017 (Approval of ALP update depicting the proposed changes within Airfield Geometry Study Preferred Alternative 3A)

Land Title Status & Date of Exhibit "A" Status

Date

Exhibit "A" Property Map Drawing

No new R/W is required for this project.

June 18, 2012

Open AIP Funded Projects	s (include grant number and grant description)	Expected Close-out Date
3-06-0127-043-2015	Geometry Study Phase 2	DEC 2018
3-06-0127-044-2017	Runway 7R-25L Improvements	JUNE 2019

Certification: To the best of my knowledge and belief, all information shown in the ACIP Data Sheet is true and correct and had been duly authorized by the Sponsor.

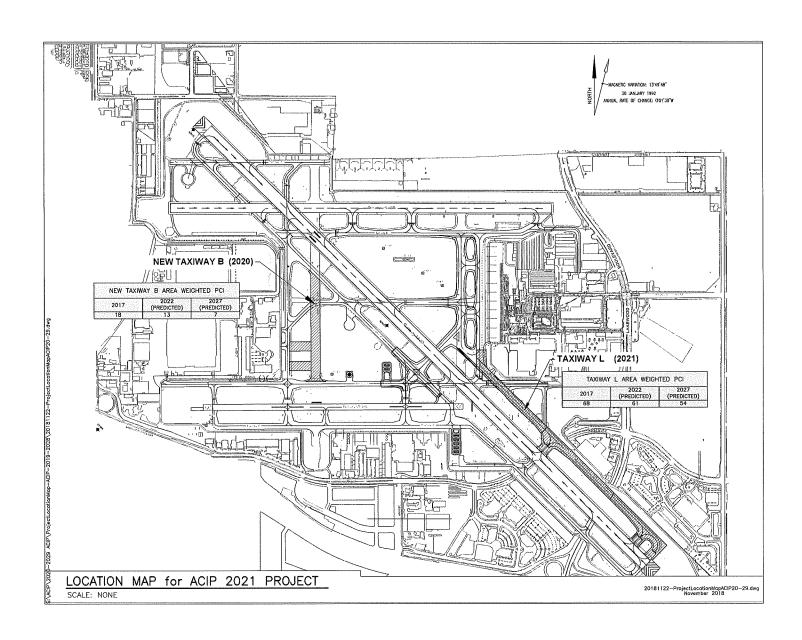
Jess L. Romo, A.A.E.		Stephan G. Lum, P.E.	
Director, Long Beach Airport		Senior Civil Engineer, Long Beach Airport	
Name / Title of Authorized Representative (Print or Type)		Contact Name and Title (Print or Type)	
		562.570.2682	
Signature	Date	Contact Phone (Print or Type)	

Airport Nan	ne	Long Beach Airport (LGB)		Fiscal Year	2021	
Shown On ALP	Project Type*	Project Description		Federal Share	Local Share	Total
Yes	D	Improvements to Taxiway L (National Priority Rating Code: RE TW IM = 6	66)			
		Admini	stration / Design (15%) Construction	\$4,122,401 \$27,482,672	\$424,699 \$2,831,328	\$4,547,10 \$30,314,00
		Construction Engine	ering/Inspection (15%)	\$4,122,401	\$424,699	\$4,547,10
D - Davelo	nment: D - D	lanning; E - Environmental	TOTAL	\$35,727,474	\$3,680,726	\$39,408,20
D - Develo		E THE FOLLOWING DETAILED INFORMATION	N EOD DEO JECTS AN	TICIDATED WIT	UIN 1.2 VEADS	
Detail Proje		(Square/Lineal Footage or Length/Width)		HOII AILD WII	IIII I-Z I LAIKO	
underpasse Taxiway L3 PFC funds v Taxiway L s rehabilitated predicted A compaction	s. Approximate will be relocated will be used. serves as the lin 2006. A rea-weighted over the Lak	structed using P-501 Portland cement concrete ately 225,000 sf (4,500'x50', including shoulders ately 60 fthe Spring Street underpass and align at e primary taxiway for all departing commercial PMMS report completed in August 2017, det PCI of 61 in 2022. Taxiway L has exhibited ewood and Spring St. tunnels. Improvements to exated date for bids or negotiated prices, consultated	s) will be rehabilitated valued closer to the displace aircraft and is also usermined the Area-weig accerlerated pavements the primary air carrier to the carrier to the primary air carrier to the displacement to the displ	ia cold milling a ced threshold for sed by Air cargo hted PCI value t damage presu laxiway will preso	nd replacing asp Runway 12-30. o carriers. Taxifor Taxiway L to mably due to the	way L was la be 68, with le limitations capacity.
		lanning or environmental process)		g or environment	iai projects, ieng	
	Grant Appli Bid Openin Grant Offer	g MAY 2021	Grant Execution Construction Commend Construction Completion		JUL 2021 NOV 2021 AUG 2022	
NEPA Envir	onmental Sta	atus (With grant application include copy of ROD	, FONSI or CATEX lette	er of approval)		
the grant ap	plication.	/ill be completed and submitted to the FAA for a	determination on the In	nprovements to ⁻	Гахіway L prior t	o submission
		al Depicting Proposed Projects				
,	• •	LP update depicting the proposed changes withi	n Airfield Geometry Stu	dy Preferred Alte		
Land Title S	tatus & Date	of Exhibit "A" Status			Date	
	Property Map V is required	Drawing for this project.			June 18, 2012	
		cts (include grant number and grant description)			Expected Clos	e-out Date
3-06-0127-0 3-06-0127-0		Geometry Study Phase 2 Runway 7R-25L Improvements			DEC 2018 JUNE 2019	
Certificatio	n: To the be	st of my knowledge and belief, all information	n shown in the ACIP D	ata Sheet is tru		ind had been
	rized by the	Sponsor.				***************************************
	Di-	Jess L. Romo, A.A.E.	Poniss C	Stephan G. Lu		4
Nam	וט ne / Title of A	ector, Long Beach Airport uthorized Representative (Print or Type)		nior Civil Engineer, Long Beach Airport Contact Name and Title (Print or Type)		
11011	rano rino di radione da reproduntativo (rinicor rypo)		Contact value and Title (Fill to Type)			

Date

Signature

562,570,2682 Contact Phone (Print or Type)



Airport Name		Long Beach Airport (LGB)	Fiscal Year 2023		
Shown On ALP	Project Type*	Project Description	Federal Share	Local Share	Total
Yes	D	AGS Phase 5 - Taxilane F Reconstruction [Former Rwy 16R] (National Priority Rating Code: SA TW IM/SF/SZ = 89)			
	}	Administration / Design (15%) Construction Construction Engineering / Inspection (15%)	\$1,115,571	\$17,239 \$114,929 \$17,239	\$184,575 \$1,230,500 \$184,575
* D - Develo	pment: P - F	TOTAL Planning; E - Environmental	\$1,450,243	\$149,407	\$1,599,650

PROVIDE THE FOLLOWING DETAILED INFORMATION FOR PROJECTS ANTICIPATED WITHIN 1-2 YEARS

Detail Project Description (Square/Lineal Footage or Length/Width)

AGS Phase 5 - Taxilane F Reconstruction - As part of the fifth phase of implementation of the safety and standardization recommendations contained in the Airfield Geometry Study (AGS), the project includes conversion of [former] Runway 16R-34L south of TWY F to Taxilane F to provide tenant access and faciltate development of a new run-up area at the south end of [former] Runway 16R-34L. Approximately 42,900 sf of taxilane pavement (660'x65', including shoulders) will be reconstructed. The project includes improvements to pavement marking, lighting, signage and drainage systems. AIP and future PFC funds will be used.

Taxilane F serves as access to Taxiway F for cargo companies general aviation operations at the Airport. Taxilane F [Former Runway 16R-34L] was last rehabilitated in 1985. A PMMS report completed in August 2017 determined the area-weighted PCI for Taxilane F to be 18, with a 2022 predicted area-weighted PCI of 14. These improvements will preserve safety and capacity.

Project Schedule (Anticipated date for bids or negotiated prices, consultant selection for planning or environmental projects, length of construction or design, planning or environmental process)

Grant Application

DEC 2022

Grant Execution

JUL 2023

Bid Opening Grant Offer MAY 2023 JUN 2023 Construction Commencement Construction Completion

NOV 2023 DEC 2024

NEPA Environmental Status (With grant application include copy of ROD, FONSI or CATEX letter of approval)

CATEX documentation will be completed and submitted to the FAA for a determination on the Taxiway F Realignment & Reconstruction project prior to submission of the grant application.

Date of Last ALP Approval Depicting Proposed Projects

7/6/2017 (Approval of ALP update depicting the proposed changes within Airfield Geometry Study Preferred Alternative 3A)

Land Title Status & Date of Exhibit "A" Status

Date

Exhibit "A" Property Map Drawing

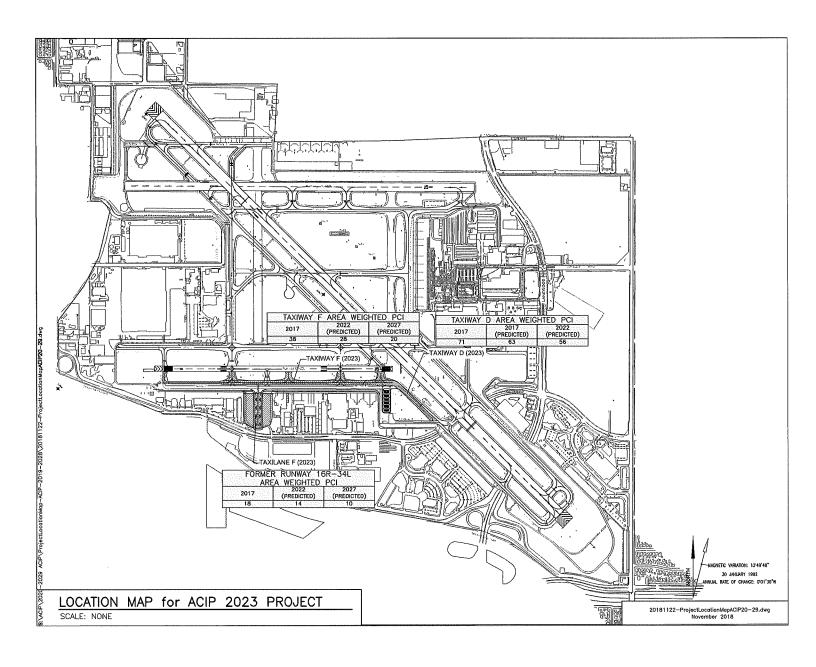
No new R/W is required for this project.

June 18, 2012

Open AIP Funded Projects	(include grant number and grant description)	Expected Clos	e-out Date
3-06-0127-043-2015	Geometry Study Phase 2	DEC 2018	
3-06-0127-044-2017	Runway 7R-25L Improvements	JUNE 2019	

Certification: To the best of my knowledge and belief, all information shown in the ACIP Data Sheet is true and correct and had been duly authorized by the Sponsor.

daily datherized by the openio	9.1		
Jess L. Romo, A.A.E.		Stephan G. Lum, P.E.	
Director, Long Beach Airport		Senior Civil Engineer, Long Beach Airport	
Name / Title of Authorized Representative (Print or Type)		Contact Name and Title (Print or Type)	
		562.570.2682	
Signature	Date	Contact Phone (Print or Type)	



Appendix B

(FAA – Airport Design and Engineering Standards)





Airport Design and Engineering Standards

Airports

This page provides a quick reference to engineering, design, and construction standards for various airport-related equipment, facilities, and structures. Visit our <u>Series 150 Advisory Circular Library</u>

(www.faa.gov/airports/resources/advisory_circulars/) for a complete listing of current advisory circulars.

See also--

- <u>Airport Construction Standards</u>
 (www.faa.gov/airports/engineering/construction_standards/)
- Airport Design Software (www.faa.gov/airports/engineering/design_software/)
- <u>Airport Engineering Briefs</u> (<u>www.faa.gov/airports/engineering/engineering_briefs/</u>)

Design Standards

Item	Reference (See most recent version and any associated changes)
ADS-B (Automatic Dependent Surveillance - Broadcast) Squitters	AC 150/5220-26 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-26)
Airport Design	AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13)
Airport Drainage	AC 150/5320-5 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5320-5).
Airport Layout Plans	AC 150/5070-6 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5070-6).
Airport Lighting - Runway/Taxiway	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30)
Airport Lighting - Runway Centerline	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30)
Airport Lighting - Radio Control	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30)
Airport Marking	AC 150/5340-1 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-1)
Airport Master Plans	AC 150/5070-6 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5070-6)
Airport Signage	AC 150/5340-18 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-18)
Airport Terminal Facilities	AC 150/5360-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5360-13)
Apron	AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13) (Appendix 5)
ARFF (aircraft rescue and fire fighting) Building	AC 150/5210-15 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5210-15)

Item	Reference (See most recent version and any associated changes)	
ARFF (aircraft rescue and fire flighting) Equipment - DEVS	AC 150/5220-10 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-10) (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5210-19)	
ARFF (elicraft rescue and fire fighting) Equipment - Clothing	AC 150/5210-14 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5210-14)	
ARFF (aircraft rescue and fire fighting) Training Facility	AC 150/5220-17 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-17)	
ARFF (aircraft rescue and fire fighting) Vehicle - Small Dual Agent	AC 150/5220-10 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-10) (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-19)	
ARFF (aircraft rescue and fire fighting) Vehicle	AC 150/5220-10 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-10)	
Artificial Turf	AC 150/5370-15 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-15)	
AWOS (Automated Weather Observing Systems)	AC 150/5220-16 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-16)	
Beacons	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30)	
Compass Calibration Pad	AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13) (Appendix 4)	
Construction Standards	AC 150/5370-10 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-10) See also Construction Standards for Airports (www.faa.gov/airports/engineering/construction_standards/)	
Deicing Facilities	AC 150/5300-14 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-14)	
Disability Access to Airports	AC 150/5360-14 (www.faa.gov/alrports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5360-14)	
EMAS (Engineered Material Arresting System) Arresting System	AC 150/5220-22 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-22)	
Fuel Storage	AC 150/5230-4 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5230-4)	
Heliport Design	AC 150/5390-2 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5390-2)	
Landfills	AC 150/5200-34 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5200-34)	
Land and Hold Short Lighting	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30)	
Marking of Airport Vehicles	AC 150/5210-5 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5210-5).	

Item	Reference (See most recent version and any associated changes)	
Operational Safety - Construction	AC 150/5370-2 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-2)	
PAPI	AC 150/5345-28 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5345-28)	
Passenger Lift for the Impaired	AC 150/5220-21 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-21)	
Pavement - Heated	AC 150/5370-17 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-17)	
Pavement Design	AC 150/5320-6 (www.faa.gov/airports/resources/advlsory_circulars/index.cfm/go/document.current/documentNumber/150_5320-6)	
Pavement Management System	AC 150/5380-7 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5380_7).	
REIL	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30)	
Runway Length Requirements	AC 150/5325-4 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5325 4)	
Runway Surface Monitors	AC 150/5200-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150 5200-30)	
Runway Thresholds	AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13) (Appendix 2	
Segmented Circle	AC 150/5340-5 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-5)	
SMGCS	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30)	
Snow Removal Operations	AC 150/5200-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5200-30)	
SRE Buildings	AC 150/5220-18 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-18)	
SRE Equipment	AC 150/5220-20 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-20)	
State Standards for Non-primary Airports	AC 150/5100-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5100-13)	
VASI	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30)	
Wildlife Attractants	AC 150/5200-33 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5200-33)	
Wind Analysis	AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13) (Appendix 1)	
Wind Cones	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150 5340-30)	
Wind Cones - Supplemental	AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30)	
Windrose	AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13).(Appendices 1, 11) Airports GIS Windrose Form (https://airports-gis.faa.gov/airportsgis/publicToolbox/windroseForm.jsp)	

Page last modified: March 06, 2018 4:49:02 PM EST

This page was originally published at: https://www.faa.gov/airports/engineering/design_standards/

Appendix C

(FAA – Airport Construction Standards)





Airport Construction Standards (AC 150/5370-10) Airports

« Airports Orders (www.faa.gov/airports/resources/publications/orders/)

Instructions: The following standards are from <u>AC 150/5370-10H</u>, <u>Standards for Specifying Construction of Airports</u>

(www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-10). To view the entire AC and the latest errata sheet, select the "Complete AC" link below..

See also--

- <u>Airport Design and Engineering Standards</u>
 (www.faa.gov/airports/engineering/design_standards/)
- Airport Design Software (www.faa.gov/airports/engineering/design_software/)
- <u>Airport Engineering Briefs</u>
 (www.faa.gov/airports/engineering/engineering_briefs/)
- Series 150 Airport ACs (www.faa.gov/airports/resources/advisory_circulars/)

Note: We are in the process of preparing individual files for each Part. Please check back soon to access the files.

AC 150/5370-10H

Complete AC

(www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-10) (CURRENT)

Part 1 - General Contract Provisions

- Section 10 Definition of Terms
- Section 20 Proposal Requirements and Conditions
- Section 30 Award and Execution of Contract
- Section 40 Scope of Work
- · Section 50 Control of Work
- · Section 60 Control of Materials
- · Section 70 Legal Regulations and Responsibility to Public
- · Section 80 Execution and Progress
- · Section 90 Measurement and Payment

Part 2 – General Construction Items

- Item C-100 Contractor Quality Control Program (CQCP)
- Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control
- Item C-105 Mobilization
- [Item C-110 Method of Estimating Percentage of Material Within Specification Limits (PWL)]

Part 3 - Sitework

- Item P-101 Preparation/Removal of Existing Pavements
- Item P-151 Clearing and Grubbing
- · Item P-152 Excavation, Subgrade, and Embankment
- Item P-153 Controlled Low-Strength Material (CLSM)
- Item P-154 Subbase Course
- Item P-155 Lime-Treated Subgrade
- · Item P-156 Cement Treated Subgrade
- Item P-157 [Cement] [Lime] Kiln Dust Treated Subgrade
- Item P-158 Fly Ash Treated Subgrade

Part 4 - Base Courses

- Item P-207 In-Place Full Depth Reclamation (FDR) Recycled Asphalt Aggregate Base Course
- Item P-208 Aggregate Base Course
- · Item P-209 Crushed Aggreagate Base Course
- · Item P-210 Caliche Base Course
- Item P-211 Lime Rock Base Course
- Item P-212 Shell Base Course
- · Item P-213 Sand-Clay Base Course
- Item P-217 Aggregate-Turf Runway/Taxiway
- Item P-219 Recycled Concreate Aggregate Base Course
- Item P-220 Cement Treated Soil Base Course

Part 5 – Stabalized Base Courses

- Item P-304 Cement-Treated Aggregate Base Course (CTP)
- Item P-306 Lean Concrete Base Course
- Item P-307 Cement Treated Permeable Base Course (CTPB)

Part 6 - Flexible Pavements

- Item P-401 Asphalt Mix Pavement
- Item P-403 Asphalt Mix Pavement [Base] [Leveling] [Surface] Course
- Item P-404 Fuel-Resistant Asphalt Mix Pavement

Part 7 – Rigid Pavement

Item P-501 Cement Concrete Pavement

Sample PCC Joint Plans
 (www.faa.gov/airports/engineering/pavement_design/#PCCjointplans)

Part 8 - Surface Treatements

- Item P-608 Emulsified Asphalt Seal Coat
- Item P-608-R Rapid Cure Seal Coat
- Item P-609 Chip Seal Coat
- Item P-623 Emulsified Asphalt Spray Seal Coat
- Item P-626 Emulsified Asphalt Slurry Seal Surface Treatment
- Item P-629 Thermoplastic Coal Tar Emulsion Surface Treatments
- Item P-630 Refined Coal Tar Emulsion Without Addititves, Slurry Seal Surface Treatment
- Item P-631 Refined Coal Tar Emulsion With Additives, Slurry Seal Surface
 Treatment
- Item P-632 Asphalt Pavement Rejuvination

Part 9 - Miscellaneous

- Item P-602 Emulsified Asphalt Prime Coat
- Item P-603 Emulsified Asphalt Tack Coat
- Item P-604 Compression Joint Seals for Concrete Pavements
- Item P-605 Joint Sealants for Pavements
- Item P-606 Adhesive Compounts, Two-Component for Sealing Wire and Lights in Pavement
- Item P-610 Concrete for Miscellaneous Structures
- Item P-620 Runway and Taxiway Marking
- Item P-621 Saw-Cut Grooves

Part 10 - Fencing

- Item F-160 Wire Fence with Wood Posts (Class A and B Fences)
- Item F-161 Wire Fence with Steel Posts (Class C and D Fences)
- Item F-162 Chain-Link Fence
- · Item F-163 Wildlife Deterrent Fence Skirt
 - Wildlife Fence Details (below)
- Item F-164 Wildlife Exclusion Fence
 - Wildlife Fence Details (below)

Part 11 - Drainage

- Item D-701 Pipe for Storm Drains and Culverts
- Item D-702 Slotted Drain
- · Item D-705 Pipe Underdrains for Airports
- Item D-751 Manholes, Catch Basins, Inlets and Inspection Holes
- Item D-752 Concrete Culverts, Headwalls, and Miscellaneous Drainage Structures
- Item D-754 Concrete Gutters, Ditches, and Flumes

Part 12 – Turfing

- Item T-901 Seeding
- Item T-903 Sprigging
- Item T-904 Sodding
- Item T-905 Topsoiling
- Item T-908 Mulching

Part 13 – Lighting Installation

- Item L-101 Airport Rotating Beacons
- Item L-103 Airport Beacon Towers
- Item L-107 Airport Wind Cones
- Item L-108 Underground Power Cable for Airports
- Item L-109 Airport Transformer Vault and Vault Equipment
- Item L-110 Airport Underground Electrical Duct Banks and Conduits
- Item L-115 Electrical Manholes and Junction Structures
- Item L-119 Airport Obstruction Lights
- · Item L-125 Installation of Airport Lighting Systems

Wildlife Fence Details

- Detail F-163-1 Typical Wildlife Deterrent Fence Skirt Details: <u>PDF</u>
 Model.pdf), <u>DWG</u>
 Wildlife-Deterrent-Fence-Skirt-Details-Model.dwg)
- Detail F-163-2 Typical Wildlife Deterrent Fence Skirt Details: <u>PDF</u>
 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-2-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf), <u>DWG</u>
 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-2-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.dwg)
- Detail F-163-3 Typical Wildlife Deterrent Fence Skirt Details: <u>PDF</u>
 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-3-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf), <u>DWG</u>
 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-3-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.dwg)
- Detail F-164-1 Typical Wildlife Exclusion Fence Details: <u>PDF</u>
 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164 1-Typical-Wildlife-Exclusion-Fence-Details-Model.pdf), <u>DWG</u>
 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-1-Typical-Wildlife-Exclusion-Fence-Details-Model.dwg)
- Detail F-164-2 Typical Wildlife Exclusion Fence Ditch Crossing: <u>PDF</u>
 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164 2-Typical-Wildlife-Exclusion-Fence-Ditch-Crossing-Model.pdf), <u>DWG</u>

(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-2-Typical-Wildlife-Exclusion-Fence-Ditch-Crossing-Model.dwg)

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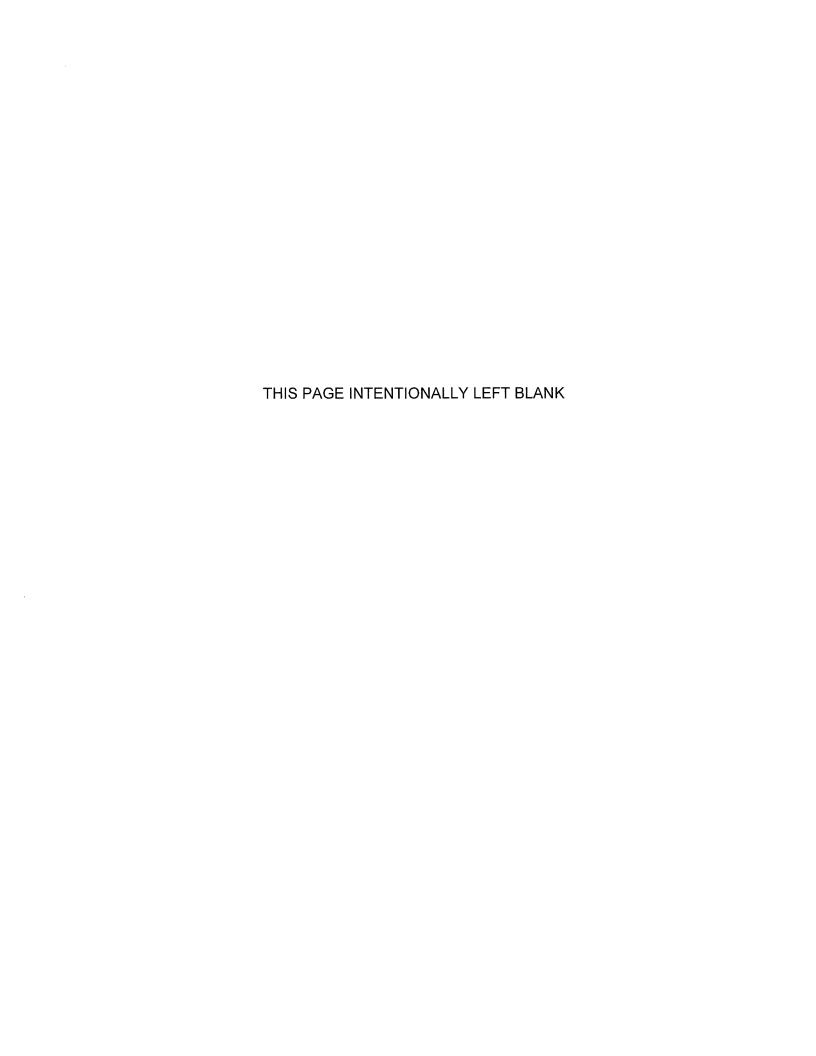
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This page was originally published at: https://www.faa.gov/airports/engineering/construction_standards/

Appendix D

(FAA – Airport Engineering Briefs)





Airport Engineering Briefs Airports

Airport engineering briefs provide additional information about airport engineering, design, and construction standards and specifications included in advisory circulars.

Question about an Engineering Brief (EB)?
Contact the <u>Airport Engineering Division</u>

(www.faa.gov/about/office_org/headquarters_offices/arp/offices/aas/aas100/).

On February 25, 2015, obsolete and out-of-date engineering briefs were cancelled. Use of materials or procedures in any of the cancelled engineering briefs will require a modification to standards.

 Cancelled Airport Engineering Briefs (www.faa.gow/airports/engineering/engineering_briefs/media/cancelled-airport-engineering-briefs.pdf).(PDF)

Active Engineering Briefs

Active Engineering Briefs		
EB No. (View EB)	Description	Date
Full Set (www.faa.gov/airports/engineering/engineering_briefs/media/ab-zlp.zlp)_(Zip, 16.3 MB)	Download the Full Set of Engineering Briefs as a Zipped File	May 13, 2019
EB101	Internal Use	
EB100 (www.faa.gov/airports/engineering/engineering_briefs/media/eb-100-holding-position-signs.pdf).(PDF)	Holding Position Sign for Runway Approach/Departure Areas	May 13, 2019
EB99 (www.faa.gow/airports/engineering/engineering_briefs/media/EB-99- Airport-Design-Tables-3-2-and-3-4.pdf) (PDF)	Changes to Tables 3-2 and 3-4 of Advisory Circular 150/5300-13A, Airport Design Note: Editorially updated 9/24/2018 to correct metric equivalent in Table 3-2, column C, rows 4 and 5.	Sept. 20, 2018
EB98.(www.faa.gov/airports/engineering/engineering_briefs/media/eb-98- NVG.pdf).(PDF)	Infrared Specifications for Aviation Obstruction Light Compatibility with Night Vision Goggles (NVGs)	Dec. 18, 2017
EB97 (www.faa.gov/airports/engineering/engineering_briefs/media/eb-97- aeroMACS.pdf)_(PDF)	Guildance for AeroMACS Installation by the Airport Operator	June 3, 2016
EB95 (www.faa.gov/airports/engineering/engineering_briefs/media/eb-95- papi-ygsi.pdf) (PDF)	Additional Siting and Survey Considerations for Precision Approach Path Indicator (PAPI) and Other Visual Gilde Slope Indicators (VGSI) Note: We have removed the note from paragraph 8.2. PAPIs installed per FAA siting criteria are exempt from the 7460 process. (updated 3/29/2018)	Dec. 19, 2017
EB94.(www.faa.gov/airports/engineering/engineering_briefs/media/EB-94-B-777-9-folding-wingtips.pdf).(PDF)	Accommodating the Boeing B-777 Folding Wingtip Airplane onto Airports	April 2, 2018
EB93.(www.faa.gov/airports/engineering/engineering_briefs/media/eb-93-temp-orange-signs.pdf).(PDF)	Guidance for the Assembly and Installation of Temporary Orange Construction Signs	Dec. 13, 2017
<u>Draft EB92A</u> (www.faa.gov/airports/engineering/engineering_briefs/media/draft-EB- 92a.pdf).(PDF)	Light Spacing Guidance for New Taxiway Fillet Geometry (per AC 150/5300-13A, Airport Design) Industry Letter for Draft EB 92A (www.faa.gov/airports/engineering/engineering_briefs/media/draft-EB-92a-industry-letter.pdf) (PDF) - Comment by March 1, 2016 Comments Matrix for Draft EB 92A (www.faa.gov/airports/engineering/engineering_briefs/media/draft-EB-92a-comments-matrix.docx).(MS Word)	Feb. 2, 2016
EB92.(www.faa.gov/airports/engineering/engineering_briefs/media/EB- 92.pdf).(PDF)	Light Spacing Guidance for New Taxiway Fillet Geometry (per AC 150/5300-13A, Airport Design)	Nov. 29, 2013
EB91.(www.faa.gov/airports/engineering/engineering_briefs/media/EB- 91.pdf).(PDF, 1.3 MB)	Management of Vegetation in the Airport Environment	Nov. 15, 2013
EB89 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-89.pdf) (PDF)	Taxiway Nomenclature Convention	Mar. 29, 2012
EB88	Reserved	NA
EB87.(www.faa.gov/airports/engineering/engineering_briefs/media/EB- 87.pdf).(PDF)	Heliport Perimeter Light for Visual Meteorological Conditions • See AC 150/5390-2, Heliport Design (www.fea.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5390- 2)	Jan. 13, 2012
EB86	Reserved	NA
Draft EB85 (www.faa.gov/alirports/engineering/engineering_briefs/media/draft-EB-85.pdf) (PDF)	Ductile Snowplow Protection Ring And Installation Procedures	Dec. 3, 2014
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B No. View EB)	Description	Date
<u>braft EB84</u> www.faa.gov/airports/engineering/engineering_briefs/media/draft-EB-84.pdf) PDF)	Remote Maintenance and Monitoring of ALCMS and L-821 Computerized Control Panels	Feb. 22, 2011
:B83A (www.faa.gov/alrports/engineering/engineering_briefs/media/eb-83a- n-pavement-light-fixture-bolls.pdf)_(PDF, 1.17 MB)	In-Pavement Light Fixture Bolfs (added 12/27/2018)	Dec. 26, 2018
EB82	Reserved	NA
B79A (www.faa.gov/alrports/engineering/engineering_briefs/media/EB- 9a.pdf) (PDF)	Determining RSA NAVAID Frangibility and Fixed-By-Function Requirements	Jan. 21, 2016
:B78 (www.faa.gov/airports/engineering/engineering_briefs/media/E8- :8.pdf).(PDF)	Linear Equations for Evaluating the Separation of Airplane Design Groups on Parallel Taxiways and Taxiways to Fixed/Movable Objects	Sept. 28, 2012
B76 (www.faa.gov/airports/engineering/engineering_briefs/media/EB- 66.pdf)_(PDF)	Using Solar Power for Airport Obstruction Lighting	Jan. 14, 2008
<u>:B75 (www.faa.gov/airports/engineering/engineering_briefs/media/EB- 55.pdf).</u> (PDF)	Incorporation of Runway Incursion Prevention Into Taxiway and Apron Design	Nov. 8, 2007
B74A (www.faa.gov/airports/engineering/engineering_briefs/media/EB- 4A.pdf),(PDF)	Use of 150-foot (45-M) Wide Runways and Blast Pads for Boeing 747-8 Operations	Aug. 11, 2011
:B73 (www.faa.gov/airports/engineering/engineering_briefs/media/EB- '3.pdf).(PDF)	Use of Non-Standard 75-Foot- (23-M) Wide Straight Taxiway Sections for Boeing 747-8 Taxiing Operations	Nov. 27, 2007
B72A (www.faa.gov/airports/engineering/engineering_briefs/media/EB- '2a.pdf),(PDF)	Positive Identification of Runways for Landing	Nov. 2, 2007
<u>:B67D</u> www.faa.gov/airports/engineering/engineering_briefs/media/EB_67d_rev.pdf) PDF)	Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures "Note" added to par. 2.15 for clarification (July 25, 2017) Clarification of 'Effective Date' in Engineering Brief No. 67D (www.faa.gov/airports/engineering/engineering briefs/media/EB-67dClarification.pdf).(PDF)	Mar. 6, 2012
<u>:B66 (www.faa.gov/airports/engineering/engineering_briefs/media/EB- 66.pdf).</u> (PDF)	Rubblized Portland Cement Concrete Base Course	Feb. 13, 2004
EB65A (www.faa.gov/airports/engineering/engineering_briefs/media/EB- 56a.pdf).(PDF)	Use of 150-Foot- (45-M) Wide Runways for Airbus A380 Operations	Dec. 10, 2007
EB64D (www.faa.gov/alrports/englneering/englneering_briefs/media/E8- 34d.pdf),(PDF)	Runway Status Lights System	May 9, 2011
EB63B (www.faa.gov/airports/engineering/engineering_briefs/media/EB- 33b.pdf).(PDF)	Taxiways for Airbus A380 Taxiing Operations (Supersedes E8 63a)	Nov. 27, 2007
EB57_(www.faa.gov/airports/engineering/engineering_briefs/media/EB- 57.pdf)_(PDF)	Extended Q-Value Table for Estimating Percent of Lot Within Limits (Pwl). Q-Value and PWL Table (www.faa.gov/airports/engineering/engineering_briefs/media/EB-57PWL.xls) (MS Excel)	May 19, 1999
EB56.(www.faa.gov/airports/engineering/engineering_briefs/media/EB- 56.pdf).(PDF)	Development of Revised Acceptance Criteria for item P-401 and Item P-501.	Jan. 27, 1999
EB42.(www.faa.gov/airports/engineering/engineering_briefs/media/EB- 12.pdf).(PDF)	Geocomposite Pavement Edge Drains	Mar. 22, 1989
EB34A (www.faa.gov/airports/engineering/engineering_briefs/media/EB- 34a.pdf) (PDF)	Referee Testing of Hardened Portland Cement Concrete Pavement-Percent within Limits Revision	May 13, 2002

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Appendix E

(Scope of Services Samples)



APPENDIX C. SCOPE OF SERVICES SAMPLES

C.1 This appendix contains three different examples of Scope of Services. Example 1 is a Design Services scope, Example 2 is a Planning Services scope, and Example 3 is a Construction Services scope. Samples may not necessarily include all provisions and terms required by this AC. If a conflict exists between these examples and the AC, the AC will prevail.

C.2 Example 1. Design Services Scope.

TAXIWAY A SOUTH AND HOLDING APRON RECONSTRUCTION AND NEW HARDSTAND

ABC INTERNATIONAL AIRPORT

The consultant will provide the required professional services to design the reconstruction of Taxiway A South and holding apron and the proposed hardstand (attach a drawing or exhibit if necessary). This work will be performed and constructed under a Federal Aviation Administration (FAA) Airport Improvement Program (AIP) grant to the airport.

Taxiway A South will be constructed in Portland Cement concrete and will be widened to 100 feet and have new 40-feet-wide asphalt shoulders added. The South Holding Apron will be reconstructed to essentially the same configuration as presently exists. Centerline taxiway lighting will be added to the taxiway and through the holding apron to Runway 18L/36R. Control panels in the FAA tower and field lighting electrical vault will also be modified for the new centerline lighting.

The new hardstand will be located north of the Airlift Airlines Maintenance Facility (currently under construction) south of the northeast Cargo Taxilane and west of the flying Bears hardstand. The hardstand will be a Portland Cement concrete apron with lighting similar to other hardstands, drainage to the Industrial Waste Sewerage System (IWS), and other utilities including fire protection. No downstream IWS changes are anticipated. It is anticipated that utilities are immediately available for fire protection adjacent to hardstand.

Professional services to be provided by the consultant will include civil, electrical and structural, and geotechnical engineering services required to accomplish the following items:

PHASE 1 - PRELIMINARY DESIGN

The preliminary design phase is intended to identify and evaluate alternatives to assure cost effective and practical solutions for the work items identified. The consultant will complete its evaluation of alternatives through contacts with local authorities and review of the preapplication, field investigations, and a practical design approach. The design will take advantage of local knowledge and experience and utilize expertise from recent construction projects to design a cost-effective project and ensure competitive construction bids. Activities include:

1. Coordinate with airport operations, FAA tower, and the airlines to minimize impacts in day-to-day operations of the airlines and air cargo lines. Also coordinate with facilities and

- maintenance and fire department. (This will require four coordination meetings throughout the design.)
- 2. Prepare a preliminary estimate of probable construction costs and schematic design for each element of the project.
- 3. Provide all geotechnical investigation and analysis and pavement and other nondestructive testing and analysis required for the design.
- 4. Coordinate with the airport's project manager for required survey information.
- 5. Prepare an overall construction phasing plan in order to maximize project constructability and minimize interference with airport operations. The consultant's phasing plan must take into account other airport construction projects.
- 6. Determine aircraft usage through coordination with Airport staff and information furnished by the Sponsor. Design the pavements to meet the anticipated aircraft traffic.

PHASE 2 - ENGINEERING PHASE ACTIVITIES

- 1. Evaluate local conditions.
 - a. Evaluate local material suppliers, sources, and capabilities.
 - b. Evaluate drainage alternatives.
 - c. Review electrical lighting layouts and determine system relocation capacities.
- 2. Review and evaluate project layout.
 - a. Verify master plan dimensions and data.
 - b. Review findings and recommendations with airport personnel.
- 3. Complete a soils investigation, soils report, and recommendations including:
 - a. Field Exploration.
 - i. Conduct test pit explorations with a rubber-tired backhoe at various locations to a maximum depth of 8 feet in the runway, taxiway, and apron areas. Log and field classify soils and obtain samples for laboratory testing.
 - b. Laboratory Testing.
 - i. Perform laboratory index and strength tests as follows:
 - (1) Compacted CBR test (3 compaction points/test).
 - (2) Standard Proctor (4 point) compaction tests.
 - (3) Atterberg limit determinations.
 - (4) Sieve analysis.
 - (5) Unit weight and water content determinations.
 - (6) FAA soil classifications for all samples.
- 4. Complete necessary topography and site surveying, including establishment of project control points.

- 5. Complete pavement section alternatives analysis and provide recommendations including:
 - a. Conduct an initial cost analysis, life-cycle cost analysis, and analysis of locally available resources for up to three alternatives.
 - b. Strategize bidding procedures and pavement section alternatives to provide a basis for competitive bidding.
- 6. Complete preliminary plan and profile design for the runway, taxiway, and apron area.
- 7. Complete preliminary runway lighting, signing, and system circuitry layout.
- 8. Provide recommendations for construction phasing to the Sponsor for their review.
- 9. Complete estimates of probable construction costs for the recommended alternatives.
- 10. Provide five sets of review documents.
- 11. Complete the preliminary design report including:
 - a. Geotechnical investigation.
 - b. Topographical survey.
 - c. Preliminary plans.
 - d. Pavement section design and analysis.
 - e. Drainage design analysis.
 - f. Estimates of probable construction costs.
 - g. Final summary and recommendations.
 - h. Phasing and scheduling recommendations.
- 12. Solicit comments on preliminary design from airport personnel and the FAA.

PHASE 3 - FINAL DESIGN

In the decision phase, the consultant will provide well-defined construction requirements, with selected bid alternatives as appropriate to provide a basis for competitive construction bids. Construction schedules will be closely coordinated to endeavor the best possible weather conditions and the least possible interference with airport operations. Assist the airport with the advertisement, notification of local airport users, and generally complete the final construction contract documents for the project. The following outline describes in greater detail the tasks and products.

- 1. Incorporate preliminary design comments and respond as necessary to requests for additional information.
- 2. Provide final design drawings, specifications, and final estimate of probable construction costs and schedule for the project.
- 3. Provide Engineering Report.
- 4. Develop specifications using Advisory Circular 150/5370-10, Standards for Specifying Construction of Airports, as amended, and utilize standard provisions supplied by the Sponsor.

- 5. Develop a safety plan in accordance with AC 150/5370-2, Operational Safety on Airports During Construction.
- 6. Design all improvements in accordance with FAA standards and guidelines and in accordance with the Airport Certification Manual.
- 7. Coordinate the design of the project with existing and ultimate grades established at adjacent areas.
- 8. Provide for all required design of utilities and services within the area defined in the preliminary design.
- 9. Complete final quantity calculations.
- 10. Solicit Sponsor and FAA review and approval.
- 11. Provide sets of contract documents.
- 12. Assist airport with advertising and interpretation of project requirements.
- 13. Assist airport with preparation of the FAA application.
- 14. Provide review of all submittal and shop drawings during construction.
- 15. Provide technical assistance and recommendations to the Sponsor during construction.
- 16. The following project schedule will be utilized unless otherwise approved by the Sponsor: Taxiway A South and the Holding Apron portion of the project will be phased to be constructed on an accelerated basis to be completed within two (2) months of the construction consultant's notice to proceed or earlier, if possible. During construction, runway 18L/36R will be kept in service at all times. The project limits will be defined such that the construction activities will not impact the operation of the runway as defined by airport and FAA operational criteria.
- 17. The construction budget for the project is \$_____, including construction change order contingency. The consultant will evaluate the feasibility of this budget and keep the Sponsor apprised during each phase of the design. The consultant will advise the Sponsor as to options available for reducing construction costs to stay within the budget, if it appears likely that construction bid prices will exceed this budget.

The design schedule is anticipated to be as follows:

Commission Authorization of Consultant Contract - 10/10/XX
Contract Execution - 10/10/XX
Start Design - 10/11/XX
50 Percent Design Review - 11/22/XX
Complete Design, Submit Estimates, Plans and Specs for Review 1/12/XX

Advertise for Bids - 3/21/XX
Open Bids - 4/11/XX
Prepare Award Memo - 4/12/XX
Award Construction Contract - 4/25/XX
Construction Contract Executed - 5/08/XX
Construction Notice to Proceed - 5/14/XX

Complete Taxiway A South & Holding Apron - 7/13/XX Complete Hardstand Construction - 11/01/XX

PHASE 4 - CONSTRUCTION SERVICES

During the construction phase of the project, the consultant will assist the Sponsor to monitor and document progress for quality and cost. Review contractor payment requests, complete necessary quality control testing, establish necessary survey control, continually inform the Sponsor on project progress and problems, conduct the final project inspection, and complete the associated certification.

ACTIVITIES

- 1. Assist with prebid conference and bid opening. Issue addenda, prepare an abstract of bids, and make recommendations for award.
- 2. Assist in award notification to successful bidder and notify and return bid bonds to the unsuccessful bidders.
- 3. Solicit and review bonds, insurance certificates, construction schedules, etc.
- 4. Conduct preconstruction conference.
- 5. Provide horizontal and vertical control.
- 6. Provide resident project representative to monitor and document construction progress, confirm conformance with schedules, plans and specifications, measure and document construction pay quantities, document significant conversations or situations, document input or visits by local authorities, etc.
- 7. Prepare change orders and supplemental agreement, if required.
- 8. Prepare and submit inspection reports.
- 9. Prepare and confirm monthly payment request.
- 10. Conduct necessary quality control testing.
- 11. Conduct and document periodic wage rate interviews.
- 12. Conduct a final project inspection with airport personnel, the FAA, and the consultant.
- 13. Prepare as-constructed drawings and the final project report from information furnished by the consultant.

C.3 Example 2. Planning Services Scope.

AIRPORT LAYOUT PLAN UPDATE

ANYTOWN MUNICIPAL AIRPORT

The purpose of this Airport Layout Plan Update (ALPU) is to identify potential development options specifically associated with closed Runway 10-28 at Anytown Municipal Airport. The existing Airport Layout Plan (ALP) is an integral component of the Airport Master Plan Update (AMPU) completed in 2005, which was based on data compiled in the mid-2000s, which is now

nearly 10 years old. Since that time, a number of critical growth and operational issues have surfaced that need to be assessed and factored into the preferred layout plan.

This ALPU will help the community focus on the best course of action for continued development of the airport, by identifying the key critical issues the airport faces in the next five to ten years.

CRITICAL ISSUES

Anytown is in a multiyear airport development plan that includes the reconstruction of Runway 15-33, expansion of hangar and aircraft parking facilities, construction of an airport access road, plus plans for the development of a new terminal building, expanded aircraft parking, and fueling facilities.

The airport is now in a position to start focusing on long-term landside development, particularly along the closed runway, with a realistic assessment of the existing terminal area configuration on the east end of the closed runway. An equally important component of this study is the identification of aviation development limits on the west end of the closed runway over the next 20 years.

TASKS

XYZ Company proposes to provide the following services. To the maximum extent possible, and unless otherwise noted, data from the most recent AMPU and ALP will be used. In the interest of cost savings, updated aerial mapping will not be obtained for this project. XYZ Company will rely on existing data.

CONCEPT

XYZ Company will prepare a written report and update the ALP, focusing on development of airport landside facilities, with emphasis on the closed runway, and the limits of compatible aviation development. Findings will be presented in written form at key phases through the term of this project, with each subsequent part building on previously submitted information. This concept will result in the development of a complete draft report that will then be updated to reflect agreed upon changes, resulting ultimately in the final ALPU.

TASK A - STUDY DESIGN/ADMINISTRATIVE

- 1. Project Scoping Meeting. The consultant will arrange and attend a project scoping meeting with the FAA, state, and city of Anytown (Sponsor) to review the project scope and tasks and to confirm the specific requirements of the ALPU.
- 2. Refine Scope of Services. XYZ Company will refine and prepare a detailed scope of services and fee to complete the defined tasks for submission to the Sponsor, state, and FAA.
- 3. Prepare Grant Application. XYZ Company will prepare and submit applications for Federal assistance. The Sponsor will sign and distribute the applications to state and FAA. The grant application will be submitted on or about April 15, 20XX.
- 4. Attend City Council Meeting. XYZ Company will attend a regularly scheduled city council meeting for the purpose of answering questions and addressing issues concerning this project.
- 5. Grant Administration.

- a. XYZ Company will submit a monthly invoice to the Sponsor, including supporting documentation which specifically describes the work and other items for which the billing is submitted. The billing report will also include an estimate of the percent complete of each task appearing on the report. The Sponsor will be billed on a monthly basis for all work conducted in association with this project.
- b. The FAA and state will reimburse the Sponsor for these fees through the grant reimbursement process. XYZ Company will prepare these grant reimbursement requests for the Sponsor's signature and distribution to the FAA and state. It is anticipated that seven grant reimbursement requests will be prepared during the life of this project.

TASK B - ALPU REPORT

XYZ Company will prepare an ALPU report consisting of five chapters and various appendices, developed in two phases (draft and final).

Chapter 1 - Inventory and Forecasts

- 1. Update Existing Activity: This task will update existing based aircraft totals and evaluate current aircraft operations using industry standards, observations, and discussions with airport operators and users. The Sponsor will provide XYZ Company will an accurate list of all based aircraft by aircraft make and model, sorted by hangared aircraft and aircraft parked on open aprons.
- 2. Field Inventory: XYZ Company will conduct a site field investigation of the airport that will provide an update of recently constructed facilities as well as potential development areas.
- 3. Identify On-Airport Developable Land: XYZ Company will use existing base mapping superimposed by the airport property line and resource protection limits to identify areas of airport property that can be "disturbed" or used for future airport development. This task will focus on the closed runway.
- 4. Evaluate Existing Lease Agreements. XYZ Company will obtain and evaluate existing airport lease agreements for compliance with FAA grant assurances.
- 5. Review SASP: XYZ Company will obtain and review aircraft and operational data in the current State Aviation Systems Plan (SASP) as applicable to Anytown.
- 6. Update 19XX Forecasts. The 20XX AMPU forecasts will be updated based on current aircraft loading and operations and projected forward 5, 10 and 20 years using SASP forecasts, as applicable.
- 7. Forward Draft Findings. XYZ Company will prepare and submit a draft Inventory and Forecasts Chapter, providing 10 copies of the draft chapter to the Sponsor and one copy each to the state and FAA. It is recommended that the Sponsor post this report on its website. XYZ Company will provide a copy of the report as it progresses, in Adobe® PDF format, to the Sponsor's webmaster or information technology (IT) department.
- 8. Meeting. XYZ Company will present the Inventory and Forecast data to the Sponsor; answering questions and resolving any conflicts prior to starting the next phase of the project.

Chapter 2 - Demand/Capacity Analysis & Facility Requirements. Pending receipt and resolution of comments from the Sponsor, state, and the FAA on Chapter 1, XYZ Company will prepare Chapter 2. XYZ Company will review and respond to comments to all parties.

- 1. Landside Facility Capacities: XYZ Company will identify the capacity of the existing landside facilities including, but not limited to aviation facilities: hangars, aircraft parking, fuel facilities; compatible non-aviation facilities: industrial park; and common facilities: automobile parking and access roads
- 2. Airside Facility Requirements: This ALPU will not evaluate airside facilities (runway, taxiways, etc).
- 3. Landside Facility Requirements: XYZ Company will evaluate existing landside facilities and compliance with FAA safety and design requirements. Based on the safety and capacity computations as well as the forecasts of aviation demand for the airport, XYZ Company will identify the needed improvements for the landside facilities (i.e., hangars, aircraft parking, automobile parking and access, and aircraft fueling facilities).
- 4. Forward Draft Findings: XYZ Company will prepare and submit the Capacity and Facilities Chapter, providing 10 copies of the draft chapter to the Sponsor and one copy each to the state and FAA.
- 5. Meeting. XYZ Company will present its findings from the first two chapters to the Sponsor; answering questions and resolving any conflicts prior to starting the next phase of the project.

Chapter 3 - Alternative Developments. Pending receipt and resolution of comments from the Sponsor, state, and FAA on Chapter 2, XYZ Company will prepare Chapter 3. XYZ Company will review and respond to comments to all parties.

- 1. Identify Limits of Short-Term Aviation Development. Based on previously developed forecasts (Chapter 1) and identified facility needs (Chapter 2), XYZ Company will identify areas of airport property that can be used for future airport development. Emphasis will be placed along the entire close runway corridor, with particular attention given to realistic development of the existing terminal area.
- 2. Identify Potential Nonaeronautical Use. XYZ Company will analyze future aviation needs (projected in 5, 10, and 20 year periods) and then identify on-airport areas potentially available for compatible nonaeronautical use. Emphasis will be placed on development in the area along or in the vicinity of the west end of the closed runway.
- 3. Identify Development Alternatives: The objective of this task is to identify feasible landside alternative development plans for the airport based on Tasks A and B above. While a variety of alternative solutions could be considered, for the purposes of this study, XYZ Company will develop a series of possible alternatives consistent with the needs of the Sponsor.
- 4. Forward Draft Findings: XYZ Company will prepare and submit the Alternatives Chapter addressing the tasks in this chapter, providing 10 copies of the draft chapter to the city, and one copy each to the state and FAA.
- 5. Preferred Alternative Meeting: XYZ Company will meet with the Sponsor to assist him in evaluating and selecting the preferred alternative. Subsequent to the selection of the preferred alternative, XYZ Company will complete and submit an updated Alternatives Chapter to all parties.

Chapter 4 - Environmental Evaluation. Pending receipt and resolution of comments from the Sponsor, state, and FAA on Chapter 3, XYZ Company will prepare Chapter 4. XYZ Company will review and respond to comments to all parties.

- 1. Identify Existing Environmental Conditions.
 - 2. This task will include the collection of data to identify protected resources and environmental issues as defined by the 23 impact categories found in FAA Order 5050.4, Airport Environmental Handbook, in the vicinity of the airport that are anticipated to be impacted by the proposed capital improvements or existing operations. A review of existing data and coordination with appropriate regulatory agencies will identify potential protected resources and issues important to the human and natural environment that may require additional data collection beyond the scope of this study. XYZ Company will conduct one site visit to compare existing conditions to written data.
 - 3. In addition, XYZ Company will review previous environmental permitting and, if applicable, protected resource mitigation performed as part of previous airport and industrial park improvement projects. This information will be useful to the Sponsor when future environmental permits need to be obtained.
 - 4. Delineated flagged wetlands will be identified and evaluated using the current Federal and State (and local, if applicable) methodologies. These wetland boundaries, which are already digitized, will be placed on the appropriate airport plans and figures.
- 5. Identify Potential Adverse Impacts: Based upon the recommended airport improvements identified as the preferred alternative, potential impacts to the environment that are protected by local, State, and Federal regulations will be identified for the first five years of the planning period.
- 6. Describe Regulatory Requirements: XYZ Company will identify the permit requirements for the anticipated first five years of airport improvements. This information can then be used to plan the phasing requirements for each project (refer to Chapter 5 Implementation Schedule & Financial Analysis).
- 7. Forward Draft Findings: XYZ Company will prepare and forward the Environmental Chapter covering the tasks described in this section. This chapter will provide the basis for the environmental permitting requirements and financial impacts presented in Chapter 6. XYZ Company will provide copies as previously described above.

Chapter 5 - Implementation & Financial Analysis. Pending receipt and resolution of comments from the Sponsor, state, and FAA on Chapter 4, XYZ Company will prepare Chapter 5. XYZ Company will review and respond to comments to all parties.

- 1. Implementation Schedule. Based on the adopted preferred alternative, a phased implementation schedule will be developed. This schedule will be based on demand levels and their estimated timeframes for realization. This schedule will not only include the development previously mentioned, but also major maintenance projects that were identified and necessary to maintain the viability of the airport.
- 2. Capital Improvement Plan. The ALPU will include a CIP using planning-level opinions of cost for each of the projects, both for development and maintenance of the airport. The distribution of eligible costs between the Sponsor, state, FAA, and private investors will be

- evaluated for the presence of extensive financial burdens during any one timeframe; if necessary, projects may be shifted to offset this burden.
- 3. Funding Sources: XYZ Company will identify typical and potential funding sources for paying for proposed airport improvements or necessary maintenance projects.
- 4. Forward Draft Findings. XYZ Company will prepare and forward the Implementation Schedule and Financial Analysis Chapter covering the tasks described in this section. This chapter will provide the basis for future capital planning considerations on the part of the state and FAA. XYZ Company will provide copies as previously described above.

TASK C - UPDATE ALP

Three key components of the ALP will be updated: Existing Airport Layout Plan, Terminal Plan, and Ultimate Airport Layout Plan. The Approach Plan and Profile, Land-Use, and CFR Part 77 Analysis sheets **will not** be updated. Based on the selection of the preferred alternative, several drawings of the existing ALP set will require revisions and updating. All plans will be prepared to conform to state and FAA CADD standards and will be made available in electronic format.

- 1. Existing Airport Facilities Plan: This drawing will be updated reflecting changes since completion of the existing drawing. This drawing will be prepared at a scale of either 1" = 300' or 1" = 400'.
- 2. Ultimate Airport Layout Plan: This drawing will be revised reflecting the preferred alternate layout. This drawing will be prepared at a scale of either 1"= 300'or 1"= 400'.
- 3. Terminal Area Plan: This drawing will be prepared at a scale of either 1"= 50'or 100' reflecting the revised preferred layout.
- 4. Forward Draft Findings: XYZ Company will prepare and submit the revised ALP drawings. One full-size 24" x 36" set will be provided each to the Sponsor, FAA, and the state. In addition, a reduced 11" x 17" set will be provided in Adobe PDF to the Sponsor's webmaster for inclusion on the city's website.

TASK D - FINAL DOCUMENTATION

- 1. Final Meeting. XYZ Company will hold a final project meeting with the Sponsor, state, and FAA to review the project and solicit all final comments.
- 2. Final Report. Pending receipt of comments from all interested parties, a final ALPU report will be prepared. Bound, printed copies will be distributed to the Sponsor, state, and FAA. Additional copies of the final report will be available upon request on CD-ROM in Adobe PDF format.
- 3. Airport Layout Plan. Four (4) full-size sets of the final ALP set will be distributed to the Sponsor, state, and FAA for approval signatures. All signatory parties and XYZ Company will receive one (1) signed ALP set for their files.

ANTICIPATED PROJECT SCHEDULE

The following anticipated project schedule is based on the timely receipt and resolution of comments from the Sponsor, state, and FAA:

Anticipated Project Schedule

Task	Date
Study Design	May 20XX
Inventory and Forecasts	June 20XX
Capacity Analysis and Facility Requirements	August 20XX
Alternatives Development	September 20XX
Environmental Evaluation	October 20XX
Financial Analysis	November 20XX
Airport Plans	December 20XX
Final Documentation	January 20XX

C.4 Example 3. Construction Services Scope.

DESIGN AND CONSTRUCT 6-UNIT HANGAR

ANYTOWN MUNICIPAL AIRPORT

ARTICLE A - DATA COLLECTION AND PROJECT DEVELOPMENT

- 1. Predesign Conference A representative of the engineer will attend a predesign meeting at the offices of the state to provide the representatives of the Sponsor, the FAA, and the state with the opportunity to review and discuss the nature and extent of the project and to establish the project design criteria, budget, and schedule. The engineer will coordinate the date and time of the predesign conference via teleconferences, letters, faxes and emails to the representatives of the Sponsor, the FAA and the state. The engineer will prepare a presentation of the project components for discussion at the predesign conference. The engineer will use the Airports Division Predesign Conference Form XX to determine the design and construction parameters that will be used for this project.
- 2. Review and Evaluate Existing Data The engineer will compile the existing data that was prepared for previous projects at the airport, that is germane to the project, and that might be useful in the design of the project. The existing data includes airport master plan, airport Exhibit "A" property plan, engineering drawings, airspace obstruction analyses, aerial photogrammetry data, and aerial photographs. The engineer will utilize the pertinent data and information as appropriate to prepare worksheets to facilitate the development of the project. The engineer will review the existing data for accuracy and completeness and to determine the feasibility of utilizing the data to prepare plans and specifications for the design and construction of the project.
- 3. Site Location Survey The engineer will retain a professional land surveyor who is licensed in the State to provide site location survey services in the vicinity of the proposed hangar project area sufficient to prepare the project plans. The land surveyor may be required to locate the pertinent existing physical features within the vicinity of the project including

pavements, drainage structures, swales and ditches, fence lines, property lines, rights-of-way, and tree and brush lines. The engineer will incorporate the results of the survey into the project plans to supplement the available existing data for the project locations.

Expenses - The engineer will incur certain miscellaneous project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, newspaper advertisements, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

Outside Services - The engineer will incur certain project related costs during the data collection and project development phase of the work in the form of subconsultant costs for land surveying. These costs will be included in the engineer's contract with the Sponsor.

ARTICLE B - DESIGNS, PLANS AND SPECIFICATIONS

- 1. Project Plans The engineer will prepare preliminary and final plans based on the existing conditions plans that were prepared during the data collection phase of the project. The engineer will prepare the plans based on the locations of pavements, buildings, wetlands, tree lines, pole lines, fences, property lines, aviation easements, rights-of-way and other considerations to sufficiently depict the project area for the construction of the hangar. The engineer will evaluate the project work area to identify other necessary incidental improvements that should be included in the project. The engineer will incorporate the electrical and structural plans into the project plans. The engineer will coordinate the development of the project plans with the staff of their aviation planning and environmental departments including:
 - Title sheet
 - Site plan
 - Grading Plan
 - Civil Details
 - Cross Sections
 - Hangar Elevations and Details
 - Floor Plan and Details
 - Foundation Plan and Details
 - Building Details and Typical Sections
 - Electrical Layout Plan
 - Electrical Schedules and One-Line Diagram
 - Electrical Specifications
 - a. The engineer will distribute the preliminary plans to the Sponsor, the state, and the FAA for review. The engineer will provide the Sponsor with one (1) set of preliminary plans for review and comments. The engineer will provide the state with two (2) sets

- of preliminary plans for review and comments. The engineer will provide the FAA with five (5) sets of preliminary plans for review and comments. The engineer will further develop the preliminary plans into final plans subsequent to the review and comment period.
- b. The engineer will distribute the final plans to the Sponsor, the state, and the FAA. The engineer will provide the Sponsor with one (1) set of final plans. The engineer will provide the state with one (1) set of final plans. The engineer will provide the FAA with one (1) set of final plans.
- 2. Project Specifications and Contract Documents The engineer will prepare preliminary and final specifications and construction contract documents based on the preliminary and final plans. The engineer will incorporate the electrical and structural specifications into the project specifications. The specifications will establish the requirements for the project in accordance with the current version of and changes to FAA AC 150/5370-10, Standards for Specifying Construction of Airports, including general provisions and technical specifications.
 - a. The contract documents will include: Invitation to Bid, Information for Bidders, Bid Proposal, Schedule of Items, consultant's Qualifications and Certifications, Buy American Requirements, Contract Agreement, Notice to Bidders (Bonding), Bid Bond, Payment Bond, Performance Bond, Maintenance Bond, and Insurance Requirements. The contract documents will include Federal special provisions including: Federal Requirements for Construction Contracts \$100,000 and Over, Instructions to Bidders, Certification for Nonsegregated Facilities, Required Assurances, Disadvantaged Business Enterprise Eligibility Requirements, and Federal wage rate requirements for Anytown USA.
 - b. The engineer will distribute the preliminary specifications and contract documents to the Sponsor, the state, and the FAA for review and approval. The engineer will provide the Sponsor with one (1) set of preliminary specifications and contract documents for review and comment. The engineer will provide the state with one (1) set of preliminary specifications and contract documents for review and comment. The engineer will provide the FAA with one (1) set of preliminary specifications and contract documents for review and comment. The engineer will further develop the preliminary specifications and contract documents into final specifications and contract documents subsequent to the review and comment period.
 - c. The engineer will distribute the final specifications and contract documents to the Sponsor, the state, and the FAA. The engineer will provide the Sponsor with one (1) set of final specifications and contract documents. The engineer will provide the state with one (1) set of final specifications and contract documents. The engineer will provide the FAA with one (1) set of final specifications and contract documents.
- 3. Estimates The engineer will prepare estimates of material quantities and construction costs based on the plans, specifications, and environmental permitting requirements. The engineer will incorporate the electrical and structural estimates into the project estimates. The estimates will be distributed to the Sponsor, the state, and the FAA for review and modification. The Sponsor, the state and the FAA each will be provided with one (1) copy of the estimates.

Note: The construction cost estimates will reflect the engineer's opinion of probable construction costs and will be based on the engineer's experience with similar recent construction. The engineer has no control over the actual cost of consultant labor and materials or over the competitive bidding and construction market conditions. The engineer cannot guarantee the accuracy of the construction cost estimates when compared to the consultants' construction bids or to the final project construction cost.

- 4. Electrical Design, Specifications and Estimates The engineer will utilize the staff of their electrical division for the design of the electrical components of the hangar building. The engineer will visit the project site to determine the availability and suitability of the existing electrical system for the proposed project. The engineer will prepare electrical plans in the form of one line diagrams, electrical service installation details, panel schedules, lighting plan, power plan, and fixture schedule. The engineer will prepare electrical specifications and cost estimates for the construction of a pre-engineered metal building. The engineer will incorporate the electrical plans, specifications, and cost estimates into the project plans, project specifications and project cost estimates.
- 5. Structural Design, Specifications and Estimates The engineer will utilize the staff of their structural division for the design of the structural components of a hangar building measuring approximately 33-feet wide by 252-feet long. The engineer will visit the project site to determine the suitability of the proposed site for the hangar building. The engineer will utilize the geotechnical data compiled for the recent runway, taxiway, and apron reconstruction projects to evaluate the suitability of the existing soils to design the building foundation. The engineer will prepare structural plans in the form of building elevations, floor plans, foundation plans, reinforcing plans, structural cross sections, and details suitable for establishing the requirements of a pre-engineered metal building. The engineer will prepare structural specifications and cost estimates for the construction of the pre-engineered metal building. The engineer will incorporate the structural plans, specifications, and cost estimates into the project plans, project specifications and project cost estimates.
- 6. Quality Control and Design Review The engineer will conduct in-house quality control and design review meeting with experienced representatives of the engineer. The engineer will provide staff members with the opportunity to perform independent analyses of the final plans and specifications to ensure clarity, accuracy, completeness, and constructability. The electrical and structural plans will be reviewed separately by senior staff members in those disciplines. Subsequent to the independent reviews, a special in-house project review meeting will be conducted to discuss and consolidate the findings of the reviewers. The recommendations of the design review team will be incorporated into the final plans and specifications.

Expenses - The engineer will incur certain miscellaneous project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

ARTICLE C - ENVIRONMENTAL SERVICES

1. Regulatory Review - The engineer will evaluate the preliminary design of the project to determine the environmental impacts of the project. The engineer will review the latest

pertinent Federal, State, and local environmental regulatory measures for recent changes and compliance issues. The engineer will contact the appropriate Federal, State, and local regulatory authorities to ascertain the permitting requirements for the project based on the anticipated final design and its potential environmental impacts. The engineer will contact regulatory authorities through telephone calls, letter correspondence, fax, and email to confirm environmental, aviation, and municipal zoning regulations. The engineer will review the available environmental documents including the airport master plan and wetlands studies for environmental issues and recommendations. The engineer will incorporate the recommendations of the regulatory agencies into the final design of the project to mitigate the environmental aspects of the project.

2. Facility Storm Water Pollution Prevention Plan - The engineer will amend the Sponsor's airport Storm Water Pollution Prevention Plan (SWPPP) which was prepared in 1996 for the Sponsor's airport industrial use as required by the National Pollution Discharge Elimination System (NPDES) regulations. The engineer will prepare a revised airport base map depicting the hangar development and other incidental changes. The engineer will prepare a narrative describing the changes at the airport. The engineer will deliver the revised base map and narrative to the Sponsor for inclusion in the SWPPP as an appendix.

Expenses - The engineer will incur certain miscellaneous project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, newspaper advertisements, permit application fees, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

ARTICLE D - PROJECT ADMINISTRATION

- 1. Scope of Services and Contract The engineer will communicate and coordinate with the Sponsor via telephone, letters, fax, and email requesting the authority to proceed with the preliminary phases of the proposed project pending the execution of the engineering services agreement. The engineer will prepare an engineering services agreement including a detailed work scope narrative and itemized fee schedules for submission to the Sponsor, the state, and the FAA for review and approval. The engineer will coordinate the preparation of the contract with the staff of their planning, CADD, and environmental departments.
 - a. The engineer will make changes to the work scope narrative and the fee schedules of the selected proposal. The engineer will make changes to the contract document standard provisions at the request of the Sponsor's legal counsel and with the approval of the engineer's executive management. The engineer will prepare letters of transmittal and will distribute three (3) copies the final contract to the Sponsor and the engineer's executive management for original authorized signatures. The engineer will prepare letters of transmittal and will distribute one (1) signed original copy of the fully executed contract to the Sponsor, one (1) signed original copy to the engineer's executive management, one (1) signed photocopy to the state, and one (1) signed photocopy to the FAA.
- 2. FAA Grant Application The engineer will prepare seven (7) copies of the formal FAA grant application including letters of transmittal, Standard Form 424, Standard Form 5100-100, project narrative, cost estimate, project schedule, location sketch, statement of environmental

- action, statement of airport user coordination, statement of intergovernmental coordination, statement of Sponsor DBE program status, Sponsor certifications, and grant assurances. The engineer will submit the grant application to the Sponsor with transmittal letters for signatures and forwarding to the FAA and state. The engineer will review the Federal grant offer and assist the Sponsor in complying with the terms and conditions of the grant offer.
- 3. Executive Order 12372 The engineer will communicate with the Anystate Office of State Planning to confirm the requirements of the submission package for intergovernmental agency review in accordance with Executive Order 12372. The engineer will prepare and submit six (6) copies of the submission package with a cover letter. The engineer will also prepare and deliver one (1) submission package with a cover letter directly to the U.S. Fish and Wildlife Service to facilitate Federal agency review of the proposed project. The engineer will obtain response letters at the end of the review period identifying specific requirements to be incorporated into the proposed project.
- 4. Reimbursement Requests The engineer will prepare the Federal and State reimbursement requests including letters of transmittal to the FAA and state. The engineer will compile the Sponsor administration costs, engineering costs, subconsultant costs and construction costs.
 - a. The engineer will compile, review, and approve the contractor's construction cost data and will prepare periodic cost estimates. The engineer will submit periodic cost estimates to the contractor for signature and return to the engineer for inclusion in the reimbursement requests.
- 5. In-House Administration The engineer will provide general project administration and coordination including in-house staff review of the project's progress, in-house staff communication, and dissemination of project data and information to in-house staff in the form of internal memos, discussions, meetings, and updates to apprise the project team of new developments throughout the design phases of the project. The engineer will prepare an in-house project work plan for distribution to the engineer's design team members to inform them of the project goals and objectives including scope of work, team assignments and responsibilities, project budget, project schedule, project contacts, and contract requirements, obligations, and limitations.
- 6. Outside Administration The engineer will provide general project administration and coordination including disseminating interim project data and information to the Sponsor, the state, the FAA, and the engineer's subconsultants in the form of telephone conversations, letters, faxes, email, copies, etc. to apprise the Sponsor, the state, and the FAA of new developments throughout the design phase of the project.
- 7. Accounting Administration The engineer will provide general project administration and coordination with the staff of their accounting department. The engineer will prepare the internal close out forms. The engineer will verify and reconcile the monthly accounting statements and will prepare memos for adjustments and corrections when necessary. The engineer will approve and process invoices received from subconsultants and vendors providing services to the engineer throughout the design phases of the project. The engineer will prepare and submit monthly invoices to the Sponsor for services provided to the Sponsor and for costs incurred by the engineer and their subconsultants. It is anticipated that a total of six (6) invoices will be prepared and submitted during the course of the project.

- 8. Miscellaneous Administration The engineer will provide miscellaneous project administration and coordination duties which are not specifically addressed or anticipated in other project related tasks including telephone conversations with the Sponsor, the state, the FAA, and other interested parties; disseminating interim project information to the Sponsor, the state, the FAA, and other interested parties; and organizing, maintaining, and archiving the project records for six (6) years.
- 9. Disadvantaged Business Enterprise Program The engineer will update the airport Disadvantaged Business Enterprise (DBE) program in accordance with 49 CFR Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. The engineer will review the methodology for evaluating the availability of DBE businesses to provide services and products for airport projects in the Federal fiscal year 20XX. The engineer will review the airport's service area by analyzing the utilization of DBE businesses on previous airport projects. The engineer will prepare a legal advertisement describing the revised DBE utilization goal and methodology. The engineer will deliver the advertisement to the Sponsor to publish in one (1) newspaper as a public notice to provide a thirty day public comment period. The engineer will submit the revised DBE program to the FAA Office of Civil Rights review and comments. The engineer will prepare the DBE program annual update on Form 4XXX at the conclusion of Federal fiscal year 20XX to reflect the actual DBE utilization on airport projects.

Expenses - The engineer will incur certain miscellaneous project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

ARTICLE E - BIDDING SERVICES AND CONSTRUCTION ARRANGEMENTS

- 1. Bid Documents The engineer will prepare XX sets of bid documents comprising the construction plans, construction specifications, and construction contract in accordance with the requirements of the Sponsor, the state, and the FAA.
- 2. Bid Advertisement The engineer will prepare a legal advertisement and deliver it to three (3) newspapers to publish as a solicitation for construction bids in accordance with the Sponsor's bidding procedures. The engineer will deliver the bid advertisement to five (5) plan viewing rooms for publication in order to maximize the project exposure and generate widespread consultant interest in the project. The engineer will communicate with the plan viewing rooms and similar industry entities to provide technical information for their publications. The engineer will notify the state and the FAA of the project's advertisement.
- 3. Distribute Bid Documents The engineer will contact consultants who are potential bidders in order to maximize consultant participation in the project. The engineer will issue the bid documents to the interested bidders and to five (5) plan viewing rooms. The engineer will maintain a list of the bid document recipients including the recipient's name, overnight mailing address, telephone number, and fax number for use in issuing addenda. The engineer will distribute the bid document recipient list to interested parties if requested by potential bidders.

- 4. Pre-Bid Conference The engineer will attend the pre-bid conference at the airport to present the project to interested parties and to answer consultants' and subconsultants' questions. The engineer will conduct a site walk of the project area to allow the consultants and subconsultants to observe the existing conditions first-hand and to ask questions regarding their observations. The engineer will prepare written responses to questions that require additional information that is not available at the time of the pre-bid conferences. The engineer will distribute the responses to the bid document recipients and pre-bid conference attendees.
- 5. Bid Questions and Addenda The engineer will answer questions and provide technical advice to the potential bidders concerning the bid documents. The engineer will answer questions and provide technical advice to the Sponsor concerning the bid documents. The engineer will prepare and issue one (1) addenda to the bid document recipients to clarify, modify, or correct the bid documents.
- 6. Bid Analyses, Recommendation and Award The engineer will conduct a detailed analysis of the consultants' bids for completeness and accuracy and will note omissions and discrepancies. The engineer will compile a bid summary comprising the results of the bids for distribution to the bid document recipients. The engineer will write a letter to the Sponsor recommending the award of the construction contract to the apparent low bidder based on the bid analyses. With the concurrence of the Sponsor, the state and the FAA, the engineer will issue a written notification to the successful bidder informing the bidder of the bid results. The engineer will disseminate the bid results to the plan viewing rooms.
- 7. Bid Sureties The engineer will issue letters to the unsuccessful bidders returning the bid sureties, distributing the bid summary, and describing the bid results. The engineer will return the bid surety to the successful bidder after the bidder has executed the construction contract. The engineer will return the bid surety to the second low bidder after the successful bidder has executed the construction contract.
- 8. Consultant Coordination The engineer will prepare six (6) copies of the consultant's bid proposal package for use as the construction contract document. The engineer will coordinate with and provide information to the consultant to facilitate the preparation and execution of the construction contract document. The engineer will review the consultant's construction contract for accuracy and completeness before submitting the document to the Sponsor for final signatures. The engineer will prepare a checklist of tasks to be performed by the Sponsor to fully execute the construction contract. The engineer will distribute the construction contract documents at the preconstruction conference.

Expenses - The engineer will incur certain project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

ARTICLE F - CONSTRUCTION ADMINISTRATION

1. Preconstruction Conference - The engineer will coordinate the time, date, and location of the preconstruction conference. The engineer will notify the Sponsor, the FAA, the state, the consultant, the resident engineer, and other interested parties of the preconstruction

- conference and will invite their representatives to attend. The engineer will conduct the preconstruction conference in accordance with FAA AC 150/5300-9, *Predesign, Prebid, and Preconstruction Conferences for Airport Grant Projects*, to ensure that the attendees are aware of the design, construction, and safety requirements of the project and are informed of their individual responsibilities.
- 2. Shop Drawing Review The engineer will review the shop drawings and materials submittals that are furnished by the consultant as required by the construction contract documents. The engineer will either fully approve, conditionally approve, or reject the shop drawings and materials. The engineer will return conditionally approved and rejected shop drawings and materials submittals to the consultant for changes or revisions prior to the use of the materials on the project. The engineer will review only one resubmission of a conditionally approved or rejected shop drawing or submittal. The engineer will prepare and maintain a submittal register identifying the submittal number, description, specification section, specification paragraph, received date, action date, and action taken. The engineer will distribute copies of the submittals and the updated submittal register to the Sponsor and the consultant.
- 3. Construction Administration The engineer will provide general consultation and advice to the Sponsor during the construction phase of the project. The engineer will provide general coordination between the Sponsor, the state, and the FAA during the construction phase of the project. The engineer will assist the Sponsor with the preparation and issuance of change orders, recommend construction specification waivers, and advise the Sponsor as to the consultant's performance. The engineer will review daily progress reports, monthly construction progress reports, wage survey records, and certified payrolls. The engineer will distribute copies of the monthly construction progress reports to the Sponsor, the FAA, and the state.
 - a. The engineer will provide general supervision and support to the resident engineer including, but not limited to, coordinating field survey personnel, processing the resident engineer's weekly time sheets and expense sheets, providing technical documentation, providing field office supplies and materials, performing construction contract interpretation, analyzing unusual or unique developments or complications during construction, and communicating and corresponding with the consultant regarding contract administration, project changes, bonding and insurance issues, and other construction related matters.
 - b. The engineer will communicate and coordinate with the consultant on a regular basis throughout the construction phase of the project in the form of teleconferences, letters, memos, faxes, and email.
- 4. Site Visits The engineer will make visits to the construction site to observe the progress, safety, and quality of the construction. The engineer will coordinate the site visits with the Sponsor and representatives of the electrical and structural divisions. The engineer's representatives will meet with the representatives of the Sponsor and the consultant to discuss the project's progress and to identify areas of concern to facilitate the construction.
- 5. Final Inspection The engineer will conduct a site walk and final inspection of the project to confirm the completeness and quality of the construction. The engineer will coordinate the date and time of the final inspection via teleconferences, letters, faxes and email to the Sponsor, the FAA, the state, the resident engineer, and the consultant. The engineer will

- prepare a summary report of the final inspection, including a punch list of work items that the consultant must accomplish to complete the project. The engineer will distribute the summary report to the Sponsor, the FAA, the state, the resident engineer, and the consultant.
- 6. Record Drawings The engineer will prepare four (4) sets of paper copies of the record drawings and final quantities representing the completed project and reflecting the actual work accomplished during construction. The engineer will distribute the four (4) sets of record drawings to the Sponsor, the FAA, and the state for signatures. The engineer will prepare and distribute one (1) set of mylar copies of the record drawings to the Sponsor after the record drawings have been signed by all parties. The engineer will provide the Sponsor with electronic files of the record drawings in AutoCAD DWG format and PDF format on CD-ROM.
- 7. Airport Layout Plan Drawing The engineer will update the electronic versions of the Ultimate Airport Layout Plan drawing which is identified as Sheet 3 of the Airport Layout Plan drawing set. The engineer will update the drawing to reflect the actual work accomplished by the project.
- 8. Airport Terminal Area Plan Drawing The engineer will update the electronic version of the Airport Terminal Area Plan drawing which is identified as Sheet 4 of the Airport Layout Plan drawing set. The engineer will update the drawing to reflect the actual work accomplished by the project and previous airport development.
- 9. Project Close Out Report The engineer will prepare the final project documentation in the form of a project close out report that consolidates the project related information that will be required by the FAA to formally close out the project. The engineer will include in the close out report all general, fiscal, miscellaneous, engineering and construction information, and submissions/certifications listed on the FAA project closure summary checklist. The engineer will distribute one (1) copy of the project close out report each to the Sponsor, the FAA and the state.

Expenses - The engineer will incur certain project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, and long distance telephone calls from the field. These expenses will be included in the engineer's contract with the Sponsor.

Outside Services - The engineer will incur certain project related costs during the construction administration phase of the work in the form of subconsultant costs for geotechnical testing services. These costs will be included in the engineer's contract with the Sponsor.

ARTICLE G - TECHNICAL OBSERVATION OF CONSTRUCTION

Resident Engineer - The engineer will provide a qualified construction resident engineer to
observe that the construction is carried out in reasonable conformity with the contract
documents and in accordance with the customary practices of professional engineers and
consultants. The resident engineer will be available for both full-time and part-time
construction observation services during the 90 calendar day duration of the project as
required by the nature of the ongoing construction activities.

- a. For budgeting purposes, the resident engineer can be available sixteen (16) hours per week for twelve (12) weeks including travel time for a total of 192 hours during the course of the construction. The resident engineer can also be available for eight (8) hours to attend the final inspection. Variations to this proposed manhour distribution may be necessary as the work progresses but must not exceed 200 manhours. Additional manhours for the resident engineer must be addressed by a supplemental agreement.
- b. The resident engineer will be the engineer's primary contact with the consultant and their subconsultants during the course of construction. The resident engineer will be available to meet with the representatives of the Sponsor, the FAA, the state, and other interested parties at the project location. The resident engineer will coordinate and supervise the engineer's subconsultants and personnel who are performing on-site testing, surveying, or other project related services.
- c. The resident engineer will monitor and coordinate the construction progress; will coordinate with the Sponsor, the engineer, and the consultant; will provide construction oversight to ensure that the work is proceeding according to the construction contract documents; and will notify the engineer if problems, disputes, or changes arise during the course of construction.
- d. The resident engineer will prepare and maintain cost estimates and construction quantity estimates for use in preparing monthly payment reimbursement requests and for monitoring the progress of the consultant's work. The resident engineer will prepare daily construction progress reports of the construction activities that are observed and will submit the reports to the engineer for review. The resident engineer will prepare monthly construction summary reports of completed work that has been accepted and approved by the consultant and will submit the reports to the engineer for review.
- e. The resident engineer will conduct Federal wage rate surveys with the consultant's personnel and their subconsultants' personnel to ensure compliance with the U.S. Department of Labor regulations for federally funded construction projects. The resident engineer will submit the wage rate survey records to the engineer for review.
- f. The resident engineer will assist the consultant with construction surveying to identify the limits of work, to determine elevations and grades, to locate physical features discovered during the course of construction, and to calculate quantities of materials either removed or utilized on the project. The consultant's construction survey data will be incorporated into the record drawings at the completion of the project. The engineer will provide the resident engineer with CADD support to plot the results of the construction survey data and to generate electronic drawings, sketches, and details at the request of the resident engineer to facilitate the construction.

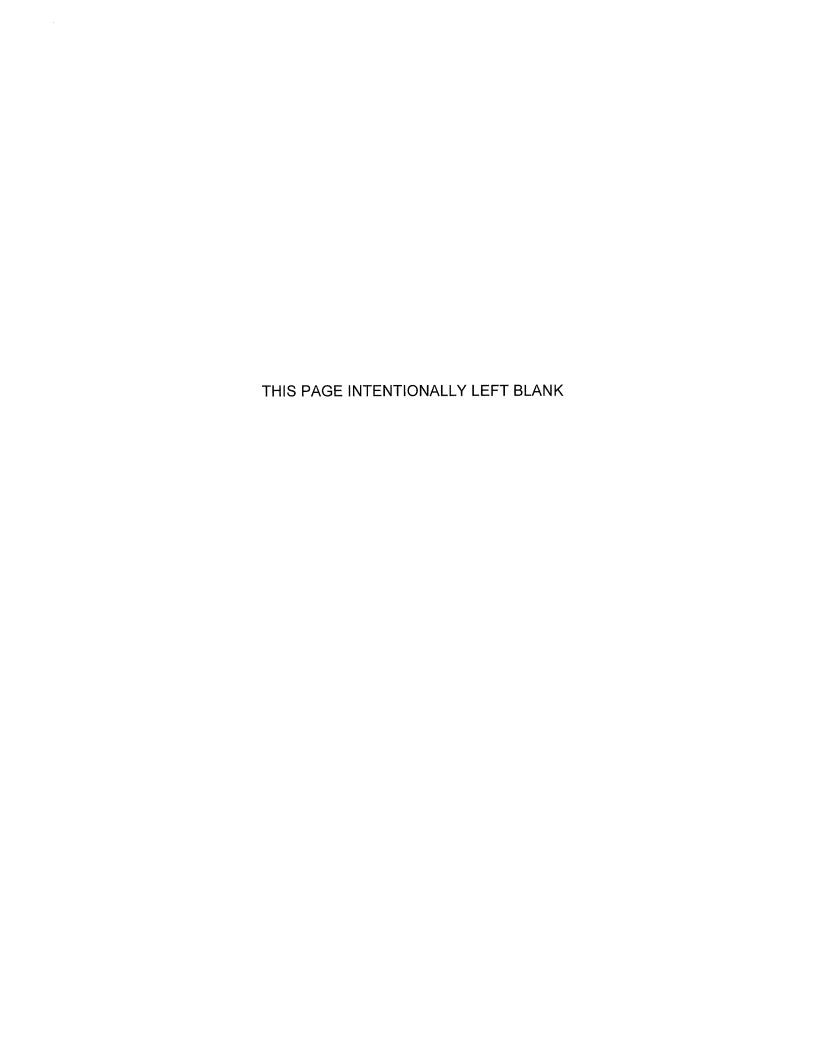
Expenses - The engineer will incur certain project related expenses during the course of the technical observation of construction phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, blueprints, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

9/25/2015

Outside Services - The engineer will incur certain project related costs during the technical observation phase of the work in the form of geotechnical subconsultant costs for quality assurance testing of construction materials and practices. These costs will be included in the engineer's contract with the Sponsor.

Appendix F

(Consultant Services Fee-Costs Sample)



CONSULTANT SERVICES FEE/COSTS SAMPLE

This example can be modified as necessary for any type of project.

TASKS *	SCOPE AND TYPE OF SERVICES	CLASSIFICATIONS HOURS					TOTAL
		Principal	Project Manager	Sr. Airport Planner	Environ. Analyst	Technician Clerical	TOTALS
L. Project Scoping Meetin		0	0	0	1	HOURS WILL VARY PE	
2. Refine Scope and Fee	WILL VARY PER FIRM AND PROJECT TYPE	0	0	0	1 1888	LEVEL OF EFFORT AN	
3. Prepare Grant Application		0	0	0		NEGOTIATIONS	
4. Attend Airport Board Meeting		0	0	0	() O [
5. Update Existing Activity		0	0	0	(0	
6. Field Inventory		0	0	0		0	
7. Identify On-Airport Development Land		0	0	0		0	
8. Evaluate Existing Lease Agreements		0	0	0) 0	
9. Update Forecast		[o [0	0	() 0	
10. 1st Review and Response to Comments		0	0	0	COMPONENT LESS MESSAGEMENT LA SE		
11. Landside Facility Capacity & Requirements		1 0		0			
12. Meeting			0	0			
13. 2nd Review and Response to Comments		1 0		0		CONTRACTOR	
14. Identify Limits of Aviation Development		0	Ö	0			
15. Identify Development Alternatives		0	0	0		COLOMB CANCEL MECHANICA PROPERTY AND	
16. Review and Response to Comments				0		CONTRACTOR	
17. Identify Existing Environmental Conditions		0	0	0			
18. Describe Regulatory Requirements				0	MARKET STATE OF THE STATE OF TH	WHEN PROPERTY AND PROPERTY.	
19. Prepare and Forward Draft Findings			international de la construcción d O	0	(
		. 0		0	***************************************	Andrean Commission of the Comm	
20. Implementation/Capital Improvement Plan		and the second second	S WILL VARY PE			#Met/Kar@Attockholysolpackatoperatelicopery.cospypatron	
21, Existing Airport Facilities Plan		/					
22. Ultimate Airport Facilities Plan				URS MULTIPLIED			
23. Final Meetings		finished to	HOURLY R				
24. Prepare and Forward Final Report		/0	0	0		and the constitution of the same and	
25. Prepare and Forward Final Airport Layout Plan		0	0		FIT BASED OF		
A/E'S CERTIFIED OVERHEAD RATE	Subtotal Hours	- 0	0	California (California)	OR HOURS		
	Basic Hourly Rate		\$0.00	\$0.00	\$0.00		
	Direct Salary Costs	<u> </u>	\$0.00	\$0.00	\$0.00		
Labor & General Administrative Overhead (0.00%)		\$0,00	\$0.00	\$0.00\	\$0.00		
	Subtotal Salary Costs	\$0.00	\$0.00	\$0.00 \	\$0.00		**
NON-SALARY COSTS	p	EIMBURSABLE EXF ASS-THROUGH CO UBJECT TO MARKI	STS NOT		1	al Salary Costs = (Labor Costs) =	\$0 \$0
A, Reimbursable Expenses		Quantity	Unit	Rate	Subtotal		
Mileage	·· A remarkantakan kendalan kanalakan kenderi wasari kendada kunin kenderi kan menderi kan dalembah kendalan kendalan dalembah kendalan da	O	Miles	\$0.00	\$0.00		
Lodging	tematika kan dilanta menaman terketan kan dia kan mendan dia pendanan dilah dian diaken kan diaken kan dipida	0	Day	\$0.00	\$0.00	and the second s	
Subsistence Per Diem		0	Day	\$0.00	\$0.00	-	
Printing		0	LS	\$0.00	\$0.00		
Mailing		0	LS LS	\$0.00			
					\$0,00		
Supplies		0	LS Contract	\$0.00	\$0.00		
B. Subcontracting Expenses		Contract Value	Type	Fixed Fee	Subtotal		
Services		o	Hourly	\$0.00	\$0.00		
Services			eost-Plus	\$0.00	\$0.00		
		0	and the second	In a commence of the commence	NAME OF THE PERSON OF THE PERS		
Services Sub-Consultant No. Sub-Consultant No.		l el	Lump Sum	\$0.00	\$0.00	1	



Appendix G

(City of Long Beach General Requirements Supplement For Federally Funded Professional Services (A/E) Contracts Under the Alrport Improvement Program (AIP))



City of Long Beach General Requirements Supplement For Federally Funded Professional Services (A/E) Contracts Under the Airport Improvement Program (AIP)

ACCESS TO RECORDS AND REPORTS

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION to ENSURE EQUAL EMPLOYMENT OPPORTUNITY

- 1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
- 2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for minority participation for each trade: 28.3 %

Goals for female participation in each trade: 6.9%

These goals are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the

contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

- 3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
- 4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is *City of Long Beach, Los Angeles County, California*.

BREACH OF CONTRACT TERMS

Any violation or breach of terms of this contract on the part of the Consultant or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Consultant written notice that describes the nature of the breach and corrective actions the Consultant must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Consultant must correct the breach. Owner may proceed with termination of the contract if the Consultant fails to correct the breach by the deadline indicated in the Owner's notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

GENERAL CIVIL RIGHTS PROVISIONS

The Contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

Title VI Solicitation Notice:

The (Name of Sponsor), in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that any contract entered into pursuant to this advertisement, [select disadvantaged business enterprises or airport concession disadvantaged business enterprises] will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Compliance with Nondiscrimination Requirements:

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

- 1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- 2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
- 3. Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

- 4. Information and Reports: The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
- 5. Sanctions for Noncompliance: In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
- 6. Incorporation of Provisions: The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964):
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose

- property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 et seq.)
 (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 et seq).

CLEAN AIR AND WATER POLLUTION CONTROL

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC § 740-7671q) and the Federal Water Pollution Control Act as amended (33 USC § 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceeds \$150,000.

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally assisted

contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this clause.

4. Subcontractors.

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

COPELAND "ANTI-KICKBACK" ACT

Contractor must comply with the requirements of the Copeland "Anti-Kickback" Act (18 USC 874 and 40 USC 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

DAVIS-BACON REQUIREMENTS

- 1. Minimum Wages.
- (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

- (ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination;
- (2) The classification is utilized in the area by the construction industry; and

- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program: *Provided* that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.
- 2. Withholding.

The Federal Aviation Administration or the sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and Basic Records.

- (i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and that show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission

to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at www.dol.gov/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (1) The payroll for the payroll period contains the information required to be provided under 29 CFR $\S 5.5(a)(3)(ii)$, the appropriate information is being maintained under 29 CFR $\S 5.5 (a)(3)(i)$, and that such information is correct and complete;
- (2) Each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;
- (3) Each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

- (D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.
- (iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the sponsor, the Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered. the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices

shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act Requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

- 10. Certification of Eligibility.
- (i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC 1001.

CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

- 1. Checking the System for Award Management at website: http://www.sam.gov.
- 2. Collecting a certification statement similar to the Certification of Offerer /Bidder Regarding Debarment, above.
- 3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

DISADVANTAGED BUSINESS ENTERPRISES

Contract Assurance (§ 26.13) -

The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of Department of Transportation-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Owner deems appropriate, which may include, but is not limited to:

- 1) Withholding monthly progress payments;
- 2) Assessing sanctions;
- 3) Liquidated damages; and/or

4) Disqualifying the Contractor from future bidding as non-responsible.

Prompt Payment (§26.29) – The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contractor receives from City of Long Beach. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the City of Long Beach. This clause applies to both DBE and non-DBE subcontractors.

TEXTING WHEN DRIVING

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving", (10/1/2009) and DOT Order 3902.10, "Text Messaging While Driving", (12/30/2009), the Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$3,500 that involve driving a motor vehicle in performance of work activities associated with the project.

ENERGY CONSERVATION REQUIREMENTS

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to energy efficiency as contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6201*et seq*).

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are

treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identify, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

- (2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- (3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24,

1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however*, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

- 1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
 - d. "Minority" includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- 2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

- 3. If the Contractor is participating (pursuant to 41 CFR part 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
- 4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
- 5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- 6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Contractor during the training period and the Contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.
- 7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications

shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or female sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and

collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions, including specific review of these items, with onsite supervisory personnel such superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
- I. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all

personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

- n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally), the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.
- 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

- 11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
- 13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR part 60-4.8.
- 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
- 15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

CERTIFICATION REGARDING LOBBYING

The Bidder or Offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

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

PROHIBITION OF SEGREGATED FACILITIES

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.

- (b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.
- (c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

OCCUPATIONAL SAFETY AND HEALTH ACT

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

PROCUREMENT OF RECOVERED MATERIALS

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- 1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or
- 2) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products.

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

RIGHTS TO INVENTIONS

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within 37 CFR §401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

SEISMIC SAFETY

In the performance of design services, the Consultant agrees to furnish a building design and associated construction specification that conform to a building code standard that provides a level of seismic safety substantially equivalent to standards as established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their building code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety. At the conclusion of the design services, the Consultant agrees to furnish the Owner a "certification of compliance" that attests conformance of the building design and the construction specifications with the seismic standards of NEHRP or an equivalent building code.

TERMINATION FOR CONVENIENCE (PROFESSIONAL SERVICES)

The Owner may, by written notice to the Consultant, terminate this Agreement for its convenience and without cause or default on the part of Consultant. Upon receipt of

the notice of termination, except as explicitly directed by the Owner, the Contractor must immediately discontinue all services affected.

Upon termination of the Agreement, the Consultant must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

TERMINATION FOR DEFAULT (PROFESSIONAL SERVICES)

Either party may terminate this Agreement for cause if the other party fails to fulfill its obligations that are essential to the completion of the work per the terms and conditions of the Agreement. The party initiating the termination action must allow the breaching party an opportunity to dispute or cure the breach.

The terminating party must provide the breaching party [7] days advance written notice of its intent to terminate the Agreement. The notice must specify the nature and extent of the breach, the conditions necessary to cure the breach, and the effective date of the termination action. The rights and remedies in this clause are in addition to any other rights and remedies provided by law or under this agreement.

- a) **Termination by Owner**: The Owner may terminate this Agreement in whole or in part, for the failure of the Consultant to:
 - 1. Perform the services within the time specified in this contract or by Owner approved extension;
 - 2. Make adequate progress so as to endanger satisfactory performance of the Project; or
 - 3. Fulfill the obligations of the Agreement that are essential to the completion of the Project.

Upon receipt of the notice of termination, the Consultant must immediately discontinue all services affected unless the notice directs otherwise. Upon termination of the Agreement, the Consultant must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

If, after finalization of the termination action, the Owner determines the Consultant was not in default of the Agreement, the rights and obligations of the parties shall be the same as if the Owner issued the termination for the convenience of the Owner.

- b) **Termination by Consultant**: The Consultant may terminate this Agreement in whole or in part, if the Owner:
 - 1. Defaults on its obligations under this Agreement;
 - 2. Fails to make payment to the Consultant in accordance with the terms of this Agreement;
 - 3. Suspends the Project for more than [180] days due to reasons beyond the control of the Consultant.

Upon receipt of a notice of termination from the Consultant, Owner agrees to cooperate with Consultant for the purpose of terminating the agreement or portion thereof, by mutual consent. If Owner and Consultant cannot reach mutual agreement on the termination settlement, the Consultant may, without prejudice to any rights and remedies it may have, proceed with terminating all or parts of this Agreement based upon the Owner's breach of the contract.

In the event of termination due to Owner breach, the Engineer is entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all justified reimbursable expenses incurred by the Consultant through the effective date of termination action. Owner agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18 USC Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

VETERAN'S PREFERENCE

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 USC 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

EXHIBIT "A-2"

Scope of Work



GENERAL PROJECT PROPOSAL FOR

TAXIWAY LIMPROVEMENTS

SUBMITTED TO
CITY OF LONG BEACH

NOVEMBER 22, 2019



November 22, 2019

City of Long Beach
Purchasing Division
Members of the Selection Committee
411 W. Ocean Blvd., 6th Floor
Long Beach, CA 90802

RE: Burns & McDonnell's General Project Proposal for Taxiway L Improvements

Dear Members of the Selection Committee:

Long Beach Airport (LGB/the Airport) is undertaking a multi-year airfield reconfiguration to resolve many of the "hot spots" identified by the FAA Runway Safety Team in 2002 and will benefit from the support of a team who brings more than 75 years of experience working with the aviation industry on infrastructure improvement programs. Burns & McDonnell has strategically gathered a team of local professionals with positive past experience at LGB, who are dedicated to providing quality services under time-sensitive constraints. Our team brings the experience, commitment, and quality you need to make this contract a success.

Below is our general project proposal for Taxiway L improvements project. Appendix A is a draft Preliminary Engineer's Report for the Taxiway L.

1.0 GENERAL

The City of Long Beach, (Airport) intends to design and reconstruct Taxiway L at Long Beach Airport. The CITY intends to retain the services of a Civil Engineering Consultant to prepare the design, provide project management and technical services, bidding assistance, construction administration and other professional services related to this PROJECT. The CONSULTANT will consult with airport personnel and others who are involved with the project and who will provide advice and assistance in accomplishing the work.

2.0 PROJECT DESCRIPTION

Reconstruct Existing Taxiway L

The project includes improvements to pavement marking, lighting, signage and drainage systems. Drainage system improvements will consist of under-drain facilities for the portion of the taxiway between, and adjacent to, the Lakewood Boulevard and Spring Street underpasses to alleviate sub-grade saturation caused by ground water build up. Approximately 337,500 sf of taxiway pavement will be reconstructed using P-501 Portland cement concrete between, and including, the Lakewood Boulevard and Spring Street underpasses, Approximately 225,000 sf will be rehabilitated via cold milling and replacing asphalt pavement Taxiway L3 will be relocated off o the Spring Street underpass and aligned closer to the displaced threshold for 12-30. AIP and future PFC funds will be used.



Additionally, the Spring Street and Lakewood Boulevard underpasses will be evaluated to determine their existing structural capacity.

The new section(s) will be designed for a 20-Year life for both Asphalt Concrete and Portland Cement Concrete pavements and a cost/benefit analysis developed for both pavement types.

The electrical lighting and signage system will be updated to include new electrical infrastructure, circuits and conduits for the new taxiway geometry. LED fixtures and signs will replace existing fixtures.

Drainage improvements per the airport drainage master plan will be incorporated into the construction project. These improvements include infield grading and underground drainage system in the Lakewood and Spring Street Tunnels areas.

3.0 SCOPE OF SERVICES - GENERAL

- A. The CONSULTANT shall provide the Airport professional engineering services in all phases of the project for which this scope of work applies. The CONSULTANT shall assign a Project Manager who will be available as necessary to coordinate and accomplish the requirements of the Projects within required time frames from beginning of design through the completion of construction.
- B. The CONSULTANT'S work shall start immediately upon written notice by the City. The CONSULTANT shall prepare a schedule identifying phases of design including milestones, review and approval periods and shall submit schedule for review within fifteen (15) days of "Notice to Proceed". When necessary, the CONSULTANT shall endeavor to modify or accelerate its services to remain on schedule.
- C. The CONSULTANT'S work shall conform to the project control budget as approved by the Airport.
- D. The CONSULTANT shall coordinate its work with and submit for approvals, as necessary, from the Airport, the Federal Aviation Administration (FAA) and other regulatory agencies having jurisdiction over the project.
- E. The CONSULTANT shall meet with the designated representatives of the Airport to ascertain project requirements and/or incorporate their recommendations into the project's design.
- F. The CONSULTANT shall be responsible for the coordination of its design with utility companies and existing Airport electrical infrastructure.
- G. The CONSULTANT shall design the Project in accordance with the current FAA Advisory Circulars.



- H. The CONSULTANT shall provide concepts for implementation that incorporates phasing providing minimal interference with airport operations and to maintain efficient Airport and tenant operations during construction.
- I. The CONSULTANT shall participate in design review meetings with the Airport and others with the objective of developing a complete, comprehensive and workable design for this project.

4.0 PHASE 1. PRELIMINARY DESIGN

The following services will be provided by the CONSULTANT during the Preliminary Design Phase.

Task 4.1 Project Management

The CONSULTANT shall perform activities necessary to plan, direct and coordinate the work of the CONSULTANT'S staff and sub consultants, attend design meetings at the City's offices and provide progress reporting. The CONSULTANT has budgeted three (3) meetings during the Preliminary design phase.

Task 4.2 Coordinate with Stakeholders

The CONSULTANT shall coordinate with Airport Operations, FAA tower, and the airlines to minimize impacts in day to day operations of the airlines and air cargo lines.

Task 4.3 Survey Information

The CONSULTANT shall coordinate with the Airport's Project Manager for required survey information.

Task 4.4 Prepare Phasing Plan

The CONSULTANT shall prepare an overall construction phasing plan in order to maximize project constructability and minimize interference with Airport operations. The Consultant's phasing plan must take into account other Airport construction projects.

Task 4.5 Develop Aircraft Design Mix

The CONSULTANT shall determine aircraft usage through coordination with Airport staff and information furnished by the Airport. Design the pavement to meet the anticipated aircraft traffic.

Task 4.6 Structural Analysis

The CONSULTANT shall perform a complete structural analysis of the lake wood and Spring Street tunnels, including aircraft capacity limits.

5.0 PHASE 2. ENGINEERING DESIGN PHASE - 50% DESIGN SUBMITTAL

The following services will be provided by the CONSULTANT during the Engineering Design Phase



Task 5.1 Project Management

The CONSULTANT shall perform activities necessary to plan, direct and coordinate the work of the CONSULTANT'S staff and sub consultants, attend design meetings at the AIRPORT's offices, prepare design schedules, and provide progress reporting. The CONSULTANT has budgeted two (2) site visits/meetings during the schematic design phase.

Task 5.2 Data Collection

Review as-built drawings of the existing taxiways. Review Pavement Management Plan and field verify pavement conditions expressed in the Pavement Management Plan. Review existing electrical lighting and signage. Field verify and develop butterfly diagrams for all affected electrical circuits/manholes, including the home-runs to the airfield electrical vault.

Taks 5.3 Review and Evaluate Project Layout

The CONSULTANT shall verify master plan dimensions and data and review findings and recommendations with Airport personnel.

Task 5.4 Surveying

The CONSULTANT shall perform surveying of the PROJECT site necessary for design of the PROJECT.

5.4.1 Horizontal Project Control

Recover existing monumentation and set additional monuments in the vicinity of the project. Position the new monuments based on existing monumentation and the local coordinate system. Prepare a Survey Control Plan for inclusion in the plans.

5.4.2 Vertical Project Control

Recover existing monumentation and run differential levels over all new monuments. Check the elevations of a representative number of benchmarks. Include Vertical Project Control data in the Survey Control Plan.

5.4.3 Ground Topographic Surveys

Provide spot elevations along the centerline of Taxiway L (approximately 4,500 LF) at 50' intervals and 62.5' to either side of the taxiway centerlines and shall include centerline, edge of full- strength pavement and edge of shoulder.

Provide Hard-level shots at tie-ins to edge of full strength pavement of existing runway, taxiways and aprons to remain.

Cross section infield areas as needed for grading and drainage. Provide

Topographic Base Map with information described above.



5.4.4 Utilities

Provide locations and elevations of all surface evident utilities in the project areas and include in Topographic Base Map. Determine existing invert elevations for storm drains and daylight locations.

Provide locations of existing taxiway edge lights, signs, handholes, pullboxes, navigational aids, etc.

5.4.5 Borings

Provide locations and elevations for approximately 50 borings.

Task 5.5 Geotechnical Investigation

CONSULTANT shall provide geotechnical investigation and laboratory testing for the PROJECT site necessary for the design of the project including new structural pavement sections, groundwater levels, and earthwork including excavation, fill and subgrade preparation.

As part of the geotechnical investigation, the CONSULTANT shall review existing soil/geology literature in the project area such as geotechnical investigations, testing and design of previous projects.

The CONSULTANT shall drill approximately 50 borings to a minimum depth of 10 feet for materials sampling and establish ground water depth. The CONSULTANT shall drill approximately 10 borings in the shoulder to a minimum depth of 5 feet for materials sampling and to ascertain asphalt concrete thickness.

The CONSULTANT shall perform soil testing in order to develop soil conditions for design recommendations for pavement structural section(s) and specifications for the Taxiway and subsurface soil conditions for design of utility trenches and structural foundations for drainage, electrical and other structures. Testing shall include approximately 10 CBR tests, soil classification, moisture-density relations of soils, and corrosivity and sulfate testing.

The CONSULTANT shall prepare a report presenting the results of the geotechnical investigation including recommended earthwork guidelines including excavation, embankment, groundwater mitigation, drainage, subgrade preparation and stabilization including potential lime/cement treatment, and hazardous materials assessment.

The geotechnical investigation shall be completed in accordance with established professional practices and the current FAA guidelines.

Task 5.6 Pavement Design

The CONSULTANT shall review anticipated fleet mix at the Long Beach Airport and geotechnical investigation. Review as-builts of existing structural sections. The CONSULTANT shall provide design of structural section for 20-year life. The CONSULTANT



shall complete pavement section alternatives analysis and provide recommendations including:

- **5.6.1** Provide Initial cost analysis, Life-cycle cost analysis and analysis of locally available resources for up to three alternatives
- **5.6.2** Strategize bidding procedures and pavement section alternatives to provide a basis for competitive bidding.

Task 5.7 Construction Drawings

Prepare design for the taxiway to a 50% level. The anticipated drawings at this submittal are:

- Horizontal Geometry Layout Plan Plan and Profile Design
- Infield Drainage Plan
- Lighting and Signage layout

Task 5.8 Estimate of Probable Cost

Prepare a 50% level estimate of probable cost.

Task 5.9 Preliminary Engineer's Design Report_- including:

- Geotechnical Investigation
- Topographical Survey
- Preliminary Plans
- Pavement Section design and analysis
- Drainage design analysis
- Estimates of probable construction costs
- Final Summary and recommendations
- Phasing and scheduling recommendations

6.0 PHASE 3. FINAL DESIGN - 100% DESIGN SUBMITTAL

The following services will be provided by the CONSULTANT during the Final Design Phase – 100% Design Submittal. The CONSULTANT will provide well-defined construction requirements, with selected bid alternatives as appropriate to provide a basis for competitive construction bids. Construction schedules will be closely coordinated to endeavor the best possible weather conditions as the least possible interference with Airport operations. Assist the Airport with the advertisement , notification of local airport users, and generally complete the final construction contract documents for the project as follows:

Task 6.1 Project Management

The CONSULTANT shall perform activities necessary to plan, direct and coordinate the work of the CONSULTANT'S staff and sub consultants, attend design meetings at the City's offices and provide progress reporting. The CONSULTANT has budgeted two (2) meetings during the 100% design phase.



Task 6.2 Incorporate Comments

The CONSULTANT shall incorporate preliminary design comments and respond as necessary to requests for additional information.

Task 6.3 Construction Drawings, Specifications and Final Cost Estimate The CONSULTANT shall prepare construction drawings to a 100% level.

Task 6.4 Final Engineers Report

The CONSULTANT shall prepare the Preliminary Engineers Report per FAA requirements.

Task 6.5 Construction Safety and Phasing Plan

Prepare the Construction Safety and Phasing Plan per FAA requirements in accordance with AC 150/5370-2.

Task 6.6 FAA Review and Approval

The CONSULTANT shall solicit FAA Review and Approval.

Task 6.7 Final Quantities

The CONSULTANT shall provide final quantity calculations.

Task 6.8 Bidding Services

The CONSULTANT shall assist the Airport with advertising and interpretation of project requirements during bidding.

7.0 PHASE 4 - CONSTRUCTION ADMINISTRATIVE SERVICES

Task 7.1 Constructive Administrative Services

The CONSULTANT shall assist during construction of the project and will provide the following services.

- Assist with prebid conference and bid opening
- Conduct Pre-Construction conference.
- Provide horizontal and vertical control
- Provide periodic construction visits
- Prepare and submit construction inspection reports
- Review, analyze and approve quality assurance testing
- Respond to requests for information and clarifications.
- Provide review of all submittal and shop drawings during construction
- Provide technical assistance and recommendations to the Airport during construction.
- Conduct a final project inspection with Airport personnel, the FAA, and the Contractor.
- Prepare Record Drawings based on marked up drawings provided by the contractor.
- Prepare Final Engineer's Report.

Construction administrative services do not include daily inspection nor QA/QC surveying or material testing during construction of the project.



We appreciate the opportunity to provide this proposal to the City of Long Beach and Long Beach Airport. Please contact me at 714-989-5108 with any questions.

Sincerely,

Curt Ingraham, PE Project Manager Burns & McDonnell

Enclosure: Appendix A. Draft Preliminary Engineer's Report

DRAFT PRELIMINARY ENGINEER'S REPORT

EXECUTIVE SUMMARY

The purpose of this program is to reconstruct improvements to the existing Taxiway L and associated connector taxiway pavements at the Long Beach Airport (LGB).

Currently, Taxiway L is exhibiting rutting in the existing asphalt pavement surface. Previous maintenance projects have addressed these distressed areas using partial depth, full depth, and crack sealing repairs. The primary purpose of the rehabilitation of these airfield pavements is to completely remove the damaged asphalt pavement and replace the distressed PCC surface.

Burns & McDonnell will review the available original construction documents, record drawing, and geotechnical investigations to understand the existing pavement sections on Taxiway L. The proposed taxiway pavement improvements will consist of removing the existing asphalt pavement surface and replacing with a new PCC pavement surface on a new econocrete base course section. The taxiway and connector taxiway centerline profiles will remain mostly unchanged, with minor modifications being made to provide a smooth surface.

The rehabilitated pavement section has been designed to support anticipated aircraft traffic utilizing the Runway 12-30 complex over a 20-year structural design life. The pavement design methodology and details are included in Section 7 of this report.

The proposed limits of construction are included in Section 4. Additional improvements will include compression seals for joints, replacement of runway and taxiway in-pavement and edge light fixtures and associated lighting cable, replacement of airfield signs, airfield markings and shoulder widening and rehabilitation.

The Improvements to Taxiway L project will be constructed in multiple phases to minimize disruption to normal airfield operations.

1. INTRODUCTION

Purpose

This engineering report was prepared to provide the Federal Aviation Administration (FAA), the City of Long Beach, and Long Beach Airport (LGB) staff with an understanding of the design efforts involved in preparing the construction documents and specifications for the Improvements to the Taxiway L project at the Long Beach Airport staff.

Location

The Long Beach Airport is located approximately 3 miles northeast of Downtown Long Beach, California in Los Angeles County, California.

The Airport's main runway complex consists of Runway 12-30 with Taxiway L on the southeast side parallel to the runway. Taxiway L is a 75-foot wide taxiway with 25-foot wide shoulders and runs approximately 4,500 feet from Taxiway C to the Runway 30 end. There are multiple connectors to Runway 12-30 from Taxiway L, including Taxiways E1, E2, and E3; or L1, L2, and L3. The aircraft rated pavement surfaces on Taxiway L complex are asphalt concrete (AC) and the shoulders are also in AC.

2. GENERAL SCOPE OF PROJECT

The purpose of this project is to reconstruct the Taxiway L pavements at the Long Beach Airport. The rehabilitation of Taxiway L is due to continued rutting on the taxiway and FOD generation risk. The primary purpose of the airfield rehabilitation is to completely remove and replace the distressed asphalt pavement section and remove the continual maintenance issues associated with the taxiway. The existing airfield pavement has an area weighted PCI value of 68 and a predicted area weighted PCI of 61 at the anticipated construction date of 2022. The distresses located on the Taxiway have created significant FOD damage potential. Long Beach Airport staff is currently maintaining airfield pavements by utilizing partial depth patching and crack sealing repairs. However, the continued deterioration of the existing asphalt surface has made the minimum maintenance effort required to provide a safe level of service for Taxiway L cost prohibitive.

The proposed airfield pavement rehabilitation will include removal and replacement of the asphalt pavement system, with improvements also being made to the airfield lighting system and the existing asphalt shoulders. The proposed limits of rehabilitation for Taxiway L are as depicted in the CIP data sheet and Figure 1 as follows.

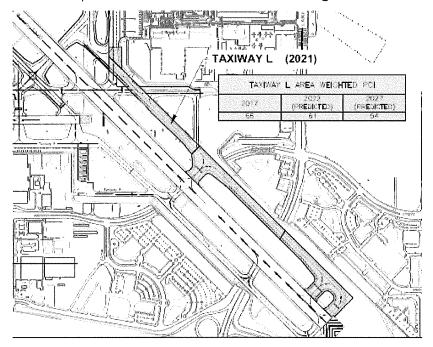


Figure 1. Taxiway L as depicted on the Approved CIP Data Sheet

Complete removal of the existing Taxiway L3 and construction of new taxiways L1 and L2 end connectors are also proposed as part of this project.

Airport Improvement Program Grants and Project Funding

Currently, an approved CIP plan has been presented and approved by the FAA for this project. Key dates for this project, which is currently anticipated to be constructed in FAA FY 2022, are provided in Table 1.

TABLE 1. TENTATIVE SCH	EDULE OF KEY DATES
Grant Application	December 2020
Bid Opening	May 2021
Grant Offer	June 2021
Grant Execution	July 2021
Construction Notice to Proceed (NTP)	November 2021
Construction Completion	August 2022

A final determination for the Award of Contract may not be made until funding from the FAA and the City of Long Beach has been confirmed.

3. DATA COLLECTION

Reference Documents

The following standards shall be incorporated during the design of this project.

FAA Advisory Circulars (AC), current edition:

AC 150/5300-13:AC 150/5320-5:	Airport Design Surface Drainage Design
• AC 150/5320-6:	Airport Pavement Design and Evaluation
• AC 150/5340-1:	Standards for Airport Markings
 AC 150/5340-18: 	Standards for Airport Sign Systems
• AC 150/5340-30:	Design and Installation Details for Airport Visual Aids
• AC 150/5345-7:	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
• AC 150/5345-26:	Specification for L-823 Plug and Receptacle, Cable Connectors
• AC 150/5345-42:	Specification for Airport Light Bases, Transformer Housing, Junction Boxes, and Accessories
 AC 150/5345-44: 	Specification for Runway and Taxiway Signs
 AC 150/5345-46: 	Specification for Runway and Taxiway Light Fixtures
• AC 150/5345-47:	Specification for Series to Series Isolation Transformers for Airport Lighting Systems
• AC 150/5345-50:	Specification for Portable Runway and Taxiway Lights
 AC 150/5345-53: 	Airport Lighting Equipment Certification Program
 AC 150/5370-2: 	Operational Safety on Airports During Construction
• AC 150/5370-10:	Standards for Specifying Construction of Airports

Other References:

- Innovative Pavement Research Foundation (IPRF), "Airfield Marking Handbook"
- Innovative Pavement Research Foundation (IPRF), "Stabilized and Drainable Base for Rigid Pavement"
- Innovative Pavement Research Foundation (IPRF), "Constructing In-Pavement Lighting, Portland Cement Concrete Pavement"

Burns & McDonnell will also acquire available construction drawings for Taxiway L and the adjacent tunnels. These documents will serve as design references for the project.

Design Standards

The guidelines set forth in FAA Advisory Circular 150/5300-13A, "Airport Design" shall be used to establish the proposed Taxiway L vertical profiles and surface grading. FAA AC 150/5300-13A also provides geometric design guidance for taxiway centerline radius, fillet, and lead-in layout based upon the current airport fleet mix, which is categorized into Taxiway Design Groups (TDG). Application of these geometric standards would result in major changes to the existing geometry of the connector taxiways to be rehabilitated by this project. In order to remain AIP eligible, this likely means reducing the width of Taxiways L1 and L2, widening the shoulders of the Taxiway L to 30 feet, and relocating and reducing the width of Taxiway L to the threshold of Runway 30.

The current fleet mix utilizing the airport includes B-737-8 and -9 aircraft, B-757-200, B767-300, A320, and A310 series aircraft, which fall within multiple Aircraft Design Group (ADG) and TDG categories. To accommodate the wide range of aircraft that utilize LGB and to provide adequate facilities for use of larger aircraft in the future, the improvements to Taxiway L are anticipated to be designed utilizing TDG-5 and ADG-V standards. The taxiway design standards applicable to this project are listed in Table 2.

TABLE 2. TAXIWAY DESIGI	N CRITERIA
Design Group	TDG-5 / ADG-V
Taxiway Width	75'
Taxiway Edge Safety Margin	15'
Taxiway Shoulder Width	30,
Taxiway Safety Area (TSA) Width	214'
Taxiway Object Free Area Width	320'
Longitudinal Surface Gradient	max 1.5%
Max. Longitudinal Grade Change	3%
Transverse Surface Gradient	1% - 1.5%
Transverse Shoulder Gradient	1.5% - 5%
Transverse TSA Gradient	1.5% - 3%

Topographic Survey

D. Woolley and Associates, a subconsultant to Burns & McDonnell, will complete the topographic survey of the required Taxiway L areas. The survey shall be performed to gather information necessary to make the required geometric improvements as well as move Taxiway L3 closer to the Runway 30 threshold. We understand that the grades on the runway will have significant impact to how the relocated Taxiway E3 connector is designed. A depiction of the anticipated survey area is included in Figure 2.



Figure 2. Anticipated Survey Area is shown in red

Geotechnical

Converse Consultants, a subconsultant to Burns & McDonnell, will perform the geotechnical investigation for the Improvements to Taxiway L project. A coring and boring plan shall be formulated such that it meets the requirements of FAA Advisory Circular 150/5320-6F, Table 2-1-Typical Subsurface Boring Spacing and Depth, which requires 10' borings spaced every 200 feet along the length of the Taxiway. This includes Taxiways L1, L2, and L3 as the subsurface information will be critical to understanding the existing subgrade conditions for potential geometric modifications. Burns & McDonnell recommends performing this amount of investigation due to the

significant amount of maintenance performed along the length of the taxiway.

Existing Bridge Evaluation

VCA, a subconsultant to Burns & McDonnell, will provide the existing tunnel evaluation for both the Spring Street and Lakewood Boulevard tunnels that lie underneath the existing Taxiway L. VCA will perform evaluations based on different surface and base materials to understand the structural capacity of the bridges and tunnels. Pavement rehabilitation decisions will be required to be made based on this evaluation and may lead to differing pavement sections along the length of Taxiway L to accommodate the capacity of the tunnels.

Site Investigation

The Burns & McDonnell team will perform a site investigation to review what items are displayed on the current as-built drawings and aerial. The site investigation will include photographs for substantiation of existing conditions of pavement, lighting and signage systems, and any other items of note. Our team understands the impact that this project will have on the daily operations at LGB and the importance of having a thorough in-person site investigation are necessary to capture all important design and phasing options.

4. AIRPORT OPERATIONAL SAFETY - PROJECT PHASING AND GEOMETRY

The Contractor's activities will be restricted to those areas necessary for construction of this project, including staging and access. The Contractor will be expected to comply with the requirements set forth in FAA AC 150/5370-2. A Construction Safety & Phasing Plan (CSPP) shall be developed for this project and submitted to the City of Long Beach under separate cover. The final FAA-approved CSPP will be included in the construction contract as part of the Project Manual. The following is a proposed phasing plan for Taxiway L.

Overall: Due to the proximity and importance of Taxiway L to both commercial aircraft as well as cargo aircraft, a phasing plan was developed to attempt to provide continual access to the Runway 30 end. Burns & McDonnell's approach breaks the project into 3 phases. This is done to not only assist Airfield Operations with continual access, but also to provide the Contractor enough work area to be efficient through the duration of the project.

Phase 1: Phase 1 shall include the portion of Taxiway Lima from the Runway Safety Area of Taxiways L1 and L2 north to the cargo apron. The goal of this is to provide continual access to Lima on the north side of the apron and provide a large portion of the project to the Contractor. See Figure 3 for phasing location and Figure 4 for aircraft access.

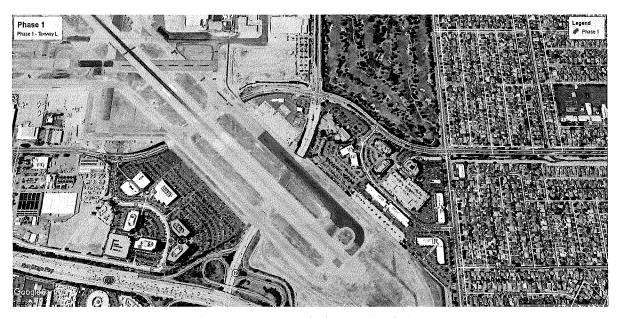


Figure 3. Proposed Phase 1 Work Area



Figure 4. Phase 1 Aircraft Access

Phase 1A: Phase 1A shall be done concurrently with Phase 1 and includes the area within the Safety Area of Runway 12-30 on Taxiways L1 and L2. This work will be required to be done with the runway reduced take off length moved north of Taxiway D2. Phase 1A may have some sub phases to perform work under tower clearance for such items as airfield striping, electrical hook ups, or joint sealing, depending on the pavement type. Figure 5 provides a depiction of Phase 1A and Figure 6 provides the proposed aircraft access for Phase 1A.

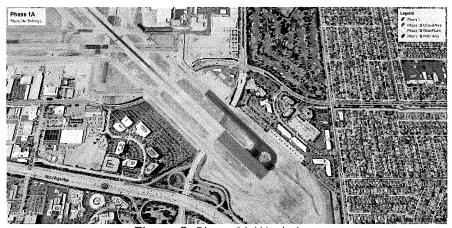


Figure 5. Phase 1A Work Area



Figure 6. Phase 1A Aircraft Access

Phase 2: Phase 2 will cover the demolition and relocation of Taxiway L3. This Phase will not begin until Phases 1 and 1A are completed as access from the cargo apron shall be available south to the Runway 30 end. Phase 2 is depicted in Figure 7 and aircraft movements in Figure 8.

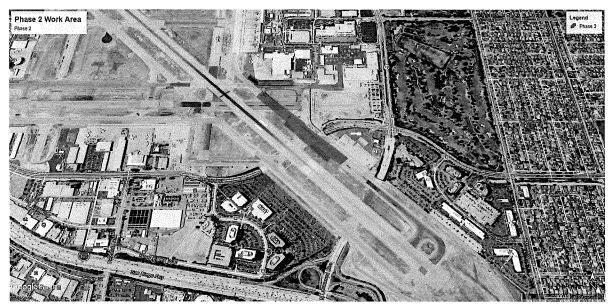


Figure 7. Phase 2 Work Area



Figure 8. Phase 2 Aircraft Movements

Phase 2A: Phase 2A, similar to Phase 1A will cover the demolition and relocation of Taxiway L3 within the Runway Safety Area (RSA) of Runway 12-30. This Phase shall be done concurrently with Phase 2 and may require an adjustment to the Runway takeoff and landing length of Runway 12-30. Phase 2A may have some sub phases to perform work under tower clearance for such items as airfield striping, electrical hook ups, or joint sealing, depending on the pavement type. Phase 2A is depicted in Figure 9, and the proposed aircraft movements are located in Figure 10.

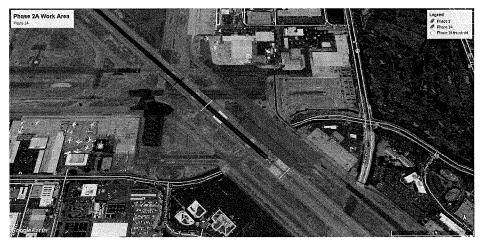


Figure 9. Phase 2A Work Area

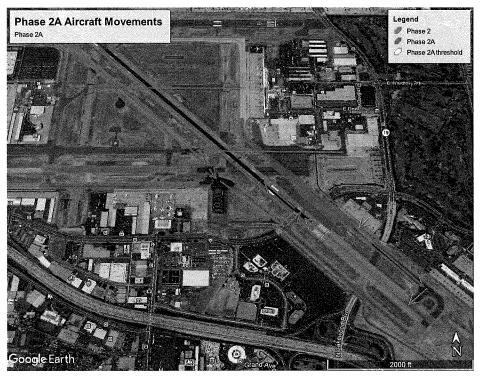


Figure 10. Phase 2A Aircraft Movements

Phase 3: Phase 3 finishes the Modifications to Taxiway L to the intersection with Taxiway C. Portions of the Phase 3 work include returning Runway 12-30 to full length capacity. Figure 11 gives the Phase 3 Work Area as well as the Phase 3 Aircraft Movements.

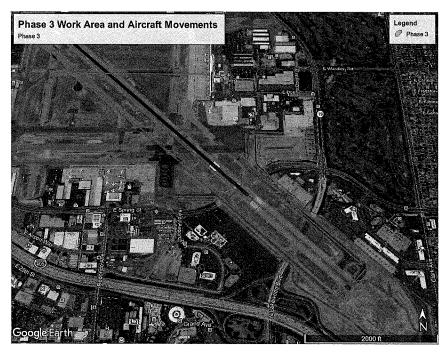


Figure 11. Phase 3 Work Area and Aircraft Movements

Pavement Geometry Modifications

Burns & McDonnell suggest a meeting be held with the City of Long Beach, the FAA, and the design team in order to discuss the appropriate geometry for the Improvements to Taxiway L. The modifications to the pavement geometry of the Taxiway L complex require to bringing those areas into compliance with FAA Advisory Circular 150/5300-13A, "Airport Design". The following items should be considered:

Taxiway L Shoulders: Currently, the Taxiway L paved shoulders are mostly 25' wide. If the taxiway is ultimately rated to handle TDG 5 aircraft, the Advisory Circular currently requires a 30' wide shoulder and for the shoulder to be paved to handle ADG IV or larger aircraft. Widening of the shoulders is recommended to bring the Taxiway within compliance.

Taxiways L1 and L2: Both Taxiways L1 and L2 are currently wider than the 75' requirement for TDG 5 aircraft. Further, the lead-ins, fillets, and radii would require modifications in order to meet the Advisory Circular. During this process, all lighting and signage would require major modifications and any excess pavement would likely need to be removed in order to meet requirements. Figure 12 provides a rendering of Taxiways L1 and L2 at the end of Runway 30.



Figure 12. Depiction of Proposed Taxiway L1 and L2

Taxiway L3: Taxiway L3 is requested to be relocated for two reasons. First, moving L3 to the south off of the Spring Street Bridge reduces the risk of aircraft using this taxiway. Second, this relocation meets the FAA requirement of "Each runway end must be served by an entrance taxiway" and connecting to the runway end at a right angle. Figure 13 provides a rendering of proposed Taxiway L3 at the Runway 30 threshold.

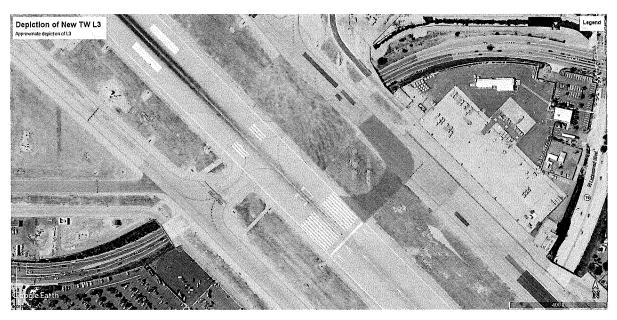


Figure 13. Depiction of Proposed Taxiway L3

5. SITE CONDITIONS

General Pavement Information

Taxiway L is currently an asphalt surfaced pavement that has major rutting issues and is causing FOD issues for the Airport.

General Soil Conditions

Our Project Manager, Curt Ingraham, has significant experience working at Long Beach Airport and understands that highly variable soils are on the airfield. His experience allows our team to put together a proper boring and coring plan for Converse Consultants. Further, Curt's experience helps us understand the risk associated with the soil variability. Understanding this helps us reduce the risk of possible change orders during construction.

Taxiway Drainage

Currently, our design team will perform all new surface drainage profiles in accordance with the Advisory Circulars. For subsurface drainage, our team understands that the Airport suspects that water is trapped in subgrade saturation caused by ground water build up. The location of the tunnels and an underdrain may be required to release some of the water trapped. During design, our team will evaluate the bridges to understand the exact issue in these areas.

Utility Lines and Structures

Utilities present within the project limits may consist of underground electrical lines, electrical structures, underground storm sewers and underdrains, storm sewer and underdrain structures, domestic/fire water, and communications lines (telephone and FAA fiber). Utility information from the project survey will be incorporated in to the design drawing. However, the Contractor will be required to confirm locations of existing utilities. Existing utilities will be undisturbed to the greatest extent possible during construction. The Contractor will be required to coordinate with the jurisdiction having authority in the case that existing utilities must be temporarily taken out of service during construction.

Bridge Inspection

VCA Engineers, Inc. as a subconsultant to Burns & McDonnell will perform our team's inspections of the tunnels / bridges over Spring Street and Lakewood Boulevard. Their report shall be conducted in two phases:

Phase 1: Provide the current structural capacity of each of the tunnels.

Phase 2: Provide an updated report with the acceptable pavement designs and evaluation of paving operations of each pavement option.

6. PAVEMENT REMOVAL AND SURFACE PREPARATION

Existing Pavements to be Rehabilitated

All pavement on Taxiway L south of the Terminal are anticipated to be removed and reconstructed.

7. PAVEMENT DESIGN METHODOLOGY

Existing PCC Pavement to be Rehabilitated

The existing Runway 12-30 complex pavements are currently rated in the following manner:

- PCN = 62/F/A/X/T
- 30,000 lbs. Single Wheel Gear
- 200,000 lbs. Dual Wheel Gear
- 300,000 lbs. Dual Tandem Wheel Gear

This information is published in the Airport Master Record (5010 Form). Our team's intent is to ensure that the PCN equivalent to 62 is maintained with any new Taxiway L design and the Taxiway can handle the gear configurations it is currently rated for.

Burns & McDonnell has estimated general traffic patterns for Taxiway L and the estimated aircraft for FAARFIELD is as follows:

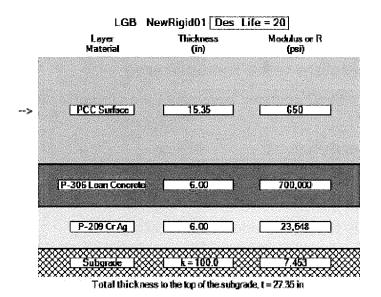
Airplane Information

No.	Name	Gross Wt. lbs	Annual Departures	% Annual Growth
1	9757-200	256,000	730	0.00
2	B767-300 ER	413,000	730	0.00
3	A300-600 LB	380,518	365	0.00
4	A320-100	150,798	180	0.00
5	A320-200 Twin std	162,922	1,825	0.00
6	B737-700	155,000	900	0.00
7	8737-800	174,700	900	0.00

The preliminary pavement design from FAARFIELD based on this fleet mix is shown as follows:

Pavement Structure Information by Layer, Top First

No.	Туре	Thickness in	Modulus psi	Poisson's Ratio	Strength R.psi
1	PCC Surface	15.35	4,000,000	0.15	650
. 2	P-306 Lean Concrete	6.00	700,000	0.20	0
3	P-209 Cr Ag	6.00	23,548	D.35	0
4	Subgrade	0.00	7.453	0.40	0



We propose to use choke stone will be used as a bond breaker between the P-501 and P-306 layers. Generally, it is anticipated that any new surface would be roughly 15.5 – 16 inches of concrete. Our team has discussed various base course options, and because of the ability of P-306 to be placed without a rolling pattern, our team finds that this may be the best option to not impact the adjacent bridges and tunnels.

8. PAVEMENT MATERIALS AND AVAILABILITY

Based on Burns & McDonnell's experience at the Long Beach Airport, pavement materials are available within the area. Our team generally recommends to have an onsite batch plant for concrete construction.

9. DRAINAGE ANALYSIS

Our team understands that we may be modifying the amount of impervious area for this project. Calculations shall be run once the geometric items have been settled with meeting with the City and the FAA.

10. PAVEMENT MARKING

Runway holding position, surface painted holding position signs, taxiway centerline, enhanced centerline, and edge markings will be reestablished on the new taxiway pavements. Pavement markings will be placed per the requirements of FAA AC 150/5340-1M and FAA standard specification P-620. Pavement markings will be outlined in black paint and will be permanently striped after the pavement surface has adequately cured. All yellow, white, and red paint shall have glass beads installed to increase marking visibility. No glass beads shall be allowed on the black paint outlining of the markings.

Taxiway centerline markings leading to airfield pavements closed for construction shall be painted over and completely covered utilizing black paint meeting the material requirements and application rates of FAA standard specification P-620. Prior to reopening construction areas, the temporary blackout paint will be removed and the original pavement markings will be replaced per specification P-620.

Temporary pavement markings will be installed in areas opened to traffic before the pavement surface has adequately cured. Temporary markings will be installed at 30% of the permanent application rate with no glass beads, per FAA standard specification P-620.

Installation of thermoplastic markings for surface painted runway holding position signs may be included in this project. Thermoplastic pavement markings come with a higher initial cost, but hold up better to normal traffic wear and do not fade as quickly as painted markings. Thermoplastic pavement markings are generally considered a cheaper marking solution than traditionally painted markings, when compared over the entire life of the thermoplastic option.

11. AIRFIELD LIGHTING AND SIGNAGE

Components of the existing airfield lighting and signage system are in need of replacement. Improvements to the Taxiway L pavement will include improvements and modifications to the airfield lighting and signage system.

The anticipated lighting and signage improvements and modifications are listed below.

The following light fixtures will be removed and reinstalled:

L-804, Unidirectional, Yellow Elevated Runway Guard Light L-852G, Unidirectional, Yellow Runway Guard Light The following light fixture types will be removed:

L-861A, Quartz, Taxiway Edge Light L-852C/D, Quartz, Bidirectional Taxiway Centerline Light

And replaced with:

L-861T, LED, Taxiway Edge Light

L-852C/D, LED, Bidirectional Taxiway Centerline Light

LED fixtures will be utilized for all FAA approved lighting installations. Existing conduit will be re-used as much as practicable to reduce project cost.

Existing base cans for in-pavement fixtures will be replaced with new base cans. Edge light base cans in shoulders that will be milled and overlaid are to remain in place. Edge light base cans in shoulders that will be demolished will be removed. Any existing base cans that are covered with blank lids and not needed will be removed. Existing signage, associated cable, transformer, and foundation will be removed. LED fixtures will be utilized for all FAA approved signage installations. New foundations, cable, and transformers will be provided for new signage. New signage will be installed at locations per FAA Advisory Circular guidance.

Existing cable will be replaced up to closest junction structure or where indicated on plans. An Allowance will be made for modifications of the existing airfield lighting

control system due to reworking of airfield lighting circuits and airfield layout. Cable identification tags shall state the circuit/homerun designation. New can banks will be installed to replace electrical manholes where appropriate. Drainage components for the airfield lighting system at new can bases will be incorporated as appropriate.

The existing fixtures and all existing electrical items within the scope of this project to be reinstalled shall be inspected and a survey of their location and existing condition shall be completed by the Contractor prior to removal or any pavement work can be done. This survey shall include but is not limited to lighting fixtures, junction cans, and all other items that will be impacted by the pavement rehabilitation process. The Contractor shall note items such as any damage or non-functioning lamps in the lighting fixtures, damaged cans at all fixtures, and any other electrical items observed. Disposal of fixtures not to be reused on this project is at the discretion of LGB Maintenance.

Miscellaneous Electrical Items

Airfield sign numbering and light labeling should be updated to be incorporated into the existing system, if it exists. Since pavement geometry changes in the project will require the relocation of existing signs and the addition of new signs, the existing airfield numbering system will be adjusted. The design drawings include provisions to label all airfield signs included in the project. The same principle applies to the taxiway in-pavement and edge light fixtures.. Every fifth in-pavement fixture light will have a tag with a fixture number. This includes the labeling of homerun cans, sign connections, beginning and end of circuits, and splices.

New LED in-pavement centerline fixtures will be provided for mainline Taxiway L. It is intended to reuse existing taxiway centerline fixtures as necessary.

Any existing LED taxiway edge lights that are in satisfactory condition will be salvaged for reinstallation on their existing base cans. Any fixtures that are in satisfactory condition but not reused on the project will be salvaged and turned over to LGB Maintenance.

12. FAA OWNED FACILITIES

Modifications to FAA Owned Facilities on the airfield, specifically approach lighting and navigational aids (NAVAIDS), are not anticipated for this project.

13. PRELIMINARY ENGINEER'S CONSTRUCTION COST ESTIMATE

Connico, Inc., a subconsultant to Burns & McDonnell shall assist with performing the construction cost estimate and

14. CONSTRUCTION SPECIFICATIONS

This project shall use the FAA's standard General Provisions and Technical Specifications contained within AC 150/5370-10H, including the Central Region Modifications which will be edited to meet the project requirements. Listed below is an outline of the specifications that will be used for this project.

General Provisions

Section 10	Definition of Terms
Section 20	Proposal Requirements and Conditions
Section 30	Award and Execution of Contract
Section 40	Scope of Work
Section 50	Control of Work
Section 60	Control of Materials
Section 70	Legal Regulations and Responsibility to Public
Section 80	Execution and Progress
Section 90	Measurement and Payment
Section 100	Contractor Quality Control Program

Technical Specifications

C-100	Contractor Quality Control Program (CQCP)
C-105	Mobilization
C-110	Method of Estimating Percentage of Material within
	Specification Limits (PWL)
P-101	Preparation/Removal of Existing Pavements
P-102	Temporary Air and Water Pollution, Soil Erosion, and
	Siltation Control
P151	Clearing and Grubbing
P-152	Excavation, Subgrade and Embankment
P-155	Lime-Treated Subgrade
P-209	Crushed Aggregate Base Course
P-219	Recycled Concrete Aggregate Base Course
P-306	Lean Concrete Base Course

P-403	Asphalt Mix Pavements Base and Surface Courses for Shoulders
P-501	Portland Cement Concrete (PCC) Pavement
P-602	Emulsified Asphalt Prime Coat
P-603	Emulsified Asphalt Tack Coat
P-604	Compression Joint Seals for Concrete Pavements
P-605	Joint Sealants for Concrete Pavements
P-606	Adhesive Compounds, Two-Component for Sealing Wire and
	Lights in Pavement
P-610	Portland Cement Concrete (PCC)
P-620	Runway and Taxiway Marking
D-701	Pipe for Storm Drains and Culverts
D-705	Pipe Underdrains for Airports
D-751	Manholes, Catch Basins, Inlets, and Inspection Holes
T-901	Seeding
T-904	Sodding
T-905	Topsoiling
T-908	Mulching
L-108	Underground Power Cable for Airports
L-109	Airport Transformer Vault and Vault Equipment
L-110	Airport Underground Electrical Duct Banks and Conduits
L-115	Electrical Manholes and Junction Structures
L-125	Installation of Airport Lighting Systems
L-131	Demonstrations, Tests and Performance Verification

15. SPONSOR MODIFICATIONS TO STANDARDS

The goal of this project is to remove any sponsor modifications to standards.



CREATE AMAZING.



STATEMENT OF QUALIFICATIONS FOR

ENGINEERING PLANNING AND DESIGN SERVICES FOR VARIOUS DEVELOPMENT PROJECTS AT LONG BEACH AIRPORT

TECHNICAL/NARRATIVE SOQ

SUBMITTED TO

CITY OF LONG BEACH

RFO# AP19-134 NOVEMBER 1, 2019



November 1, 2019

City of Long Beach Purchasing Division Ms. Sokunthea Kol 411 W. Ocean Blvd., 6th Floor Long Beach, CA 90802

RE: Burns & McDonnell's Statement of Qualifications for Engineering and Design Services for Various Development Projects at Long Beach Airport (RFQ AP19-134)

Dear Ms. Kol and Members of the Selection Committee:

Long Beach Airport (LGB/the Airport) is undertaking a multi-year airfield reconfiguration to resolve many of the "hot spots" identified by the FAA Runway Safety Team in 2002 and will benefit from the support of a team who brings more than 75 years of experience working with the aviation industry on infrastructure improvement programs. Burns & McDonnell has strategically gathered a team of local professionals with positive past experience at LGB, who are dedicated to providing quality services under time-sensitive constraints. Our team brings the experience, commitment, and quality you need to make this contract a success.

Our team offers the City and the Airport the aviation-specific technical and extensive consulting experience with the quality and integrity needed to support this contract. We offer the following competitive advantages:



EXPERIENCED PROJECT MANAGER WITH SUCCESSFUL PAST EXPERIENCE AT LGB

The Airport will have a trusted partner in our project manager, Curt Ingraham, PE, who has more than 33 years of aviation experience including many recent pavement rehabilitation projects at LGB. His previous LGB experience involved delivering Taxilane J, similar Taxiway F, which involved maintaining access to many airfield tenants during construction including Fire and Police air assets. Examples of Curt's commitment to providing cost efficient designs that are tailored to the needs of the Airport is the design of Runway 7R-25L. After 30% plans were completed, Curt recommended a geometry change to reduce the runway to an ADG Group BII runway to fit better to its intended use and to be more cost efficient. The contract was put on hold while the Geometry Study was being conducted and ultimately, LGB concurred with our initial proposed recommedation. Curt's team shifted focus to the reconstruction of Runway 7L-25R culminating in the 'Run the Runway Event in 2015'. Curt brings many years of lessons learned during construction of similar pavement projects to the team and will make sure that grant will be spent on quality projects that meet the current and future needs of LGB. Curt's experienece with the individualized operational conditions and restrictions that exist at LGB will enable his team to create cost-effective projects that minimize impacts to LGB's users and maximize construction budget.







TWO MAJOR AVIATION FIRMS JOINING FORCES

Two of the nationally-recognized aviation firms who both have engineering experience at LGB, Burns & McDonnell and Mead & Hunt, have joined forces to bring broad technical expertise and innovative solutions. Our key personnel, including Curt Ingraham (project manager), Renju Abraham (airfield civil lead), and Chuck McCormick (FAA coordination) have previously completed multiple projects together and all have had experience with projects at LGB. There is no learning curve when it comes to understanding process, workflows, facilities, programs, project managers, and the variety of stakeholders and other agencies we will be coordinating with, including the FAA. Our working knowledge of how the Airport operates and our relationships with LGB personnel give us the unique ability to quickly integrate with LGB staff and collaborate during design and construction to achieve your schedule and project objectives.



ABILITY TO MEET FAA'S AGGRESSIVE ACCEPTANCE SCHEDULE

Our team members have extensive experience working with FAA-assisted contracts under strict schedule constraints. We understand what it takes to meet the aggressive project schedule without sacrificing quality. We have assigned design leads for each of the major project components. The design leads will meet regularly to collaborate, coordinate, and update design packages. This will promote technical information accuracy and appropriate design recommendations so that there will be minimal comments and revisions upon submission allowing our team and the Airport to meet FAA aggressive acceptance schedule.



PROVIDE ACCURATE COST ESTIMATES TO SECURE THE CORRECT FUNDING

Our team approaches each project by fully understanding the scope and focusing on designing projects that can be bid and constructed within budget. We bring a depth of historical experience designing projects and working closely with our in- house estimators as well as with our teaming partner, Connico, to provide accurate estimates.

Our project team has a successful history developing conceptual estimates and cost estimates for design-bid-build projects which meet the primary focus of planning and designing within available funding. Our project manager, Curt, and his estimating team, including Connico staff, will work together to build estimates and schedules using our nationally- available cost databases. These databases include updated historical and real-time data for material and labor pricing, including airports like LGB, and refine the accuracy of our estimates. As we develop the estimate, we consider alternative means and methods, and value engineering concepts early in design. We also evaluate current projects in the area that may compete for resources.







MULTI-DISCIPLINARY TEAM WITH EXTENSIVE NATIONAL RESOURCES

We understand the City and the Airport's concerns and can complement your capabilities from planning through design and construction. LGB can receive solutions to address its unique challenges by selecting our multi-disciplinary team of engineering and pavement rehabilitation professionals.

In addition to our Southern California staff, our team has access to the deep resource pool of more than 500 aviation professionals who have successfully performed similar projects in California and across the country.



LONG HISTORY OF SUCCESSFUL PROJECT DELIVERY

For more than 75 years in the aviation industry, we has successfully delivered projects at more than 350 airports with similar project needs to those anticipated on this on-call with no major schedule delays or cost escalation. We have a 90% repeat-business rate and client partnerships that span multiple decades, including airport clients similar to LGB. This is the testament to the our quality, demonstrating our ability to achieve client satisfaction while complying with project requirements.

We acknowledge receipt of Addendum 1, 2, 3, and 4. The addenda are signed and located in City Required Forms file of this submission.

Our team has done the homework; we are dedicated to providing the City of Long Beach and the Airport with top-quality technical personnel, who have a thorough knowledge of airport projects and challenges, allowing for quick delivery and value-added engineering options. We look forward to working with the City and LGB and developing a strong partnership.

Sincerely.

Peter Aarons

Principal-in-Charge

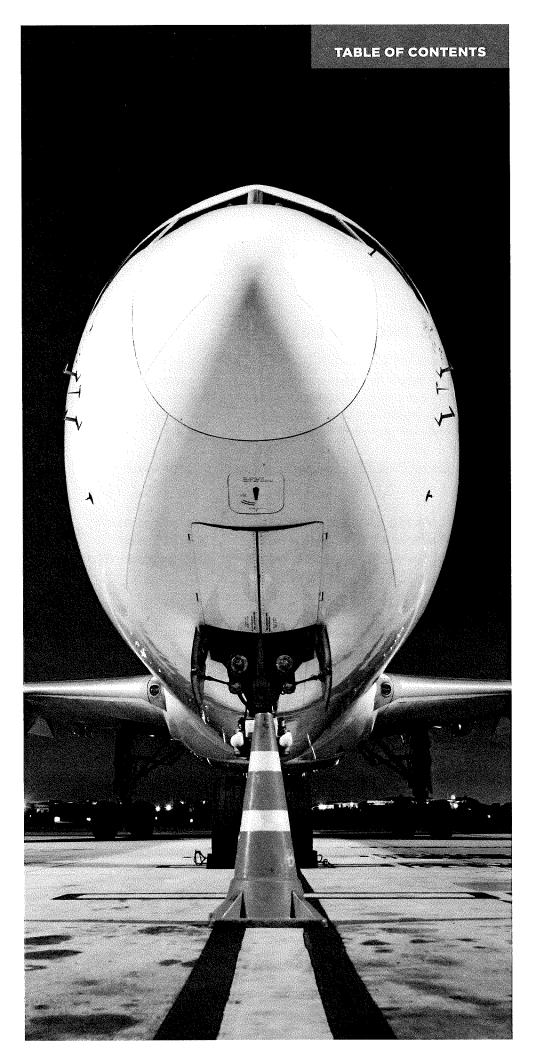
Phone: (213) 402-0285

Email: pwaarons@burnsmcd.com

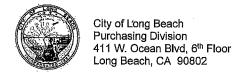
Curt Ingraham PE Project Manager

Phone: (714) 989-5108

Email: ccingraham@burnsmcd.com



- 1 SOQ Cover Page
- 2 Primary Consultant Information
- 4 Capability to Perform
- 9 Key Personnel
- 15 Subconsultant Information
- 25 References
- A-1 Appendix A Resumes



City of Long Beach

Request For Qualifications Number AP19-134

For Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

Release Date: Mandatory Pre-SOQ Conference: Questions Due to the City:			10/03/2019 10/10/2019		
			10/10/2019		
Posting of the Q & A:		,	10/23/2019		
Due Date:			10/30/2019		
City Contact:	Sokunthea Kol	Buyer II	562-570-6123		

See Section 4 for instructions on submitting SOQs.

Company Name Burns & McD	Oonnell Cont	Contact Person Renita Mollman			
Address 140 S. State College Blv	vd, Ste 100 City Brea	State <u>CA</u>	Zip <u>92821</u>		
Telephone (<u>714</u>) <u>256-1595</u>	Fax (<u>714</u>) <u>256-1764</u> F	ederal Tax ID No.			
E-mail: rmollman@burnsmc	d.com				
Prices contained in this SOQ a	re subject to acceptance with	hin 180 calendar c	lays.		
I have read, understand, and a	gree to all terms and condition	ons herein. Dat	te <u>11/01/2019</u>		
Print Name & Title Renita Mol	lman, Vice President, Cal	ifornia	*		
			Rev 2016 0919		
RFO No. AP19-134	Engineering and Design	Senices	Page 1 of 35		

PRIMARY CONSULTANT INFORMATION

Primary Consultant Information

The Airport needs a partner who is responsive and has the bandwidth to handle multiple assignments simultaneously, and technical expertise to address issues specific to LGB. We have assembled a team of qualified firms, known for excellence and experience with similar on-call contracts.

COMPANY PROFILE

Burns & McDonnell (S-Corporation, MO, 09/01/1970) was founded in 1898 and is an internationally recognized engineering, architectural, construction, environmental, and consulting solutions corporation that has been making its clients successful for more than 121 years. We plan, design, permit, construct, and manage projects all over the world with one mission in mind – "make our clients successful." Our California license numbers are as follows:

- ▶ Burns & McDonnell Engineering Company, Inc. CA State License #C1015172
- ▶ Burns & McDonnell Engineering Company, Inc. Contractor's License #755238
- ▶ State Employer ID #284-1548-7

We have more than 50 offices nationwide and around the world, allowing us to provide innovative, timely and cost-effective service to clients.

We have five offices in California, two of which are within 26 miles of LGB, allowing us to quickly respond to task order requests and other project needs. Figure 1 shows the locations of our team offices.

Nationally, we haveover 7,000 professionals. We have 204 staff in Southern California, including more than 30 full-time aviation focused professionals in our Brea office and currently, no employees reside in Long Beach. Table 1 on page 3 shows the location from which employees will be assigned, including subconsultants.

Your main point of contact for this contract will be Curt Ingraham, PE, project manager. He can be reached at (714) 989-5108 or via email at ccingraham@burnsmcd.com.

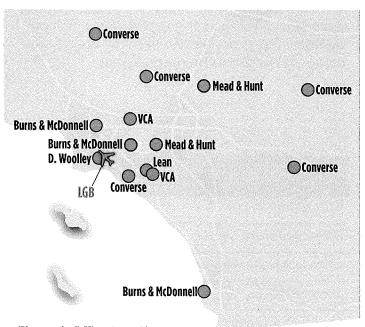


Figure 1: Office Locations

Our aviation group has been performing work at Southern California airports for over 50 years, and has capabilities that well exceed the expectation for this project. Our local teams are currently working on similar projects with local California airports, and have proven responsive to their client needs.

In addition to our local staff, we can utilize resources from more than 500 aviation-focused professionals. This means if unexpected issues arise at critical stages of your project, we have people with the knowledge and background to address your project's challenges in a timely, integrated and efficient manner. This translates to project consistency, lower costs and the ability to maintain your project schedule.

We have won the **Premier Award for Client Satisfaction** from the Professional Services

Management Journal eight times. The A/E/C
client survey recognized Burns & McDonnell as **best in Responsiveness and in Managing Client Budgets**. We also received a Net Promoter Score

— indicating whether a client would recommend
the firm to colleagues — of 81%, well above
the A/E/C market sector average of 56%. In
addition, we have a 90% repeat-business rate with
successful client relationship that spans multiple
decades. This is the testament to the quality we
deliver to our clients on every project.

BURNS & MCDONNELL YOUR EXPERIENCED AVIATION PARTNER

350+

75+
YEARS IN AVIATION

MANAGING

ONGOING

ONGOING SIMILAR ON-CALL CONTRACTS RANKED

#5

IN AVIATION BY ENGINEERING NEWS-RECORD

Table 1: Project Team's Assigned Location

issue in roject reality Assigned Education					
KEY PERSONNEL	PROJECT ROLE	FIRM	OFFICE LOCATION		
Curt Ingraham, PE	Project Manager	Burns & McDonnell	Brea, CA		
Renju Abraham, PE	Civil Lead	Burns & McDonnell	Brea, CA		
Chris D'Sa, ESQ, RME, ENV SP	Environmental Lead	Burns & McDonnell	Los Angeles, CA		
Jason Fuehne, PE	QA/QC	Burns & McDonnell	Kansas City, MO		
Chuck McCormick	FAA Coordination	Mead & Hunt	Ontario, CA		
Doron Lean, PE	Airfield Electrical Lead	Lean Engineering	Irvine, CA		
Siva Sivathasan, PhD, PE, GE, DGE, QSD, F.ASCE	Geotechnical Services/ Pavement Design	Converse Consultants	Costa Mesa, CA		
Trevor Rice, PLS. CFedS	Surveying & Mapping	D. Woolley & Associates	Long Beach, CA		
Virgil Aoanan, PE, SE, GQSD, ENV SP	Structural Lead	VCA Engineers	Alhambra, CA		
Molly Waller	Environmental Support	Centurion Planning & Design	Lee's Summit, MO		
David Hunley, PE	Cost Estimating	Connico	Mount Juliet, TN		

CAPABILITY TO PERFORM

Capability to Perform

We started in the aviation industry in 1940s and has a wide range of experience designing airfield pavements for commercial, military, regional and general aviation facilities. We have performed design and engineering projects at more than 350 airports, and currently hold 28 aviation on-call contracts across the country.

Our aviation experience in California goes back more than 50 years as we have performed comprehensive design and construction services for our commercial aviation clients. From small airports to the busiest airport in the United States, our in-house team of aviation experts have a long history of helping Californians take to the air. Our aviation work can be seen at well-known airports throughout California, from SFO to SAN.

The City can expect a committed and engaged project team throughout the duration of the program by choosing the our team.

UNDERSTANDING OF PROJECT IMPLEMENTATION, POTENTIAL PROBLEMS, AND SPECIAL CONCERNS

Planning Services

The Burns & McDonnell team has been assembled to meet the Airports need for on-call planning services. Our team members include our inhouse environmental experts currently on-call to the airport as well as industry experts capable of completing assignments for airport noise studies, environmental assessments including biological and cultural studies necessary for Environmental Assessments as well as Environmental Impact Studies. Our in-house planning staff and team member Mead & Hunt bring the ability to complete any airport planning tasks required by the Airport

including aeronautical activity forecasts and their impact to airport capacity. The Burns & McDonnell team will complete all ALP updates, financial planning and benefit cost analysis in support of the Airports CAIP. Our team members include industry experts in GIS data collection as well as geographical and topographical mapping.

Architectural/Engineering Services

Our team is built on a foundation of airfield design professionals who have long careers of providing exemplary projects to small, medium sized and GA airports. A majority of this experience is comprised of multi-year on-call projects providing engineering design and planning services for FAA AIP funded projects. We understand how projects must be designed and packaged for bid to meet the requirements for FAA approval and funding. We have built and maintained good relationships with the FAA's LA ADO and often accompany our clients to assist them in preparing applications for Federal grants as well as State of California matching fund grants from Caltrans.

Most importantly we understand the importance of identifying project costs early and correctly in the Grant process in order to secure adequate funding throughout the development of the 5-year ACIP. Working for small and medium sized airports, we understand the importance of accurately predicting project costs and that matching funds are not easily secured – with little ability to increase due to funding restrictions.

Our team will work as the Airport's partner in developing 'right-sized' engineering projects early in the project when value engineering ideas are more easily incorporated in the project development. We will work with the Airport to confirm the project program for AIP projects

listed in fiscal year (FY) 2021 through 2023. Our team will develop planning level studies, including survey and geotechnical investigations to more accurately determine project design parameters. We will use this preliminary research to develop schematic designs, review cost estimates, and complete a value engineering review of the proposed program. Based on this review, we will recommend design solutions and options to provide sound engineering solutions to existing airfield geometric challenges. We will work with the Airport to revise the ACIP to accurately reflect the necessary project budgets and assist the Airport in securing FAA grant assurances.

During the **design phase** of any airfield task order, our team will engage the airport engineering staff as well as operations staff on a bi-weekly basis. At each stage of development (30, 60, 90, and 100%) we will conduct page turn drawing reviews with the airport including a construction cost estimate at each stage of development. If, at any time, construction estimates exceed the planned project budget, a thorough review with the Airport will be conducted to determine if scope reduction is required. Our team will complete Construction Safety Phasing Plans (CSPP) in accordance with FAA Advisory Circular 150/5370-2G and submit to the FAA for approval at the 30% development level. An FAA-approved CSPP will be issued as a part of the Contractors Bidding Documents to eliminate contractor variations during the bidding phase. Since many of the proposed projects will affect airfield traffic and may require modifications to ACCT operations, the our team will conduct a Safety Risk Management (SRM) per FAA's Safety Risk Management Order 8040.4. We have found that conducting an SRM early in the design process allows us to address any potential concerns and incorporate them into the design. Our team will produce an Engineers Basis of Design (BOD) report that chronicles the design development, and becomes an 'as-built' for the design process. This BOD will include all design assumptions, calculations, and backup of all design considerations, and serve as a 'all-in-one' resource of the design decisions that where incorporated in the final project design.

We have identified a number of design challenges that will need to be addressed to ensure a successful project that meets the need of the Airport and respects the operational requirements of the airport tenants. Below are our approaches and recommendations to the design challenges on each project.

RUNWAY 16R-34L CONVERSION TO TAXIWAY B

- This project is programmed for construction in FY 2021. This means that design must be completed with and issued (including the CSPP) by April 30th, 2020 to the Airport and the FAA for review. In order to meet this schedule, our team is committed to issue an early notice to proceed (NTP) to survey and geotechnical team member once we receive NTP. Having partners that are already badged and familiar with LGB will greatly advance these early studies. Burns & McDonnell, as prime, will proceed with drawing development at risk until those reports are available, and will adjust pavement sections as necessary once field reports are available.
- Conversion of Runway 16R-34L to Taxiway B will require a significant alteration to the existing airfield electrical system. An early investigation of the electrical home runs from Runway 16R-34L will be conducted to determine the path from the electrical vault to the runway as well test existing wire condition (Megger readings). This will determine how much airfield wire will require replacement. In addition, new taxiway circuits loads will be calculated and a new 3-step taxiway constant current regulator (CCR) will specified to replace the existing 5-step runway CCR.
- The existing Airport Lighting Control and Monitoring System (ALCMS) will need to be modified to replace functional control of the runway with the new Taxiway B. The existing programming will be modified to reflect new geometry and controls.

TAXIWAY L IMPROVEMENTS

- This project has the most direct interaction with the main commercial Runway 12-30 and will cause the most disruption to ground traffic for aircraft departing Runway 30. This project will be built in multiple phases to limit interference with Runway 12-30 operations—with PCC construction this can inflate the cost of construction with multiple placements.
- Construction of Taxiway L over the existing tunnels at Spring Street and Lakewood Boulevard cause a challenge to heavy equipment, especially vibratory compaction. To overcome this, we could use a thicker stabilized base section, and use econocrete (P306) instead of a cement treated base (P304) that requires compactive effort. Additionally, the tunnel reaction to a slip form paver need to be reviewed. A bridge-deck paver or roller screed may be required in selected areas where the load of a slip form paver may exceed the capacity of the tunnel. Our team includes Virgil Aonan, a CA Structural Engineer, who will review the current structural capacity of each bridge and recommend construction limitations.

TAXIWAY AND TAXILANE F RECONSTRUCTION

- Taxiway F is the center of the General Aviation operation at LGB. Construction of Taxiway F will need to be phased to allow aircraft on either side of Taxilane F access to Taxiway B or Taxiway J, including a provision for a temporary taxilane to allow access for aircraft from the Jet Center, Gulfstream, Signature & Flight School east of Taxilane F.
- Construction of Taxilane F for run-up opportunities will need to be phased to allow access to the Catalina flyer operations. Similarly, construction of Taxiway F east of Taxilane F will need to allow for continued operations of heavy cargo operations west of Taxiway D.

TAXIWAY D REALIGNMENT BETWEEN TAXIWAY E AND TAXIWAY F

► Taxiway D from Taxiway F south is the main access for large aircraft leaving the GA area and Cargo positions to depart RWY 30 and as such requires a 400' separation from RWY 12-30. During construction closing taxiway D will required requiring ground movements to cross RWY 12-30 to access TWY L to depart RWY 30. This movement will need to accommodate both Cargo and large private aircraft from the Southside FBO's and Gulfstream.

Special Services

Our team includes subconsultant partners who will assist the team in providing the type of services that are required to complete the projects described in Appendix A. These team members have been selected for their knowledge and working relationship with LGB as well as long-standing partnerships with our staff.

Chuck McCormick (Mead & Hunt) is a two-decade veteran with the FAA and is extremely familiar with the FAA Grant Funding procedures and continues to have strong relationships with FAA personnel. Chuck and Curt have a 30-year working history with extensive experience working on AIP projects including Taxilane J, Runway 8L-26R and 8R-26L at Long Beach Airport.

Chris D'Sa of Burns & McDonnell is our lead Environmental Engineer for this program – and was recently selected by LGB to lead the Environmental On-call program. We have added Molly Waller with Centurion Planning & Design to assist with Environmental Studies as well as traditional airport planning services.

Siva Sivathasan, with Converse Consultants, is our Geotechnical Engineer who will be responsible for Soils Investigations and providing core sampling, laboratory tests and related analyses to support the design effort for airfield pavement projects. As a team, we understand the underlying soils conditions at LGB including silty sands and clay soil lenses. Curt Ingraham's prior experience with LGB soils conditions underscored the necessity in having a team member with experience with Long Beach materials and an understanding of the challenges in meeting the compaction requirements for sub-grade. The team will lean on this prior knowledge during the design of pavement sections to provide cost-effective and constructible projects. We will explore the reuse of ground AC to replace basement soils -

minimizing the airports exposure to change-orders due to encountering unsuitable soils conditions during construction.

Trevor Rice with D. Woolley & Associated is our Land Surveyor. D. Woolley is currently badged to work at LGB Airport - which will be invaluable in completing the necessary field work for the conversion of Runway 16R-3L to Taxiway B. With D. Woolley's current working relationship with LGB there will be no delay in access to the airport and will result in an early delivery of information need in the preliminary engineering phase.

Value Engineering Studies

Our team participates in Value Engineering for almost all airfield projects similar to those anticipated on this on-call. We understand the focus on sustainability and the ability to save costs by utilizing existing infrastructure wherever possible. A few examples are listed below.

- 1. An example of our value engineering approach is evident in Curt's approach to Runway 8R-26L project at LGB. Early in the design process, Curt identified changes in scope that would significantly reduce the cost of reconstruction and ongoing maintenance costs. Curt proposed to reconfigure the project to function as a General Aviation only - non-precision runway. Curt worked with LGB to place this engineering effort on hold until a decision to reconfigure the runway was determined. This effort resulted in the Geometry Study that confirmed the decision to 'right-size' the GA runway. During this time the team completed the reconstruction of Runway 8L-26R - where the team reused the existing Asphalt grindings as sub-base materials to save on disposal costs.
- 2. For each AIP-funded project, we perform a life cycle cost analysis (LCCA) to examine different pavement design options, such as asphalt or concrete surface courses. In the recent past, we have helped our clients to save a substantial amount of schedule and cost by proposing variable pavement sections on large airfield pavement programs at one of the

- busiest airports in the nation. We customized pavements to actual wheel loads and traffic patterns, and generated pavement sections that minimized construction schedules.
- 3. Our pavement design team will also consider the possibility of reusing existing pavement materials for new subbase and base materials for the proposed pavement sections. This includes crushing concrete for new stabilized base courses and oftentimes, these costs can outweigh bringing in virgin aggregate.
- 4. During the preliminary design phase of each project, our team meets with the owner and stakeholders to identify the most efficient construction haul routes and staging areas for the project. This includes the evaluation of a potential on-site batch plant location, runway/ taxiway closures, etc. The intent is to minimize the haul route distances as much as possible, which will minimize airfield operational, cost, and environmental impacts.
- 5. Our airfield lighting team typically specifies LED lighting and we perform cost estimates and evaluations for LED options including high intensity runway edge lighting.

Ability to Complete Projects without Major Cost Escalation or Overruns

As a Prime, we have a long history of successful deliveries of projects without major cost escalation or overruns. Table 2 on the next page summarizes our estimates versus actual construction cost on a number of similar projects.

Table 2: Summary of Burns & McDonnell's Estimated and Actual Construction Costs

Airport & Project	Estimated of Probable Construction Amount	Low Bidder Contract Amount	Bid Amount as Percent of Engineer's Estimated
COU: Runway 13-31 & Taxiway B Reconstruction	\$15,344,025.00	\$10,483,000.00	68.32%
COU: Taxiway C	\$2,807,760.00	\$2,543,452.00	90.6%
OJC: Reconstruct T-hangars P, S, T, O, & R	\$3,770,793.00	\$3,139,680.19	83.26%
OJC: Reconstruct the W T-hangar Taxilanes & NE Transient Aprons	\$4,218,650.00	\$4,199,559.75	99.55%
DDC: Runway 14-32 Reconstruction	\$11,961,378.75	\$10,660,900.54	89.13%
MCI: Runway 1R-19L Rehabilitation (Pkg 1)	\$20,693,325.00	\$17,958,490.59	86.78%
MCI: Apron Rehabilitation	7,870,032.00	\$6,874,629.00	87.35%
MCI: Runway 1RL-19L Repairs	\$6,999,313.00	\$6,924,454.00	98.93%
MKC: R/W 3-21 Rehabilitation	\$3,659,450.00	\$3,544,979.00	96.87%
JEF: Runway 12-30 & Taxiway B Rehabilitation	\$7,166,526.00	\$6,181,142.00	86.25%
JEF: City Memorial Airport, Apron & Taxiway A (Partial Parallel)	\$2,305,884.00	\$2,035,827.00	88.29%
K89: Runway 2-20 Reconstruction	\$3,450,320.00	\$2,992,341.00	86.73%
MHL: R/W 18-36: 5,000 X 75	\$2,131,695.00	\$1,841,025.00	86.36%

KEY PERSONNEL

KeyPersonnel

We have strategically gathered a team to bring together the credentials and experience that must be present for the successful completion of this project. In addition to a comprehensive team, we focused on the specialized skill sets needed for the subconsultants who add value and have worked with you before offer a superb blend of local knowledge and national expertise, and are well qualified to address all aspects of the design. An overview of our key staff experience is presented in table 3 on page 12.

Our team reflects a unique combination of experience, in-house resources, extensive FAA knowledge, and numerous aviation-specific specialties that work together to provide you with value based design that no other team can match.



Our team has designed and managed more than \$400 million in runway-related construction projects and more than \$1 billion in other AIP-funded projects, as well as airport support facilities within the past decade alone.

Our team will work together with the Airport to develop a proactive staffing plan for each of the major projects. All members of our team are fully committed to this contract and individual participation will match the specific needs of each project.

When a specific team resource is requested, we commit to making them available for the project assignment for as long as they are needed. Curt will be the project manager for every project resulting from this on-call.

PROFESSIONAL QUALIFICATIONS AND EXPERIENCE

Our team will serve as the prime consultant and Curt Ingraham, PE, as project manager, will be the single point of contact throughout the assignment. Upon selection, the Burns & McDonnell Team illustrated in figure 2 - Organizational Chart on page 13 is available to begin work immediately. Our team resumes are provided in Appendix A.

PROJECT MANAGER



MANAGED

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AVIATION ON-CALL
CONTRACTS

DEVIATION FROM ORIGINAL COST

Curt Ingraham, PE
Curt has more than 33 years of experience in the engineering industry performing as a program manager, project manager, deputy project manager, and technical lead for complex civil engineering projects. He specializes in AIP-funded projects for small, medium, and large hub airports. His breadth of project experience includes general aviation and commercial aviation clients throughout California, as

well as federal aviation clients on two continents and the Pacific Islands.

Curt and his team were very responsive during the design phase, often redesigning and providing design alternatives onsite in response to operational needs and stakeholder concerns. Civil design, particularly for stormwater infrastructure, low impact design, and airfield facilities was extensive — and definitely contributed to high

quality civil design. **J BEVIN KEEN NAVFAC SW**

As a program and project manager, Curt has led multi-year, multi-task on-call programs at a number of airports in Southern California.

In the last five years, Curt has produced construction documents and construction management services for replacement runway projects at **Long Beach Airport**, Palm Springs International Airport, and Southern California Logistics Airport. His additional project experience includes taxiway, ramp, and hangar facilities spanning from Naval Air Weapons Station (NAWAS) China Lake, Marine Corps Air Station (MCAS) Miramar, Naval Base Guam, and Camp Lemonnier in Djibouti, Africa.



Curt has managed more than **40,000 feet of runway reconstruction** and replacement projects and more than **three million SF of ramp and taxiway** projects in California.

Curt brings construction management experience on over 40,000 feet of runway reconstruction/ replacement projects and over three million square feet of ramp and taxiway projects completed in California within the last 10 years, most of which were designed and delivered under FAA AIP grant programs. Curt's experience with the FAA grant program, Advisory Circular requirements, and his working relationship with the Los Angeles ADO provides value to LGB in completing projects that are eligible for the AIP program. Curt is known for delivering projects quickly, often ahead of schedule. He specializes in designing projects to a budget and helping clients develop 'right-sized' solutions.

OTHER KEY PERSONNEL

Civil Lead | Renju Abraham, PE Renju is an aviation civil engineer with more than 18 years of experience performing as project manager, design manager, and technical lead for both small and large enabling airfield, civil roadway, and facility projects. He brings experience with FAA Advisory Circular standards and airport design standards, including working at LGB. From runways requiring pavement rehabilitation and safety improvements, to taxiway designs, infrastructure reconstruction projects, passenger boarding bridges, gate reconfigurations, and access point design, Renju has led these design projects through completion for LAX, SFO, SAN, ORD, Phoenix-Mesa Gateway Airport, and El Paso International Airport.

Renju, you and your team are doing a great job turning this around in the timeframes you have been given. The airport and the design-build team are appreciative of your efforts!

BARTON DRAKE Gensler (on SAN FIS project)

Renju recently served as our team's airside project manager on the fast-paced, award-winning SAN FIS project, where he oversaw engineering design services for airside civil, ramp services, aircraft parking, and gate design/layout.

Environmental Lead | Chris D'sa, ESQ, RME, ENV SP

Chris brings more than 30 years of California experience working for LAX, SFO, Southwest Airlines, Delta Air Lines, VTA, LA County Metro, Metrolink, Caltrans, and other similar clients on a broad range of environmental projects including emergency support, compliance, program management, construction support, fuel tank removals, installations, site assessment, soil and groundwater remediation, and permitting. He brings a unique blend of legal, environmental, and compliance experience and has had notable success in moving client sites to closure that had languished for years without a regulatory path forward prior to his involvement. Chris has worked on hundreds of airport and transportation projects and ensures close coordination with the construction management team to limit the impact to operation.

FAA Coordination | Chuck McCormick Chuck has more than 30 years of diverse aviation experience, primarily for Southern California airports. He is fully committed for necessary FAA coordination on behalf of our team and the airport. As a two-decade FAA veteran and a licensed pilot, Chuck is familiar with the FAA grant funding procedures and timeline and he can assist LGB with any challenges on funding or project procedural scenarios.



Curt Ingraham, Chuck McCormick, and Chris Swonke have successfully completed projects together at LGB, including Reconstruct Taxilane J, Reconstruct Runway 7L-25R, and provided 30% design of Runway 7R-25L. When a Southern California commercial small hub airport wanted to perform a runway rehabilitation program, the airport had no choice but to convert the parallel taxiway to a temporary runway during construction. Since converting a taxiway to a runway is typically not encouraged by the FAA, **Chuck and Curt** played a key role in procuring FAA approval to make the conversion. They worked closely with the airport director, FAA, and the project team to make the project successful with **no cost or schedule impacts.**

Airfield Electrical Lead | Doron Lean, PE Doron has over 25 years of experience in providing professional design services related to airfield electrical, NAVAID, and Aeronautical infrastructure projects. He is a frequent contributor to FAA Briefs and Advisory Circular and has performed over 100 Navigational Aids and Airfield Lighting projects at over 30 CAT X, large-size and medium-size hub airports. Doron has extensive, unique experience in design, maintenance, commissioning, and testing of airfield electrical systems. He has applied his expertise to diverse projects, including SFO's \$220M runway safety area projects and LAX's \$180M safety area projects. He will bring his key expertise and proven track record of experience with airfield lighting, airspace, and aeronautical engineering to ensure exceptional project outcome.

Surveying & Mapping | Trevor Rice, PE
Trevor is well-versed in construction surveying;
DTM surfaces and topographic mapping; property
line surveying; monument control surveying;
engineering design surveys; GPS and RTK
surveying; horizontal/vertical control networks;
aerial control surveys; as-built surveys; right of way
engineering; monument preservation; boundary
line determination and analysis; boundary deed
interpretation; boundary reconstruction; easement
analysis and construction; map preparation; Public
Lands Survey System (PLSS); map checking for
compliance with the Professional Land Surveyor's
Act and The Subdivision Map Act and ALTA/ACSM
Land Title Surveys.

Geotechnical Services/Pavement Design | Siva Sivathasan, PhD, PE, GE, DGE, QSD, F.ASCESiva 25 years of geotechnical and construction experience. He is skilled at analyzing complex geotechnical problems and has prepared

comprehensive reports with detailed recommendations. He also has extensive knowledge of construction projects from managing geotechnical observation and testing, special inspection and material testing, and Caltrans source inspection services. He is a subject matter expert for the California Board of Professional Engineers, Land Surveyors, and Geologists for geotechnical engineering exam development.

Structural Lead | Virgil Aoanan, PE, SE, QSD, ENV SP

Virgil has over 30 years of hands-on experience in structural and civil engineering related to planning, design, management, and construction of aviation, commercial, military, municipal, and transportation facilities. He has prepared and executed engineering construction documents in multiple capacities as project manager, project engineer, lead engineer, design engineer, and construction engineer in both the structural and civil disciplines. As a Structural Engineer, Virgil directly managed and participated in the structural analysis, design, and construction of various types of buildings and structures, new, renovated, and/or seismically retrofitted.

Environmental Support | Molly Waller
Over the past 17 years, Molly has managed and led
airport planning and environmental projects at over
60 airports across the nation. These assignments
began in the environmental field with the
preparation of NEPA documents for projects ranging
from fuel farm removal and installation, to runway
extensions or new terminals. She then moved to
traditional airport planning with a focus on providing
implementable solutions to meet community's
airport and economic development needs.

Cost Estimating | David Hunley David has 36 years of experience with responsibilities including cost estimating, scheduling, construction oversight and administration, resident project representation, design support, and engineering fee reviews. He has worked on more than 70 airport projects in the last 10 years.

Table 3: Key Personnel Experience

Key Personnel	Experience at Long Beach Airport		Airfield Electrical Design	Experience with FAA AIP Grant Procedures	Construction Admin	Airside Structural Engineering
Curt Ingraham, PE	₩	**	*	*	₩	₩
Renju Abraham, PE ■	*	~	*	*	4	
Chris D'Sa, ESQ, RME, ENV SP ■	~	~		*	4	
Jason Fuehne, PE		~	√	* .	4	
Chuck McCormick	✓	~	√	V	✓	
Doron Lean, PE ■	*	~	✓	*	V	
Trevor Rice PLS, CFedS ■	~	4		*	V	
Siva Sivathasan PhD, PE, GE, DGE, QSD, F.ASCE ■	V	V		V	V	
Virgil Aoanan PE, SE, GQSD, ENV SP ■	~	*		V	*	V
Molly Waller	~	*		•	•	*
David Hunley, PE 🖩		V		4	~	

LEGEND■ Burns & McDonnell | ■ Mead & Hunt | ■ Lean Engineering | ■ D. Woolley & Associates (DBE/SBE) | ■ Converse Consultants (MBE) | ■ VCA (DBE/SBE/MBE/LBE/LSBE) | ■ Centurion (DBE) | ■ Connico (DBE)

BURNS MEDONNELL

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Figure 2: Project Team Organizational Chart

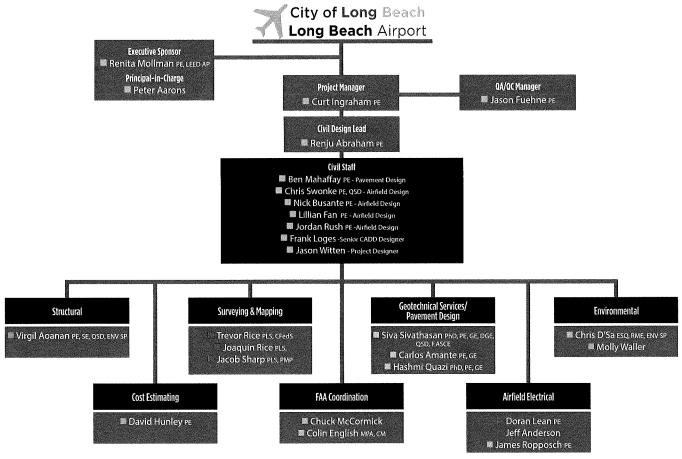


Image: Surns & McDonnell | Image: Mead & Hunt | Image: Lean Engineering | Image: D. Woolley & Associates (DBE/SBE) | Image: Converse Consultants (MBE) | Image: VCA (DBE/SBE/MBE/LBE/LSBE) | Image: Image: Converse Consultants (MBE) | Image: Image:

BURNS MEDONNELL

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FAMILIARITY WITH FAA REGULATIONS, POLICIES, AND PROCEDURES

Our team has provided aviation services working with the FAA and airports across the country for more than 75 years. Our projects vary from large runway projects and major facility renovations at large international airports, to as-needed engineering support for mid-size and regional airports. Our team uses the regulations and policies in Congressional Act H.R. 658, FAA Modernization and Reform Act of 2012, to make the City and Airports successful. Key guidance manuals we use from this act are the FAA AIP Handbook Order 5100.38D (9-30-2014), FAA Advisory Circulars (ACs), and the FAA AIP Guide. We are familiar with the FAA ACs and other applicable standards for airfield paving, drainage, lighting and airport and runway data calculations for all design groups and approach categories.

AIP Funding

FAA funding is periodically appropriated by Congressional measures, and it follows the various legislation and sessions dates of Congress. We understand the funding aspects of the FAA, and track internally and externally when money is going to be available for various projects. Additionally, our relationship with the FAA is close enough that we have a good indication when the funding may become available—enabling us to pro-actively anticipate these funds as they are available.

Applications for Federal Assistance

Each AIP project requires an application for federal funds before the FAA can release the funds for reimbursement to the airport sponsors. The application includes the anticipated amount required for the planning, design, construction, and construction observation for each project. The application includes certifications to the FAA from the airport sponsor, that the sponsor will meet set goals and criteria to be eligible for the AIP funds. We have an excellent track record successfully working with sponsors to submit project applications to FAA for AIP funds.

Airfield Design Regulations

All AIP or PFC funded airport projects receiving FAA funds for construction are mandated to meet FAA design standards and regulations. We have been following FAA Advisory Circulars (Series 150 ACs) and guidelines, Airport Design Software such as FAARFIELD, Engineering Briefs and best practices which we have developed in-house based on past project experience for

Understanding and Commitment to Business Diversity and Inclusion

Our team understands that there is a Triennial Disadvantaged Business Enterprise (DBE) Overall Goal of 8.0% established by the Airport for FAA assisted contracts for Federal Fiscal Years 2018-2020 and we are committed to maintaining and utilizing a diverse supplier base that affords the Airport the optimal airside engineering consulting talent while achieving timely solutions for your projects.

Our award-winning supplier diversity program has resulted in our ability to consistently exceed inclusivity goals. We have developed creative strategies and innovative approaches to meet and exceed small, local, disadvantaged, and veteranowned small business enterprise utilization goals. Our Southern California team demonstrated that commitment when we subcontracted 18.54%, when the goal was 15%, of the work to SBEs on a similar on-call contract for airside pavement management engineering consulting services for LAWA, which included 18 task orders. This does not happen by accident. Our commitment to inclusion is embedded in how we conduct business; we proactively identify, develop, grow, and help sustain small and diverse businesses.

Based on the anticipated scope of work associated with the on-call contract, we commit to an 8% DBE participation on all federally-funded task orders throughout the life of the contract, including all contract extensions. As the Prime Consultant, Burns & McDonnell is committed to using the DBE firms listed on Attachment I to help the City and the Airport meet the overall goal.

SUBCONSULTANT INFORMATION

Subconsultant Information

We have assembled a team of subcontractors who have experience with each scope of work item planned under this on-call contract.

Does this SOQ include the use of subconsultants?

Yes x No_ Initials

References for all subcontractors can be found on page 28 through 30. Detailed resumes for key staff are provided in Appendix A. Resumes. Subcontractor Letters can be found starting on page 18.



Mead & Hunt is an employee-owned corporation founded in 1900 serving hydroelectric, hydraulic and electrical engineering services. Incorporated in Wisconsin in 1949, we now have 900 employees and our technical skills and industry knowledge allow us to serve diverse markets so our clients can accomplish their goals with a single, fullservice firm. In 1942, Mead & Hunt began providing airport planning and design services to the military. After World War II, our firm's services grew to include architectural, structural, mechanical and electrical engineering when new housing, commercial and industrial buildings were needed. Since those early days, aviation has become one of the cornerstones of our firm. Mead & Hunt will support the FAA coordination, airfield lighting design, SRM, and aircraft modeling efforts for this on-call.

Main Contact | Chuck McCormick (909) 467-8576 Company Ownership | Corporation, Wisonsin, 11/30/1949

Location of Company Offices | 40 offices nationwide Location of Offices serving CA accounts | Ontario, Sacramento, and Santa Rosa, CA Number of Employees | 900 employees nationally, 62 locally, zero residing in Long Beach Locations of Assigned Employees | Ontario, CA; Dallas, TX; Portland, OR; and Lansing, MI



Lean Technology Corporation dba Lean Engineering (LEAN) offers a full range of airfield electrical engineering services. Within our practice, we specialize in runway lighting systems, taxiway lighting systems, FAA Navigational Aids (NAVAIDs), control systems, and airfield power systems. Since our inception over 16 years ago, LEAN has performed over 200 electrical projects at 100 major hub and regional airports, including LAX, SFO, SLC, OAK, SJC, SEA, DEN, SMF, HNL, SMO, and BUR. Our vast experience at multiple airports proves that we can deliver large-scale projects in a timely, cost-effective manner. LEAN will apply its extensive experience to the electrical modifications associated with this RFQ.

Main Contact | Doron Lean (310) 310-5912
Company Ownership | Owned by Doron Lean
Location of Company Offices | Irvine and San Bruno,
CA; Salt Lake Clty, UT
Location of Offices serving CA accounts | Irvine
and San Bruno, CA; Salt Lake Clty, UT
Number of Employees | 15 employees nationally, 13
locally, zero residing in Long Beach
Locations of Assigned Employees | Irvine, CA



D. Woolley and Associates (DWA) has extensive experience at LGB which includes horizontal and vertical control in and around the entire airport, determination of the airport property boundaries, as well as topographic surveying of the existing parking lots, streets, runways and taxiways. We are more familiar with LGB, from a land surveying perspective, than any other survey firm. We have worked on LGB's ALP, obstruction chart, and the Exhibit A map from the RFQ. DWA will serve as the land surveying and mapping lead.

Our contracts with public agencies in Long Beach include: The City of Long Beach, Energy Resources, Port of Long Beach (POLB), LGB, and Long Beach City College. To service our Long Beach clients, we opened a Long Beach office to immediately response any request. Through the qualification-based selection process, we have had our contracts at the POLB, City, and Energy Resources renewed every three years for over a decade. This is a testament to the strength of our professionalism, work product and service to the City of Long Beach.

Main Contact | Trevor Rice, PLS (714) 734-8462 Company Ownership | Owned by Trevor Rice Location of Company Offices | Long Beach and Tustin. CA

Location of Offices serving CA accounts | Long Beach and Tustin, CA

Number of Employees | 18 employees locally, zero residing in Long Beach

Locations of Assigned Employees | Long Beach and Tustin, CA



Providing geotechnical services and pavement design since 1946, Converse Consultants' (Converse) experienced staff of professional engineers, geologists and support staff have the technical knowledge necessary to perform the service required, and the communication and

problem-solving skills needed to be effective on the site. Our local office is located in Costa Mesa, approximately 20 miles from the Long Beach Airport site. Additionally, we have offices in Monrovia and Redlands who will provide additional staffing. Over the years we have worked on many hangars, runways, and access roads projects in California and Nevada. Converse will serve as the geotechnical services and pavement design lead.

Main Contact | Carlos Amante, PE, GE (714) 444-9660 ext. 304
Company Ownership | C-Corporation, CA, 11/15/1985

Location of Company Offices | Costa Mesa, Monrovia, Redlands, Palmdale, Palm Desert, CA; Reno, Elko, Las Vegas, NV; State College, PA Location of Offices serving CA accounts | Costa Mesa, Monrovia, Redlands, CA

Number of Employees | 130 employees nationally, 50 locally, one part-time residing in Long Beach Locations of Assigned Employees | Costa Mesa, Monrovia, Redlands, CA



VCA Engineers (VCA) engages in a wide variety of engineering designs and services involving private and public land development, facility engineering, transportation engineering, and topographical engineering. For more than 16 years in the industry, VCA has been an active contributor and contender in the aviation market and has been providing On-Call Engineering support services to local and international airports such as the LAX, LGB, Van Nuys Airport, Ontario Airport and Burbank Bob Hope Airport. The firm has successfully designed and completed construction for over 35 terminal facility projects including 20 landslide developments and more than 15 airside projects. VCA will serve as the structural engineering lead.

Main Contact | Virgil Aoanan, PE (323) 79-6098 Company Ownership | Owned by Virgil Aoanan Location of Company Offices | Alhambra and Irvine, CA

Location of Offices serving CA accounts | Alhambra and Irvine, CA Number of Employees | 30 employees locally, zero residing in Long Beach

Locations of Assigned Employees | Alhambra and Irvine, CA

VCA Engineers is certified as a MBE, DBE, SBE and CBE, LBE and LSBE.



Centurion Planning & Design (Centurion) is a DBE Certified planning and design firm established in 2018 with the sole focus of providing superior aviation consulting services for airports across the United States. Our staff has provided airport planning, environmental, or engineering design services at over 75 airports across the United States. Centurion will assist the environmental lead, Chris D'Sa, with environmental related assignments.

Main Contact | Molly Waller (816) 519-4653
Company Ownership | LLC
Location of Company Offices | San Angelo and
Denton, TX; Lee's Summit, MO
Location of Offices serving CA accounts | San
Angelo and Denton, TX; Lee's Summit, MO
Number of Employees | Eight employees
nationally, zero residing in Long Beach
Locations of Assigned Employees | San Angelo and
Denton, TX; Lee's Summit, MO



For the past 28 years, Connico has completed assignments at more than 100 aviation facilities from small general aviation, municipal, and air carrier, to large hub international airports all across the U.S. from Baltimore to Los Angeles. Connico specializes in cost estimating, program management, scheduling, and project management, serving owners, planners, architects and engineers.

Main Contact | David Hunley (615) 758-7474 Company Ownership | Corporation, STATE, mm/ dd/1990 Location of Company Offices | Nashville, TN; Hebron, KY; and Atlanta, GA Location of Offices serving CA accounts | Nashville, TN; Hebron, KY; and Atlanta, GA Number of Employees | 17 employees nationally, zero residing in Long Beach Locations of Assigned Employees | Hebron, KY

SUBCONSULTANT PAYMENT PLAN

Burns & McDonnell has a company policy of paying our subcontractors as soon as we are paid by our clients. Payments will be made net 30 days from date of delivery of the Work or receipt of a proper invoice, whichever is earlier. Final payment to Supplier shall not relieve Supplier of its continuing obligations under an issued Purchase Order, including, without limitation, warranty and indemnity.

Except in the cases when the issued Purchase Order form indicates that the Purchaser will provide a tax resale certificate, Supplier shall be responsible for and shall pay all such sales, use, consumer, compensating, and other similar taxes, required by Law to be paid in connection with the Work. Suppliers will separately state on all invoices any taxes on the furnishing of goods hereunder which are imposed on the Purchaser, and collected by Supplier, by local, provincial, state, and federal governments. All currency and payments will be in U.S. dollars.

When payments are issued to the subcontractors, Burns & McDonnell Team's project manager, Curt Ingraham, will email the appropriate Long Beach personnel acknowledging payment to the sub with an attached PDF copy of the check as evidence.

SUBCONSULTANT INSURANCE

We will not allow any subcontractor to commence work until all insurance is verified and submitted.



OCTOBER 28, 2019

City of Long Beach Purchasing Division Ms. Sokunthea Kol 411 W. Ocean Blvd, 6th Floor Long Beach, CA 90802

Subject: Subconsultant Letter for Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

I, Paul Strege, on behalf of Mead & Hunt, hereby certify that I have read and will agree to abide by Burns & McDonnell's obligations as Prime Consultant to the City of Long Beach and Long Beach Airport, upon contract and task order awards.

Sincerely,

MEAD & HUNT, INC

Paul Strege, Vice President

RIAST



City of Long Beach Purchasing Division Ms. Sokunthea Kol 411 W. Ocean Blvd, 6th Floor Long Beach, CA 90802

SUBJECT: Subconsultant Letter for Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

I, Doron Lean, on behalf of Lean Technology Corporation dba Lean Engineering, hereby certify that I have read and will agree to abide by Burns & McDonnell's obligations as Prime Consultant to the City of Long Beach and Long Beach Airport, upon contract and task order awards.

Sincerely,

Lean Technology Corporation dba Lean Engineering

Doron Lean President 949-502-8687

dlean@leancorp.com

Lean Engineering 18850 Von Karman Ave., Suite 200, Irvine, CA 92612 (949) 502-8687 www.leancorp.com



October 28, 2019
City of Long Beach
Purchasing Division
Ms. Sokunthea Kol
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

RE: Subconsultant Letter for Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

I, Trevor D. Rice, on behalf of D. Woolley & Associates, Inc., hereby certify that I have read and will agree to abide by Burns & McDonnell's obligations as Prime Consultant to the City of Long Beach and Long Beach Airport, upon contract and task order awards.

Sincerely,

D. Woolley & Associates, Inc.

President/Owner



October 28, 2019
City of Long Beach
Purchasing Division
Ms. Sokunthea Kol
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

RE: Subconsultant Letter for Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

I, Carlos V. Amante, PE, GE, Principal Engineer/Managing Officer, on behalf of Converse Consultants, hereby certify that I have read and will agree to abide by Burns & McDonnell's obligations as Prime Consultant to the City of Long Beach and Long Beach Airport, upon contract and task order awards.

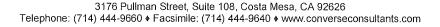
Sincerely,

CONVERSE CONSULTANTS

Carlos V. Amante, PE, GE

(arlos VAmante

Principal Engineer/Managing Officer







City of Long Beach Purchasing Division Ms. Sokunthea Kol 411 W. Ocean Blvd., 6th Floor Long Beach, CA 90802

RE:

Subconsultant Letter for Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

I, Virgil C. Aoanan, PE, SE, QSD, ENV SP, on behalf of VCA Engineers, Inc., hereby certify that I have read and will agree to abide by Burns & McDonnell's obligations as Prime Consultant to the City of Long Beach and Long Beach Airport, upon contract and task order awards.

Sincerely,

VCA Engineers, Inc.
Virgil C. Aoanan, P.E., S.E., QSD, ENV S.P.
Principal
1041 S. Garfield Ave., Suite 210, Alhambra, CA 91801
(323) 729-6098
virgil.aoanan@vcaeng.com

V

Virgil C. Aoanan, P.E., S.E., QSD, ENV S.P. Principal



City of Long Beach
Purchasing Division
Ms. Sokunthea Kol
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

RE: Subconsultant Letter for Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

I, Molly Waller, on behalf of Centurion Planning & Design, hereby certify that I have read and will agree to abide by Burns & McDonnell's obligations as Prime Consultant to the City of Long Beach and Long Beach Airport, upon contract and task order awards.

Sincerely,

CENTURION PLANNING & DESIGN, LLC

MOLLY WALLER

CEO/PRINCIPAL PLANNER

69 N. CHADBOURNE STREET SAN ANGELO, TEXAS 76903

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City of Long Beach Purchasing Division Ms. Sokunthea Kol 411 W. Ocean Blvd, 6th Floor Long Beach, CA 90802

RE: Subconsultant Letter for Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

I, Connie S. Gowder, on behalf of Connico Incorporated, hereby certify that I have read and will agree to abide by Burns & McDonnell's obligations as Prime Consultant to the City of Long Beach and Long Beach Airport, upon contract and task order awards.

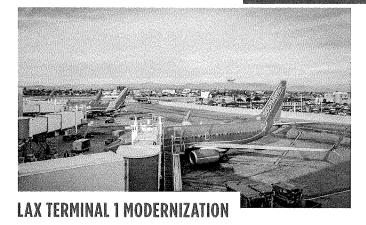
Sincerely, Connico Incorporated

Connie S. Gowder, CCP President/CEO

> 2594 N. Mount Juliet Road | Mount Juliet, TN 37122 2940 Hebron Park Drive, Suite 209 | Hebron, KY 41048 2727 Paces Ferry Road, Suite 750 | Atlanta, GA 30339 (615) 758-7474 | www.connico.com

REFERENCES

PROJECT REFERENCES **BURNS & McDONNELL**



Our team, under contract to PGAL, provided all airfield civil engineering, aviation fueling design, environmental, and construction administration services to renovate and modernize LAX Terminal 1 (T1). T1 was in need of major improvements including replacing all concrete apron paving, repairing and reconfiguring the hydrant fueling system, and modernizing outdated ramp systems.

The T1 modernization program reconfigured the terminal to provide 13 narrow-body-capable gates serving primarily B737-800W and smaller aircraft. Our team developed plans, specifications, and cost estimates to remove and replace more than 400,000 square feet of pavement, relocate hydrant fuel pits, modernize the hydrant fueling

system, and remove, replace, and install utilities to support the terminal renovation. The project design conformed to all applicable FAA, NFPA, LADBS, and LAWA design codes and standards.

PROJECT STATISTICS

Client name

PGAL (Owner: LAWA)

Project Dates

05/2014 - 11/2018

Technical Environment

Large commercial airport

Staff Assigned

Abraham (project engineer), D'Sa (environmental lead), Fuehne (QA/ QC), Ingraham (CA)

Client Project Manager

Diane Payne | (310) 645-3276

RELEVANCE TO LGB

Asphalt paving, geometry design, pavement design, FAA coordination



FUTURE TAXILANE C-WEST EXTENSION

Our team, as a part of the Airfield Pavement Management Systems contract for LAWA, was retained by LAWA to perform the design of the Future Taxilane C Extension (West) at LAX. The primary purpose of the project was to construct a Remain Overnight (RON) apron that will later be converted into a future Taxilane C extension located south of the existing WAMA.

The project scope included providing design services to construct a full-strength PCC apron in between the WAMA pavement and Taxiway B, approximately 462-ft wide. The apron was designed for a 20-year pavement life, supporting Airplane Design Group (ADG) VI aircraft

movement. The structural Portland Cement Concrete pavement section was designed in accordance with FAA and LAWA requirements.

PROJECT STATISTICS

Client name

Los Angeles World Airports

Project Dates

11/2017 - 06/2018

Technical Environment

Large commercial airport

Staff Assigned

Abraham (project manager), Ingraham (airfield civil lead), Fan, Busante (project engineer), Fuehne (QA/QC)

Client Project Manager

Tadesse Bezabeh | (424) 646-5718

RELEVANCE TO LGB

PCC, asphalt paving, geometry design, pavement design

PROJECT REFERENCES **BURNS & McDONNELL**



Our team was part of the design-build team for the FIS project totaling approximately \$250M in construction cost. We provided engineering design for airside civil, ramp services, aircraft parking, gate design/layout, and IT/special systems.

The project scope involved relocation of SAN's FIS, which is used by Customs and Border Protection (CBP), and building three new gatehouses for the Terminal 2 West area. Our civil design team reconfigured 32 terminal gates as part of the design task. Other design elements included reconfiguration of the remain overnight (RON) parking area, taxilane centerline lighting relocation, fire hydrant relocation, and apron paving adjacent to new gate houses. The adjustment in fleet mixes at the new FIS gates

also warranted reconfiguration and upgrading of certain ramp services equipment such as pre-conditioned air. ground power units, and GSE equipment reconfiguration.



PROJECT STATISTICS

Client name SDCRAA

Project Dates 06/2015 - 06/2019

Technical Environment Large commercial airport

Staff Assigned

Abraham (airside design manager); Busante (airside designer/engineer): Fuenhe (QA/QC), Ingraham (CA)

Client Project Manager Rajeev Tillu | (619) 400-2643

RELEVANCE TO LGB

Airside civil engineering, pavement design



ONTARIO AIRPORT ON-CALL CONTRACT

Our team has been providing on-call engineering, architecture and support services for Ontario International airport for both AIP funded and non-AIP funded programs since 2018. We have assisted the airport authority with multiple projects from small studies to airside design.

During the preliminary design periods for each of our projects, we formulated preliminary construction safety and phasing plans and met with the airport authority, airfield operations, and engineering staff to formulate plans that met FAA requirements and provided the least operational impact solutions. Our team provided phasing plans by pre-planning and coordinating very early in the design process with all parties to understand their needs under the project

requirements. Due to the dynamic changes in the funding environment, we had to complete designs with accelerated schedules to secure appropriate federal funds.

PROJECT STATISTICS

Client name

Ontario International Airport Authority

Project Dates

06/2018 - Present

Technical Environment

Large commercial airport

Staff Assigned

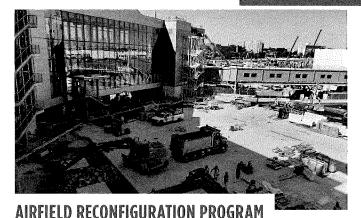
Abraham (project manager), Ingraham (airfield civil lead), Busante, Fan (project engineer) Fuehne (QA/

Client Project Manager

Keith Owens (909) 544-5383

RELEVANCE TO LGB

Asphalt paving, geometry design, pavement design, on-call contract



LaGuardia Airport is undergoing an extensive capital redevelopment program to transform into a globally-renowned, 21st century airport. Delta Air Lines, which operates a major presence at LGA with about 275 daily departures, is investing heavily to improve the customer experience. The airfield reconfiguration program includes the demolition of existing Terminals C and D and parking lots P4 and P5, and replaces them with a new terminal headhouse, four concourses, associated airfield improvements, new arrivals and departures roadways, and an expansion to the existing east parking garage.

As the **prime design consultant for this multibillion-dollar, state-of-the-art program**, Burns & McDonnell is leading the design for the total replacement of Delta's Terminals C and D with

one new terminal, including all landside and airside infrastructure. We provided mechanical, electrical, plumbing, building and roadway structural, and fire protection engineering design for the terminal building as well as all airside infrastructure including the 37 aircraft gate layouts, taxilanes, blast fences, and airside utilities.

PROJECT STATISTICS

Client name

LaGuardia Airport

Project Dates

10/2015 - Present

Technical Environment

Large commercial airport

Staff Assigned

Incorvaia (program manager), Fuehne (QA/QC), Fischer, Villarreal, Ryan (project engineers)

Client Project Manager

James Tiefenthaler | (718) 565-3891

RELEVANCE TO LGB

Asphalt paving, geometry design, pavement design

OUR CLIENTS SAY IT BEST

Burns & McDonnell is a very robust company with a great depth of resources and excellent customer communication.

Jack Schirmer, Portland Fueling Facilities Corp.

Due to our location at SFO, there are additional code requirements, of which Burns & McDonnell has vast experience. Their professional approach and working relationship with the SFIA Building Code Enforcement Division makes our jobs much easier and has resulted in successful projects for over 20 years.

James Lewis, SFO

Burns & McDonnell demonstrated extensive experience in conducting and managing airfield pavement programs for commercial, and regional aviation facilities.

Board of Airport Commissioners, LAWA

Burns & McDonnell is a great partner for any size airport, always maintaining a strong commitment to customer satisfaction. I highly recommend them.

Raymond Quesada, SFO

Kern County Airports | Design and construction services to rehabilitate runway 12L-30R and taxiways | 08/2015 - 11/2018 | Technical Environment: commercial airport (BFL) | Staff Assigned: McCormick, Swonke | Client Project Manager: Ron Brewster, (661) 391-1824

OIAA | Terminal 1, gates 1-3 apron and taxiway G rehabilitation | 06/2014 - 10/2018 | Technical Environment: large commercial airport (ONT) | Staff Assigned: McCormick, Swonke | Client Project Manager: Keith Owens, (909) 544-5383

Wayne County Airport Authority | Engineering design and construction administration for a wide-body aircraft parking apron | 06/2014 - 12/2016 | Technical Environment: commercial airport | Staff Assigned: Roposch, Leonard | Client Project Manager: Dan Howe, (734) 955-3879

Santa Barbara Airport | Airfield lighting improvements | 2015 - 2017 | Technical Environment: commercial airport | Staff Assigned: Faucher, Leonard, Romero, Ropposch, Raldovanovich | Client Project Manager: Leif Reynolds, (805) 967-7111

Scottsdale Airport | Runway 321 Electrical Rehabilitation | 12/2018 - 03/2019 | Technical Environment: comercial airport | Staff Assigned: Seybold, Van Gompel, Spicer | Client Project Manager: Chris Read, (480) 312-2674

LAWA | Electrical Engineer of Record responsible for delivering the planning and design of the 800-feet runway extension and shift of runway length and declared distances for this runway safety area upgrade project | 08/2015 - 01/2017 | Technical Environment: large commercial airport (LAX) | Staff Assigned: Lean, Anderson | Client Project Manager: Mark Vicelja, (310) 678-9739

LAWA | Electrical Engineer of Record responsible for delivering final design, engineering, and construction documents for the installation of a new MALSR and localizer due to the runway extension | 12/2016 - 06/2017 | Technical Environment: large commercial airport (LAX) | Staff Assigned: Lean, Anderson | Client Project Manager: Sean Flynn, (424) 646-5867

City and County of San Francisco | For Phase 1, LEAN provided design for the electrical infrastructure structure for the installation of CCTVs and a PIDS system across airport security. Phase 2 of the project included the design of ductbank for various areas of the airport, including Station AR, providing power to ITT cabinets on the perimeter, and multiple FOTS shelters. | 01/2018 - 12/2018; 07/2018 - 05/2019 | Technical Environment: large commercial airport (SFO) | Staff Assigned: Lean, Anderson | Client Project Manager: Lalesh Sharma, (650) 821-7754

City and County of San Francisco | Electrical Engineer of Record: taxiway edge lights, taxyway centerline lights, taxiway guard lights, new RWSLs, new signage, removing and reinstalling sectionalizers and associated power infrastructure. | 2017 | Technical Environment: large commercial airport (SFO) | Staff Assigned: Lean | Client Project Manager: Daniel Lee, (650) 821-7767

Port of Oakland | Electrical modifications included new airfield lighting base cans and conduit, cable, runway centerline lights, touchdown zone lights, taxiway centerline lights, and runway edge lights. | 05/2017 - 09/2017 | Technical Environment: large commercial airport (OAK) | Staff Assigned: Lean, Anderson | Client Project Manager: Kor Yan, (510) 627-1524

City of Long Beach | Performing a topographic survey to collect the existing striping on Runway 12-30 in support of design for new striping. | 04/2019 - Present | Technical Environment: large commercial airport (LGB) | Staff Assigned: T. Rice | Client Project Manager: Henry Monfiero, (562) 570-2616

City of Long Beach | Surveyed and marked the lease boundaries with monuments recessed below the pavement to interfere with planes and topographic surveying within five feet of said boundary. Produced a boundary exhibit that included the topographic survey and descriptions of the set monuments. | 05/2018 - 06/2018 | Technical Environment: large commercial airport (LGB) | Staff Assigned: T. Rice | Client Project Manager: Stephan Lum, (562) 570-2682

FAA | Performed GPS survey to establish survey control aligned to Magnetic South. Dispatched crews at night to minimize interruptions. | 08/2019 - 09/2019 | Technical Environment: large commercial airport (PSP) | Staff Assigned: T. Rice | Client Project Manager: Jeremy Withrow, (760) 285-9674

FAA | Performed elevation survey at the Jacqueline Cochrane Airport (TRM). | 10/2019 | Technical Environment: commercial airpot (TRM) | Staff Assigned: T. Rice | Client Project Manager: Jeremy Withrow, (760) 285-9674

WA (cont.

FAA | Performed static GPS surveys of the control points and performed a least squares adjustment to obtain reportable statistical analysis of the survey control accuracy. Using established control, DWA performed topographic surveying to collect measurements, including elevation. | 07/2019 - 08/2019 | Technical Environment: large commercial airport (SNA) | Staff Assigned: T. Rice | Client Project Manager: Jeremy Withrow, (760) 285-9674

Atkins | Geotechnical study for the improvement of Los Alamitos Army Airfield. The runway, taxiway, apron, and overrun were evaluated and improved. | 2016 | Technical Environment: military airfield | Staff Assigned: Quazi, Sivathasan | Client Project Manager: Daniel Knott, (702) 990-7141

Matich Corporation | Performed compaction of soil, base and lime treated soil. Performed field density of asphalt and inspection of concrete and dowels. Conducted laboratory testing of maximum density tests of soils and aggregate base. | 2011 - 2017 | Technical Environment: commercial airport (RBF) | Staff Assigned: Quazi, Amante | Client Project Manager: Jake Reade, (909) 228-1658

Parsons | Geotechnical investigation for runway improvements | 2018 | Technical Environment: large commercial airport (SBA) | Staff Assigned: Quazi | Client Project Manager: Ed Roa, (800) 803-1386

Shannon & Wilson, Inc. | Geotechnical observation, material testing, and inspection services for concrete repair near Hanger 35 | 2012 - 2016 | Technical Environment: large commercial airport (BUR) | Staff Assigned: Quazi | Client Project Manager: Nicky Nitichaivorrakul, (562) 699-7411

Parsons | Conducted subsurface exploration and testing of site soils for the design and construction of three new towers as part of UIS Tower Sustainment Program | 2015 - 2016 | Technical Environment: large commercial airport (BUR) | Staff Assigned: Quazi | Client Project Manager: Aster Seghit, (202) 651-2506

City of Long Beach | New construction included hold rooms, airside restrooms, concession tenant spaces, and covered non-conditioned areas. The existing south terminal was remodeled for use as a passenger screening checkpoint. | 2009 - 2017 | Technical Environment: large commercial airpot (LGB) | Staff Assigned: Aoanan | Client Project Manager: Jefferey Sedlak, (562) 570-2623

LAWA | Prepared permit-ready plan set to comply with all regulatory agency requirements prior to installing k-rated security bollards on both the upper/departures and lower/arrival levels of LAX. Prepared technical specifications, special conditions, and engineer's estimates as well as a complete topographical and underground utility survey. | 12/2017 - 04/2019 | Technical Environment: large commercial airport (LAX) | Staff Assigned: Aoanan | Client Project Manager: Min Kim, (424) 646-5869

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LAWA | Providing engineering services for the design of the relocation of the Airfield Lighting Vault 2, the US Airways Maintenance Facility, and the storm drainage for the Taxiway C14. | 09/2017 - Present | Technical Environment: large commercial airport (LAX) | Staff Assigned: Aoanan | Client Project Manager: Sean Flynn, (424) 646-5867

LAWA | Services include to P-501 Portland cement concrete for the keel section, P-401 asphalt concrete outside of the keel section, connector taxiways and tie-ins, and airfield lighting | 05/2018 - Present | Technical Environment: large commercial airport (LAX) | Staff Assigned: Aoanan | Client Project Manager: Sean Flynn, (424) 646-5867

LAWA | Providing the Hydrology Report and Drainage/LID system design for the Taxiways A and B and the Service Roads at VNY | 08/2017 - Present | Technical Environment: large commercial airport (VNY) | Staff Assigned: Aoanan | Client Project Manager: Mark Vicelja, (424) 646-5871

Monterey Regional Airport | Prepared a Documented Categorical Exclusion (cat-ex) and an Initial Study for the construction of a solar farm. | 08/2016 - 11/2016 | Technical Environment: commercial airport (MRY) | Staff Assigned: Waller | Client Project Manager: Chris Morello, (831) 648-7000

Monterey Regional Airport | Prepared a Documented cat-ex and an Initial Study for the construction of a self storage facility. | 10/2016 - 01/2017 | Technical Environment: commercial airport (MRY) | Staff Assigned: Waller | Client Project Manager: Chris Morello, (831) 648-7000

McAllen International Airport | NEPA Documentation for Airfield Drainage Improvements | 01/2017 - 05/2017 | Technical Environment: large commerical airport (MFE) | Staff Assigned: Waller | Client Project Manager: Jeremy Santoscoy, (956) 681-1001

McAllen International Airport | Airfield Planning and NEPA Documentation for Improvements to Cargo Facility | 03/2017 - 10/2017 | Technical Environment: large commerical airport (MFE) | Staff Assigned: Waller | Client Project Manager: Jeremy Santoscoy, (956) 681-1001

Corpus Christi International Airport | Assisted with significant revision of the EA document and was tasked with coordinating document approvals with the FAA as well as the GSA | 07/2011 - 09/2016 | Technical Environment: commercial airport (CRP) | Staff Assigned: Waller | Client Project Manager: Fred Segundo, (361) 289-0171

Hillsborough County Aviation Authority | Cost consultant for the full-depth reconstruction of approximately 1000 feet of Taxiway N | 2016 - 2017 | Technical Environment: large commercial airport (TPA) | Staff Assigned: Hunley | Client Project Manager: Paul Piro, (813) 635-5549

Raleigh-Durham Airport Authority | Provided design estimate for the two design alternatives | 2017 - 2018 | Technical Environment: large commercial airport (RDU) | Staff Assigned: Hunley | Client Project Manager: John Walz, (904) 256-2246

Houston Airport System| Provided rough order of magnitude estimate for: Enabling Utilities Landside, FIS Renovation/Expansion, ARFF Station 92, C-West Garage Expansion, Terminal A Kids Play Areas, and Airside Operations Building projects | 2015 - 2017 | Technical Environment: large commercial airport (IAH) | Staff Assigned: Hunley | Client Project Manager: Robert Barker, (281) 233-3000

Wayne County Airport Authority (WCAA) Cost consulting, scheduling, and constructability services for: Runway 3L-21R Surface Upgrade, Taxiways M3, M4 and Portions of P4 Removal, Runway 21R Deice Pad Rehabilitation, As-Needed Airfield Pavement, McNamara Apron Modification and New Hardstand Positions, Wide Body Parking Apron, Taxiway Zulu Relocation | 2014 - 2018 | Technical Environment: large commercial airport (DTW) | Staff Assigned: Hunley | Client Project Manager: FBarry Ellerholz, (734) 955-5647

WCAA | Providing design estimate and construction administration for the reconstruction of Runway 3L-21R including associated taxiways | 2017 - Present | Technical Environment: large commercial airport (DTW) | Staff Assigned: Hunley | Client Project Manager: Teresa Samosiuk, (734) 942-3550

APPENDIX A RESUMES



CURT INGRAHAM PE

Project Manager

Curt has more than 33 years of experience in the engineering industry performing as a program manager, project manager and technical lead for complex civil engineering projects – specializing in AIP Grant projects on small, medium and large hub airports. His breadth of project experience includes Federal aviation clients on two continents and the Pacific Islands as well as general aviation and commercial aviation clients throughout California.

Education

▶ BS, Civil Engineering

Registrations

- Professional Engineer (CA)
- 2 Years with Burns & McDonnell
- 33 Years of Experience

As a program and project manager, Curt has led multi-year multi-task on-call programs at a number of airports in Southern California- producing Construction documents and providing Construction management services for replacement runway projects at Long Beach Airport, Palm Springs International Airport, and Southern California Logistics Airport within the last 5 years. Curt brings Construction management experience on over 40,000 feet of Runway Reconstruction/ Replacement projects and over 3,000,000 SF of ramp and taxiway projects completed in California within the last 10 years, most of which were designed and delivered under FAA AIP Grant Programs. Curt is known for delivering projects quickly, often ahead of schedule. He specializes in designing project to a budget and helping Clients to develop 'right sized' solutions that meet client's needs.

Terminal 6 Rehabilitation | Rivers & Christian Swinerton Joint Venture

LAX | Los Angeles, California

Project Manager Civil Works. Design for the reconfiguration of the airfield ramp within the existing Aircraft Parking Limit Line (APLL) boundary to accommodate the expansion of Terminal 6 15 total gates. Project includes the replacement of the T6 apron including concrete, fuel hydrant system including hydrant pits, branch lines and associated control valves and solutions to address new high mast lighting and Passenger Boarding Bridge foundations. Project requirements include addressing NFPA 415 requirements for capturing, storing and remediating potential fuel spills prior to introduction into the Storm Water collection system.

Engineering On-Call | Long Beach Airport*

LGB | Long Beach, California

 Runway 7R-25L Reconstruction Project **Program Manager.** Design for the civil portion for full reconstruction of Runway 7R/25L. Runway 7R/25L is 150-foot-wide, 5,415- footlong asphalt runway that intersects three other runways and has 13 crossing/connecting taxiways. Project included full removal and reconstruction of existing pavement, grading improvements to resolve exiting drainage issues. Project made substantial improvements to NAVAIDS including addition of in-pavement guard lights, new runway edge-lights and updates to existing taxiway lighting alignments. At the time of construction the \$15.1 Million dollar project was the largest FAA grant project for the airport.

On-Call Engineering Services I Ontario International Airport Authority

ONT | Ontario, California

Quality Assurance/Quality Control Manager.Various task orders including handbook revisions for airport procedures and touchdown zone (TDZ) lighting.

Engineering On-Call | Palm Springs International Airport*

PSP | Palm Springs, California

- Runway 7L-25R Reconstruction Project Program Manager for the design for the reconstruction of Palm Springs commercial Runway 7L-25R. Curt's team developed a program to utilize existing parallel Taxiway C as an alternate Runway to handle all commercial flights, and an approach was provided to allow continued commercial use. Taxiway C was remodeling into a Runway with no gap in commercial service. The existing project provide a full-depth reconstruction for the entire width and length of the runway including pavements within the RSA. The project included the development of a safety risk model which included coordination meetings with airlines, the airport owner, FAA, and TSA. The project was completed within the time frame required to maintain service, including the de-commissioning of the alternate runway into service as Taxiway C. Project bid was 8% below the Engineers Estimate, and was completed with limited change orders, and no time extension.
- Airfield Electrical Upgrade Project **Program Manager** for the replacement of the PSP airfield electrical systems. The project was initiated after routine Megger testing of the airfield circuits indicated a significant increase in resistance and failure of Runway lighting circuits was expected. The ACIP for the Airport was adjusted to prioritize the project and AIP funding secured. In the process of providing PS&E for 150,000 LF of wire, fixture and sign replacement with LED systems, the existing CCR's began to fail. The ACIP was undated to provide for new vault equipment and the project expanded to gut and replace the Electrical Vault systems including new CCR's, LED PAPI's, REILS and MIRL(LED) for the GA Runway. The project bid 15% below the Engineer's estimate.

 Runway 7L-25R Reconstruction Project Program Manager for the design and construction management team responsible for the reconstruction of the entire terminal apron and Taxiway G. The project included removing and replacing a full pavement section at all regional and international gates. We provided preliminary estimates and pavement condition index studies to justify and secure FAA AIP funding. Supervised the team developing Construction Documents (PS&E) as well as assisting the City of Palm Springs during bidding phase. The project included recycling the existing asphalt as base material which provided substantial savings in construction cost. Duties included updating restriping of the reconstructed taxiways, taxilanes and approaches to all gates.

Airfield Electrical Reconstruction Project*| of Palm Springs

PSP | Palm Springs, California

Program Manager. Replacement of the PSP airfield electrical systems. Project was initiated after routine Megger testing of the airfield circuits indicated a significant increase in resistance and failure of runway lighting circuits was expected. The ACIP for the airport was adjusted to prioritize the project and AIP funding secured. In the process of providing PS&E for 150,000 LF of wire, fixture and sign replacement with LED systems, the existing CCR's began to fail. The ACIP was undated to provide for new vault equipment, and the project expanded to gut and replace the Electrical Vault systems including new CCR's, LED PAPI's, REILS and MIRL(LED) for the GA Runway. The project bid 15% below the engineer's estimate.

Terminal 1 Modernization I Southwest Airlines

LAX / Los Angeles, California
Lead Civil Engineer. Lead contruction
administrative services. Final apron pavement
inspections and LID compliance.

^{*}denotes experience prior to joining Burns & McDonnell



Renju is an aviation civil engineer with more than 18 years of aviation engineering experience at major airports including LGB, LAX, SFO, and ORD. Renju has led the design of large commercial airport engineering projects and has served as project engineer on numerous projects similar to those anticipated under this on-call contract, including Runway 7R-25L Pavement Rehabilitation and Evaluation for LAX, and Runway 8-26 Safety Area Improvement project schematic design phase for ONT, involving grading, and drainage design to meet FAA Advisory Circular standards. He has also managed multiple taxiway designs and infrastructure reconstruction projects for Colorado Springs Municipal Airport, Phoenix-Mesa Gateway Airport, and El Paso International Airport.

Education

- MS, Civil Engineering
- ▶ BS, Civil Engineering

Registrations

- Professional Engineer (CA, AZ)
- 6 Years with Burns & McDonnell
- 18 Years of Experience

Los Angeles, California

Lead Design Engineer. As part of the airside design team, Burns & McDonnell provided all airfield civil engineering, aviation fueling design, and construction administration services for the T1 modernization program. The purpose of the project was to reconfigure the terminal to provide 13 narrow body capable gates serving primarily B737-800W and smaller aircraft. The Burns & McDonnell team has developed plans, specifications and cost estimates to remove and replace more than 400,000 square feet of pavement, relocate hydrant fuel pits, modernize the hydrant fueling system, and remove, replace, and install utilities to support the terminal renovation. Our team's in-house depth and breadth of technical experience, complemented by specialty subcontractors, has allowed us to fully resource and execute tasks of various sizes and meet schedule milestones. Responsible for delivering the design per FAA and LAWA design standards, coordinating and integrating the work of three subcontractors, and ensuring quality.

Airside and Landside Pavement Management Systems (APMS) at LAX, VNY | LAWA

Los Angeles and Van Nuys, California Project Manager. Per FAA requirements, LAWA is updating the airside and landside Pavement Management Systems (APMS) at LAX and VNY for safety and operability. The program includes in-depth research, field investigation, data analysis, and development and implementation of corrective actions for identified issues at runways, taxiways, aprons, parking lots, and service access roads at both airports, an area covering approximately 1,532 acres. The Burns & McDonnell team inspected more than 67 million square feet of airside and landside pavement as part of the project. Field activities were mostly conducted at night and during non-peak hours to minimize operations interruptions and optimize the passenger experience. Badging status allowed the team to integrate flexibly, and engage with operations staff, stakeholders, and security at both airports upon Notice to Proceed. Responsible for overall project execution, quality of deliverables, client liaison, subconsultant coordination (total of 9, including SBEs), extensive coordination with agencies and stakeholders, as well as with LAX and VNY operations.

Federal Inspection Station (FIS)

San Diego International Airport, California **Lead Task Manager:** The approximately \$200M (construction costs) Federal Inspection Station project involved the relocation of SAN's FIS (used by Customs and Border Protection) and building three new gatehouses for the Terminal 2 West area. Other design elements included reconfiguration of the Remain Overnight (RON) parking area, taxi lanes, centerline lighting relocation, and more. As part of the Turner/PCL/ Gensler design-build team, Burns & McDonnell is providing engineering design services for airside civil, ramp services, aircraft parking, gate design/ layout, and IT/special systems design. The accelerated project is extremely fast paced and involves providing 100% contract documents for Phase 1 in less than four months. Responsible for overall airside and ramp services design to FAA standards, led design of pavement, associated parking, geometric design, client interface, client and stakeholder interface, led meetings with airport divisions and airlines.

Runway 8R-26L Safety Area Improvement Project | LA/Ontario International Airport, LAWA

Ontario, California

Project Engineer/ Deputy Project Manager.

Renju was in charge for 30% design and preparation of construction plans, construction specifications, a project definition booklet and cost estimates for project safety area. The project involved bridge relocation, grading, drainage design to meet Federal Aviation Administration's Advisory Circular standards. The Safety areas at both runway ends were not meeting the FAA standards and required grading and relocation of perimeter fence and NAVAIDS (Navigational Aids).

Runway 7R-25L Pavement Rehabilitation and Evaluation Project | LAX

Los Angeles, California

Project Engineer. He is responsible for performing pavement inspections, alternate analysis, recommending rehabilitation strategies, client coordination, sub-consultant coordination, for performing topographic survey, pavement evaluation and report preparation.

Runway 9R-27L Extension and Associated Taxiways Phase 1 | O'Hare International Airport

Chicago, Illinois

Project Engineer. His responsibilities include design assistance for preliminary engineering and agency approval services. He provided coordination of design criteria, validation of existing conditions, geotechnical explorations, drainage design, review of pavement design, horizontal and vertical geometrics, pavement markings, construction cost estimating, and scheduling. Tasks also included conducting overnight site visits to verify conditions at the existing airport facilities.

Runway 4-22 Rehabilitation | William P. Hobby Airport

Houston, Texas

Project Engineer. His responsibilities included civil design support and construction document preparation for the rehabilitation of the continuously reinforced portland cement concrete runway 4-22, rehabilitation and reconstruction of Taxiway C and the reconstruction and extension of the Northeast Perimeter Road. Other responsibilities included airfield and roadway geometric layout, pavement jointing plans, subsurface drainage design and details, roadway design, and utility relocations and improvements. Renju provided direct support of quantity calculations and budget validation for the design team and provided sub-consultant oversight and project team coordination





CHRIS D'SA ESQ, RME, ENV SP

Environmental Lead

Chris brings more than 30 years of California experience working for LAWA, SFO, Southwest Airlines, Delta Air Lines, VTA, LA County Metro, Metrolink, Caltrans, and other similar clients on a broad range of environmental projects including emergency support, compliance, program management, construction support, fuel tank removals, installations, site assessment, soil and groundwater remediation, and permitting. In the past three years, Chris has directly supported major capital construction projects totaling more than \$10 billion dollars. He brings a unique blend of legal, environmental, and compliance experience and has had notable success in moving client sites to closure that had languished for years without a regulatory path forward prior to his involvement. Chris has worked on hundreds of airport and transportation projects and ensures close coordination with the construction management team to limit the impact to operation.

Education

- Juris Doctorate (CA)
- MS, Geology
- ▶ BS, Geology

Registrations

- Contractors' License (CA)
- Registered Environmental Assessor
- ▶ I & II (CA)
- Envision Sustainability Professional
- Attorney(CA)
- ► South Coast Air Quality Mgmt. Dist.Dust Control Certificate

6 Years with Burns & McDonnell

30 Years of Experience

Sky Way at Los Angeles International Airport (LAX) T2/T3 Modernization | Delta Air Lines Los Angeles, California

Project Director. Currently leading the environmental compliance and supporting the fueling design for another high-profile project, the \$1.9 billion Delta Sky Way at LAX program which is a public-private partnership for the 2nd largest private infrastructure project in the LA basin. Expedited the transfer of Terminal 2 and Terminal 3 operations from LAWA to Delta, which was a complex series of negotiations between executives at LAWA, Delta and the Air District. Instrumental in obtaining Delta's program wide NTP and obtaining environmental clearances on an expedited basis. For this sixvear construction program. Acting as the Delta/ LAWA single point of contact for coordination between the numerous stakeholders for environmental compliance. Our scope also includes the redesign of the aircraft hydrant fueling system including piping layout with tieins to existing pumping and transfer system, new distribution control valve vault, buried hydrant

mains, hydrant laterals and hydrant pits, high point vent and low point drain pits, manual isolation valve pits, emergency fuel shut off system, piping cathodic protection.

LAX Bulk Storage Fuel Facility | LAXFUEL Los Angeles, California

Environmental Project Manager. This highprofile design-build LAXFUEL fuel tank farm expansion project comes at a crucial point for LAX to accommodate an increase in air traffic, and construction of the on-going Midfield Satellite Concourse (MSC) project. This previously planned expansion is adding to the existing 16 aboveground storage tanks at the fuel facility site. The added capacity will be approximately 9 million gallons (gal) usable storage capacity. Expeditiously led the team to get LAWA to concur that the proposed project would have no potentially significant impact in the CEQA areas. Under NEPA, he prepared a Categorical Exclusion for the FAA and successfully argued, reversing the FAA's initial determination, that the proposed Project does not individually or cumulatively have significant effect on human environment and that the project is categorically excluded under FAA Order. This enabled the project to start construction on time saving almost 36 months if the FAA's initial determination would have been upheld.

LAX Terminal 1 Modernization | Southwest Airlines

Los Angeles, California

Program Manager. Overseeing multidisciplinary team during the more than \$517 million modernization of T1. Design of apron pavement removal and replacement, relocation of hydrant fuel pits and other modernization of the hydrant fueling system, and the removal, replacement and installation of utilities to support the terminal renovation. Conducting program management, coordinating and working with numerous stakeholders to keep the project on target. Acted as the single point of contact for LAWA for coordination between SWA, LAWA and the numerous subcontractors for environmental compliance with Hazardous Materials and reporting requirements, SPCC and stormwater compliance; environmental oversight, permitting and compliance, meetings, stake holder engagement, field work, sampling.

Flight 214 Crash | Asiana Airlines San Francisco, California

Project Manager. Project tasks included emergency response, site assessment, and construction support following a July 2013 plane crash of an Asiana Airlines Flight 214 Boeing 777-28EER at San Francisco International Airport, CA (SFO). Activities included supporting the massive relocation of the fuselage, sampling and analysis of soil, excavation of impacted soil, transportation and disposal of impacted excavated materials as special waste, and soil sampling, include on-call response to SFO airport coordinators, coordination of hazmat clean up responders to the site, on-site management of hazmat crew, maintaining communication with UAL and Asiana during cleanup, tracking and reporting events to airline managers. Managed the design and construction using an EPC / Design-Build delivery. Specific tasks were

excavation, offsite disposal of contaminated materials, emplacement of a chemical amendment, replacement of runway lighting and site restoration. Strict coordination and very limited work hours were required to complete remedial activities while minimizing impacts to runway operations. Provided full-time on-site construction management, as well as safety and quality control. Personally named in an acknowledgment and gratitude letter from SFO Airport Director to Burns & McDonnell's CEO.

XPO Logistics (former Con-way) Freight Sites in California

Program Manager. XPO's fueling program in California. We are currently evaluating 200+ fueling sites nationwide for XPO Logistics, including all 15 locations in California, adding to a substantial list of XPO remediation projects dating back to 1998 and worth more than \$50 million. The site evaluations provide XPO detailed information to plan and budget for improvements and replacements at its fuel storage tank facilities nationwide. Managing the replacement of several facilities in California. In 2015, managed the removal construction of one new motor oil and one used oil UST. During the UST removal, one of the product piping was found to be leaking. Managed the remediation by excavation and hauling contaminated soil offsite. Managed the design and install of a new motor oil and used oil fueling system serving as the engineer and the general contractor (i.e. Design-Build).



Jason's airfield planning experience include numerous pavement maintenance and management programs. His site design experience includes pavement design, storm drainage design, and utility layouts for various facilities. Jason is proficient in the FAARFIELD and PCASE pavement design programs along with the PAVER program for airfield pavement inspections.

Education

- MS, Civil Engineering
- ▶ BS, Civil Engineering

Registrations

- Professional Engineer (MO, KS, IL, KY, MI)
- National Council of Examiners for Engineering and Surveying (NCEES)
- 15 Years with Burns & McDonnell
- **5** Years of Experience

Terminal 2 West FIS Build Out | SDCRAA SAN | San Diego, California

Civil Engineering Quality Control Manager for the development, design and application of airside civil requirements for the FIS project at San Diego International Airport (SAN). The fast track design-build project required close communication with the contractor before the design was fully approved. Burns & McDonnell performed the airfield design services as part of the Turner/PCL design-build team, and included airfield pavement design and rehabilitation, airfield in-pavement lighting, and airfield striping of gates for both FIS and non-FIS usage.

Rehabilitation of Taxiway F | City of Kansas City, Missouri

MCI | Kansas City, Missouri

Project Manager. Kansas City International Airport is in the middle of major infrastructure improvements prior to the opening of their new main terminal. As a part of this improvement, Taxiway F is undergoing a major rehabilitation project in which the existing 17" PCC surface is being removed and replaced. Further, Taxiway F is undergoing geometrical improvements to meet the FAA's standards for fillet design. This project was designed in 2018 and is currently under construction with an anticipated

completion in the fall of 2019. Total construction cost is \$18.6 Million.

Taxiway M and S Rehabilitation | Kenton County Airport Board

CVG/ Hebron, Kentucky

Project Manager and Engineer of Record.

As part of CVG's ability to continually service heavy cargo aircraft, portions of Taxiway M and S required rehabilitation and reconfiguration to accommodate updated FAA requirements. This project included a full depth pavement reconstruction of Taxiway M using a 16.5-inch concrete pavement section from Taxiway M4 to Taxiway E (approximately 2,400 feet). This pavement is 75 feet wide and includes new 30' wide shoulders. Further Taxiway S was rehabilitated by removal and replacement of the existing 18-inches of surface PCC on Taxiway S from Taxiway M to Taxiway S5 (approximately 1,800 feet). Construction was completed in fall of 2014. Total construction cost was \$8.1 Million.

Runway 3-21 Rehabilitation | Kansas City Aviation Department

MKC | Kansas City, Missouri

Project Civil Engineer/Owner's Resident Engineer/Project Manager. The rehabilitation of Runway 3-21 at Charles B. Wheeler Downtown Airport, Kansas City, MO. Runway 3-21 was a 5,050' long by 150' wide asphalt runway that was narrowed to 100' wide and milled and overlaid with new Superpave asphalt pavement. The construction phasing was a critical part of the project since this runway intersects the primary Runway 1-19.

Rehabilitate Runway 1R-19L - Package 1 | Kansas City Aviation Department MCI | Kansas City, Missouri

Project Manager/Lead Civil Engineer. A \$17.9 M rehabilitation of Runway 1R-19L. The original Runway 1R-19L and its taxiway connectors have severe durability cracking that is becoming progressively worse and creating a FOD potential on the runway. Phasing considerations for this project include development of a complex Construction Safety & Phasing Plan (CSPP) for rehabilitating these pavements while maximizing airfield operation access on the intersecting crosswind runway complex including Runway 9-27, Taxiway C, and Taxiway D and maintaining access to the airline terminals and airfield overhaul base.

Airside and Landside Airport Pavement Management System (APMS) | LAWA LAX | Los Angeles, California

Quality Control Engineer. The FAA requires LAWA to develop and maintain an Aviation Pavement Management Program for LAX and VNY airports. Burns & McDonnell was selected as the prime consultant to lead an 11-firm team to the current APMS program at LAWA's airports and expand the program to include landside pavements and service roads as well.

- Airside APMS services will include the following:
 Updating pavement inventory data for Air Operations Area (AOA) primary pavement surfaces (i.e. runways, taxiways, and taxilanes)
- Evaluating current pavement conditions by collecting distress data and modifying and customizing existing MicroPaver networks
- Performing existing network customization for LAX and VNY
- Analyzing and integrating data into LAWA's Airport Enterprise Geographic Information System (AEGIS) application
- Generating pavement condition reports to

identify future pavement projects. These reports will identify locations of future pavement projects prioritized by the pavement condition index (PCI).

Landside APMS services will consist of the development and implementation of airside APMS protocols, network definition, inventory, software, database integration, and applications for landside pavement (including roadways and parking lots) and AIA services roads at LAX and VNY airports. The landside system will be integrated into LAWA's AEGIS application. Information generated will be used to assist decision makers in allocating resources for future capital and maintenance projects.

Repair Runway 5R/23L, Taxiway B, Taxiway D and Taxiway A | USACE Louisville
Wright Patterson Air Force Base | Greene
County, Ohio

Project Manager. A \$26.5M DBB airfield infrastructure including new 125,000 SY five-inch thick concrete/ asphalt runway and 95,833 SY of new/rehabilitated taxiways, along with airfield lighting and NAVAIDS. Responsibilities included participation in design charrettes and design of airfield lighting including runway and taxiway edge lighting, runway threshold bar, runway guard lights, taxiway guidance and mandatory signs. During the programming and charrette process, a request was made for night vision goggle (NVG) lighting on Runway 05R/23L. To accommodate this non-programmed request, we provided a separate rehabilitation pavement design in the areas of the lighting to properly space, wire and install the NVG in-pavement lighting. Drawings were developed in Autodesk AutoCAD Civil 3D and UFGS specifications were created in SpecsIntact. Cost estimates were developed in MII.



CHUCK McCORMICK

FAA Coordination

Chuck has more than 30 years of diverse aviation experience, primarily for Southern California airports. He has significant experience designing airport electrical systems for both civilian and military airfields. He is responsible for preliminary and final designs as well as construction administration of airfield lighting systems, navigational aids (NAVAIDs), security systems, and other special systems associated with airfield improvement projects for both commercial service and general aviation airports.

Education

- BS, Electronics and Computer Engineering
- Private Pilots Certificate, Single Engine Land
- 4 Years with Mead & Hunt
- **30** Years of Experience

Chuck worked for twenty years as national electrical engineer/lighting specialist/project engineer for the FAA Airports Division in Los Angeles, CA, and was responsible for developing the latest electrical designs for airports within the United States. He served as consultant to electrical design engineers so that they could properly apply FAA engineering standards to aviation projects. He served as project manager on many airport development construction projects, particularly on the Runway Safety Area Revalidation Program. He taught engineering classes on airport lighting, marking, and signage at the FAA Academy, and frequently addressees these areas at aviation conferences.

Chuck was program manager at the FAA for the Runway Safety Area (RSA) Validation Program. He provided project management to update the status of all the RSA's at airports that receive commercial service within Arizona, California, Hawaii, Nevada, and the Pacific Islands. A plan was developed including cost and completion date for each RSA that did not meet FAA standards. Possible improvement measures included construction or realignment of the runway, removal of objects encroaching within the RSA, declared distances, or installation of an engineered material arresting system. Chuck was also FAA project engineer and provided guidance on the interpretation on airport design standards and Airport Improvement Program (AIP) funding requirements. The ALCMS simplifies the control and monitoring of lighted visual aids and enhances airport safety. The basic function of the system remains the same for a general aviation airport that supports only a few operations in a day or a large commercial airport which caters to hundreds of operations on any given day.

Chuck is a detail-oriented individual who possesses both a technical and practical understanding of airfield improvement projects and their effect on airport development projects and aircraft operations. With his 23 years of flying experience and over 20 years with the FAA, he brings both the pilots and FAA perspective to a project. He has the ability to effectively communicate complex technical issues with key airport and agency personnel while also being able to speak one-on-one with the public to address their concerns.

Rehabilitation of Runway 7L-25R

Long Beach Airport

Project Manager. Chuck is extremely familiar with Long Beach Airport, having served as contract manager for the Rehabilitation of Runway 7L-25R, the Airport's alternate commercial service runway. The design incorporated P-401 pavement to provide at least a 20-year life cycle. In addition, new LED medium-intensity runway lights were included in the design and installed along with runway guard lights at five connector taxiways. The guard lights were installed to minimize runway incursions by alerting pilots to the approaching runway intersection. The guard lights used the latest LED technology to extend lamp life and to reduce maintenance and operational costs.

On-Call Architectural/Engineering Services Ontario International Airport (ONT)

Project Manager. Chuck is currently project manager for the on-call consulting contract for Ontario International Airport. Chuck handles the day-to-day communication with airport staff, assisting with the overall program for airport development. Among the projects and tasks he has managed for ONT in the past five years are:

- South Cargo Ramp Design and Rehabilitation
- ▶ Terminal 1 Apron and Taxiway G design
- Terminals 2 and 4 parking lot storm drain and vault design
- CIP development
- Project scheduling
- Coordination of consultants, contractors and vendors
- Federal, state and local agency coordination
- Project and bid administration
- AIP Grant Application development
- TSA Recapitalization Project Design
- Airfield Marking Design

On-Call Engineering Services

Mojave Air & Space Port

Project Manager. Chuck handles the day-to-day communication with airport staff, assisting with the overall program for airport development. This is a five-year contract which began in 2018 for miscellaneous engineering projects. The first project we performed was for the design and construction management of an Airport Perimeter Road. The Project consists of the improvement of the existing perimeter roads on the southeast and easterly perimeter of the Airport that serves several tenants in that area of the Airport. The approximate length of the roadways to be improved is 5.5 miles with the design also addressing some of the minor drainage issues along the route. The project is ongoing.



Doron has over 25 years of experience in providing professional design services related to airfield electrical, NAVAID, and Aeronautical infrastructure projects. He is a frequent contributor to FAA Briefs and Advisory Circular and has performed over 100 Navigational Aids and Airfield Lighting projects at over 30 CAT X, large-size and medium-size hub airports. Doron has extensive, unique experience in design, maintenance, commissioning, and testing of airfield electrical systems. He has applied his expertise to diverse projects, including SFO's \$220M runway safety area projects and LAX's \$180M safety area projects. He

Education

 BS, Electrical Engineering & Applied Mathematics

Registrations

Professional Engineer (AZ, CO, HI, ID, MI, NV, TX, UT, WA)

16 Years with Lean Engineering

23 Years of Experience

will bring his key expertise and proven track record of experience with airfield lighting, airspace, and aeronautical engineering to ensure exceptional project outcome.

LAX Runway 6R-24L Safety Area Upgrades Los Angeles, CA

Principal NAVAID and Electrical Engineer.

Provided design, planning and on-call engineering support for the relocation of Runway 6R and reconstruction of a portion of Runway 24L. Some major tasks included evaluating the NAVAID (Navigational Aid) requirements associated with each runway and the radar station/parabolic antenna for each runway length option, relocating 24L MALSR (Medium Intensity Approach Lighting System With Runway Alignment Indicator Lights), PAPIs (Precision Approach Path Indicators), 6R localizer and 6R glideslope, providing new copper backbone infrastructure, new Runway 6R MALSR infrastructure, new airfield lighting including power and communication infrastructure, and new airfield lighting vault. Doron was responsible for delivering the planning and design of this safety area upgrade project.

LAX Runway 6L-24R Safety Area Upgrade and Pavement Rehabilitation

Los Angeles, CA

Principal NAVAID and Electrical Engineer.

PDoron was the Principal NAVAID and Electrical Engineer, providing on-call aviation support to get the runway to comply with FAA standards. Some specific tasks included coordinating with airport stakeholders, design and engineering, risk analysis, development of runway closure scenarios, airfield lighting, signage, marking planning, runway touchdown zone lights, runway centerline lights, RWSL (Runway Status Lights) fixtures, taxiway lead-in centerline lights, NAVAIDs, and ARGO channel work. LEAN also provided construction-phasing coordination to ensure maximum efficiency and minimal impact to airfield operations. Doron was responsible for delivering the planning and design and was able to deliver the results on time and on budget.

LAX Runway 7L-25R Safety Area Improvements

Los Angeles, CA

Principal NAVAID and Electrical Engineer. Doron was the Principal NAVAID and Electrical Engineer who worked on this design-build-bid project to install the new MALSR system due to the runway extension. The tasks included a new 07 MALSR system and shelter, demolition of existing localizer shelter, new 25R and 25L localizer shelter, replacement of FAA storage facility, relocation of DME antenna, and modifications of high voltage utility and power distribution system. Doron was responsible for delivering final design, engineering, and construction documents.

SFO Campus-Wide Airport Security Infrastructure Program Low Voltage System Upgrades

San Francisco, CA

Principal NAVAID and Electrical Engineer. Doron was the Principal NAVAID and Electrical Engineer for the airfield electrical portion of this project to upgrade security perimeter infrastructure. LEAN's specific tasks included about 22 miles of fiber and associated power and communication infrastructure. Phase 1 included 10 miles of fiber and communication ductbank in order to upgrade the PIDS and other electrical systems. Phase 2 required LEAN to design fiber and communication ductbank for various areas of SFO, including Station AR, providing power to ITT cabinets, and multiple FOTS shelters. Doron was responsible for delivering the final design for both phases.

SFO Taxiways D and T RealignmentSan Francisco. CA

Principal NAVAID and Electrical Engineer. Doron was the Principal NAVAID and Electrical Engineer for SFO's project to realign Taxiways D and T. LEAN was tasked with designing drawings that would accommodate the multiple configurations & temporary electrical work required to shift the taxiways. Specific tasks included taxiway edge, centerline, and guard lights, new signage, ALCS modifications, RWSL, and associated fiber and power, and sectionalizers. Doron was responsible for delivering final design and engineering documents.

OAK Runway 12-30 Rehabilitation & Temporary Conversion of T/W W to R/W 11-29

Oakland, CA

Principal NAVAID and Electrical Engineer.

Doron was the Principal NAVAID and Electrical Engineer for this innovative project to rehabilitate the runway. Work included: installing a parallel runway lighting system on Taxiway W, including guard lights, REILS, PAPIs, converting the taxiway into a runway in single 5-hour closures, and rehabilitating all airfield electrical work, including runway lighting, taxiway lighting, and CAT III lighting. Doron worked both as the design and electrical construction manager, supervising the overlay process to ensure all of the electrical components were up to par. He also acted as a liaison with air traffic, FAA flight procedures, FAA flight inspection, air carriers and 3rd party aeronautical data providers to ensure that flight operations were in check before, during and after the project.



Trevor is well-versed in construction surveying; QA/QC surveys; DTM surfaces and topographic mapping; property line surveying; monument control surveying; engineering design surveys; GPS and RTK surveying; horizontal/vertical control networks; aerial control surveys; as-built surveys; right of way engineering; monument preservation; boundary line determination and analysis; boundary deed interpretation; boundary reconstruction; easement analysis and construction; map preparation; Public Lands Survey System (PLSS); map checking for compliance with the Professional Land Surveyor's Act and The Subdivision Map Act and ALTA/ACSM Land Title Surveys.

Registrations

- ▶ Licensed California Surveyor (PLS)
- Certified Federal Surveyor (CFedS)

16 Years with D. Woolley

21 Years of Experience

Los Angeles County Metrorail/Caltrans Park and Ride Exchanges:

Los Angeles, CA

Project Manager. Prepared the technical documents which includes legal descriptions and plats, appraisal maps, records of survey, CTC support packages, monumentation maps, relinquishment maps, control surveys, encumbrance mapping of easements and deed preparation.

City of Long Beach/Port of Long Beach/ Long Beach Airport/Long Beach Gas and Oil: Long Beach, CA

Project Manager. Performs and/or supervises staff in the preparation of street vacation documents, Lot Line Adjustments, Certificates of Compliance, subdivision mapping, preparation of legal descriptions and plats, contract compliance with for construction documents, coordination with interagency personnel and security at the airport, technical QA/QC of inhouse work products.

U.S. Department of Agriculture (USDA) Forest Service

Los Angeles, CA

Project Manager. Performed multiple PLSS retracement surveys encompassing areas covering several sections. During the course of these surveys, extensive monument searches were performed. Section corners were re-established using bearing trees, with comparisons being made to the original topographic features called for in the original notes.

Metropolitan Water District of Southern California

California

Project Manager. Performed topographic and boundary surveys for the monumentation of existing easements. These surveys consisted of field work that included boundary retracement, locating topographic features, setting monuments and geodetic control networks.



SIVA SIVATHASAN PHD. PE. GE. DGE. QSD. F. ASCE

Geotechnical

Siva is a registered civil and geotechnical engineer in California, with 25 years of geotechnical and construction experience. He is skilled at analyzing complex geotechnical problems and has prepared comprehensive reports with detailed recommendations. He also has extensive knowledge of construction projects from managing geotechnical observation and testing, special inspection and material testing, and Caltrans source inspection services. He has been providing source inspection for major transportation projects in Southern California. He is a subject matter expert for the California Board of Professional Engineers, Land Surveyors, and Geologists for geotechnical engineering exam development.

Education

- ▶ PhD, Civil Engineering
- MS, Civil Engineering
- ▶ BS, Civil Engineering

Registrations

- Professional Engineer (CA)
- Geotechnical Engineer (CA)
- ▶ Diplomate of Geotechnical Engineering

15 Years with Converse Consultants

25 Years of Experience

Taxiways and Runways, Los Alamitos Army Airfield

Los Alamitos, CA

Project Manager. Provided oversight and review of various geotechnical investigations for the project. The project consisted of the California Army National Guard and the Air National Guard planning to complete the geotechnical study for the improvement of Los Alamitos Army Airfield. The existing site is the Army Airfield located in the City of Los Alamitos, California. The runway, taxiway, apron, and overrun will be evaluated and improved, if needed.

Vineyard Avenue Grade Separation at ONT Ontario, CA

Project Manager. Responsible for quality control and quality assurance during construction and managed/oversaw the work for the geotechnical design report distributed to the City of Ontario and SANBAG. The project includes a highway grade separation underpass under the existing Union Pacific Railroad Alhambra Subdivision Line elevating the railroad approximately 4 feet and depressing Vineyard Avenue under the bridge at the entrance to the Ontario International.

John Wayne Airport Taxiway Improvements Santa Ana, CA

Project Engineer. Coordinated field work and reviewed the field reports and implemented quality control and quality assurance.

Santa Monica Airport Blastwall Project Santa Monica. CA

Project Manager. Provided oversight and review for various geotechnical investigations for the project. The investigation consisted of several hollow stem auger borings, laboratory testing and engineering analyses.

Santa Monica Airport Support Building Santa Monica, CA

Project Manager. Provided oversight and review for various geotechnical investigations for the project. Coordination for the project included security and control power for the geotechnical investigation. Investigation involved several geotechnical borings, laboratory testing and engineering analyses.

Korean Air Underground Storage Tank at LAX Los Angeles, CA

Project Manager. Oversaw field technicians and provided quality assurance during construction phase for underground storage tank removal and backfilling and compaction.



VIRGIL AOANAN PE. SE. GSD. ENV SP

Structural

Virgil has over thirty years of hands-on experience in structural and civil engineering related to planning, design, management, and construction of aviation, commercial, education, healthcare, housing industrial, institutional, military, municipal, recreation and transportation facilities. He has prepared and executed engineering construction documents (plans, specifications, calculations, requisitions, contracts) in multiple capacities as project manager, project engineer, lead engineer, design engineer, and construction engineer in both the structural and civil disciplines. As a Civil Engineer, Mr. Aoanan is intimately familiar with design issues related to: site development, site and facility condition assessments, public works improvements (B-Permits) storm wet utility design and capacity studies (sanitary sewer, potable and fire water), water management (LID, SWPPP, SUSMP), grading and earthwork calculations, site sustainable

Education

▶ BS, Civil Engineering

Registrations

- Professional Engineer (CA)
- Structural Engineer (CA)
- CASQA Qualified SWPPP Developer and Practitioner
- Envision Sustainability Professional (ENV SP)

16 Years with VCA

30 Years of Experience

design (LEEDS, CHPS), site infrastructure design, capital improvement programming, roadway and streetscapes geometrics, composite utilities coordination and right of way, onsite traffic parking circulation and analysis, hydrology and hydraulics studies and design, ADA path of travel requirements. As a Structural Engineer, he directly managed and participated in the structural analysis, design, and construction of various types of buildings and structures, new, renovated, and or seismically retrofitted.

Long Beach Airport Terminal Area **Improvements**

Long Beach, CA

Project Manager. The project consisted of new construction and alterations to existing terminal facilities at the Long Beach Airport. The work covered a floor area of about 45,913 SF with 8,163 SF remod-eled space. Construction performed in this project followed the Environmental Impact Report (EIR) prepared to address im-provements made to the airport. New construction included enclosed conditioned space i.e., hold rooms, airside re-strooms, and concession tenant spaces, and covered nonconditioned areas i.e., canopies connecting hold rooms and existing terminals. The existing south terminal was remodeled for use as a passenger screening checkpoint.

LAX, Central Terminal Area Security Bollards for Commercial Median Islands

Los Angeles, CA

Project Manager. LAWA install 2,200 bollards, 1,800 bollards through both the upper/ departures and lower/arrivals levels of LAX and 400 in pedestrian islands serving ground transportation services. The new k-rated bollards will replace k-rails, which were temporarily installed. The installation of these bollards is part of the con-tinuing commitment to ensure the safety of travelers, employees, and everyone who comes to LAX. VCA Engineers, Inc. was task with the preparation of permit-ready plan set to be incompliance with all regulatory agency requirements to install k-rated security bollards on both the upper/ departures and lower/arrival levels of LAX,

preparation of technical specifica-tions, special conditions and engineer's estimates aswell as a complete topographical and underground utility survey.

LAX, Runway 6R-24L Safety Area (RSA) and Rehabilitation Im-provements

Los Angeles, CA

Project Manager. VCA was responsible for completing the storm water manage-ment that included the hydrology and hydraulic design to cal-culate the storm water runoff generated by the project site and the underground pipe conveyance and discharge of the runoff. To mitigate the storm water runoff, VCA prepared a Low Im-pact Development (LID) plan per the storm water LID Ordi-nance adopted by the City of Los Angeles. In addition, the project involved landside street improvements to Davidson Drive, Alverstone Avenue and W96h Street realignment as de-marcated by AOA Perimeter Security Fence on each side of the relocated SAAP3.

LAX, Taxiway C14 and Enabling Los Angeles, CA

Project Manager. VCA is currently providing engineering services for the design of the relocation of the Airfield Lighting Vault 2, the US Air-ways Maintenance Facility and the storm drainage for the Taxi-way C14. These improvements will include demolition of exist-ing buildings and proposed water quality treatment facilities permanent best management practices (BMP's) designed according to the City of Los Angeles Standard Urban Stormwater Mitigation Plan (SUSMP).

LAX, Secured Area Access Post at World Way West

Los Angeles, CA

Project Manager. VCA is currently providing engineering services for the design and construction of a new Secured Area Access Post (SAAP) on LAX's Westside located where for the former Continental General Office (GO) Building is that will be capable of handling any type of vehicles requiring access to the Airport Operations Area (AOA). LAWA's new Westside SAAP concept develop-ment objective is to provide a post configuration and elements that

improve officer safety and comfort, enhance the effec-tiveness and efficiency of vehicle inspections, and provide for the inspection of vendor supply vehicles, construction vehi-cles, and any and all other vehicles entering the Airport Opera-tions Area (AOA) at LAX.



Molly began her consulting career as a planner for a large, multi-national consulting firm. After gaining experience siting facilities, such as power plants and fiber cable installations, she moved on to a career focused on airport planning and environmental assignments. Over the past 17 years she has managed or led airport planning and environmental projects at over 60 airports across the nation. These assignments began in the environmental field with the preparation of NEPA documents for projects ranging from fuel farm removal and installation, to runway extensions, to new terminals. She then moved to traditional airport planning with a focus on providing implementable solutions to meet community's airport and economic development needs.

Education

- MS, Community and Regional Planning
- BS, Business Administration, Emphasis in Financial Planning

03 Years with Lean Engineering

20 Years of Experience

National Environmental Policy Act (NEPA) Documentation

- Tucson International Airport, Documented Categorical Exclusion for Closure of Existing and Construction of New Fuel Farm - Project Manager/Principal Author
- Corpus Christi International Airport,
 Environmental Assessment (EA) for Runway
 Decoupling Project Manager/Principal
 Author
- Corpus Christi International Airport, EA for Construction of Coast Guard Facilities -Project Manager/Principal Author
- Corpus Christi International Airport,
 Documented Categorical Exclusions for FAA facility relocations (lighting and navaids) Project Manager/Principal Author
- Fresno-Chandler Airport, Environmental Assessment for Construction of Proposed FBO Facilities - Project Manager/Principal Author
- Fresno-Chandler Airport, Environmental Assessment for Proposed Runway Improvements (Extension) - Project Manager/ Principal Author
- Fresno Yosemite International Airport,
 Environmental Assessment for Proposed
 Runway Safety Area Improvements Project

Manager/Principal Author

- Monterey Regional Airport, Documented Categorical Exclusion for solar installation and self-storage facility - Project Manager/Principal Author
- Monterey Regional Airport, EA for RSA Improvements - Project Manager/Principal Author

California Environmental Policy Act (CEQA) Documentation

- Palm Springs International Airport, Initial Study for Master Plan - Principal Author
- Riverside County Airports, Initial Studies in Support of Comprehensive Land Use Plan Adoption - Principal Author
- Monterey Regional Airport, Initial Study for solar installation and self-storage facility -Project Manager/Principal Author
- Monterey Regional Airport, EIR for RSA Improvements - Project Manager/Principal Author
- Fresno-Chandler Airport, EIR for Proposed Runway Improvements (Extension) - Project
 Manager/Principal Author
- Fresno Yosemite International Airport, EIR for Proposed Runway Safety Area Improvements -Project Manager/Principal Author



DAVID HUNLEY PE

Cost Estimating

David, an associate principal and vice president, has 36 years of experience with responsibilities including cost estimating, scheduling, construction oversight and administration, resident project representation, design support, and engineering fee reviews. He has worked on more than 70 airport projects in the last 10 years.

Education

▶ BS, Civil Engineering

Registrations

- Professional Engineer (HI, KY, MI, OH, TN)
- 27 Years with Connico
- **36** Years of Experience

Taxiway C14 and Associated Projects at Los Angeles International Airport (LAX) Los Angeles, CA

Cost Consultant. David provided a rough order of magnitude estimate for the project that included the construction of approximately 5,600 feet of new full-strength taxiway pavement, parallel to Taxiway R between Taxiway B and Taxiway E. This new taxiway will be temporarily designated Taxiway C14 (ultimate taxiway name to be identified at later date) and be constructed to Aircraft Design Group VI standards, including all required signage, lighting, and markings. Several enabling projects will be completed along with the construction of Taxiway C14, including the replacement of an existing electrical vault, demolition of a hangar fire deluge system, the realignment of several vehicle service roads, and reconfiguration of the Coast Guard road to become non-public.

Taxiway S from Taxiway F to Cucamonga Channel Rehabilitation at Ontario International Airport (ONT)

Ontario, CA

Cost Consultant. For this project, David provided the project definition estimate for the rehabilitation of this taxiway. There was cracking in this taxiway possibly caused by a box culvert that extends under it. There was also other cracking occurring as well. This Project

Definition Booklet offered four (4) options for repair of these cracks.

Runway 3R-21L, Taxiway S and Taxiway W Reconstruction at Detroit Metropolitan Wayne County Airport (DTW)

Detroit, MI

Cost Consultant. David provided project representation, constructability reviews, and cost estimating. This project included the reconstruction of Runway 3R/21L, Taxiway S, and a portion of Taxiway W and associated peripheral work. The runway was approximately 10,000 feet long and consisted of demolishing the existing pavement, installing a herringbone underdrain system, preparing the stone base, placing a three-inch asphalt leveling course, placing a six-inch drainable asphalt base, and placing 17 inches of Portland cement concrete pavement (PCCP). Thirty-five foot shoulders on each side of the runway and taxiway were reconstructed with 23 inches of recycled concrete base, three inches of asphalt base, and two inches of asphalt surface. Runway centerline lights, runway edge lighting, and guidance signs were replaced. New duct and electrical cabling were installed to accommodate the above electrical lighting. Grooving of the runway surface and applications of the pavement markings were applied. New touchdown zone lights were installed on the southern end of

the runway with all of the connector taxiways reconstructed out to the runway safety area.

Taxiway W Reconstruction and Taxiway N Rehabilitation at Tampa International Airport (TPA)

Tampa, FL

Cost Estimator. David was the cost consultant for this project that included the full-depth reconstruction of approximately 1000 feet of Taxiway N. The existing concrete pavement was replaced with new full-depth concrete and turf shoulders. The project included associated electrical and drainage work as necessary to install a functional pavement.

On-call Projects at George Bush International Airport (IAH)

Houston, TX

Cost Consultant. David provided cost consulting services for several projects within the on-call including Enabling Utilities Landside Project, Federal Inspection Services (FIS) Renovation / Expansion Project, Aircraft Rescue and Firefighting Facility (ARFF) Station 92 Project, C-West Garage Expansion Project, Terminal A - Kids Play Areas Project, and Airside Operations Building Project

Runways 5-23 and 14-32 Rehabilitation at Norfolk International Airport (ORF)

Norfolk, VA

Cost Consultant. David estimating services for the project that included the rehabilitation of Runways 5-23 and 14-32, including: Runway 5-23 asphalt rehabilitation, grooving and seal coat; Runway 5-23 centerline lights replacement with a new regulator; Runway 5 end and 23 end Portland cement concrete pavements (PCCP) rehabilitation; Runway 5-23 runway end light replacements; Runway 14-32 asphalt rehabilitation, grooving and sealcoat; and Wind cone replacement.



CREATE AMAZING.

EXHIBIT "B"

Rates or Charges

Rate Schedule for the City of Long Beach Engineering Services for Various Development Projects at Long Beach Airport

Effective Dates: Rates Are Effective through 2022

Consultant: Burns & McDonnell

	20	2020 Total		2021 Total	
	Load	Loaded Hourly		Loaded Hourly	
Employee Classification		Rate		Rate	
Principal-In-Charge / QA/QC	\$	314.65	\$	324.09	
Project Manager	\$	253.24	\$	260.84	
Senior Engineer I	\$	243.54	\$	250.85	
Senior Engineer II*					
Staff Engineer I	\$	194.92	\$	200.76	
Staff Engineer II*					
Staff Engineer III	\$	134.52	\$	138.56	
Assistant Engineer I	\$	131.12	\$	135.05	
Assistant Engineer II*					
Assistant Engineer III*					
Junior Engineer I	\$	70.27	\$	72.37	
Senior Designer	\$	191.47	\$	197.22	
Staff Designer	\$	138.63	\$	142.79	
Assistant Designer	\$	108.38	\$	111.64	
Project Administrator	\$	172.71	\$	177.89	
Administraive Assistant	\$	112.78	\$	116.16	

^{*} Positions not anticipated
Allowable direct cost will be billed per contract
Rates are based on 2020 rates with a 3% escalation for 2021

Rate Schedule for the City of Long Beach Engineering Planning and Design Services for Various Development Projects at Long Beach Airport (RFQ AP19-134)

Subconsultant: Lean Technology Corporation dba Lean Engineering

Employee Classification	Total Loaded Rate
Doron Lean, Project Principal	\$288.00
Paul Hannah, Senior Airspace Engineer	\$258.00
Jeffrey Anderson, Senior Project Engineer	\$191.00
Jackie Peng, Electrical Engineer	\$151.00
Vu Nguyen, Electrical Engineer	\$128.00
Tyler Hawkins, Senior Engineer	\$158.00
Kathleen (Kat) Virzi, Architect	\$101.00
Jose Andrade, Civil Engineer	\$95.00
Xuan (Sony) Bui, Electrical Engineer	\$121.00
Jose Gil Sanchez, Electrical Engineer	\$90.00

No mark-up allowed on sub-consultant costs Rates are effective through 2022

Mead&Hunt Long Beach Airport On-call Rate Schedule

Labor Category	Hourly Billable Rate
Senior Associate	326.49
Senior Engineer	158.78
Engineering Tech IV	125.42

No mark-up allowed on sub-consultant costs Rates are effective through 2022

EXHIBIT "C"

City's Representative:
Hugo Liu, Civil Engineering Officer
(562) 570-6195

EXHIBIT "D"

Materials/Information Furnished: None

EXHIBIT "E"

Consultant's Key Employees:
Peter Aarons, Principal-in-Charge
Curt Ingraham, PE, Project Manager