

OFFICE OF THE CITY ATTORNEY  
ROBERT E. SHANNON, City Attorney  
333 West Ocean Boulevard, 11th Floor  
Long Beach, CA 90802-4664

AGREEMENT

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THIS AGREEMENT is made and entered, in duplicate, as of February 21, 2012, for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on December 13, 2011, by and between HNTB CORPORATION, a Delaware corporation ("Consultant"), with a place of business at 200 E. Sandpointe Avenue, Suite 200, Santa Ana, California 92707, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City requires specialized services requiring unique skills to be performed in connection with planning and engineering consulting services for an Airfield Geometry Study and Airport Strategic Plan 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:

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 One Million One Hundred Thousand Dollars (\$1,100,000), at the rates or charges shown in Exhibit "B".

B. Consultant may select the time and place of performance for

1 these services; provided, however, that access to City documents, records and the  
2 like, if needed by Consultant, shall be available only during City's normal business  
3 hours and provided that milestones for performance, if any, are met.

4 C. Consultant has requested to receive regular payments. City  
5 shall pay Consultant in due course of payments following receipt from Consultant  
6 and approval by City of invoices showing the services or task performed, the time  
7 expended (if billing is hourly), and the name of the Project. Consultant shall certify  
8 on the invoices that Consultant has performed the services in full conformance  
9 with this Agreement and is entitled to receive payment. Each invoice shall be  
10 accompanied by a progress report indicating the progress to date of services  
11 performed and covered by the invoice, including a brief statement of any Project  
12 problems and potential causes of delay in performance, and listing those services  
13 that are projected for performance by Consultant during the next invoice cycle.  
14 Where billing is done and payment is made on an hourly basis, the parties  
15 acknowledge that this arrangement is either customary practice for Consultant's  
16 profession, industry or business, or is necessary to satisfy audit and legal  
17 requirements which may arise due to the fact that City is a municipality.

18 D. Consultant represents that Consultant has obtained all  
19 necessary information on conditions and circumstances that may affect its  
20 performance and has conducted site visits, if necessary.

21 E. Consultant shall not begin work until this Agreement has been  
22 signed by both parties, Consultant has received its "Notice to Proceed" and  
23 Consultant's evidence of insurance has been delivered to and approved by City.

24 2. TERM. The term of this Agreement shall commence at midnight on  
25 March 1, 2012, and shall terminate at 11:59 p.m. on March 1, 2014, unless sooner  
26 terminated as provided in this Agreement, or unless the services or the Project is  
27 completed sooner.

28 3. COORDINATION AND ORGANIZATION.

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

9           B. The parties acknowledge that a substantial inducement to City  
10 for entering this Agreement was and is the reputation and skill of Consultant's key  
11 employees, Steve Stroh, Senior Project Manager and David Rickerson, Associate  
12 Vice President. City shall have the right to approve any person proposed by  
13 Consultant to replace that key employee.

14           4. INDEPENDENT CONTRACTOR. In performing its services,  
15 Consultant is and shall act as an independent contractor and not an employee,  
16 representative or agent of City. Consultant shall have control of Consultant's work and  
17 the manner in which it is performed. Consultant shall be free to contract for similar  
18 services to be performed for others during this Agreement; provided, however, that  
19 Consultant acts in accordance with Section 9 and Section 11 of this Agreement.  
20 Consultant acknowledges and agrees that (a) City will not withhold taxes of any kind from  
21 Consultant's compensation; (b) City will not secure workers' compensation or pay  
22 unemployment insurance to, for or on Consultant's behalf; and (c) City will not provide  
23 and Consultant is not entitled to any of the usual and customary rights, benefits or  
24 privileges of City employees. Consultant expressly warrants that neither Consultant nor  
25 any of Consultant's employees or agents shall represent themselves to be employees or  
26 agents of City.

27           5. INSURANCE.

28           A. As a condition precedent to the effectiveness of this

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

7 (a) Commercial general liability insurance (equivalent in scope to  
8 ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less than  
9 \$1,000,000 per each occurrence and \$2,000,000 general aggregate. This  
10 coverage shall include but not be limited to broad form contractual liability,  
11 cross liability, independent contractors liability, and products and  
12 completed operations liability. City, its boards and commissions, and their  
13 officials, employees and agents shall be named as additional insureds by  
14 endorsement (on City's endorsement form or on an endorsement  
15 equivalent in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85 or  
16 both CG 20 10 07 04 and CG 20 37 07 04 or both CG 20 33 07 04 and  
17 CG 20 37 07 04), and this insurance shall contain no special limitations on  
18 the scope of protection given to City, its boards and commissions, and  
19 their officials, employees and agents. This policy shall be endorsed to  
20 state that the insurer waives its right of subrogation against City, its boards  
21 and commissions, and their officials, employees and agents.

22 (b) Workers' Compensation insurance as required by the California  
23 Labor Code and employer's liability insurance in an amount not less than  
24 \$1,000,000. This policy shall be endorsed to state that the insurer waives  
25 its right of subrogation against City, its boards and commissions, and their  
26 officials, employees and agents.

27 (c) Professional liability or errors and omissions insurance in an  
28 amount not less than \$1,000,000 per claim.

1 (d) Commercial automobile liability insurance (equivalent in scope  
2 to ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in an  
3 amount not less than \$500,000 combined single limit per accident.

4 B. Any self-insurance program, self-insured retention, or  
5 deductible must be separately approved in writing by City's Risk Manager or  
6 designee and shall protect City, its officials, employees and agents in the same  
7 manner and to the same extent as they would have been protected had the policy  
8 or policies not contained retention or deductible provisions.

9 C. Each insurance policy shall be endorsed to state that  
10 coverage shall not be reduced, non-renewed or canceled except after thirty (30)  
11 days prior written notice to City, shall be primary and not contributing to any other  
12 insurance or self-insurance maintained by City, and shall be endorsed to state that  
13 coverage maintained by City shall be excess to and shall not contribute to  
14 insurance or self-insurance maintained by Consultant. Consultant shall notify City  
15 in writing within five (5) days after any insurance has been voided by the insurer or  
16 cancelled by the insured.

17 D. If this coverage is written on a "claims made" basis, it must  
18 provide for an extended reporting period of not less than one hundred eighty (180)  
19 days, commencing on the date this Agreement expires or is terminated, unless  
20 Consultant guarantees that Consultant will provide to City evidence of  
21 uninterrupted, continuing coverage for a period of not less than three (3) years,  
22 commencing on the date this Agreement expires or is terminated.

23 E. Consultant shall require that all subconsultants or contractors  
24 that Consultant uses in the performance of these services maintain insurance in  
25 compliance with this Section unless otherwise agreed in writing by City's Risk  
26 Manager or designee.

27 F. Prior to the start of performance, Consultant shall deliver to  
28 City certificates of insurance and the endorsements for approval as to sufficiency

1 and form. In addition, Consultant shall, within thirty (30) days prior to expiration of  
2 the insurance, furnish to City certificates of insurance and endorsements  
3 evidencing renewal of the insurance. City reserves the right to require complete  
4 certified copies of all policies of Consultant and Consultant's subconsultants and  
5 contractors, at any time. Consultant shall make available to City's Risk Manager  
6 or designee all books, records and other information relating to this insurance,  
7 during normal business hours.

8 G. Any modification or waiver of these insurance requirements  
9 shall only be made with the approval of City's Risk Manager or designee. Not  
10 more frequently than once a year, City's Risk Manager or designee may require  
11 that Consultant, Consultant's subconsultants and contractors change the amount,  
12 scope or types of coverages required in this Section if, in his or her sole opinion,  
13 the amount, scope or types of coverages are not adequate.

14 H. The procuring or existence of insurance shall not be  
15 construed or deemed as a limitation on liability relating to Consultant's  
16 performance or as full performance of or compliance with the indemnification  
17 provisions of this Agreement.

18 6. ASSIGNMENT AND SUBCONTRACTING. This Agreement  
19 contemplates the personal services of Consultant and Consultant's employees, and the  
20 parties acknowledge that a substantial inducement to City for entering this Agreement  
21 was and is the professional reputation and competence of Consultant and Consultant's  
22 employees. Consultant shall not assign its rights or delegate its duties under this  
23 Agreement, or any interest in this Agreement, or any portion of it, without the prior  
24 approval of City, except that Consultant may with the prior approval of the City Manager  
25 of City, assign any moneys due or to become due Consultant under this Agreement. Any  
26 attempted assignment or delegation shall be void, and any assignee or delegate shall  
27 acquire no right or interest by reason of an attempted assignment or delegation.  
28 Furthermore, Consultant shall not subcontract any portion of its performance without the

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1 prior approval of the City Manager or designee, or substitute an approved subconsultant  
2 or contractor without approval prior to the substitution. Nothing stated in this Section  
3 shall prevent Consultant from employing as many employees as Consultant deems  
4 necessary for performance of this Agreement.

5           7. CONFLICT OF INTEREST. Consultant, by executing this  
6 Agreement, certifies that, at the time Consultant executes this Agreement and for its  
7 duration, Consultant does not and will not perform services for any other client which  
8 would create a conflict, whether monetary or otherwise, as between the interests of City  
9 and the interests of that other client. And, Consultant shall obtain similar certifications  
10 from Consultant's employees, subconsultants and contractors.

11           8. MATERIALS. Consultant shall furnish all labor and supervision,  
12 supplies, materials, tools, machinery, equipment, appliances, transportation and services  
13 necessary to or used in the performance of Consultant's obligations under this  
14 Agreement, except as stated in Exhibit "D".

15           9. OWNERSHIP OF DATA. All materials, information and data  
16 prepared, developed or assembled by Consultant or furnished to Consultant in  
17 connection with this Agreement, including but not limited to documents, estimates,  
18 calculations, studies, maps, graphs, charts, computer disks, computer source  
19 documentation, samples, models, reports, summaries, drawings, designs, notes, plans,  
20 information, material and memorandum ("Data") shall be the exclusive property of City.  
21 Data shall be given to City, and City shall have the unrestricted right to use and disclose  
22 the Data in any manner and for any purpose without payment of further compensation to  
23 Consultant. Copies of Data may be retained by Consultant but Consultant warrants that  
24 Data shall not be made available to any person or entity for use without the prior approval  
25 of City. This warranty shall survive termination of this Agreement for five (5) years.

26           10. TERMINATION. In addition to the termination rights contained in  
27 Section 38, either party shall have the right to terminate this Agreement for any reason or  
28 no reason at any time by giving fifteen (15) calendar days prior notice to the other party.

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1 In the event of termination under this Section, City shall pay Consultant for services  
2 satisfactorily performed and costs incurred up to the effective date of termination for  
3 which Consultant has not been previously paid. The procedures for payment in Section  
4 1.B. with regard to invoices shall apply. On the effective date of termination, Consultant  
5 shall deliver to City all Data developed or accumulated in the performance of this  
6 Agreement, whether in draft or final form, or in process. And, Consultant acknowledges  
7 and agrees that City's obligation to make final payment is conditioned on Consultant's  
8 delivery of the Data to City.

9 11. CONFIDENTIALITY. Consultant shall keep all Data confidential and  
10 shall not disclose the Data or use the Data directly or indirectly, other than in the course  
11 of performing its services, during the term of this Agreement and for five (5) years  
12 following expiration or termination of this Agreement. In addition, Consultant shall keep  
13 confidential all information, whether written, oral or visual, obtained by any means  
14 whatsoever in the course of performing its services for the same period of time.  
15 Consultant shall not disclose any or all of the Data to any third party, or use it for  
16 Consultant's own benefit or the benefit of others except for the purpose of this  
17 Agreement.

18 12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for  
19 a breach of confidentiality with respect to Data that: (a) Consultant demonstrates  
20 Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available  
21 without breach of this Agreement by Consultant; or (c) a third party who has a right to  
22 disclose does so to Consultant without restrictions on further disclosure; or (d) must be  
23 disclosed pursuant to subpoena or court order.

24 13. ADDITIONAL COSTS AND REDESIGN.

25 A. Any costs incurred by City due to Consultant's failure to meet  
26 the standards required by the scope of work or Consultant's failure to perform fully  
27 the tasks described in the scope of work which, in either case, causes City to  
28 request that Consultant perform again all or part of the Scope of Work shall be at



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1 the sole cost of Consultant and City shall not pay any additional compensation to  
2 Consultant for its re-performance.

3 B. If the Project involves construction and the scope of work  
4 requires Consultant to prepare plans and specifications with an estimate of the  
5 cost of construction, then Consultant may be required to modify the plans and  
6 specifications, any construction documents relating to the plans and specifications,  
7 and Consultant's estimate, at no cost to City, when the lowest bid for construction  
8 received by City exceeds by more than ten percent (10%) Consultant's estimate.  
9 This modification shall be submitted in a timely fashion to allow City to receive new  
10 bids within four (4) months after the date on which the original plans and  
11 specifications were submitted by Consultant.

12 14. AMENDMENT. This Agreement, including all Exhibits, shall not be  
13 amended, nor any provision or breach waived, except in writing signed by the parties  
14 which expressly refers to this Agreement.

15 15. LAW. This Agreement shall be governed by and construed pursuant  
16 to the laws of the State of California (except those provisions of California law pertaining  
17 to conflicts of laws). Consultant shall comply with all laws, ordinances, rules and  
18 regulations of and obtain all permits, licenses and certificates required by all federal, state  
19 and local governmental authorities.

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

23 17. INDEMNITY.

24 A. Consultant shall indemnify, protect and hold harmless City, its  
25 Boards, Commissions, and their officials, employees and agents ("Indemnified  
26 Parties"), from and against any and all liability, claims, demands, damage, loss,  
27 obligations, causes of action, proceedings, awards, fines, judgments, penalties,  
28 costs and expenses, including attorneys' fees, court costs, expert and witness

1 fees, and other costs and fees of litigation, arising or alleged to have arisen, in  
2 whole or in part, out of or in connection with (1) Consultant's breach or failure to  
3 comply with any of its obligations contained in this Agreement, or (2) negligent or  
4 willful acts, errors, omissions or misrepresentations committed by Consultant, its  
5 officers, employees, agents, subcontractors, or anyone under Consultant's control,  
6 in the performance of work or services under this Agreement (collectively "Claims"  
7 or individually "Claim").

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

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

22 D. The provisions of this Section shall survive the expiration or  
23 termination of this Agreement.

24 18. AMBIGUITY. In the event of any conflict or ambiguity between this  
25 Agreement and any Exhibit, the provisions of this Agreement shall govern.

26 19. COSTS. If there is any legal proceeding between the parties to  
27 enforce or interpret this Agreement or to protect or establish any rights or remedies under  
28 it, the prevailing party shall be entitled to its costs, including reasonable attorneys' fees.

1                   20.    NONDISCRIMINATION.

2                   A.     In connection with performance of this Agreement and subject  
3 to applicable rules and regulations, Consultant shall not discriminate against any  
4 employee or applicant for employment because of race, religion, national origin,  
5 color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or  
6 disability. Consultant shall ensure that applicants are employed, and that  
7 employees are treated during their employment, without regard to these bases.  
8 These actions shall include, but not be limited to, the following: employment,  
9 upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or  
10 termination; rates of pay or other forms of compensation; and selection for training,  
11 including apprenticeship.

12                  B.     It is the policy of City to encourage the participation of  
13 Disadvantaged, Minority and Women-Owned Business Enterprises in City's  
14 procurement process, and Consultant agrees to use its best efforts to carry out  
15 this policy in its use of subconsultants and contractors to the fullest extent  
16 consistent with the efficient performance of this Agreement. Consultant may rely  
17 on written representations by subconsultants and contractors regarding their  
18 status. Consultant shall report to City in May and in December or, in the case of  
19 short-term agreements, prior to invoicing for final payment, the names of all  
20 subconsultants and contractors hired by Consultant for this Project and information  
21 on whether or not they are a Disadvantaged, Minority or Women-Owned Business  
22 Enterprise, as defined in Section 8 of the Small Business Act (15 U.S.C. Sec.  
23 637).

24                  21.    EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in  
25 accordance with the provisions of the Ordinance, this Agreement is subject to the  
26 applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the  
27 Long Beach Municipal Code, as amended from time to time.

28                  A.     During the performance of this Agreement, Consultant

1 certifies and represents that Consultant will comply with the EBO. Consultant  
2 agrees to post the following statement in conspicuous places at its place of  
3 business available to employees and applicants for employment:

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

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

11 C. If Consultant fails to comply with the EBO, City may cancel,  
12 terminate or suspend the Agreement, in whole or in part, and monies due or to  
13 become due under the Agreement may be retained by City. City may also pursue  
14 any and all other remedies at law or in equity for any breach.

15 D. Failure to comply with the EBO may be used as evidence  
16 against Consultant in actions taken pursuant to the provisions of Long Beach  
17 Municipal Code 2.93 et seq., Contractor Responsibility.

18 E. If City determines that Consultant has set up or used its  
19 contracting entity for the purpose of evading the intent of the EBO, City may  
20 terminate the Agreement on behalf of City. Violation of this provision may be used  
21 as evidence against Consultant in actions taken pursuant to the provisions of Long  
22 Beach Municipal Code Section 2.93 et seq., Contractor Responsibility.

23 22. NOTICES. Any notice or approval required by this Agreement shall  
24 be in writing and personally delivered or deposited in the U.S. Postal Service, first class,  
25 postage prepaid, addressed to Consultant at the address first stated above, and to City at  
26 333 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager, with a  
27 copy to the City Engineer at the same address. Notice of change of address shall be  
28 given in the same manner as stated for other notices. Notice shall be deemed given on

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1 the date deposited in the mail or on the date personal delivery is made, whichever occurs  
2 first.

3           23. COVENANT AGAINST CONTINGENT FEES. Consultant warrants  
4 that Consultant has not employed or retained any entity or person to solicit or obtain this  
5 Agreement and that Consultant has not paid or agreed to pay any entity or person any  
6 fee, commission or other monies based on or from the award of this Agreement. If  
7 Consultant breaches this warranty, City shall have the right to terminate this Agreement  
8 immediately notwithstanding the provisions of Section 10 or, in its discretion, to deduct  
9 from payments due under this Agreement or otherwise recover the full amount of the fee,  
10 commission or other monies.

11           24. WAIVER. The acceptance of any services or the payment of any  
12 money by City shall not operate as a waiver of any provision of this Agreement or of any  
13 right to damages or indemnity stated in this Agreement. The waiver of any breach of this  
14 Agreement shall not constitute a waiver of any other or subsequent breach of this  
15 Agreement.

16           25. CONTINUATION. Termination or expiration of this Agreement shall  
17 not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11,  
18 17, 19, 22 and 28 prior to termination or expiration of this Agreement.

19           26. TAX REPORTING. As required by federal and state law, City is  
20 obligated to and will report the payment of compensation to Consultant on Form 1099-  
21 Misc. Consultant shall be solely responsible for payment of all federal and state taxes  
22 resulting from payments under this Agreement. Consultant shall submit Consultant's  
23 Employer Identification Number (EIN), or Consultant's Social Security Number if  
24 Consultant does not have an EIN, in writing to City's Accounts Payable, Department of  
25 Financial Management. Consultant acknowledges and agrees that City has no obligation  
26 to pay Consultant until Consultant provides one of these numbers.

27           27. ADVERTISING. Consultant shall not use the name of City, its  
28 officials or employees in any advertising or solicitation for business or as a reference,

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1 without the prior approval of the City Manager or designee.

2 28. AUDIT. City shall have the right at all reasonable times during the  
3 term of this Agreement and for a period of five (5) years after termination or expiration of  
4 this Agreement to examine, audit, inspect, review, extract information from and copy all  
5 books, records, accounts and other documents of Consultant relating to this Agreement.

6 29. THIRD PARTY BENEFICIARY. This Agreement is not intended or  
7 designed to or entered for the purpose of creating any benefit or right for any person or  
8 entity of any kind that is not a party to this Agreement.

9 30. FAA/CIVIL RIGHTS ACT CONTRACTOR CONTRACTUAL  
10 REQUIREMENTS. During the performance of this Agreement, Consultant, for itself, its  
11 assignees and successors in interest (hereinafter referred to as the "contractor") agrees  
12 as follows:

13 A. Compliance with Regulations. Consultant shall comply with  
14 the regulations relative to nondiscrimination in federally assisted programs of the  
15 Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal  
16 Regulations, Part 21, as they may be amended from time to time (the  
17 "Regulations"), which are herein incorporated by reference and made a part of this  
18 Agreement.

19 B. Nondiscrimination. Consultant, with regard to the work  
20 performed by it during this Agreement, shall not discriminate on the grounds of  
21 race, color, or national origin in the selection and retention of subcontractors,  
22 including procurements of materials and leases of equipment. Consultant shall not  
23 participate either directly or indirectly in the discrimination prohibited by section  
24 21.5 of the Regulations, including employment practices when this Agreement  
25 covers a program set forth in Appendix B of the Regulations.

26 C. Solicitations for Subcontracts, Including Procurements of  
27 Materials and Equipment. In all solicitations either by competitive bidding or  
28 negotiation made by Consultant for work to be performed under a subcontract,

1 including procurements of materials or leases of equipment, each potential  
2 subcontractor or supplier shall be notified by Consultant of the contractor's  
3 obligations under this Agreement and the Regulations relative to nondiscrimination  
4 on the grounds of race, color, or national origin.

5 D. Information and Reports. Consultant shall provide all  
6 information and reports required by the Regulations or directives issued pursuant  
7 thereto and shall permit access to its books, records, accounts, other sources of  
8 information, and its facilities as may be determined by City or the Federal Aviation  
9 Administration ("FAA") to be pertinent to ascertain compliance with such  
10 Regulations, orders, and instructions. Where any information required of a  
11 contractor is in the exclusive possession of another who fails or refuses to furnish  
12 this information, Consultant shall so certify to City or the FAA, as appropriate, and  
13 shall set forth what efforts it has made to obtain the information.

14 E. Sanctions for Noncompliance. In the event of Consultant's  
15 noncompliance with the nondiscrimination provisions of this Agreement, City shall  
16 impose such contract sanctions as it or the FAA may determine to be appropriate,  
17 including, but not limited to:

18 i. Withholding of payments to Consultant under this  
19 Agreement until Consultant complies, and/or

20 ii. Cancellation, termination, or suspension of this  
21 Agreement, in whole or in part.

22 F. Incorporation of Provisions. Consultant shall include the  
23 provisions of subsections 30A through 30E in every subcontract, including  
24 procurements of materials and leases of equipment, unless exempt by the  
25 Regulations or directives issued pursuant thereto. Consultant shall take such  
26 action with respect to any subcontract or procurement as City or the FAA may  
27 direct as a means of enforcing such provisions including sanctions for  
28 noncompliance. Provided, however, that in the event a contractor becomes

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1 involved in, or is threatened with, litigation with a subcontractor or supplier as a  
2 result of such direction, Consultant may request City to enter into such litigation to  
3 protect the interests of City and, in addition, Consultant may request the United  
4 States to enter into such litigation to protect the interests of the United States.

5 31. AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, SECTION  
6 520 - GENERAL CIVIL RIGHTS PROVISIONS. Consultant assures that it will comply  
7 with pertinent statutes, executive orders and such rules as are promulgated to assure  
8 that no person shall, on the grounds of race, creed, color, national origin, sex, age, or  
9 handicap be excluded from participating in any activity conducted with or benefiting from  
10 Federal assistance. This provision obligates the tenant/concessionaire/lessee or its  
11 transferee for the period during which Federal assistance is extended to the airport a  
12 program, except where Federal assistance is to provide, or is in the form of personal  
13 property or real property or interest therein or structures or improvements thereon. In  
14 these cases the provision obligates the party or any transferee for the longer of the  
15 following periods: (a) the period during which the property is used by City or any  
16 transferee for a purpose for which Federal assistance is extended, or for another purpose  
17 involving the provision of similar services or benefits or (b) the period during which City or  
18 any transferee retains ownership or possession of the property. In the case of  
19 contractors, this provision binds the contractors from the bid solicitation period through  
20 the completion of the contract. This provision is in addition to that required of Title VI of  
21 the Civil Rights Act of 1964.

22 32. DISADVANTAGED BUSINESS ENTERPRISES.

23 A. Contract Assurance. Consultant or subcontractor shall not  
24 discriminate on the basis of race, color, national origin, or sex in the performance  
25 of this Agreement. Consultant shall carry out applicable requirements of 49 CFR  
26 Part 26 in the award and administration of DOT assisted contracts. Failure by  
27 Consultant to carry out these requirements is a material breach of this Agreement,  
28 which may result in the termination of this Agreement or such other remedy, as



1 City deems appropriate.

2 B. Prompt Payment. Consultant agrees to pay each  
3 subcontractor under this Agreement for satisfactory performance of its contract no  
4 later than thirty (30) days from the receipt of each payment Consultant receives  
5 from City. Consultant agrees further to return retainage payments to each  
6 subcontractor within thirty (30) days after the subcontractor's work is satisfactorily  
7 completed. Any delay or postponement of payment from the above referenced  
8 time frame may occur only for good cause following written approval of City. This  
9 clause applies to both DBE and non-DBE subcontractors.

10 33. LOBBYING AND INFLUENCING FEDERAL EMPLOYEES.

11 A. No Federal appropriated funds shall be paid, by or on behalf  
12 of Consultant, to any person for influencing or attempting to influence an officer or  
13 employee of any agency, a Member of Congress, an officer or employee of  
14 Congress, or an employee of a Member of Congress in connection with the  
15 making of any Federal grant and the amendment or modification of any Federal  
16 grant.

17 B. If any funds other than Federal appropriated funds have been  
18 paid or will be paid to any person for influencing or attempting to influence an  
19 officer or employee of any agency, a Member of Congress, an officer or employee  
20 of Congress, or an employee of a Member of Congress in connection with any  
21 Federal grant, Consultant shall complete and submit Standard Form-LLL,  
22 "Disclosure of Lobby Activities," in accordance with its instructions.

23 34. ACCESS TO RECORDS AND REPORTS. Consultant shall maintain  
24 an acceptable cost accounting system. Consultant agrees to provide City, the FAA and  
25 the Comptroller General of the United States or any of their duly authorized  
26 representatives access to any books, documents, papers, and records of Consultant  
27 which are directly pertinent to the specific contract for the purpose of making audit,  
28 examination, excerpts and transcriptions. Consultant agrees to maintain all books,

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

1 records and reports required under this Agreement for a period of not less than three  
2 years after final payment is made and all pending matters are closed.

3 35. BREACH OF CONTRACT TERMS. Any violation or breach of terms  
4 of this Agreement on the part of Consultant or its subcontractors may result in the  
5 suspension or termination of this Agreement or such other action that may be necessary  
6 to enforce the rights of the parties of this Agreement. The duties and obligations imposed  
7 by this Agreement and the rights and remedies available hereunder shall be in addition to  
8 and not a limitation of any duties, obligations, rights and remedies otherwise imposed or  
9 available by law.

10 36. RIGHTS TO INVENTIONS. All rights to inventions and materials  
11 generated under this Agreement are subject to regulations issued by the FAA and City.

12 37. TRADE RESTRICTION CLAUSE. Consultant or subcontractor, by  
13 submission of an offer and/or execution of a contract, certifies that it:

14 A. is not owned or controlled by one or more citizens of a foreign  
15 country included in the list of countries that discriminate against U.S. firms  
16 published by the Office of the United States Trade Representative (USTR);

17 B. has not knowingly entered into any contract or subcontract for  
18 this project with a person that is a citizen or national of a foreign country on said  
19 list, or is owned or controlled directly or indirectly by one or more citizens or  
20 nationals of a foreign country on said list;

21 C. has not procured any product nor subcontracted for the supply  
22 of any product for use on the project that is produced in a foreign country on said  
23 list.

24 Unless the restrictions of this clause are waived by the Secretary of  
25 Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to  
26 a contractor or subcontractor who is unable to certify to the above. If Consultant  
27 knowingly procures or subcontracts for the supply of any product or service of a  
28 foreign country on said list for use on the Project, the FAA may direct through City

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1 the cancellation of the Agreement at no cost to the FAA.

2 Further, Consultant agrees that, if awarded a contract resulting from  
3 this solicitation, it will incorporate this provision for certification without modification  
4 in each contract and in all lower tier subcontracts. Consultant may rely on the  
5 certification of a prospective subcontractor unless it has knowledge that the  
6 certification is erroneous.

7 Consultant shall provide immediate written notice to City if  
8 Consultant learns that its certification or that of a subcontractor was erroneous  
9 when submitted or has become erroneous by reason of changed circumstances.  
10 The subcontractor agrees to provide written notice to Consultant if at any time it  
11 learns that its certification was erroneous by reason of changed circumstances.

12 This certification is a material representation of fact upon which  
13 reliance was placed when executing this Agreement. If it is later determined that  
14 Consultant or subcontractor knowingly rendered an erroneous certification, the  
15 FAA may direct through City cancellation of this Agreement or subcontract for  
16 default at no cost to the FAA.

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

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

26 38. TERMINATION OF CONTRACT.

27 A. City may, by written notice, terminate this Agreement in whole  
28 or in part at any time, either for City's convenience or because of failure to fulfill

1 obligations under this Agreement. Upon receipt of such notice services shall be  
2 immediately discontinued (unless the notice directs otherwise) and all materials as  
3 may have been accumulated in performing this Agreement, whether completed or  
4 in progress, delivered to City.

5 B. If the termination is for the convenience of City, an equitable  
6 adjustment in the contract price shall be made, but no amount shall be allowed for  
7 anticipated profit on unperformed services.

8 C. If the termination is due to failure to fulfill Consultant's  
9 obligations, City may take over the work and prosecute the same to completion by  
10 contract or otherwise. In such case, Consultant shall be liable to City for any  
11 additional cost occasioned to City thereby.

12 D. If, after notice of termination for failure to fulfill contract  
13 obligations, it is determined that Consultant had not so failed, the termination shall  
14 be deemed to have been effected for the convenience of City. In such event,  
15 adjustment in the contract price shall be made as provided in subsection 38B.

16 E. The rights and remedies of City provided in this Section are in  
17 addition to any other rights and remedies provided by law or under this  
18 Agreement.

19 39. CERTIFICATION REGARDING DEBARMENT, SUSPENSION,  
20 INELIGIBILITY AND VOLUNTARY EXCLUSION. Consultant certifies, by submission of  
21 a proposal or execution of this Agreement, that neither it nor its principals is presently  
22 debarred, suspended, proposed for debarment, declared ineligible, or voluntarily  
23 excluded from participation in this transaction by any Federal department or agency. It  
24 further agrees by submitting a proposal or executing this Agreement that it will include  
25 this clause without modification in all lower tier transactions, solicitations, proposals,  
26 contracts, and subcontracts. Where Consultant or any lower tier participant is unable to  
27 certify to this statement, it shall attach an explanation to its solicitation/proposal.

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IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

HNTB CORPORATION, a Delaware corporation

3/16/12, 2012

By [Signature]  
Vic. President

James J. Phillip  
Type or Print Name

3/19/12, 2012

By [Signature]  
Secretary

KATHERINE WHEATON  
Type or Print Name

"Consultant"

CITY OF LONG BEACH, a municipal corporation

3.27, 2012

By [Signature] **Assistant City Manager**  
City Manager

"City"

EXECUTED PURSUANT TO SECTION 301 OF THE CITY CHARTER.

This Agreement is approved as to form on March 22, 2012.

ROBERT E. SHANNON, City Attorney

By [Signature]  
Deputy

OFFICE OF THE CITY ATTORNEY  
ROBERT E. SHANNON, City Attorney  
333 West Ocean Boulevard, 11th Floor  
Long Beach, CA 90802-4664

# EXHIBIT “A”

## Scope of Work

**ATTACHMENT A**

**THE LONG BEACH AIRPORT  
AIRFIELD GEOMETRY STUDY  
AND  
AIRPORT STRATEGIC PLAN  
PHASE ONE**

**SCOPE OF PROFESSIONAL SERVICES TO COMPLETE  
BY:**

**HNTB CORPORATION**

**AUGUST 9, 2011**

**Revised February 10, 2012**

**Background and Project Purpose**

The Long Beach Airport (LGB or the Airport) is a Part 139 certificated commercial service airport located in Long Beach, California. The Airport is owned and operated by the City of Long Beach, California and serves the City of Long Beach as well as the Greater Los Angeles and Orange County region of Southern California. It is one of five commercial service airports within the Long Beach - Los Angeles - Orange County region along with Los Angeles Int'l (LAX), John Wayne (SNA), LA/Ontario Int'l (ONT), and Bob Hope (BUR). The Airport currently accommodates approximately 300,000 annual aircraft operations reflecting a diversity of aviation activity including air carriers, General Aviation, air freight, and other uses. The Airport airfield consists of five runways and ten supporting taxiways and aprons that have been constructed over a period of about 90 years. The Airport serves as a west coast hub for jetBlue Airlines, is a significant regional General Aviation airport, and also is the assembly base for the Boeing C-17 "Globemaster III" aircraft.

In the interest of providing the safest airport environment practicable, the Airport is conducting an Airfield Geometry Study (AGS) to provide a comprehensive evaluation of the existing airfield geometry with the identification of alternatives and operational strategies that will help make the Long Beach Airport as safe as is practicable through the reduction of risk. The project has a high priority due to the Airport's inclusion in the Federal Aviation Administration (FAA) administrator's 2007 "Call to Action" for runway safety. The Airport has implemented short-term and on-going safety enhancing initiatives. This study will identify the long-term initiatives that will enhance safety for Long Beach Airport users.

The AGS will be followed by an Airport Strategic Plan (ASP) to help ensure that the recommendations made within the AGS are implemented without harming the Airport's ability to accommodate existing aviation demand and those improvements are implemented with consideration for the Airport's long term fiscal health. The ASP will evaluate facilities and land use with consideration for how Long Beach Airport coexists within the community and continues to successfully evolve with Boeing's changing demand.

The Long Beach Airport operates under the City's Airport Noise Compatibility Ordinance (Long Beach Municipal Code 16.43), which was "grandfathered" by the federal government in the Airport Noise and Capacity Act (ANCA) of 1990. The Ordinance allows commercial airlines to operate a minimum of 41 air carrier and 25 commuter flights. These numbers may only be exceeded if the City determines that additional flights will not exceed the airlines' portion of the CNEL budget limits set by the Ordinance.

The Airfield Geometry Study and Airport Strategic Plan will not contemplate or recommend changes to the Ordinance. The AGS and ASP will not recommend any modifications to the airfield or Airport property that is in conflict with the Ordinance. The Ordinance shall be protected and preserved in any geometric or strategy plan or any other activities focused upon by the AGS and ASP.

When the AGS and ASP are concluded, it will likely be necessary to develop a revised Airport Layout Plan (ALP) and narrative report for FAA approval and to also undertake the preparation of an Environmental Assessment (EA) consistent with the National Environmental Policy Act (NEPA). The ALP and EA elements of the overall planning process will be subject to a separate scoping and budgeting process upon completion of the Element 1 and Element 2 analyses. As the findings of the AGS and ASP must be known prior to scoping of the ALP or EA it is logical to employ a two phased planning process separating the first two elements of the process from the final two and conducting the final two element under a separate grant. This approach is consistent with directions from the Federal Aviation Administration (FAA).

## **SCOPE OF PROFESSIONAL SERVICES**

The purpose of the scope of professional services (ATTACHMENT A), project schedule (ATTACHMENT B), and project budget (ATTACHMENT C) is to provide Long Beach Airport (Airport) staff and HNTB and its partnering subconsultants (Consultants or Consultant) with sufficient guidelines, schedule, and budget to prepare the Airfield Geometry Study (AGS), and the Airport Strategic Plan (ASP), for Long Beach Airport. Public and stakeholder involvement is included throughout all scope elements.

The Airfield Geometry Study (AGS) will seek to identify opportunities for enhanced airfield safety through modified airfield geometry and operational procedures. In particular, the airport's seven existing "hotspots" will be assessed along with any airfield

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design deficiencies already identified in runway safety action reports. In addition, the existing airfield system geometry (runways and taxiways), boundaries between movement and non-movement areas as well as airfield marking, signage, lighting, grading, and drainage will be assessed for potential risk. Finally, several alternatives, or mitigation strategies will be developed to reduce or eliminate safety risk. These safety risk mitigating alternatives and a no-action alternative will be evaluated based on a defined criteria that will focus on safety, but will also include other important considerations such as cost and operational efficiency. The AGS will result in the publication of a technical report that provides recommended actions that, if implemented, may enhance airfield safety at the Airport. The technical report will, where practicable, identify a means for monitoring safety and assessing the effectiveness of the recommendations and the process will incorporate, as possible, the assessment techniques associated with Safety Risk Management Documentation (SRMD). The AGS will also evaluate additional criteria such as impacts to cost and efficiency of operations at Long Beach Airport.

The Airfield Geometry Study will include a stakeholder and public involvement plan, and be followed by an Airport Strategic Plan (Element 2 of this scope). The results of the AGS and the ASP will then be used as the basis for defining the scope and budget for two follow-on elements consisting of the Airport Layout Plan (Element 3 outside of this scope and affiliated budget), and Environmental Assessment (EA) consistent with the National Environmental Policy Act (NEPA) (Element 4 outside of this scope and affiliated budget).

The Airport Strategic Plan (ASP) identifies actions Long Beach Airport can take to effectively integrate the recommended actions from the AGS into the Airport's future capital planning. It is assumed that the AGS will result in potentially substantial modifications to the existing airfield geometry. Therefore, the Airport will need the ASP to guide implementation of the AGS in a fiscally responsible way that allows the airport to accommodate aviation demand and identify location appropriate facilities and land-uses with consideration for long term financial sustainability and both airport and community context.

In summary, the initial phase of the project includes two elements each with a separate technical report:

**Phase One** (Covered under this Scope and Budget)

- Element 1, Airfield Geometry Study Technical Report
- Element 2, Airport Strategic Plan Technical Report

**Phase Two** (To Be Scoped and Budgeted upon Completion of Phase One)

- Element 3, Airport Layout Plan and Narrative Report
- Element 4, NEPA Environmental Assessment

## **Summary of Overall Stakeholder Involvement Program**

The Airfield Geometry Study (AGS) (Element 1), and the Airport Strategic Plan (ASP) (Element 2), tasks each involve the participation of various stakeholders throughout the process. A summary of all public and stakeholder involvement is presented in the table below. Internal meetings between the Consultant members and Airport staff are not included in the table. Where applicable, meetings will be consolidated to save on project costs. All local meetings are to occur within the City of Long Beach or at FAA's Western Pacific Region Headquarters in Hawthorne, CA.

**BRIEFINGS:** A total of eleven (11) briefings are accounted for within the scope. Briefings include semi-formal (e.g. no agenda), typically on-call meetings with stakeholders outside the Consultant and Airport staff. It is assumed that each briefing will require preparation of meeting materials and preparation of meeting minutes by the Consultant. The eleven (11) briefings have been split among the two project elements but can be utilized interchangeably between the two elements.

**STAKEHOLDER GROUPS:** Stakeholders are categorized into three groups and the make-up of the groups is generally described below but may change throughout the duration of the project.

- **Federal Aviation Administration (FAA)** – Meeting with the FAA to discuss initial findings and approach to mitigation strategies. (**Task 1.5 – Development and Evaluation of Mitigation Strategies**)
- **Technical Advisory Committee (TAC)** – The purpose of the TAC is to provide technical input to both the Airfield Geometry Study (AGS) and Airport Strategic Plan (ASP). TAC members may also participate in the evaluation of alternatives. TAC members will likely include Airport staff, Federal Aviation Administration (FAA) representation, the Consultant, General Aviation representatives, airline chief pilots, and other technical stakeholders as determined in **Task 1.2 – Pre Kick-off Meeting Preparation**. To facilitate the review of the implementation plan in accordance with *FAA Order 5200.11, FAA Airports (ARP) Safety Management System*, the TAC membership is intended to include most of the individuals that will serve as the Safety Risk Management (SRM) Panel. There are a total of four (4) TAC meetings. In addition, there are two pre-meetings for TAC Meeting #2 and #3 to be held as an internal meeting with Airport Staff, FAA, and the Consultant.

**TAC Meeting #1** – General introduction to project, identification of project goals and objectives, and evaluation criteria; Participants will have a chance to provide input and schedule follow-up one-on-one interviews pertinent to AGS and/or ASP. (**Task 1.3 – Project Kick-off**)

**TAC Meeting #2** – Evaluation of physical AGS alternatives or mitigation strategies utilizing the SRM process. (**Task 1.5 – Development and Evaluation of Mitigation Strategies**)

**TAC Meeting #3 – Land use concepts development and review. (Task 2.8 – Alternative Concept Layouts)**

**TAC Meeting #4 – Presentation of ASP results; Participants will have a chance to provide feedback on the Draft ASP Technical Report. (Task 2.10 – Draft ASP Technical Report)**

Meeting discussion items listed above may be modified depending on changes within the overall project. The Consultant will prepare an agenda, participant list, and formal meeting minutes for TAC meetings. Presentations and meeting materials (handouts) will be prepared as necessary.

- **Planning Advisory Committee (PAC)** – The purpose of the PAC is to provide general planning related input to both the Airfield Geometry Study (AGS) and Airport Strategic Plan (ASP). PAC members may also participate in the evaluation of alternatives. PAC members may include Airport staff, Federal Aviation Administration (FAA) representation, Consultant, General Aviation representatives, community (residents and businesses) representation, tenants, flight schools, General Aviation facilities, Fixed Base Operators (FBO's), corporate aviation tenants, City of Long Beach staff, and select members of the public as determined in **Task 1.2 – Pre Kick-off Meeting Preparation**.

PAC Meetings will generally follow TAC meetings and cover the same agenda items though the responsibility of the PAC is to just provide input in the process. No Pre-PAC meetings are anticipated. It is anticipated that there will be fewer overall PAC meetings than TAC meetings. There are a total of four (4) PAC meetings in Elements 1 and 2.

The Consultant will prepare an agenda, participant list, and formal meeting minutes for PAC meetings. Presentations and meeting materials (handouts) will be prepared as necessary.

- **Airport Advisory Commission** – The Airport Advisory Commission (AAC) is an established group of advisors on affairs related to the Long Beach Airport. AAC meetings are held on the third Thursday of the month at 4:00 p.m. The AAC does not meet during the months of April, August and December. Meeting locations are subject to change and are available on the corresponding agenda.

The Consultant will present to the AAC up to four (4) times throughout the duration of the project generally timed to coincide with public meetings. Presentation materials in the form of a Microsoft PowerPoint (.ppt) presentation will be prepared for each AAC meeting at which the Consultant will present.

**Open Public AAC Meeting #1:** Held at the outset of the project to provide a general description of the project and obtain initial public feedback. (Task 1.3 – Project Kick-off)

**Open Public AAC Meeting #2:** Held at the end of the AGS process to obtain feedback on Draft AGS Technical Report. (Task 1.6 – Preferred Mitigation Strategies Implementation Plan)

**Open Public AAC Meeting #3:** Presentation regarding initial ASP land use concepts. (Task 2.8 – Alternative Concept Layouts)

**Open Public AAC Meeting #4:** Meeting to obtain feedback on ASP Technical Report. (Task 2.10 – Draft ASP Technical Report)

- **City Council** – The City of Long Beach City Council is a decision making body comprised of nine (9) council districts with each district represented by an elected councilmember. The City Council typically meets each Tuesday at 5:00 PM in the City Hall Council Chamber except the last Tuesday of each month.

The Consultant will formally present to the City Council at the completion of the AGS and ASP draft technical reports. Presentation materials in the form of a Microsoft PowerPoint (.ppt) presentation will be prepared for the City Council Meeting attended by the Consultant. Other City Council meetings may be attended by the Consultant as needed and counted as a briefing.

**City Council Meeting #1:** Presentation regarding initial AGS and ASP studies. (Task 2.10 – Draft ASP Technical Report)

## Summary of Stakeholder Meetings

	AGS/ ASP Briefing	Federal Aviation Administration (FAA) Meeting	Technical Advisory Committee (TAC) Meeting	Planning Advisory Committee (PAC) Meeting	Open Public Airport Advisory Commission (AAC) Meeting	City Council (CC) Meeting
<b>Element 1 - Airfield Geometry Study (AGS)</b>						
Task 1.1 – Information Gathering & Document Review						
Task 1.2 – Pre Kick-off Meeting Preparation						
Task 1.3 – Project Kick-Off			1	1	1	
Task 1.4 – Existing Airfield Geometry and Conditions and Airfield Hazards Inventory						
Task 1.5 – Development and Evaluation of Mitigation Strategies		1	1	1		
Task 1.6 – Preferred Mitigation Strategies Implementation Plan					1	
Task 1.7 – Draft AGS Technical Report						
Task 1.8 – Final AGS Technical Report						
Task 1.9 – AGS Briefings	5					
<b>Element 2 - Airport Strategic Plan (ASP)</b>						
Task 2.1 – On-Site Meetings with Individual Tenants and ASP Report Outline						
Task 2.2 – Definition of Physical Factors / Parameters for Assessment of Existing Aviation Facilities Constraints						
Task 2.3 – Inventory of Existing Leases for Tenants within Study Area						
Task 2.4 – Assessment of Airport Safety and Airspace Protection Surfaces						
Task 2.5 – Demand Characteristics Determination						
Task 2.6 – Aviation Related Business Development Market Assessment						
Task 2.7 – Carrying Capacity Analysis of Existing and Potential Development Areas						
Task 2.8 – Alternative Concept Layouts			1	1	1	
Task 2.9 – Alternatives Evaluation and Preferred Alternative						
Task 2.10 – Draft ASP Technical Report			1	1	1	1
Task 2.11 – Final ASP Technical Report						
Task 2.12 – ASP Briefings	6					
<b>TOTAL MEETINGS*</b>	<b>11</b>	<b>1</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>1</b>

Note: Meetings will be combined where possible.

## **Element 1 – Airfield Geometry Study**

### **Overview**

In cooperation with the FAA and the Airport, the Airfield Geometry Study (AGS) will analyze current airfield geometry, operations, and records of operations and incidents with the goal of identifying targeted geometric modifications with the potential to reduce or eliminate the risk of a safety incident occurrence at the Airport.

The AGS will encourage the participation of local and federal stakeholders to provide input and observations regarding existing perceived safety issues at the Airport. Representatives of the FAA, including both the local air traffic control tower staff and regional and national safety experts, shall be encouraged to provide input on existing air traffic control procedures and airfield best practices in use at other airports or in development that may be appropriate for the Airport in addition to airfield geometry modifications. Task descriptions within **Element 1 - Airfield Geometry Study** include a stakeholder participation plan.

The AGS is intended to result in strategic and operationally implementable recommendations for safety enhancement and that ultimately yields a reduction of risk at Long Beach Airport. The Airport will accept responsibility for implementation of AGS recommendations including the preparation of a revised Capital Improvement Program (CIP) reflective of AGS recommendations. Implementation of the physical modifications will require Airport Improvement Program (AIP) funding through the FAA.

The AGS will provide a focused development, operational, and procedural framework that, if approved by the FAA and implemented by Long Beach Airport, may reduce the risk of a wrong runway event, runway incursion, or other airfield incident. The AGS will be followed by an overall Airport Strategic Plan (ASP) that will support the implementation of the AGS and integrate the recommendations into the Airport's capital planning for facility and land-use.

### **Task 1.1 – Information Gathering & Document Review**

The Consultant will review documents provided by the Airport that are relevant to the AGS. Relevant documents may include, but are not limited to:

- Historical safety records – hotspots, accidents, incidents, other reported events / issues / concerns, Federal Aviation Regulation (FAR) Part 139 inspection correspondence, Federal Aviation Administration (FAA) Runway Safety Action Team (RSAT) and Runway Incursion Action Team (RIAT) reports
- Past airfield safety project recommendations
- Current approved Airport Layout Plan (ALP)
- Airport activity statistics (commercial, general aviation, military, and air taxi

operations data)

- Historic and forecast based aircraft and fleet mix data and factors for based aircraft and other itinerant operations who routinely utilize aviation facilities at the Airport
- Past airfield capacity / demand studies
- Airfield responsibilities and procedures
- Environmental history (particularly noise and air quality)
- Historical airfield maintenance costs per square foot or acre of pavement.
- Current costs for airfield pavement construction

The Airport shall provide the Consultants with two (2) copies of each document if the documents are in paper format, but electronic documents are preferred.

**DELIVERABLE:** The Consultant will prepare a list of all documents reviewed including those provided by the Airport. The list will be incorporated into the technical report.

### **Task 1.2 – Pre Kick-Off Meeting Preparation**

Through meetings with Airport Staff, Consultant, and FAA, coordinated by the Consultants, and a review of documents provided by the Airport from **Task 1.1 – Information Gathering & Document Review**, the Consultants will develop materials in preparation for the project kick-off meeting (**Task 1.3 – Project Kick-Off**). It is anticipated that these pre-planning meetings will identify stakeholders and study participants, including members of the safety panel who will review recommended mitigation strategies and stakeholders to interview, project goals, meeting agenda(s), and the kick-off meeting schedule. These stakeholders may be invited serve on a Technical Advisory Committee (TAC) and / or Planning Advisory Committee (PAC). A list of potential stakeholders is listed below.

- Federal Aviation Administration (FAA)
- City of Long Beach representatives
- Local Planning and Public Works agencies
- Local or regional economic development corporations
- California Department of Transportation (Caltrans)
- Aircraft Owners and Pilots Association (AOPA)
- Fixed Base Operators (FBOs)
- National Business Aircraft Association (NBAA)
- Corporate tenant representative(s)
- Boeing Corporation
- Community representation
- LGB General Aviation community representation



In addition, a draft report outline (Table of Contents) of the technical report will be prepared. The Table of Contents will identify the details of the information to be provided in the AGS technical report as well as its organization.

**DELIVERABLE:** The Consultant will prepare meeting notes of all meetings between the Consultants and Airport staff.

**DELIVERABLE:** The Consultant will prepare a list of stakeholders to contact who will serve on the TAC and PAC and potential stakeholders to interview. These lists will be incorporated into the AGS and ASP technical reports.

**DELIVERABLE:** The Consultant will prepare a meeting agenda and schedule for the project kick-off meeting.

**DELIVERABLE:** The Consultant will prepare a detailed report outline (Table of Contents) of the AGS Technical Report for review and approval by Airport staff.

**MEETING(S):** Up to three (3) pre-kick-off meeting(s) will be held involving Airport staff, the Consultant, and FAA. An effort will be made to conduct these meetings via teleconferencing capabilities.

### **Task 1.3 – Project Kick-Off**

The Consultant will conduct three (3) project kick-off meetings to begin the formal study process.

- Technical Advisory Committee (TAC) Meeting #1
- Planning Advisory Committee (PAC) Meeting #1
- Open Public Airport Advisory Commission (AAC) Meeting #1

A single presentation and handouts will be prepared for the kick-off meetings, although for some meetings, the presentation may be modified slightly. It is also anticipated that the project kick-off meetings will be held at Long Beach Airport and that the Airport will provide appropriate meeting facilities including a meeting room, screen, project, telephone, and other meeting equipment as needed.

Three key agenda items will be covered.

- 1) An **overview** of the project will be presented.
- 2) **Goals and objectives** will be developed and will generally cover airfield safety enhancement goals, operations goals, and maintenance cost goals, construction costs, and environmental goals.
- 3) **Evaluation criteria** will be developed to measure whether the proposed alternatives address the project's established goals and objectives. These criteria will be used later in the AGS and Airport Strategic Plan (ASP) process to evaluate the effectiveness of mitigation strategies. Minimum criteria 11 of 29

include safety benefits, costs, airfield capacity, optimal runway use configurations, maintenance and operational considerations, and specific criteria associated with Safety Management Systems (SMS) and Safety Risk Management (SRM) analyses for capital projects.

Technical Advisory Committee (TAC) Meeting #1 — A Technical Advisory Committee (TAC) will be established based on the list of stakeholders identified in **Task 1.2 – Pre Kick-Off Meeting Preparation**. TAC members will include Airport staff, Federal Aviation Administration (FAA) representation, Consultant, General Aviation representatives, airline chief pilots, and other technical stakeholders. The TAC will serve as the primary technical stakeholder group providing input on the identification of hazards, identification of mitigations strategies and the evaluation of the effectiveness of those strategies; specifically in the area of Safety Risk Management (SRM). The intent is not to have a voting stakeholder group, but rather to serve as a means to share ideas, provide review, identify issues and suggest potential actions for consideration. During the project kick-off meeting, Airport staff and Consultants will communicate the membership, role and responsibility of the TAC. To facilitate the ultimate review of the implementation plan in accordance with *FAA Order 5200.11, FAA Airports (ARP) Safety Management System*, the TAC membership it is intended to include the same individuals that will ultimately serve as the Safety Risk Management Panel participating in that review.

A TAC Meeting #1 will be held at the Airport to provide a general introduction to the project, schedule and expectations (role and responsibilities) for the TAC. There are three primary goals for TAC Meeting #1.

- 1) Members will be provided with an overview of Safety Risk Management (SRM), how it is applied to airports, and how it can affect safety within the context of this assignment. The TAC will also be briefed on their technical role within the context of the project and the project schedule.
- 2) Members will be asked to provide input on the project goals and objectives and evaluation criteria. The goals and objectives and evaluation criteria will be revised by the Consultant based on comments from the TAC and Airport staff.

Planning Advisory Committee (PAC) Meeting #1 — A Planning Advisory Committee (PAC) will be established based on the list of stakeholders identified in **Task 1.2 – Pre Kick-Off Meeting Preparation**. PAC members may also participate in the evaluation of alternatives. PAC members may include Airport staff, Federal Aviation Administration (FAA) representation, Consultant, General Aviation representatives, community (residents and businesses) representation, tenants, flight schools, General Aviation facilities, Fixed Base Operators (FBO's), corporate aviation tenants, City of Long Beach staff, and select members of the public. The PAC will serve as a general planning stakeholder group providing input. It is anticipated that a PAC meeting will be scheduled to follow a TAC meeting.

A PAC Meeting #1 will be held at the Airport to provide a general introduction to the project, schedule and expectations (role and responsibilities) for the PAC. There are three primary goals for PAC Meeting #1.

- 1) Members will be provided with an overview of Safety Risk Management (SRM), how it is applied to airports, and how it can affect safety within the context of this assignment. The PAC will also be briefed on their general planning input role within the context of the project and the project schedule.
- 2) Members will be asked to provide input on the project goals and objectives and evaluation criteria. The goals and objectives and evaluation criteria will be revised by the Consultant based on comments from the PAC and Airport staff.

| Open Public Airport Advisory Commission (AAC) Meeting #1 – An Open Public Airport Advisory Commission (AAC) Meeting #1 will be held at the Airport to provide a general introduction to the project.

**DELIVERABLE:** The Consultant will prepare and conduct a presentation and provide handout materials for the project kick-off meetings. This includes the preparation of the formal meeting minutes.

**DELIVERABLE:** The Consultant will develop a list of Technical Advisory Committee (TAC) members, Planning Advisory Committee (PAC) members, and a written description of TAC and PAC roles and responsibilities.

**DELIVERABLE:** The Consultant will develop project goals and objectives and evaluation criteria for the mitigation strategies. The goals and objectives and evaluation criteria will be incorporated into the AGS and ASP technical reports.

| **MEETING: \_Technical Advisory Committee (TAC) Meeting #1** - One (1) on-site project kick-off meeting with the Technical Advisory Committee (TAC). An agenda, participant list, and formal minutes will be prepared.

| **MEETING: \_Planning Advisory Committee (PAC) Meeting #1** — One (1) on-site project kick-off meeting with the Planning Advisory Committee (PAC). An agenda, participant list, and formal minutes will be prepared.

| **MEETING: \_Open Public Airport Advisory Committee (AAC) Meeting #1** - One (1) on-site project kick-off meeting with the Airport Advisory Commission (AAC).

## **Task 1.4 – Existing Airfield Geometry and Conditions and Airfield Hazards**

### **Inventory**

An inventory of existing airfield conditions will be completed and documented. The inventory will describe the physical airfield, its use (e.g. air traffic control procedures), existing FAA identified "Hot Spots" (hotspots), and other relevant data such

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as maintenance and operations information. Data provided by the Airport in **Task 1.1 – Information Gathering & Document Review**, as well as interviews and observations made by the Consultant during a site visit to the Airport will be used to complete the written documentation of existing conditions. The purpose of the inventory is to provide the Consultant with a comprehensive database of information regarding existing conditions on Long Beach Airport airfield and to provide all study participants a good understanding of identified safety hazards, hotspots, and known operational and maintenance procedures related to the airfield.

**Review and summary of relevant past studies and data** – All relevant studies and data provided by Airport staff will be summarized in the technical report.

**Site Visits** – One (1) site visit will be made by the Consultant (up to 3 people) to complete an observational inventory of the physical airfield utilizing an airport operations vehicle and escort. The site visit will include a full day spent with Airport staff from the operations department visiting all areas of the airfield including runways and taxiways. The visit will require access to both runways and taxiways and will require coordination with air traffic control. The Airport will be responsible for providing Consultant staff with airfield access. The visit will also require observation of twilight and nighttime operations so that the Consultant can assess airfield conditions and visibility in all light conditions. The Consultant will take photographs and prepare a photo inventory. The Consultant will coordinate the site visit with Airport staff and, as necessary, will visit on a second day or visit to complete the inventory.

**Interviews** - Interviews will be conducted with key stakeholders (e.g. Air Traffic Controllers, Airport staff, tenants and users, FAA, etc...). Stakeholders will be identified and confirmed by Airport staff. A formal record of each interview will be incorporated into the technical report. Interviews will be conducted in a period of three (3) days.

Finally, as part of the inventory, the Consultants will review the Airport Layout Plan and prepare illustrations of key airfield elements including runways, taxiways, and aprons, and safety areas. In addition, detailed illustrations of the seven existing identified airfield hotspots will be prepared.

## **Airfield Safety Hazards Identification**

Following the inventory of existing conditions, the Consultants will identify those existing factors and conditions (may be referred to as airfield hazards and safety risks) that have been known to or have the potential to contribute to aircraft incursions or incidents. Factors and conditions may relate to airfield geometry, air traffic control procedures, maintenance and operations management activities, airfield capacity and demand issues, and runway use.

Evidence of the factors and conditions that contribute to safety risk will be identified using the inventory and the Consultant's review of past documents and correspondence provided to the Consultant. Evidence will be organized and supplemented with results

of the following technical analyses.

- A **gap analysis** will be conducted to identify deficiencies between inventoried conditions and standards and best practices. The gap analysis will, where practicable, detail identified “gaps” utilizing illustrations, charts, graphics, narratives, and/or statistics. The gap analysis will include a review of airfield safety buffers (e.g. Building Restriction Lines, Object Free Areas) and compare the existing physical dimensions of airfield components to established standards set forth for Long Beach Airport by FAA. The Consultant will identify those portions of the airfield that must comply with FAR Part 139 and any areas that are not subject to FAR Part 139. The gap analysis will also identify existing approved Modifications of Standards in place at the Airport.
- A **hotspot / incursion analysis** will be conducted of existing incursion data and, where possible, trends or commonalities will be identified.
- A **preliminary airfield capacity study** based on methodology outlined in FAA Advisory Circular (AC) 150 / 5060-5 (effective date 9-23-1983), *Airport Capacity and Delay* will be used to complete an airfield capacity and demand analysis. The purpose of this task is to confirm that the airfield has sufficient capacity to accommodate existing and anticipated demand.
- **Runway use configurations** will be determined using wind data obtained by the NOAA National Climactic Data Center (NCDC).
- A **forecast summary** will be prepared identifying the likely future operations totals for the Airport along with an estimated future fleet mix. Due to the Airport’s existing noise abatement policies and restrictions on commercial flights, growth in operations is anticipated to be limited. The Federal Aviation Administration (FAA) 2010 Terminal Area Forecast (TAF) anticipates that in 2030, annual operations at LGB would increase by about 100,000 over 2010 to an annual total of approximately 407,000. This represents compound annual growth in operations of about 1.4%. The forecast summary will examine other factors that could impact aircraft operations growth or diminishment at the Airport. The TAF will be reviewed to determine whether it fully accounts for the Airport’s noise abatement policies and their impact on commercial activity growth as well as regional trends in general aviation growth. The TAF will be considered for use as a benchmark for evaluating the impact of airfield geometry modifications on airport operations and confirmation that local and regional capacity is not diminished by the results of the AGS.

As a supplement to **Task 1.1 – Information Gathering & Document Review**, the forecast will also include estimated future fleet mix information. In the event that historic and forecast based aircraft and fleet mix data is unavailable, the Consultant will investigate historic FAA 5010 forms for based aircraft data over the timeframe for which data is available. The Consultant will then develop a fleet mix projection. This is not intended to be a detailed or in-depth forecast of

activity, but rather an approximation of demand for purposes of assessing airfield and facility requirements and capabilities.

This above mentioned analysis will establish the foundation of the AGS and present the Airport staff, Consultant, FAA and stakeholders with the evidence necessary to initiate the Safety Risk management (SRM) process associated with proposed geometry modifications.

**DELIVERABLE:** The Consultant will prepare a written inventory of existing physical geometric airfield conditions and procedural conditions relevant to safety and airfield use. Illustrations of the airfield, photographs, and diagrams of airfield geometry will be prepared to help clearly describe existing conditions.

**DELIVERABLE:** The Consultant will prepare a formal record of each interview for inclusion into the AGS Technical Report.

**DELIVERABLE:** The Consultant will prepare a written gap or dimensional standards comparison analysis, hotspot / incursion trends analysis, preliminary airfield capacity analysis, wind / runway use configuration analysis, and forecast. This narrative will be included in the AGS Technical Report.

**MEETING:** One (1) site visit by Consultant (up to 3 people) to the Airport to conduct inventory of existing conditions with one (1) follow-up as needed.

**MEETING:** Multiple meetings will be held with stakeholders identified to be interviewed. Formal record of the interviews will be prepared. Meetings will occur in a period of three (3) days.

### **Task 1.5 – Development and Evaluation of Mitigation Strategies**

The development of comprehensive airfield safety risk mitigation strategies will encompass a three step process:

1. First, the Consultant will establish the baseline (e.g. no-action) future airfield operation assumptions.
2. Second, beginning with the already FAA identified hotspots the Consultant will begin developing mitigations for each of the hotspots. The Consultant will also develop mitigations for other hazards identified in **Task 1.4 – Existing Airfield Geometry and Conditions and Airfield Hazards Inventory**.
3. Finally, the Consultant will develop alternatives, in the form of physical mitigation strategies, to change the geometry or layout of a particular area. These alternatives will also include a subjective, high-level, evaluation of the impact to capacity, impact on operational efficiency, capital cost, impact on the environment and other pertinent factors based on evaluation criteria developed in

## **Task 1.2 – Pre Kick-off Meeting Preparation and Task 1.3 – Project Kick-off.**

As part of the development of mitigation strategies, mitigation strategies will include a detailed safety assessment of each of the Airport's five runways. Following the initial review of the no-action alternative, the Consultant will prepare concepts for modifying the runways to enhance safety and reduce risk. Upon the development an initial revised runway concept, a Safety Risk Management (SRM) review will be conducted.

The second step will be the evaluation of operational impacts that would result from the modified runways. This analysis will include:

- **Wind and weather** to ensure the airfield can accommodate all weather conditions for the existing and future aircraft fleet mix,
- An **airfield operations analysis** to determine the impacts of the modified runways on the overall airfield capacity and operational efficiency, and
- A **preliminary environmental overview** to determine air quality and noise impacts associated with a revised runway system. This analysis will be conducted by initiating the air quality and noise analyses to support the Environmental Assessment (EA) at this early stage of the project. Doing so will allow the Consultant to assess any potential air quality or noise impact that would occur as a result of the modified runway system.

**Pre-Meeting for TAC Meeting #2** - A meeting with Airport staff and the Consultant will be held to discuss the development and evaluation of mitigation strategies.

**FAA Meeting** - A meeting with the FAA, Airport staff, and the Consultant will be held to discuss the development and evaluation of mitigation strategies.

**Technical Advisory Committee (TAC) Meeting #2** - TAC members will be utilized to evaluate the physical alternatives or mitigation strategies utilizing the SRM process. The TAC members will also be leveraged to identify operation mitigation strategies that, in lieu of or in concert with physical strategies, may address hotspots or other areas of concern. The Consultant will first prepare a briefing document that will be distributed, including the alternatives to be considered for each area and the supporting evaluation information, to ensure an efficient use of meeting time.

**Planning Advisory Committee (PAC) Meeting #2** - PAC members will be utilized to provide input on the physical alternatives or mitigation strategies developed.

**DELIVERABLE:** The Consultant will include the written narrative regarding the development and evaluation of mitigation strategies and include relevant drawings as needed in the AGS Technical Report.

**MEETING: Pre-Meeting for TAC Meeting #2:** One (1) on-site project meeting with the Consultant, and Airport staff to discuss mitigation strategies prior to the TAC meeting.

**MEETING: FAA Meeting #1:** One (1) on-site project meeting with the Consultant, FAA, and Airport staff to discuss mitigation strategies prior to the TAC meeting. An agenda and meeting minutes will be prepared.

**MEETING: Technical Advisory Committee (TAC) Meeting #2** - One (1) on-site meetings with the Technical Advisory Committee (TAC) to evaluate the physical alternatives or mitigation strategies utilizing the SRM process. An agenda, participant list, and formal minutes will be prepared.

**MEETING: Planning Advisory Committee (PAC) Meeting #2** - One (1) on-site project meeting with the Planning Advisory Committee (PAC) to obtain input on the physical alternatives or mitigation strategies. An agenda, participant list, and formal minutes will be prepared.

### **Task 1.6 – Preferred Mitigation Strategies Implementation Plan**

The purpose of Task 1.6 is to develop an implementation plan for the safety mitigation strategies. Mitigation strategies that were evaluated and screened in **Task 1.5 – Development and Evaluation of Mitigation Strategies** will be prioritized and prepared for inclusion in the Airport's capital plan. A schedule will be prepared along with rough order of magnitude cost estimates for each mitigation strategy.

Preliminary cost estimates will be prepared for the:

- 1) Maintenance of the existing airfield (airfield cost center),
- 2) Maintenance of modified airfield, and
- 3) Rough order of magnitude cost estimates for the implementation of each of the recommended and prioritized mitigation strategies.

**Open Public Airport Advisory Commission (AAC) Meeting #2** - An Open Public Airport Advisory Commission (AAC) Meeting #2 will be held at the Airport to present a summary of analysis results to date and the mitigation strategies.

**DELIVERABLE:** The Consultant will include the preferred mitigation strategies and relevant implementation plan narrative in the AGS Technical Report.

**DELIVERABLE:** The Consultant will prepare cost estimates for inclusion into the AGS Technical Report.

**MEETING: Open Public Airport Advisory Commission Meeting #2** - One (1) on-site meeting to present analysis results, mitigation strategies, and implementation plan and obtain input. An agenda, participant list, and formal minutes will be prepared.

### **Task 1.7 – Draft AGS Technical Report**



The Consultant will prepare an Draft Airfield Geometry Study (AGS) Technical Report 1 for review and comment by Airport staff. Following a two-week review period by Airport staff and incorporation of comments by the Consultant, the Consultant will prepare Draft Airfield Geometry Study (AGS) Technical Report 2 for Airport staff distribution and review. The Draft AGS Technical Report 2 will be revised to incorporate comments. Final comments will be incorporated. A presentation will be prepared for all meetings.

**DELIVERABLE:** The Consultant will prepare an electronic copy of the Draft AGS Technical Report 1 in Microsoft Word (.doc) and Adobe Acrobat Portable Document Format (.pdf) for review by Airport staff.

**DELIVERABLE:** The Consultant will prepare an electronic copy of the Draft AGS Technical Report 2 in Microsoft Word (.doc) and Adobe Acrobat Portable Document Format (.pdf) for distribution by Airport staff and review.

**DELIVERABLE:** A Microsoft PowerPoint (.ppt) presentation will be prepared to present a summary of the AGS results.

### **Task 1.8 – Final AGS Technical Report**

The Consultant will prepare a Final AGS Technical Report based on comments from all parties on the Draft AGS Technical Report. Quality checks will be conducted on all revisions. One (1) on-site close-out meeting will be held to close out Element 1.

**DELIVERABLE:** The Consultant will prepare one (1) electronic copy of the Final AGS Technical Report in Microsoft Word (.doc) and Adobe Acrobat Portable Document Format (.pdf).

**MEETING:** One (1) on-site meeting will be held by Airport staff and the Consultant to close out Element 1.

### **Task 1.9 – AGS Briefings**

The Consultant will conduct up to five (5) briefings related to the AGS with any stakeholders identified by the Airport. These include meetings with FAA, City Council, users, tenants, etc. For each briefing, it is assumed that two members of the Consultant will be present. Meeting minutes and summary presentations will be prepared as necessary.

**MEETINGS:** Up to five (5) briefings related to the AGS with any stakeholders identified by the Airport.

## **Element 2 – Airport Strategic Plan**

### **Overview**

The Airfield Geometry Study (AGS) will result in changes to the configuration of airfield facilities requiring the 1) reconfiguration of taxiing operations to and from developed aviation uses on the Airport, as well as 2) potentially open new acreage for aviation related development. The Airport also has a number of aviation facilities impacted by various constraints affecting the operation of the facilities / uses and limiting the ability to meeting existing needs. Addressing the effect of AGS recommendations and the facility and land constraints impacting existing aviation facilities / uses will be focused in several specific areas (study areas) of the Airport which have a strong possibility of being impacted by the results of the AGS due to the anticipation of improving hotspot areas and the corresponding changes to air space. These areas are notably located as follows:

1. South side of Runway 7R/25L at the ends of Runways 16/34,
2. On the west side of the Airport, along both sides of Taxiway B and the west side of Runway 12/30,
3. In the vicinity of the Terminal area generally between the Terminal complex and Taxiway K,
4. Limited areas on the north side of Runway 7L/25R, and
5. Additional impacted areas as defined in the AGS.

The Airport Strategic Plan (ASP) will focus on mitigating the impact that constraints tied to the size of existing and potential development areas, imaginary surface limitations, parcel configuration or other site related features present. These issues will be reviewed for the effect they have on operational safety, extent to which they adversely impact aviation related uses and activity areas while also identifying opportunities for enhancing revenues in support of financial self-sustainability. The analysis will identify the viability of actions to mitigate constraints and safety concerns that may include relocation of constrained facilities to areas on the airport that may become available as a part of AGS recommendations to meet aviation and other development needs.

Key to the ASP will be the continuation of the stakeholder involvement program initiated during the AGS process that will ensure a transparent and open process with stakeholders.

### **Task 2.1 – On-Site Meetings with Individual Tenants and ASP Report Outline**

The Consultant will contact tenants within the areas influenced by the recommendations of the AGS and schedule individual meetings. Special emphasis will be placed on tenants that generate or experience substantial aircraft activity. The purpose of the Airport tenant meetings is to discuss operational and capacity issues and assess the general condition of structures and other facilities. Information will also be sought relative to aircraft activity levels to include number of aircraft tied down, 20 of 29

itinerant activity, and changes that have been occurring in the fleet mix. The Consultant will prepare a summary of each tenant meeting addressing significant findings, concerns, needs and estimates of activity. Associated with the summaries will be any diagrams and photos that were developed or taken during the site visit.

In addition, a detailed draft report outline (Table of Contents) of the technical report will be prepared. The Table of Contents will identify the details of the information to be provided in the final ASP technical report.

**DELIVERABLE:** The Consultant will prepare a detailed report outline (Table of Contents) of the ASP Technical Report for review and approval by Airport staff.

**DELIVERABLE:** The Consultant will prepare a record of each interview for inclusion as an appendices to the ASP Technical Report.

**MEETINGS:** Multiple meetings will be held with Airport tenants stakeholders identified to be interviewed. Formal record of the interviews will be prepared.

## **Task 2.2 – Definition of Physical Factors / Parameters for Assessment of Existing Aviation Facilities Constraints**

The Consultant will complete a site visit and photo inventory of existing airport facilities within the study areas described in the Overview section focusing on land / facilities that may become available for development through AGS analysis or due to other known circumstances. This assessment will identify and document conditions and constraints of the facilities within the noted areas. A quantitative and qualitative inventory of existing aviation facilities and characteristics on and adjacent to the parcels noted will be conducted to include:

- Access characteristics of the specific site / use such as:
  - Dedicated turn lanes,
  - Adjacent road characteristics/average daily trips (if available),
  - Signalized intersections,
  - Availability of curb cuts, and
  - Visibility factors from major arterials and highways,
- Parcel configuration and dimensional characteristics by area,
- Number, type, size (square feet and/or number of floors), and general conditions of existing uses / facilities,
- Previously identified environmental constraints with emphasis on known areas with potential contamination,
- Existing infrastructure configuration from available data sources with a focus on size, location and general adequacy of water, sewer and storm-water systems,

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and

- Zoning requirements affecting development with respect to:
  - Setbacks from roads and adjacent parcels,
  - Lot coverage/impervious surface limits,
  - Parking/loading requirements, and
  - Non-conforming use provisions.

This Task also will include a non-aeronautical inventory of utilities, transportation access, property ownership, pending plans and development projects by others, and related information for land uses within the immediate areas adjacent to LGB. Working with Airport staff, a non-aeronautical land use study area will be defined and data gathered for this area. The data identifies proximity to key infrastructure connections, points of access and land use precedents / issues adjacent to potential lands that become available due to the recommendations of the AGS that are necessary to support on-airport development or act to influence the form of usage on on-airport lands.

**DELIVERABLE:** The Consultant will prepare drawings along with supporting narrative and photography, as needed, to identify factors / parameters for assessing facilities along with constraints and facility characteristics and conditions within the identified tracts.

**MEETINGS:** One (1) site visit by Consultant (up to 3 people) to the Airport to conduct inventory of existing conditions with one (1) follow-up visit to supplement data and resolve questions or discrepancies.

### **Task 2.3 – Inventory of Existing Leases for Tenants within Study Area**

The lease for each facility located within the areas described in the Overview section being examined as a part of the land use effort will be reviewed to define land / building area covered by the lease, remaining time on the lease, financial terms including costs per square foot, annual escalation, provisions / control / limitations on use and occupancy, provisions or limitations to site and access, buyout / termination provisions, any penalty terms or other conditions that requires consideration as part of a potential relocation or re-use of the land or facility.

**DELIVERABLE:** The Consultant will prepare a brief overview of the salient / relevant elements of the leases with each key Airport tenant within the planning areas influenced by recommendations of the AGS that will include remaining life of the lease, renewal provisions, buy-out provisions and other requirements that could influence potential redevelopment / reconfiguration of the site.

### **Task 2.4 –Assessment of Airport Safety and Airspace Protection Surfaces**

The Consultant will participate in the review the Airport Layout Plan and visit the airfield with operations staff as identified under **Task 1.4 – Existing Airfield Geometry and Conditions and Airfield Hazards Inventory** and will supplement the illustrations of key airfield elements including runways, taxiways, and aprons, safety areas including ATCT Line of Sight considerations, RSAs, RPZ, OFAs, BRLs and OFZs developed under this task with overlays of most critical FAR Part 77 airport imaginary surfaces and TERPs surfaces overlying the respective tracts. Each of the tracts identified in the Overview section will then be reviewed to define the extent to which these airport safety and airspace protection surfaces limit the utilization and configuration of the specific tracts that are identified for consideration.

**DELIVERABLE:** The Consultant will prepare drawings along with supporting narrative for inclusion into the ASP Technical Report and, where applicable, incorporate photographs to identify, quantify, and illustrate the influence / impact the current or potential development / redevelopment of specific areas of the airport. Drawings will be prepared in a manner that will allow their registration with other constraint drawings so as to provide a series of overlays over each specific site area evaluated.

### **Task 2.5 - Demand Characteristics Determination**

With based aircraft and fleet mix data obtained during the AGS, the Consultant will consider the impact that ongoing development in the vicinity of the commercial passenger terminal will have on other aviation uses and facilities and the manner in which these impacts are being mitigated by shifting facilities and aircraft elsewhere on the airport.

**DELIVERABLE:** A summary of the potential future levels of based and possible itinerant aircraft on the airport along with a rough approximation of the mix (aircraft fleet) of these based and itinerant aircraft, which is necessary for space planning and design conformity. This summary will be in narrative format with supporting graphics as necessary and will summarize the assumptions, process employed and the results of the effort. The narrative will be incorporated into the ASP Technical Report.

### **Task 2.6 – Aviation Related Business Development Market Assessment**

A goal of the Airport Strategic Plan (ASP) is to determine opportunities for sustainable airport revenues through associated property enhancements of property affected by the AGS recommendations consistent with assurances associated with financial self-sufficiency. While aviation functions will first be fulfilled as determined through the ASP effort, other properties may become available for aviation related business development. To understand the support for aviation related business development, the Consultant will complete a market overview analysis that identify the short- and long-term potential for supportive land uses. Given that major competing sites, such as Boeings Douglas Park, are within the immediate area, the analysis needs to provide a strong foundation to assist the Airport in determining the realistic targets and

opportunities to enhance financial self sufficiency given the realities of market competitiveness of its available real estate assets.

- **Market related interviews:** Interviews will be conducted to obtain information regarding market and development opportunities within the submarket. Interviewees would typically include brokers, realtors, developers, property owners, local lending institutions, and others who might have an insight into current and anticipated market conditions.
- **Socioeconomic overview:** As a basis for the market work, a succinct analysis of current demographic and household characteristics will be provided. Projections of population and job growth in Long Beach and the surrounding communities that form the larger context for aviation related business development will be developed.
- **Aviation Related Business and Support Uses:** Potential aviation industries and businesses that could be reasonably considered as possible entities that would see the Airport as a logical and viable location for their activities will be identified. These could include maintenance, repair, and overhaul (MRO), specialty providers of services and support to aircraft operators and businesses. Other related aviation and support business might include:
  - **Retail / commercial services:** The current mix of businesses within the immediate submarket will be identified through a determination of rents, vacancies, and retail sales trends. The goal is to understand the current state of retail uses in the immediate Long Beach Airport market. The trade area for various types of establishments within the commercial districts will be analyzed to identify additional opportunities.
  - **Hotel and Associated Uses:** Opportunities for additional food and beverage establishments as appropriate will be identified. While the area already includes several national brand hotels, an overview examination of the existing hotel market and opportunities for new and / or diversified products will be explored.
  - **Office:** The competitive alignment of space with the market subarea will be assessed and identified. Based on market trends and anticipated employment conditions in the subarea in the future, only office development opportunities will be identified.
  - **Research and Development and Light Industrial:** Based on historical patterns and future employment data, the types of businesses that are well suited for potential development on appropriate property within the airport boundary will be identified.

The Consultant will identify and benchmark comparable case analyses for aviation-related business development projects. Comparables will be analyzed for relevant attributes including airport location, land use, tenant, acreage, building size,

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floor area ratios, airside / ramp access, site information and surrounding related development.

Utilizing information available from the airport and the aviation demand analysis, assumptions regarding opportunities for freight forwarding facilities that might be accommodated off airport will be considered as well. Upon completion of the stakeholder interviews, a meeting will be held to present the findings of the land use planning activities to this point in the study.

**DELIVERABLE:** A general inventory of competitive real estate alignment and the potential for the type and scale of new aviation related business uses. The overview will include a general estimate of the strength of the market as well as comparable data for existing and planned competitive alignments for rent, sale and development costs. The deliverable will include a presentation of findings for Airport staff.

**MEETING:** One (1) meeting will be held with Airport staff and the Consultant to present the findings of the preliminary land use planning activities.

## **Task 2.7 – Carrying Capacity Analysis of Existing and Potential Development Areas**

As noted previously, a number of facilities and sites within the noted study areas are currently constrained and appear to have limited ability to expand to reasonably meet either current demand or future demand. For each area of existing aviation development delineated in the Overview section, as well as any added areas that may be generated from the recommendations of the AGS, an assessment of the capacity of each parcel / tract to meet demand for expanded aviation use given various factors such as imaginary surface, community and current plans, zoning, setbacks, etc., will be undertaken.

This analysis will take into consideration the output from previous tasks and will be supplemented by the application of appropriate airport facility related design criteria as set forth under Advisory Circular 150/5300-13, Change 16, Airport Design (notably aircraft parking & taxiway criteria) as well as statutory limitations associated with impervious surface limits and maximum building coverage criteria. A preliminary evaluation matrix of available parcels, or parcels potentially subject to change will be prepared which identifies key characteristics and the assets and liabilities of each parcel will be prepared. It will be divided between aeronautical and non aeronautical parcels and will provide a formative basis for development of alternative land use plans in the next step of the process.

This assessment will provide Airport staff and stakeholders with a basis for assessing the adequacy of existing facilities / areas, the potential additional capability that could be provided by expansion onto existing under-utilized or vacant property or onto land that may become available as a result of the recommendations of the geometry study and the yields as expressed in potential square feet of building lease space, aircraft parking that might be generated. This analysis will also be useful in identifying those tracts or parcels that may be functionally limited or obsolete to viably support the

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activity that is presently being conducted and that may require relocation / redevelopment.

**DELIVERABLE:** An overview of the developable land areas taking into consideration potential constraints as identified in previous tasks that is presented in graphic and narrative format. Included in the overview will be the quantification of building coverage and impervious surface coverage (if criteria exist that limits these elements) as well as total acreage available for development. Additionally, the overview will identify areas that can be utilized but have specific limitations. For example, areas where the height of structures or objects may be reduced due to imaginary surfaces will be defined and the extent of limitation shown graphically and in narrative.

## **Task 2.8 – Alternative Concept Layouts**

The Consultant will develop up to three concept layouts for each of the site areas / tracts identified in the Overview section. These concepts will depict various configurations and potential mixes of facilities and uses as well as alternative placement of facilities intended to meet current and future demand and airport support and / or revenue enhancing uses. The concepts will identify required infrastructure improvements, access improvements airfield access improvements and estimated acreages in each tract by designated use or activity, (i.e. tiedown ramp, hangar, maintenance facility, FBO, aviation and revenue support land uses) for each development concept. Preliminary program phasing consideration will also be developed. These three overall concepts will account for future development and redevelopment activity taking into account any lands that become available as an outcome of the geometry study.

A key focus in the development of the three land use concepts will be to address current and future aviation facility demand. These concepts will be presented to both the Airport staff team at the Airport and in subsequent stakeholder group meetings for review, comment and refinement.

Concept plans will also consider influences and compatibility with adjoining areas. For individual tracts the concepts may consist of all aviation use, a mix of aviation and revenue support use in some instances. The matrix of available properties and those subject to change will be developed to identify key parcel characteristics. For support uses, this will include a preliminary determination of income and revenue potential. It will also include the results of the carrying capacity analysis will drive the potential sizing of facilities and configuration of the conceptual layouts to ensure conforming to airport design requirements and land development regulations.

**DELIVERABLE:** Graphic layouts of development concepts supported by narrative analysis providing the development basis, required supporting infrastructure and other improvements, discussion of the rationale behind proposed development phasing to include consideration of existing lease durations. Concepts will address the extent to which each alternative serves to address the current and forecast level of aviation



demand and potential opportunities to facilitate aeronautical and/or non-aeronautical revenue support uses.

**Pre-Meeting for TAC Meeting #3** - A meeting with Airport staff and the Consultant will be held to discuss the alternative concept layouts.

**Technical Advisory Committee (TAC) Meeting #3** - A meeting with TAC members will be held to discuss the alternative concept layouts.

**Public Advisory Committee (PAC) Meeting #3** - A meeting with PAC members will be held to discuss the alternative concept layouts.

**Open Public Airport Advisory Commission (AAC) Meeting #3** - An Open Public Airport Advisory Commission (AAC) Meeting #3 will be held at the Airport to present a summary of land use concepts.

**MEETING:** One (1) meeting with the Consultant and Airport staff to discuss land use concepts prior to the TAC and PAC meetings. An agenda and meeting minutes will be prepared.

**MEETING: Technical Advisory Committee (TAC) Meeting #3** - One (1) on-site meeting with the Technical Advisory Committee (TAC) to discuss land use concepts. An agenda, participant list, and formal minutes will be prepared.

**MEETING: Planning Advisory Committee (PAC) Meeting #3** - One (1) on-site meeting with the Planning Advisory Committee (PAC) to discuss land use concepts. An agenda, participant list, and formal minutes will be prepared.

**MEETING: Open Public Airport Advisory Committee Meeting #3** - One (1) on-site meeting with the Airport Advisory Commission (AAC) to discuss land use concepts.

## **Task 2.9 - Alternatives Evaluation and Preferred Alternative**

The initial step in the alternatives review will consist of defining a set of review criteria that will be used to evaluate the alternative land use concepts for areas identified in the Overview section. These criteria will be developed with input from Airport staff as well as with input from the stakeholder group. These criteria may include but not be limited to such items as:

- Relationship to overall program objectives
- Operational and Safety Factors
- Operational efficiency and capacity
- Maximize development potential
- Ability to satisfy demand
- Minimize capital cost exposure
- Development Costs
- Return on Investment

- Environmental considerations/impediments
- Ease of program Conceptual Phasing
- Impact to other Existing Uses
- Construct-ability

The final criteria and evaluation process will be coordinated with Airport staff including decisions made as to the application of any weighting of criteria and methods to be employed in the process. Utilizing established criteria the three development concepts will be evaluated and ranked by the Consultant. The exercise will include an overview explanation and rationale, as may be required, to explain the reasoning and judgments made on behalf of the Consultant. The evaluation will be provided to Airport staff and presented to stakeholder groups for consideration, discussion and refinement. The Consultant will then facilitate a work session with Airport staff to select a final preferred alternative which could include one of the three alternatives, or a combination of ideas synthesized into a new alternative.

**DELIVERABLE:** Summary in narrative, tabular and graphic format of alternatives evaluation criteria along with the basis for the criteria and any weighting and numerical values that are used in the ranking of the alternatives. A working paper describing in narrative, tabular and graphic format the findings of the alternatives evaluation process the basis for ranking differentials of the three consolidated alternative concepts.

**DELIVERABLE:** A Microsoft PowerPoint (.ppt) presentation will be prepared summarizing the process, criteria and results.

**MEETING:** One (1) meeting with the Consultant and Airport staff to define the evaluation criteria and the weighting of specific criteria by level of importance for use in assessing land use alternatives. An agenda and meeting minutes will be prepared.

**MEETING:** One (1) meeting with the Consultant and Airport staff to review the results of the consultant assessment of alternatives and to develop a finalized preferred land use alternative. An agenda and meeting minutes will be prepared.

## **Task 2.10 – Draft ASP Technical Report**

The Consultant will prepare a Draft Airport Strategic Plan (ASP) Technical Report 1 for review and comment by Airport staff. Following a two-week review period by Airport staff and incorporation of comments by the Consultant, the Consultant will prepare Draft Airport Strategic Plan (ASP) Technical Report 2 for Airport staff distribution and review. The Draft ASP Technical Report 2 will be revised to incorporate comments. Final comments will be incorporated. A presentation will be prepared for all meetings.

**DELIVERABLE:** The Consultant will prepare an electronic copy of the Draft ASP Technical Report 1 in Microsoft Word (.doc) and Adobe Acrobat Portable Document Format (.pdf) for review by Airport staff.

**DELIVERABLE:** The Consultant will prepare an electronic copy of the Draft ASP Technical Report 2 in Microsoft Word (.doc) and Adobe Acrobat Portable Document Format (.pdf) for distribution by Airport staff and review.

**DELIVERABLE:** A Microsoft PowerPoint (.ppt) presentation will be prepared to present a summary of the ASP results.

**MEETING:** One (1) meeting with the Consultant and Airport staff to discuss the Draft ASP Technical Report. An agenda and meeting minutes will be prepared.

**MEETING: Technical Advisory Committee (TAC) Meeting #4** - One (1) on-site meeting with TAC members to obtain feedback on the Draft ASP Technical Report. An agenda, participant list, and formal minutes will be prepared.

**MEETING: Public Advisory Committee (PAC) Meeting #4** - One (1) on-site meeting with PAC members to obtain feedback on the Draft ASP Technical Report. An agenda, participant list, and formal minutes will be prepared.

**MEETING: Open Public Airport Advisory Committee Meeting #4** - One (1) on-site meeting with the Airport Advisory Commission (AAC) to present the ASP results.

**MEETING: City Council Meeting #1** - One (1) on-site meeting with City Council (CC) to present the ASP results.

### **Task 2.11 – Final ASP Technical Report**

The Consultant will prepare a Final ASP Technical Report based on comments from all parties on the Draft ASP Technical Report.

**DELIVERABLE:** The Consultant will prepare one (1) electronic copy of the Final ASP Technical Report in Microsoft Word (.doc) and Adobe Acrobat Portable Document Format (.pdf).

**MEETING:** One (1) on-site meeting will be held by Airport staff and the Consultant to close out Element 2.

### **Task 2.12 – ASP Briefings**

The Consultant will conduct up to six (6) briefings related to the ASP with any stakeholders identified by the Airport. These include meetings with FAA, City Council, users, tenants, etc. For each briefing, it is assumed that two members of the Consultant will be present. Meeting minutes and summary presentations will be prepared as necessary.

**MEETINGS:** Up to six (6) briefings related to the ASP with any stakeholders identified by the Airport.

# EXHIBIT "B"

Rates or Charges



<b>Travel Expenses</b>	<b>Unit Cost</b>	<b>Trips/Nights</b>	<b>Total</b>
Airfare (per trip)	\$ 550.00	20	\$ 11,000.00
Rental Car (per trip)	\$ 250.00	12	\$ 3,000.00
Hotel (per night)	\$ 160.00	63	\$ 10,080.00
Meals (total per day)	\$ 75.00	63	\$ 4,725.00
Incidentals (per day)	\$ 25.00	63	\$ 1,575.00
<b>Subtotal</b>			<b>\$ 30,380.00</b>

Notes

**Non Travel Direct Expenses**

Reproduction	\$ 13,300
<b>Subtotal</b>	<b>\$ 13,300</b>

Plotting, printing, binding, CD's for drafts, deliverables, and submittals.

**Total Expenses**

Travel	\$ 30,380.00
Non-Travel	\$ 13,300.00
<b>Grand Total</b>	<b>\$43,680.00</b>

# EXHIBIT “C”

City’s Representative:

Rachel Korkos, Senior Civil Engineer

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# EXHIBIT “D”

Materials/Information Furnished: None

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