FIRST AMENDMENT TO AGREEMENT NO. 34358

34358

THIS FIRST AMENDMENT TO AGREEMENT NO. 34358 is made and entered, in duplicate, as of February 26, 2018 for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on January 23, 2018, by and between HNTB CORPORATION, a Delaware corporation ("Consultant"), with a place of business at 200 E. Sandpointe Ave., 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 Engineering Services for Various Development Projects at the Long Beach Airport; and

WHEREAS, City and Consultant entered into Agreement No. 34358 whereby Consultant agreed to provide the specialized services as described in Request for Qualifications AP16-105; and

WHEREAS, City and Consultant desire to add $3,350,000 to the Agreement and update the scope of work and fee schedule;

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

1. In addition to the specialized services generally described in Section 1.A of the Agreement, Consultant shall furnish those services generally described in Exhibit "A-3" attached to this Amendment and incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services (and the services already provided for in the Agreement) in the manner described in the Agreement, in an aggregate amount not to exceed Five Million Three Hundred Fifty Thousand Dollars ($5,350,000).

2. The Scope of Work in Exhibit "A-3" to this Amendment is hereby incorporated into the Agreement, and all terms and conditions of the Agreement shall be applicable to the performance of such work.

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

3. The Rates contained in Exhibit "B-1" to this Amendment hereby replace and supersede the rates currently attached to the Agreement. Exhibit "B-1" to this Amendment is hereby incorporated into the Agreement as a replacement Exhibit "B".

4. Except as expressly modified herein, all of the terms and conditions contained in Agreement No. 34358 are ratified and confirmed and shall remain in full force and effect.

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

MARCH 6, 2018

By _____
Name Thomas D. Ellis
Title Senior V.P.

March 13, 2018

By _____
Name Craig W. Dawson
Title Secretary

"Consultant"

CITY OF LONG BEACH, a municipal corporation

3/21, 2018

By _____
City Manager

"City"

This First Amendment to Agreement No. 34358 is approved as to form on March 20, 2018.

CHARLES PARKIN, City Attorney

By _____
Deputy

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

EXHIBIT "A-3"

TASK ORDER NO. 3

Task Order #3

HNTB Corporation
The HNTB Companies
Infrastructure Solutions

6033 West Century Boulevard
Suite 1050
Los Angeles, CA 90045

Telephone (310) 417-8777
Facsimile (310) 417-5369
www.hntb.com

Stephan Lum, PE
Senior Civil Engineer
Long Beach Airport
4100 Donald Douglas Drive
Long Beach, CA 90808

HNTB

December 1, 2016

Dear Stephan

The following outlines HNTB's scope, budget, and schedule proposal to assist Long Beach Airport (LGB) with development of a narrative memorandum to review the process and requirements for an Airport Master Plan (AMP), review past planning projects completed by LGB, and provide a recommendation on whether or not an AMP is needed for LGB.

Task 1 – Document Review
HNTB will review past planning documentation including the recently completed FIS Feasibility Study, the Airfield Geometry Study, the Environmental Impact Report (EIR) for the Terminal Area Development. HNTB will provide a brief summary of the scope of these studies as it relates to the areas studied and not studied.

Task 2 – Develop Memorandum Outline
HNTB will develop a technical memorandum outline for review by LGB staff. The outline will highlight what the intended sections will include.

Task 3 – Develop Draft Memorandum
HNTB will draft the technical memorandum based on the outline and any comments received from LGB staff on the outline's contents. The memorandum will include approximately 5-6 pages of narrative text addressing the major topics of the outline. The draft will be sent to LGB staff for review and comment.

Task 4 – Finalize Memorandum
HNTB will respond to LGB staff comments and provide up to 4 rounds of review prior to finalizing the memorandum for LGB staff use.

Schedule
This task must be complete by December 13, 2016.

Budget
The following lump-sum budget has been developed to successfully complete this task:

Task	Principal ($250/Hr)	Senior Planner ($200/Hr)	Budget
Task 1 – Document Review	2	4	$1,300
Task 2 – Develop Memorandum Outline	1	2	$650
Task 3 – Develop Draft Memorandum	2	16	$3,700
Task 4 – Finalize Memorandum	1	16	$3,450
Totals	**6**	**38**	**$9,100**

Best regards,

Justin Bychek, PE
Senior Airport Planner

TASK ORDER NO. 4

9841 Airport Blvd, Suite 822, Los Angeles, CA 90045
T: 310.988.1080 W: www.base-ae.com

January 26, 2017

Tony Fermelia
HNTB Corporation
6033 W. Century Blvd, Suite 1050
Los Angeles, California 90045

Dear Mr. Fermelia,

RE: Long Beach Airport Bird Mitigation Study

Enclosed herewith, please find BASE's fee proposal for the Long Beach Airport Bird Mitigation Study.

Long Beach Airport has asked that BASE provide a series of potential solutions in order to mitigate the bird issues currently plaguing the passenger gates. The study will provide a series of solutions, the benefits and limitations associated with each solution, as well as a Rough Order Magnitude estimate of cost.

We anticipate that we will receive as-built documentation of the existing building in order to validate areas and estimate costs.

The staffing indicated on the Attachment 'A' spreadsheet is required to complete the project on a timely basis.

SCOPE OF WORK

- Verify existing field conditions at the Long Beach Airport passenger gates.
- Prepare a preliminary report that will include the following:
  1. Potential mitigation solution descriptions and exhibits
  2. Benefit/Limitation summary
  3. Rough Order Magnitude cost estimate
- Attend (2) meetings with LGB Engineering, maintenance and operations staff.
- Prepare final report upon receipt of LGB staff comments.

SCHEDULE

- It is anticipated that the work will take approximately 3 weeks to complete from the Notice to Proceed (NTP).

EXCLUSIONS / ASSUMPTIONS

Services not described above constitute Additional Services and will be negotiated under a separate agreement. Such additional services may include but are not limited to:

- Additional consulting services beyond those named above.

We look forward to working with the Long Beach Airport team.

Cordially yours,

Michael H. Anderson
Principal
BASE Architecture, Planning, & Engineering, Inc

BASE

LGB Airport: Bird Mitigation Study
Fee Proposal

1/25/2017

BASIC SERVICES SCOPE

		BASE		
		Principal	Project Manager	
Ref.	Phase	Michael Anderson	Andrew Matsumoto	TOTAL
1	Site Visits (2)	0.0	4.0	4.00
2	Preliminary Report	1.0	18.0	19.00
3	Final Report	1.0	9.0	10.00
	Total Hours	2.00	31.00	33.00
	Hourly Rate	$ 185.00	$ 150.00	
	Total Staff Cost	$ 370.00	$ 4,650.00	$ 5,020.00
	BASIC SERVICES: TOTAL COST	$5,020.00		

REIMBURSABLES (+5%)

Printing, Shipping, Copies, Parking
GSA/IRS Rates (Travel excluding basic services)

HNTB Companies
Engineers Architects Planners

6033 W. Century Blvd
Suite 1050
Los Angeles, CA 90045

Telephone (310) 417-8777
Facsimile (310) 417-5369
www.hntb.com

May 11, 2017

Mr. Stephan Lum PE
City of Long Beach
4100 Donald Douglas Drive
Long Beach Airport, CA 90808

HNTB

RE: TERMINAL ENTRY MODIFICATIONS AND CEILING CLOSURE

The City of Long Beach has requested that HNTB contract with BASE Architecture to provide architectural and engineering services to design terminal improvements to help mitigate bird issues at the north and south terminals. Attached is a detailed scope from BASE Architecture and the following table identifies and cost for this effort on a Lump Sum basis:

FIRM	FEE
HNTB	
Task Order Management & Subcontracting	$ 1,500.00
BASE Architecture	
Architectural & Engineering Services	$ 55,943.00
Total	$ 57,443.00

Should you need any additional information that will assist in the evaluation of our proposal please do not hesitate to contact us.

Sincerely,

HNTB Corporation

Tony Fermelia, P.E.
Project Manager

9841 Airport Blvd, Suite 822, Los Angeles, CA 90045
T: 310.988.1080 W: www.base-ae.com

May 10, 2017

Tony Fermelia
HNTB Corporation
6033 W. Century Blvd, Suite 1050
Los Angeles, CA 90045

Dear Mr. Fermelia,

Long Beach Airport Task Order 2 – Terminal Entry Modifications and Ceiling Closure Design

Enclosed herewith, please find BASE's fee proposal for the Long Beach Terminal Entry Modifications and Ceiling Enclosure Design.

Following Task Order 1 – Airport Bird Mitigation Study, Long Beach Airport (LGB) has determined that several of the recommendations presented in that report should be implemented. BASE Architecture will provide architectural and engineering services for the following items:

1. Addition of a new pair of automatic sliding doors to the exterior with an enclosed vestibule
2. Glass enclosure for the existing outdoor eating areas at a height of 8' to 10'
3. Bird netting at the roof area of the new glass enclosed eating areas

Each of the above shall be designed for both the North and South terminal buildings.

In addition to the above scope, a separate bid package will be prepared for the enclosure of the existing open beam ceiling with a bird netting system that is capable of deterring birds from gaining access to the beams, fire protection systems, and other roosting areas. This portion of work shall be design-build. Plan check and CA services for the bird netting system in the terminals is not included in this proposal.

1. Entry Modification Scope of Work (Design Bid Build)

A. Schematic Design

- Verify existing field conditions at the Long Beach Airport (LGB) passenger gates and review of available documentation
- One (1) site visit will be conducted to verify as-built conditions
- Code assessment of the proposed work
- Preparation of schematic layout

B. Construction Documents

- BASE will prepare submittal packages to LGB and HNTB at 30/60/100% CD for review and comment including Architectural, Structural, MEP, Lighting and Fire Protection (design-build)
- Selection of finishes and materials will be provided, per LGB direction, such selections shall be called out on drawings and schedules only, and no additional specification shall be provided.
- BASE will submit the Construction Documents to the City for plan check and approval

C. Construction Administration

- BASE will respond to RFIs and Submittals
- BASE will conduct three (3) site visits for construction monitoring and review of field conditions

2. Bird Netting Scope of Work (Design Build)

A. Schematic Design

- BASE will compile bird netting and hardware product information
- Verify existing field conditions at the Long Beach Airport passenger gates and review of available documentation
- One (1) site visit will be conducted to verify as-built conditions
- Preparation of schematic layout

B. Bid Package

- BASE will provide a drawing package for bidding purposes only

Exclusions / Assumptions

Services not described above constitute Additional Services and will be negotiated under a separate agreement. Such additional services may include but are not limited to:

- Additional consulting services beyond those named above
- Cost Estimates
- Should additional Structural and/or MEP calculations be required after permit issuance, BASE and our consultants will work with the General Contractor to provide the necessary engineering documents as an Additional Service
- BASE's fee assumes that the floor plans previously provided (as part of Task 01) are accurate and current. All other information not provided by the time of this proposal shall be evaluated and reviewed at the time of receipt
- Site investigation is limited to visible non-destructive verification of existing architectural, structural and electrical conditions. Temporary relocation of furniture, equipment, and casework in order to verify site conditions is not included in the scope of work
- Only Long Beach Building Department (Building/Structural, ADA, and MEP) reviews shall be completed prior to finalizing construction documents. Any other approvals required by another jurisdiction or department shall be considered an Additional Service
- Bidding assistance and/or reviews of General Contractor bids will not be provided
- Fees associated with project submittals and agency approvals (Long Beach Building Department, Fire Marshall, etc.) are not included and will be billed at cost to the Client
- Per field walk conducted on May 1, 2017 preparation of specifications is not included in this proposal
- PBS Engineers will provide Fire Protection Performance Specifications, however Fire Protection Engineering, Plan Check and Permitting shall be done by a Fire Protection Contractor
- Curtainwalls, door systems and bird netting systems shall be deferred approval.

We look forward to working with the Long Beach Airport team.

Cordially yours,

Michael H. Anderson
Principal

Long Beach Aiport Task 02 - Terminal Entry Modifications and Ceiling Closure Design
Fee Proposal

5/10/2017

FEE BREAKDOWN

Ref.	Phase	BASE Principal Michael Anderson	BASE Project Manager Andrew Matsumoto	BASE Project Manager Yishan Lo	John Martin Structural Engineering	PBS (MEP) MEP and Fire Protection	TOTAL
BASIC SERVICES SCOPE							
1	Schematic Layout and Code Review	1.0	20.0	10.0	SEE JAMA BREAKDOWN	SEE PBS BREAKDOWN	
2	30% CD	0.0	20.0	10.0			
3	60% CD	0.0	15.0	5.0			
4	100% CD	1.0	15.0	5.0			
6	Plan Check and Revisions	0.0	15.0	5.0			
CONSTRUCTION ADMINISTRATION							
1	CA SERVICES	0.0	15.0	5.0			
	Total Hours	2.00	100.00	40.00	N/A	N/A	
	Hourly Rate	$ 185.00	$ 150.00	$ 150.00	N/A	N/A	
	Total Staff Cost	$ 370.00	$ 15,000.00	$ 6,000.00	$ 25,490.00	$ 9,083.00	$ 55,943.00

BASIC SERVICES: TOTAL COST $55,943.00

LGB Airport: Task 02 – Terminal Modifications
Fee Proposal

5/10/2017

FEE BREAKDOWN		JAMA Structural		JAMA Structural	
Ref.	Phase	Project Principal		BIM Manager	TOTAL
BASIC SERVICES SCOPE					
1	SD & Code Review	6.0		4.0	10.00
2	30% CD	8.0		10.0	18.00
3	60% CD	10.0		12.0	22.00
4	100% CD	12.0		14.0	26.00
5	Plan Check and Revisions	8.0		8.0	16.00
6	Construction Administration	16.0		6.0	22.00
	Total Hours	60.00		54.00	114.00
	Hourly Rate	$ 250.00	$	185.00	
	Total Staff Cost	$ 15,000.00	$	9,990.00	$ 24,990.00

OTHER DIRECT COSTS		
	Item	$ -
	Item	$ -
	TOTAL ODC's	$ 500.00

BASIC SERVICES: TOTAL COST	$	25,490.00

LGB Airport: Task 02 – Terminal Modifications
Fee Proposal

5/11/2017

FEE BREAKDOWN		PBS	PBS	PBS	PBS	
		Electrical Engineer/PM	Mechanical Engineer	Plumbing Engineer	CADD/REVIT Operator	
Ref.	Phase	Kunal Shah	Tariq Hassan	Noe Portilla	Henry Luu	TOTAL
BASIC SERVICES SCOPE						
1	SD & Code Review	4.0	2.0	2.0	3.0	[illegible]
2	30% CD	5.0	2.0	2.0	3.0	[illegible]
3	60% CD	8.0	3.0	3.0	4.0	[illegible]
4	100% CD	8.0	2.0	3.0	4.0	[illegible]
5	Plan Check and Revisions	2.0	1.0	1.0	1.0	[illegible]
6	Construction Administration	2.5	2.0	2.0	4.0	[illegible]
	Total Hours	29.50	12.00	13.00	19.00	[illegible]
	Hourly Rate	$ 144.00	$ 125.00	$ 125.00	$ 90.00	
	Total Staff Cost	$ 4,248.00	$ 1,500.00	$ 1,625.00	$ 1,710.00	$ 9,083.00

OTHER DIRECT COSTS		
Item	$	-
Item	$	-
TOTAL ODC's	$	-

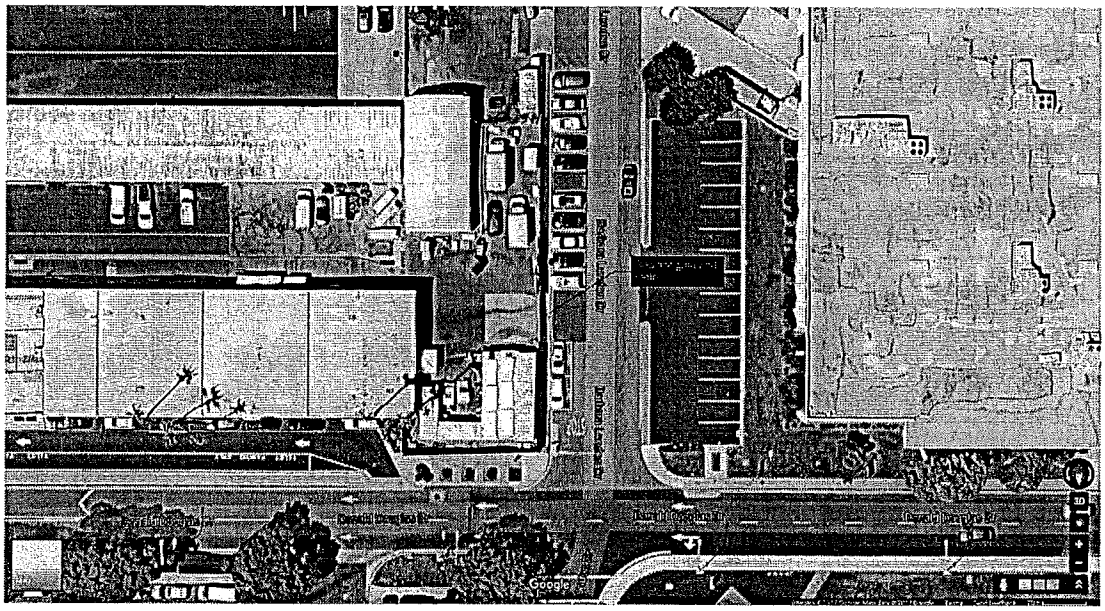
BASIC SERVICES: TOTAL COST	$	9,083.00

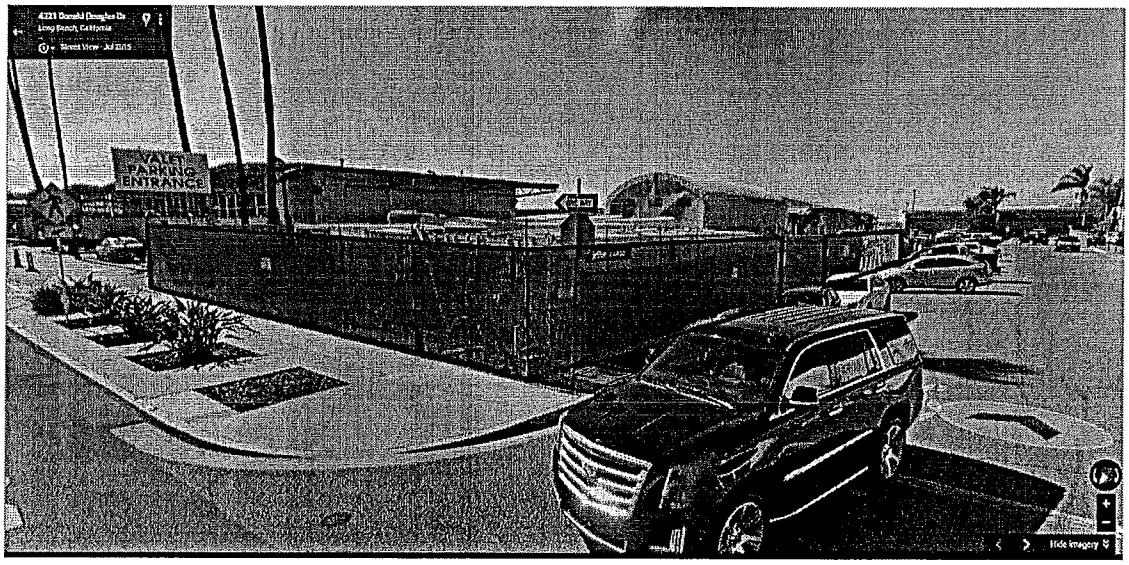
TASK ORDER NO. 5

I. INTRODUCTION

The Mayor of Long Beach has identified certain areas in the Terminal area for immediate "beautification". One area has an old 8' perimeter fencing **(see Exhibit A and B below)** that they would like to see changed to a block wall with 1' v-strand barbed wire and a new motorized gate. HNTB will examine several wall options for beautifying this area including split block, vs. block with stucco, vs. colored block, horizontal color banding, etc. and coordinate with LGB airport to determine the best option. HNTB will then develop a construction package for installation of the wall including plans and specifications.

Exhibit A & B





II. SCOPE OF SERVICES

TASK A –PRELIMINARY DESIGN SERVICES

Consultant will complete the preliminary design (60%), including, Plans, Technical Specifications and Estimates (PS&E) for the Work. Consultant will prepare the construction documents meeting City of Long Beach CADD standards. This scope of services consists of the following tasks:

A1. Conduct Project Design Kick-off Meeting with the City. This task consists of conducting a kick-off meeting with the City during the Preliminary Design Phase to establish the project criteria. At the kick-off meeting the team will review existing concept design

A2. Collect Existing Conditions Data. Existing conditions data will be collected. Pertinent record drawings will be identified and obtained from the City. Additionally, Long Beach staff will be interviewed to obtain information on any specific airfield issues that should be considered, based on observations and experience.

A3. Prepare Project Base Drawings. A base map of the project will be prepared using base mapping data. The Consultant will organize drawing layers, develop a sheet layout, and otherwise adapt the base mapping data to the project. I was agreed with LGB that a topo file would not be necessary. The exact location of the proposed steps in the wall foundations will be delegated design placed on the contractor.

A4. Prepare Structural Wall and Foundation Design. Consultant shall develop structural wall, typical footing step, masonry block and foundation details. It is assumed that Caltrans standard masonry block wall and trench foundation sections will be used to develop the design plans. PE stamped 8' wall with barbed wire and a 10' wall with no barbed wire details shall be provided including back up structural calculations for the foundation.

A5. Prepare Architectural Masonry Block Alternatives Consultant, will develop up to four (4) different wall options to review with the City. The various options will be reviewed with the City at one (1) single meeting. The block palette will provide photographs of some examples of decorative masonry walls what would not require a stucco or an additional finished surface. Rough order of magnitude relative price estimates per material type will be provided. After the meeting, the City will select the preferred wall type.

A6. Prepare Electrical and Design, Consultant, will develop electrical design for the removal and replacement of existing fence mounted light, and the existing ACAMS communication card reader. The design will also include the removal & replacement of existing automated vehicle gate and controller. With the support of a LGB airport electrician, a field investigation will be required to assess existing conditions and determine incoming power/communication to the fence light, card reader, and vehicle gate.

A7. Prepare Preliminary Drawings. Consultant to develop preliminary design drawings (60%) for the project elements while the associated construction phasing is reviewed and determined. Below is a preliminary list of drawings.

The following sheet list is an outline of anticipated sheets required for detailed design.

Sheets	Number of Sheets
Wall and Utility	
Cover sheet/ index of drawings	1
Temporary Fence Plan	1
Demolition Plans	1
Wall Construction Plans	1
Wall Details	2
Electrical Demolition & Reroute	1
Electrical Details	2
Total Sheets:	9

A8. Prepare Specifications Outline. A specifications outline will be prepared by the Consultant and submit with the 60% package.

A9. Prepare 60% Quantity Take-offs and Cost Estimate. Consultant to complete quantity take-offs and develop estimate of probable construction costs based on preliminary design documents. Note: estimated construction costs associated with wall construction to be based on best available information at the time, per the City's direction.

A10. QA/QC Review at 60% Complete. Following the completion of the plans and specifications, the Engineer will distribute a set of drawings and specifications to the Consultant's staff with expertise in the appropriate areas for an independent in-house review. Throughout the design a formal in-house quality control review will be conducted on content being distributed to the City. The process will consist of reviews of the progress and documents, and a scheduled checking and back-checking procedure with designated responsibilities for ensuring that the procedure is followed. A formal quality control review will be conducted prior to each scheduled design submittal. The formal review appoints senior technical experts not involved in the design to complete independent quality reviews of the plans, specifications and reports. In addition, a senior review team will be formed of leaders in each of the major discipline areas such as civil design, electrical, utilities, navigational aids, airfield operations, and constructability. This group will meet on a periodic basis as necessary to review project progress, key issues and questions; including and potential issues that could hinder the progress of the project. The purpose for this group will be to keep a big picture perspective of the project and make sure all the interrelated issues are being considered at the proper time.

A11. Distribute Preliminary Submittal Package (60%). Consultant will distribute plans, specifications, and estimates to the City and solicit comments from the Airport and City.

Deliverables: Consultant will submit the following deliverables to the City on Long Beach:

Plan Deliverables
- ❒ Four (4) half-size (11"x17") copies,

List of Specifications
- ❒ Four (4) 8.5"x11" copies, spiral bound

Digital Deliverable
- ❒ (1) CD with all deliverables in PDF format, CADD Files

A12. Conduct Project Review at 60% Complete. Following distribution of the project design package, the Consultant will review the project with the City.

TASK B – DETAILED AND FINAL DESIGN SERVICES

Consultant will complete the detailed and final design (90%, 100% Final) including, Plans, Technical Specifications and Estimates (PS&E) for the Work. Consultant will prepare the construction documents meeting the City of Long Beach CADD standards. This scope of services consists of the following tasks:

B1. Review and Respond to City Comments on Preliminary Design Consultant to assemble, review and respond to City comments on 90% preliminary design package drawings and specifications. Coordinate with City for clarifications, as needed.

B2. Develop Detailed (90% and 100%) Design Drawings Consultant will develop further develop the plans to the design levels of 90% and 100%.

B3. Prepare Detailed Specifications Consultant to update/develop general and technical specifications provided by the City for the project elements. The City will prepare the Special Provisions and "front end" specifications. Draft specifications will be submitted for review at the 90% and 100% stages.

B4. Calculate Estimated Quantities. The Consultant will calculate all necessary quantities for the various work items.

a. **Calculate bid item quantities.** The Consultant will complete a methodical calculation of each bid item estimated quantity for each schedule of work.

B5. Prepare Estimate of Probable Construction Cost. Cost estimates will be updated at 90% and 100% submittals. Using the final quantities calculated following

the completion of the plans and specifications, the Consultant will prepare the 100% construction cost estimate.

B6. QA/QC Review at 90%, 100% Complete. Following the completion of the plans and specifications, the Engineer will distribute a set of drawings and specifications to the Consultant's staff with expertise in the appropriate areas for an independent in-house review.

B7. Distribute Preliminary Submittal Packages at 90% and 100% Complete. Consultant will distribute plans, specifications, and estimates to the City and solicit comments from the Airport and City.

Deliverables: Consultant will submit the following deliverables at each submittal to the City on Long Beach:

Plan Deliverables

- ❒ Four (4) half-size (11"x17") copies,

Specifications Deliverable

- ❒ Four (4) 8.5"x11" copies,
- ❒ (1) CD with all deliverables in PDF format, CADD Files

B8. Conduct Project Review at 90% and 100% Complete. Following distribution of the project design package, the Consultant will review the project with the City.

B9. Review and Respond to City Comments on 90% Design Consultant to assemble, review and respond to City comments on 90% design package drawings and specifications. Coordinate with City for clarifications, as needed. A final set of plans (100%/Bid), specification and contract documents will be prepared which incorporates all revisions, modifications and corrections determined during the City's review.

TASK C –BIDDING ASSISTANCE

Extra services to be negotiated a later date

TASK D –CONSTRUCTION SUPPORT SERVICES

Extra services to be negotiated a later date

III. SCOPE OF SERVICES – ASSUMPTIONS

1) Items to be provided by the City of Long Beach
   a) Available base mapping for the project area.
   b) Preferred AutoCAD CAD standards, if any, for electronic deliverables.
   c) As-built plans of the existing site.

2) No formal topo or land survey effort will be done.
3) Steps in the wall foundation will be determined by the contractor
4) It is assumed that the existing ground slope away from the existing fence line. Therefore no drainage improvements is included in this scope of work
5) It is assumed that geotechnical investigations will not be required.
6) It is assumed that design will not require structure or electrical plan check permitting through the City of Long Beach
7) It is assumed that no plan check review or permit or review fees will be required.
8) The existing signs that are currently mounted to the existing fence will be removed, salvaged and reinstalled on the new wall.

IV. SCHEDULE OF SERVICES

The delivery of the tasks included in this Scope of Work is defined in the following table.

Milestone/Deliverable	Time Allotment
NTP	
Preliminary Design (PD) 60%	NTP+ 2 weeks
Detailed Design (DD) 90% Design	PD + 2 weeks
Final Design (FD)	DD + 3 weeks

End of Scope of Work

Long Beach Airport
CMU Wall Improvements

	TASK	Project Manager	QA/QC	Design Manager	Design Architect	Civil Engineer	Jr. Civil Engineer	Electrical Engineer	CADD Manager	Project Administration	Hours/	Total	Total
	Est Cost / Shr	$260.00	$231.00	$195.00	$165.50	$164.00	$95.22	$141.43	$112.87	$95.00	Sheet	Hours	Fee
	Task A - Preliminary Design Services 60%												
A1	Project design kick-off meeting	2								7	1	9	$1,185
A2	Collect existing condition data					4		4				8	$1,222
A3	Prepare project base drawings								4			4	$451
	Conduct Topographic Ground Survey												$0
A4	Prepare Structural Wall Design					8						8	$1,312
A5	Prepare Architectural Masonry Block Alternatives				8							8	$1,324
A6	Prepare Electrical Design							4				4	$566
A7	Prepare Preliminary Drawings												
	Anticipated List of Sheets												
	Cover Sheet/Index of Drawings								1		1	1	$113
	Temporary Fence Plan					2			2		4	4	$554
	Demolition Plans			1		2	2		2		7	7	$939
	Wall Construction Plans			1		2	2		2		7	7	$939
	Wall Details			1		2	3		3		9	18	$2,295
	Electrical Demolition & Reroute			1				2	2		5	5	$704
	Electrical Details			1				2	2		5	10	$1,407
	Total Number of Sheets:												
A8	Prepare Specifications Outline					2					2	2	$328
A9	Prepare 60% Quantity Take-offs and Cost Estimate			1			4				5	5	$576
A10	QA / QC Review at 60% Complete		4								4	4	$924
A11	Distribute Preliminary Submittal Package (60%)			2					4		6	6	$841
A12	Conduct Project Review at 60% Complete			2							2	2	$390
	Subtotal Task A - Preliminary Design Services	2	4	10	8	22	11	12	22	7	173	112	$16,970
	Subtotal Task A - Allowances												$250
	Task B - Detailed and Final Design Services												
B1	Review and Respond to City Comments on Preliminary Design			2								2	$390
	Prepare Detailed and Final Design												
B2	Develop Detailed (90% and 100%) Design Drawings												
	Anticipated List of Sheets												
	Cover Sheet/ Index of drawings								1		1	1	$113
	Temporary Fence Plan			1		2	2		2		7	7	$939
	Demolition Plans			1					2		3	3	$421
	Wall Construction Plans			1		2	2		2		7	7	$939
	Wall Details			1		2	4		4		11	22	$2,711
	Electrical Demolition & Reroute			1				2	2		5	5	$704
	Electrical Details			1				2	2		5	10	$1,407
	Total Number of Sheets:												
B3	Prepare Detailed Specifications												
B4	Calculate Estimated Quantities					2	2	2				6	$801
B5	Prepare Estimate of Probable Construction Cost						4					4	$381
B6	QA/QC at 90% and 100% Complete		8									8	$1,848
B7	Distribute Preliminary Submittal Package (60%)					2			8			10	$1,231
B8	Conduct Project Review at 90% and 100%			4								4	$780
B9	Review and Respond to City Comments on 90% and 100% Design			2		2						4	$718
	Subtotal Task B - Final Design Services	0	8	14	0	12	14	6	23	0		83	$13,383
	Subtotal Task B - ODC (Expenses)												$250
	Task E - Construction Support Services												TBD
	Task F - Post Construction Support Services												TBD
	TOTAL PROJECT											Total	$29,952

TASK ORDER NO. 6

I. INTRODUCTION

Runway 7R-25L is the busiest runway at Long Beach Airport (LGB), and is primarily used by light general aviation users including a majority of the airport's flight training operations. Although it's considered a B-II runway, it does not meet current design standards. The major goals of the runway improvement project include: rehabilitate the pavement, update the geometry in accordance with the airfield geometry study to meet current FAA design standards and enhance the overall safety of the airfield, and develop standard general aviation (GA) run up areas.

The design documents for the Runway 25L Improvements were completed and the project was advertised for bid on April18, 2017. It is assumed the construction duration will be approximately 331 calendar days; 60 days for mobilization + 271 calendar days for construction.

II. SCOPE OF SERVICES

TASK A –BIDDING ASSISTANCE

Consultant shall assist the City with the bidding process as follows:

A1. Respond to Contractor Questions. Consultant will provide assistance and respond to contractor questions during bid period.

A2.Attend Pre-Bid Meeting. Consultant will attend pre-bid meeting and conduct a project walk-through if requested.

A3.Prepare Addenda. Consultant will prepare addenda, if necessary (two assumed for budgeting purposes).

a. **Analyze and calculate potential addenda issues.** Consultant will accumulate questions and concerns from sources, material suppliers and contractors, City, FAA and other interested parties regarding conditions contained in the material specification or requirements that may need to be amended before bidding. Consultant will verify potential modifications to the documents with the FAA and Sponsor.

b. **Prepare addenda to be issued to Bidders.** Consultant will prepare the addenda to cover valid and acceptable issues and concerns as presented by interested parties during the advertisement process. City will notify and issued addenda to bidders.

A4.Prepare "Issued for Construction" Plans and Specifications. Consultant to prepare a conformed Issued for Construction set of plans and specifications incorporating any addenda or revisions issued during the bidding process. One (1) PDF file Construction Documents (Issued for Construction plans and specifications).

TASK B –CONSTRUCTION SUPPORT SERVICES

It is anticipated that Construction Support Services. For development of budget allowance it is assumed that the following services will be provided by the Consultant.

B1. Attend Pre-Pre-Construction Conference with Airport, Engineering, and Construction Inspection staff. Attend Pre-pre-Construction meeting with various city staff to review the project, schedule, and responsibilities.

B2. Attend Pre-Construction Conference with Contractor and Airport. Attend Pre-Construction meeting with the Contractor and the Airport

B3. Review Contractor Submittals. Review Contractor submittals, shop drawings, test data, etc. for conformance with the contract documents or industry standards. HNTB's review of submittals and shop drawings will be in accordance with normal industry practices.

B4. Respond to Contractor Questions. Consultant will respond to contractor questions and Requests for Information (RFI's) during construction.

B5. Construction Representation. Conduct periodic site visit/meeting by the project engineer to review the progress of construction and to address on-site construction questions and issues. The City's Construction Management (CM) consultant will be responsible for the construction management activities.

B6. Attend Weekly Construction Progress Meetings. The Project Manager and or the Project Engineer will attend periodic weekly construction progress meetings. Meeting agendas and minutes will be the responsibility of the CM.

B7. Prepare Plan Bulletin Modifications. Consultant shall issue necessary interpretations, clarifications and plan bulletin updated to the Contract Documents during construction and assist LGB with communications to the Contractor

TASK C – POST CONSTRUCTION SUPPORT SERVICES

It is anticipated that after the Design Documents have been finalized the Consultant and the City will negotiate a separate task order for Post Construction Support Services:

C1. Final Inspection. Consultant will participate in the final inspection of the project with the City's construction management team, not to exceed one (1) site visit.

C.2 Prepare "as-constructed" record drawings based on "red-line" drawings maintained by the Contractor and any change orders approved during construction. Both paper and electronic copies (CAD) will be submitted to the City.

III. SCHEDULE OF SERVICES

The delivery of the tasks included in this Scope of Work is defined in the following table.

Milestone/Deliverable	Time Allotment

NTP	
Bidding Assistance	1 month
Construction Phase Services	331 Calendar Days
Post Construction Services	Construction Completion + 1 months

End of Scope of Work

Long Beach Airport
Runway 07R-25L Improvements
CA Support Services Task Order 3

		TASK	Est Total # Steps	HNTB: Project Manager	HNTB: QA/QC	HNTB: Design Manager	HNTB: Sr. Engineer	HNTB: Civil Engineer	HNTB: Jr. Civil Engineer	HNTB: Sr. Planner	HNTB: Electrical Engineer	HNTB: CADD Manager	HNTB: CADD Drafter, Lead	HNTB: Project Administration	Dinter: Project Manager	Dinter: Senior Engineer	Dinter: Project Engineer	Dinter: Designer	Dinter: Cadd	Dinter: Cerical	Hours/ Sheet	Total Hours	Total Fee
				$268.00	$238.00	$201.00	$188.98	$159.17	$98.08	$205.90	$145.67	$118.26	$102.00	$108.45	$163.42	$147.07	$120.83	$104.59	$81.71	$66.37			
Bid Assistance		Task A - Bidding Assistance																					
	A1	Respond to Contractor					8				4											12	$1,935
	A2	Attend Pre-Bid Meeting		3																		3	$804
	A3	Prepare Addenda																					
		Analyze and calculate potential addenda issues		1			4	8			4											17	$2,809
		Prepare addenda to be issued to Bidders		1			4	8				6			2	8			8			19	$5,072
	A4	Prepare "Issued for Construction " Plans and Specifications		1			4	8	4		8	8	8									41	$5,521
	Subtotal Task D - Bid Assistance:			6		0	20	24	4	0	16	14	8	0	2	8	0	0	8	0		92	$14,131
	Subtotal Task D ODC (Expenses):																						$180
Const. Support Services		Task B - Construction Support Services																					
	B1	Attend Pre-Pre-Construction Conference with Airport, Engineering, and Construction Inspection Staff																					
	B2	Attend Pre- Construction Conference with Contractor and Airport					8															0	$0
	B3	Review Contractor Submittals		4		6	8	80	24					16	2	48						6	$1,014
	B4	Respond to Contractor Questions		8		16	8	48								24						116	$24,623
	B5	Construction Representation (4 hour site visits)		8		6	6	80								16						80	$17,582
	B6	Attend Weekly Construction Progress Meetings (2 hour meetings)		4		24		120														112	$21,464
	B7	Prepare Plan Bulletin Modifications				8		8				24	16									148	$24,906
	Subtotal Task E - Construction Support Services :			24		80	30	334	32	0	0	24	16	16	2	88	0	0	0	0		82	$7,565
	Subtotal Task E ODC (Expenses):																					826	$87,665
		Task C - Post Construction Support Services																					$2,250
Post Const. Support Services	C1	Final Inspection																					
	C2	Prepare "as-constructed" record drawings										24	40							16		0	$0
	Subtotal Task F - Post Construction Support Services :			0		0	0	0	0	0	0	24	40	0	0	0	0	0	0	16	0	64	$8,179
	Subtotal Task F ODC (Expenses):																					84	$8,179
																							$250
																					Subtotal Expenses:		$2,680
		TOTAL PROJECT		30		80	80	348	36	0	16	62	64	16	4	88	0	0	24	0			$124,825

** Assumes one (1) trip for Dinter from Reno + Printing

TASK ORDER NO. 7

I. INTRODUCTION

The Mayor of Long Beach has identified certain areas along the entrance roadway to the Terminal area for immediate "beautification". One area be considered for improvement is the pedestrian island located just east of the terminal. The existing roadway island is currently used by arriving passengers and pedestrians to cue and wait for vehicle pick up.

The City intends to install benches and seating in the island area. Along with the improved seating the city would also like to improve the shade for the passengers, the city would like to install a canopy over the island. The canopy would be cantilevered structure and that would be open on the westside so as not to significantly the block the view of the historical terminal. **(See Exhibit A and B Below)**

One option the Mayor would like to consider is a canopy structure would be shaped and have the architectural look of an "aircraft wing". HNTB will examine five (5) canopy design options and each option to be considered by the City. LGB will narrow the options down to two (2) and HNTB will develop architectural renderings for the two (2) primary designs. The architectural renderings shall in include:

- Each set of renderings should include a front facing, 45-degree angle, and a night time
- LGB will review and comments the initial set of renderings
- HNTB will revise the renderings based on LGB comments

HNTB will coordinate with LGB airport to determine the best option. HNTB will then develop a construction package for installation of the canopy structure including plans and specifications.

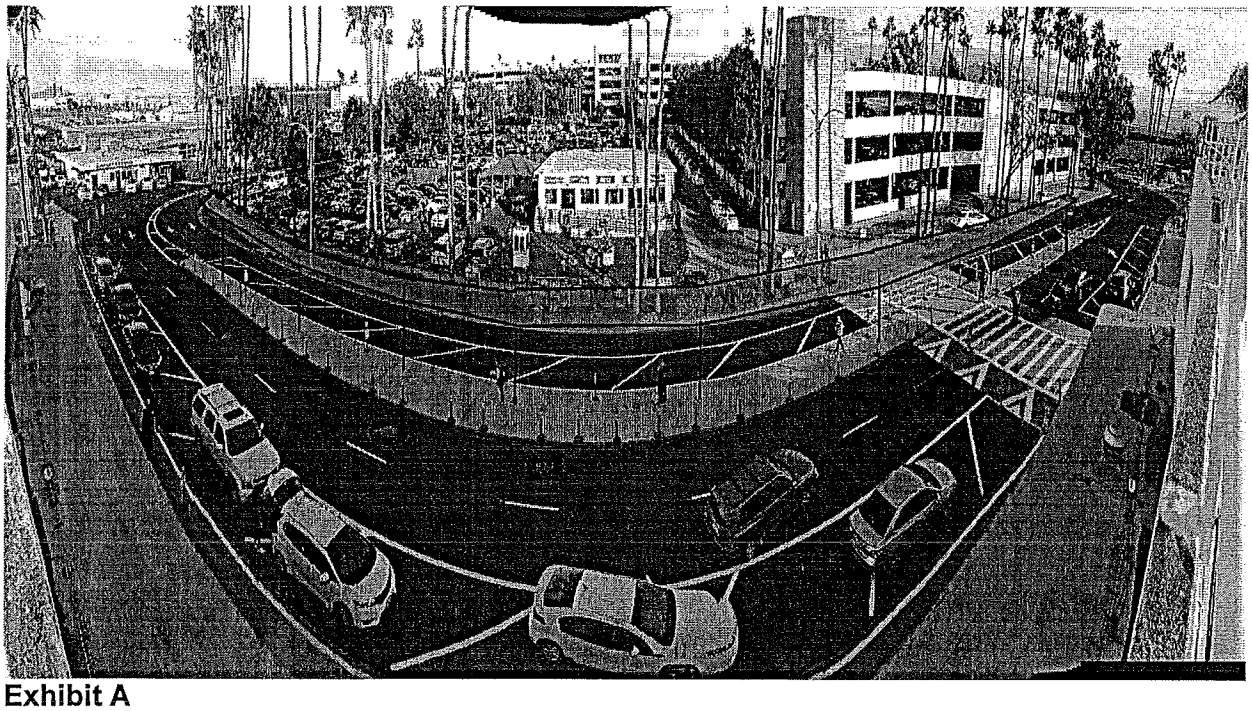


Exhibit A

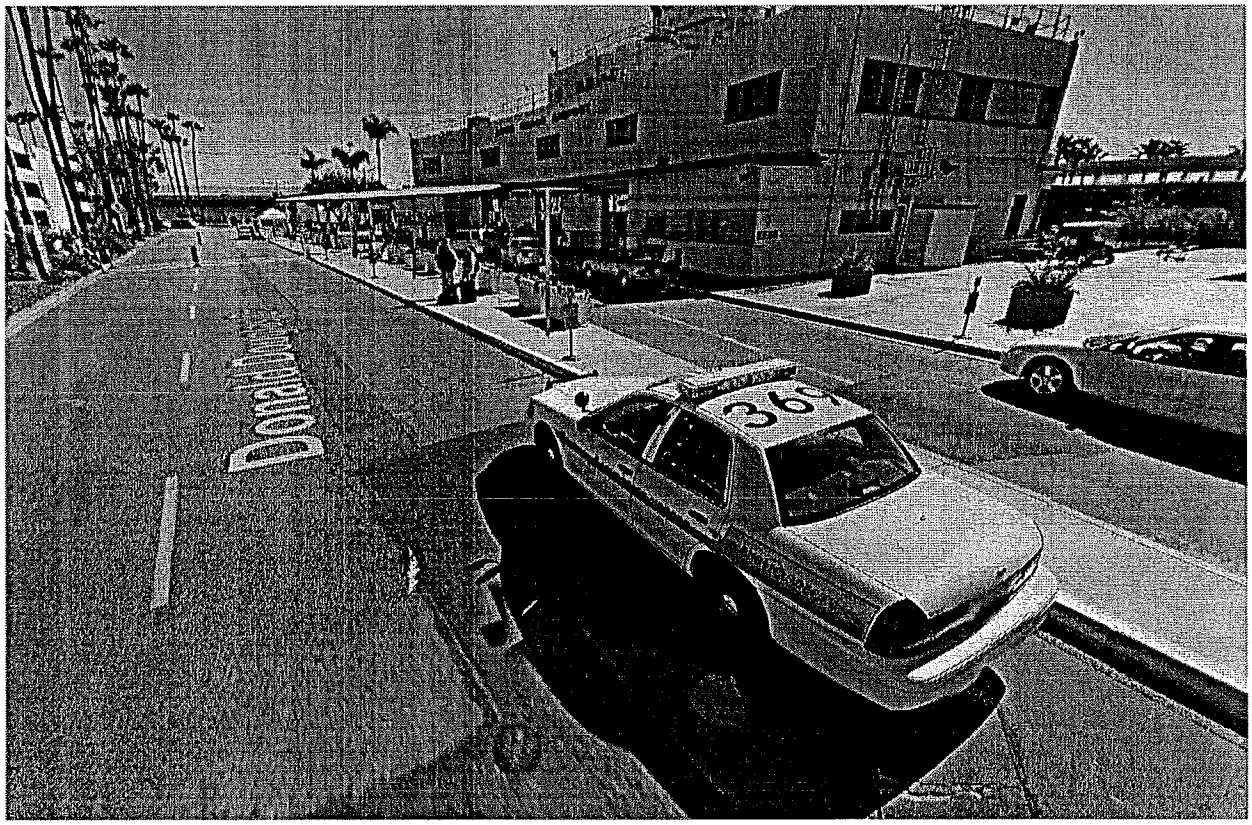


Exhibit B

II. SCOPE OF SERVICES

TASK A –PRELIMINARY AND SCHEMATIC DESIGN SERVICES (30%)

Consultant will develop concept design of five (5) canopy concepts and upon selection of two primary concepts by LGB prepare up to three (3) renderings for each concept for the review and consideration by the LGB Engineering Staff. LGB will review and comment on the primary concept renderings and the consultant will prepare new renderings based on the comments. After the LGB Engineering Staff selects a preferred concept, the concept will be presented to the City Council for approval. After approval by the City Council the consultant will develop the preliminary design (30%), including, Plans, Technical Specifications and Estimates (PS&E) for the Work. Consultant will prepare the construction documents meeting City of Long Beach CADD standards. This scope of services consists of the following tasks:

A1. Conduct Project Design Kick-off Meeting with the City. This task consists of conducting a kick-off meeting with the City during the Preliminary Design Phase to establish the project criteria. At the kick-off meeting the team will review existing concept designs.

A2. Collect Existing Conditions Data. Existing conditions data will be collected.

Pertinent record drawings will be identified and obtained from the City. Additionally, Long Beach staff will be interviewed to obtain information on any specific airfield issues that should be considered, based on observations and experience.

A3. Geotechnical historical review. The Consultant will review loading conditions, and design the canopy based on code-minimum values. Consultant will collect any historical geotechnical data for that area. The geotechnical engineer will prepare a short letter report that basically records existing conditions using the code-minimum values based on the geotechnical conditions that have been documented in the area. No formal subsurface geotechnical explorations will be collected.

A4. Prepare Alternative Concepts and Architectural Renderings. The Consultant will develop up to five (5) different concepts and up to two (2) architectural renderings to the two (2) primary designs. Each concept will include a single line of columns with a cantilever covering over the roadway island. Each concept will be presented to the City staff list the pro and cons of each. Each rendering will show views and perspectives from the roadway of both new canopy structure and the existing historic terminal. Architectural renderings for two (2) primary designs shall include a front facing, 45-degree angle, and a night time.

The city shall review and provide comments for each set of renderings. It assumed there will be two rounds of comments for the renderings

A5. Prepare Project Base Drawings. A base map of the project will be prepared using base mapping data. The Consultant will organize drawing layers, develop a sheet layout, and otherwise adapt the base mapping data to the project.

A6. Prepare Structural Column, Foundation and Canopy Design Consultant, will develop structural column, foundation and structural details.

A7. Prepare Electrical Design, Consultant, will develop electrical design for the installation of lighting under the canopy.

A8. Prepare Preliminary Drawings Consultant to develop preliminary design drawings (30%) for the project elements while the associated construction phasing is reviewed and determined. Below is a preliminary list of drawings.

The following sheet list is an outline of anticipated sheets required for detailed design.

Sheets	Number of Sheets
Canopy and Utility	
Cover sheet/ index of drawings	1
Demolition Plans	1
Canopy Construction Plans	2
Canopy Details	3
Foundation Plans	1

Sheets	Number of Sheets
Foundation Details	1
Electrical Demolition & Reroute	1
Electrical Details	2
Total Sheets:	**12**

A9. Prepare Specifications Outline. A specifications outline will be prepared by the Consultant and submit with the 30% package.

A10. Prepare 30% Quantity Take-offs and Cost Estimate Consultant to complete quantity take-offs and develop estimate of probable construction costs based on preliminary design documents. Note: estimated construction costs associated with wall construction to be based on best available information at the time, per the City's direction.

A11. QA/QC Review at 30% Complete. Following the completion of the plans and specifications, the Engineer will distribute a set of drawings and specifications to the Consultant's staff with expertise in the appropriate areas for an independent in-house review. Throughout the design a formal in-house quality control review will be conducted on content being distributed to the City. The process will consist of reviews of the progress and documents, and a scheduled checking and back-checking procedure with designated responsibilities for ensuring that the procedure is followed. A formal quality control review will be conducted prior to each scheduled design submittal. The formal review appoints senior technical experts not involved in the design to complete independent quality reviews of the plans, specifications and reports. In addition, a senior review team will be formed of leaders in each of the major discipline areas such as civil design, electrical, utilities, navigational aids, airfield operations, and constructability. This group will meet on a periodic basis as necessary to review project progress, key issues and questions; including and potential issues that could hinder the progress of the project. The purpose for this group will be to keep a big picture perspective of the project and make sure all the interrelated issues are being considered at the proper time.

A12. Distribute Preliminary Submittal Package (30%). Consultant will distribute plans, specifications, and estimates to the City and solicit comments from the Airport and City.

Deliverables: Consultant will submit the following deliverables to the City on Long Beach:

Plan Deliverables

- ❒ Four (4) half-size copies,

List of Specifications

❒ Four (4) 8.5"x11" copies, spiral bound

Digital Deliverable

❒ (1) CD with all deliverables in PDF format, CADD Files

A13. Conduct Project Review at 30% Complete. Following distribution of the project design package, the Consultant will review the project with the City.

TASK B –DETAILED AND FINAL DESIGN SERVICES

Consultant will complete the detailed and final design (60%, 90%, 100% Final) including, Plans, Technical Specifications and Estimates (PS&E) for the Work. Consultant will prepare the construction documents meeting the City of Long Beach CADD standards. This scope of services consists of the following tasks:

B1. Review and Respond to City Comments on Preliminary Design Consultant to assemble, review and respond to City comments on 30% preliminary design package drawings and specifications. Coordinate with City for clarifications, as needed.

B2. Develop Detailed (60%, 90% and 100%) Design Drawings Consultant will develop further develop the plans to the design levels of 60%, 90% and 100%.

B3. Prepare Detailed Specifications Consultant to update/develop general and technical specifications provided by the City for the project elements. The City will prepare the Special Provisions and "front end" specifications. Draft specifications will be submitted for review at the 60%, 90% and 100% stages.

B4. Calculate Estimated Quantities. The Consultant will calculate all necessary quantities for the various work items.

a. **Calculate bid item quantities.** The Consultant will complete a methodical calculation of each bid item estimated quantity for each schedule of work.

B5. Prepare Estimate of Probable Construction Cost. Cost estimates will be updated at 60%, 90% and 100% submittals. Using the final quantities calculated following the completion of the plans and specifications, the Consultant will prepare the 100% construction cost estimate.

B6. QA/QC Review at 60%, 90%, 100% Complete. Following the completion of the plans and specifications, the Engineer will distribute a set of drawings and specifications to the Consultant's staff with expertise in the appropriate areas for an independent in-house review.

B7. Distribute Preliminary Submittal Packages at 60%, 90% and 100% Complete. Consultant will distribute plans, specifications, and estimates to the City and solicit comments from the Airport and City.

Deliverables: Consultant will submit the following deliverables at each submittal to the City on Long Beach:

Plan Deliverables
- ❒ Four (4) half-size copies,
- ❒ One (1) full-size copy

Specifications Deliverable
- ❒ Four (4) 8.5"x11" copies, bound in three ring binders,

Digital Deliverable
- ❒ (1) CD with all deliverables in PDF format, CADD Files

B8. Conduct Project Review at 60% 90% and 100% Complete. Following distribution of the project design package, the Consultant will review the project with the City.

B9. Review and Respond to City Comments on 60% and 90% Design. Consultant to assemble, review and respond to City comments on 60% and 90% design package drawings and specifications. Coordinate with City for clarifications, as needed. A final set of plans (100%/Bid), specification and contract documents will be prepared which incorporates all revisions, modifications and corrections determined during the City's review.

B10. Obtain Ready-to-Issue Permitting Documents. Consultant to coordinate with Long Beach Development Services (LBDS) to obtain Ready-to-Issue (RTI) permits for the project. This scope of services assumes that only structural will require formal permitting by LBDS, any additional permitting including, architectural or electrical structural permits shall be considered additional services.

TASK C –BIDDING ASSISTANCE (TBD)

After final design is completed, Consultant can provide bidding assistance if requested by the City under a separate task order authorization. Some of the bidding assistance tasks may include the following:

C1. Respond to Contractor Questions.
C2. Attend Pre-Bid Meeting.
C3. Prepare Addenda.
C4. Prepare "Issued for Construction" Plans and Specifications.

TASK D –CONSTRUCTION SUPPORT SERVICES (TBD)

After final design is completed, Consultant can provide construction support service if requested by the City under a separate task order authorization. Some possible construction support services tasks may include the following:

D1. Attend Pre-Construction Conference with Contractor and Airport.
D2. Review Contractor Submittals.
D3. Respond to Contractor Questions.
D4. Construction Representation.

III. SCOPE OF SERVICES – ASSUMPTIONS

1) Items to be provided by the City of Long Beach
   a) Available base mapping for the project area.
   b) Preferred AutoCAD CAD standards, if any, for electronic deliverables.
   c) As-built plans of the existing site.
2) No formal topo or land survey effort will be done.
3) No formal geotechnical soil investigation with be done
4) It is assumed that design will not require architectural or electrical plan check permitting through the City of Long Beach
5) It is assumed that no plan check review fees or permit fees will be required.

IV. SCHEDULE OF SERVICES

The delivery of the tasks included in this Scope of Work is defined in the following table.

Milestone/Deliverable	Time Allotment
NTP	
Preliminary Design and Concept Approval	NTP + 6 weeks
30% (SD)	Concept Approval + 2 weeks
60% Design (DD)	SD + 2 weeks
90% Design (CD)	DD + 4 weeks
100% Design	CD + 2 weeks

V. FEE

The following tasks will be contracted on a Time and Material basis:

- Task A3. Geotechnical Historical Review
- Task A4. Prepare Alternative Concepts and Architectural Renderings

Other tasks in this scope of work will be contracted on a Lump Sum Basis per the attached spreadsheet

End of Scope of Work

Long Beach Airport
Electrical Upgrades Design Improvements

		TASK	Est Total # Shts	Electrical: Project Manager $260.00	Electrical: Electrical Engineer $221.75	Electrical: QA/QC Electrical $164.00	Electrical: CADD support $112.87	ADMIN: Project Admin. $95.00	Hours/ Sheet	Total Hours	Total Fee
Preliminary Design Services		**Task A - Preliminary Design Services 30%**									
	A1	Project design kick-off meeting		4	4			4		12	$2,307
	A2	Collect existing condition data			24					24	$5,322
	A3	Prepare Project base drawings			4		6			10	$1,564
	A4	Prepare Electrical Design		2	24		2			28	$6,068
	A5	Prepare Preliminary Drawings									
		Anticipated List of Sheets									
		Cover sheet/ index of drawings	*1*		0.5	0.25	2		2.75	2.75	$378
		Electrical area of work plan	*1*		0.5	0.25	2		2.75	2.75	$378
		Electrical Demolition Plans	*2*		8	0.5	1		9.5	19	$3,938
		Electrical site Plans	*1*		4	0.5	1		5.5	5.5	$1,082
		Electrical basement plan	*1*		4	0.5	1		5.5	5.5	$1,082
		Electrical enlarged plan	*2*		4	0.5	0.5		5	10	$2,051
		North Concourse power and lighting modification plan	*1*		2	0.5	0.5		3	3	$582
		South Concourse power and lighting modification plan	*1*		2	0.5	0.5		3	3	$582
		Electrical Details	*2*		2	0.5	4		6.5	13	$1,954
		Electrical partial Signal Line Diagrams	*2*		2	0.5	0.5		3	6	$1,164
		Electrical panel and feeder schedules	*1*		2	0.5	0.5		3	3	$582
		Total Number of Sheets:	*15*								
	A6	Prepare Specifications Outline			4	2		4	10	10	$1,595
	A7	Prepare 30% Quantity Take-offs and Cost Estimate			4				4	4	$887
	A8	QA / QC Review at 30% Complete		1	1	1	1		4	4	$759
	A9	Distribute Preliminary Submittal Package (30%)		0.5	1		1	2	4.5	4.5	$655
	A10	Conduct Project Review at 30% Complete		4	4				8	8	$1,927
		Subtotal Task A - Preliminary Design Services		**11.5**	**101**	**8**	**23.5**	**10**	**80.0**	**178.0**	**$34,854**
		Subtotal Task A - Allowances									**$250**
Final Design Services		**Task B - Detailed and Final Design Services**									
	B1	60% Design Development		1	24					25	$5,582
	B2	90% Design Document.		1	16					17	$3,808
	B3	100% Construction Document.		2	8					10	$2,294
		Anticipated List of Sheets									
		Cover sheet/ index of drawings	*1*				2		2	2	$226
		Electrical area of work plan	*1*				2		2	2	$226
		Electrical Demolition Plans	*2*				2		2	4	$451
		Electrical site Plans	*1*			2	4		6	6	$779
		Electrical basement plan	*1*				4		4	4	$451
		Electrical enlarged plan	*2*				4		4	8	$903
		North Concourse power and lighting modification plan	*1*			4	4		8	8	$1,107
		South Concourse power and lighting modification plan	*1*			4	4		8	8	$1,107
		Electrical Details	*2*			4	4		8	16	$2,215
		Electrical partial Signal Line Diagrams	*2*			2	4		6	12	$1,559
		Electrical panel and feeder schedules	*1*			2	4		6	6	$779
		Total Number of Sheets:	*15*								
	B4	Specification Book			4			6		10	$1,457
	B5	Prepare Estimate of Probable Construction Cost		1	4					5	$1,147
	B6	QA/QC Review at 60%, 90%, 100% Complete.				3				3	$492
	B7	Distribute Submittal Package 60%, 90% and 100%			3		6			9	$1,342
	B8	Conduct Design Review at 60% 90% and 100% Construction Document		2	16			3		21	$4,353
	B9	Review and Respond to City Comments on 90% and 100% Design		0.5	12			2		14.5	$2,981
	B10	Obtain Ready-to-Issue Permit Documents		1	8					9	$2,034
		Subtotal Task B - Final Design Services:		**8.5**	**95**	**21**	**44**	**11**		**199.5**	**$35,296**
		Subtotal Task B - ODC (Expenses):									**$500**
Bid Assistance		**Task C - Bidding Assistance**									
	C1	Respond to Contractor								0	TBD
	C2	Attend Pre-Bid Meeting								0	TBD
	C3	Prepare Addenda								0	TBD
	C4	Prepare "Issued for Construction " Plans and Specifications								0	TBD
		Subtotal Task C - Bid Assistance:		**0**	**0**	**0**	**0**	**0**		**0.0**	
		Subtotal Task C ODC (Expenses):									
Const. Support Ser		**Task D - Construction Support Services**									
	D1	Attend Pre-Pre-Construction Conference with Airport, Engineering, and Construction Inspection Staff								0	TBD
	D2	Review Contractor Submittals								0	TBD
	D3	Respond to Contractor Questions								0	TBD
	D4\	Construction Representation (2 site visits)								0	TBD
		Subtotal Task E - Construction Support Services :		**0**	**0**	**0**	**0**	**0**		**0.0**	
		Subtotal Task E ODC (Expenses):									
										Total	**$70,900**

The rows hightlighted in yellow will be provided on a T&M basis
The rows hightlighted in light blue will be provided on a Lump Sum

$70,900

Total **$70,900**

TASK ORDER NO. 8

I. INTRODUCTION

This project is consisting of replacement of total six (6) existing Siemens GSE-200DP vehicle charging stations and adding two (2) new vehicle charging stations, as indicated by red and yellow dots respectively in below in exhibit "A" below. This includes all necessary conduit runs, cabling, circuit breakers, and housekeeping concrete pads.

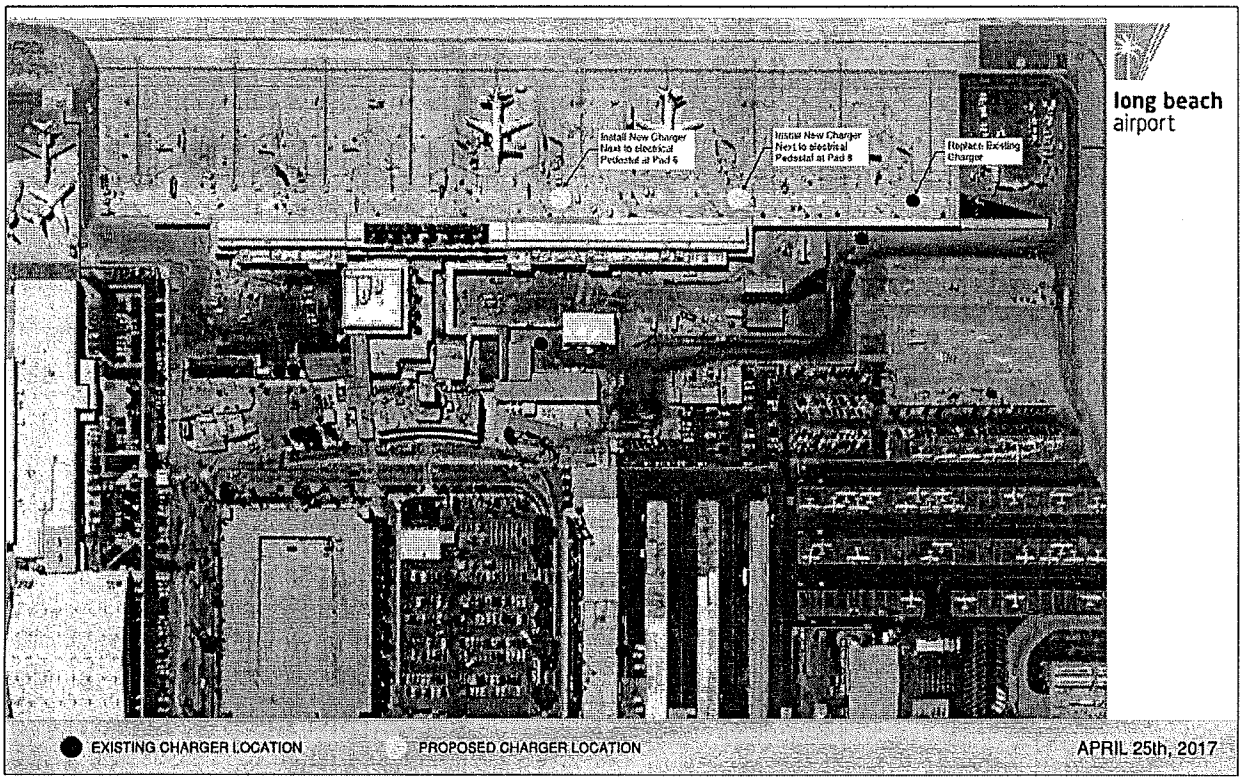


Exhibit A

II. SCOPE OF SERVICES

TASK A –PRELIMINARY AND SCHEMATIC DESIGN SERVICES (30%)

Consultant will the preliminary design (30%), including, Plans, Technical Specifications and Estimates (PS&E) for the Work. Consultant will prepare the construction documents meeting City of Long Beach CADD standards. This scope of services consists of the following tasks:

A1. Conduct Project Design Meeting and Site Visit. This task consists of conducting a kick-off meeting with the City and sit during the Preliminary Design Phase to establish the project criteria. At the kick-off meeting the team will review existing concept designs.

A2. Collect Existing Conditions Data and Review Documentation. Existing conditions data will be collected with the help of city provided building

technician/electrician familiar with the airport existing power distribution system charger system. Additionally, Long Beach staff and stakeholders will be interviewed to obtain information on any specific challenges or issues that should be considered, based on observations and experience. Pertinent record drawings will be identified and obtained from the City.

A3. Prepare Project Base Drawings. A base map of the project will be prepared using base mapping data. The Consultant will organize drawing layers, develop a sheet layout, and otherwise adapt the base mapping data to the project.

A4. Prepare Electrical Design. Consultant, will develop electrical design for the installation of new electrical equipment. The scope of the electrical includes:

a. Replacement of 6 existing Siemens GSE-200DP vehicle charger with 4 of PoisCharge MVS400 and 2 of MVS800 or equal.

b. Add two new PoisCharge MVS400 at air side pads 6 and 8.

A5. Prepare Preliminary Drawings Consultant to develop preliminary design drawings (30%) for the project elements.

The following sheet list is an outline of anticipated sheets required for detailed design.

Sheets	Number of Sheets
Cover sheet/ index of drawings	1
Electrical General notes and symbols	1
Electrical Area of work plan	1
Electrical Demolition Plans	1
Electrical Enlarged demo plan	2
Electrical Site Plans	1
Electrical Enlarged plan	2
Electrical Details	1
Electrical Partial Signal Line Diagrams	1
Electrical Panel and Feeder Schedules	1
Total Sheets:	**12**

A6. Prepare Specifications Outline. A specifications outline will be prepared by the Consultant and submit with the 30% package.

A7. Prepare 30% Quantity Take-offs and Cost Estimate Consultant to complete quantity take-offs and develop estimate of probable construction costs based on preliminary design documents.

A8. QA/QC Review at 30% Complete. Following the completion of the plans and specifications, the Engineer will distribute a set of drawings and specifications to the Consultant's staff with expertise in the appropriate areas for an independent in-house review. Throughout the design a formal in-house quality control review will be conducted on content being distributed to the City. The process will consist of reviews of the progress and documents, and a scheduled checking and back-checking procedure with designated responsibilities for ensuring that the procedure is followed. A formal quality control review will be conducted prior to each scheduled design submittal. The formal review appoints senior technical experts not involved in the design to complete independent quality reviews of the plans, specifications and reports.

A9. Distribute Preliminary Submittal Package (30%). Consultant will distribute plans, specifications, and estimates to the Long Beach Airport for review and comment.

Deliverables are as follows:

Plan Deliverables
- ❒ Four (4) half-size copies,

List of Specifications
- ❒ Four (4) 8.5"x11" copies, spiral bound

Digital Deliverable
- ❒ (1) CD with all deliverables in PDF format, CADD Files

A10. Conduct Project Review at 30% Complete. The Consultant will hold a 30% review meeting with the Long Beach Airport to discusses comments and concerns.

TASK B –DETAILED AND FINAL DESIGN SERVICES

Consultant will complete the detailed and final design (60%, 90%, 100% Final) including, Plans, Technical Specifications and Estimates (PS&E) for the Work. Consultant will prepare the construction documents meeting the City of Long Beach CADD standards. This scope of services consists of the following tasks:

B1. 60% Design Development.

B2. 90% Design Document.

B3. 100% Construction Document.

B4. Specifications Book.

B5. Prepare Estimate of Probable Construction Cost. Cost estimates will be updated at 60%, 90% and 100% submittals. Using the final quantities calculated following the completion of the plans and specifications, the Consultant will prepare the 100% construction cost estimate.

B6. QA/QC Review at 60%, 90%, 100% Complete. Following the completion of the plans and specifications, the Engineer will distribute a set of drawings and specifications to the Consultant's staff with expertise in the appropriate areas for an independent in-house review.

B7. Distribute Engineering Design Submittal Packages at 60%, 90% and Complete.

Deliverables are:

Plan Deliverables
- ❒ Four (4) half-size copies,

Specifications Deliverable
- ❒ Four (4) 8.5"x11" copies, bound in three ring binders,

Digital Deliverable
- ❒ (1) CD with all deliverables in PDF format, CADD Files

B8. Conduct Design Review at 60% 90% and 100% Construction Document.

B9. Consultant to assemble, review and respond to City comments on 60% and 90% design package drawings and specifications. Coordinate with City for clarifications, as needed. A final set of plans (100%/Bid), specification and contract documents will be prepared which incorporates all revisions, modifications and corrections determined during the City's review.

B10. Obtain Ready-to-Issue Permitting Documents. Consultant to coordinate with Long Beach Development Services (LBDS) to obtain Ready-to-Issue (RTI) permits for the project.

TASK C –BIDDING ASSISTANCE (TBD)

After final design is completed, Consultant can provide bidding assistance if requested by the City under a separate task order authorization. Some of the bidding assistance tasks may include the following:

C1. Respond to Contractor Questions.
C2. Attend Pre-Bid Meeting.
C3. Prepare Addenda.
C4. Prepare "Issued for Construction" Plans and Specifications.

TASK D –CONSTRUCTION SUPPORT SERVICES (TBD)

After final design is completed, Consultant can provide construction support service if requested by the City under a separate task order authorization. Some possible construction support services tasks may include the following:

D1. Attend Pre-Construction Conference with Contractor and Airport.
D2. Review Contractor Submittals.
D3. Respond to Contractor Questions.
D4. Construction Representation.

III. SCOPE OF SERVICES – ASSUMPTIONS

1) Items to be provided by the City of Long Beach
   a) Available base mapping for the project area.
   b) Preferred AutoCAD CAD standards, if any, for electronic deliverables.
   c) As-built plans of the existing site.
2) No formal topo or land survey effort will be done.
3) Scope does not include installation of temporary electrical meeting. temporary metering will need to be installed by a licensed electrical contractor.
4) It is assumed that no plan check review fees or permit fees will be required.

IV. SCHEDULE OF SERVICES

The delivery of the tasks included in this Scope of Work is defined in the following table.

Milestone/Deliverable	Time Allotment
NTP	
Data Collection	NTP + 3 weeks
30% Schematic Design	Data Collection/Metering + 2 weeks
60% Design Development	SD + 2 weeks
90% Design Document	DD + 3 weeks
100% Construction Document	CD + 2 weeks

V. FEE

This scope of work will be contracted on a Lump Sum Basis per the attached spreadsheet.

End of Scope of Work

Long Beach Airport
GSE Ramp Chargers Design Improvements

		TASK	Est Qty # Shts	Electrical: Project Manager	Electrical: Electrical Engineer	Electrical: QA/QC Electrical	Electrical: CADD support	ADMIN: Project Admin.	Hours/ Sheet	Total Hours	Total Fee
				$260.00	$172.76	$164.00	$112.87	$95.00			
		Task A - Preliminary Design Services 30%									
	A1	Project design kick-off meeting		2	4					6	$1,211
	A2	Collect existing condition data			8					8	$1,382
	A3	Prepare Project base drawings			6		6			12	$1,714
	A4	Prepare Electrical Design			20		1			21	$3,568
	A5	Prepare Preliminary Drawings									
Preliminary Design Services		**Anticipated List of Sheets**									
		Cover sheet/ index of drawings	1		0.5		1		1.5	1.5	$199
		Electrical general notes and symbols	1		1		1		2	2	$286
		Electrical area of work plan	1		0.5		1		1.5	1.5	$199
		Electrical Demolition Plans	1		4		1		5	5	$804
		Electrical enlarged demo plan	2		4		1		5	10	$1,608
		Electrical site Plans	1		4		1		5	5	$804
		Electrical enlarged plan	2		5		0.5		5.5	11	$1,840
		Electrical Details	1		5		4		9	9	$1,315
		Electrical partial Signal Line Diagrams	1		5		0.5		5.5	5.5	$920
		Electrical panel and feeder schedules	1		5		0.5		5.5	5.5	$920
		Total Number of Sheets:	12								
	A6	Prepare Specifications Outline			4			2	6	6	$881
	A7	Prepare 30% Quantity Take-offs and Cost Estimate			4				4	4	$691
	A8	QA / QC Review at 30% Complete		1	1	2	1		5	5	$874
	A9	Distribute Preliminary Submittal Package (30%)			1		2		3	3	$399
	A10	Conduct Project Review at 30% Complete		2	4				6	6	$1,211
		Subtotal Task A - Preliminary Design Services		5	86	2	21.5	2	59.5	127.0	$20,826
		Subtotal Task A - Allowances									$250
		Task B - Detailed and Final Design Services									
	B1	60% Design Development		1	16	2	4			23	$3,804
	B2	90% Design Document		1	10	1	2			14	$2,377
	B3	100% Construction Document		1	7	1	2			11	$1,859
	B4	Specification Book			6	2		2		10	$1,555
	B5	Prepare Estimate of Probable Construction Cost		1	3					4	$778
	B6	Distribute Submittal Package 60%, 90% and 100%			3		3			6	$857
	B7	Conduct Design Review at 60% 90% and 100% Construction Documer		2	4					6	$1,211
	B8	Review and Respond to City Comments on 90% and 100% Design		0.5	4					4.5	$821
	B9	Obtain Ready-to-Issue Permit Documents		1	3					4	$778
Final Design Services		**Subtotal Task B - Final Design Services**		7.5	66	6	11	2		82.5	$14,040
		Subtotal Task B - ODC (Expenses):									$250
		Task C - Bidding Assistance									
	C1	Respond to Contractor								0	TBD
	C2	Attend Pre-Bid Meeting								0	TBD
	C3	Prepare Addenda								0	TBD
	C4	Prepare "Issued for Construction" Plans and Specifications								0	TBD
Bid Assistance		**Subtotal Task C - Bid Assistance:**		0	0	0	0	0		0.0	
		Subtotal Task C ODC (Expenses):									

Long Beach Airport
GSE Ramp Chargers Design Improvements

	TASK	Est. Qty. # Sets	Electrical: Project Manager	Electrical: Electrical Engineer	Electrical: QA/QC Electrical	Electrical: CADD support	ADMIN: Project Admin.	Hours/ Sheet	Total Hours	Total Fee
			$260.00	$172.76	$164.00	$112.87	$95.00			
D	**Task D - Construction Support Services**									
D1	Attend Pre-Pre-Construction Conference with Airport, Engineering, and Construction Inspection Staff								0	TBD
D2	Review Contractor Submittals								0	TBD
D3	Respond to Contractor Questions								0	TBD
D4\	Construction Representation (2 site visits)								0	TBD
	Subtotal Task D - Construction Support Services								0	
	Subtotal Task E - ODC Expenses									
								TBD		$35,366

The rows hightlighted in yellow will be provided on a T&M basis
The rows hightlighted in light blue will be provided on a Lump S $35,366

Total **$35,366**

TASK ORDER NO. 9

TASK ORDER #009

I. INTRODUCTION

The City of Long Beach requested that HNTB include improvements to the Public Address (PA) system. The PA improvements in the historic main terminal will be added to the design and procured with the electrical upgrade project.

The existing analog PA system will remain operation until the new digital improvements are installed and operational. The updates will include new digital audio equipment in the basement comm. room, All interior and exterior speakers, microphone stations and related communication wiring such as Cat 6 and Fiber optics.

New conduit will be designed from the PA room to feed each of the ticket counters, security/operations room, rental car center, and fifth floor security room. This also include new conduit run and wiring, within the car rental office facility, from the wall mounted audio cabinet to each microphone stations.

This PA system upgrade to digital PA system is added as an alternate to the Electrical switchgear project at the Long Beach Airport.

II. SCOPE OF SERVICES

TASK A – PA SYSTM DESIGN

The design, including, Plans, Technical Specifications and Estimates (PS&E) for the Work. This scope of services consists of the following tasks:

A1. Conduct Project Site Visit.
Conducting a site meeting with the City staff. During the site meeting the team will review concept scope of and limits of work. Existing conditions data will be collected.

A2. Prepare existing PA System demolition plan.

a. Replacement of existing PA analog PA equipment with new Digital Equipment In the basement communication room

A3. Prepare PA Device Location plans.

Consultant, will develop PA communication device location plan to include:

a. Replacement of thirteen (13) microphone stations, three (3) side kick type microphone stations and all the interior and exterior speakers.
b. New conduit routing plan.
c. Feeding Ethernet cables to each new microphone station.

d. Running new fiber optic cabling to the rental car facility communication cabinet and Ethernet cable feeds to each new microphone.

A4. Prepare Performance PA System Specifications.

Performance specifications will be prepared by the Consultant to outline overall PA system and functional requirements. The selected construction contractor will be required to submit shop drawing for review. Shop drawings will be required to show details of the final PA system installation.

A5. Prepare Quantity Take-offs and Cost Estimate.

Consultant to complete quantity take-offs and develop estimate of probable construction costs based on preliminary design documents. Note: estimated construction costs associated with electrical/communication is based on best available information at the time.

A6. QA/QC Review.

Following the completion of the plans and specifications, the Engineer will distribute a set of drawings and specifications to the Consultant's staff with expertise in the appropriate areas for an independent in-house review. Throughout the design a formal in-house quality control review will be conducted on content being distributed to the City. The process will consist of reviews of the progress and documents, and a scheduled checking and back-checking procedure with designated responsibilities for ensuring that the procedure is followed. A formal quality control review will be conducted prior to each scheduled design submittal. The formal review appoints senior technical experts not involved in the design to complete independent quality reviews of the plans, specifications and reports.

A7. Design Review Submittal.

Consultant will distribute plans, specifications, and estimates to the Long Beach Airport for review and comment at following interval:

a. Distribute 60% Submittal Packages.
b. Distribute 100% Submittal Packages.

Deliverables are as follows:

Plan Deliverables

- ❒ Four (4) half-size copies,

List of Specifications

- ❒ Four (4) 8.5"x11" copies, spiral bound

Digital Deliverable

- ☐ (1) CD with all deliverables in PDF format, CADD Files

TASK B –BIDDING ASSISTANCE (TBD)

After final design is completed, Consultant can provide bidding assistance if requested by the City under a separate task order authorization. Some of the bidding assistance tasks may include the following:

C1. Respond to Contractor Questions.
C2. Attend Pre-Bid Meeting.
C3. Prepare Addenda.
C4. Prepare "Issued for Construction" Plans and Specifications.

TASK C –CONSTRUCTION SUPPORT SERVICES (TBD)

After final design is completed, Consultant can provide construction support service if requested by the City under a separate task order authorization. Some possible construction support services tasks may include the following:

D1. Attend Pre-Construction Conference with Contractor and Airport.
D2. Review Contractor Submittals.
D3. Respond to Contractor Questions.
D4. Construction Representation.

III. SCOPE OF SERVICES – ASSUMPTIONS

1) Items to be provided by the City of Long Beach
   a) Available base mapping for the project area.
   b) As-built plans of the existing site.
2) No formal topo or survey effort will be done.
3) Bidding Assistance and construction support services if required will be contracted under a separate task order

IV. SCHEDULE OF SERVICES

The delivery of the tasks included in this Scope of Work will be as defined in the Electrical Upgrade Project.

V. FEE

This scope of work will be contracted on a Lump Sum Basis per the attached spreadsheet.

End of Scope of Work

Long Beach Airport
PA Upgrades Design Improvements

		TASK	Est Total # Shts	Electrical				ADMIN			
				Project Manager	Senior Electrical Engineer	QA/QC Electrical	CADD support	Project Admin.	Hours/	Total	Total
				$260.00	$172.76	$164.00	$112.87	$103.35	Sheet	Hours	Fee
Design Services	Task A - Design Services										
	A1	Project Site Visit & Data collection			16		8	2		26	$3,874
	A2	Prepare existing PA System demolition plan.			10		2			12	$1,953
	A3	Prepare PA Device Location plans.		1	16		2			19	$3,250
	A4	Prepare Performance PA System Specifications		2	24					26	$4,666
	A5	Prepare Quantity Take-offs and Cost Estimate.			16					16	$2,764
	A6	QA/QC Review		2	8	4				14	$2,556
	A7	Design Review Submittal									
		60% Design Submittal Package		1	40		8			49	$8,073
	A8	100% Design Submittal Package		1	40		8			49	$8,073
		Conduct Project Review at Each Submittal		2	16					18	$3,284
	A9	Conduct shop drawing review.			8					8	$1,382
	Subtotal Task A - Preliminary Design Services			9	194	4	28	2	0.0	237.0	$39,879
	Subtotal Task A - Allowances										
	Subtotal Task E ODC (Expenses):										$150
										Total	$40,029

TASK ORDER NO. 10

I. INTRODUCTION

In September of 2017, The City of Long Beach (City), owner and operator of the Long Beach Airport (LGB) has identified the need to upgrade their standard chain link fence plans. The new standard fence detail is 8' tall and 1.25" mesh. The City has asked HNTB Corporation (Consultant) to prepare a proposal for design and structural calculations for the new chain link fence type.

II. SCOPE OF SERVICES

Consultant will provide structural calculations for the fence foundations. The fence design and structural calculations, standard, sill and barrier fence, will be per the 2016 edition of the California Building Standard Code. The City will apply and pay for a City Building Permit. Consultant will respond to all questions resulting from the City's permitting process and make the revisions necessary to obtain a standing Building Permit. Consultant will modify current City cadd standard plans to include the details for the new fence types. Revised details for will be prepared for the: airport standard fence, sill fence, and barrier fence.

III. SCHEDULE

Consultant will perform the aforementioned design services upon notice to proceed from the City. Consultant estimates the design and structural calculations will be complete within two weeks from notice to proceed. Upon receiving any comments from the City Building Department, the Consultant will respond within one week. Consultant recognizes that the City cannot commit to a set duration for the Building Plan check process.

IV. TERMS

If approved, this proposal shall serve as the scope and fee for a new Task Order associated with our current on-call contract with the City of Long Beach:

V. ASSUMPTIONS

It is assumed that the city will pay plan check review fees or permit fees if required.

VI. FEE ESTIMATE

This scope of work will be contracted on a Lump Sum Basis per the attached spreadsheet.

End of Scope of Work

Long Beach Airport
Structural Design
for New Standard Fence

	TASK		Structural				ADMIN			
			Project Manager	Structural Engineer	QA/QC Structural	CADD.	Project Admin.	Hours/	Total	Total
			$268.00	$215.00	$168.98	$116.26	$106.45	Sheet	Hours	Fee
Design Services	Structural Design Calculations									
	Project Management		4				8		12	$1,924
	Prepare structural calculations - Details			24		4			28	$5,625
	QC Calculations			2	4				6	$1,106
	Subtotal		4	26	4	4	8		46.0	$8,655
	Expense									$50
									Total	$8,705

TASK ORDER NO. 11

I. INTRODUCTION

The City of Long Beach (City), owner and operator of the Long Beach Airport (LGB) has identified the need for independent scheduling and cost estimating services for the upcoming Phase II Terminal Area Improvement, Terminal Canopy, Electrical Upgrades, Improvements to Runway 7R-25L and various other projects at the airport

The airport is envisioning a T&M task order with a NTE limit for an initial 1-year duration. The task order will be funded via HNTB Engineering On-call contract with Long Beach Airport

II. SCOPE OF SERVICES

The airport is independent scheduling and cost estimating services for the upcoming Phase II Terminal Area Improvements, Terminal Canopy Improvements, Electrical Upgrades, Improvements to Runway 7R-25L and various other projects at the airport

III. SCHEDULE

The airport is envisioning a T&M task order with a NTE limit for an initial 1-year duration.

IV. TERMS

If approved, this proposal shall serve as the scope and fee for a new task order associated with our current on-call contract with the City of Long Beach:

VI. FEE ESTIMATE

This scope of work will be contracted on a Time and Material Basis per the attached spreadsheet.

End of Scope of Work

Long Beach Airport
Scheduling and Cost Estimating Services

	TASK	Est Total # Shts	HNTB		F&G								
			Project Manager	Project Admin.	Chief Scheduler (CS)	Senior Scheduler (HS)	Scheduler (AV)	Chief Estimator (WL)	Senior Estimator (JK)	Senior Estimator (MB)	Hours/	Total	Total
			$268.00	$136.00	$185.00	$166.00	$102.00	$217.00	$175.00	$139.00	Sheet	Hours	Fee
Design Services	Structural Design Calculations												
	Project Management Contracting		4	24								28	$4,336
	Faithful & Gould = Cost estimating							24	240	180		444	$72,228
	Faithful & Gould = Scheduling				280	260	240					780	$119,440
	Subtotal		4	24	280	260	240	24	240	180		1,252.0	$196,004
	Expense (Printing, Mileage and other ODC)												$3,996
												Total	$200,000

TASK ORDER NO. 12

I. INTRODUCTION

The City of Long Beach (City), owner and operator of the Long Beach Airport (LGB) has identified the need for construction management services for the upcoming Phase II Terminal Area Improvement Project.

The airport is envisioning a T&M task order for a part time construction manager for an initial 3-month duration with a NTE limit.

After three (3) months it is anticipated that a separate task order will be developed for full-time services with separate NTE budget. The task order will be funded via HNTB Engineering On-call contract with Long Beach Airport

II. SCOPE OF SERVICES

Services shall include, but is not limited to, construction management, identifying accounting guidelines, reviewing project schedules, and development of project administrative tasks in support of Phase II Terminal Area Improvements at the airport

III. SCHEDULE

The airport is envisioning a T&M task order with a 1NTP limit for an initial 3-month duration. However, task orders will be authorized based on funding availability and as-needed.

IV. TERMS

If approved, this proposal shall serve as the scope and fee for a new task order associated with our current on-call contract with the City of Long Beach. The City of Long Beach agrees to indemnify and hold harmless HNTB from all claims and liability related to or arising out of the services provided by KDG Construction Services, as HNTB will not be directing or overseeing the Subconsultant's services.

VI. FEE ESTIMATE

This scope of work will be contracted on a Time and Material Basis per the attached spreadsheet.

End of Scope of Work

Long Beach Airport
Construction Management Services

	TASK	Est Total # Shts	HNTB Project Manager $268.00	HNTB Project Admin. $136.00	KDG Construction Manager $228.00	Hours/ Sheet	Total Hours	Total Fee
CM Serives	**CM Services**							
	Project Management Contracting		4	10			14	$2,432
	KDG Construction Manager (Carl Kimmerman)				264		264	$60,192
	Subtotal		**4**	**10**	**264**		**278.0**	**$62,624**
	Expense (Printing, Mileage and other ODC)							**$0**
							Total	**$62,624**

TASK ORDER NO. 13

I. INTRODUCTION

Runway 16L-34R at Long Beach Airport (LGB) and is currently closed and no longer in use. In an effort to improve safety and operations, Runway 16L-34R will be rehabilitated and re-designated as Taxiway C. The existing Taxiway C will become part of the existing ramp servicing the terminal gates. The major goals of the taxiway improvement project include: rehabilitate the pavement, update the geometry of Taxiway C and associated taxiways in accordance with the airfield geometry study to meet current FAA design standards and enhance the overall safety of the airfield.

The project includes the following improvements (See Exhibit A):

- Reconstruction and redesignation of Runway 16L-34R to Taxiway C
- New cross taxiways
- Demolition of existing runway and taxiway pavements
- Associated drainage improvements
- New LED electrical design
- Taxiway marking and signage
- Development of a construction safety and phasing plan (CSPP) and participation in safety risk management panel (SRMP).

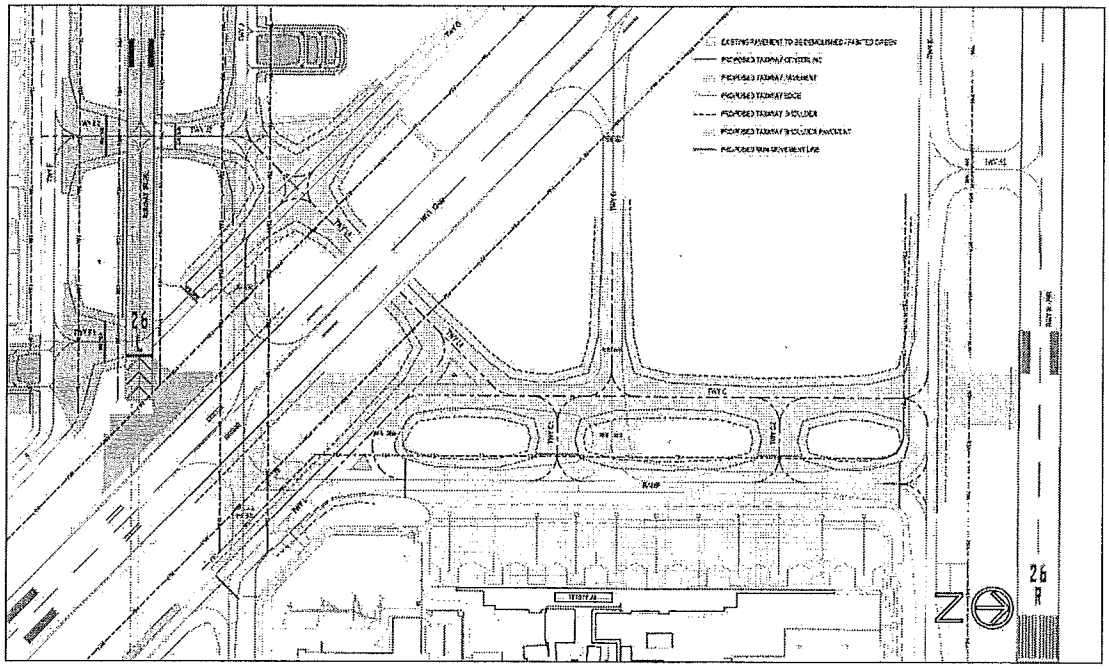


Exhibit A

II. SCOPE OF SERVICES

This Task Order will serve as methodology to initiate the following preliminary data collection services for this project only. Other services related to this design have been excluded from this task order. Management fees have been excluded from this in their entirety.

TASK A –DATA COLLECTION SERVICES FOR FUTURE DESIGN

A1. Conduct Project Design Kick-off Meeting with the City. This task consists of conducting a kick-off meeting with the City during the Preliminary Design Phase to establish the project criteria. At the kick-off meeting the team will review existing planning documents completed to date, including review and incorporate geometry studies, latest ALP developments into the project planning and design process for comprehensive project approach and documentation.

A2. Collect Existing Conditions Data. Existing conditions data will be collected. Pertinent record drawings, geotechnical investigations and utility information will be identified and obtained from the City. Additionally, Long Beach staff will be interviewed to obtain information on any specific airfield issues that should be considered, based on observations and experience.

A3. Prepare Project Base Drawings. A base map of the project will be prepared using base mapping data. The Consultant will organize drawing layers, develop a sheet layout, and otherwise adapt the base mapping data to the project

A4. Conduct Topographic Ground Survey Consultant, through its subconsultant, will conduct a detailed topographic ground survey for the project. The surveyor will establish a control network of semi-permanent monuments at 100 foot intervals along each side of Runway 16L-34R. This network will be tied to the LGB PACS and SACS monuments. The survey datum for the project will be the same as used for the ALP base map. The survey will include survey cross sections along the centerline of the runway and taxiways, edges of runway and taxiway pavement, existing edge of shoulder and infield areas. Survey cross sections will be established at 50 foot intervals. Since Runway 16L-34R is closed, it is assumed that the most of work will take place during the day. Areas within taxiway and runway critical areas will be surveyed nightly from 10:00 PM to 6:00 AM with Airport Operations personnel as escorts. Survey will pick up any in-pavement lights or utility structures within the survey limits. The survey effort will include the development of a survey control plan with vertical datum, basis of bearing and bench marks. The survey will allow tie in surface and utility features including: visible values, manholes, airfield lighting and signage, dip accessible drainage structure and manholes. An AutoCAD Civil 3D DTM file will be developed to capture the existing surface conditions.

A5. Update Project Base Drawings Based on New Ground Survey Consultant to incorporate new topographic survey into previously created base drawings, including layout, topo, utilities, and 3D surfaces. Update affected drawing sheets and design as needed.

A6. Geotechnical Investigation. The Consultant will conduct soil and pavement investigation to determine the existing pavement and soil conditions. Consultant will provide soil testing to determine the characteristics of the underlying soils and make soil bearing recommendations. The

geotechnical investigations will be performed in general accordance with the Federal Aviation Administration (FAA) Advisory Circular 150/5320-6E. The results will be documented in a geotechnical report. It is assumed that the site will be accessible to truck-mounted field equipment during overtime (night) hours between 10:00PM and 6:00AM. Subsurface exploration consisting of 24 hollow-stem auger borings to depths of up to approximately 10 feet. Laboratory testing of representative soil samples will be conducted and California Bearing Ratio (CBR) will be provided for up to eight (8) of the samples. Testing will include both laboratory and field CBR testing. Testing will include approximately 72 moistures content/dry density, 26 index tests (particle size analysis - #200 sieve, or Atterberg limits), 6 compaction, 6 corrosion, and 3 expansion index tests. It is anticipated that the pavement design may require cement stabilization or lime stabilization of the subgrade soils. Therefore, subgrade stabilization testing will be performed for two soil types, and will include laboratory unconfined compression tests for different curing times and ratios of subgrade cement stabilizing agents; test will determine the percentage of lime (lbs/CY) of existing subgrade to achieve the acceptable stabilization and anticipated CBR requirements; total of 18 tests.

III. SCOPE OF SERVICES – ASSUMPTIONS

1) Items to be provided by the City of Long Beach
   a) Available base mapping for the project area.
   b) Preferred AutoCAD CAD standards, if any, for electronic deliverables.
   c) Existing airport planning documents, drawings, reports, studies, etc.
2) It is assumed that there are no contaminated soils within the project boundaries. However, technical specifications and a specific bid item will be developed to address the possibility of encountering contaminated soils and will describe a procedure on how the contractor should handle contaminated soils if encountered
3) Geotechnical, and surveyor field investigation services will be performed during off-peak hours in airfield critical areas (Runway and Taxiway Safety Areas) (10PM-6AM).
4) It is assumed that soil and excess drilling cuttings from geotechnical operation can be disposed of in the unpaved infield areas on the airport and will not have to be placed in drums and transported offsite.
5) It is assumed that no potholing and utility locating services will be performed under this scope. If utility locating services are required that work will be scoped and procured via a separate allowance.

IV. SCHEDULE OF SERVICES

The delivery of the tasks included in this Scope of Work is defined in the following table.

Milestone/Deliverable	Time Allotment
NTP	
Preliminary Design (PD)	NTP+ 3 month

End of Scope of Work

Long Beach Airport
Runway 16L-34R Conversion to Taxiway C Improvements
Data Collection
Task Order 13

	TASK	Est Time	HNTB: Project Manager	HNTB: QA/QC	HNTB: Design Manager	HNTB: Sr. Engineer	HNTB: Civil Engineer	HNTB: Jr. Civil Engineer	HNTB: Sr. Planner	HNTB: Electrical Engineer	HNTB: CADD Manager	HNTB: CADD Drafter, Lead	HNTB: Project Administration	Wagner Engineering and Survey: Survey Manager	Wagner Engineering and Survey: Office Surveyor	Wagner Engineering and Survey: Certified Party Chief	Wagner Engineering and Survey: Survey Apprentice II	Wagner Engineering and Survey: Cadd Designer	Diaz-Yourman: Principal	Diaz-Yourman: Associate I	Diaz-Yourman: Project 1	Diaz-Yourman: Staff II	Diaz-Yourman: Staff I	Diaz-Yourman: Cadd	Diaz-Yourman: Word Processor	Diaz-Yourman: Technical Editing	Hours/ Sheet	Total Hours	Total Fee	
		# Days	$266.00	$237.00	$200.00	$158.00	$158.00	$98.00	$205.90	$145.00	$116.00	$107.00	$105.00	$210.00	$153.00	$155.91	$96.33	$120.85	$239.64	$179.08	$103.83	$90.15	$77.12	$59.00	$49.00	$111.78				
Preliminary Design Services	Task A - Preliminary Design Services																													
	A1 Project design kick-off meeting		4		4	4			4																			16	$3,350	
	A2 Collect existing condition data				2		8	8				12																	18	$2,456	
	A3 Prepare project base drawings							8			4	12																	24	$2,532	
	A4 Conduct Topographic Ground Survey		4										6	8	8	144	144	336											650	$82,112	
	Survey ODC (Expenses/Mileage): 100 miles RTday																													$1,177
	A5 Updated project base drawings based on new ground survey				2						4	12																	18	$2,146	
	A6 Geotechnical investigation and subsurface design labor		4										6						16		102	10	186	6	6	6	36	336	$41,760	DYA fee incl
	Geotechnical investigation outside costs and ODC																													$53,366
	Subtotal Task A - Preliminary Design Services		12	0	8	4	8	16	4	0	8	34	16	8	8	144	144	336	16	0	102	10	186	6	6	6	36	8.6	1,664.0	$186,183	
	Subtotal Task A - ODC (Expenses/Mileage): 100 miles RTday for Wagner + 1 trip from Reno for Diaz																													$3,077
	TOTAL PROJECT																													$189,260

TASK ORDER NO. 14

I. INTRODUCTION

Per discussion with the airport, there is a need to provide two to three additional Remain Overnight (RON) Parking Positions capable of handling Aircraft Design Group III (ADG III) aircraft. The airport has initially recommended a study of the area east of the proposed Runway 26L threshold adjacent to Taxiway J1. In order to validate the potential location, HNTB has been asked to develop possible aircraft parking position layouts and evaluate for clearance from airspace considerations.

II. SCOPE OF SERVICES

TASK A –PRELIMINARY RON Layout

Consultant will the preliminary layout for three ADG III RON positions along J1 capable of servicing A321Neo and 737Max aircraft. Layout will be evaluated with respect to the critical airspace surfaces for the adjacent runways. This scope of services consists of the following tasks:

A1. Contract Administration: Including invoicing, contracting and project status updates for the city.

A2. Prepare Preliminary RON Layout. Consultant shall develop a horizontal layout for a remain overnight (RON) apron. Layout shall be based on available survey information and will not require additional survey at this time. It is assumed that the RON ramp shall be sized per established aircraft parking positions clearances currently employed at the LGB Terminal. This scope assumes one alternative layout within the proximity of Taxiway J1. Additional alternative can be developed as part of the added services, see Task B.

A3. Evaluate Airspace Considerations. Consultant shall prepare a section cut of the proposed RON positions detailing the aircraft position with respect to the critical airspace surfaces. The section will be taken at the critical point within the proposed RON.

Digital Deliverable

- ❒ Color Exhibit of proposed alternative in plan view
- ❒ Color Exhibit of proposed alternative in section view
- ❒ (1) CD with deliverables in PDF format, CADD Files

TASK B –Additional Services

Should the airport request and authorize additional services, the Consultant is prepared to deliver the following:

B1. Additional RON Alternative Layouts. The consultant shall evaluate additional RON alternative locations. The airport shall identify possible locations and the consultant shall develop a possible RON layout that would accommodate three ADG

III aircraft in that location. The effort proposed is for each additional alternative requested.

B2. Evaluate Airspace Considerations. Consultant shall prepare a section cut of the preferred RON alternatives detailing the aircraft position with respect to the critical airspace surfaces. The section will be taken at the critical point within the proposed RON. The effort proposed is for each additional alternative requested.

B3. Prepare Construction Cost Estimates. Consultant shall develop rough order of magnitudes estimates for the probable cost of the RON Apron that will accommodate the preferred RON layout. Cost estimate shall be based on assumed pavement sections and will use ROM estimates for utility connections and will carry contingency. The effort proposed is per each alternative for which an estimate is requested.

B4. Modify the ALP. Consultant shall modify the existing ALP in preparation of a Pen and Ink Change subject to review and approval by the FAA.

Digital Deliverable

- ❒ Effected ALP sheets in color
- ❒ (1) CD with deliverables in PDF format, CADD Files

III. SCOPE OF SERVICES – ASSUMPTIONS

1) Items to be provided by the City of Long Beach
   a) Available base mapping for the project area.
   b) As-built plans of the existing site.
   c) Existing lease information and limits.
2) No formal topo or land survey effort will be done as part of this effort.
3) This effort is preliminary in nature and will not result in construction grade deliverables. The information developed as part of this effort is for discussion and planning.

IV. SCHEDULE OF SERVICES

The delivery of the tasks included in this Scope of Work is defined in the following table.

Milestone/Deliverable	Time Allotment
NTP	12/12/2017
Submit Preliminary RON Layout	NTP + 3 days
Airport Confirms Alternative & Provides Comments	Submittal + 2 Days
Develop Airspace Analysis for Ron Layouts	Confirmation + 5 Days

V. FEE

This scope of work will be contracted on a Lump Sum Basis per the attached spreadsheet

End of Scope of Work

Long Beach Airport
Remain Overnight Parking Study
Task Order 14

		TASK	Est Total # Shts	HNTB Project Manager	QA/QC	Design Manager	Sr. Engineer	Civil Engineer	Jr. Civil Engineer	Sr, Planner	Electrical Engineer	CADD Manager	CADD Drafter, Lead	Project Administration	Hours/ Sheet	Total Hours	Total Fee
				$266.00	$237.00	$200.00	$168.00	$159.00	$98.00	$205.90	$145.00	$116.00	$107.00	$106.00			
Preliminary RON Layout	**Task A - Preliminary RON Layout**																
	A1	Project Management / Admin		2										4		6	$956
	A2	Prepare Preliminary RON Layout				16				6		16				38	$6,291
	A3	Evaluate Airspace Considerations								16		8				24	$4,222
		Expenses															$250
	Subtotal Task A - Preliminary Design Services			2	0	16	0	0	0	22	0	24	0	4	0.0	68.0	$11,720
	Task B - Additional Services																
	B1	Additional RON Alternative Layouts								16						16	$3,294
	B2	Evaluate Airspace Considerations		2		8				16		8				34	$6,354
	B3	Prepare Construction Cost Estimates				4		4	24							32	$3,788
	B4	Modify the ALP								16		16				32	$5,150
		Expenses															$500
	Subtotal Task B- Additional Services			2	0	12	0	4	24	48	0	24	0	4	0.0	114.0	$19,087
		TOTAL EXPENSES															$750
		TOTAL PROJECT LABOR		4	0	28	0	4	24	70	0	48	0	8	0.0	182.0	$30,057

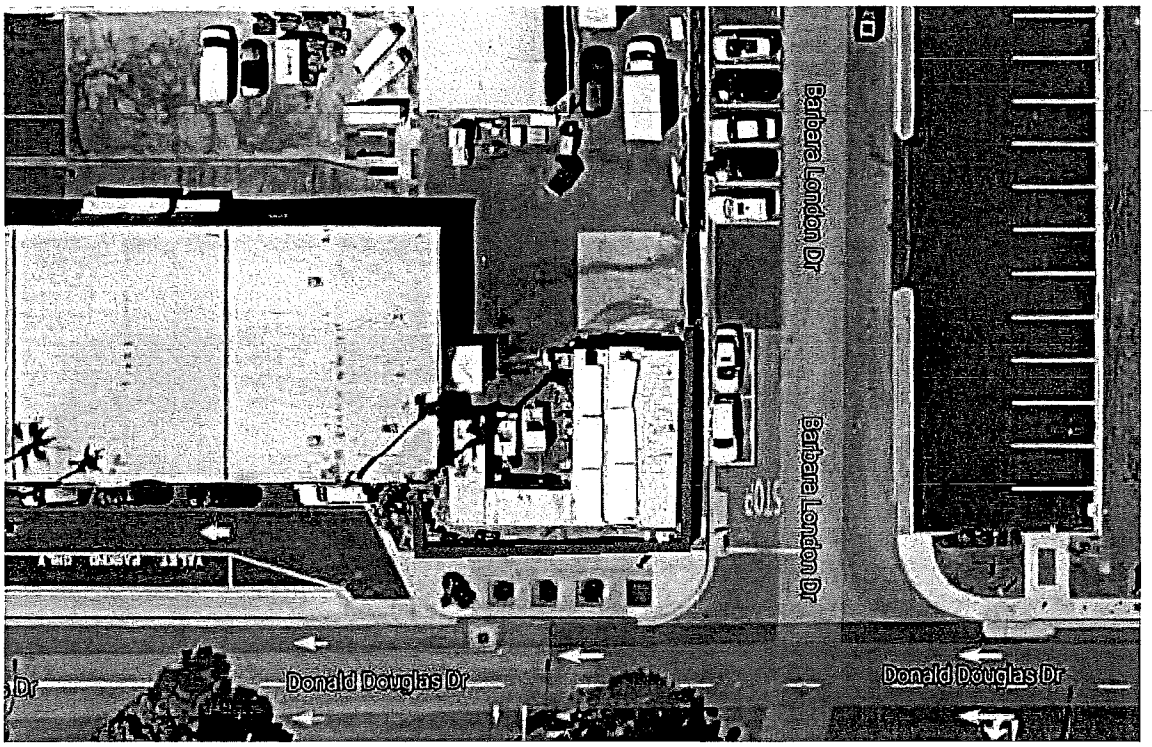
TASK ORDER NO. 15

I. INTRODUCTION

The Mayor of Long Beach has identified certain areas in the Terminal area for immediate "beautification". One area that has an old 8' perimeter fencing **(see Exhibit A)** has been undergoing design to get changed to a cast-in-place wall.

Now that the design for the wall is completed and bid, the City has requested HNTB provide a scope and fee to provide construction support services.

Exhibit A



II. SCOPE OF SERVICES

TASK A –CONSTRUCTION SUPPORT SERVICES

A1. Review Contractor Submittals. HNTB (consultant) will review Contractor submittals, shop drawings, test data, etc. for conformance with the contract documents or industry standards. HNTB's review of submittals and shop drawings will be in accordance with normal industry practices.

A2. Respond to Contractor Questions. Consultant will respond to contractor

questions and Requests for Information (RFI's) during construction.

A3. **Construction Structural Observer of Record (SOR).** The City of Long Beach Building Department requires structural observation during the construction process. The Consultant will conduct site visit/meetings by the project structural engineer to review the progress of construction and to address on-site construction questions and issues. It is anticipated the Consultant will visit the site once (1) to review the placement of the reinforcement in the piles and grade beams and once (1) prior to the placement of the concrete for the wall. Consultant will participate in the inspection of the project with the City's construction management team, not to exceed two (2) site visits. The City's Construction Management (CM) consultant will be responsible for the construction management activities.

TASK B – POST CONSTRUCTION SUPPORT SERVICES.

B1. **Prepare "As-Constructed" Record Drawings** based on "red-line" drawings maintained by the Contractor and any change orders approved during construction. Both paper and electronic copies (CAD) will be submitted to the City.

End of Scope of Work

Long Beach Airport
CA support for Wall Improvements

	TASK		Project Manager	QA/QC	Design Manager	Design Architect	Civil Engineer	Jr. Civil Engineer	Electrical Engineer	CADD Manager	Project Administration		Total	Total
			$266.00	$237.00	$200.00	$168.00	$168.00	$95.22	$141.43	$112.87	$106.00		Hours	Fee
CA Support	**Task A - Construction Support Services**													
	A1 Review Contractor Submittals		2		6		2				4		14	$2,492
	A2 Response to Contractor Questions (RFIs)				8		4						12	$2,272
	A3 Structural Observer of Record (SOR)						12						12	$2,016
	Subtotal Task A - Preliminary Design Services		2	0	14	0	18	0	0	0	4	0.0	38.0	$6,780
	Subtotal Task B - ODC (Expenses):													$150
	Task B - Post Construction Services													
	B1 Prepare Record Drawings									8			8	$903
	Subtotal Task B - Final Record Drawings		0	0	0	0	0	0	0	8	0		8.0	$903
	TOTAL PROJECT												**Total**	**$7,833**

EXHIBIT "B-1"

Fees

Rate Schedule for the City of Long Beach Engineering Services for Various Development Projects at Long Beach Airport 2017

HNTB Corporation Overhead rate 2017 = 146.23%

Employee Classification	Direct labor Rate	Overhead Rate	Profit	Total Loaded Rate
Project Manager	$98.39	146.23%	10%	$266.00
QC Manager	$87.55	146.23%	10%	$237.00
Design Manager	$73.76	146.23%	10%	$200.00
Senior Civil Engineer	$62.13	146.23%	10%	$168.00
Civil Engineer	$58.52	146.23%	10%	$159.00
Jr. Engineer	$36.06	146.23%	10%	$98.00
Senior Planner	$75.71	146.23%	10%	$205.00
Electrical Engineer	$53.56	146.23%	10%	$145.00
Cadd Manager	$42.75	146.23%	10%	$116.00
Cadd Lead	$39.50	146.23%	10%	$107.00
Project Administator	$39.14	146.23%	10%	$106.00

Subconsultant: Wagner Engineering & Survey, Inc.

Employee Classification	Direct Labor Rate	Overhead Rate	Profit	Total Loaded Rate
Survey Manager	$78.40	170.95%	10%	$234.00
Office Surveyor	$54.59	170.95%	10%	$163.00
PLS, Sr. Party Chief	$53.01	170.95%	10%	$158.00
Certified Party Chief	$52.31	170.95%	10%	$156.00
Party Chief	$47.65	170.95%	10%	$142.00
Instrumentman	$45.25	170.95%	10%	$135.00
Survey Apprentice E	$32.99	170.95%	10%	$98.00
CADD Designer III	$41.22	170.95%	10%	$123.00

Subconsultant: Diaz Yourman and Associates .

Employee Classification	Direct labor Rate (2017)	Proposed Overhead Rate	Profit	Total Loaded Rate
Principal	$77.37	225.00%	10%	$277.00
Associate II	$57.77	225.00%	10%	$207.00
Associate I	$49.52	225.00%	10%	$177.00
Project I	$33.43	225.00%	10%	$120.00
Staff II	$30.05	225.00%	10%	$107.00
Staff I	$24.88	225.00%	10%	$89.00
CADD	$22.26	225.00%	10%	$80.00
Technical Editing	$36.06	225.00%	10%	$129.00

Rate Schedule for the City of Long Beach Engineering Services for Various Development Projects at Long Beach Airport 2017

Subconsultant: Dinter Engnineering

Employee Classification	Direct Labor Rate	Overhead Rate	Profit	Total Loaded Rate
Project Manager	$52.50	182.15%	10%	$162.94
Senior Engineer	$47.25	182.15%	10%	$146.65
Project Enginer	$38.85	182.15%	10%	$120.58
Designer	$33.60	182.15%	10%	$104.28
Cadd	$26.25	182.15%	10%	$81.47
Cerical	$21.00	182.15%	10%	$65.18

Subconsultant: Faithful+Gould

Employee Classification	Direct Labor Rate	Overhead Rate	Profit	Total Loaded Rate
Chief Scheduler (CS)	$74.00	127.12%	10%	$185.00
Senior Scheduler (HS)	$66.35	127.12%	10%	$166.00
Scheduler (AV)	$40.87	127.12%	10%	$102.00
Chief Estimator (WL)	$86.68	127.12%	10%	$217.00
Senior Estimator (JK)	$69.89	127.12%	10%	$175.00
Senior Estimator (MB)	$55.46	127.12%	10%	$139.00

Subconsultant: KDG Construction Consulting

Employee Classification	Direct Labor Rate	Overhead Rate	Profit	Total Loaded Rate
Construction Manager	$100.00	$1.13	$0.07	$228.00

Labor rates for future orders beyond FY18 will be subject to neogciations

Rate Schedule for the City of Long Beach Engineering Services for Various Development Projects at Long Beach Airport
April 2018

HNTB Corporation Overhead rate 2017 = 146.23%

Employee Classification	Direct labor Rate	Overhead Rate	Profit	Total Loaded Rate
Project Manager	$101.34	146.23%	10%	$274.00
QC Manager	$90.18	146.23%	10%	$244.00
Design Manager	$75.97	146.23%	10%	$206.00
Senior Civil Engineer	$63.99	146.23%	10%	$173.00
Civil Engineer	$60.28	146.23%	10%	$163.00
Jr. Engineer	$37.14	146.23%	10%	$101.00
Senior Planner	$77.98	146.23%	10%	$211.00
Electrical Engineer	$64.90	146.23%	10%	$176.00
Cadd Manager	$44.03	146.23%	10%	$119.00
Cadd Lead	$40.69	146.23%	10%	$110.00
Project Administator	$40.31	146.23%	10%	$109.00

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April 2018

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