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

FIRST AMENDMENT TO AGREEMENT NO. 36074

THIS FIRST AMENDMENT TO AGREEMENT NO. 36074 is made and entered, in duplicate, as of June 3, 2022, for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on August 10, 2021, by and between LEAN TECHNOLOGY CORPORATION, a California corporation ("Contractor"), with a place of business at 18850 Von Karman Avenue, Suite 200, Irvine, California, 92821, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City and Contractor (the "Parties") entered into Agreement No. 36074 (the "Agreement") whereby Contractor agreed to provide engineering design services for Runway 12-30 Electrical Improvements Project at the Long Beach Airport; and

WHEREAS, the Parties desire to amend the Agreement to attach an additional scope of work and add \$163,255 for a total not to exceed amount of \$589,467;

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

- 1. Section 1.A of the Agreement is hereby amended to read as follows:
- "A. Contractor shall furnish specialized services more particularly described in Statement for Qualifications Number AP21-054, attached to the Agreement as Exhibit "A-2" and incorporated by this reference; and more particularly described in the Scope of Work, attached to the Agreement as Exhibit "A-3" and the First Amendment as Exhibit "A-4", all incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, not to exceed Five Hundred Eighty-Nine Thousand Four Hundred Sixty-Seven Dollars (\$589,467), at the rates or charges shown in Exhibit "B"."
- 2. The Scope of Work in Exhibit "A-3" to the Agreement is hereby amended to include additional services more particularly described in Exhibit "A-4", attached hereto and incorporated by this reference.
 - 3. Except as expressly modified herein, all of the terms and conditions

1 contained in Agreement No. 36074 are ratified and confirmed and shall remain in full force 2 and effect. IN WITNESS WHEREOF, the parties have caused this document to be duly 3 4 executed with all formalities required by law as of the date first stated above. 5 LEAN TECHNOLOGY CORPORATION, a California corporation 6 7 Name 8 Title CEO 9 By Name 10 Title 11 "Contractor" OFFICE OF THE CITY ATTORNEY CHARLES PARKIN, City Attorney 411 West Ocean Boulevard, 9th Floor Long Beach. CA 90802-4664 12 CITY OF LONG BEACH, a municipal 13 corporation 14 15 16 TO SECTION 301 OF "Citv" THE CITY CHARTER. 17 This First Amendment to Agreement No. 36074 is approved as to form on 18 19 CHARLES PARKIN, City Attorney 20 21 Deputy 22 23 24 25 26 27 28

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EXHIBIT "A-4"

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

Scope of Services

Runway 12-30 Lighting Rehabilitation CA Support

Submitted By: Lean Technology Corporation

Work scope Items Include:

Task 1: Construction Administration Tasks:

- a. Evaluate the bids for inconsistiencies and make recommendation on the validity of the bid to the Airport.
- b. Submittals. Review and evaluate Contractor Submittals.
- c. Weekly Meetings. Attend every weekly construction meeting virtually.
- d. Participate lead a base can installation workshop.
- e. Respond to RFIs and issue field Directives if needed.
- f. Coordinate with FAA for PAPI flight inspection and coordinate with the FAA for MALSR interconnectivity.
- g. Attend SMS review as a subject matter expert.
- h. Submit and develop as-built drawings
- i. Provide and lead all FAA Closeout Documentation.

Task 2 Field Investigation

- a. LEAN will provide 2 site visits during Phase 1A, 1B, and 1C collectively.
- **b.** Provide 3-8 hour site visits during each weekend phase.
- c. Provide one site visit during Phases 3A and 3B.

Task 3 Photometric Testing.

LEAN will provide photometric testing to verify compliance to FAA criteria for the alignment and testing of the light fixtures including R/W Edge, CTL, and TDZ.

Refer to Exhibit A for fee proposal. Refer to Exhibit B for fee and scope for LEAN's subconsultant, AECOM.

Long Beach Airport Project: Rwy 12-30 Electrical Improvement Project -Construction Administration Submitted By: Lean Technology Corporation

3/20/2022 Version Date:

EXHIBIT A - DETAILED DERIVATION OF FEE SCHEDULE

GLEAN	ACOMETISANO CONTRACTOR AND ACTUAL CONTRACTOR ACTUAL CONTRACT		LEAN TECH	LEAN TECHNOLOGY CORPORATION	PORATION	ALL AND THE STREET, ST	A THE CONTRACTOR OF T		LENNOX		
Job Classification	D. LEAN	H	P. HANNAH	J. Anderson	J. PENG	K. VIRZI	A. Martinez	SR. Estimator	ESTIMATOR		
Approved Billing Rate	\$ 284.00	\$ 213.00	\$ 260.00	\$ 192.00	\$ 160.00	\$ 128.00	\$ 90.00	\$ 197.00	\$ 142.00		
Task Description	PM	QC/QA	SR. ENGR	SR. ENGR.	SR. ENGR.	ENGR. III	ENGR. I			TOTAL HRS.	SUBTOTAL Lean
Construction Administration										446	\$91,112
Evaluation of Bid	2									2	\$568
Submittals	16	16		40		48				120	\$21,776
Virtual Attendance of Weekly Meetings (2 Weeks											
Prior to Mobilization and Up to Friase 0/20 Meetings @ 2 hours per meeting w/ prep includes	40					32				72	\$15,456
Pre-Con Mta.											
Base Can Installation Workshop	7			4						8	\$1,904
Response to RFI and Issue Field Directives	40			40		80				160	\$29,280
Coordinate w/ FAA For PAPI Flightcheck & MALSR			1/9							89	\$17 776
Interlock Testing	t		5							2	
Attend SMS as Subject Matter Expert	8		8							16	\$4,352
	1		1			16				18	\$2,592
FAA Closeout Documentation	1		1			40				42	\$5,664
Field Investigation										72	\$17,504
ts During Phase 1A, 1B, and 1C	16			16						32	\$7,616
 Site Visits During 3 Weekend Closures (8 hrs. Per Weekend) 	24									24	\$6,816
1 Site Visit during Phase 3A and 1 Site Visit During Phase 3B				16						16	\$3,072
Photometric Testing										96	\$16,096
Field Testing of the Light Fixtures (R/W CTL, TDZ, & PAPI)	8			8		40				99	\$8,928
Submit Draft Report						40				40	\$5,120
Submit Draft Report						16				16	\$2,048
Subtotal Hours	164	16	74	124	0	296	0	0	0	O THE PROPERTY OF THE PARTY OF	
Subtotal Cost	\$46,576	\$3,408	\$19,240	\$23,808	\$0	\$37,888	\$0	\$0	\$0		
										TOTAL FEE	\$130,920

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E E	II EM DESCRIPTION	SUBIDIAL
1.0	1.0 Total COST - Lean Technology Corporation	\$130,920
7.0	2.0 Total Cost - AECOM	\$14,782
	Total Cost	\$145,702

Exhibit "A" Scope of Services Runway 12-30 Lighting Rehabilitation CA Support

WORK BREAKDOWN STRUCTURE

The project will be implemented using the following work breakdown structure:

TASK 6 - CONSTRUCTION ADMINISTRATION SUPPORT SERVICES

- Task 6.1 Attend Pre-Construction and Construction Meetings. Participate in construction coordination meetings by virtual on-line conference call. Assume participating in the one (1) preconstruction meeting and four (4) weekly meetings at 1.5 hours each.
- **Task 6.2** Responses to RFI and Submittals. Review and respond to RFI's. Assume four (4) RFI's and four (4) submittals related to AECOM's civil scope.
- **Task 6.3** Clarifications and Revisions to Drawings. AECOM will provide interpretation and clarification of contract drawings and revise drawings when required.
- Task 6.4 Site Observation Trips and Final Inspection. Perform site visit to monitor the construction progress and observe for general conformance with the contract documents. Upon completion of construction, AECOM will also perform a final site visit and prepare a punch list of items to be corrected prior to final acceptance of the project. Assume one (1) site observations trip during paving for eight (8) hours, and one (1) final inspection trip for four (4) hours (Total of 2 trips) with travel and preparation time.
- **Task 6.5** Prepare Record Drawings for Civil Work. AECOM will prepare Record Drawings based on the Contractor's as-built mark-ups and after construction management team's approval. The Record Drawings will be prepared using the design drawings as the base and incorporating changes that were performed during construction. Deliverables will include one (1) set of full-sized PDF Record Drawings and electronic AutoCAD files to the Airport.

ASSUMPTIONS AND EXCLUSIONS

- 1. Scope is limited to coldmilling and paving two (2) asphalt strips at 3,000-ft long for replacement of the runway TDZ lights. Any other improvements are excluded.
- 2. Assume no permits are required for AECOM scope.
- 3. It is assumed the Contractor will develop the SWPPP and obtain the NOI and any necessary permits.
- 4. Environmental engineering, mitigation or permitting is excluded.
- 5. Removal or remediation of contaminated soils is excluded.
- 6. Assume grading or pavement elevations plans are not required.
- 7. Electrical Engineering is excluded.
- 8. Preparation of the Final Construction Report for project closeout is excluded.
- 9. Performing or evaluating existing topographic survey is excluded.



Long Beach Airport (LGB) Runway 12-30 Lighting Rehabilitation - CA Support Summary of Cost Proposal

EXHIBIT "B" - PART 1

Task 6 - Construction Administration Support Services			
Labor		\$14,482.00	
Expenses		\$300.00	
Subtotal			\$14,782.00
	CA Support	\$14,782.00	
	Total		<i>\$14,782.00</i>

Long Beach Airport (LGB) Runway 12-30 Lighting Rehabilitation - CA Support February 21, 2022 Estimate and Hour Summary

	•					AE	AECOM				
o Z	Task Description	Total Hours	Sr. Project Engineer	Project Manager II	Project Engineer I	Designer I	Project Controls	nimbA	Labor Subtotal	ODC.8	Total Amount
			\$233.00	\$232.00	\$161.00	\$102.00	\$133.40	\$104.35			
6.0	CA SUPPORT SERVICES										
6.1	Attend Pre-Construction and Construction Meetings (3 virtual mtgs)	80		80					1,856.00	-	1,856.00
6.2	Responses to RFI and Submittals (4 RFI's and 4 Submittals)	26		24	2				5,890.00	1	5,890.00
6.3	Clarifications and Revisions to Drawings	12		4		8			1,744.00	-	1,744.00
6.4	Site Observation (1 Trip) and Final Inspection (1 Trip)	16		16					3,712.00	200.00	3,912.00
6.5	Prepare Record Drawings for Civil Work	10		2		8			1,280.00	100.00	1,380.00
	Subtotal Hours Task 6 -	72		54	2	16	-	•	14,482.00	300.00	14,782.00
	Total Hours	72	•	54	2	16	•	-	14,482.00	300.00	14,782.00

Exhibit "A" Scope of Services Runway 12-30 Lighting Rehabilitation Civil Support

WORK BREAKDOWN STRUCTURE

The project will be implemented using the following work breakdown structure:

TASK 1 - PROJECT MANAGEMENT

- **Task 1.1 Project Administration and Coordination.** This task involves the overall management of the project to ensure compliance with the scope of services, schedule, budget, quality, and coordination of the project. Assume design period from January 2022 through February 2022 (1.5 months).
- **Task 1.2 Design Coordination Meetings.** AECOM will participate in two (2) virtual design coordination meetings. Agenda and meeting notes will be provided by Others.

TASK 2 – FIELD INVESTIGATION AND DATA COLLECTION

Task 2.1 Site Investigations and Records Research. AECOM will perform field investigations including visual assessment of the pavements to determine the limits of the AC paving. Records review will include research of as-built drawings for the existing pavement section and AC lift thicknesses and the current aircraft fleet mix. Assume one (1) site visit with two (2) AECOM staff under Airport escort, and the site investigation will be performed during the daytime.

TASK 3 – 90% DESIGN SUBMITTAL

- **Task 3.1 Develop Drawings.** AECOM will prepare 90% drawings. The construction drawings will be prepared in accordance with Index of Drawings per Exhibit "B" Part 2. Drawings will be submitted in electronic PDF documents. The construction drawings will include the following:
 - Paving and Grooving Plans and Details
 - Striping Plans and Details
- Task 3.2 Develop Paving and Striping Write-up for Engineer's Design Report. AECOM will prepare a narrative write-up for the pavement and striping improvements for inclusion in the Engineer's Design Report provided by Others.
- **Task 3.3 Develop Technical Specifications for Civil Work.** AECOM will develop the following technical specifications per FAA AC 150/5370-10H:



Exhibit "A" Scope of Services Runway 12-30 Lighting Rehabilitation Civil Design

WORK BREAKDOWN STRUCTURE

The project will be implemented using the following work breakdown structure:

TASK 1 - PROJECT MANAGEMENT

- **Task 1.1 Project Administration and Coordination.** This task involves the overall management of the project to ensure compliance with the scope of services, schedule, budget, quality, and coordination of the project. Assume design period from January 2022 through February 2022 (1.5 months).
- **Task 1.2 Design Coordination Meetings.** AECOM will participate in two (2) virtual design coordination meetings. Agenda and meeting notes will be provided by Others.

TASK 2 - FIELD INVESTIGATION AND DATA COLLECTION

Task 2.1 Site Investigations and Records Research. AECOM will perform field investigations including visual assessment of the pavements to determine the limits of the AC paving. Records review will include research of as-built drawings for the existing pavement section and AC lift thicknesses and the current aircraft fleet mix. Assume one (1) site visit with two (2) AECOM staff under Airport escort, and the site investigation will be performed during the daytime.

TASK 3 – 90% DESIGN SUBMITTAL

- **Task 3.1 Develop Drawings.** AECOM will prepare 90% drawings. The construction drawings will be prepared in accordance with Index of Drawings per Exhibit "B" Part 2. Drawings will be submitted in electronic PDF documents. The construction drawings will include the following:
 - Paving and Grooving Plans and Details
 - Striping Plans and Details
- Task 3.2 Develop Paving and Striping Write-up for Engineer's Design Report. AECOM will prepare a narrative write-up for the pavement and striping improvements for inclusion in the Engineer's Design Report provided by Others.
- **Task 3.3 Develop Technical Specifications for Civil Work.** AECOM will develop the following technical specifications per FAA AC 150/5370-10H:



- C-100 Contractor Quality Control Program
- C-110 Method of Estimating Pavement Material Within Specifications Limit
- P-101 Preparation/Removal of Existing Pavements
- P-401 Asphalt Mix Pavement
- P-603 Emulsified Asphalt Tack Coat
- P-621 Saw-Cut Grooves
- P-620 Runway and Taxiway Marking
- **Task 3.4 Develop Quantities/Cost Estimate for Civil Work.** AECOM will develop quantities, Bid Item list, and probable unit prices for the civil work.
- **Task 3.5 Design Review Meeting.** AECOM will participate in a 90% design review meeting with the Airport (2 hour virtual meeting), and will answer questions about the project design, and document civil review comments from the Airport. Assume meeting minutes will be prepared by Others.

TASK 4 - FINAL DESIGN SUBMITTAL

- **Task 4.1 Update Drawings.** AECOM will prepare final drawings in accordance with Index of Drawings per Exhibit "B" Part 2. AECOM will incorporate the Airport's 90% review comments and update the design of the project. Drawings will be submitted in electronic PDF documents.
- Task 4.2 Update Paving and Striping Write-up for Engineer's Design Report. AECOM will update the narrative write-ups for the pavement and striping improvements for inclusion in the Engineer's Design Report provided by Others.
- **Task 4.3 Update Technical Specifications for Civil Work.** AECOM will develop the technical specifications in compliance with AC 150/5370-10H. The specifications will include the preparation of the bid schedule for the civil work items.
- **Task 4.4 Update Quantities/Cost Estimate for Civil Work.** AECOM will develop quantities, Bid Item list, and probable unit prices for the civil work.

TASK 5 - BIDDING SUPPORT SERVICES

- **Task 5.1 Attend Pre-Bid Conference.** AECOM will attend the pre-bid conference to assist the Airport in responding to bidder's questions. Assume eight (8) hours total for virtual on-line meeting, and site visit on the runway at night for the bidder's job walk.
- **Task 5.2 Issue Clarifications / Addenda.** AECOM will provide written responses to bidder's questions as requested by the Airport, and prepare any required addenda showing revision of the scope of work.

ASSUMPTIONS AND EXCLUSIONS

1. Lean Engineering will provide AECOM with sheet layouts in CAD for preparation of paving



- and striping plans.
- 2. Scope is limited to coldmilling and paving two (2) asphalt strips at 3,000-ft long for replacement of the runway TDZ lights. Any other improvements are excluded.
- 3. Assume no permits are required for AECOM scope.
- 4. Preparation of Erosion Control Plans (SWPPP) is excluded.
- 5. It is assumed the Contractor will develop the SWPPP and obtain the NOI and any necessary permits.
- 6. Environmental engineering, mitigation or permitting is excluded.
- 7. Removal or remediation of contaminated soils is excluded.
- 8. Striping plans limited to area damaged from the asphalt paving.
- 9. Assume grading or pavement elevations plans are not required.
- 10. Electrical Engineering is excluded.
- 11. Preparation of Construction Safety and Phasing Plan (CSPP) is excluded, and will be prepared by Others.
- 12. Preparation of the Final Construction Report for project closeout is excluded.
- 13. Performing or evaluating existing topographic survey is excluded.
- 14. Preparation of Front-End, Special Conditions, and General Condition Specifications is excluded.
- 15. Assume design period is 6 weeks.
- 16. Assume bidding period will be 4 weeks.
- 17. Assume two (2) submittals packages:
 - a. 90% design submittal
 - b. Final design submittal



Long Beach Airport (LGB) Runway 12-30 Lighting Rehabilitation - Design Summary of Cost Proposal

Task 1 - Project Management			
Labor		\$1,658.80	
Expenses		\$0.00	
Subtotal			\$1,658.80
Task 2 - Field Investigation and Data Collection			
Labor		\$1,860.00	
Expenses		\$100.00	
Subtotal	******	Ψ100.00	\$1,960.00
oubtotu/			Ψ1,500.00
Task 3 - 90% Design Submittal			
Labor		\$19,830.00	
Expenses		\$0.00	
Subtotal	***************************************		\$19,830.00
Task 4 - Final Design Submittal			
Labor		\$11,238.00	
Expenses		\$0.00	
Subtotal	_	* # # # # # # # # # # # # # # # # # # #	\$11,238.00
Task 5 - Bidding Support Services			
Labor		\$770.00	
Expenses		\$0.00	
Subtotal		Ψ0.00	\$770.00
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	Design Phase	\$34,686.80	
	Bidding Support	\$770.00	
•	Total		\$35,456.80
•	Total		\$35,456.80

Long Beach Airport (LGB) Runway 12-30 Lighting Rehabilitation - Design June 2, 2022 Estimate and Hour Summary

EST	Estimate and Hour Summary					ΔE	AECOM				
						2		ŀ			
N. O.	Task Description	Total Hours	Sr. Project Engineer	Project Manager II	Project Engineer I	Desjânet CVDD	Project Controls	nimbA	Labor	ODC,2	Total Amount
			\$233.00	\$232.00	\$161.00	\$102.00	\$133.40	\$104.35			
,											
9.	PROJECT MANAGEMENT Project Administration and Coordination	9		4			2		1,194.80		1,194.80
1.2	Design Coordination Meetings (2 virtual mtgs at 1 hr each)	2		2					464.00	ı	464.00
	Subtotal Hours Task 1 -	∞	•	9	•	1	2		1,658.80	•	1,658.80
	ГΤ										
2.0				1					000	00 007	4 000 00
2.1	Site Investigation and Review of Record Drawings	80	4	4					1,860.00	100.00	1,960.00
	C-1	•							1 860 00	100 00	1 960 00
	Subtotal Hours Task 2 -	٥	4	#	•		-	Ī	00.000,1	20.00	20:000
;											
3.0		[Š	,	•	5			42 456 00		13 456 00
3.1	Develop Drawings (5 Paving Sheets, 4 Striping Sheets)	\$ 0	١٩	2	×	Q			13,456.00	1	13,430.00
3.2	Т	7		- (465.00	1	403.00
3.3	\neg	19	16	3					4,424.00	1	4,424.00
3.4		3	-		2				555.00	1	555.00
3.5	Design Review Meeting (1 Virtual Mtg)	4	2	2					930.00	1	930.00
	Subtotal Hours Task 3 -	122	36	16	10	9	•		19,830.00	•	19,830.00
	П										
4. 0.4	\neg							Ì	0000		0000
4.	\neg	54	12	∞ .	4	30			8,356.00	1	8,336.00
4.2	_	2		-					465.00	1	465.00
4.3	\neg	80	9	2		1		1	1,862.00	1	1,862.00
4.4	Update Quantities/Cost Estimate for Civil Work	3	-		2			Ì	555.00	•	225.00
	Subtotal Hours Task 4 -	67	20	11	9	8	1	1	11,238.00	*	11,238.00
Í	П										
9.0	T							Ī	00 000		00 000
5.7	_								232.00	1	232.00
5.2	Issue Clarification / Addenda	4		-		2			238.00	1	238.00
	Subtotal Hours Task 5 -	5		2		e	-	Ī	770.00		770.00
	Total Hours	210	9	39	16	93	2		35,356.80	100.00	35,456.80

ASSUME 24" X 36" DRAWINGS

Proposed Civil Drawings

No.	Sheet	Drawing Title	Scale	90%	Fina
1	C-101	PAVING AND GROOVING PLAN, SHEET 1 OF 4	1"=40'	Υ	Y
2	C-102	PAVING AND GROOVING PLAN, SHEET 2 OF 4	1"=40'	· Y	Y
3	C-103	PAVING AND GROOVING PLAN, SHEET 3 OF 4	1"=40'	Y	Y
4	C-104	PAVING AND GROOVING PLAN, SHEET 4 OF 4	1"=40'	Υ	Y
5	C-111	PAVEMENT AND GROOVING DETAILS, SHEET 1 OF 1	N/A	Υ	Y
				,	
6	C-201	PAVEMENT MARKING PLAN, SHEET 1 OF 4	1"=40'	Υ	Y
7	C-202	PAVEMENT MARKING PLAN, SHEET 2 OF 4	1"=40'	Y	Y
8	C-203	PAVEMENT MARKING PLAN, SHEET 3 OF 4	1"=40'	Y	Ý
9	C-204	PAVEMENT MARKING PLAN, SHEET 4 OF 4	1"=40'	Y	Ÿ
			*		
		OTHER CIVIL DELIVERABLES	•		
10		CIVIL SECTION FOR ENGINEER'S DESIGN REPORT	N/A	Y	Y
11		CIVIL QUANTITIES/COST ESTIMATE	N/A	Ÿ	Ÿ
12		CIVIL SPECIFICATIONS	N/A	Ÿ	Ÿ