

**CITY OF CHICAGO
DEPARTMENT OF PROCUREMENT SERVICES
ROOM 403, CITY HALL, 121 N. LASALLE STREET**

FOR NCRB USE ONLY	
Date	<u>07/03/12</u>
Recommend Approval	<u>g</u>
Return To Dept.	<u>g</u>
Reject	<u>g</u>
Vote	<u>4-0</u>

**NON-COMPETITIVE REVIEW BOARD (NCRB)
JUSTIFICATION FOR NON-COMPETITIVE PROCUREMENT**

COMPLETE THIS SECTION IF NEW CONTRACT

For contract(s) in this request, fill in each of the four (4) major subject areas below in accordance with the **Instructions for Preparation of Non-Competitive Procurement Form** on the reverse side. Complete "Other" subject area if additional information is needed. Subject areas must be fully completed. Responses merely referencing attachments will not be accepted.

Request that negotiations be conducted only with New Bedford Panoramex Corporation for the product(s) and/or service(s) described herein.

This is a request for:

One-Time Contractor Requisition #: 69644, copy attached or Term Agreement or Delegate Agency (Check one).

If Delegate Agency, this request is for "blanket approval" for all contracts within the _____ (Attach List).

Pre-Assigned Specification No.: _____

Pre-Assigned Contract No.: _____

COMPLETE THIS SECTION IF AMENDMENT OR MODIFICATION TO CONTRACT

Describe in detail the change in terms of dollars, time period, scope of services, etc., its relationship to the original contract and the specific reasons for the change. Indicate both the original and the adjusted contract amount and/or expiration date with this change, as applicable. Attach copy of all supporting documents. Request approval for a contract amendment or modification to the following:

Contract #: _____

Company or Agency Name: _____

Specification #: _____

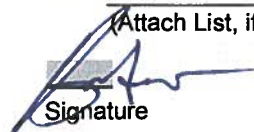
Contract or Program Description: _____

Modification #: _____

(Attach List, if multiple)

Aurelio Garcia
Originator Name
(mm/dd/yr)

773-462-7314
Telephone


Signature

Aviation
Department

05/18/2012
Date

PROCUREMENT HISTORY

A new Approach Lighting with Sequential Flashers (ALSF-2) system is required for one new runway at O'Hare International Airport in support of Completion Phase of the O'Hare Modernization Program. The construction and operation of the O'Hare Modernization Program's southernmost runway, Runway 10R-28L, requires that ALSF-2 equipment be installed to support Category II/III instrument approach procedures. ALSF-2 will provide uninterrupted availability of the runway during inclement weather conditions.

The purpose of the ALSF-2 system is to provide the basic means to transition from instrument flight to visual flight for landing. Operational requirements dictate the sophistication and configuration of the approach light system for a particular runway. The ALSF-2 provides visual information on runway alignment, height perception, roll guidance, and horizontal references for Category II/III instrument approaches.

The new equipment must be supplied by an equipment manufacturer/vendor that has been certified by the Federal Aviation Administration. New Bedford Panoramex Corporation (NBP) 1037 W. 9th Street, Upland, CA 91786, currently is the only FAA certified vendor of ALSF-2 equipment (documentation is provided). Therefore competitive bidding is not possible.

The FAA assumes ownership and maintenance responsibilities after final acceptance of Runway 10R-28L NAVAIDS (Navigational Aids) contract completion, anticipated by 4th Quarter 2015.

The OMP previous purchase with New Bedford Panoramex Corporation, contract number 14407, provided five ALSF-2 systems.

ESTIMATED COST

The estimated cost for the ALSF-2 equipment and technical expertise provided by NBP to support the commissioning of this runway is \$983,403. This cost estimate is based upon current agreed pricing between NBP and the OMP for standard ALSF-2 equipment. The agreed upon cost includes auxiliary equipment and spares that are required by the FAA for long-term maintenance.

SCHEDULE REQUIREMENTS

The current schedule for the OMP requires completion of Runway 10R-28L by 4th Quarter 2015. The estimated time for fabrication of

the ALSF-2 equipment is 12 months. An additional 6 months is required to install the equipment.

EXCLUSIVE OR UNIQUE CAPABILITY

New Bedford Panoramex is the only source that meets the requirements of FAA Specification FAA-E-2689A which governs the supply of ALSF systems. Their ALSF-2 system is the only approach lighting system that is certified and accepted by the FAA for Precision Approach, CAT II/III Runways.

The open market for Approach Lighting Systems has manufacturers other than New Bedford Panoramex. Honeywell, and Siemens systems provide functions very similar to New Bedford Panoramex's ALSF-2, but are not approved by the FAA. Their systems are typically used for military or airports outside of FAA jurisdiction.

OTHER

The uniqueness of the ALSF-2 does not provide any MBE/WBE firms that qualify for this supply contract, needed for the runway commissioning.

System production is in Upland, California, and New Bedford Panoramex, as on previous contracts, intends to hire a local WBE named J&J Motor Service for shipping. The contract price will include 2% for their shipping costs.

Primary personal to participate in the NCRB hearing: Jonathan Leach, Aurelio Garcia and Jim Chilton

APPROVED BY:

Rosmarie S. Ardino
DEPARTMENT HEAD OR DESIGNEE

5/21/12
DATE

Terrence Glavin
BOARD CHAIRPERSON

07/03/12
DATE

Rosmarie Ardino
PRINT NAME

TERRENCE GLAVIN
PRINT NAME

[Signature]
CHIEF PROCUREMENT OFFICER

7/26/12
DATE OF APPROVAL

The following is a general description of what should be included in a Scope of Services or Specification:

A clear description of all anticipated services and products, including: time frame for completion, special qualifications of prospective vendors, special requirements or needs of the project, locations, anticipated participating user departments, citation of any applicable City ordinance or state/federal regulation or statute.

ARCHITECTURAL/ENGINEERING SUPPLEMENTAL CHECKLIST

Required Attachments: Scope of Services, including location, description of project, services required, deliverables, and other information as required

Risk Management

- Current Insurance Requirements prepared/approved by Risk Management: Yes No
- Will services be performed within 50 feet of CTA train or other railroad property? Yes No
- Will services be performed on or near a waterway? Yes No

If applicable, Pre-Qualification Category No. _____ Category Description: _____
For Pre-Qualification Program, attach list of suggested firms to be solicited

Other Agency Concurrence Required: None State Federal Other _____

If Amendment request, please verify and provide the following:

- Contractor's Name:
- Contractor's Address:
- Contractor's e-mail Address:
- Contractor's Phone Number:
- Contractor's Contact Person:

Attach Recommendation of MBE/WBE/DBE Analysis Form Yes No

AVIATION CONSTRUCTION SUPPLEMENTAL CHECKLIST

DOA sign-off for final design documents: Yes No

Required Attachments:

Copy of Draft Contract Documents and Detailed Specifications

Risk Management:

- Current Insurance Requirements prepared/approved by Risk Management: Yes No
- Will work be performed within 50 feet of CTA or ATS structure or property? Yes No
- Will work be performed airside? Yes No

*NOTE: Any non-construction Aviation request, complete the applicable section.

Do bid documents contain Sensitive Security Information (SSI)? Yes* No Redacted
*If yes, attach Confidentiality Statement

Attach Recommendation of MBE/WBE/DBE Analysis Form Yes No

If Amendment request, please verify and provide the following:

- Contractor's Name:
- Contractor's Address:
- Contractor's e-mail Address:
- Contractor's Phone Number:
- Contractor's Contact Person:

COMMODITIES SUPPLEMENTAL CHECKLIST

Required Attachments:

- Detailed Specifications (Scope of Services) including detailed description of the product, delivery location, user department contact, price escalation considerations
- Bidder's qualification, contract term and extension options
- Contractor's qualifications, citation of any applicable City/State/Federal statutes or regulations, citation of any applicable technical standards
- Price Lists/Catalogs, technical drawings and other exhibits and attachments as appropriate.

Attach Recommendation of MBE/WBE/DBE Analysis Form

Yes No

Is this a Revenue Producing contract?

Yes No

If Modification request, please verify and provide the following:

Contractor's Name:

Contractor's Address:

Contractor's e-mail Address:

Contractor's Phone Number:

Contractor's Contact Person:

CONSTRUCTION SUPPLEMENTAL CHECKLIST

Required attachments:

Copy of Draft (80% Completion), Contract Documents and Detailed Specifications

Risk Management

Current Insurance Requirements prepared/approved by Risk Management:

Yes No

Will services be performed within 50 feet of CTA train or other railroad property?

Yes No

Will services be performed on or near a waterway?

Yes No

Attach Recommendation of MBE/WBE/DBE Analysis Form

Yes No

If Modification request, please verify and provide the following:

Contractor's Name:

Contractor's Address:

Contractor's e-mail Address:

Contractor's Phone Number:

Contractor's Contact Person:

PROFESSIONAL SERVICES SUPPLEMENTAL CHECKLIST

If New Request (Check applicable boxes):

Is this a Request for Information (RFI)?

Yes No

Is this a Request for Qualifications (RFQ)?

Yes No

Is this a Request for Proposal (RFP)?

Yes No

If RFQ or RFP, did any outside Consultant provide advice or deliverables in developing the RFQ or RFP?

Yes* No

*If yes, Company Name: PO#

Attach a narrative explaining the consulting services and deliverables provided.

Is this a Non-Competitive Procurement?

Yes* No

*If yes, attach completed Non-Competitive Justification form, vendor proposal and completed MBE/WBE compliance plan (Schedules C-1 and D-1) submitted to the Non-Competitive Review Board.

Is this a request for Individual Contract Services?

Yes* No

*If yes and you seek a sole source contract to hire a person as a Consultant, attach completed Office of Compliance "Request for Individual Contract Services" approval form signed by Department Head, Office of Compliance & OBM.

Is this a Revenue Producing contract?

Yes No

Does this request involve the purchase of Software?

Yes* No

*If yes, is City required to sign a software license?

Yes* No

*If yes, attach descriptions of software and software license agreement.

PROFESSIONAL SERVICES SUPPLEMENTAL CHECKLIST (continued)

Required Attachments (IF RFP/RFQ OR SOLE SOURCE):

Statement of Work (SOW), Deliverables or Scope of Services defined

Does SOW involve any work in the public way?

Yes* No

*If yes, attach list of locations.

Does SOW involve any public improvement to property that requires performance bond or prevailing wage?

Yes* No

*If yes, attach list of locations.

Is City Council approval required?

Yes No

Project or Program Background Information

Project Goals and Objectives

Qualifications or Licenses/Certifications required for any disciplines

Evaluation Criterion desired in RFP or RFQ

Evaluation Committee (EC) members recommended. Attach list of names, titles and departments

Technical and/or Functional Requirements, if applicable

Cost Proposal/Schedule of Compensation structure (If Sole Source, over Contract Term by Milestone Deliverables)

If an Information Technology (IT) project valued at \$100,000.00 or more, attach approval transmittal sheet from Information Technology Governance Board (ITGB)

Attach Recommendation of MBE/WBE/DBE Analysis Form

Yes No

If Amendment request, please verify and provide the following:

Contractor's Name:

Contractor's Address:

Contractor's e-mail Address:

Contractor's Phone Number:

Contractor's Contact Person:

VEHICLES/HEAVY EQUIPMENT SUPPLEMENTAL CHECKLIST

Required Attachments:

Detailed Specifications including detailed description of the vehicle(s) or equipment, mounted equipment, if any, and options/accessories

Special Provisions (Delivery, Warranty, Manuals, Training, Additional Unit Purchase Options, Bid Submittal Information, etc.)

Delivery Location(s)

Technical Literature

Drawings, if any

Part Number List (Manufacturer, or Dealer; or Other Source)

Current Price List(s)/Catalog(s)

Special Approval Form

Exhibits and Attachments

Attach Recommendation of MBE/WBE/DBE Analysis Form

Yes No

Is this a Revenue Producing Contract?

Yes No

If Modification request, please verify and provide the following:

Contractor's Name:

Contractor's Address:

Contractor's e-mail Address:

Contractor's Phone Number:

Contractor's Contact Person:

WORK SERVICES/FACILITY MAINTENANCE SUPPLEMENTAL CHECKLIST

Required Attachments:

- Detailed Specifications (Scope of Services) including detailed description of the work, locations (with supporting detail), user department contacts, work hours/days, laborer/supervisor mix, compensation and price escalation considerations
- Bidder's qualification, contract term and extension options
- Contractor's qualifications, citation of any applicable City/State/Federal statutes or regulations, citation of any applicable technical standards
- Price Lists/Catalogs, technical drawings and other exhibits and attachments as appropriate
- If an Information Technology (IT) project valued at \$100,000.00 or more, attach approval transmittal sheet from Information Technology Governance Board (ITGB)

Risk Management:

- Will services be performed within 50 feet (50') of CTA train or other railroad property? Yes No
- Will services be performed on or near a waterway? Yes No
- Will services require the handling of hazardous/bio-waste material? Yes No
- Will services require the blocking of streets or sidewalks which may affect public safety? Yes No

Attach Recommendation of MBE/WBE/DBE Analysis Form

Yes No

Is this a Revenue Producing contract?

Yes No

If Modification or Amendment request, please verify and provide the following:

Contractor's Name:

Contractor's Address:

Contractor's e-mail Address:

Contractor's Phone Number:

Contractor's Contact Person:



CHICAGO DEPARTMENT OF AVIATION
CITY OF CHICAGO

To: Jamie L. Rhee
Chief Procurement Officer

Attention: James McIsaac
Deputy Procurement Officer

From: Rosemarie S. Andolino
Commissioner, Department of Aviation

Subject: New Bedford Panoramex Corporation
Approach Lighting with Sequential Flashers (ALSF-2) – Purchase
Justification for Non-Competitive Procurement –
MBE/WBE Waiver Request

RSA
7/11/12
(AU)

I am writing on behalf of the Chicago Department of Aviation (CDA) to request that the above referenced sole source equipment supply agreement include a stated goal of .92% for the participation of Women Business Enterprises (WBEs).

As has been reviewed by the Non-Competitive Procurement Review Board, New Bedford Panoramex Corporation is the sole source for this FAA specified equipment. The manufacturing and assembling activities for this equipment will take place at the supplier's facilities in California. No local manufacturing will be performed. However, New Bedford Panoramex Corporation has contracted with J&J Motor Service, a local area WBE firm for shipping. Therefore, limited participation is available for WBE. New Bedford's letter regarding "Utilization of MBE/WBE in the Chicago Area" letter dated July 5, 2012 and supporting documentation, including Schedules C1 and D1, are attached hereto.

Based on the supporting documentation attached, the CDA recommends a WBE participation goal of .92%. The CDA will proceed on the captioned project upon your approval of the proposed .92% WBE participation goal. We require the usual and customary Department of Procurement Services' Goal Reply Memorandum stating approval of the WBE goal for our records. The CDA will continue to encourage additional MBE/WBE participation for this project. There will be an opportunity for additional MBE/WBE participation by the general contractor of the 10R-28L Project once it is bid out.

Your consideration of this request is greatly appreciated. If any additional information is required please contact Aurelio Garcia at (773) 462-7314.

Reviewed by: Jonathan Leach, Managing Deputy Commissioner

cc: Terrence Glavin
Steve Laboda
Kevin Moran





1480 N. Claremont Blvd.
Claremont, CA 91711

V 909.982.9806

F 909.985.6217

www.nbpcorp.com

05 July 2012

Ms. Rosemarie S. Andolino
Commissioner, Department of Aviation
10510 W. Zemke Road
Chicago, IL 60666

Subject: ALSF-2 Procurement
Utilization of MBE/WBE in the Chicago Area

Dear Ms. Andolino:

New Bedford Panoramex (NBP) is currently the only FAA qualified manufacturer of the ALSF-2 approach lighting system used at all major airports throughout the United States. To date, NBP has delivered over eighty (80) ALSF-2 systems to the FAA and other customers. Five of these systems were purchased directly by the City of Chicago in 2006. The O'Hare Modernization Program has requested and NBP has submitted a proposal for the delivery of two additional ALSF-2 systems to the City of Chicago.

ALSF-2 is a complex electronics system that is fully assembled and tested at our facility in Claremont, California. NBP purchases a few subassemblies and processes from pre-qualified long-term local vendors. Most such assemblies require costly specialized tooling and expertise. These vendors have been qualified to our stringent requirements, based on the FAA's specifications, over a number of years. Any material, and/or process change (including the utilization of new suppliers) requires an engineering change notice/order which may require additional testing. All Class I and Class II (Class I changes affect form, fit and function while Class II changes do not) changes require the FAA's Quality and Reliability Officer's concurrence. Class I changes require the FAA's program Management approval.

Qualifying new suppliers would result in both production delays and an increase in material cost. The process of qualifying new suppliers includes 1) selecting a supplier(s) with successful history of performing similar work, 2) performing a pre-qualification factory production and Quality survey, 3) negotiating price and delivery, 4) subcontracting for delivery of one or more first articles, 5) Receiving first article(s) and performing tests at NBP to assure compliance with specifications/requirements,

6) preparing Change Notice and receiving concurrence from the FAA's QRO and 7) follow-on with production portion of the subcontract.

In an effort to identify other potential opportunities for W/MBEs, back in 2006, we requested from 47 Chicago area W/MBEs trucking/shipping firms to submit a bid for shipping the ALSF-2 systems from our facility to O'Hare International Airport. At that time, we received two bids, one from A&T Trucking Company (A&T) and the second from J&J Motor Service (J&J). After an opportunity to use the J&J's services on another of our projects, we determined that J&J was qualified and subsequently was utilized as our shipping company for the first ALSF-2 contract with the City of Chicago. Based on their satisfactory performance, again we are proposing to utilize their shipping services for the delivery of the ALSF-2 systems to the City of Chicago. Schedules C-1 and D-1 for J&J Motor Service have already been submitted.

Should you have any questions, please contact the undersigned at 909-982-9806, ext. 205 or jrassouli@nbpcorp.com.

Sincerely,



Javad Rassouli
Executive Vice President



SCHEDULE D-1

Affidavit of MBE/WBE Goal Implementation Plan

Contract Name: ALSF-2 Equipment

Specification No.: 51476

State of California

County (city) of Los Angeles

I HEREBY DECLARE AND AFFIRM that I am a duly authorized representative of:

New Bedford Panoramex Corp.

Name of Prime Consultant/Contractor

and that I have personally reviewed the material and facts set forth herein describing our proposed plan to achieve the MBE/WBE goals of this contract.

All MBE/WBE firms included in this plan have been certified as such by the City of Chicago (Letters of Certification Attached).

I Direct Participation of MBE/WBE Firms

(Note: The bidder/proposer shall, in determining the manner of MBE/WBE participation, first consider involvement with MBE/WBE firms as joint venture partners, subcontractors, and suppliers of goods and services directly related to the performance of this contract.)

- A. If bidder/proposer is a certified MBE or WBE firm, attach copy of the City of Chicago Letter of Certification. (Certification of the bidder/proposer as a MBE satisfies the MBE goal only. Certification of the bidder/proposer as a WBE satisfies the WBE goal only.)
- B. If bidder/proposer is a joint venture and one or more joint venture partners are certified MBEs or WBEs, attach copies of Letters of Certification and a copy of Joint Venture Agreement clearly describing the role of the MBE/WBE firm(s) and its ownership interest in the joint venture.
- C. MBE/WBE Subcontractors/Suppliers/Consultants:

1. Name of MBE/WBE: J&J Motor Services
 Address: 2338 S. Indiana Ave., Chicago, IL 60616
 Contact Person: Cahtleen Chambliss Phone: 312-225-3323
 Dollar Amount Participation: \$20,000 (estimated)
 Percent Amount of Participation: .92%
 Schedule C-1 attached? Yes X No ___ *
 *(see next page)

2. Name of MBE/WBE: _____
 Address: _____
 Contact Person: _____ Phone: _____
 Dollar Amount Participation: _____
 Percent Amount of Participation: _____
 Schedule C-1 attached? Yes ___ No ___ *

SCHEDULE D-1
Affidavit of MBEI/WBE Goal Implementation Plan

3 Name of MBE/WBE: _____
Address: _____
Contact Person: _____ Phone: _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____ *

4 Name of MBE/WBE: _____
Address: _____
Contact Person: _____ Phone: _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____ *

5 Name of MBE/WBE: _____
Address: _____
Contact Person: _____ Phone: _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____ *

6. Attach additional sheets as needed

*All Schedule C-1s and Letters of Certification not submitted with bid/proposal must be submitted so as to assure receipt by the Contract Administrator within three (3) business days after bid opening (or proposal due date.)

II Indirect Participation of MBE/WBE Firms

(Note: This section need not be completed if the MBE/WBE goals have been met through the direct participation outlined in Section I. If the MBE/WBE goals have not been met through direct participation, Contractor will be expected to demonstrate that the proposed MBE/WBE direct participation represents the maximum achievable under the circumstances. Only after such a demonstration will indirect participation be considered.)

MBE/WBE Subcontractors/Suppliers/Consultants proposed to perform work or supply goods or services where such performance does not directly relate to the performance of this contract:

A. Name of MBE/WBE: _____ None
Address: _____
Contact Person: _____ Phone: _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____ * (see next page)

SCHEDULE D-1
Affidavit of MBE/WBE Goal Implementation Plan

- B. Name of MBE/WBE:** None
Address: _____
Contact Person: _____ **Phone:** _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____
- C. Name of MBE/WBE:** None
Address: _____
Contact Person: _____ **Phone:** _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____
- D. Name of MBE/WBE:** None
Address: _____
Contact Person: _____ **Phone:** _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____

E. Attach additional sheets as needed.

*All Schedule C-1s and Letters of Certification not submitted with bid/proposal must be submitted so as to assure receipt by the Contract Administrator within three (3) business days after bid opening (or proposal due date).

III Summary of MBE/WBE Proposal:

A. MBE Proposal

1. MBE Direct Participation (from Section I.)

MBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
<u>None</u>	<u>\$0.00</u>	<u>.0%</u>

Total Direct MBE Participation	<u>\$0.00</u>	<u>.0%</u>

2. MBE Indirect Participation (from Section II).

MBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
<u>None</u>	<u>\$0.00</u>	<u>.0%</u>

Total Indirect MBE Participation	<u>\$0.00</u>	<u>.0%</u>

SCHEDULE D-1
Affidavit of MBEIWBE Goal Implementation Plan

B. WBE Proposal

1. WBE Direct Participation (from Section I.)

WBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
<u>J&I Motor Services</u>	<u>\$20,000 (est)</u>	<u>.92%</u>
<u>2338 S. Indiana Ave.</u>		
<u>Chicago, IL 60616</u>		
 Total Direct WBE Participation	 <u>\$20,000 (est)</u>	 <u>.92%</u>

2. WBE Indirect Participation (from Section II).

WBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
<u>None</u>	<u>\$ 0.00</u>	<u>0%</u>
<u> </u>		
<u> </u>		
 Total Indirect WBE Participation	 <u>\$ 0.00</u>	 <u>0%</u>

SCHEDULE D-1
Affidavit of MBE/WBE Goal Implementation Plan

To the best of my knowledge, information and belief, the facts and representations contained in this Schedule are true and no material facts have been omitted.

The Contractor designates the following person as their MBE/WBE Liaison Officer:

Name: Forouz Angelonie

Phone Number: 909-982-9806

Javad Rassouli

Date: 4 May 2012

State of California

This instrument was acknowledged before me on 4 May 2012

By: Javad Rassouli

As: Executive Vice President

Of: New Bedford Panoramex Corp.

Bryce L. Nielsen

Signature of Notary Public



Notary Public - California
Bernardino County My comm.
Expires Oct 15, 2013

BRYCE L. NIELSEN
Commission # 1866435

San



CHICAGO DEPARTMENT OF AVIATION
CITY OF CHICAGO

To: Jamie L. Rhee
Chief Procurement Officer

Attention: James McIsaac
Deputy Procurement Officer

From: Rosemarie S. Andolino
Commissioner, Department of Aviation

Subject: NCRB July 3, 2012 Meeting
New Bedford Panoramex Corporation
Approach Lighting with Sequential Flashers (ALSF-2) – Purchase
Justification for Non-Competitive Procurement

RSA
92
5/24/12

The Chicago Department of Aviation is requesting approval to purchase a new Approach Lighting with Sequential Flashers (ALSF-2) system as is required for the new Runway 10R-28L. The new Runway 10R-28L requires an ALSF-2 system in order to support Category II/III instrument approach procedures. This system will provide uninterrupted availability of this runway in inclement weather. The system cost is \$1,983,403.00.

The ALSF-2 system must be supplied by an equipment manufacture/vendor which has been certified by the Federal Aviation Administration (FAA). New Bedford Panoramex Corporation (NBP) is currently the only FAA certified vendor of ALSF-2 system which can be installed at O'Hare International Airport under FAA Specification FAA-E-2689A.

Although located in Upland California, NBP has agreed to hire J&J Motor Service, a local WBE firm, to ship the system to Chicago. The contract price includes 2% shipping costs.

Thank you for your assistance in this matter.

Reviewed by: Jonathan Leach, Managing Deputy Commissioner

Participants in NCRB Meeting

1. Jonathan Leach CDA
2. Aurelio Garcia CDA
3. Jim Chilton CDA/PMO



CITY OF CHICAGO ALL PURPOSE REQUISITION FORM

APRF NO. 151983	REQUISITION NO.
DEPT USE 1 Larry Jordan	
REF DOC NUMBER	PV NUMBER

DATE 04/03/2012	SECTION OMPD	BUREAU 85	SHIP CODE 204	SHIP TO: ATTN:	OHARE MODERNIZATION PROGRAM	DATE NEEDED
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TERM LINE	COMMODITY CODE	DESCRIBE AND JUSTIFY GOODS OR SERVICES ITEM DESCRIPTION	CATALOG NAME#	CATALOG DATE	CATALOG PAGE	CATALOG ITEM/PART #	UNIT PRICE	UNIT OF MEASURE	QUANTITY	TOTAL PRICE
0		10R-28L ASLF2 SYSTEMS PROCUREMENT					\$1.0000	USD	1,983,403.000	\$1,983,403.0000

BRIEF DESCRIPTION
CONTRACT TO PROCURE RW 10R-28L APPROACH LIGHTING SYSTEM FLASHER (ALSF)-2 SYSTEMS

JUSTIFICATION
CONTRACT TO PROCURE RAW 10R-28L APPROACH LIGHTING SYSTEM FLASHER (ALSF)-2 SYSTEMS

BFYR	LINE	FUND	DEPT	CRC	APPR	OBLT	DOA PROJECT	FMPs PROJECT	DOLLAR AMT
1988	0	0751	085	4871	9071	000000	OH6135.10-08	A201171E	\$1,983,403.00

CHECK OR COMPLETE ALL THAT APPLY

PARTICIPATING PO #

TASK ORDER/PROPOSAL #
10R-28L ASLF2 SYSTEM

NEW TA OR CONTRACT X	SOLE SOURCE	FOR FINANCE OFFICE USE ONLY		VENDOR INFORMATION	INVOICE NUMBERS	CONTACT INFORMATION
PURCHASE ORDER	CONTRACT AMENDMENT	CONTRACT REVIEW	FINANCE DIRECTOR	Company Name NEW BEDFORD PANORAMEX CORP		Name Adella Gillespie
DIRECT VOUCHER	EMERGENCY REQUEST	David Bowman	Pending -	Address 1037 W 9TH ST		Address
7 DAY BID	REJECTED BY	Approved - 4/5/12	FMPs APPROVAL DATE	UPLAND, CA 91786		Phone 773-462-7364
		CAPITAL FIN. DIRECTOR		50078149 A		SECTION MANAGER
		Michael Cosentino		Rep/Phone 909 982-9806		Name Adella Gillespie
		Approved - 4/5/12				Phone
						Status Approved
						DEPUTY
						Name John Sisco
						Phone
						Status Approved
						4/3/12
						4/4/12

GRAND TOTAL (ALL PAGES)
\$1,983,403.00

Runway 10R-28L ALSF-II Procurement Documentation

- 1 NCRB Justification For Non-Competitive Procurement**
- 2 OMP Letter of Recommendation to CITY**
- 3 Procurement of FAA Required ALSF-2 Equipment Scope of Work**
- 4 FAA Sourcing Requirements & Standards**
- 5 New Bedford's Schedule C-1 Form (LOI from M/WBE)**
- 6 New Bedford's Schedule D-1 Form (Affidavit of M/WBE Goal)**
- 7 New Bedford's Documentation of Good Faith in Obtaining a W/MBE Supplier**
- 8 New Bedford's Adherence to CITY Insurance Requirements**
- 9 New Bedford's Economic Disclosure Statement and Affidavit**
- 10 Price Quotation**
- 11 ALSF-II Cost Analysis**
- 12 FAA & OMP ALSF-II Technical Specifications**

MAY 2012

INSTRUCTIONS FOR PREPARATION OF NON-COMPETITIVE PROCUREMENT FORM

City Department has determined that the purchase of supplies, equipment, work and/or services cannot be done on a competitive basis, a justification must be prepared on this "Justification for Non-Competitive Procurement Form" in which procurement is requested on a non-bid or non-competitive basis in accordance with 65 ILCS 5/8-10-4 of the Illinois Compiled Statutes. All applicable questions in each Subject Area below must be answered. The information provided must be complete and in sufficient detail to allow for a decision to be made by the Non-Competitive Procurement Review Board. Also attach a DPS Checklist and any other required documentation. The Board will not consider justification with incomplete information documentation or omissions.

PROCUREMENT HISTORY

1. Describe the requirement and how it evolved from initial planning to its present status.
2. Is this a first time requirement or a continuation of previous procurement from the same source? If so, explain the procurement history.
3. Explain attempts made to competitively bid the requirement. (Attach copy of notices and list of sources contacted)
4. Describe all research done to find other sources. (List other cities contacted, companies in the industry contacted, professional organizations, periodicals and other publications used).
5. Explain future procurement objectives. Is this a one-time request or will future requests be made for doing business with the same source?
6. Explain whether or not future competitive bidding is possible. If not, why not?

ESTIMATED COST

1. What is the estimated cost for this requirement (or for each contract, if multiple awards contemplated)? What is the funding source?
2. What is the estimated cost by fiscal year, if the job project or program covers multiple years?
3. Explain the basis for estimating the cost and what assumptions were made and/or data used (i.e., budgeted amount, previous contract price, current catalog or cost proposal from firms solicited, engineering or in-house estimate, etc.)
4. Explain whether the proposed Contractor or the City has a substantial dollar investment in original design, tooling or other factors which would be duplicated at City expense if another source was considered. Describe cost savings or other measurable benefits to the City which may be achieved.
5. Explain what negotiation of price has occurred or will occur. Detail why the estimated cost is deemed reasonable.

SCHEDULE REQUIREMENTS

1. Explain how the schedule was developed and at what point the specific dates were known.
2. Is lack of drawings and/or specifications a constraining factor to competitive bidding? If so, why is the proposed Contractor the only person or firm able to perform under these circumstances? Why are the drawings and specifications lacking? What is the lead time required to get drawings and specifications suitable for competition? If lack of drawings and specifications is not a constraining factor to competitive bidding, explain why only one person or firm can meet the required schedule.
3. Outline the required schedule by delivery or completion dates and explain the reasons why the schedule is critical.
4. Describe in detail what impact delays for competitive bidding would have on City operations, programs, costs and budgeted funds.

EXCLUSIVE OR UNIQUE CAPABILITY

1. If contemplating hiring a person or firm as a Professional Service Consultant, explain in detail what professional skills, expertise, qualifications, and/or other factors make this person or firm exclusively or uniquely qualified for the project. Attach a copy of the cost proposal, scope of services, and temporary consulting services form.
2. Does the proposed firm have personnel considered unquestionably predominant in the particular field?
3. What prior experience of a highly specialized nature does the person or firm exclusively possess that is vital to the job, project or program?
4. What technical facilities or test equipment does the person or firm exclusively possess of a highly specialized nature which is vital to the job?
5. What other capabilities and/or capacity does the proposed firm possess which is necessary for the specific job, project or program which makes them the only source who can perform the work within the required time schedule without unreasonable costs to the City?
6. If procuring products or equipment, describe the intended use and explain any exclusive or unique capabilities, features and/or functions the items have which no other brands or models, etc. possess. Is compatibility with existing equipment critical from an operational standpoint? Explain why?
7. Is competition precluded because of the existence of patent rights, copyrights, trade secrets, technical data, or other proprietary data? Attach documentation verifying such.
8. If procuring replacement parts and/or maintenance services, explain whether or not replacement parts and/or services can be obtained from any other sources? If not, is the proposed firm the only authorized or exclusive dealer/distributor and/or service center? If so, attach letter from manufacturer.

MBE/WBE COMPLIANCE PLAN

- * All submissions must contain detailed information about how the proposed firm will comply with the requirements of the City's Minority and Women Owned Business program. All submissions must include a complete C-1 and D-1 form, which is available on the Procurement Services page on the City's intranet site. The City Department must submit a Compliance Plan, including details about direct and indirect compliance.

OTHER

Explain other related considerations and attach all applicable supporting documents, i.e., an approved ITGB form.

REVIEW AND APPROVAL

This form must be signed by both Originator of the request and signed by the Department Head or authorized designee. After review and final disposition from the Board, this form will be signed by the Chairperson of the Board. After review and final disposition from the Board, this form will be signed by the Chief Procurement Officer for final approval.



Rosemarie S. Andolino
Executive Director

MEMORANDUM

To: John Sisco, City of Chicago - OMP **WBS/DCN:** OH.6135.200.522
Thru: Jim Chilton, PMO **Date:** May 14, 2012
From: Chris Janner, PMO
Neil Parikh, PMO
Memo #: **cc:** R. Schmidt, OMP
C. Suesse, PMO
Subject: Runway 10R-28L ALSF 2 Systems Procurement

The purpose of this memo is to provide a recommendation for procuring Approach Lighting System Flasher (ALSF)-2 equipment for Runway 10R-28L.

Background

A requirement for the OMP Completion Phase is the procurement and installation of an ALSF-2 system for each end of Runway 10R/28L by OMP construction contractors. This equipment is required by the FAA for CAT II/III operations. The Program requires system delivery by Fall 2013 to coordinate with the anticipated start of the Runway 10R-28L NAVAIDS construction contract. The lead time for manufacturing and delivering each system takes 10 to 12 months from placement of order.

Based on FAA requirements, the OMP must purchase the equipment from the only FAA certified sole-source manufacture of the ALSF-2 system, New Bedford Panoramex Corporation (New Bedford), of Upland, California. Compliance with FAA specifications is required for their final acceptance after contract completion, as they become the owner and operator of the system.

The detailed cost estimate provided by New Bedford for two ALSF-2 systems is \$1,983,403.00 (attached in package, dated 12/6/2011). The cost estimate includes site spares, system start-up, and auxiliary equipment as required by the FAA.

The Program's equipment purchase directly from New Bedford will avoid contractor mark-ups. Additionally, the construction contract is not scheduled for award in a manner that would allow the contractor sufficient time for equipment procurement. Demand for aeronautics communication systems fluctuates widely based on airport improvements across the nation and the world, and New Bedford's manufacturing schedule varies depending upon orders received.

Previously, the City purchased five systems from New Bedford for Runways 9L/27R, 10C/28C, and 10L and received a 5% bulk discount per system. However, New Bedford is not offering a bulk discount for purchasing only two systems. Auxiliary equipment listed in the estimate is part of the FAA's requirement to provide a minimum of 10% spares for each part.

The contract requirement for procuring the ALSF-2 systems should exclude any stated goals for the participation of Minority Business Enterprises / Women Business Enterprise (MBE/WBE). Due to the unique function of New Bedford's equipment and production limitation solely at the supplier's facilities in California, MBE/WBE participation will be limited to interstate transportation. On previous contracts, New Bedford hired an approved WBE named J&J Motor Service for shipping, and intends to contract them for this purchase. The contract price will include 2% for their transportation costs.

Schedule

Based on proposed 4th Quarter 2015 runway commissioning date, the Master Schedule includes the following milestones:

Submit request to DPS –	May 2012
Approval from DPS –	1st Quarter 2013
Submit order to New Bedford –	1st Quarter 2013
Receive equipment –	1st Quarter 2014
Install equipment –	2014
Commission equipment -	2015

Cost Analysis

The PMO prepared a cost comparison between the actual costs for the Runway 9L ALSF-2 system and New Bedford's proposal for the Runway 10R system to determine if their recent proposal is reasonable. The City purchased the Runway 9L ALSF system in 2006 at a \$33,000 bulk discount per system. For comparison purposes, we added the \$33,000 discount to the Runway 9L cost and escalated it by 4% per year for 5 years. We also noted that the Program issued field orders to the Runway 9L/27R NAVAIDS contractor to purchase auxiliary equipment requested by the FAA. Our analysis captured these costs and escalated them at 4% per year for 4 years. The New Bedford proposal for Runway 10R includes the auxiliary equipment.

As shown on our attached table, the escalated cost for the complete Runway 9L system in 2011 dollars is \$897,532 as compared to \$907,436 for the same equipment being purchased for Runway 10R.

The system for the Runway 28L approach includes in-pavement lights that are not needed for the Runway 10R end, thus explaining the increased expense. These in-pavement lights will be installed in existing Taxiway S and Runway 4R. The systems purchased for Runway 9L-27R did not require the in-pavement lights, so we are unable to compare costs.


Current production of the in-pavement flashers has run into a short-term production freeze for another OMP project, Runway 10C-28C. This relates to system compatibility between the main system and in-pavement light fixtures. New Bedford has confirmed their cooperation with the FAA on improving this performance feature, and through testing, anticipates resolution within two months. The local FAA recommendation for implementing the in-pavement flashers is to provide adequate spare equipment, which is provided in New Bedford's estimate, dated 12/6/11. Correspondences between the FAA, New Bedford, and the OMP regarding production timing are included in the supporting documentation.

Based on our cost comparison, the PMO concluded that the cost proposal from new Bedford is fair and reasonable.

Recommendation


The PMO recommends that the OMP accept the cost proposal from New Bedford for a total of \$1,983,403, and proceed with the procurement of the two specified ALSF-2 systems required for Runway 10R/28L.

PMO Recommendation:


James Y. Chilton, Program Manager

21 May 2012
Date: _____

OMP Concurrence:


John Sisco, Deputy Director

5/22/12
Date: _____

Submit request to DPS –	May 2012
Approval from DPS –	1st Quarter 2013
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PMO Recommendation:


James Y. Chilton, Program Manager

21 May 2012
Date:

OMP Concurrence:


John Sisco, Deputy Director

5/22/12
Date:

ALSF-2 System Cost Comparison Between Runways 9L and 10R

Main System	Runways		Comments
	9L	10R	
<i>Invoice Dates</i>	<i>September 2006</i>	<i>December 2011</i>	
Standard Configuration	\$510,664	\$625,368	Included on invoice
Site Spares	\$45,960	\$70,794	Included on invoice
System Start-Up	\$23,293	\$29,400	included on invoice
Bulk Order Discount (added back into cost for comparison)	\$33,000	0	NBP quoted a \$45,000 discount per system if a bulk purchase is made in April 2012
2006 Base System Estimate	\$612,917		
Escalation (5 years at 4 %)	\$132,790	0	
Sub-Total Base ALSF-2	\$745,707	\$725,562	

Auxiliary Equipment*			
Auxiliary Equipment	\$129,781	\$181,874	
Escalation (4 years at 4 %)	\$22,044	0	
Sub-Total	\$151,825		

Total (Main System & Auxiliary Equipment)	\$897,532	\$907,436
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*

Auxiliary equipment (9L FOs) Explained:		
City furnished equipment for FAA has been included: REIA Generator, Tektronix O-scope, which were not part of 9L FOs. ATCTs now require REIA generators.		
FO 16	\$47,560	FAA request- add 58 1500W transformer (+10% spare)
FO 24	\$20,000	Add PAR 56 lamp holder rings
FO 25	\$55,321	FAA request - ALSF spares – price shows only NBP parts for 9L, not including 27R
FO 33	\$6,900	ICC cabinet replacement
Total	\$129,781	

Procurement of FAA Required ALSF-2 Equipment Scope of Work

Scope of Work

The scope of work for this recommended non-competitive procurement consists of equipment, spares and delivery. It is described in tab 10, New Bedford Panoramex Corporation's (NBP) price quotation for this equipment. The equipment will be manufactured and transported by NBP under this recommended non-competitive procurement. It will be installed by an OMP contractor through a competitively bid construction contract.

Procurement History

A new Approach Lighting with Sequential Flashers (ALSF-2) system is required for one new runway at O'Hare International Airport in support of Completion Phase of the O'Hare Modernization Program. The construction and operation of the O'Hare Modernization Program's southernmost runway, Runway 10R-28L, requires that ALSF-2 equipment be installed to support Category II/III instrument approach procedures. It is crucial that uninterrupted availability of the runway be maintained during Category II/III conditions.

The new equipment must be supplied by an equipment manufacturer/vendor that has been certified by the Federal Aviation Administration. New Bedford Panoramex Corporation (NBP) 1037 W. 9th Street, Upland, CA 91786, currently is the only FAA certified vendor of ALSF-2 equipment. Therefore competitive bidding is not possible.

The FAA assumes ownership and maintenance responsibilities after final acceptance of the OMP's Runway 10R-28L NAVAIDS contract is complete (scheduled for 4th Quarter of 2015).

The OMP previous purchase with New Bedford Panoramex Corporation, contract number 14407, provided five ALSF-2 systems.

Estimated Cost

The estimated cost for the ALSF-2 equipment and technical expertise provided by NBP to support the commissioning of this runway is \$1,983,403. This cost estimate is based upon current agreed pricing between NBP and the OMP for standard ALSF-2 equipment. The agreed upon cost includes a minimum of spares as required by the FAA.

The City's previous sole-sourcing of NBP's ALSF-2 equipment utilized a bulk-order purchase, which gave a savings of 5% (or \$33,000) per system. Runway 9L-27R, 10C-28C, and 10L extension were purchased together as their funding was guaranteed, but the current Runway 10R-28L purchase could not be combined due to not having an obligation in place for Runway's 9C-27C, and 9R extension. 10R-28L systems are phase 2A, and have scheduling commitments.

The total amount requested for this contract with NBP will be \$1,983,403.

Schedule Requirements

The current schedule for the OMP requires completion of Runway 10R-28L by 4th Quarter 2015. The estimated time for fabrication of the ALSF-2 equipment is 12 months. An additional 6 months is required to install the equipment. The ALSF-2 equipment must be installed by late 2014 to allow for timely commissioning of the equipment. Procurement of the ALSF-2 system for Runway 10R-28L has an immediate need. The system will be manufactured and stored until it becomes necessary to install the equipment.

ALSF-2 installation will be completed in the Runway 10R-28L Nav aids contract.

Exclusive or Unique Capability

Refer to the attached correspondence from the FAA dated May 3, 2012 in which the FAA's contracting Officer, Samantha E. Williams, confirms that NBP is the only source that meets the requirements of FAA Specification FAA-E-2689A which governs the supply of ALSF systems.

Furthermore, The FAA's Depot in Oklahoma is responsible for providing maintenance, spare parts and materials to support the FAA facilities, and only stores the NBP's ALSF-2 equipment at their warehouse facility. The NBP's ALSF-2 system is the only approach lighting system that is certified and accepted by the FAA for Precision Approach, CAT II/III Runways.

Other

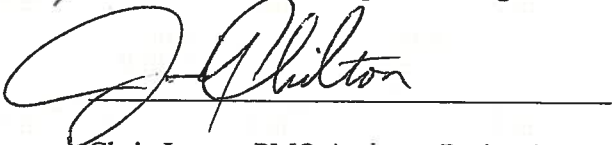
The uniqueness of the ALSF-2 does not provide any MBE/WBE firms that qualify for this supply contract, needed for the runway commissioning. System production is in Upland, California, and New Bedford Panoramex, as on previous contracts, intends to hire a local WBE named J&J Motor Service for shipping. The contract price will include 2% for their shipping costs. The contract price will include 2% for their shipping costs.

Personnel involved in preparation and Determination of Requirements

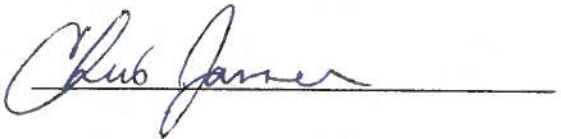
Aurelio Garcia, CDA Project Administrator



Jim Chilton, OMP Program Manager



Chris Janner, PMO Assistant Project Manager



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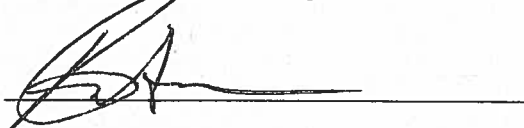
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Other

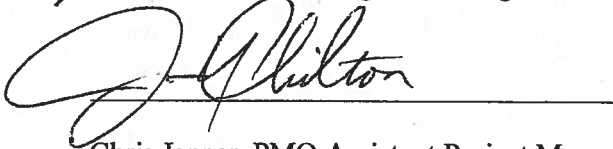
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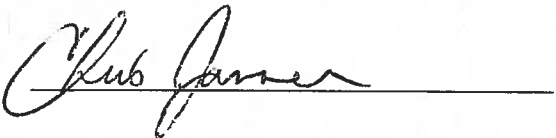
Aurelio Garcia, CDA Project Administrator



Jim Chilton, OMP Program Manager



Chris Janner, PMO Assistant Project Manager



Disclosure Summary Sheet

Contract (PO) Number: 14407

Specification Number: 51476

Name of Contractor: NEW BEDFORD PANORAMEX CORP

City Department: O'HARE MODERNIZATION PROGRAM

Title of Contract: PURCHASE OF DUAL MODE HIGH INTENSITY ALSF-2/SSALR
SYSTEMS AND EQUIPMENT

Term of Contract: Start Date:

End Date:

Dollar Amount of Contract (or maximum compensation if a Term Agreement) (DUR):
\$2,958,439.00

Brief Description of Work: PURCHASE OF DUAL MODE HIGH INTENSITY
ALSF-2/SSALR SYSTEMS AND EQUIPMENT


Procurement Services Contract Area: PRO SERV-AVIATION

Vendor Number: 50078149

Submission Date: MAR 19 2007



Contract Details

Contract (PO) Number:  14407

Specification Number: 51476

Award Date: 03/06/2007

Original Award Amount: Up To \$2,958,439.00

Current Award Amount: **Up To \$2,958,439.00**

Vendor Name: NEW BEDFORD PANORAMEX CORP

Description: PURCHASE OF DUAL MODE HIGH INTENSITY ALSF-2/SSALR SYSTEMS AND EQUIPMENT

Buyer Name:

Target Market: No

Original Contract

DUR in the Award Amount column means that the contract award total **Depends Upon Requirements**. A **Depends Upon Requirements** contract is an indefinite quantities contract in which the city places orders as needed. The vendor is not guaranteed any particular contract award amount.

Contract (PO) #	Disclosure #	Award Date	Start Date	End Date	Original Award Amount
 <u>14407</u>	 <u>14407 - D1</u>	03/06/2007			Up To \$2,958,439.00



1480 N Claremont Blvd.
Claremont, CA 91711

V 909.982.9806
F 909.985.6217

www.nbpcorp.com

20 January, 2012

Mr. Chris Janner
Assistant PM
OMP/City of Chicago
10510 West Zemke
Road Chicago, IL
60666

Subject: BP-12003 dated 12/06/2011, NBP ALSF-2 Systems

Dear Mr. Janner:

NBP is pleased to provide this letter in further support of the subject proposal to the OMP/City of Chicago:

- a) NBP's ALSF-2 is currently the only approved FAA system meeting the requirements of FAA specification FAA-E-2689a (see attached FAA letter).
- b) NBP's price for Runway 10R for a standard ALSF-2 configuration is \$907,436.00 (including standard site spares plus additional spares requested by the FAA, the procurement of Auxiliary Equipment as requested by the OMP Program Office and system start up cost).
- c) NBP's price for Runway 28L for a non standard ALSF-2 configuration is \$1,075,967.00 (including standard site spares plus additional spares requested by the FAA, the procurement of In-pavement Flashers from ADB, the procurement of Auxiliary Equipment as requested by the OMP Program Office, and system start up cost).
- d) Systems will be delivered at a rate of one per month starting 12 months ARO.
- e) Should OMP decide to store any systems at NBP, the storage charge will be at the same rate as the one in OMP Contract 14407 (A one-time non-recurring cost of \$1,400 plus \$620 per system per months).
- f) NBP also proposes to utilize the shipping services of the same WBE as the one used for OMP Contract 14407; J&J Motor Service, 2338 S. Indiana Ave., Chicago Illinois, 60616. The estimated amount for their services is \$20,000.
- g) The proposed Compensation Schedule (payment terms) and the Warranty for these systems will be the same as those in OMP Contract 14407.

Should you have any questions or require additional information, please contact the undersigned at (909) 982-9806, ext 205 or jrassouli@nbpcorp.com.

Sincerely,
NEW BEDFORD PANORAMEX CORP.

Javad Rassouli
Exec Vice President



U.S. Department
of Transportation
**Federal Aviation
Administration**

Air Traffic Organization
800 Independence Ave., SW.
Washington, DC 20591

May 3, 2012

Mr. Javad Rassouli
NBP Corporation
1480 N. Claremont Blvd.
Claremont, CA 91711


Dear Mr. Rassouli:

Based upon available market information, NBP Corporation is currently the only vendor who meets the requirements of FAA Specification FAA-E-2689a.

Thank you for your continued support of FAA requirements.

Questions or comments may be submitted to the undersigned at (202) 267-9653 or John Varas at (202) 493-5760.

Sincerely,


Samantha E. Williams
Contracting Officer, AAQ-340

cc: John Varas

FEDERAL AVIATION ADMINISTRATION AIR TRAFFIC ORGANIZATION



**Federal Aviation
Administration**

Navigation Services - Lighting Systems Group - VGLEAP

Navigation Services

Lighting Systems Group - VGLEAP

FAA Grandfathered Equipment

This appendix is a list of the manufacturers with one or more pieces of approved equipment at the time of release of a change to this Advisory Circular. An addendum to this appendix, listing all current approved equipment manufacturers' addresses, is updated monthly. Listing of a manufacturer in this appendix does not indicate that all of that manufacturer's products are approved; the addendum must be reviewed to assure approval of individual products. The addendum is available on the Internet at the FAA Regulatory and Guidance Library Web site (<http://rgl.faa.gov/> (<http://www.faa.govhttp://rgl.faa.gov/>)).

New Bedford Panoramex (NBP)

1037 West Ninth Street
Upland California

<http://www.nbpcorp.com> (<http://www.faa.gov/exit?>

[pageName=http%3A%2F%2Fwww%2Enbpcorp%2Ecom&pgLnk=http%3A%2F%2Fwww%2Enbpcorp%2Ecom](http://www.faa.gov/exit?))

Equipment	Model	FAA Specification
ALSF-2	FA-10700	FAA-E-2689a
PAPI	FA-17700	*FAA-E-2756a

DME Corporation

6830 Northwest 16th Terrace
Fort Lauderdale, Florida 33309 USA

<http://www.dmecorp.com/> (<http://www.faa.gov/exit?>

[pageName=http%3A%2F%2Fwww%2Edmecorp%2Ecom%2F&pgLnk=http%3A%2F%2Fwww%2Edmecorp%2Ecom%2F](http://www.faa.gov/exit?))

Equipment	Model	FAA Specification
REIL	FA-19900	FAA-E-2159e
REIL	FA-18300	FAA-E-2159d
MALSR	FA-17900	FAA-E-2325e

O.C.E.M. Acquisition Corp.

Multi Electric Mfg., Inc.

23 West Lake Street

Chicago, Illinois 60624

<http://www.multielectric.com> (<http://www.faa.gov/exit?>

[pageName=http%3A%2F%2Fwww%2Emultielectric%2Ecom%20&pgLnk=http%3A%2F%2Fwww%2Emultielectric%2Ecom%2F](http://www.faa.gov/exit?))

Equipment	Model	FAA Specification
Semiflush Steady Burners	FA-23000	FAA-E-2952 and FAA-E-2968

*Notes: Without RMS Requirements

<<Back to VGLEAP main page (<http://www.faa.gov./index.cfm>)

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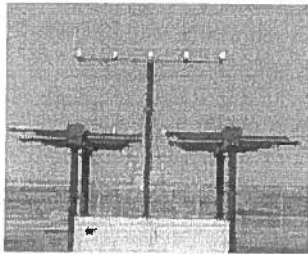


Federal Aviation
Administration

Navigation Services - Lighting Systems Group - ALSF-2

Navigation Services

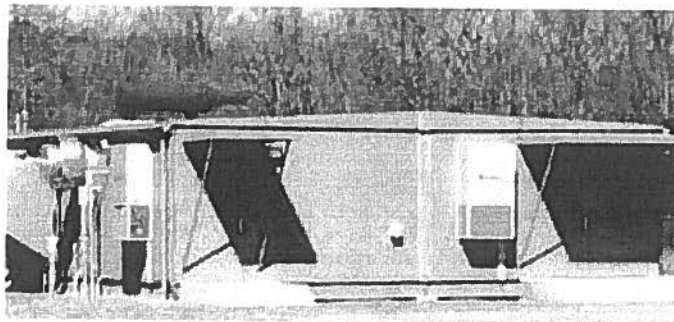
Lighting Systems Group - ALSF-2



ALSF-2 Approach

Approach Lighting Systems (ALS) provide the basic means to transition from instrument flight to visual flight for landing. Operational requirements dictate the sophistication and configuration of the approach light system for a particular runway. The ALSF-2 provides visual information on runway alignment, height perception, roll guidance, and horizontal references for Category II/III instrument approaches. ALS are a configuration of signal lights starting at the landing threshold and extending into the approach area a distance of 2400 feet for precision instrument runways.

A typical **ALSF-2** system (High Intensity Approach Lighting System With Sequenced Flashing Lights) consists of 247 steady burning lights: including green threshold lights (49 lights), red side row-bar lamps (9 rows, 54 lamps), and high intensity steady burning white lights (144), plus an additional 15 flashing lights commonly referred to as strobes. The strobes flash in sequence starting with the strobe farthest from the runway and ending with the strobe closest to the runway threshold. The lights are spaced at 100' intervals from the runway threshold outward to 2400'.



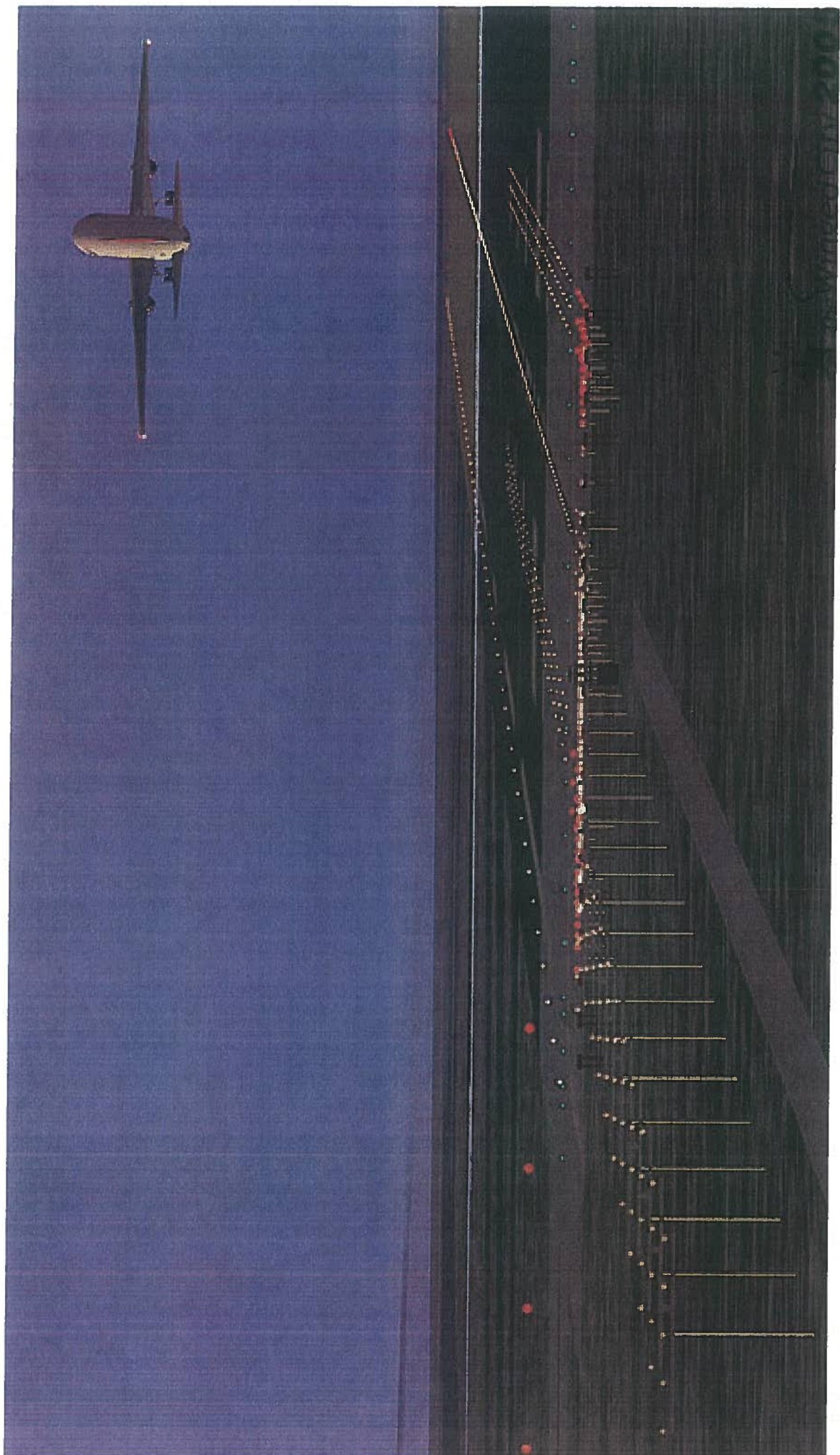
ALSF-2 Approach Shelter

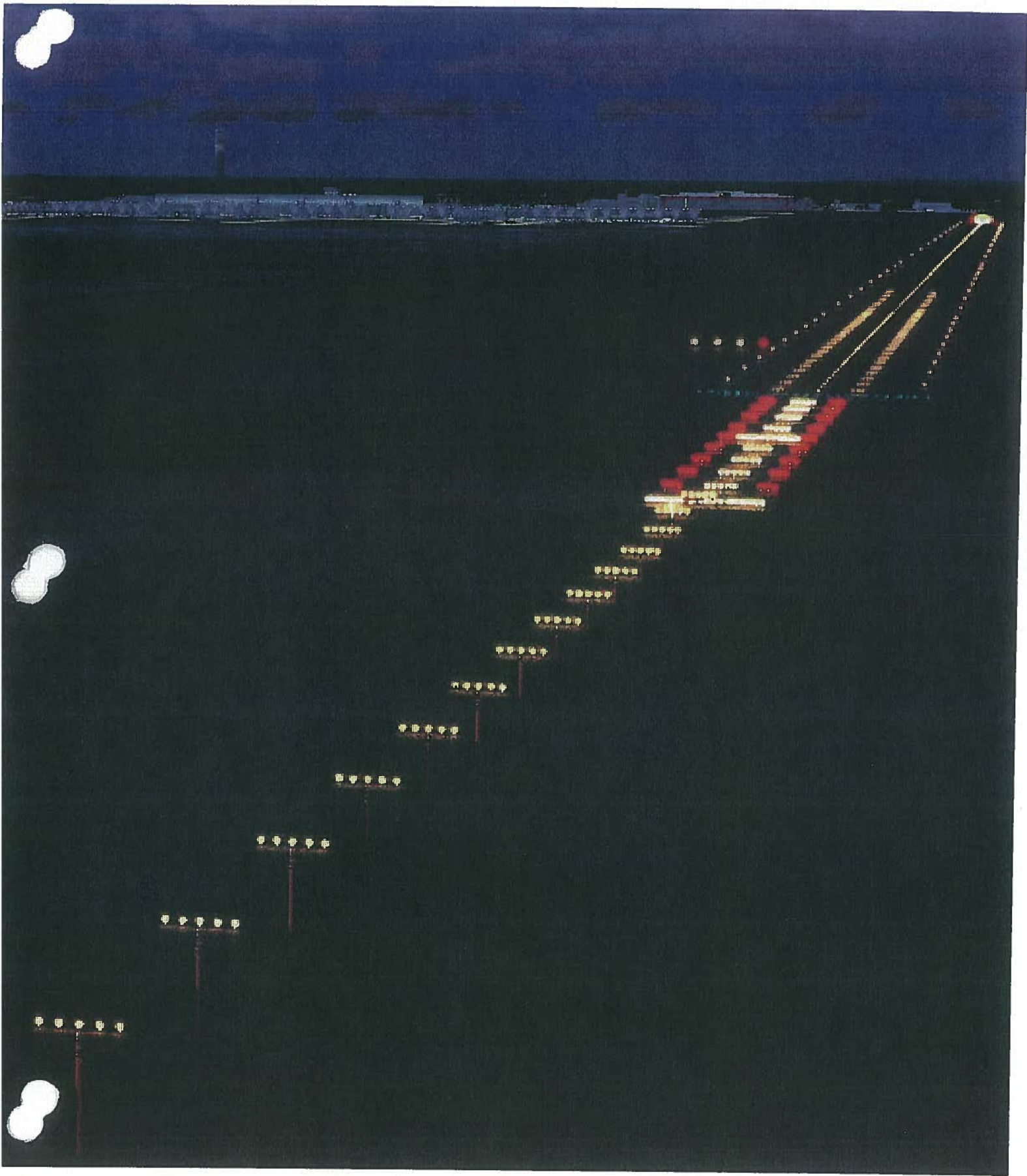
FAA Navigation Services Technical Lead:

John Varas - (202) 493-4760

Current Status: There are 155 ALSF-2 in the NAS manufactured by Airflo (44), Godfrey (38), NBP (60), GE (2), Heavy Duty Substation (4), Westinghouse Substation (3), Hollingsworth (1), and other (1).







**New Bedford Panoramex Corporation's
Schedule C-1 Form**

**(Letter of Intent from MBE/WBE to Perform as
Subcontractor, Supplier, and/or Consultant)**

SCHEDULE C-1

Letter of Intent from MBE/WBE to Perform as Subcontractor, Supplier and/or Consultant

Name of Project/Contract: ALSF-2
Equipment Specification Number: 5 1 4 7 6

From: J&J Motor Service, Inc.
(Name of MBE/WBE Firm)

MBE: Yes ; No
WBE: Yes ; No

To: New Bedford Panoramex Corp. and the City of Chicago:
(Name of Prime Contractor- Bidder/Proposer)

The undersigned intends to perform work in connection with the above projects as a:

Sole Proprietor Corporation
 Partnership Joint Venture

The MBE/WBE status of the undersigned is confirmed by the attached letter of Certification from the City of Chicago effective date of 5/8/2012 to 11/8/2013 for a period of 18 months.

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above named project/contract:

Shipment of ALSF-2 equipment from NBP (CA) to Chicago, Illinois for OMP Contract .

The above described performance is offered for the following price and described terms of payment:

If more space is needed to fully describe the MBE/WBE firm's proposed scope of work and/or payment schedule, attach additional sheets.

The undersigned will enter into a formal written agreement for the above work with you as a Prime Contractor, conditioned upon your execution of a contract with the City of Chicago, and will do so within three (3) working days of receipt of a signed contract from the City of Chicago.



(Signature of Owner or Authorized Agent)

Cathleen Chambliss

Name/Title (Print)

May 4, 2012

Date

**New Bedford Panoramex Corporation's
Schedule D-1 Form**

**(Affidavit of MBE/WBE
Goal Implementation Plan)**

SCHEDULE D-1

Affidavit of MBE/WBE Goal Implementation Plan

Contract Name: ALSF-2 Equipment

Specification No.: 51476

State of California

County (city) of Los Angeles

I HEREBY DECLARE AND AFFIRM that I am a duly authorized representative of:

New Bedford Panoramex Corp.
Name of Prime Consultant/Contractor

and that I have personally reviewed the material and facts set forth herein describing our proposed plan to achieve the MBE/WBE goals of this contract.

All MBE/WBE firms included in this plan have been certified as such by the City of Chicago (Letters of Certification Attached).

I Direct Participation of MBE/WBE Firms

(Note: The bidder/proposer shall, in determining the manner of MBE/WBE participation, first consider involvement with MBE/WBE firms as joint venture partners, subcontractors, and suppliers of goods and services directly related to the performance of this contract.)

- A. If bidder/proposer is a certified MBE or WBE firm, attach copy of the City of Chicago Letter of Certification. (Certification of the bidder/proposer as a MBE satisfies the MBE goal only. Certification of the bidder/proposer as a WBE satisfies the WBE goal only.)
- B. If bidder/proposer is a joint venture and one or more joint venture partners are certified MBEs or WBEs, attach copies of Letters of Certification and a copy of Joint Venture Agreement clearly describing the role of the MBE/WBE firm(s) and its ownership interest in the joint venture.
- C. MBE/WBE Subcontractors/Suppliers/Consultants:

1. Name of MBE/WBE: J&J Motor Services
 Address: 2338 S. Indiana Ave., Chicago, IL 60616
 Contact Person: Cahtleen Chambliss Phone: 312-225-3323
 Dollar Amount Participation: \$30,000 (estimated)
 Percent Amount of Participation: .92%
 Schedule C-1 attached? Yes x No *
 *(see next page)

2. Name of MBE/WBE: _____
 Address: _____
 Contact Person: _____ Phone: _____
 Dollar Amount Participation: _____
 Percent Amount of Participation: _____
 Schedule C-1 attached? Yes No *

SCHEDULE D-1
Affidavit of MBEIWBE Goal Implementation Plan

3 Name of MBE/WBE: _____
Address: _____
Contact Person: _____ Phone: _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____ *

4 Name of MBE/WBE: _____
Address: _____
Contact Person: _____ Phone: _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____ *

5 Name of MBE/WBE: _____
Address: _____
Contact Person: _____ Phone: _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____ *

6. Attach additional sheets as needed

*All Schedule C-1s and Letters of Certification not submitted with bid/proposal must be submitted so as to assure receipt by the Contract Administrator within three (3) business days after bid opening (or proposal due date.)

II Indirect Participation of MBE/WBE Firms

(Note: This section need not be completed if the MBE/WBE goals have been met through the direct participation outlined in Section I. If the MBEANBE goals have not been met through direct participation, Contractor will be expected to demonstrate that the proposed MBE/WBE direct participation represents the maximum achievable under the circumstances. Only after such a demonstration will indirect participation be considered.)

MBE/WBE Subcontractors/Suppliers/Consultants proposed to perform work or supply goods or services .where such performance does not directly relate to the performance of this contract:

A. Name of MBE/WBE: _____ None _____
Address: _____
Contact Person: _____ Phone: _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____ * (see next page)

SCHEDULE D-1
Affidavit of MBEI/WBE Goal Implementation Plan

3	Name of MBE/WBE: _____	
	Address: _____	
	Contact Person: _____	Phone: _____
	Dollar Amount Participation: _____	
	Percent Amount of Participation: _____	
	Schedule C-1 attached? Yes _____ No _____ *	
4	Name of MBE/WBE: _____	
	Address: _____	
	Contact Person: _____	Phone: _____
	Dollar Amount Participation: _____	
	Percent Amount of Participation: _____	
	Schedule C-1 attached? Yes _____ No _____ *	
5	Name of MBE/WBE: _____	
	Address: _____	
	Contact Person: _____	Phone: _____
	Dollar Amount Participation: _____	
	Percent Amount of Participation: _____	
	Schedule C-1 attached? Yes _____ No _____ *	

6. Attach additional sheets as needed

*All Schedule C-1s and Letters of Certification not submitted with bid/proposal must be submitted so as to assure receipt by the Contract Administrator within three (3) business days after bid opening (or proposal due date.)

II Indirect Participation of MBE/WBE Firms

(Note: This section need not be completed if the MBE/WBE goals have been met through the direct participation outlined in Section I. If the MBE/WBE goals have not been met through direct participation, Contractor will be expected to demonstrate that the proposed MBE/WBE direct participation represents the maximum achievable under the circumstances. Only after such a demonstration will indirect participation be considered.)

MBE/WBE Subcontractors/Suppliers/Consultants proposed to perform work or supply goods or services .where such performance does not directly relate to the performance of this contract:

A.	Name of MBE/WBE: _____	None
	Address: _____	
	Contact Person: _____	Phone: _____
	Dollar Amount Participation: _____	
	Percent Amount of Participation: _____	
	Schedule C-1 attached? Yes _____ No _____ *	*(see next page)

SCHEDULE D-1
Affidavit of MBE/WBE Goal Implementation Plan

B. Name of MBE/WBE: None
Address: _____
Contact Person: _____ **Phone:** _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____

C. Name of MBE/WBE: None
Address: _____
Contact Person: _____ **Phone:** _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____

D. Name of MBE/WBE: None
Address: _____
Contact Person: _____ **Phone:** _____
Dollar Amount Participation: _____
Percent Amount of Participation: _____
Schedule C-1 attached? Yes _____ No _____

E. Attach additional sheets as needed.

*All Schedule C-1s and Letters of Certification not submitted with bid/proposal must be submitted so as to assure receipt by the Contract Administrator within three (3) business days after bid opening (or proposal due date).

III Summary of MBE/WBE Proposal:

A. MBE Proposal

1. MBE Direct Participation (from Section I.)

MBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
<u>None</u>	<u>\$0.00</u>	<u>.0%</u>

Total Direct MBE Participation	<u>\$0.00</u>	<u>.0%</u>

2. MBE Indirect Participation (from Section II).

MBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
<u>None</u>	<u>\$0.00</u>	<u>.0%</u>

Total Indirect MBE Participation	<u>\$0.00</u>	<u>.0%</u>

SCHEDULE D-1
Affidavit of MBEIWBE Goal Implementation Plan

B. WBE Proposal

1. WBE Direct Participation (from Section I.)

WBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
<u>J&J Motor Services</u>	<u>\$20,000 (est)</u>	<u>.92%</u>
<u>2338 S. Indiana Ave.</u>		
<u>Chicago, IL 60616</u>		
 Total Direct WBE Participation	 <u>\$20,000 (est)</u>	 <u>.92%</u>

2. WBE Indirect Participation (from Section II).

WBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
<u>None</u>	<u>\$ 0.00</u>	<u>0%</u>
<u> </u>		
<u> </u>		
 Total Indirect WBE Participation	 <u>\$ 0.00</u>	 <u>0%</u>

SCHEDULE D-1
Affidavit of MBEI/WBE Goal Implementation Plan

B. WBE Proposal

1. WBE Direct Participation (from Section I.)

WBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
<u>J&J Motor Services</u>	<u>\$20,000 (est)</u>	<u>.92%</u>
<u>2338 S. Indiana Ave.</u>		
<u>Chicago, IL 60616</u>		
 Total Direct WBE Participation	 <u>\$20,000 (est)</u>	 <u>.92%</u>

2. WBE Indirect Participation (from Section II).

WBE Firm Name	Dollar Amount of Participation	Percent Amount of Participation
None	<u>\$ 0.00</u>	<u>0%</u>

 Total Indirect WBE Participation	 <u>\$ 0.00</u>	 <u>0%</u>

SCHEDULE D-1
Affidavit of MBE/WBE Goal Implementation Plan

To the best of my knowledge, information and belief, the facts and representations contained in this Schedule are true and no material facts have been omitted.

The Contractor designates the following person as their MBE/WBE Liaison Officer:

Name: Forouz Angelonie

Phone Number: 909-982-9806

Javad Rassouli

Date: 4 May 2012

State of California

This instrument was acknowledged before me on 4 May 2012

By: Javad Rassouli

As: Executive Vice President

Of: New Bedford Panoramex Corp.

Bryce L. Nielsen

Signature of Notary Public



Notary Public - California
Bernardino County My comm.
Expires Oct 15, 2013

BRYCE L. NIELSEN
Commission # 1866435

San

**New Bedford Panoramex Corporation's
Documentation of Good Faith Efforts in
Obtaining a MBE/WBE Supplier**



CITY OF CHICAGO
OFFICE OF COMPLIANCE

July 28, 2011

Nancy L Murphy
J & J Motor Service, Inc.
2338 South Indiana Avenue
Chicago, IL 60616-2445

Annual Certificate Expires: August 1, 2012

Dear Nancy L Murphy:

Congratulations on your continued eligibility for certification as a **Women Business Enterprise (WBE)** by the City of Chicago. This certification is valid until **August 1, 2012**.

You have an affirmative duty to file for recertification 60 days prior to the date of expiration. Therefore, you must file for recertification by **6/1/2012**.

It is important to note that you also have an ongoing affirmative duty to notify the City of Chicago of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification within 10 days of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, and/or gross receipts that exceed the program threshold.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a MBE/WBE/BEPD if you fail to:

- o file your No Change Affidavit within the required time period;
- o provide financial or other records requested pursuant to an audit within the required time period; or
- o notify the City of any changes affecting your firm's certification within 10 days of such change.

Further, if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. And in addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the city by falsely representing that the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than \$5,000.00 and not more than \$10,000, or both.

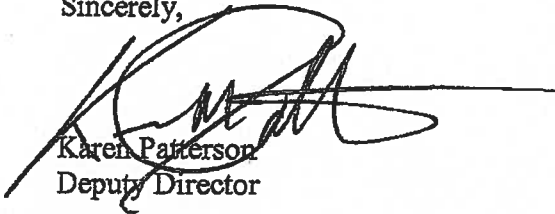
Your firm is listed in the City's Directory of Minority Business Enterprises and Women Business Enterprises in the specialty area(s) of:

**INTERSTATE AND INTRASTATE TRUCKING; STORAGE AND
WAREHOUSING**

Your firm's participation on City contracts will be credited only toward Women Business Enterprise (WBE) goals in your area(s) of specialty. While your participation on City contracts is not limited to your specialty, credit toward Women Business Enterprise (WBE) goal will be given only for work done in a specialty category.

Thank you for your continued participation in the City's Supplier Diversity Program.

Sincerely,



Karen Patterson
Deputy Director

333 S. State St., Suite 540, Chicago, IL 60604 • (312) 747-7778

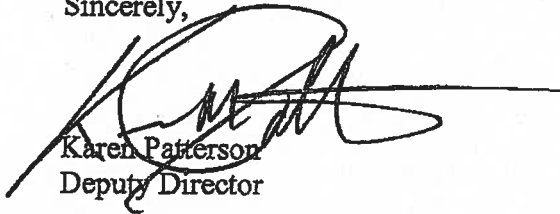
www.cityofchicago.org/compliance

**INTERSTATE AND INTRASTATE TRUCKING; STORAGE AND
WAREHOUSING**

Your firm's participation on City contracts will be credited only toward Women Business Enterprise (WBE) goals in your area(s) of specialty. While your participation on City contracts is not limited to your specialty, credit toward Women Business Enterprise (WBE) goal will be given only for work done in a specialty category.


Thank you for your continued participation in the City's Supplier Diversity Program.

Sincerely,



Karen Patterson
Deputy Director

Vendor Information

CLOSE WINDOW  HELP**Vendor Information**

Business Name J & J Motor Service, Inc., DBA J&J Motor Service, Inc.

Owner Nancy L Murphy

Address 2338 South Indiana Avenue
> [Map This Address](#) Chicago, IL 60616-2445

Phone 312-225-3323

Fax 312-225-9873

Email carol@jjmotor.com

Website www.jjmotor.com

Certification Information

Certifying Agency City of Chicago

Certification Type WBE - Women Business Enterprise

Certification Date 7/28/2011

Renewal Date 8/1/2012

Expiration Date 8/1/2012

Certified Business Description Interstate and Intrastate Trucking; Storage and Warehousing

Commodity Codes

Code	Description
NIGP 96239	Hauling Services
NIGP 96286	Transportation of Goods (Freight)
NIGP 96295	Warehousing and Storage Services (Not Storage Space Rental)
NIGP 97170	Storage Space Rental

**New Bedford Panoramex Corporation's
Adherence to City of Chicago
Insurance Requirements**



1480 N. Claremont Blvd
Claremont, CA 91711

V 909 982 9806

F 909 985 6217

www.nbpcorp.com

04 May 2012

Ms. Jamie L. Rhee
Chief Procurement Officer
City Hall, Room #403
121 North LaSalle Street
Chicago, IL 60602-1284

Dear Ms. Rhee:

Enclosed please find New Bedford Panoramex's (NBP's) insurance certificates as evidence of our compliance with the "City of Chicago - O'Hare Modernization Program" insurance requirements (per attached statement).

Should you have any questions or require additional information, please contact the undersigned at 909-982-9806, ext. 205 or jrassouli@nbpcorp.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Javad Rassouli'. The signature is written in a cursive, flowing style.

Javad Rassouli
Executive Vice President

Encl.

CONTRACT INSURANCE REQUIREMENTS
O'Hare Modernization Program
New Bedford Panoramex Corporation (New Bedford)

New Bedford must provide and maintain at New Bedford's own expense, until Contract completion and during the time period following final completion if New Bedford is required to return and perform any additional work, the insurance coverage and requirements specified below, insuring all operations related to the Contract.

A. INSURANCE TO BE PROVIDED

1) Workers Compensation and Employers Liability

Workers Compensation Insurance, as prescribed by applicable law covering all employees who are to provide work under this Contract and Employers Liability coverage with limits of not less than \$100,000 each accident, illness or disease.

2) Commercial General Liability (Primary and Umbrella)

Commercial General Liability Insurance or equivalent with limits of not less than \$1,000,000 per occurrence for bodily injury, personal injury, and property damage liability. Coverage must include the following: All premises and operations, products/completed operations, independent contractors, separation of insured, defense, and contractual liability (with no limitation endorsement). The City of Chicago, DMJM Aviation Partners JV, and Parsons Brinkerhoff Construction Services are to be named as an additional insured and others as required by the City on a primary, non-contributory basis for any liability arising directly or indirectly from the work.

3) Automobile Liability (Primary and Umbrella)

When any motor vehicles (owned, non-owned and hired) are used in connection with work to be performed, the New Bedford must provide Automobile Liability Insurance with limits of not less than \$1,000,000 per occurrence for bodily injury and property damage. The City of Chicago, DMJM Aviation Partners JV, and Parsons Brinkerhoff Construction Services are to be named as an additional insured and others as required by the City on a primary, non-contributory basis.

4) Property

New Bedford is responsible for all loss or damage to City property including the specified equipment at full replacement cost while in New Bedford's care, custody or control.

B. ADDITIONAL REQUIREMENTS

New Bedford must furnish the City of Chicago, O'Hare Modernization Program, 10510 West Zemke Road 60666, original Certificates of Insurance, or such similar evidence, to be in force on the date of this Contract, and Renewal Certificates of Insurance, or such similar evidence, if the coverage's have an expiration or renewal date occurring during the term of this Contract. New Bedford must submit evidence of insurance on the City of Chicago Insurance Certificate Form (copy attached) or equivalent prior to Contract award. The receipt of any certificate does not constitute agreement by the City that the insurance

CONTRACT INSURANCE REQUIREMENTS
O'Hare Modernization Program
New Bedford Panoramex Corporation (New Bedford)

New Bedford must provide and maintain at New Bedford's own expense, until Contract completion and during the time period following final completion if New Bedford is required to return and perform any additional work, the insurance coverage and requirements specified below, insuring all operations related to the Contract.

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requirements in the Contract have been fully met or that the insurance policies indicated on the certificate are in compliance with all Contract requirements. The failure of the City to obtain certificates or other insurance evidence from New Bedford is not a waiver by the City of any requirements for New Bedford to obtain and maintain the specified coverage's. New Bedford shall advise all insurers of the Contract provisions regarding insurance. Non-conforming insurance does not relieve New Bedford of the obligation to provide insurance as specified herein. Non-fulfillment of the insurance conditions may constitute a violation of the Contract, and the City retains the right to stop work until proper evidence of insurance is provided, or the Contract may be terminated.

The insurance must provide for 60 days prior written notice to be given to the City in the event coverage is substantially changed, canceled, or non-renewed.

Any deductibles or self-insured retentions on referenced insurance coverage's must be borne by New Bedford.

New Bedford hereby waives and agrees to require their insurers to waive their rights of subrogation against the City of Chicago, its employees, elected officials, agents, or representatives.

The coverage's and limits furnished by New Bedford in no way limit the New Bedford's liabilities and responsibilities specified within the Contract or by law.

Any insurance or self-insurance programs maintained by the City of Chicago do not contribute with insurance provided by the New Bedford under the Contract.

The required insurance to be carried is not limited by any limitations expressed in the indemnification language in this Contract or any limitation placed on the indemnity in this Contract given as a matter of law.

If New Bedford is a joint venture or limited liability company, the insurance policies must name the joint venture or limited liability company as a named insured.

New Bedford must require all subcontractors to provide the insurance required herein, or New Bedford may provide the coverage's for subcontractors. All subcontractors are subject to the same insurance requirements of New Bedford unless otherwise specified in this Contract.

If New Bedford or subcontractor desires additional coverage's, the party desiring the additional coverage's is responsible for the acquisition and cost.

The City of Chicago Risk Management Department maintains the right to modify, delete, alter or change these requirements.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
5/3/2012

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Precision Manufacturing Insurance Services 908 S. Village Oaks Dr. Suite 250 Covina CA 91724	CONTACT NAME: Lee Neault PHONE (A/C No. Ext): (626) 217-9000 FAX (A/C. No): (626) 217-9999 E-MAIL ADDRESS: Lee@pmi-services.com	
	INSURER(S) AFFORDING COVERAGE	
INSURED New Bedford Panoramex 1480 N. Claremont Blvd. Claremont CA 91711	INSURER A Nova Casualty Company	
	INSURER B National Union Fire Insurance	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES CERTIFICATE NUMBER: CL11111000407 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY			M51-CL-0010008-0	10/31/2011	10/31/2012	EACH OCCURRENCE \$ 1,000,000	
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	X					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000	
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$ 10,000	
							PERSONAL & ADV INJURY \$ 1,000,000	
GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC	GENERAL AGGREGATE \$ 2,000,000							
A	AUTOMOBILE LIABILITY			M51-CL-0010008-0	10/31/2011	10/31/2012	PRODUCTS - COMP/OP AGG \$ EXCLUDED	
	<input checked="" type="checkbox"/> ANY AUTO						COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000	
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per person) \$	
	<input checked="" type="checkbox"/> HIRED AUTOS						<input checked="" type="checkbox"/> SCHEDULED AUTOS	BODILY INJURY (Per accident) \$
							<input type="checkbox"/> NON-OWNED AUTOS	PROPERTY DAMAGE (Per accident) \$
				Uninsured motorist combined \$ 1,000,000				
B	UMBRELLA LIAB			BE042833912	10/31/2011	10/31/2012	EACH OCCURRENCE \$ 5,000,000	
	EXCESS LIAB						AGGREGATE \$ 5,000,000	
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			M33-WK-0010017-1	9/1/2011	9/1/2012	WC STATUTORY LIMITS	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)		N/A				OTHER	
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. EACH ACCIDENT \$ 1,000,000	
							E.L. DISEASE - EA EMPLOYEE \$ 1,000,000	
B	Aviation Products Liab.			AP003791345-04	10/31/2011	10/31/2012	E.L. DISEASE - POLICY LIMIT \$ 1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
 The City of Chicago, DMJM Aviation Partners JV and Parsons Brinkerhoff Construction Services are named as Additional Insured and others as required by the city on a primary, non-contributory basis for any liability arising directly or indirectly from the work.

CERTIFICATE HOLDER City of Chicago O'Hare Modernization Program 10510 West Zemke Road Chicago, IL 60666	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE Lee Neault/HLN

**New Bedford Panoramex Corporations's
Economic Disclosure
Statement and Affidavit**

SECTION I -- GENERAL INFORMATION

A. Legal name of Disclosing Party submitting this EDS. Include d/b/a/ if applicable:

New Bedford Panoramex Corp.

Check ONE of the following three boxes

Indicate whether Disclosing Party submitting this EDS is:

- 1 the Applicant
OR
- 2 a legal entity holding a direct or indirect interest in the Applicant. State the legal name of the Applicant in which Disclosing Party holds an interest. _____
OR
- 3 a specified legal entity with a right of control (see Section II B.1.b) State the legal name of the entity in which Disclosing Party holds a right of control: _____

B. Business address of Disclosing Party: 1480 N. Claremont Blvd. – Claremont, California 91711

C. Telephone. 909-982-9806 Fax: 909-985-6217 Email: j rassouli@nbpcorp.com

D. Name of contact person: Javad Rassouli

E. Federal Employer Identification No. (if you have one). 95-2777438

F. Brief description of contract, transaction or other undertaking (referred to below as the "Matter") to which this EDS pertains. (Include project number and location of property, if applicable):

Procurement of ALSF-2 – High Intensity Approach Lighting Systems

G. Which City agency or department is requesting this EDS? Department of Procurement Services

If the Matter is a contract being handled by the City's Department of Procurement Services, please complete the following:

Specification # 51476 and Contract # TBD

SECTION II -- DISCLOSURE OF OWNERSHIP INTERESTS

A. NATURE OF DISCLOSING PARTY

1. Indicate the nature of the Disclosing Party:

- | | |
|---|--|
| <input type="checkbox"/> Person | <input type="checkbox"/> Limited liability company* |
| <input type="checkbox"/> Publicly registered business corporation | <input type="checkbox"/> Limited liability partnership* |
| <input checked="" type="checkbox"/> Privately held business corporation | <input type="checkbox"/> Joint venture* |
| <input type="checkbox"/> Sole proprietorship | <input type="checkbox"/> Not-for-profit corporation |
| <input type="checkbox"/> General partnership* | (Is the not-for-profit corporation also a 501(c)(3))? |
| <input type="checkbox"/> Limited partnership* | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="checkbox"/> Trust | <input type="checkbox"/> Other (please specify) |

2. For legal entities, the state (or foreign country) of incorporation or organization, if applicable
California

* Note B.1.b below.

3. For legal entities not organized in the State of Illinois* Has the organization registered to do business in the State of Illinois as a foreign entity?

Yes No N/A

B. IF THE DISCLOSING PARTY IS A LEGAL ENTITY

1 a. List below the full names and titles of all executive officers and all directors of the entity. For not-for-profit corporations, also list below all members, if any, which are legal entities If there are no such members, write "no members." For trusts, estates or other similar entities, list below the legal titleholder(s).

Name	Title
Steve R. Ozuna	President & Director
Javad Rassouli	Executive V P. & Director
Thomas Bryan	Director
James Casso	Director

1 b. If you checked "General partnership," "Limited partnership," "Limited liability company," "Limited liability partnership" or "Joint venture" in response to Item A.1. above (Nature of Disclosing Party), list below the name and title of each general partner, managing member, manager or any other person or entity that controls the day-to-day management of the Disclosing Party. NOTE. Each legal entity listed below must submit an EDS on its own behalf.

Name	Title

2. Please provide the following information concerning each person or entity having a direct or indirect beneficial interest (including ownership) in excess of 7 5% of the Disclosing Party. Examples of such an interest include shares in a corporation, partnership interest in a partnership or joint venture, interest of a member or manager in a limited liability company, or interest of a beneficiary of a trust, estate or other similar entity. If none, state "None."

NOTE: Pursuant to Section 2-154-030 of the Municipal Code of Chicago ("Municipal Code"), the City may require any such additional information from any applicant which is reasonably intended to achieve full disclosure.

Name	Business Address	Percentage Interest in the Disclosing Party
Steven R. Ozuna	1480 N. Claremont Blvd., Claremont CA 91711	100%

3. For legal entities not organized in the State of Illinois* Has the organization registered to do business in the State of Illinois as a foreign entity?
 Yes No N/A

B. IF THE DISCLOSING PARTY IS A LEGAL ENTITY

1 a. List below the full names and titles of all executive officers and all directors of the entity. For not-for-profit corporations, also list below all members, if any, which are legal entities If there are no such members, write "no members." For trusts, estates or other similar entities, list below the legal titleholder(s).

Name	Title
Steve R. Ozuna	President & Director
Javad Rassouli	Executive V P. & Director
Thomas Bryan	Director
James Casso	Director

1 b. If you checked "General partnership," "Limited partnership," "Limited liability company," "Limited liability partnership" or "Joint venture" in response to Item A.1. above (Nature of Disclosing Party), list below the name and title of each general partner, managing member, manager or any other person or entity that controls the day-to-day management of the Disclosing Party. NOTE. Each legal entity listed below must submit an EDS on its own behalf.

Name	Title

2. Please provide the following information concerning each person or entity having a direct or indirect beneficial interest (including ownership) in excess of 7 5% of the Disclosing Party. Examples of such an interest include shares in a corporation, partnership interest in a partnership or joint venture, interest of a member or manager in a limited liability company, or interest of a beneficiary of a trust, estate or other similar entity. If none, state "None."

NOTE: Pursuant to Section 2-154-030 of the Municipal Code of Chicago ("Municipal Code"), the City may require any such additional information from any applicant which is reasonably intended to achieve full disclosure.

Name	Business Address	Percentage Interest in the Disclosing Party
Steven R. Ozuna	1480 N. Claremont Blvd., Claremont CA 91711	100%

SECTION III -- BUSINESS RELATIONSHIPS WITH CITY ELECTED OFFICIALS

Has the Disclosing Party had a "business relationship," as defined in Chapter 2-156 of the Municipal Code, with any City elected official in the 12 months before the date this EDS is signed?

Yes No

If yes, please identify below the name(s) of such City elected official(s) and describe such relationship(s):

SECTION IV -- DISCLOSURE OF SUBCONTRACTORS AND OTHER RETAINED PARTIES

The Disclosing Party must disclose the name and business address of each subcontractor, attorney, lobbyist, accountant, consultant and any other person or entity whom the Disclosing Party has retained or expects to retain in connection with the Matter, as well as the nature of the relationship, and the total amount of the fees paid or estimated to be paid. The Disclosing Party is not required to disclose employees who are paid solely through the Disclosing Party's regular payroll.

"Lobbyist" means any person or entity who undertakes to influence any legislative or administrative action on behalf of any person or entity other than (1) a not-for-profit entity, on an unpaid basis, or (2) himself "Lobbyist" also means any person or entity any part of whose duties as an employee of another includes undertaking to influence any legislative or administrative action.

If the Disclosing Party is uncertain whether a disclosure is required under this Section, the Disclosing Party must either ask the City whether disclosure is required or make the disclosure.

Name (indicate whether retained or anticipated to be retained)	Business Address	Relationship to Disclosing Party (subcontractor, attorney, lobbyist, etc.)	Fees (indicate whether paid or estimated)
J&J Motor Service (to be retained)	2338 S. Indiana Ave. Chicago, Illinois, 60616	Subcontractor (WBE)	\$20,000 (Estimated)

(Add sheets if necessary)

Check here if the Disclosing party has not retained, nor expects to retain, any such persons or entities.

SECTION V -- CERTIFICATIONS

A. COURT-ORDERED CHILD SUPPORT COMPLIANCE

Under Municipal Code Section 2-92-415, substantial owners of business entities that contract with the City must remain in compliance with their child support obligations throughout the term of the contract.

Has any person who directly or indirectly owns 10% or more of the Disclosing Party been declared in arrearage on any child support obligations by any Illinois court of competent jurisdiction?

Yes No No person owns 10% or more of the Disclosing Party.

If "Yes," has the person entered into a court-approved agreement for payment of all support owed and is the person in compliance with that agreement?

Yes No

B. FURTHER CERTIFICATIONS

1. The Disclosing Party and, if the Disclosing Party is a legal entity, all of those persons or entities identified in Section II.B 1 of this EDS:

- a. are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from any transactions by any federal, state or local unit of government;
- b. have not, within a five-year period preceding the date of this EDS, been convicted of a criminal offense, adjudged guilty, or had a civil judgment rendered against them in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; a violation of federal or state antitrust statutes; fraud; embezzlement; theft; forgery; bribery; falsification or destruction of records; making false statements, or receiving stolen property;
- c. are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in clause B.1.b. of this Section V;
- d. have not, within a five-year period preceding the date of this EDS, had one or more public transactions (federal, state or local) terminated for cause or default; and
- e. have not, within a five-year period preceding the date of this EDS, been convicted, adjudged guilty, or found liable in a civil proceeding, or in any criminal or civil action, including actions concerning environmental violations, instituted by the City or by the federal government, any state, or any other unit of local government.

2. The certifications in subparts 2, 3 and 4 concern:

- the Disclosing Party;
- any "Applicable Party" (meaning any party participating in the performance of the Matter, including but not limited to any persons or legal entities disclosed under Section IV, "Disclosure of Subcontractors and Other Retained Parties");
- any "Affiliated Entity" (meaning a person or entity that, directly or indirectly: controls the Disclosing Party, is controlled by the Disclosing Party, or is, with the Disclosing Party, under common control of another person or entity. indicia of control include, without limitation: interlocking management or ownership; identity of interests among family members, shared facilities and equipment; common use of employees; or organization of a business entity following the ineligibility of a business entity to do business with federal or state or local government, including the City, using substantially the same management, ownership, or principals as the ineligible entity); with respect to Applicable Parties, the term Affiliated Entity means a person or entity that directly or indirectly controls the Applicable Party, is controlled by it, or, with the Applicable Party, is under common control of another person or entity;
- any responsible official of the Disclosing Party, any Applicable Party or any Affiliated Entity or any other official, agent or employee of the Disclosing Party, any Applicable Party or any Affiliated Entity, acting pursuant to the direction or authorization of a responsible official of the Disclosing Party, any Applicable Party or any Affiliated Entity (collectively "Agents").

Neither the Disclosing Party, nor any Applicable Party, nor any Affiliated Entity of either the Disclosing Party or any Applicable Party nor any Agents have, during the five years before the date this EDS is signed, or, with respect to an Applicable Party, an Affiliated Entity, or an Affiliated Entity of an Applicable Party during the five years before the date of such Applicable Party's or Affiliated Entity's contract or engagement in connection with the Matter

Has any person who directly or indirectly owns 10% or more of the Disclosing Party been declared in arrearage on any child support obligations by any Illinois court of competent jurisdiction?

Yes No No person owns 10% or more of the Disclosing Party.

If "Yes," has the person entered into a court-approved agreement for payment of all support owed and is the person in compliance with that agreement?

Yes No

B. FURTHER CERTIFICATIONS

1. The Disclosing Party and, if the Disclosing Party is a legal entity, all of those persons or entities identified in Section II.B 1 of this EDS:

a. are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from any transactions by any federal, state or local unit of government;

b. have not, within a five-year period preceding the date of this EDS, been convicted of a criminal offense, adjudged guilty, or had a civil judgment rendered against them in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; a violation of federal or state antitrust statutes; fraud; embezzlement; theft; forgery; bribery; falsification or destruction of records; making false statements, or receiving stolen property;

c. are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in clause B.1.b. of this Section V;

d. have not, within a five-year period preceding the date of this EDS, had one or more public transactions (federal, state or local) terminated for cause or default; and

e. have not, within a five-year period preceding the date of this EDS, been convicted, adjudged guilty, or found liable in a civil proceeding, or in any criminal or civil action, including actions concerning environmental violations, instituted by the City or by the federal government, any state, or any other unit of local government.

2. The certifications in subparts 2, 3 and 4 concern:

- the Disclosing Party;
- any "Applicable Party" (meaning any party participating in the performance of the Matter, including but not limited to any persons or legal entities disclosed under Section IV, "Disclosure of Subcontractors and Other Retained Parties");
- any "Affiliated Entity" (meaning a person or entity that, directly or indirectly: controls the Disclosing Party, is controlled by the Disclosing Party, or is, with the Disclosing Party, under common control of another person or entity. indicia of control include, without limitation: interlocking management or ownership; identity of interests among family members, shared facilities and equipment; common use of employees; or organization of a business entity following the ineligibility of a business entity to do business with federal or state or local government, including the City, using substantially the same management, ownership, or principals as the ineligible entity); with respect to Applicable Parties, the term Affiliated Entity means a person or entity that directly or indirectly controls the Applicable Party, is controlled by it, or, with the Applicable Party, is under common control of another person or entity;
- any responsible official of the Disclosing Party, any Applicable Party or any Affiliated Entity or any other official, agent or employee of the Disclosing Party, any Applicable Party or any Affiliated Entity, acting pursuant to the direction or authorization of a responsible official of the Disclosing Party, any Applicable Party or any Affiliated Entity (collectively "Agents").

Neither the Disclosing Party, nor any Applicable Party, nor any Affiliated Entity of either the Disclosing Party or any Applicable Party nor any Agents have, during the five years before the date this EDS is signed, or, with respect to an Applicable Party, an Affiliated Entity, or an Affiliated Entity of an Applicable Party during the five years before the date of such Applicable Party's or Affiliated Entity's contract or engagement in connection with the Matter

- a. bribed or attempted to bribe, or been convicted or adjudged guilty of bribery or attempting to bribe, a public officer or employee of the City, the State of Illinois, or any agency of the federal government or of any state or local government in the United States of America, in that officer's or employee's official capacity;
- b. agreed or colluded with other bidders or prospective bidders, or been a party to any such agreement, or been convicted or adjudged guilty of agreement or collusion among bidders or prospective bidders, in restraint of freedom of competition by agreement to bid a fixed price or otherwise; or
- c. made an admission of such conduct described in a or b. above that is a matter of record, but have not been prosecuted for such conduct, or
- d. violated the provisions of Municipal Code Section 2-92-610 (Living Wage Ordinance)

3. Neither the Disclosing Party, Affiliated Entity or Applicable Party, or any of their employees, officials, agents or partners, is barred from contracting with any unit of state or local government as a result of engaging in or being convicted of (1) bid-rigging in violation of 720 ILCS 5/33E-3; (2) bid-rotating in violation of 720 ILCS 5/33E-4, or (3) any similar offense of any state or of the United States of America that contains the same elements as the offense of bid-rigging or bid-rotating.

4. Neither the Disclosing Party nor any Affiliated Entity is listed on any of the following lists maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury or the Bureau of Industry and Security of the U.S. Department of Commerce or their successors: the Specially Designated Nationals List, the Denied Persons List, the Unverified List, the Entity List and the Debarred List.

5. The Disclosing Party understands and shall comply with (1) the applicable requirements of the Governmental Ethics Ordinance of the City, Title 2, Chapter 2-156 of the Municipal Code; and (2) all the applicable provisions of Chapter 2-56 of the Municipal Code (Office of the Inspector General).

6. If the Disclosing Party is unable to certify to any of the above statements in this Part B (Further Certifications), *the* Disclosing Party must explain below.

If the letters "NA," the word "None," or no response appears on the lines above, it will be conclusively presumed that the Disclosing Party certified to the above statements.

C. CERTIFICATION OF STATUS AS FINANCIAL INSTITUTION

For purposes of this Part C, under Municipal Code Section 2-32-455(b), the term "financial institution" means a bank, savings and loan association, thrift, credit union, mortgage banker, mortgage broker, trust company, savings bank, investment bank, securities broker, municipal securities broker, securities dealer, municipal securities dealer, securities underwriter, municipal securities underwriter, investment trust, venture capital company, bank holding company, financial services holding company, or any licensee under the Consumer Installment Loan Act, the Sales Finance Agency Act, or the Residential Mortgage Licensing Act. However, "financial institution" specifically shall not include any entity whose predominant business is the providing of tax deferred, defined contribution, pension plans to public employees in accordance with Sections 403(b) and 457 of the Internal Revenue Code (Additional definitions may be found in Municipal Code Section 2-32-455(b))

1. CERTIFICATION

The Disclosing Party certifies that the Disclosing Party (check one)

is is not

a "financial institution" as defined in Section 2-32-455(b) of the Municipal Code.

2. If the Disclosing Party IS a financial institution, then the Disclosing Party pledges.

"We are not and will not become a predatory lender as defined in Chapter 2-32 of the Municipal Code. We further pledge that none of our affiliates is, and none of them will become, a predatory lender as defined in Chapter 2-32 of the Municipal Code. We understand that becoming a predatory lender or becoming an affiliate of a predatory lender may result in the loss of the privilege of doing business with the City."

If the Disclosing Party is unable to make this pledge because it or any of its affiliates (as defined in Section 2-32-455(b) of the Municipal Code) is a predatory lender within the meaning of Chapter 2-32 of the Municipal Code, explain here (attach additional pages if necessary).

If the letters "NA," the word "None," or no response appears on the lines above, it will be conclusively presumed that the Disclosing Party certified to the above statements

D. CERTIFICATION REGARDING INTEREST IN CITY BUSINESS

Any words or terms that are defined in Chapter 2-156 of the Municipal Code have the same meanings when used in this Part D.

1. In accordance with Section 2-156-110 of the Municipal Code: Does any official or employee of the City have a financial interest in his or her own name or in the name of any other person or entity in the Matter?

Yes No

NOTE: If you checked "Yes" to Item D.1, proceed to Items D.2. and 0 3. If you checked "No" to Item D.1., proceed to Part E.

2. Unless sold pursuant to a process of competitive bidding, or otherwise permitted, no City elected official or employee shall have a financial interest in his or her own name or in the name of any other person or entity in the purchase of any property that (i) belongs to the City, or (ii) is sold for taxes or assessments, or (iii) is sold by virtue of legal process at the suit of the City (collectively, "City Property Sale"). Compensation for property taken pursuant to the City's eminent domain power does not constitute a financial interest within the meaning of this Part D.

Does the Matter involve a City Property Sale?

Yes No

3. If you checked "Yes" to Item 0.1., provide the names and business addresses of the City officials or employees having such interest and identify the nature of such interest

Name	Business Address	Nature of Interest
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. The Disclosing Party further certifies that no prohibited financial interest in the Matter will be acquired by any City official or employee.

2. If the Disclosing Party IS a financial institution, then the Disclosing Party pledges.

"We are not and will not become a predatory lender as defined in Chapter 2-32 of the Municipal Code. We further pledge that none of our affiliates is, and none of them will become, a predatory lender as defined in Chapter 2-32 of the Municipal Code. We understand that becoming a predatory lender or becoming an affiliate of a predatory lender may result in the loss of the privilege of doing business with the City."

If the Disclosing Party is unable to make this pledge because it or any of its affiliates (as defined in Section 2-32-455(b) of the Municipal Code) is a predatory lender within the meaning of Chapter 2-32 of the Municipal Code, explain here (attach additional pages if necessary).

If the letters "NA," the word "None," or no response appears on the lines above, it will be conclusively presumed that the Disclosing Party certified to the above statements

D. CERTIFICATION REGARDING INTEREST IN CITY BUSINESS

Any words or terms that are defined in Chapter 2-156 of the Municipal Code have the same meanings when used in this Part D.

1. In accordance with Section 2-156-110 of the Municipal Code: Does any official or employee of the City have a financial interest in his or her own name or in the name of any other person or entity in the Matter?

Yes No

NOTE: If you checked "Yes" to Item D.1, proceed to Items D.2. and 0 3. If you checked "No" to Item D.1., proceed to Part E.

2. Unless sold pursuant to a process of competitive bidding, or otherwise permitted, no City elected official or employee shall have a financial interest in his or her own name or in the name of any other person or entity in the purchase of any property that (i) belongs to the City, or (ii) is sold for taxes or assessments, or (iii) is sold by virtue of legal process at the suit of the City (collectively, "City Property Sale"). Compensation for property taken pursuant to the City's eminent domain power does not constitute a financial interest within the meaning of this Part D.

Does the Matter involve a City Property Sale?

Yes No

3. If you checked "Yes" to Item 0.1., provide the names and business addresses of the City officials or employees having such interest and identify the nature of such interest

Name	Business Address	Nature of Interest

4. The Disclosing Party further certifies that no prohibited financial interest in the Matter will be acquired by any City official or employee.

E CERTIFICATION REGARDING SLAVERY ERA BUSINESS

The Disclosing Party has searched any and all records of the Disclosing Party and any and all predecessor entities for records of investments or profits from slavery, the slave industry, or slaveholder insurance policies from the slavery era (including insurance policies issued to slaveholders that provided coverage for damage to or injury or death of their slaves) and has disclosed in this EDS any and all such records to the City. In addition, the Disclosing Party must disclose the names of any and all slaves or slaveholders described in those records. Failure to comply with these disclosure requirements may make the Matter to which this EDS pertains voidable by the City.

Please check either 1. or 2. below. If the Disclosing Party checks 2., the Disclosing Party must disclose below or in an attachment to this EDS all requisite information as set forth in that paragraph 2

X 1. The Disclosing Party verifies that (a) the Disclosing Party has searched any and all records of the Disclosing Party and any and all predecessor entities for records of investments or profits from slavery, the slave industry, or slaveholder insurance policies, and (b) the Disclosing Party has found no records of investments or profits from slavery, the slave industry, or slaveholder insurance policies and no records of names of any slaves or slaveholders.

2. The Disclosing Party verifies that, as a result of conducting the search in step 1(a) above, the Disclosing Party has found records relating to investments or profits from slavery, the slave industry, or slaveholder insurance policies and/or the names of any slaves or slaveholders. The Disclosing Party verifies that the following constitutes full disclosure of all such records:

SECTION VI – CERTIFICATIONS FOR FEDERALLY-FUNDED MATTERS

NOTE. If the Matter is federally funded, complete this Section VI. If the Matter is not federally funded, proceed to Section VII.

A. CERTIFICATION REGARDING LOBBYING

1. List below the names of all persons or entities registered under the federal Lobbying Disclosure Act of 1995 who have made lobbying contacts on behalf of the Disclosing Party with respect to the Matter (Begin list here, add sheets as necessary):

None

(If no explanation appears or begins on the lines above, or if the letters "NA" or if the word "None" appear, it will be conclusively presumed that the Disclosing Party means that NO persons or entities registered under the Lobbying Disclosure Act of 1995 have made lobbying contacts on behalf of the Disclosing Party with respect to the Matter)

2. The Disclosing Party has not spent and will not expend any federally appropriated funds to pay any person or entity listed in Paragraph A.1 above for his or her lobbying activities or to pay any person or entity to influence or attempt to influence an officer or employee of any agency, as defined by applicable federal law, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress, in connection with the award of any federally funded contract, making any federally funded grant or loan, entering into any cooperative agreement, or to extend, continue renew, amend, or modify any federally funded contract, grant, loan, or cooperative agreement

3. The Disclosing Party will submit an updated certification at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the statements and information set forth in paragraphs A.1 and A 2 above.

If the Matter is federally funded and any funds other than federally appropriated funds have been or will be paid to any person or entity for influencing or attempting to influence an officer or employee of any agency (as defined by applicable federal law), a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the Matter, the Disclosing Party must complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. The form may be obtained online from the federal Office of Management and Budget (OMB) web site at <http://www.whitehouse.gov/omb/grants/sfilin.pdf> linked on the page <http://www.whitehouse.gov/omb/orants/grants/forms.html>.

4. The Disclosing Party certifies that either: (i) it is not an organization described in section 501(c)(4) of the Internal Revenue Code of 1986; or (ii) it is an organization described in section 501(c)(4) of the Internal Revenue Code of 1986 but has not engaged and will not engage in "Lobbying Activities"

5. If the Disclosing Party is the Applicant, the Disclosing Party must obtain certifications equal in form and substance to paragraphs A.1. through A.4. above from all subcontractors before it awards any subcontract and the Disclosing Party must maintain all such subcontractors' certifications for the duration of the Matter and must make such certifications promptly available to the City upon request.

B. CERTIFICATION REGARDING EQUAL EMPLOYMENT OPPORTUNITY

If the Matter is federally funded, federal regulations require the Applicant and all proposed subcontractors to submit the following information with their bids or in writing at the outset of negotiations.

Is the Disclosing Party the Applicant?

Yes No

If "Yes," answer the three questions below:

1. Have you developed and do you have on file affirmative action programs pursuant to applicable federal regulations? (See 41 CFR Part 60-2.)

Yes No

2. Have you filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance Programs, or the Equal Employment Opportunity Commission all reports due under the applicable filing requirements?

Yes No *

3. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause?

Yes No

If you checked "No" to question 1 or 2 above, please provide an explanation:

* **NBP** has less than 40 employees

SECTION VII -- ACKNOWLEDGMENTS, CONTRACT INCORPORATION, COMPLIANCE, PENALTIES, DISCLOSURE

The Disclosing Party understands and agrees that

A. By completing and filing this EDS, the Disclosing Party acknowledges and agrees, on behalf of itself and the persons or entities named in this EDS, that the City may investigate the creditworthiness of some or all of the persons or entities named in this EDS.

3. The Disclosing Party will submit an updated certification at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the statements and information set forth in paragraphs A.1 and A 2 above.

If the Matter is federally funded and any funds other than federally appropriated funds have been or will be paid to any person or entity for influencing or attempting to influence an officer or employee of any agency (as defined by applicable federal law), a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the Matter, the Disclosing Party must complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. The form may be obtained online from the federal Office of Management and Budget (OMB) web site at <http://www.whitehouse.gov/omb/grants/sfilin.pdf> linked on the page <http://www.whitehouse.gov/omb/orants/grants forms html>.

4. The Disclosing Party certifies that either: (i) it is not an organization described in section 501(c)(4) of the Internal Revenue Code of 1986; or (ii) it is an organization described in section 501(c)(4) of the Internal Revenue Code of 1986 but has not engaged and will not engage in "Lobbying Activities"

5. If the Disclosing Party is the Applicant, the Disclosing Party must obtain certifications equal in form and substance to paragraphs A.1. through A.4. above from all subcontractors before it awards any subcontract and the Disclosing Party must maintain all such subcontractors' certifications for the duration of the Matter and must make such certifications promptly available to the City upon request.

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If the Matter is federally funded, federal regulations require the Applicant and all proposed subcontractors to submit the following information with their bids or in writing at the outset of negotiations.

Is the Disclosing Party the Applicant?

Yes No

If "Yes," answer the three questions below:

1. Have you developed and do you have on file affirmative action programs pursuant to applicable federal regulations? (See 41 CFR Part 60-2.)

Yes No

2. Have you filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance Programs, or the Equal Employment Opportunity Commission all reports due under the applicable filing requirements?

Yes No *

3. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause?

Yes No

If you checked "No" to question 1 or 2 above, please provide an explanation:

* **NBP has less than 40 employees**

SECTION VII -- ACKNOWLEDGMENTS, CONTRACT INCORPORATION, COMPLIANCE, PENALTIES, DISCLOSURE

The Disclosing Party understands and agrees that

A. By completing and filing this EDS, the Disclosing Party acknowledges and agrees, on behalf of itself and the persons or entities named in this EDS, that the City may investigate the creditworthiness of some or all of the persons or entities named in this EDS.

B. The certifications, disclosures, and acknowledgments contained in this EDS will become part of any contract or other agreement between the Applicant and the City in connection with the Matter, whether procurement, City assistance, or other City action, and are material inducements to the City's execution of any contract or taking other action with respect to the Matter. The Disclosing Party understands that it must comply with all statutes, ordinances, and regulations on which this EDS is based.

C. The City's Governmental Ethics and Campaign Financing Ordinances, Chapters 2-156 and 2-164 of the Municipal Code, impose certain duties and obligations on persons or entities seeking City contracts, work, business, or transactions. The full text of these ordinances and a training program is available on line at www.cityofchicago.org/Ethics, and may also be obtained from the City's Board of Ethics, 740 N Sedgwick St., Suite 500, Chicago, IL 60610, (312) 744-9660. The Disclosing Party must comply fully with the applicable ordinances

D. If the City determines that any information provided in this EDS is false, incomplete or inaccurate, any contract or other agreement in connection with which it is submitted may be rescinded or be void or voidable, and the City may pursue any remedies under the contract or agreement (if not rescinded, void or voidable), at law, or in equity, including terminating the Disclosing Party's participation in the Matter and/or declining to allow the Disclosing Party to participate in other transactions with the City. Remedies at law for a false statement of material fact may include incarceration and an award to the City of treble damages.

E. It is the City's policy to make this document available to the public on its Internet site and/or upon request. Some or all of the information provided on this EDS and any attachments to this EDS may be made available to the public on the Internet, in response to a Freedom of Information Act request, or otherwise. By completing and signing this EDS, the Disclosing Party waives and releases any possible rights or claims which it may have against the City in connection with the public release of information contained in this EDS and also authorizes the City to verify the accuracy of any information submitted in this EDS.

F. The information provided in this EDS must be kept current. In the event of changes, the Disclosing Party must supplement this EDS up to the time the City takes action on the Matter. If the Matter is a contract being handled by the City's Department of Procurement Services, the Disclosing Party must update this EDS as the contract requires.

The Disclosing Party represents and warrants that

G. The Disclosing Party has not withheld or reserved any disclosures as to economic interests in the Disclosing Party, or as to the Matter, or any information, data or plan as to the intended use or purpose for which the Applicant seeks City Council or other City agency action.

For purposes of the certifications in H.1 and H.2. below, the term "affiliate" means any person or entity that, directly or indirectly: controls the Disclosing Party, is controlled by the Disclosing Party, or is, with the Disclosing Party, under common control of another person or entity. Indicia of control include, without limitation: interlocking management or ownership; identity of interests among family members; shared facilities and equipment; common use of employees; or organization of a business entity following the ineligibility of a business entity to do business with the federal government or a state or local government, including the City, using substantially the same management, ownership, or principals as the ineligible entity.

H.1. The Disclosing Party is not delinquent in the payment of any tax administered by the Illinois Department of Revenue, nor are the Disclosing Party or its affiliates delinquent in paying any fine, fee, tax or other charge owed to the City. This includes, but is not limited to, all water charges, sewer charges, license fees, parking tickets, property taxes or sales taxes.

H.2. If the Disclosing Party is the Applicant, the Disclosing Party and its affiliates will not use, nor permit their subcontractors to use, any facility on the U.S. EPA's List of Violating Facilities in connection with the Matter for the duration of time that such facility remains on the list.

H.3. If the Disclosing Party is the Applicant, the Disclosing Party will obtain from any contractors/subcontractors hired or to be hired in connection with the Matter certifications equal in form and substance to those in H 1 and H 2 above and will not, without the prior written consent of the City, use any such contractor/subcontractor that does not provide such certifications or that the Disclosing Party has reason to believe has not provided or cannot provide truthful certifications

NOTE If the Disclosing Party cannot certify as to any of the items in H 1 , H 2 or H 3 above, an explanatory statement must be attached to this EDS.

Certification

Under penalty of perjury, the person signing below: (1) warrants that he/she is authorized to execute this EDS on behalf of the Disclosing Party, and (2) warrants that all certifications and statements contained in this EDS are true, accurate and complete as of the date furnished to the City

Disclosing Party: New Bedford Panoramex Corp.

05/04/2012

Signature:

Name: Javad Rassouli

Title: Executive Vice President

Signed and sworn to before me on Mat4, 2012 by *Javad Rassouli*, at Claremont, Los Angeles County, California.

Notary Public:



Commission Expires: Oct 15, 2013



BRYCE L. NIELSEN
Commission # 1866435
Notary Public - California
San Bernardino County
My comm. Expires Oct 15, 2013

Certification

Under penalty of perjury, the person signing below: (1) warrants that he/she is authorized to execute this EDS on behalf of the Disclosing Party, and (2) warrants that all certifications and statements contained in this EDS are true, accurate and complete as of the date furnished to the City

Disclosing Party: New Bedford Panoramex Corp.

05/04/2012

Signature:

Name: Javad Rassouli

Title: Executive Vice President

Signed and sworn to before me on Mat4, 2012 by *Javad Rassouli* , at Claremont, Los Angeles County, California.

Notary Public:



Commission Expires: Oct 15, 2013



BRYCE L. NIELSEN
Commission # 1866435
Notary Public - California
San Bernardino County
My comm. Expires Oct 15, 2013

Copied from 12/15/05 DPS Version of Law 11/01/05 Version

EXHIBIT 6

INSURANCE REQUIREMENTS AND CONTRACTOR'S INSURANCE CERTIFICATE

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CONTRACT INSURANCE REQUIREMENTS
O'Hare Modernization Program
New Bedford Panoramex Corporation (New Bedford)

New Bedford must provide and maintain at New Bedford's own expense, until Contract completion and during the time period following final completion if New Bedford is required to return and perform any additional work, the insurance coverages and requirements specified below, insuring all operations related to the Contract.

A. INSURANCE TO BE PROVIDED

1) Workers Compensation and Employers Liability

Workers Compensation Insurance, as prescribed by applicable law covering all employees who are to provide work under this Contract and Employers Liability coverage with limits of not less than \$100,000 each accident, illness or disease. Coverage shall include other states endorsement.

2) Commercial General Liability (Primary and Umbrella)

Commercial General Liability Insurance or equivalent with limits of not less than \$1,000,000 per occurrence for bodily injury, personal injury, and property damage liability. Coverages must include the following: All premises and operations, products/completed operations, independent contractors, separation of insureds, defense, and contractual liability (with no limitation endorsement). The City of Chicago, DMJM Aviation Partners JV, and Parsons Brinkerhoff Construction Services are to be named as an additional insured and others as required by the City on a primary, non-contributory basis for any liability arising directly or indirectly from the work.

3) Automobile Liability (Primary and Umbrella)

When any motor vehicles (owned, non-owned and hired) are used in connection with work to be performed, the New Bedford must provide Automobile Liability Insurance with limits of not less than \$1,000,000 per occurrence for bodily injury and property damage. The City of Chicago, DMJM Aviation Partners JV, and Parsons Brinkerhoff Construction Services are to be named as an additional insured and others as required by the City on a primary, non-contributory basis.

4) Property

New Bedford is responsible for all loss or damage to City property including the specified equipment at full replacement cost while in New Bedford's care, custody or control.

B. ADDITIONAL REQUIREMENTS

New Bedford must furnish the City of Chicago, O'Hare Modernization Program, 10510 West Zemke Road, PO Box 66848, Chicago, IL. 60666, original Certificates of Insurance, or such similar evidence, to be in force on the date of this Contract, and Renewal Certificates of Insurance, or such similar evidence, if the coverages have an expiration or renewal date occurring during the term of this Contract. New Bedford must submit evidence of insurance on the City of Chicago Insurance Certificate Form (copy attached) or equivalent prior to Contract award. The receipt of any certificate does not constitute agreement by the City that the insurance requirements in the Contract have been fully met or that the insurance policies indicated on the certificate are in compliance with all Contract requirements. The failure of the City to obtain certificates or other insurance evidence from New Bedford is not a waiver by the City of any requirements for New Bedford to obtain and maintain the specified coverages. New Bedford shall advise all insurers of the Contract provisions regarding insurance. Non-conforming insurance does not relieve New Bedford of the obligation to provide insurance as specified herein. Nonfulfillment of the insurance conditions may constitute a violation of the Contract, and the City retains the right to stop work until proper evidence of insurance is provided, or the Contract may be terminated.

The insurance must provide for 60 days prior written notice to be given to the City in the event coverage is substantially changed, canceled, or non-renewed.

Any deductibles or self insured retentions on referenced insurance coverages must be borne by New Bedford

New Bedford hereby waives and agrees to require their insurers to waive their rights of subrogation against the City of Chicago, its employees, elected officials, agents, or representatives.

The coverages and limits furnished by New Bedford in no way limit the New Bedford's liabilities and responsibilities specified within the Contract or by law.

Any insurance or self insurance programs maintained by the City of Chicago do not contribute with insurance provided by the New Bedford under the Contract.

The required insurance to be carried is not limited by any limitations expressed in the indemnification language in this Contract or any limitation placed on the indemnity in this Contract given as a matter of law.

If New Bedford is a joint venture or limited liability company, the insurance policies must name the joint venture or limited liability company as a named insured.

New Bedford must require all subcontractors to provide the insurance required herein, or New Bedford may provide the coverages for subcontractors. All subcontractors are subject to the same insurance requirements of New Bedford unless otherwise specified in this Contract.

If New Bedford or subcontractor desires additional coverages, the party desiring the additional coverages is responsible for the acquisition and cost.

The City of Chicago Risk Management Department maintains the right to modify, delete, alter or change these requirements.



1480 N. Claremont Blvd.
Claremont, CA 91711

V 909.982.9806
F 909.985.6217

www.nbpcorp.com

QUOTE	
Quote Number:	BP-12003
Date:	Revised 12/6/11
PR #	
Contact Name:	Antoine Kanaan
Ext:	216
Email:	akanaan@nbpcorp.com

Quoted to: OMP/City of Chicago
10510 West Zemke Road
Chicago, IL 60666
Attn: Chris Janner, Assistant PM

<i>Item</i>	<i>Description</i>	<i>Qty</i>	<i>Unit Price</i>	<i>Total Price</i>
1	ALSF-2/SSALR Standard Configuration for Runway 10R (see attachment)	1	\$625,368.00	\$625,368.00
1a	Site Spares for systems in Item 1	1	\$ 70,794.00	\$ 70,794.00
1b	System Start-up for systems in Item 1	1	\$ 29,400.00	\$ 29,400.00
1C	Auxiliary Equipment for 10R (Total Price for 1c1-1c10)	1	\$177,074.00	\$181,874.00
1c1	500 W 20/20 A Isolation Transformer	55	\$ 154.31	\$ 8,487.00
1c2	300 W 20A/20A Isolation Transformer	3	\$ 144.17	\$ 433.00
1c3	1500 W 20A/20A Isolation Transformer	53	\$ 2,219.97	\$117,658.00
1c4	Lamp Retainer	272	\$ 52.50	\$ 14,280.00
1c5	300 W Bulb	159	\$ 52.00	\$ 8,268.00
1c6	500 W Bulb	115	\$ 52.00	\$ 5,980.00
1c7	Green Lens	55	\$ 38.66	\$ 2,126.00
1c8	Red Lens	60	\$ 34.05	\$ 2,043.00
1c9	Tektronix TDS 3034C	1	\$ 10,985.00	\$ 10,985.00
1c10	Engine Generator REIA	1	\$ 6,813.00	\$ 6,813.00
1c11	PAR-56 Flash Bulb (U3003390-01)	16	\$ 300.00	\$ 4,800.00
2	ALSF-2/SSALR accommodating 5 stations with In-Pavement Fixtures for Runway 28L (see attachment)	1	\$677,857.00	\$677,857.00

2a	Site Spares for system in Item 2	1	\$ 82,589.00	\$ 82,589.00
2b	System Start-up for system in Item 2	1	\$ 29,400.00	\$ 29,400.00
2C	Auxiliary Equipment for 28L (Total Price for 2c1-2c18)	1	\$283,121.00	\$286,121.00
2c1	500 W 20/20 A Isolation Transformer	54	\$154.31	\$8,333.00
2c2	300 W 20A/20A Isolation Transformer	3	\$144.17	\$433.00
2c3	300 W 20A/6.6A Isolation Transformer	34	\$143.85	\$4,891.00
2c4	1500 W 20A/20A Isolation Transformer	46	\$2,108.98	\$97,013.00
2c5	White In-Pavement Fixture	28	\$1,735.50	\$48,594.00
2c6	Red In-Pavement Fixture	7	\$1,925.30	\$13,477.00
2c7	In-pavement Fixture Lamp Kit	10	\$432.90	\$4,329.00
2c8	Snow Plow Ring for In-pavement Steady Burning Fixtures	36	\$787.80	\$27,573.00
2c9	PAR-56 Lamp Retainer	240	\$52.50	\$12,600.00
2c10	In-Pavement Flasher	5	\$3,640.00	\$18,200.00
2c11	In-Pavement Flasher Snow Plow Ring	5	\$1,241.50	\$6,208.00
2c12	In-Pavement Flasher Spares	5	\$1,452.41	\$7,262.00
2c13	300 W Bulb	132	\$52.00	\$6,864.00
2c14	500 W Bulb	108	\$52.00	\$5,616.00
2c15	Green Lens	55	\$38.66	\$2,126.00
2c16	Red Lens	53	\$34.05	\$1,804.00
2c17	Tektronix TDS 3034C Scope	1	\$10,985.00	\$10,985.00
2c18	Engine Generator REIA	1	\$6,813.45	\$6,813.00
2c19	PAR-56 Flash Bulb (U3003890-01)	10	\$ 300.00	\$3,000.00
	<p>Notes:</p> <p>Five stations require in-pavement fixtures: Station 7, Stations 13, 14, 15, and 16.</p> <p>Station 13 through 16 require In-pavement Flashers from ADB. NBP is currently in the final in-house reliability testing of the new Low Voltage Individual Control Cabinet (ICC) that would interface the new ADB In-pavement Flasher with NBP ALSF-2/SSALR system.</p> <p>Based on the current schedule, The new NBP ICC and ADB In-pavement Flashers are expected to be approved by the FAA before NBP delivers the ALSF-2/SSALR systems to the City of Chicago.</p> <p>1. This quote is subject to all terms and conditions of NBP's previous contract with OMP (Contract # 14407 dated 03/16/2007), including the Compensation</p>			

	Schedule.			
	2. NBP will transfer the Vendor's Warranties to the City of Chicago.			
			Sales Total	\$1,983,403.00
			Tax (if applicable)	
			Total Amount	

Delivery:	Starting 12 months ARO at the rate of one per month
FOB:	Destination; J&J Motor will be the preferred vendor for shipping
Packaging:	Best Commercial
Payment Terms:	Per OMP Contract #14407
Quotation valid for:	Nov. 30, 2012

Unit price quoted above is subject to buyer's acceptance of NBP's standard terms and conditions. Any additional requirements imposed will be subject to a separate pricing adjustment.

**Attachment to
NBP Quote BP-12003**

The NBP ALSF-2/SSALR system (FA-10700) configuration for Runways 10R is as follows:

ALSF EQUIPMENT LIST FOR 10R

PART NO.	DESCRIPTION										QTY
U3001001-01	REMOTE CONTROL PANEL – UNIT #1										1
U3001002-01	REMOTE ELECTRONICS CHASSIS – UNIT #2										1
U3001003-01	CONTROL & MONITOR – UNIT #3										1
U3001004-01	480 VAC INPUT CABINET – UNIT #4										1
93001080-01	CONSTANT CURRENT REGULATOR – UNIT #5										5
U3001006-01	HIGH VOLTAGE INPUT CABINET – UNIT #6										1
U3001007-01	AIMING DEVICE – UNIT #7										1
U3001008-01	INDIVIDUAL CONTROL CABINET – UNIT #8										16
U3001009-01	FLASHER LIGHT ASSEMBLY – UNIT #9										16
	1		5		8		11		14		
	2		6		9		12		15		
	3		7		10		13		16		
	4										
U3001010-01	LAMP HOLDER ASSEMBLY – UNIT #10										272
U3001080-01	TRANSCEIVER MODULE – UNIT #10 (A)										272
U3001011-01	JUNCTION BOX ASSEMBLY – UNIT										15
	1		4		7		10		13		
	2		5		8		11		14		
	3		6		9		12		15		
U3001012-01	REMOTE MONITORING SYSTEM – UNIT # 12										1
U3001013-01	DISTRIBUTION PANEL – UNIT # 13										1
U3001014-01	50 KVA TRANSFORMER – UNIT # 14										1
U3001015-01	SAFETY DISCONNECT SWITCH – UNIT # 15										1
U3001016-01	FLASHER TESTER – UNIT # 16										1
U3001108-01	INPUT SURGE ASSEMBLY – UNIT # 15 (A)										1

ALSF SITE SPARES FOR 10R

PART NO.	DESCRIPTION	QTY
93003049-01	Fuse, 125 AMP	2
F02A250V5A	Fuse, 5A	2
F03A250V1/4A	Fuse, 250V, 1/4A	2
F03A250V2A	Fuse, 250V, 2A	2
F03A250V3A	Fuse, 250V, 3A	2
F03A250V5A	Fuse, 250V, 5A	2
F03A250V10A	Fuse, 250V, 10A	2
F03B125V7A	Fuse, 125V, 7A	2
93003093-01	Fuse, 1/10 AMP	2
93003092-01	Fuse, 5 AMP	2
FM02A125V1/4A	Fuse, 125V, 1/4A	2
T3001004-03	CCA CM CPU Unit # 3 or 12	1
U3001055-01	CCA RCP Unit # 1	1
U3001056-01	CCA REC Controller Unit # 2	1
U3001059-01	CCA Control I/O Unit # 3	1
U3001060-01	CCA Control Panel Unit # 3	1
U3001063-01	CCA Lamp Controller Unit # 3	1
U3001064-01	CCA Brightness Indicator Unit # 3	1
U3001066-01	CCA Bleeder Unit # 8	1
U3001067-01	CCA Monitor Unit # 8	1
93001410-0	CCA Low Voltage ICC Control	1
U3001071-01	CCA Modem Unit # 12	1
U3001072-01	CCA Digital I/O Unit # 12	1
U3001073-01	CCA Analog I/O Unit # 12	1
U3001074-01	CCA Serial Comm Unit # 12	1
93001085-01	CCA Control Unit #5	1
93001086-01	CCA Display Unit #5	1
93001087-01	CCA Snubber Unit #5	1
93003026-01	24 Volt Power Supply	1
93003027-01	12 Volt Power Supply	1
U3001097-01	CCA Low Voltage Filter Unit # 6	1
U3003174-02	RMS CPU Flash Eeprom ONLY, Programed and Labeled	1
U3003174-04	RMS CPU Flash Eeprom ONLY, Programed and Labeled	1
U3003215-01	Fuse, FNQ-R-1/2	2
U3003220-01	Fuse, AGC-1-6/10	2
U3003321-01	Fuse, A6D225R	2
U3003329-01	Fuse, JJS-60	2
U3003402-01	Fuse, 9F60AAB001 1 AMP	2

ALSF INSTALLATION KIT LIST FOR 10R

PART NO.	DESCRIPTION	QTY
M16878/3BHE0	Wire, Stranded 3KV (Black) 18 AWG	2700 Ft.
M16878/3BHE2	Wire, Stranded 3KV (Red) 18 AWG	900 Ft.
M16878/3BJE5	Wire, Stranded 3KV (Green) 16 AWG	900 Ft.
M16878/3BHE9	Wire, Stranded 3KV (White) 18 AWG	900 Ft.
MS15795-808	Flat Washer	257
MS35307-308	Screw	16
MS35335-59	Tooth Washer	324
MS35338-138	Lock Washer	257
MS35649-284	Hex Nut	324
MS35650-304	Nut	257
MS51957-46	Screw	324
U3001077-01	CCA, CM Extender	1
U3001120-01	Outside Temperature Sensor	1
U3001121-01	Inside Temperature Sensor	2
U3001121-01	Inside Temperature Sensor	
U3001139-01	CCA RS232/FS485 Converter	1
U3001143-01	Cable	1
U3001150-01	Extender Bd. (For L.C. CCA) (Note: S/N Must match Sys. No.)	1
U3002228-01	Flasher Unit Pole Adapter	16
U3002233-01	Color Screen Holder	324
U3003318-01	Surge Arrestor	1
U3003384-01	Ion Smoke Detector	1
U3003385-01	Photo Smoke Detector	1
U3003386-01	Switch Intrusion	3
U3003566-02	Cable RS232	1
U3003618-01	3-Phase Power Monitor	2
TI 6850-87	T.I. Manual (ALSF-2/SSALR) System Type FA-10700	2 Sets
TI 6850.88	T.I. Manual (FLASHER TESTER) Type FA-10713	2 Sets
U3001016-01	Flasher Tester – Unit # 16 (Laptop) Note: Laptop Must have nameplate, P/N: U3002319-01 S/N Must match Sys. No. And Quick Ref. Guide. (P/N: U3003418-01 Procomm Software has Installed in Laptop)	1

The NBP ALSF-2/SSALR system (FA-10700) configuration for Runways 28L is as follows:

ALSF EQUIPMENT LIST FOR 28L

PART NO.	DESCRIPTION	QTY
U3001001-01	REMOTE CONTROL PANEL – UNIT #1	1
U3001002-01	REMOTE ELECTRONICS CHASSIS – UNIT #2	1
U3001003-01	CONTROL & MONITOR – UNIT #3	1
U3001004-01	480 VAC INPUT CABINET – UNIT #4	1
93001080-01	CONSTANT CURRENT REGULATOR – UNIT #5	5
U3001006-01	HIGH VOLTAGE INPUT CABINET – UNIT #6	1
U3001007-01	AIMING DEVICE – UNIT #7	1
U3001008-01	INDIVIDUAL CONTROL CABINET – UNIT #8	12
93001397-01	LOW VOLTAGE INDIVIDUAL CONTROL CABINET – UNIT #8	5
U3001009-01	FLASHER LIGHT ASSEMBLY – UNIT #9	12
	1 5 8 11 14	
	2 6 9 12 15	
	3 7 10 13 16	
	4	
U3001010-01	LAMP HOLDER ASSEMBLY – UNIT #10	250
U3001080-01	TRANSCEIVER MODULE – UNIT #10 (A)	250
93001062--3	IN-PAVEMENT TRANSCEIVER Assembly	35
U3001011-01	JUNCTION BOX ASSEMBLY – UNIT	15
	1 4 7 10 13	
	2 5 8 11 14	
	3 6 9 12 15	
U3001012-01	REMOTE MONITORING SYSTEM – UNIT # 12	1
U3001013-01	DISTRIBUTION PANEL – UNIT # 13	1
U3001014-01	50 KVA TRANSFORMER – UNIT # 14	1
U3001015-01	SAFETY DISCONNECT SWITCH – UNIT # 15	1
U3001016-01	FLASHER TESTER – UNIT # 16	1
U3001108-01	INPUT SURGE ASSEMBLY – UNIT # 15 (A)	1

ALSF SITE SPARES FOR 28L

PART NO.	DESCRIPTION	QTY
93003049-01	Fuse, 125 AMP	2
FO2A250V5A	Fuse, 5A	2
F03A250V1/4A	Fuse, 250V, 1/4A	2
F03A250V2A	Fuse, 250V, 2A	2
F03A250V3A	Fuse, 250V, 3A	2
F03A250V5A	Fuse, 250V, 5A	2
F03A250V10A	Fuse, 250V, 10A	2
F03B125V7A	Fuse, 125V, 7A	2
93003093-01	Fuse, 1/10 AMP	2
93003092-01	Fuse, 5 AMP	2
FM02A125V1/4A	Fuse, 125V, 1/4A	2
T3001004-03	CCA CM CPU Unit # 3 or 12	1
U3001055-01	CCA RCP Unit # 1	1
U3001056-01	CCA REC Controller Unit # 2	1
U3001059-01	CCA Control I/O Unit # 3	1
U3001060-01	CCA Control Panel Unit # 3	1
U3001063-01	CCA Lamp Controller Unit # 3	1
U3001064-01	CCA Brightness Indicator Unit # 3	1
U3001066-01	CCA Bleeder Unit # 8	1
U3001067-01	CCA Monitor Unit # 8	1
93001410-0	CCA Low Voltage ICC Control	1
U3001071-01	CCA Modem Unit # 12	1
U3001072-01	CCA Digital I/O Unit # 12	1
U3001073-01	CCA Analog I/O Unit # 12	1
U3001074-01	CCA Serial Comm Unit # 12	1
93001085-01	CCA Control Unit #5	1
93001086-01	CCA Display Unit #5	1
93001087-01	CCA Snubber Unit #5	1
93003026-01	24 Volt Power Supply	1
93003027-01	12 Volt Power Supply	1
U3001097-01	CCA Low Voltage Filter Unit # 6	1
U3003174-02	RMS CPU Flash Eeprom ONLY, Programed and Labled	1
U3003174-04	RMS CPU Flash Eeprom ONLY, Programed and Labled	1
U3003215-01	Fuse, FNQ-R-1/2	2
U3003220-01	Fuse, AGC-1-6/10	2
U3003321-01	Fuse, A6D225R	2
U3003329-01	Fuse, JJS-60	2
U3003402-01	Fuse, 9F60AAB001 1 AMP	2

ALSF INSTALLATION KIT FOR 28L

PART NO.	DESCRIPTION	QTY
M16878/3BHE0	Wire, Stranded 3KV (Black) 18 AWG	2640 ft
M16878/3BHE2	Wire, Stranded 3KV (Red) 18 AWG	660 ft.
M16878/3BJE5	Wire, Stranded 3KV (Green) 16 AWG	660 ft.
M16878/3BHE9	Wire, Stranded 3KV (White) 18 AWG	660 ft.
MS15795-808	Flat Washer	257
MS35307-308	Screw	16
MS35335-59	Tooth Washer	324
MS35338-138	Lock Washer	257
MS35649-284	Hex Nut	324
MS35650-304	Nut	257
MS51957-46	Screw	324
U3001077-01	CCA, CM Extender	1
U3001120-01	Outside Temperature Sensor	1
U3001121-01	Inside Temperature Sensor	2
U3001121-01	Inside Temperature Sensor	
U3001139-01	CCA RS232/FS485 Converter	1
U3001143-01	Cable	1
U3001150-01	Extender Bd. (For L.C. CCA) (Note: S/N Must match Sys. No.)	1
U3002228-01	Flasher Unit Pole Adapter	16
U3002233-01	Color Screen Holder	324
U3003318-01	Surge Arrestor	1
U3003384-01	Ion Smoke Detector	1
U3003385-01	Photo Smoke Detector	1
U3003386-01	Switch Intrusion	3
U3003566-02	Cable RS232	1
U3003618-01	3-Phase Power Monitor	2
TI 6850-87	T.I. Manual (ALSF-2/SSALR) System Type FA-10700	2 Sets
TI 6850.88	T.I. Manual (FLASHER TESTER) Type FA-10713	2 Sets
U3001016-01	Flasher Tester – Unit # 16 (Laptop) Note: Laptop Must have nameplate, P/N: U3002319-01 S/N Must match Sys. No. And Quick Ref. Guide. (P/N: U3003418-01 Procomm Software has Installed in Laptop)	1

ALSF-2 System Cost Comparison Between Runways 9L and 10R

Main System	Runways		Comments
	9L	10R	
<i>Invoice Dates</i>	<i>September 2006</i>	<i>December 2011</i>	
Standard Configuration	\$510,664	\$625,368	Included on invoice
Site Spares	\$45,960	\$70,794	Included on invoice
System Start-Up	\$23,293	\$29,400	included on invoice
Bulk Order Discount (added back into cost for comparison)	\$33,000	0	NBP quoted a \$45,000 discount per system if a bulk purchase is made in April 2012
2006 Base System Estimate	\$612,917		
Escalation (5 years at 4 %)	\$132,790	0	
Sub-Total Base ALSF-2	\$745,707	\$725,562	

Auxiliary Equipment*			
Auxiliary Equipment	\$129,781	\$181,874	
Escalation (4 years at 4 %)	\$22,044	0	
Sub-Total	\$151,825		

Total (Main System & Auxiliary Equipment)	\$897,532	\$907,436
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*

Auxiliary equipment (9L FOs) Explained:		
City furnished equipment for FAA has been included: REIA Generator, Tektronix O-scope, which were not part of 9L FOs. ATCTs now require REIA generators.		
FO 16	\$47,560	FAA request- add 58 1500W transformer (+10% spare)
FO 24	\$20,000	Add PAR 56 lamp holder rings
FO 25	\$55,321	FAA request - ALSF spares – price shows only NBP parts for 9L, not including 27R
FO 33	\$6,900	ICC cabinet replacement
Total	\$129,781	



U.S. Department
of Transportation
**Federal Aviation
Administration**

FAA-E-2689a

NOTICE-6

August 20, 1999

SUPERCEDING
FAA-E-2689a
NOTICE-5
May 31, 1996
SUPERSEDING
FAA-E-2689a
December 9, 1993
SUPERSEDING
FAA-E-2689a
September 13, 1983
SUPERSEDING
FAA-E-2689,
dated July 24, 1978

U.S. Department of Transportation

Federal Aviation Administration

Specification

DUAL MODE
HIGH INTENSITY APPROACH LIGHTING SYSTEM
(ALSF-2/SSALR)

CONTENTS

<u>Paragraph</u>	<u>Title</u>	<u>Page</u>
1.	SCOPE.....	1
1.1	Scope.....	1
1.2	Classification.....	1
1.3	Definitions.....	1
1.3.1	Mode ALSF-2.....	1
1.3.2	Mode SSALR.....	2
1.3.3	Current loop.....	2
1.3.4	Discrimination ratio.....	2
1.3.5	Down-link.....	2
1.3.6	Up-link.....	2
1.3.7	Alternating current and voltage.....	2
1.3.8	High voltage.....	2
1.3.9	Equipment failures.....	2
1.3.10	Failure condition.....	2
1.3.11	Functional failures.....	2
1.3.12	Caution condition.....	2
1.3.13	TTL compatible.....	2
1.3.14	CMOS logic.....	3
1.3.15	24-volt logic.....	3
1.3.16	Mean time between failures (MTBF).....	3
1.3.17	Mean time to repair (MTTR).....	3
1.3.18	Predicted MTBF.....	3
1.3.19	Predicted MTTR.....	3
1.3.20	Remote maintenance monitoring system.....	3
1.3.21	Specified mean time between failures.....	4
1.3.22	Line replaceable unit (LRU).....	4
2.	APPLICABLE DOCUMENTS.....	4
2.1	FAA documents.....	4
2.1.1	FAA specifications.....	4
2.1.2	FAA drawings.....	5
2.1.3	FAA standards.....	6a
2.2	Federal publications.....	6a
2.2.1	Military standards.....	6b
2.2.2	Military publications.....	6b
2.2.3	Military specifications.....	6c
2.2.4	Federal specifications.....	7
2.3	Other publications.....	7
2.3.1	National Fire Protection Association document.....	7
2.3.2	Occupational Safety and Health Act (OSHA).....	7
2.3.3	National Electrical Manufacturers Association.....	7a
2.3.4	American National Standards Institute.....	8
2.3.5	American Iron and Steel Institute standard.....	8
2.3.6	Electronic Industries Association.....	8
2.3.7	Institute of Electrical and Electronic Engineers.....	8

CONTENTS

<u>Paragraph</u>	<u>Title</u>	<u>Page</u>
1.	SCOPE.....	1
1.1	Scope.....	1
1.2	Classification.....	1
1.3	Definitions.....	1
1.3.1	Mode ALSF-2.....	1
1.3.2	Mode SSALR.....	2
1.3.3	Current loop.....	2
1.3.4	Discrimination ratio.....	2
1.3.5	Down-link.....	2
1.3.6	Up-link.....	2
1.3.7	Alternating current and voltage.....	2
1.3.8	High voltage.....	2
1.3.9	Equipment failures.....	2
1.3.10	Failure condition.....	2
1.3.11	Functional failures.....	2
1.3.12	Caution condition.....	2
1.3.13	TTL compatible.....	2
1.3.14	CMOS logic.....	3
1.3.15	24-volt logic.....	3
1.3.16	Mean time between failures (MTBF).....	3
1.3.17	Mean time to repair (MTTR).....	3
1.3.18	Predicted MTBF.....	3
1.3.19	Predicted MTTR.....	3
1.3.20	Remote maintenance monitoring system.....	3
1.3.21	Specified mean time between failures.....	4
1.3.22	Line replaceable unit (LRU).....	4
2.	APPLICABLE DOCUMENTS.....	4
2.1	FAA documents.....	4
2.1.1	FAA specifications.....	4
2.1.2	FAA drawings.....	5
2.1.3	FAA standards.....	6a
2.2	Federal publications.....	6a
2.2.1	Military standards.....	6b
2.2.2	Military publications.....	6b
2.2.3	Military specifications.....	6c
2.2.4	Federal specifications.....	7
2.3	Other publications.....	7
2.3.1	National Fire Protection Association document.....	7
2.3.2	Occupational Safety and Health Act (OSHA).....	7
2.3.3	National Electrical Manufacturers Association.....	7a
2.3.4	American National Standards Institute.....	8
2.3.5	American Iron and Steel Institute standard.....	8
2.3.6	Electronic Industries Association.....	8
2.3.7	Institute of Electrical and Electronic Engineers.....	8

CONTENTS (continued)

<u>Paragraph</u>	<u>Title</u>	<u>Page</u>
3.	REQUIREMENTS.....	9
3.1	General.....	9
3.1.1	Equipment to be supplied by the contractor.....	9a
3.1.2	Other equipment.....	14
3.2	Performance characteristics.....	15
3.2.1	480 volt input cabinet.....	15
3.2.2	High voltage output cabinet.....	16
3.2.3	Constant current regulator.....	17
3.2.4	Control and monitor subsystem.....	20
3.2.5	Flashing lights subsystem.....	40
3.2.6	Elevated PAR-56 lampholders.....	52
3.2.7	Site spare parts.....	52a
3.2.8	Power distribution equipment.....	52a
3.2.9	Remote monitoring subsystem (RMS).....	53
3.2.10	RMS performance parameter monitoring requirements.....	54b
3.2.11	Equipment required but not furnished.....	54p
3.3	Physical characteristics.....	54p
3.3.1	480 V ac input cabinet.....	54q
3.3.2	High voltage output cabinet.....	54q
3.3.3	Constant current regulators.....	54q
3.3.4	Substation control and monitor assembly.....	54q
3.3.5	Remote electronic chassis.....	54r
3.3.6	Air traffic control tower (ATCT) control panel.....	54r
3.3.7	Reserved.....	54r
3.3.8	External resistor cabinet.....	54r
3.3.9	Individual control cabinet.....	56
3.3.10	Junction boxes.....	56
3.4	System requirements.....	56
3.4.1	Power quality requirements.....	56
3.4.2	Modular construction.....	56a
3.4.3	Interchangeability.....	56a
3.4.4	Test points and controls.....	56a
3.4.5	DC power supplies.....	57
3.4.6	Extender boards.....	57
3.4.7	Derating of electronic parts.....	57
3.4.8	Enclosures.....	57
3.4.9	Earth grounding.....	65
3.4.10	Nameplates.....	65
3.4.11	Assembly and marking.....	66
3.4.12	Warning signs.....	66
3.4.13	High voltage insulation.....	66
3.4.14	Software/firmware requirements.....	66
3.4.15	RMS functional requirements.....	66c
3.4.16	ALSF-2 General control behavior.....	66m

CONTENTS (continued)

<u>Paragraph</u>	<u>Title</u>	<u>Page</u>
3.5	Parts, materials, and processes.....	66u
3.5.1	Parts.....	66u
3.5.2	Materials.....	68
3.5.3	Protective coatings.....	68a
3.5.4	Glass.....	69
3.5.5	Gaskets.....	69
3.5.6	Adhesives.....	69
3.5.7	Processes.....	69
3.6	Environmental requirements.....	70
3.6.1	Indoor equipment.....	70
3.6.2	Outdoor equipment.....	70
3.6.3	Impact.....	71
3.6.4	Hydraulic impact.....	71
3.6.5	Snowplow impact.....	71
3.6.6	Transient suppression.....	71
3.6.7	Interference requirements.....	72
3.7	Instruction books.....	72
3.8	Reliability.....	72
3.8.1	Reliability design criteria.....	72
3.8.2	Reliability program.....	73
3.9	Maintainability.....	74
3.9.1	Maintainability design criteria.....	74
3.9.2	Maintainability program.....	74a
3.10	Configuration management.....	75
4.	QUALITY ASSURANCE PROVISIONS.....	75
4.1	General.....	75
4.1.1	System component quality assurance.....	75
4.1.2	Data certification.....	75
4.1.3	System, subsystem, and equipment testing requirements.....	75
4.1.4	VRTM definitions.....	76
4.2	Notification of readiness for inspection.....	76
4.3	Test methods.....	76
4.3.1	Design qualification test.....	76a
4.3.2	Production unit tests.....	76a
4.3.3	Operational testing.....	76a
4.4	Tests.....	76a
4.4.1	Visual inspection.....	76a
4.4.2	Twenty-four hour test.....	76a
4.4.3	Environmental tests.....	76b
4.4.4	Insulation resistance test.....	82a
4.4.5	150-hour test.....	83
4.4.6	Regulator tests.....	84
4.4.7	Control functions tests.....	84

CONTENTS (continued)

<u>Paragraph</u>	<u>Title</u>	<u>Page</u>
4.4.8	Operational monitor tests.....	84
4.4.9	Flasher assembly tests.....	84a
4.4.10	Flasher tester operational test.....	86a
4.4.11	Site spare parts test.....	86a
4.4.12	Frequency test.....	87
4.4.13	Meter calibration.....	87
4.4.14	System integrity demonstration.....	87
4.4.15	Maintainability demonstration.....	87
4.5	Test instruments.....	87
4.6	Test performance.....	88
5.	PREPARATION FOR DELIVERY.....	88
5.1	General.....	88
5.1.1	Packaging.....	88
5.1.2	Packing.....	88
5.1.3	Marking.....	88

6.	NOTE.....	88
----	-----------	----

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	ALSF-2 Lighting Pattern.....	10
2	SSALR Lighting Pattern.....	11
3	Not Used	
4	Functional Block Diagram.....	13
5	Typical Substation Control Panel.....	21
6	Typical Remote Control Panel.....	24
7	Substation Monitor and Control Unit.....	55
8	System Control Modes.....	66n

<u>Table</u>	<u>Title</u>	<u>Page</u>
I	Regulator Output Requirements.....	17a
II	Transmission Characteristics.....	30
III	Not Used	
IV	Regulator Interface.....	32
V	Not Used	
VI	Caution and Failure Criteria.....	35
VII	Monitor Interface.....	39
VIII	Not Used	
IX	Light Intensities (Type I).....	48a
X	Light Intensities (Type II).....	51
Xa	ALSF-2/SSALR Monitored Parameter.....	54c

CONTENTS (continued)

<u>Table</u>	<u>Title</u>	<u>Page</u>
Xb	ALSF-2/SSALR Certification Parameters.....	54k
XI	Not Used	
XII	Not Used	
XIII	Not Used	
XIV	Not Used	
XIVa	ALSF-2/SSALR Controlled Function.....	66d
XIVb	RMS Operating Modes and Configurations.....	66g
XV	Packaging Reference Selection.....	67
XVI	Qualification and Production Tests.....	78
XVII	Vibration Test Data.....	87
XVIII	ALSF-2/SSALR Verification Requirements	
	Traceability Matrix.....	88a

Note: THE TABLES Xb, XVI AND XVIII ARE ATTACHED TO THE END OF THIS DOCUMENT IN THE .PDF VERSION.

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-vii-

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DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

SPECIFICATION

DUAL MODE
HIGH INTENSITY APPROACH LIGHTING SYSTEM
(ALSF-2/SSALR)

1. SCOPE

1.1 Scope.- This specification sets forth the integrated system equipment requirements for a Dual Mode High Intensity Approach Lighting System used to present visual approach lighting patterns to landing aircraft on selected Category II/III Runways. This system will have two operational modes, a High Intensity Approach Lighting System with Sequenced Flashing Lights (ALSF-2) and a Simplified Short Approach Lighting System with Runway Alignment Indicator Lights (SSALR). This specification sets forth the integration requirements for the entire system, provides detailed requirements for the electrical equipment necessary to energize and remotely control the lighting patterns, provides requirements for remote maintenance monitoring, and provides brief descriptions and interface data for subelements of the system that are procured by other detailed specifications.

1.2 Classification.- Two types of dimmable sequenced flashing lights are covered by this specification.

Type I - Elevated flasher assembly (3.2.5.3)

Type II - Semiflush flasher assembly (3.2.5.4)

1.3 Definitions.- The following definitions apply for this specification.

1.3.1. Mode ALSF-2.- ALSF-2 is an abbreviation for the High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II. In ALSF-2 mode, approximately 100 lamps of the 300 or 500 watt type (35 kilowatts (kw)) are connected in

series in each of five constant current loops. Actual number of lamps and lamp wattage may vary for each loop.

1.3.2 Mode SSALR.- SSALR is an abbreviation for the Simplified Short Approach Lighting System with Runway Alignment Indicator Lights.

1.3.3 Current loop.- A current loop is formed by electrically connecting lamp transformers and an approach lighting system (ALS) regulator in series such that the ALS regulator current has a single path through primary windings of all lamp transformers and hence produces equal illumination of all lamps connected to the respective secondary windings.

1.3.4 Discrimination ratio.- Discrimination ratio is the ratio of specified mean time between failures (MTBF) to the minimum acceptable MTBF.

1.3.5 Down-link.- Data transmission from the air traffic control tower to the substation.

1.3.6 Up-link.- Data transmission from the substation to the air traffic control tower.

1.3.7 Alternating current and voltage.- Unless otherwise specified, all alternating currents and voltages shall be understood to be root-mean-square (rms) values.

1.3.8 High voltage.- Any voltage above 500 volts (V) rms.

1.3.9 Equipment failures.- Equipment failures are black box, module, card, or part failures whose impact upon the system functions may vary from a minor maintenance action to catastrophic. For example, the failure of a power supply whose redundant unit takes over automatically with no system downtime is only an equipment failure.

1.3.10 Failure condition.- A failure condition exists when one or more steady burning lamps or flasher lamps fail after a caution condition.

1.3.11 Functional failures.- Failures which cause either the complete or partial loss of a function.

1.3.12 Caution condition.- A caution condition exists when two steady burning lamps fail while in the SSALR mode or five lamps fail while in the ALSF-2 mode, in any of five current loops. Caution also exists when one flasher fails in the SSALR mode or two flashers fail in the ALSF-2 mode.

1.3.13 TTL compatible.- TTL is an abbreviation for transistor-transistor logic. The input and output shall be either logic high or logic low.

1.3.13.1 Logic high.- Unless otherwise specified, logic high shall be voltage higher than 2.4 volts direct current (dc) but not greater than 5.5 volts dc. It may also be defined by the numeral "1" or "HI".

3. REQUIREMENTS

3.1 General.- The equipment furnished under this specification shall provide approach lighting for use on selected runways. The Approach Lighting System (ALS) shall be switchable from the High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II (ALSF-2) mode, to the Simplified Short Approach Light System with Runway Alignment Indicator Lights (SSALR) mode. The patterns produced by these two lighting modes are shown in plan view by figures 1 and 2 respectively. The system shall be capable of providing the 3,000-foot (914 m) patterns as shown where glide slope angle restrictions require it, and also the shorter 2,400-foot (732 m) patterns for use on other domestic Category II Runways (without the last six stations). The steady burning approach lights will be connected in five constant current lighting loops as shown on FAA Drawing D-6238-4. Switching between the modes (ALSF-2/SSALR) will be locally controlled from the substation and remotely controlled from the airport traffic control tower (ATCT) via the control subsystem, which will activate/deactivate the constant current regulators. Operational modes of the flashing lights will be switched by selectively activating the appropriate trigger signals upon command from the ATCT. The approach lighting system will use low impact resistance structures, will employ constant current lighting techniques, and will have remotely indicated fault sensing equipment. The substation equipments (regulators, high voltage cabinets, Remote Monitoring Subsystem and control and monitor subsystems) will be installed in an environmentally controlled shelter that is generally located within the runway approach zone. This shelter is not a part of this specification; however, it will provide protection for some of the equipment. The shelter equipment arrangement and detailed mounting provisions are as shown on FAA Drawings D-6238-17 and D-6238-21. The system equipment and interconnection shall comply with the National Electrical Code (NEC) and Occupational Safety and Health Act (OSHA). The required system shall be as shown in the functional block diagram, figure 4. This specification also covers reliability and maintainability design and prediction requirements imposed on the contractor. The design shall include a requirement for a remote maintenance monitoring system capability. For each circuit card assembly type, the contractor shall provide one site spare.

3.1.1 Equipment to be supplied by the contractor.- The ALSF-2/SSALR systems shall be complete in accordance with all specification requirements and shall include the items listed below. Quantities shall be as specified in the contract schedule.

- (a) 480 VAC input cabinet (3.2.1)
- (b) High voltage output cabinet (3.2.2)
- (c) Constant current regulators (3.2.3)
- (d) Control and monitor subsystem (3.2.4)
- (e) Reserved
- (f) Elevated flasher assembly (Type 1) (3.2.5.3)
- (g) Aiming device (3.2.5.3.1.9)
- (h) Semiflush flasher assembly (Type II) (3.2.5.4)
- (i) Flasher tester (3.2.5.5)
- (j) Elevated PAR-56 lampholders (3.2.6)
- (k) Site spare parts (3.2.7)
- (m) Junction boxes (3.3.10)
- (n) Instruction books (3.7)
- (o) Remote monitoring subsystem (3.2.9)
- (p) Substation Distribution Panel (3.2.8.1)
- (q) Utility transformer (3.2.8.2)
- (r) Safety Disconnect Switch (3.2.8.3)

**INSTALLATION OF RUNWAY 10R-28L ALSF-2 APPROACH
LIGHTING SYSTEMS**
SECTION L-891

PART 1 GENERAL

1.01 DESCRIPTION

- A. This item will consist of furnishing all labor, equipment and incidentals necessary for the complete construction of two (2) dual mode ALSF-2/SSALR, approach lighting systems located on each end of runway 10R-28L, which includes MG-20, MG-30 and MG-40 LIRs, foundations, ducts and conduits within 10 feet of the light stations, Earth Electrode Systems (EES) and all connections to the EES; all wiring, light bases, lamps, and isolation transformers at the light stations as identified in these specifications and as shown on the contract drawings. Also included in this item is a wood frame with steel siding equipment shelter and foundation to house ALSF-2 equipment and Localizer equipment. This item includes all other components required to complete the ALSF-2 system as shown on the plans. All power and control wiring between the ALSF-2 equipment, 1000-gallon underground fuel tank and the engine generator is included in this item. This item includes all excavation required for installation of the ALSF-2 building and light stations. The Contractor must furnish all additional materials, labor, testing, certification and equipment to perform these items of work and provide operational ALSF-2 systems to the satisfaction of the Director.

1.02 EQUIPMENT

- A. The following NBP, ALSF-2/SSALR system (FA-10700) configuration equipment for Runway 10R will be furnished by the Commissioner and except for the remote control panel and remote electronics chassis is to be installed by the Contractor:
1. One (1) Remote Control Panel (RCP) P/N U3001001-01
 2. One (1) Remote Electronic Chassis (REC) P/N U3001002-01
 3. One (1) Control and Monitor Assembly (CM) P/N U3001003-01
 4. One (1) 480 VAC Input Cabinet P/N U3001004-01
 5. Five (5) Constant Current Regulators (CCRs) P/N 93001080-01
 6. One (1) High voltage Output Cabinet P/N U3001006-01
 7. One (1) Aiming Device P/N U3001007-01
 8. Sixteen (16) Individual Control Cabinets (ICCs) P/N U3001008-01

9. Sixteen (16) Flasher Light Assemblies P/N U3001009-01
10. Two Hundred Fifty Seven (257) Elevated PAR-56 Lampholders P/N U3001010-01
11. Two Hundred Fifty Seven (257) Transceivers/Shorting Devices (20 A) P/N U3001080-01
12. Fifteen Junction Boxes P/N U3001011-01
13. One (1) Remote Monitoring Subsystem (RMS) P/N U3001012-01
14. One (1) Distribution Panel P/N U3001013-01
15. One (1) 50 KVA Transformer P/N U3001-14-01
16. One (1) Safety Disconnect Switch P/N U3001015-01
17. One (1) Flasher Tester P/N U3001016-01
18. One (1) TI Manual P/N TI 6850.87
19. One (1) Installation Kit

B. The following NBP, ALSF-2/SSALR system (FA-10700) configuration equipment for Runway 28L will be furnished by the Commissioner and except for the remote control panel and remote electronics chassis is to be installed by the Contractor:

1. One (1) Remote Control Panel (RCP) P/N U3001001-01
2. One (1) Remote Electronic Chassis (REC) P/N U3001002-01
3. One (1) Control and Monitor Assembly (CM) P/N U3001003-01
4. One (1) 480 VAC Input Cabinet P/N U3001004-01
5. Five (5) Constant Current Regulators (CCRs) P/N 93001080-01
6. One (1) High Voltage Output Cabinet P/N U3001006-01
7. One (1) Aiming Device P/N U3001007-01
8. Thirteen (13) Individual Control Cabinets (ICCs) P/N U3001008-01
9. Four (4) Low Voltage Individual Control Cabinets (LV ICC) P/N 93001397-01
10. Thirteen (13) Flasher Light Assemblies P/N U3001009-01
11. Two Hundred Twenty Six (226) Elevated PAR-56 Lampholders P/N U3001010-01
12. Two Hundred Twenty Six (226) Transceivers /Shorting Devices (20 A) P/N U3001080-01
13. Thirty Five (35) In-Pavement Transceivers /Shorting Devices

(6.6 A) P/N 93001062-03

14. Fifteen Junction Boxes P/N U3001011-01
15. One (1) Remote Monitoring Subsystem (RMS) P/N U3001012-01
16. One (1) Distribution Panel P/N U3001013-01
17. One (1) 50 KVA Transformer P/N U3001014-01
18. One (1) Safety Disconnect Switch P/N U3001015-01
19. One (1) Flasher Tester P/N U3001016-01
20. One (1) TI Manual P/N TI 6850.87
21. One (1) Installation Kit

C. The Contractor must furnish and install the remaining equipment (including spares) required to complete the 10R and 28L ALSF-2 system including but not limited to the following:

1. LIR Structures – Jaquith Industries, Inc.
600 Brighton Avenue
Syracuse, NY 13210-4213
315-478-5700
www.jaquith.com
2. PAR-56 Lamps (Including Spares):
108 – 500W, 20A lamps with GREEN glass filters
120 – 500W, 20A lamps with RED glass filters
318 – 500W, 20A lamps with NO colored glass filters
3. L-830 Isolation Transformers (Including Spares):
6 – 300W 20A/20A Isolation Transformers
120 – 500W 20A/20A Isolation Transformers
35 – 300W, 20A/6.6A Isolation transformers (for Semi-Flush)
102 – 1500W 20A/20A Isolation Transformers
4. All other electrical equipment shown on the drawings and specified herein.
5. Twenty eight (28) High Intensity Semi-Flush, Steady-Burn light fixtures, White Style A, FAA Type FA-2300/1, Multi-Electric Part No. 3950-1 with 3-105W lamps and accessories..

6. Seven (7) High Intensity Semi-Flush, Steady-Burn light fixtures, Red Style C, FAA Type FA-2300/3, Multi-Electric Part No. 3950-1 with 3-105W lamps and accessories.
7. Four (4) Lamp Replacement kits for Semi-Flush High Intensity fixtures. Multi-Electric Part No. 3950-130-1
8. Thirty Five (35) Snow Plow Rings for use with L-868, Size C (15") light base. Multi-Electric Part No. 3950-142.
9. Five (5) In-pavements, ALSF-2 Flasher, FAA -E-2628, ADB Part No. FFL9C000-0000 with flash tubes, mating female connectors and Snow Plow Rings for use with L-868, Size C (15") light base.
- 10.

1.03 INCLUDED WORK

- A. All sections of these technical specifications listed in the Table of Contents apply, except:
 1. Specification Section L-890 - Installation of Runway 10R-28L Runway Visual Range System (RVR)
 2. Specification Section L-895 - Installation of Runway 10R-28L Instrument Landing Systems

PART 2 PRODUCTS

2.01 DUAL MODE ALSF-2/SSALR APPROACH LIGHTING SYSTEMS

- A. The dual mode ALSF-2/SSALR system is FAA approved Type FA-10700, with all the latest updates as manufactured by New Bedford Panoramex, 1037 West Ninth Street, Upland, CA 91786, Telephone 909-982-9806.
- B. The 300-watt and 500-watt isolation transformers must be type L-830 per FAA AC 150/5345-47B.
- C. The 1500-watt isolation transformers must be as specified in Specification Section L-892. All 1500-watt transformers must be field tested by the Contractor at the project site per FAA testing requirements in Section 16950, paragraph 2.03.

2.02 STEADY BURNING LIGHT FIXTURES ARE CLASSIFIED AS FOLLOWS

Style A	White Light
Style B	Green Light
Style C	Red Light

2.03 BASES

- A. Light Bases must conform to the requirements of AC 150/5345-42F, "Specification for Airport Light Bases, Transformer Houses, Junction

Boxes, and Accessories", and they must be Class 1B, 16-inch diameter, Type L-867 base as shown on the Plans and must be listed in FAA AC 150/5345-53C. All light bases must be provided with factory installed internal and external ground lugs.

- B. The light bases installed within or immediately outside the blast pad (ALSF-2 stations 0+00 through 4+00) must be L-867, size D, 28 inch deep, Class 1B.
- C. The light bases installed in runway and taxiway pavement must be L-868, size C, 24 inch deep, Class 1B .
- D. The light bases installed for the remaining ALSF-2 stations (Stations 5+00 through 24+00) must be L-867, size D, 28 inch deep, Class 1B..

2.04 BOLTS FOR BASE CAN AND ACCESSORIES

- A. Fluoropolymer ceramic-metallic coated SAE Grade 2 bolts must be used to secure light fixtures to L-867 light bases with 2 part locking washers in accordance with FAA Engineering Brief No. 83 "In-Pavement Light Fixture Bolts" issued June 28, 2010. The color of the outer coating of the Grade 2 bolts must be orange or hot pink as determined by the Commissioner and FAA. Fluoropolymer ceramic-metallic coated bolts do not require the use of anti-seize compounds.
- B. Installation and torquing of the bolts must be in conformance with the FAA Engineering Brief No. 83 and must follow the recommended industry best practices for installing and torquing bolts.
- A.

2.05 CONCRETE

- A. Concrete required for the construction of bases and other work under this item must conform to the requirements of Section P-610, using ¾-inch maximum size aggregate.

2.06 GROUND RODS

- A. Ground rods must be type 304, stainless steel, of the length and diameter shown on the Plans.

2.07 UNDERGROUND DIESEL FUEL STORAGE TANK

- A. The Contractor must furnish and install a 1000-gallon fiberglass, double-wall, underground storage tank (UST) for diesel (fuel oil #2). Outlet design must have secondary containment (150 gallons capacity) and a 30-year warranty. The tank must be manufactured in accordance with UL 1316 (with a UL certification plate). The Contractor must provide shop drawings of the tank to the Commissioner for approval. The overall tank installation must comply with CFR-40, Part 280.20(b). Fuel tank and piping must be in accordance with Section 15484 of these specifications and not be paid for separately under Section 16620.

2.08 LOAD BANK

- A. The load bank must be in accordance with the contract documents and with section 16620 of these specifications.

2.09 ENGINE GENERATOR

- A. The ALSF-2 engine generator, ATS, load bank, and other equipment shown on the plans will be furnished by the FAA and installed by the contractor. The contractor must coordinate with FAA to obtain all the necessary shop drawings and templates to properly locate the equipments and conduit penetrations in the generator room.

2.10 CONDUIT

- A. All conduits for duct banks must be in accordance with Section L-110 of these specifications.

2.11 MANHOLES AND HANDHOLES

- A. All electrical manholes must be in accordance with Section L-115 of these specifications.

2.12 PULL BOXES

- A. All pull boxes must be in accordance with Section L-115 of these specifications.

2.13 CABLE

- A. All cable must be in accordance with Sections L-108 and 16130 of these specifications.

2.14 GUARD WIRE

- A. All guard wire must be in accordance with Sections L-108 and 16452 of these specifications.

PART 3 EXECUTION

3.01 INSTALLATION OF ALSF-2 LIGHT BARS AND SEQUENCED FLASHERS

- A. The Contractor must follow the procedures contained herein in installing the elevated ALSF-2 light bars and sequenced flashers. The Contractor must provide all materials not specifically listed in the Contract as provided to him/her.
- B. All ALSF-2 lights that are designed 4 feet or less above grade must be on frangible EMT supports. Where EMT supports are shown on the drawings, LIR structures must not be substituted for EMT supports, and rigid steel conduit must not be substituted for EMT.
- C. In order to optimize conduit and ductbank construction, the Contractor may find it advantageous to modify the horizontal layout of some LIR tower foundations, flasher junction boxes, and flasher individual control cabinets (ICC's). This may involve re-orienting the flasher junction box and ICC location, foundation layout, or fencing layout. Such modification must not involve a change in the ALSF-2 Station of a tower or LIR tower tilt-down direction shown on the plans, or encumber the raising or lowering of a tower. The Contractor must not execute any deviation from the light bar site configuration shown on the drawings without first receiving the approval of the Director.
- D. Installation Tolerances. Lamps must be installed with their centerlines within the following installation tolerances of design distances:
 - 1. Longitudinal (along the runway centerline) distance deviation from design station: 6 inches
 - 2. Lateral distance (perpendicular to the runway centerline): 3 inches
 - 3. Horizontal distance between individual lights 1 inch
 - 4. Lamp centerline elevation:
 - a. On structures up to 6 feet above foundation top: 1 inch
 - b. On structures more than 6 feet above foundation

top: 2 inches

5. All lights in a light bar must be installed within 1 inch of a line perpendicular to runway extended centerline.
 6. Plumbness Tolerance for EMT Frangible Light Masts. EMT frangible light masts must be installed to a plumbness tolerance of 1/16-inch per foot of mast height. This requirement is in addition to all other placement tolerances. If the mast foundation is concrete, the plumbness tolerance must be met by proper placement of the concrete-embedded section of conduit, not by bending the mast. To insure plumbness, temporary rigid conduit masts must be threaded into the conduit couplings, and clamped in place in a rigid brace during concrete placement, finishing, and setting.
- E. Assembly of PAR-56 Lights. The Contractor must assemble from unassembled condition into complete units, the PAR-56 lampholders, transceiver/shorting devices, lamps, and, where required, filter-holding clips and colored glass filters. Use the spring-loaded lamp-retaining hardware supplied with the lampholders. This assembly must include the NBP PAR-56 lampholder ring where the drawings require it.
- F. Frangible Couplings. All frangible couplings must be 2 inch-diameter cast aluminum couplings having a hexagonal clamping ring. The coupling must accommodate 2 inch-diameter EMT conduit. The frangible couplings must meet the requirements of either Military Specification MS-17814-1, or of FAA Drawing C-6046. The straight-thread Multi-Electric Cat. No. 961-A frangible coupling is among couplings meeting MS-17814-1. The tapered-thread Multi-Electric Cat. No. 961-AT frangible coupling is among couplings conforming to FAA Drawing C-6046. If the Contractor intends to furnish substitute frangible couplings, the Contractor must submit catalog cuts to the Director, demonstrating that the substitute couplings meet the above specifications. The Contractor must furnish 40 spare frangible couplings to the Director, who will deliver them to the FAA.
- G. Frangible EMT Mountings:
1. Frangible Coupling Installation. Each frangible coupling has a hexagonal throat with a break-off groove in the middle, designed to break at low impact, thereby minimizing damage to colliding aircraft. When installing the frangible coupling, take care to use a wrench that will grip only the lower portion of the hexagonal throat of the coupling, i.e., that portion immediately below the break-off groove. If the wrench grips the upper portion of the hexagonal throat, the coupling may break when torque is applied. The Contractor must apply anti-seize compound to the

threads of the frangible coupling, and to the internal threads of the receiving coupling or hole, to facilitate removal. The compound must be an anti-seize assembly lubricant formulated to provide protection for stainless steel and dissimilar metal threaded fasteners against galling, seizure, and heat-freeze. Do not use plumber's pipe-joint compound. The frangible coupling must be screwed down tightly into the conduit coupling or light base cover plate threaded hole, to prevent the EMT mounting from turning.

2. **Cable Connectors.** Where cable connectors are required within the frangible couplings, the connectors must have the capability of separating easily upon breakage of the frangible couplings. Therefore, apply silicone grease of high dielectric strength to the mating surfaces of the plug and receptacle connectors. Do not allow the silicone grease to make contact with the plug and receptacle terminals, and do not place electrical tape over the connector joints. A cable clamp or cable connector clamp must firmly grip the receptacle connector of the lower cable assembly (never the plug connector of the upper cable assembly). The connectors must be vertically positioned such that the joint between the two connectors is as close as feasible to the break-off groove. If the receptacle cable connector is the 1 inch-diameter style (e.g., 90R-B6), the connector must be gripped by an aluminum split-ring cable clamp. The Multi Electric Part No. 961-X cable clamp is among the clamps which meet this specification. If the receptacle cable connector of the style having a 1.75-inch-diameter donut for use in a light base (such as on the secondary lead of isolation transformers), the connector must be gripped by the cable connector clamp which comes with the base plate.
3. **Upper Cable Assembly.** Sufficient slack cable must be left in the upper cable assembly to permit:
 - a. Removal of the lampholder from an EMT support (light mast).
 - b. Disconnection of the cable connectors in the frangible coupling.

- H. **Fiberglass LIR Approach Lighting Towers.** LIR means Low Impact Resistance. An LIR tower is a tower designed to disintegrate when struck by an aircraft, offering low impact resistance to the aircraft, thus minimizing aircraft damage. The fiberglass LIR towers must be assembled from knocked-down (unassembled) condition according to the manufacturer's assembly instructions. Install the towers on foundations constructed in accordance with the drawings.

- I. Aiming and Alignment of Lights. Each light must be adjusted so that its optical axis is parallel to the runway centerline, directed outward from the runway threshold, and aimed upward to the required vertical angle. An aiming device is furnished for vertical aiming of the PAR-56 lampholders and flashing light units.

3.02 FLIGHT TEST.

- A. The Contractor must coordinate with the Director and the FAA to schedule the FAA flight check.
- B. The Contractor must coordinate with the Director and the FAA to obtain a copy of the results of the flight check. In the event that the flight check results are unsatisfactory, the Contractor must make any corrections or adjustments to the ALSF-2 construction as required to pass the flight check, at no additional cost to the Director.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Payment for Localizer / ALSF-2 equipment shelter and approach lighting system will be made on a lump sum basis

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment for accepted quantities of ALSF-2 Localizer equipment shelter and approach lighting system will be made at the contract unit price per lump sum price. The work includes but is not limited to installing ALSF-2 equipment and furnishing and installing the combined localizer ALSF-2 equipment shelters, and all other equipment necessary for a complete operational system, installation and testing of system components, site grading and bollard installation, sidewalks and concrete stairs, fence removal, and CA-6 stone and geotextile fabric around ALSF-2 lights will be included with this item and for all labor, materials, equipment, tools, and incidentals necessary to complete the item in accordance with this specification. All items associated with the ALSF-2 facility and not otherwise paid for separately will be included in this lump sum item. This item excludes equipment costs associated with Section 1.02A, 2.06 and 2.08 of this specification.

B. Payment will be made under:

ITEM NO.	DESCRIPTION	UOM
L-891-5.01	RUNWAY 10R ALSF-2 SUBSTATION FACILITY AND APPROACH LIGHTING SYSTEM, COMPLETE	LS
L-891-5.02	RUNWAY 28L ALSF-2 SUBSTATION FACILITY AND APPROACH LIGHTING SYSTEM, COMPLETE	LS

<u>Unit of Measure (UOM)</u>	<u>Abbreviation</u>
Lump Sum	LS

END OF SECTION L-891