DEPARTMENT OF PROCUREMENT SERVICES
NON-COMPETITIVE REVIEW BOARD (NCRB) APPLICATION

Complete this cover form and the **Non-Competitive Procurement Application Worksheet** in detail. Refer to the page entitled **"Instructions for Non-Competitive Procurement Application"** for completing this application in accordance with its policy regarding NCRB. Complete "other" subject area if additional information is needed. Subject areas must be fully completed and responses merely referencing attachments will not be accepted and will be immediately rejected.

Department	Originator Name	Telephone	Date	Signature of Application Author
Aviation	Abder R. Messar	773 686-2370	05/14/18	A Messar
Contract Liaison	**Email Contract Liaison**	**Telephone**		
David Bowman	david.bowman@cityofchicago.org	(773) 686-7089		

List Name of NCRB Attendees/Department	
James Harney Abder R. Messar Dave Bowman	

Request NCRB review be conducted for the product(s) and/or service(s) described herein.

Company: Siemens Industry, Inc. Infrastructure & Cities Sector Building Technologies Division Building Automation
585 Slawin Ct. Mt. Prospect, IL 60056

Contact Person:	Phone:	Email:
Brett Binkley	(847) 226-3564	brett.binkley@siemens.com

Project Description: O'Hare Airport Supervisory Monitoring System (SMS) and Fire Alarm System (FAS)

This is a request for:

☒ **New Contract**

Contract Type

☒ **Blanket Agreement** **Term: 60 (# of mo)**

☐ **Standard Agreement**

☐ **Amendment / Modification**

Type of Modification

☐ **Time Extension** ☐ **Vendor Limit Increase** ☐ **Scope Change**

Contract Number: ____

Specification Number: ____

Modification Number: ____

Department Request Approval		Recommended Approval	
Reshma Soni	6/1/18		7-20-18
DEPARTMENT HEAD OR DESIGNEE	DATE	BOARD CHAIRPERSON	DATE
Reshma Soni		Rich Butler	
PRINT NAME		PRINT NAME	

(FOR NCRB USE ONLY)

Recommend Approval/Date: _____

Return to Department/Date: _____

Rejected/Date: _____

SK 1/20/18

☒ **Approved** ☐ **Rejected**

CHIEF PROCUREMENT OFFICER

7-20-18
DATE

DEPARTMENT OF PROCUREMENT SERVICES
NON-COMPETITIVE REVIEW BOARD (NCRB) APPLICATION
JUSTIFICATION FOR NON-COMPETITIVE PROCUREMENT WORKSHEET

All applicable information on this worksheet must be addressed using each question found on the "Instructions for Non-Competitive Procurement Application" in this application.

Justification for Non-Competitive Procurement Worksheet

☒ PROCUREMENT HISTORY

1. Describe the requirement and how it evolved from initial planning to its present status.

Siemens is the manufacturer, designer, supplier, and installer of the equipment known as the Supervisory Monitoring System (SMS) and the Fire Alarm System (FAS). The SMS and the FAS are to be serviced, maintained, repaired, and upgraded throughout the terminals including the Consolidated Rental Car Facilities, Heating & Refrigeration Plant, and remote buildings at O'Hare Airport. Siemens is presently performing under a sole source contract PO28945 with the Chicago Department of Aviation (CDA); the contract is due to expire on 12/31/2018. Siemens or their companies (Landis & Staefa) have held sole source contracts at O'Hare under various contracts since 1988. CDA seeks to renew the contract for maintenance, service and repair. The SMS and FAS at O'Hare consist of hardware and software designed, supplied, installed, commissioned, and warranted and serviced by Siemens. The primary hardware components of the SMS and FAS are either manufactured by or designed by and manufactured specifically for Siemens. The software that operates the systems on all levels (Bacnet Controller, Data Network Closet Central, Network Processor of Insight and Desigo server, and interfaces) were designed and written by Siemens on a proprietary basis. This is an entirely proprietary system, and only Siemens has the capability to fully service the system, therefore no attempt is being made to competitively bid this requirement at this time. CDA still believes that competitive bidding may be possible for future procurement cycles if the industry evolves to full standardization around open-protocol technologies; to date and even with open protocol technologies, it is very difficult to mix, maintain and program different manufacturers' products. CDA, to date, has invested heavily in upgrading hardware and software to standardize around a single manufacturer's products. Compatibility with the existing equipment, system, software is very critical and need to be maintained from an operational standpoint, cost, quality, efficiency and standardization. The standardization program brings substantial benefits in terms of the quality of system performance (eliminating communications issues between devices and management software) and cost efficiencies associated with upgrade implementation and maintenance activities (due to standardized coding and configuration, and concentration of staff expertise around a single set of products). In order to achieve the same performance on quality and efficiency, a different provider would need to replace all of the Siemens equipment and software. This would require a very large investment by the City and would result in replacement of equipment with significant lifecycle time remaining; this would also likely result in a sole source scenario for operation and maintenance of the system with the new provider.

After a thorough analysis and discussion internally at CDA, we were faced with a need to make a choice of whether to attempt to competitively bid or to request for sole source procurement. CDA engaged Cosentini (a Tetra Tech company), an independent consultant with extensive knowledge of the industry, in 2012 and again in 2018 to review the existing Fire Alarm System (FAS) and Supervisory Monitoring System (SMS), assess industry standards for system procurement at other large facilities, and to provide a professional opinion on the procurement options available. The resulting consultant's recommendations are summarized throughout this application but to summarize, the consultant recommends continuing to work solely with Siemens.

2. Is this a first time requirement or a continuation of previous procurement from the same source? If so, explain the procurement history.

This is a continuation of previous procurement from the same source. Siemens has had a Service Agreement at CDA O'Hare for the past 12 years. Prior to 2007, CDA was under contract with Landis & Staefa which Siemens purchased

in 2001. Landis & Staefa originally was awarded the design and installation contract via the RFQ/RFP process in 1988. They were among three (3) firms which submitted proposals. This agreement is mainly used to perform preventive maintenance on the Building Automation System and the Fire and Life Safety System. When funds were available, additional tasks to update defective panels were completed. The goal of the CDA to have a BACNet compatible system installed which can run on the City network was achieved during the current contract term. We have updated the rest of the SMS and FAS panels and controls in the Domsetic Terminals and various other outlying buildings to BACNet or BACNet ready (when the Fiber is available will be put on City network). This contract will not be used to install fiber to facilitate this task, fiber was and will be installed by others.

We have the entire SMS operated by CDA with BACNet panels. This will allow all of the panels to communicate on the City Network where the City network fiber is available. By being on the network the system will run faster and be a nonproprietary BACNet system. This will allow other BACNet products to communicate on the same network along with the Siemens panels and viewed through one Graphical Interface already installed at O'Hare.

3. Explain attempts made to competitively bid the requirement (attach copy of sources contacted).

CDA engaged Cosentini (a Tetra Tech company) in 2012 and again in 2018 to review the existing Fire Alarm System (FAS) and Supervisory Monitoring System (SMS), assess industry standards for system procurement at other large facilities, and to provide a professional opinion on the procurement options available. Following a thorough investigation, Cosentini Engineers concluded that the two systems require fully integrated hardware, software, and O&M services to effectively deliver critical life safety and building management functions. Separating out a component of the system, such as O&M services, while theoretically possible, would have a series of impacts on performance quality, operating efficiency, and cost; which could include either replacement of the installed hardware and software asset base, substantially higher cost of replacement parts and software upgrades, or reduced efficiency and added complexity related to implementation of component upgrades or replacements. A competitive process designed to identify the best value professional O&M services must also ensure the continued integrity of the full system, including the hardware and software components, and would therefore require bidders to propose solutions for the full system. The opinion of Cosentini Engineers is that a competitive bidding process would not result in a practical solution for CDA's requirements given the heavy CDA investment in standardized hardware and software and the significant lifecycle time remaining on the installed asset base.

4. Describe in detail all research done to find other sources; list other cities, companies in the industry, professional organizations contacted. List periodicals and other publications used as references.

On behalf of CDA, Cosentini reviewed the existing CDA FAS and SMS systems, identified potential service providers, and conducted research into standard industry practices for similar large campus systems. Cosentini was established in 1952 to provide consulting services in the mechanical and electrical engineering disciplines. Engineering services include heating, ventilating, and air-conditioning (HVAC), electrical, plumbing and fire protection. The mechanical engineers in the HVAC discipline design and specify HVAC systems including building automation systems. The electrical engineers specify power distribution systems and equipment and fire alarm systems. Recent large projects in the Chicago area and United States include:

- Health Care Service Corporation, Enterprise, IL, TX, NM, OK, MT
- Exxon Mobile Headquarters, Houston, TX
- 111 W. Wacker Drive Residential Tower, Chicago, IL
- 150 North Riverside Center, Chicago, IL

Cosentini inspected and reviewed SMS/FAS configuration for the O'Hare Airport Domestic Terminal Buildings and Tunnels, the Heating & Refrigeration (H & R) Plant, consolidated rental car facility, and outlying buildings to understand the current extent of the FAS and SMS. Cosentini interviewed system programmers and maintenance contract staff to better understand all improvements, and upgrades that have been implemented over the last contract term. Cosentini compared major manufacturers and service providers, including:

- Siemens
- EST
- Honeywell/Notifier
- Automated Logic
- Johnson Controls

The review efforts focused on the interchangeability of equipment, open and proprietary communications protocols, open and proprietary device designs, and the practicality and cost of replacing and upgrading elements of the systems through a different contractor.

The original research effort included a search for organizations capable of maintaining similar large campus-wide systems. This has made the conclusion that there are few capable organizations. Large or campus-wide fire alarm systems consisting of varied manufacturers are unlikely to exist as it invalidates the UL listing of the fire alarm system. Within these large or campus-wide system, we found installations only by the few capable manufacturers. Where the manufacturer of the FAS and SMS were not the same, two separate maintenance contracts were required. In cases where the FAS and SMS are provided by a common manufacturer, both were maintained by that same manufacturer.

5. Explain future procurement objectives. Is this a one-time request or will future requests be made for doing business with the same source?

This is a request for a 5-year term contract; however, CDA believes that competitive bidding may be possible for future procurement cycles if the industry evolves to full standardization around open-protocol technologies. To-date and even with open protocol technologies, it is very difficult to mix, maintain and program different manufacturers' products. During the last term a BACNet, upgrade was implemented. This have made the integration of some 3rd party elements easier, but not a mixing of systems.

CDA has taken management control of the networking hardware and firmware and user account and network device management.

a. Starting 2010, CDA IT/Unisys has started to administer and maintain the network.

b. As part of the process CDA has expanded the number of network routers and converters to more areas of the airport to allow for more BACNet cabinet installations.

6. Explain whether or not future competitive bidding is possible. If not, explain in detail.

CDA believes that competitive bidding may be possible for future procurement cycles if the industry evolves to full standardization around open-protocol technologies. To date and even with open protocol technologies, it is very difficult to mix, maintain and program different manufacturers' products. This is partly an issue of the network infrastructure on which the systems are built, and partly an issue of the coding required for devices to communicate with the front-end management software and the related configuration of the front-end software. CDA has invested in open-protocol network infrastructure (BACNet) to link devices across the systems. While it is theoretically possible for

devices from one manufacturer to communicate across an open-protocol network with front-end management software from a different provider, this requires custom coding and configuration, potentially reducing the effectiveness of the system and increasing the cost of implementation. In Cosentini's experience, it is extremely rare for building automation or fire alarm systems to contain front-end management software from a different manufacturer than the device hardware manufacturer. CDA has plans to continue to invest in open-protocol network infrastructure so that when the technology evolves to the point where it is practical to efficiently operate a multi-provider system, CDA will be in a position to seek competitive bids from qualified firms. In the meantime, CDA believes the best value for the City can be achieved by building on the significant investment to date in Siemens hardware and software and continuing to standardize around Siemens products utilizing BACNet capable hardware where available.

☒ ESTIMATED COST

1. What is the estimated cost for this requirement or for each contract, if multiple awards are contemplated? What is the funding source?

O&M Funding: 740 85 4035 0162 0162

Total annual price change from Year 2018 to Year 2019:

$3,336,709.38 (Year 2018 Cost) minus $400,000 (yearly 60 panel migration in 2018) = $2,936,709.38

$3,112,911.94 (Year 2019 Cost, 6% increase in cost to offset the 28.5% increase in coverage (Siemens has integrated 130 new panels and more than 10,000 monitoring points, over 250 system graphics were added to the platform in addtion to absorbing the O'Hare Consolidated Rental Car Facilities (CRCF)). This is actually a budget net decrease of 6.71% for Year 2019 compared to Year 2018.

There is a 3% increase year over year for years 2020-2023.

	2019	2020	2021	2022	2023	
	Yr1 (6%)	Yr2 (3%)	Yr3 (3%)	Yr4 (3%)	Yr5 (3%)	Contract Totals
Monthly	259,409.30	267,191.57	275,207.32	283,463.54	291,967.45	
Yearly	3,112,911.54	3,206,298.89	3,302,487.85	3,401,562.49	3,503,609.36	16,526,872.13
Special Projects*	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00	1,250,000.00
Budget	3,362,911.54	3,456,298.89	3,552,487.85	3,651,562.49	3,753,609.36	17,776,870.10

	2019	2020	2021	2022	2023	
	Yr1 (6%)	Yr2 (3%)	Yr3 (3%)	Yr4 (3%)	Yr5 (3%)	Contract Totals
Budget W/Terminal 5**	3,452,911.54	3,548,998.89	3,647,968.85	3,749,907.92	3,854,905.15	18,254,692.35

O'Hare Airport International Terminal 5 Building 325 and Tunnels**

(**) Siemens currently (May 2018) provides testing only of both SMS & FAS through Skyline Management Group (SMG) at the cost of $150K annually. Under this contract Siemens will provide comprehensive coverage for SMS and FAS at the cost of $90K for the first year annually and 3% escalation for Year 2 to Year 5 for a total contract term of $477,822.22 and an overall budget of $18,254,692.35.

The 1.2 MM Square Foot Terminal 5 contains an additional 93 Siemens SMS Panels, 31 Fire Alarm Control Panels, and 7,500 additional system points.

In order for Siemens to provide comprehensive coverage at Terminal 5 all SMS & FAS for Terminal 5 will migrate

under a separate contract utilizing the Terminal 5 Property Management contract (P.O.# 27075). Comprehensive coverage will be implemented as each phase of the project is completed. Once migrations are complete any future system add-ons will fall under the comprehensive contract under Line Item 1, Section 1.2-1 Preventative Maintenance & Monitoring.

Additionally, Siemens has provided a separate document to Skyline Management Group titled "Siemens SMS Terminal 5 List of Mechanical-Control Deficiencies" that will need to be addressed under the SMG Terminal 5 Property Management contract (P.O. # 27075).

Since 2014, Siemens has integrated 130 new field panels and 10,000 additional points to existing systems during CDA construction projects. This is approximately 25% growth in the Siemens Automation & Fire Life Safety systems. The systems installed at O'Hare are now made up of over 600 panels and 65,000 points. Siemens also upgraded existing legacy panels to BACnet over the last 5 years, which means all Siemens panels communicate on the City Ethernet network. Under agreement Siemens installed Desigo CC platform, the next generation IT based platform used for Total Building Solutions at O'Hare to integrate Automation, Life Safety, and Security systems.

Siemens is currently installing both SMS & FAS at the new O'Hare Consolidated Rental Car Facilities (CRCF) to be completed in 2018; This installation was competitively bid and is being completed under the construction contract for that facility. Under 2019 contract Siemens will also absorb the new Consolidated Rental Car Facilities coverage for comprehensive SMS and Fire Life Safety Agreement; estimated at $350,000 ($70,000 x 5 Years) on the new proposed 5 year contract to CDA..

The CRCF contains an additional 13 Siemens SMS Panels, 5 Fire Alarm Control Panels, and 2,000 system points which increases Siemens CDA coverage with an additional 3.5%.

With the CRCF included in the total systems covered under the comprehensive maintenance agreement, the coverage has expanded 28.5% compared to 2018 contract. Growth will continue into next the contract due to the continued investment in infrastructure upgrades at O'Hare Airport. Siemens has already secured multiple large expansions to the systems. Please see Scope of Work and Equipment/System List and system growth from 2013.

Siemens will provide full coverage under current comprehensive program to any Fire Life Safety and SMS equipment added on projects at no addtitional cost to City.

2. What is the estimated cost by fiscal year?

	2019	2020	2021	2022	2023	
	Yr1 (6%)	Yr2 (3%)	Yr3 (3%)	Yr4 (3%)	Yr5 (3%)	Contract Totals
Monthly	259,409.30	267,191.57	275,207.32	283,463.54	291,967.45	
Yearly	3,112,911.54	3,206,298.89	3,302,487.85	3,401,562.49	3,503,609.36	16,526,872.13
Special Projects*	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00	1,250,000.00
Budget	3,362,911.54	3,456,298.89	3,552,487.85	3,651,562.49	3,753,609.36	17,776,870.10

Including O'Hare International Terminal 5 Building 325 and Associated Tunnels**:

	2019	2020	2021	2022	2023	
	Yr1 (6%)	Yr2 (3%)	Yr3 (3%)	Yr4 (3%)	Yr5 (3%)	Contract Totals
Budget W/Terminal 5**	3,452,911.54	3,548,998.89	3,647,968.85	3,749,907.92	3,854,905.15	18,254,692.35

(**) Siemens currently (May 2018) provides testing only of both SMS & FAS through Skyline Management Group at a cost of $150,000 annually.

Under this contract Siemens will provide comprehensive coverage for SMS and FAS systems at the cost of $90,000 for the first year annually and 3% escalation for Year 2 to Year 5 for a total contract term of $ 477,822.22 and an overall airportwide budget of $18,254,694.50.

(*) = Based on time and material line items– Projects are performed at the discretion of CDA. Vendor will only be paid for services requested by CDA.

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 catalogue or cost proposal from firms solicited, engineering or in-house estimate, etc.)

Total annual price change from Year 2018 to Year 2019 (previous contract to new contract):

$3,336,709.38 (Year 2018 Cost) minus $400,000 (yearly 60 panel migration in 2018) = $2,936,709.38

$3,112,911.94 (Year 2019 Cost, 6% increase in cost to offset the 28.5% increase in coverage). This is actually a budget net decrease of 6.71% for Year 2019 compared to Year 2018 (current contract).

There is also a 3% increase year over year for years 2020-2023.

The cost was based on the current contract taking into account the completed conversion of 300 panels to open BACNet protocol, the inclusion of the Consolidated Rental Car Facilities, the additional airport areas and equipment covered and the additional projects that will be completed on T&M at CDA's discretion.

Line 1 of the contract, PREVENTATIVE & MONITORING LABOR, PARTS, MATERIAL, is based on the current 2018 monthly price that CDA is paying now plus a 6% escalation for 2019, and 3% increase thereafter; this line takes into account the conversion of the 300 panels to BACNet completed under the current contract, the inclusion of the Consolidated Rental Car Facilities and the additional airport areas and equipment covered and the additional projects that will be completed on T&M at CDA's discretion.

The yearly increase is capped at 3% for year two to year five. It is a fully loaded monthly maintenance price that covers all labor and materials on a 24/7 basis thus limiting CDA's exposure to unexpected maintenance expenses instead of Time & Material which could result in considerable unanticipated costs if the system should incur large failures/breakdowns.

The rest of the labor and material lines (Lines 2 -24) that may be used for CDA special projects are based on the current 2018 contract rates with a 2% increase for the first year 2019, and 3% increase thereafter.

Contractor's parts are discounted at 52% from the catalog prices, unchanged from the current contract.

Non-Contractor's parts are marked up at 10% above cost, unchanged from the current contract.

Subcontracting services are marked up at 10% above cost, unchanged from the current contract.

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.

CDA has invested heavily in upgrading hardware and software to standardize around a single manufacturer's products. The standardization program brings substantial benefits in terms of the quality of system performance (eliminating communications issues between devices and management software) and cost efficiencies associated with upgrade implementation and maintenance activities (due to standardized coding and configuration, and concentration of staff expertise around a single set of products). In order to achieve the same performance on quality and efficiency, a different provider would need to replace all of the Siemens equipment and software. This would require a very large investment by the City and would result in replacement of equipment currently having significant lifecycle time remaining. The alternatives are to reverse the standardization program and begin to introduce another manufacturer's products over the lifetime of the contract per regular upgrade and maintenance schedules; or to require a new service provider to acquire and install Siemens products and software. CDA expects that the first alternative would result in degradation of system performance and a loss of efficiency in the upgrade and maintenance programs. The second alternative would result in a higher cost for Siemens products due to the addition of third-party mark-up and loss of direct access to Siemens personnel for maintenance and support of the installed assets.

This new contract will have a fully loaded monthly maintenance price that covers all labor and materials on a 24/7 basis. This will limit CDA's exposure to unexpected maintenance expenses as opposed to a Time & Material contract which could result in considerable unanticipated costs should the system incur large failures/breakdowns.

5. Explain what negotiation of price has occurred or will occur. Detail why the estimated cost is deemed reasonable.

We have met with the vendor on several occasions and discussed the pricing, requiring them to stay at the current rate level or below for the same services. The rates offered to CDA are very competitive and significantly lower than the vendor's street rates.

a. Siemems first proposal was to price Year 1 (2019) by adding 9.4% increase to the last year 2018 of the current contract to offset the system coverage growth during the last 5 years, approximately 25% growth. Total Contract Term = $20,477,072 including a 2% escalation for Year 2 and 3% escalation for Year 3 to Year 5.

b. We then asked Siemens to include the new Consolidated Rental Car Facilities with its additional 13 Siemens SMS Panels, 5 Fire Alarm Control Panels, and 2000 system points (additional 3.5%) and the International Terminal 5 that contains an additional 93 Siemens SMS Panels, 31 Fire Alarm Control Panels, and 7500 additional system points (additional 13.5%) for a total of 17% in equipment coverage. Siemens came back with the same pricing for a Total Contract Term of $20,477,072 including a 2% escalation for Year 2 and a 3% escalation for Year 3 to Year 5.

c. In the next round of negotiations, we then asked Siemens to change the base of their calculation by subtracting $400,000 from Year 2018 – price paid to migrate the panels to BACnet and to price Terminal 5 separately. Their pricing came back with only 6% increase for the first year (Year 2019) from the Year 2018 (minus $400,000) and a 3% escalation thereafter for Year 2 to Year 5; the Total Contract Term is now $17,776,872.28

Siemens currently (May 2018) provides testing only of both SMS & Fire Life Safety Systems through Skyline Management Group at a cost of $150K; under this contract Siemens will provide comprehensive coverage for SMS and Fire Life Safety systems at a cost of $90K for the first year with a 3% escalation thereafter for Year 2 to Year 5 for a Total Contract Term of $477,822.22.

The Overall Total Contract Term including Terminal 5 is now $18,254,694.50 including a 3% escalation thereafter for Year 2 to Year 5..

Attached are the Field Service Labor Rates (Street Rates) and rates for their preferred for the Chicago Area and their proposals to CDA.

☒ SCHEDULE REQUIREMENTS

1. Explain how the schedule was developed and at what point the specific dates were known.

   New Contract would start January 1, 2019 as the current contract will expire December 31, 2018.

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.

No,the lack of drawigs and/or specicifications are not a constraining factor to competitive bidding, however, CDA engaged Cosentini (a Tetra Tech company) in 2012 and in 2018 to review the existing Fire Alarm System (FAS) and Supervisory Monitoring System (SMS), assess industry standards for system procurement at other large facilities, and to provide a professional opinion on the procurement options available. Following a thorough investigation, Cosentini Associates concluded that the two systems require fully integrated hardware, software, and Operations and Maintenance (O&M) services to effectively deliver critical life safety and building management functions. Separating out a component of the system, such as O&M services, while theoretically possible, would have a series of impacts on performance quality, operating efficiency, and cost; which could include either replacement of the installed hardware and software asset base, substantially higher cost of replacement parts and software upgrades, or reduced efficiency and added complexity related to implementation of component upgrades or replacements. A competitive process designed to identify the best value professional O&M services must also ensure the continued integrity of the full system, including the hardware and software components, and would therefore require bidders to propose solutions for the full system. The opinion of Cosentini Associates is that a competitive bidding process would not result in a practical solution for CDA's requirements given the heavy CDA investment in standardized hardware and software and the significant lifecycle time remaining on the installed asset base.

The goal of the CDA is to have a fully integrated system to effectively deliver critical life safety and building management functions. Siemens has updated approximately 600 (100%) panels in Terminals 1-3 and various other outlying buildings to BACNet or BACNet ready; when the Fiber is available will be put on City network. The Consolidated Rental Car Facilities 13 panels are already in BACNet; if Terminal 5 is selected to be under this contarct, all 93 panels will be migrated to BACNet first.

3. Outline the required schedule by delivery or completion dates and explain the reasons why the schedule is critical.

The current contract will expire on December 31, 2018 as the new contract should start on January 1st, 2019.

4.. Describe in detail what impact delays for competitive bidding would have on City operations, programs, costs and budgeted funds.

CDA engaged Cosentini (a Tetra Tech company) to review the existing Fire Alarm System (FAS) and Supervisory Monitoring System (SMS), assess industry standards for system procurement at other large facilities, and to provide a professional opinion on the procurement options available. Following a thorough investigation, Cosentini Associates concluded that the two systems require fully integrated hardware, software, and Operations and Maintenance (O&M) services to effectively deliver critical life safety and building management functions. Separating out a component of the system, such as O&M services, while theoretically possible, would have a series of impacts on performance quality, operating efficiency, and cost; which could include either replacement of the installed hardware and software asset base, substantially higher cost of replacement parts and software upgrades, or reduced efficiency and added complexity related to implementation of component upgrades or replacements. A competitive process designed to identify the best value professional O&M services must also ensure the continued integrity of the full system, including the hardware and software components, and would therefore require bidders to propose solutions for the full system. The opinion of Cosentini Associates is that a competitive bidding process would not result in a practical solution for CDA's requirements given the heavy CDA investment in standardized hardware and software and the significant lifecycle time remaining on the installed asset base. Siemens has updated approximately 600 (100%) panels in Terminals 1-3 and various other outlying buildings to BACNet or BACNet ready (when the Fiber is available will be put on City network). Furthermore if the the curent system is not being maintained, we may lose the capabilities to control and monitor our Heating and Refrigeration equipment, fire alarm systems, and many other essential systems at the airport that depend on the current SMS and/or FAS.

☒ 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.

The FAS and SMS are integrated systems of hardware, software, and services. CDA has invested heavily in Siemens hardware and software and plans to continue to build on a system standardized around Siemens products, until such time as truly open-protocol technology standards exist in the industry. The professional O&M services element of the contract could, in theory, be separated from the provision of hardware and software components, however CDA believes that Siemens is uniquely qualified to fulfill this role, and that no other provider can deliver the depth and range of expertise on Siemens hardware and software products that exists within the current Siemens organization. Siemens can uniquely provide access to software designers and engineers responsible for development of the Siemens Apogee/Desigo front-end management system to address complex coding and communications issues across all devices managed by the system. Siemens personnel also provide highly detailed knowledge of the existing O'Hare systems, configurations, and bespoke coding. The existing knowledge base is very important and cannot be quickly replicated by a third-party services provider. In addition to the unique nature of Siemens qualifications and their experience with the O'Hare systems, contracting directly with Siemens for O&M services provides a direct channel to Siemens for hardware and software components, avoiding third-party mark-up costs.

2. Does the proposed firm have personnel considered unquestionably predominant in the particular field?

Siemens personnel are without doubt the predominant experts in building automation and fire alarm systems utilizing the Siemens Apogee/Desigo front-end management system and an installed asset base of majority Siemens hardware. Siemens has significantly more detailed knowledge of the existing O'Hare system and CDA maintenance requirements than any other potential provider. Siemens technicians have a minimum of 4-6 weeks of initial

classroom training that is performed at Siemens Training Center. This training encompasses the software and hardware programming and maintenance routines. Once this initial training is completed the technicians need to attend a minimum of one training program per year. This additional training is to ensure the technicians are up to date on any changes made to the Siemens Operating System. The Siemens Apogee/Desigo system programming is one part of the training the technicians receive and ensures that when programs are written they are similar in nature to allow for ease of servicing when required.

3. What prior experiences of a highly specialized nature does the person or firm exclusively possess that is vital to the job, project or program?

The FAS and SMS are integrated systems composed of hardware, software, and services. CDA has invested heavily in Siemens hardware and software and currently operates an installed asset base that is composed primarily of Siemens equipment (approximately 98% of the FAS and approximately 100% of the SMS control panels) and is managed by the Siemens Apogee/Desigo front-end management system. The Siemens service organization is highly specialized in the installed hardware and software components and can exclusively provide deep expertise in Siemens products from front-line service personnel to software designers and system engineers. Fire alarm and building automation systems for a campus at the scale of O'Hare are highly complex and require software customization and configuration that can only be provided by the manufacturer.

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?

Siemens software development teams continually provide O'Hare with the latest updates and newest versions of software and equipment due to the complex nature of the O'Hare systems. CDA benefits from the focus of the Siemens development teams in addressing the complexities of the O'Hare systems in new versions, and from the focus of the software experts in optimizing the performance of the existing system.

Siemens is the Manufacturer of all the components that are used in their Building Automation and Fire Systems.

The Powers Process Control Language is a software operating system which is a copywritten product owned and maintained by Siemens Industry, Inc.

Siemens has R&D and troubleshooting teams available in Buffalo Grove Illinois to assist with any problems that may occur with software or hardware items manufactured and installed by Siemens Branches.

Specialized tools, only distributed to Siemens factory trained technicians include:

- Commissioning Interface Software which allows technician to talk to terminal equipment controllers and make changes and determine the operation of unit.
- Commissioning Tool which helps with the start-up of field cabinets when they go down or are initially installed.
- Job Editor Software which allows the technician to backup the database of the system and having a current copy in case of the system going down.
- Designer Software is the software used by the Technician to design the application specific graphics that are installed in the system.

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?

Due to the complexity of the FAS and SMS, software upgrades to the front-end system require significant installation and related customization work that requires the expertise of Siemens software engineers. In addition, much of the upgrade and installation work is currently carried out as part of test bed initiatives by Siemens, which provides significant benefit to CDA with minimal associated cost. CDA would likely incur significantly higher costs for installation and customization services delivered by a third-party; by personnel that are not part of the Siemens organization.

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, possess. Is compatibility with existing equipment critical from an operational standpoint? If so, provide detailed explanation?

CDA is procuring upgrade and replacement hardware and software, as well as support services for maintenance and upgrade of the FAS and SMS systems. CDA, to date, has invested heavily in upgrading hardware and software to standardize around a single manufacturer's products. Compatibility with the existing equipment, system, software is very critical and need to be maintained from an operational standpoint, cost, quality, efficiency and standardization. The standardization program brings substantial benefits in terms of the quality of system performance (eliminating communications issues between devices and management software) and cost efficiencies associated with upgrade implementation and maintenance activities (due to standardized coding and configuration, and concentration of staff expertise around a single set of products). In order to achieve the same performance on quality and efficiency, a different provider would need to replace all of the Siemens equipment and software. This would require a very large investment by the City and would result in replacement of equipment with significant lifecycle time remaining; this would also likely result in a sole source scenario for operation and maintenance of the system with the new provider.

7. Is competition precluded because of the existence of patent rights, copyrights, trade secrets, technical data, or other proprietary data (attach documentation verifying such)?

Competition is not precluded only because of the existence of patent rights, copyrights, trade secrets, technical data, or other proprietary data but also because while it is theoretically possible for devices from one manufacturer to communicate across an open-protocol network with front-end management software from a different provider, this requires custom coding and configuration, potentially reducing the effectiveness of the system and increasing the cost of implementation. In Cosentini's experience, it is extremely rare for building automation or fire alarm systems to contain front-end management software from a different manufacturer than the device hardware manufacturer. CDA plans to continue to invest in open-protocol network infrastructure so that when the technology evolves to the point where it is practical to efficiently operate a multi-provider system, CDA will be in a position to seek competitive bids from qualified firms. In the meantime, CDA believes the best value for the City can be achieved by building on the significant investment to date in Siemens hardware and software and continuing to standardize around Siemens products.

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 on company letterhead.

CDA is procuring upgrade and replacement hardware and software, as well as support services for maintenance and upgrade of the FAS and SMS systems. CDA, to date, has invested heavily in upgrading hardware and software to standardize around a single manufacturer's products. The standardization program brings substantial benefits in terms of the quality of system performance (eliminating communications issues between devices and management software) and cost efficiencies associated with upgrade implementation and maintenance activities (due to standardized coding and configuration, and concentration of staff expertise around a single set of products). In order

to achieve the same performance on quality and efficiency, a different provider would need to replace all of the Siemens equipment and software. This would require a very large investment by the City and would result in replacement of equipment with significant lifecycle time remaining; this would also likely result in a sole source scenario for operation and maintenance of the system with the new provider. With respect to parts, while Siemens has various distributors for their products, buying from a distributor instead of the manufacturer, Siemens would simply add an additional level of mark up on the price and provide no additional value. Other manufacturer's products are not fully compatible/interchangeable with those manufactured by Siemens.

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 completed C-1 and 0-1 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.

Siemens plans to meet the MBE requirements under the contract with: MBE direct participation of 22%. Siemens has requested and justified a WBE waiver which CDA concurs with.

OTHER

1. Explain other related considerations and attach all applicable supporting documents, i.e. an approved "ITGB Form" or "Request For Individual Hire Form"

Not Applicable.

☐ OTHER

DEPARTMENT OF PROCUREMENT SERVICES
NON-COMPETITIVE REVIEW BOARD (NCRB) APPLICATION
INSTRUCTIONS FOR NON-COMPETITIVE PROCUREMENT APPLICATION

INSTRUCTIONS FOR PREPARATION OF NON-COMPETITIVE PROCUREMENT APPLICATION

If a 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 Application" in which procurement is requested on a or non-competitive basis in accordance with 65 ILCS 5/8-10-4 of the Illinois Compiled Statutes. Using this instruction sheet, all applicable information must be addressed on the worksheet. 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. For Amendments, Modifications, 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.

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 sources contacted).
4. Describe in detail all research done to find other sources; list other cities, companies in the industry, professional organizations contacted. List periodicals and other publications used as references.
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, explain in detail.

ESTIMATED COST

1. What is the estimated cost for this requirement or for each contract, if multiple awards are contemplated? What is the funding source?
2. What is the estimated cost by fiscal year?
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 experiences 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, possess. Is compatibility with existing equipment critical from an operational standpoint? If so, provide detailed explanation?
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 on company letterhead.

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 completed 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

1. Explain other related considerations and attach all applicable supporting documents, i.e., an approved "ITGB Form" or "Request For Individual Hire Form".

REVIEW AND APPROVAL

This application must be signed by both Originator of the request and signed by the Department Head. After review and final disposition from the Board, this application will be signed by the Board Chairman. After review and final disposition from the Board, this form will be presented to the Chief Procurement Officer recommending approval.

DEPARTMENT OF PROCUREMENT SERVICES

Attach required forms for each procurement type and detailed scope of services and/or specifications and forward original documents to the Chief Procurement Officer; City Hall, Room 806.

Date: 6/1/2018

Department Name: Aviation

Requisition No:	Specification No:
224851	784155
PO No:	**Modification No:**

Contract Liaison: David Bowman

Telephone: 773 686-7089

Email:

Project / Program Manager: Abder Messar

Telephone: 773 686-2370

Email:

Check One:

☒ **New Contract Request**

***By signing below, I attest the estimates provided for this contract are true and accurate.**

***Project / Program Manager Signature** Abder Messar (DH)

***Commissioner/Authorized Designee Signature** Reshmi Salon

For Blanket Agreements, the lead department must consult with other departments who may want to participate in the Blanket Agreement. If grant funded, attach copy of the approved grant application and other terms and conditions of the funding source.

Note:
1) Funding: Attach information if multiple funding lines
2) Individual Contract Services: Include approval form signed by all parties
3) ITGB: IT project valued at $100,000.00 or more, attach approval transmittal sheet.

***Contract Liaison Signature** David Bowman (DH)

**By signing this form, I attest that all information provided is true and accurate.*

Project Title: Support and Maintenance of the Supervisory Monitoring System (SMS) and Fire Alarm System (FAS) at O'Hare International Airport

Project Description: Support and Maintenance of the Supervisory Monitoring System (SMS) and Fire Alarm System (FAS) at O'Hare International Airport

Funding:

☐ Corporate	☐ Bond	☒ Enterprise	☐ Grant	☐ Other:
☐ IDOT/Transit	☐ IDOT/Highway	☐ FHWA	☐ FTA	☐ FAA

LINE	FY	FUND	DEPT	ORGN	APPR	ACTV	PROJECT	RPTG	ESTDOLLAR AMOUNT
	18	740	85	4035	0162	0162			$18,254,692.35

Purchase Order Information:

Contract Term (No. of Months): 60

Extension Options (Rate of Recurrence): 1 (181 days)

Estimated Spend/Value: $18,254,692.35

Grant Commitment / Expiration Date:

Pre-Bid/Submittal Conference: ☐ Yes ☐ No

☐ Mandatory ☐ Site Visit

Purchase Order Type:

☒ Blanket/Purchase Order (DUR)
☐ Master Consultant Agreement (Task Order)
☐ Standard/One-Time Purchase

Procurement Method:

☐ Bid ☐ RFP ☐ RFQ ☐ RFI
☐ Small Order

Special Approvals Required:

☐ Emergency
☒ Non-Competitive Review Board (NCRB)
☐ *Request for Individual Contract Services*
☐ Information Technology Governance Board (ITGB)
☐ IDOT Concurrence

Contract Type:

☐ Architect Engineering ☐ Commodity ☐ Construction ☐ JOC ☐ SBI
☐ Professional Services ☐ Revenue Generating ☐ Vehicle & Heavy Equipment
☒ Work Service ☐ Joint Procurement ☐ Reference Contract

☐ **Modification or Amendment**

Modification Information:

PO Start Date:

PO End Date:

Amount (Increase/Reduction):

Safety Enhancing Vehicle Equipment (MCC 2-92-597) Yes__No___

Modification/Amendment Type:

☐ Time Extension ☐ Scope Change/Price Increase /Additional Line Item(s)
☐ Vendor Limit Increase ☐ Requisition Encumbrance Adjustment
☐ Other (specify):

MBE/WBE/DBE Analysis: *(Attach MBE/WBE/DBE Goal Setting Memo)*

☐ Full Compliance ☒ Contract Specific Goals
☐ No Stated Goals ☒ Waiver Request

☐ **Risk Management / EDS / IDOT**

Insurance Requirements (included) ☒ Yes ☐ No

EDS Certification of Filling (included) ☒ Yes ☐ No

IDOT Concurrence (required) ☐ Yes ☐ No

Vendor Information

Name: Siemens Industry, Inc.

Contact: Brett Binkley

Address: 20 S. Clark Street, Suite 2210, Chicago, IL 60603

E-mail: brett.binkley@siemens.com

Phone: 847 226-3564

CHICAGO DEPARTMENT OF AVIATION

CITY OF CHICAGO

To: Jamie L. Rhee
Chief Procurement Officer

Attention: Elizabeth Granados-Perez
Deputy Procurement Officer

From: Ginger Evans
Commissioner

Subject: **Request for New Non Competitive Procurement Contract**
Support and Maintenance of the Supervisory Monitoring System (SMS And the Fire Alarm System (FAS)
Expiring PO Number: 28945
Expiring Specification Number: 118417
Current Expiration: 12/31/2018
Current Vendor: Siemens

The Chicago Department of Aviation (CDA) requests approval and assistance to process a non-competitive procurement of the Support and Maintenance Services of the Supervisory Monitoring System (SMS) and the Fire Alarm System (FAS) at O'Hare International Airport.

The current contract for the Support and Maintenance Services of the SMS and FAS will expire on 12/31/2018. Siemens holds the contract and has done an exceptional job maintaining the monitors for all fire alarms, life safety alarms, and electrical and mechanical building systems throughout O'Hare International Airport.

Siemens manufactured, designed, supplied, installed, commissioned and warranted all of the existing equipment. Siemens originally was awarded the design and installation contract via the RFQ/RFP process in 1988. They were among three (3) firms which submitted proposals. At that time, they were known as Landis & Staefa. They have maintained the system on a sole source contract basis since then. The primary hardware components of the SMS and FAS are either manufactured by or designed by and manufactured specifically for Siemens. The Supervisory Monitoring and the Fire Alarm Systems and software used are proprietary to Siemens and the company does not license any third-party vendors to use its equipment.

The operating system cannot be maintained by anyone other than Siemens due to its proprietary nature. However, when components such as air handling units are added to the system, any manufacturer's operating controls can be used, so long as there is an "open protocol communication" installed which translates the other manufacturers language to Siemens language and vice versa. We believe that

competitive bidding may be possible for future procurement cycles if the industry evolves to full standardization around open-protocol technologies.

This is partly an issue of the network infrastructure on which the systems are built, and partly an issue of the coding required for devices to communicate with the front-end management software and the related configuration of the front-end software.

CDA has invested in open-protocol network infrastructure (BACNet) to link devices across the systems. While it is theoretically possible for devices from one manufacturer to communicate across an open-protocol network with front-end management software from a different provider, this requires custom coding and configuration, potentially reducing the effectiveness of the system and increasing the cost of implementation. It is extremely rare for building automation or fire alarm systems to contain front-end management software from a different manufacturer than the device hardware manufacturer. We plan to continue to invest in open-protocol network infrastructure so that when the technology evolves to the point where it is practical to efficiently operate a multi-provider system, CDA will be in a position to seek competitive bids from qualified firms.

In the meantime, we believe the best value for the CDA can be achieved by building on the significant investment to date in Siemens hardware and software and continuing to standardize around Siemens products.

The goal of the CDA is to have a BACNet compatible system installed which can run on the City network. We have updated 600 panels in Terminals 1-3 and various other buildings to BACNet or BACNet ready (when the Fiber is available will be put on City network).

With this proposal, Siemens will also include the new O'Hare International Airport Consolidated Rental Air Facilities (CRCF) where the equipment was installed under a competitively bid construction contract.

Siemens, acting as a subcontractor, is currently installing both the SMS and FAS in the CRCF with work to be completed in 2018. This new facility will be covered in the 2019 contract under the new Sole Source for Comprehensive SMS and FAS Supervision and Maintenance.

The CRCF contains an additional thirteen (13) Siemens SMS Panels, five (5) Fire Alarm Control Panels and 2,000 System Points which will increase Siemens' coverage of System Points at O'Hare by approximately 3.5%

As a result of various new construction projects the total of system coverage has increased by 28.5% during the current 2013-2018 contract. All the Panels are on the City network where the City network fiber is available. By being on the network the system runs faster and is a nonproprietary BACNet based system. This allows other BACNet products to be put on the same network with the Siemens panels and viewed through one Graphical Interface already installed at O'Hare.

CDA, to date, has invested heavily in upgrading hardware and software to standardize around a single manufacturer's products. Compatibility with the existing equipment, system, software is very critical and need to be maintained from an operational standpoint, cost, quality, efficiency and standardization. The standardization program brings substantial benefits in terms of the quality of system performance (eliminating communications issues between devices and management software) and cost efficiencies associated with upgrade implementation and maintenance activities (due to standardized coding and configuration, and concentration of staff expertise around a single set of products). In order to achieve the same performance on quality and efficiency, a different provider would need to replace all of the Siemens equipment and software at a cost that would exceed $20,000,000. This would require a very large investment by the City and would result in replacement of equipment with significant lifecycle time remaining; this would also likely result in a sole source scenario for operation and maintenance of the system with the new provider.

Estimated Annual Costs:

	2019	2020	2021	2022	2023	
	Yr1	Yr2 (3%)	Yr3 (3%)	Yr4 (3%)	Yr5 (3%)	Contract Totals
Monthly	259,409.30	267,191.57	275,207.32	283,463.54	291,967.45	
Yearly	3,112,911.54	3,206,298.89	3,302,487.85	3,401,562.49	3,503,609.36	16,526,872.13
Special Projects*	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00	1,250,000.00
Budget	3,362,911.54	3,456,298.89	3,552,487.85	3,651,562.49	3,753,609.36	17,776,870.10

(*) = Based on time and material – Projects are performed at the discretion of CDA. Vendor will only be paid for services requested by CDA.

The cost was based on the current contract taking into account the already conversion of 300 panels to open BACNet protocol, the inclusion of the Consolidated Rental Car Facilities, the additional airport areas and equipment covered and the additional projects that will be completed on T&M at CDA's discretion.

Line 1 of the contract, PREVENTATIVE & MONITORING LABOR, PARTS, MATERIAL, is based on the current 2018 monthly price that CDA is paying in 2018 plus a 6% escalation for 2019, and 3% increase thereafter; this line takes into account the conversion of the 300 panels to BACNet completed under the current contract, the inclusion of the Consolidated Rental Car Facilities and the additional airport areas and equipment covered and the additional projects that will be completed on T&M at CDA's discretion.

Total annual price change from Year 2018 to Year 2019:

$3,336,709.38 (Year 2018 Cost) minus $400,000 (yearly 60 panel migration in 2018) = $2,936,709.38

$3,112,911.54 (Year 2019 Cost, 6% increase in cost to offset the 28.5% increase in coverage). This is a budget net decrease of 6.71% for Year 2019 compared to Year 2018.

We are also looking into adding the International Terminal 5 under this contract. Siemens currently (May 2018) provides testing only of both SMS & Fire Life Safety Systems through Skyline Management Group at a cost of $150,000; under this contract Siemens will provide comprehensive coverage for SMS and FAS at a cost of $90,000 for the first year with a 3% escalation thereafter for Year 2 to Year 5 for a total contract term of $477,822.22 and an overall total budget of $18,254,692.35.

The 1.2 MM Square Foot Terminal 5 contains an additional 93 Siemens SMS Panels, 31 Fire Alarm Control Panels, and 7,500 additional system points. In order for Siemens to provide comprehensive coverage at Terminal 5 all SMS & FAS for Terminal 5 will need to be migrated under a separate contract. Comprehensive coverage will be implemented as each phase of the project is completed. Once migrations are complete any future system add-ons will fall under the comprehensive contract under Line Item 1, Section 1.2-1 Preventative Maintenance & Monitoring. Additionally, Siemens has provided a separate document to Skyline Management Group titled "Siemens SMS Terminal 5 List of Mechanical-Control Deficiencies" that will need to be addressed under separate contract.

	2019	2020	2021	2022	2023	
	Yr1	Yr2 (3%)	Yr3 (3%)	Yr4 (3%)	Yr5 (3%)	Contract Totals
Terminal 5 Addition Annual	90,000.00	92,700.00	95,481.00	98,345.43	101,295.79	477,822.22
Budget	3,452,911.54	3,548,998.89	3,647,968.85	3,749,907.92	3,854,905.15	18,254,692.35

The yearly increase is capped at 3% for year two to year five. It is a fully loaded monthly maintenance price that covers all labor and materials on a 24/7 basis thus limiting CDA's exposure to unexpected maintenance expenses instead of Time & Material which could result in considerable unanticipated costs if the system should incur large failures/breakdowns.

The rest of the labor and material lines (Lines 2 -24) that may be used for CDA special projects are based on the current 2018 contract rates with a 2% increase for the first year 2019, and 3% increase thereafter.

Contractor's parts are discounted at 52% from the catalog prices, unchanged from the current contract.

Non-Contractor's parts are marked up at 10% above cost, unchanged from the current contract.

Subcontracting services are marked up at 10% above cost, unchanged from the current contract.

Siemens plans to meet the MBE requirements under the contract with MBE direct participation of 22% and has requested full waiver from WBE participation which CDA concurs with.

Procurement Type:	Non-Competitive	
Duration:	5 Years + 181 Day Extension Option	
Funding:	740-85-4035-0162-1374	
User Contact:	Abder R. Messar	Phone: 773-686-2370
User Deputy:	James Harney	Phone: 773-686-4604

SIEMENS

May 29, 2018

Chicago Department of Aviation
10510 West Zemke Road
Chicago, IL 60666
Attn: Abder Messar

Subject: Siemens O'Hare SMS and Fire Sole Source Contract with Siemens Industry, Inc. Exclusive Capabilities

Abder,

This document is an analysis and evaluation of the current and prospective Siemens SMS and Fire contract with O'Hare International Airport. Contract operations and financials were reviewed and the results show why Siemens is uniquely qualified to fulfill this scope of work. Refer to the Appendix for a) comprehensive list of industry standards, codes and guidelines and b) references.

1. Siemens/O'Hare Partnership

A. Siemens is best suited to complete the work for this contract because we manufacture the products and software for the Fire Life Safety and SMS systems currently installed at O'Hare. Siemens has proactively upgraded the SMS system to open communication protocol BACnet which facilitates communication to 3rd party systems and equipment.
   - Airport systems are industry standard are now open protocol BACnet, but the installed equipments firmware and programming is still Siemens based, which requires Siemens technician tools to interface with
   - As technology continues to evolve and improve, Siemens can seamlessly upgrade firmware and make software and programming upgrades to its own software based on future needs of the airport
   - Siemens software security patches continue to be upgraded and installed to keep the airport's Life Safety & SMS system secure from cyber threats

B. A competitor would not be able to upgrade software, programming, or provide security patches which translates to major liability for the city on the installed Fire Life Safety and SMS assets.
   - Major liability to the city of Chicago and could result in issues with keeping the airport safe from fire and loss of life
   - The Fire Life Safety and SMS system are integrated through Siemens software which allows communication of all critical Life Safety data seamlessly to the O'Hare Command Center & HR Plant
   - It is critical the SMS connection allows data to seamlessly flow due to need for fast response times during airport emergency events

C. For a competitor to takeover these systems they would have to provide extensive capital system upgrades including:
   - Replace the server and 600 supervisory field panels with estimated market costs of $15,000 per panel for $9-10MM in upgrades alone

Brett Rule
5/29/18

SIEMENS

C. New O'Hare Airport Consolidated Rental Car Facility
   - Siemens is currently installing both SMS & Fire Life Safety systems through the contractor tier for the new O'Hare Consolidated Rental Car Facility to be completed in 2018
     - Under the new contract Siemens will provide comprehensive coverage for SMS and Fire Life Safety systems at no additional cost to CDA. Relative to the domestic terminals, the new Consolidated Rental Car Facilities contains an additional 13 Siemens SMS Panels, 5 Fire Alarm Control Panels, and 2000 System points. Comprehensive coverage for Consolidated Rental Car Facility equates to approximately $70K in annual value at no additional cost to CDA. This means $350K savings ($70K x 5 Years) on the new proposed 5 year contract to CDA. This also increases the total Siemens systems covered by 3.5% Airport Wide, for a total contract net increase of 28.5% systems covered relative to current contract

D. O'Hare International Terminal 5 Building 325
   - Siemens currently provides testing only of both SMS & Fire Life Safety Systems through Skyline Management Group at the cost of $150K annually
     - Under new contract Siemens will provide coverage for SMS and Fire Life Safety systems at additional cost of $90,000 in Year 1 to cover periodic Fire Life Safety System testing. Relative to the domestic terminals, the 1.2 MM Square Foot Terminal 5 contains an additional 93 Siemens SMS Panels, 31 Fire Alarm Control Panels, and 7500 additional system points.

NOTE1: Please note that in order for Siemens to provide comprehensive coverage at Terminal 5 all SMS & Fire Life Safety Systems for Terminal 5 will need to be migrated under separate contract. Comprehensive coverage will be implemented as each phase of project is completed. Once migrations are complete any future system add-ons will fall under the comprehensive contract.

NOTE2: Siemens has provided another document titled "Siemens SMS Terminal 5 List of Mechanical-Control Deficiencies" that will need to be addressed under separate contract.

3. Siemens Chicago Capabilities

The local Siemens branch has over 300 people on staff to service the Automation and Fire Life Safety systems installed at O'Hare. This depth of personnel insures that no matter what might happen Siemens will have the resources to keep the airport Building Automation System & Fire Life Safety critical infrastructure running and under control.

A. Chicago Team and Resources
   - 9 minimum fulltime technicians, electricians, pipefitters and software professionals on-site
   - Proposed 10 minimum full time technicians, electricians, pipefitters and software professionals on-site for new 2019-2023 contract

Brett DeQ
5/21/18

SIEMENS

- Licensed manufacturer and installer of automation & fire systems - OEM
- Technicians have extensive OEM factory training
- Branch location less than 10 miles from site with 300 Siemens employees
- Siemens US Home Office 15 miles from site with complete staff available to problem solve any situation
- Siemens Factory and warehouse located at US Home Office with tens of millions of dollars worth of product used at O'Hare which means easy access to full inventory
- 30+ year proven track record at O'Hare with high satisfaction at O'Hare
- Achieved current Minority Business goals of 21.4%
- Proposed Minority Business goals of 22% participation on new 2019-2023 contract
- R&D and software development center in downtown Chicago
- Downtown office in Chicago loop

4. Financials: Historical and Projections

A. During the current contract term, CDA invested $400,000 per year annually from January 2014 through December 2018 for Siemens to migrate Field Panel's to BACnet. This translates to total contract spend of $2,000,000 for migrations.

- This equates to approximately 12% of total contract amount spent on BACnet migrations
- These migrations will be complete by end of contract in 2018
- Total number of panels migrated over contract term is 300

	2014	2015	2016	2017	2018	Totals
Monthly	249,474.00	254,463.48	262,097.38	269,960.31	278,059.12	
Annual	2,993,688.00	3,053,561.76	3,145,168.61	3,239,523.67	3,336,709.38	15,768,651.43
Special Projects	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00	1,250,000.00
Total Annual Investment	3,243,688.00	3,303,561.76	3,395,168.61	3,489,523.67	3,586,709.38	17,018,651.43
Migrations	400,000	400,000	400,000	400,000	400,000	2,000,000
% Migrations of Contract	12.33%	12.11%	11.78%	11.46%	11.15%	11.75%

B. The new contract 2019 proposed pricing listed below is calculated by taking the 2018 base contract $3,336,709.38 minus $400,000 in panel migrations completed plus 6% and 3% thereafter. ($3,336,709.38 - $400,000 + 6% + = $3,112,911.54) The initial 6% increase is used to cover relative increase in base SMS and Fire Life Safety system coverage, in addition to providing comprehensive coverage at the new O'Hare Airport Consolidated Rental Car Facility.

Table without Terminal 5

	2019	2020	2021	2022	2023	Totals
Monthly	259,409.30	267,191.57	275,207.32	283,463.54	291,967.45	
Yearly	3,112,911.54	3,206,298.89	3,302,487.85	3,401,562.49	3,503,609.36	16,526,870.13
Special Projects	250,000	250,000	250,000	250,000	250,000	1,250,000
Total Annual Investment	3,362,911.54	3,456,298.89	3,552,487.85	3,651,562.49	3,753,609.36	17,776,870.10

Brett DeL
5/29/18

SIEMENS

Siemens Industry, Inc.

Building Technologies Division

Service Labor Rates - Chicago Area Rates *(Jan 1, 2018 thru Dec 31, 2018)*

Please note: Rates shown are for the period referenced above but are subject to change without notice.

Standard Labor Rates:	Straight Time (M-F 7 AM to 5 PM) excl. Holidays	Regular Overtime (M-F 5 PM to 7 AM, & Sat) excl. Holidays	Sundays & Holidays
SMS/BAS Specialist	$223.00	$290.00	$379.00
Electrician	$232.00	$302.00	$394.00
Fire Technician	$189.00	$246.00	$321.00
Security Specialist	$189.00	$246.00	$321.00
Software Engineer	$235.00	$306.00	$399.00
Energy Engineer	$272.00	$354.00	$462.00
Electrical Engineer	$251.00	$326.00	$427.00
Mechanical Pipe Fitter	$199.00	$259.00	$338.00

Customers with an active Service Agreement will be eligible for the preferred customer labor rates listed below. O'Hare Airport Rates are additionally discounted from preferred Service Agreement rates to highest Preferred Rates

Preferred Customer Labor Rates:	Straight Time (M-F 7 AM to 5 PM) excl. Holidays	Regular Overtime (M-F 5 PM to 7 AM, & Sat) excl. Holidays	Sundays & Holidays
SMS/BAS Specialist	$188.00	$244.00	$320.00
Electrician	$203.00	$264.00	$345.00
Fire System Specialist	$166.00	$216.00	$283.00
Security Specialist	$166.00	$216.00	$283.00
Software Engineer	$207.00	$269.00	$352.00
Energy Engineer	$238.00	$309.00	$404.00
Electrical Engineer	$220.00	$286.00	$374.00
Mechanical Pipe Fitter	$175.00	$228.00	$297.00

Material Rates: Customers with an active Service Agreement will benefit from a discount percentage off of standard pricing for Siemens Industry Inc. – BT Division products. Customers without a Service Agreement will pay standard pricing for Siemens Industry Inc. – BT Division products.

5/29/18

SIEMENS

a) Current Industry Standards & Guidelines

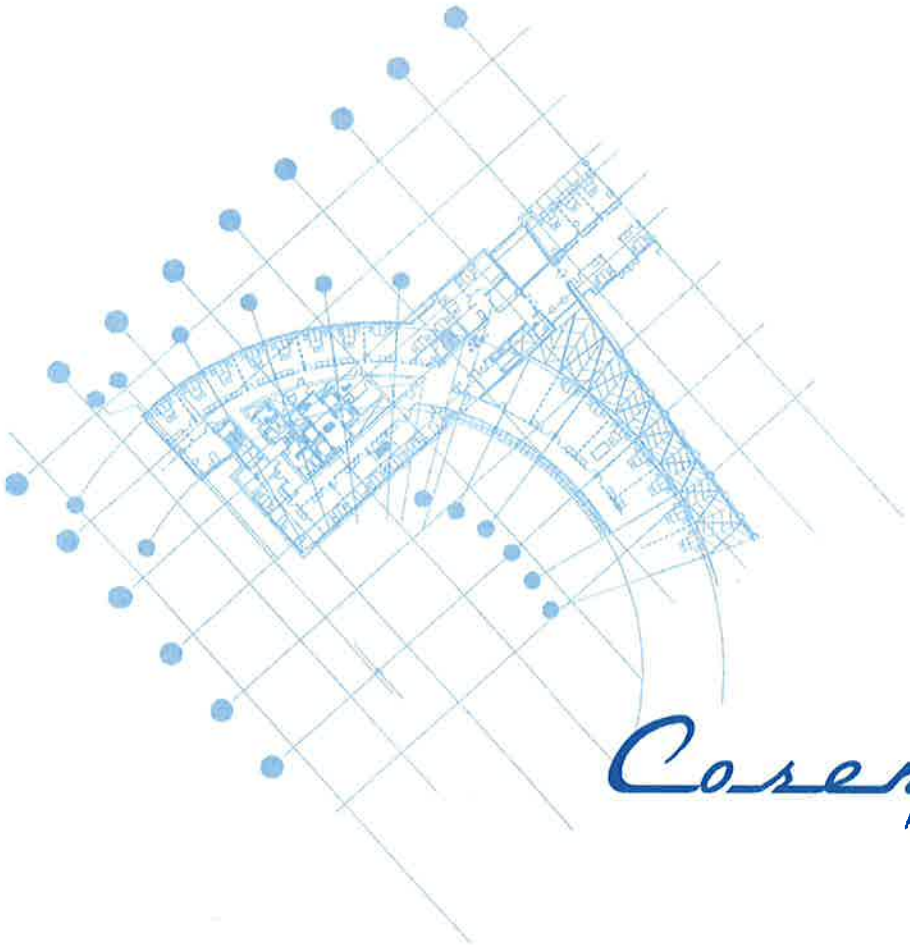
Code	URL
National Electrical manufacturers Association (NEMA) Standards Publication SB 2-2016	https://www.nema.org/news/Pages/NEMA-Revises-Training-Manual-on-Fire-Alarm-Systems-NEMA-SB-2-2016.aspx
National Fire Protection Association (NFPA) 72	https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=72
American with Disabilities Act (ADA)	https://www.ada.gov/
City of Chicago Mayor's Office for People with Disabilities (MOPD)	https://www.cityofchicago.org/city/en/depts/mopd.html
City of Chicago Building Code (CBC)	https://www.cityofchicago.org/city/en/depts/bldgs/provdrs/inspect/svcs/chicago_buildingcodeonline.html
City of Chicago Electrical Code (CCEC)	https://www.cityofchicago.org/city/en/depts/bldgs/supp_info/electrical_inspections.html
American Society of Heating, Ventilation, Air Conditioning and Refrigeration Engineers (ASHRAE)	https://www.ashrae.org/
American Society of Heating, Ventilation, Air Conditioning and Refrigeration Engineers (ASHRAE 180) Standard 180	https://www.ashrae.org/standards-research--technology/standards-interpretations/interpretations-for-standard-180-2008
Telecommunications Industry Association (TIA)	https://www.tiaonline.org/
Electronic Industries Alliance (EIA)	https://www.ecianow.org/standards-practices/standards/
American National Standards Institute	https://www.ansi.org/
BACnet Standard 135	https://www.ashrae.org/resources--publications/bookstore/bacnet

b) References

1. LaGuardia Airport - New York
https://www.siemens.com/press/en/pressrelease/?press=/en/pressrelease/2018/buildingtechnologies/pr2018020149bten.htm&content[]=BT&content[]=BTCPS

2. City of Chicago Office of Emergency Management & Communications
https://www.cityofchicago.org/city/en/depts/oem.html

5/29/18



Cosentini
A TETRA TECH COMPANY

SMS/FAS Maintenance Contract Review Report for Chicago Department of Aviation

Chicago, IL

May 14, 2018

TABLE OF CONTENTS

1.0 Overview

The intent of this report is to review the current scope status of the maintenance contract involved with Supervisory Monitoring System (SMS) and the Fire Alarm System (FAS) from the contract initiation 2013 coming to the end of its term in 2018.

Under the 2013 contract scope review, an extensive facility review was performed by Cosentini personnel to understand the magnitude of the installed systems and the extent of potential work required under the maintenance contract. This review was a much more consolidated approach perform to accomplish the following:

- Overview of existing systems to see if maintenance was being handling in an ongoing professional manner.
- Review new installations and upgrades that have occurred in the last 5 years that were accomplished under this contract or other capital projects.
- Discuss with Maintenance personnel the current monitoring processes, procedures and staff work load.

2.0 System Upgrades

1. FAS
    a. Almost the entire Fire alarm system has been replaced over the last 5-years. 75% of the system components have been replaced with new Siemens devices. 3776 of the 5016 FAS devices have been replaced and are all capable of being monitored by the front end of the system. This involved initiating devices such as duct detectors, smoke detectors, flow switches and tamper switches.
    b. Network wiring had all been replaced to accomplish communication with the new main FA panel.
    c. Full elevator recall is now in place to comply with current code, previously non-existent.
    d. Areas not previously covered have been added at the request of the surety company. This includes fuel vaults and electrical rooms. ComEd vaults were also addressed at the request of ComEd.
    e. The newly configured system includes new graphics and devices that are mapped to the airports current building naming convention.
    f. Areas not yet converted to the new system remain in operation and maintenance under the old system until completed converted. Maintenance of both the new and old systems has been required through the upgrade process.
2. SMS
    a. All new Siemens control panels are being installed in place of the existing over the past 5 years. This program is 81% completed with 398 of the 491 panels having been replaced. This project should be 100% by the end of this contract term in 2018.
    b. The new field level controllers now reside on the City's fiber network being installed under a different contract to a separate vendor. This eliminates the former proprietary SMS network. The new network will be maintained by UNYSIS and not Siemens dependent.
    c. The new controllers are all BACNet based and communicate with both Siemens and 2nd party equipment. Monitoring is brought back to the front end. All operating and monitoring received a new naming convention based upon the airports building number designation.
    d. Currently, there are 66,133 points residing on the system.

e. The Delta control system installed in a portion of T3 has been removed and replaced with Siemens. The former Delta system was not manufactured in an era where BACNet communication on the newly installed system was easily handled.
f. Central services areas that have been added to the SMS system include:
    i. Cooling Towers
    ii. Plant Switch gear
    iii. Domestic water pumps and control
    iv. New generator project.
g. Expansion areas that have been added to the scope include:
    i. L concourse expansion
    ii. Remote central car rental facility
    iii. T3 bag box ventilation system
    iv. Multiple CDA outbuildings
    v. New Parking Structure
h. Upcoming addition scope
    i. Addition of T5 onto the SMS

3. Front End
    a. The front end had undergone a complete upgrade to the most current version of Apogee automation software.
    b. Currently the entire front end is now being upgraded to the newest version of software, Desigo system.
    c. Currently the main system server resides within the control at the H&R plant. This server is maintained with automatic backups along with interim manually initiated backups while programming is occurring. Once the city network system has been completed this will be moved over to a virtual server.

3.0 Tasks

As part of this evaluation, some of the normal tasks covered or inferred under this contract included.

1. Point to point PMs for all installed SMS and FAS controllers, devices and components associated with these sequences. This includes valve and damper actuators, both electrically driven and pneumatic.
2. Response to cold calls/hot calls registered directly to the Siemens H&R desk or through the formal CDA request system.
3. Response to all trouble and alarm signals appearing on the system.
4. Replacement of SMS or FAS components, sensors, controllers, monitors or work stations or wiring that fails.
5. Updates to front end software.
6. Response to ground faults that knock panels off-line.
7. After-hours emergency responses.
8. Monitoring of non-system components such as Elevators and escalators.

4.0 Recommendations

There is a significant investment in place for the initial installation and programming of the SMS and FAS system. Five years ago, the recommendation was to retain Siemens on continued maintenance of these systems. In five years these systems have been replaced with all new state-of-the art componentry. The workmanship exhibited appears to be best-in-class.

FAS system installation for future new and renovation projects within the airport are not solely dependent upon Siemens. Siemens provides the devices which are all installed and wired by independent contractors. Siemens provides final connection and programming to maintain continuity and security within the system. This methodology would be applicable to whomever the FAS vendor would be and does not lock the CDA or its tenants into 100% dependency on Siemens.

SMS components are moving in the direction of an open protocol through the CDA's implementation of a complete BACNet based system. The network is no longer proprietary and third-party terminal devices are easily being installed on the system. It is in the CDA's best interest to maintain all programming from the field panels up to the head end to remain under the management of Siemens. To date, they utilize all in-house technicians and programmers to accomplish this task. As a result, all programming has remained consistent.

Additional vendors added at the field panel level would require the replacement of new equipment to achieve proper communication and programming capability. New gateways would be required to communicate with remaining equipment. These are typically expensive and take an extensive amount of time to develop and debug. No vendor has a gateway that will readily communicate with all other major vendor's equipment to date. Such a replacement would require a capital cost reinvestment upwards of $20,000,000 only to replace newly installed equipment. In the end, this would only result in an alternate or additional maintenance contract costing the CDA more money than that currently proposed by Siemens.

Therefore, from a labor and cost efficiency, quality and reliability point of view we would recommend retaining the Siemens SMS/FAS installation in the currently planned state.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 09/14/2017

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 have ADDITIONAL INSURED provisions or 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
MARSH USA, INC.
445 SOUTH STREET
MORRISTOWN, NJ 07960-6454

100129-SBT--17/18 220 KMETY

CONTACT NAME:
PHONE (A/C, No, Ext): **FAX (A/C, No):**
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : HDI Global Insurance Company	41343
INSURER B : The Travelers Indemnity Company	25658
INSURER C : Travelers Property Casualty Co. of America	25674
INSURER D : The Charter Oak Fire Insurance Company	25615
INSURER E :	
INSURER F :	

INSURED
SIEMENS INDUSTRY, INC.
BUILDING TECHNOLOGIES
1000 DEERFIELD PARKWAY
BUFFALO GROVE, IL 60089

COVERAGES **CERTIFICATE NUMBER:** NYC-009200203-50 **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 INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC OTHER:			GLD1110109	10/01/2017	10/01/2018	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ $ $ $ $ $	1,000,000 1,000,000 100,000 1,000,000 10,000,000 INCL
C	**AUTOMOBILE LIABILITY** X ANY AUTO X OWNED AUTOS ONLY X HIRED AUTOS ONLY [ ] SCHEDULED AUTOS X NON-OWNED AUTOS ONLY			TC2JCAP7440L34A17	10/01/2017	10/01/2018	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $	2,000,000 N/A N/A N/A
A	X **UMBRELLA LIAB** X OCCUR **EXCESS LIAB** [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $			CUD1110209	10/01/2017	10/01/2018	EACH OCCURRENCE AGGREGATE	$ $	5,000,000 5,000,000
D B C	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y/N ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] N/A **(Mandatory In NH)** If yes, describe under DESCRIPTION OF OPERATIONS below			TC2OUB8049X50817 (AOS) TRKUB8049X51A17 (AZ, MA, OR & WI) TWXJUB7440L33817 (OH & WA) """$500K LIMIT / $500K SIR"""	10/01/2017 10/01/2017 10/01/2017	10/01/2018 10/01/2018 10/01/2018	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $	1,000,000 1,000,000 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
CITY OF CHICAGO IS INCLUDED AS ADDITIONAL INSURED UNDER THE ABOVE REFERENCED GENERAL LIABILITY AND AUTOMOBILE LIABILITY INSURANCE POLICIES AND THE COVERAGE AFFORDED THE ADDITIONAL INSURED UNDER THESE POLICIES SHALL BE PRIMARY AND NON-CONTRIBUTORY INSURANCE TO THE EXTENT THAT A CLAIM ARISES FROM THE NEGLIGENCE OF SIEMENS INDUSTRY, INC. OR ITS SUBCONTRACTORS WITH RESPECT TO ALL OPERATIONS OF THE INSURED BUT ONLY WITH RESPECT TO ALL WORK PERFORMED BY AND ON BEHALF OF THE NAMED INSURED, SIEMENS INDUSTRY, INC. FOR CERTIFICATE HOLDER UNDER CONTRACT.

CERTIFICATE HOLDER

CITY OF CHICAGO - AIRPORT OPERATIONS
RESOURCES
ATTN: R. SMITH
P.O. BOX 66551 - AMF/O'HARE INTERNATIONAL AIRPORT
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 of Marsh USA Inc.
Manashi Mukherjee Manashi Mukherjee

CDA MBE/WBE Goals Concurrence Memo for Siemens Industry, Inc. New Sole Source Application

James Hankin

Tue 6/5/2018 10:12 AM

To: Monica Jimenez <Monica.Jimenez@cityofchicago.org>;

Cc: Gwendolyn Smith <Gwendolyn.King@cityofchicago.org>; Bridget O'Shea <Bridget.O'Shea@cityofchicago.org>; David Bowman <DAVID.BOWMAN@cityofchicago.org>;

1 attachments (1 MB)

Siemens Sole Source CDA MBE WBE Concurrence Memo Jun '18.pdf;

Monica,

The CDA MBE/WBE goals concurrence memo for the new Siemens Industry, Inc. sole source is attached for your review. The memo is part of the NCRB application package that was submitted to DPS June 5, 2018.

Thank you.

James Hankin
Coordinator of Special Projects
Chicago Department of Aviation
10510 W. Zemke Road
Chicago, IL 60666
(773) 686-3541

CHICAGO DEPARTMENT OF AVIATION

CITY OF CHICAGO

MEMORANDUM

To: Jamie L. Rhee
Chief Procurement Officer

Attention: Elizabeth Granados-Perez
Deputy Procurement Officer

Monica Jimenez
Deputy Procurement Officer

From: Ginger S. Evans
Commissioner

Subject: Concurrence with Contractor's Request for WBE Waiver on New Sole Source Contract for Support and Maintenance of the Supervisory Monitoring System (SMS) and Fire Alarm System (FAS) at O'Hare International Airport
Requisition Number: 224851
Specification Number: 784155
Expiring PO Number: 28945
Vendor: Siemens Industry, Inc.

The Chicago Department of Aviation (CDA) is in receipt of a letter from Siemens Industry, Inc. dated May 29, 2018 requesting a full WBE waiver and is in concurrence pending review and approval by the Department of Procurement Services.

This request is based on the specialized commodity nature of Support and Maintenance of the Supervisory Monitoring System (SMS) and Fire Alarm System (FAS) and the lack of qualified WBE firms that can perform on this contract. Siemens has committed to 22% MBE participation on the new contract. The current contract, PO 28945, was granted a full WBE waiver and has an MBE goal of 21.4%.

If you have any questions or need additional information regarding this recommendation, please contact David Bowman at (773) 686-7089.

SIEMENS

May 29, 2018

Chicago Department of Aviation
10510 West Zemke Road
Chicago, IL 60666
Attn: Abder Messar

Subject: MBE Letter of Intent for O'Hare SMS and Fire Sole Source Contract with Siemens Industry, Inc.

Abder,

This document is a Letter of Intent for Siemens Industry, Inc. to utilize Quantum Crossings, L.L.C. as MBE firm under the O'Hare Airport SMS and Fire Sole Source Contract and request a waiver from WBE utilization.

1. **Quantum Crossings, L.L.C. Experience**
   - Quantum Crossings, L.L.C. has been working with Siemens at O'Hare for 12 years and is a qualified MBE firm on the existing contract from 2013-2018.
   - They have received extensive Siemens factory training on Siemens installed equipment at O'Hare.

2. **Quantum Crossings, L.L.C. Staffing**
   - **(2) SMS System Specialist:**
     There are (2) SMS System Specialist on staff from Quantum. The Specialists' conduct complex maintenance tasks with Siemens SMS hardware, software, and equipment. Provide documentation of all installations, inspections, maintenance and repair work, and failures. Lead the most complex SMS service or systems calls and interfaces with customer personnel to provide quality service and feedback on problem evaluation and resolution. Guide assessment of the most complex installation and service of SMS product/equipment performance based on field support data and designs modifications or improvements.

   - **(2) Fire Safety Testing and Inspection Specialist:**
     There are (2) Fire Safety Testing and Inspection Specialist on staff from Quantum. The Specialists' conduct complex maintenance, testing, and repair on Siemens Fire Life Safety XLS platform. Complete documents of all installations, inspections, maintenance and repair work, and failures. Lead the most complex Fire Life Safety service or systems calls and interfaces with customer personnel to provide quality service and feedback on problem evaluation and resolution. Guide assessment of the most complex installation and service of Siemens Fire Life Safety product/equipment performance based on field support data and designs modifications or improvements.

   - **(1) Electrician:**
     There is (1) Electrician on staff from Quantum. The highly skilled control capable system electrician specializes in electrical installation capabilities for dedicated SMS controllers, interlocks and related fiber optic and Fire Life Safety system installation. Contains expertise and experience in the installation of multiplexed fire alarm systems. National Institute for Certification in Engineering Technologies (NICET) Level IV technician for Fire

Brett Pl
5/29/18

SIEMENS

Alarm System manufacturer to supervise installation, adjustments, and tests of the system.

3. **Contract Financials: Historical and Projections**
    - 21.4% of overall contract amount over last 5 years
    - 22% of overall contract amount for next 5 years
    - $3,635,911.43 of Siemens total contract amount $16,526,870.13 through 2023

4. **Contract WBE Exclusion**
    - Siemens current sole source contract is excluded from WBE due to lack of qualified WBE firms that can perform specialty nature of the services
    - Attaining a WBE firm for next contract would take time and resources to find and provide extensive training on the tasks currently performed by MBE Quantum Crossings L.L.C
    - Siemens requests that this be extended to 2019-2023 contract

Siemens remains committed to supported MBE firm participation on the contract. Quantum Crossings L.L.C. is an extension of the Siemens team at O'Hare Airport. Therefore the Siemens/Quantum team helps minimize system downtime while maximizing safety and providing peace of mind. As an addition to the CDA team, Siemens/Quantum supplements city employees at the airport to ensure you're prepared with the most experienced personnel.

Best regards,

Brett Binkley - O'Hare Account Manager
Siemens Industry, Inc.
Brett.Binkley@siemens.com

Brett Bi
5/29/18

DEPARTMENT OF PROCUREMENT SERVICES

CITY OF CHICAGO

AUG 14 2015

Roger J. Martinez
Quantum Crossings, L.L.C.
111 E. Wacker Drive, Suite 990
Chicago, IL 60601

Dear Roger J. Martinez:

We are pleased to inform you that **Quantum Crossings, L.L.C.** has been recertified as a **Minority-Owned Business Enterprise ("MBE")** by the City of Chicago ("City"). This **MBE** certification is valid until **04/01/2020**; however your firm's certification must be revalidated annually. In the past the City has provided you with an annual letter confirming your certification; such letters will no longer be issued. As a consequence, we require you to be even more diligent in filing your **annual No-Change Affidavit 60 days** before your annual anniversary date.

It is now your responsibility to check the City's certification directory and verify your certification status. As a condition of continued certification during the five year period stated above, you must file an annual No-Change Affidavit. Your firm's **annual No-Change Affidavit** is due by **04/01/2016, 04/01/2017, 04/01/2018, and 04/01/2019.** Please remember, you have an affirmative duty to file your **No-Change Affidavit 60 days** prior to the date of expiration. Failure to file your annual No-Change Affidavit may result in the suspension or rescission of your certification.

Your firm's five year certification will expire on **04/01/2020.** You have an affirmative duty to file for recertification **60 days** prior to the date of the five year anniversary date. Therefore, you must file for recertification by **02/01/2020.**

It is important to note that you also have an ongoing affirmative duty to notify the City 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, gross receipts and or personal net worth that exceed the program threshold. Failure to provide the City with timely notice of such changes may result in the suspension or rescission of your certification. In addition, you may be liable for civil penalties under Chapter 1-22, "False Claims", of the Municipal Code of Chicago.

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

- File your annual No-Change Affidavit within the required time period;
- Provide financial or other records requested pursuant to an audit within the required time period;
- Notify the City of any changes affecting your firm's certification **within 10 days** of such change; or

- File your recertification within the required time period.

Please be reminded of your contractual obligation to cooperate with the City with respect to any reviews, audits or investigation of its contracts and affirmative action programs. We strongly encourage you to assist us in maintaining the integrity of our programs by reporting instances or suspicions of fraud or abuse to the **City's Inspector General at chicagoinspectorgeneral.org, or 866-IG-TIPLINE (866-448-4754).**

Be advised that 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. 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 the individual or entity, or the individual or entity assisted 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 and not more than $10,000 or both.

Your firm's name will be listed in the City's Directory of Minority and Women-Owned Business Enterprises in the specialty area(s) of:

NAICS Code(s):
236220- Construction of Commercial and Institutional Buildings and Structures
237130- Construction Management, Power and Communication Transmission Line
541512- Computer Systems Design Consulting Services
541512- Network Systems Integration Design Services, Computer
541513- Computer Systems Facilities Management and Operation Services
541618- Telecommunications Management Consulting Services

Your firm's participation on City contracts will be credited only toward **Minority-Owned Business Enterprise** goals in your area(s) of specialty. While your participation on City contracts is not limited to your area of specialty, credit toward goals will be given only for work that is self-performed and providing a commercially useful function that is done in the approved specialty category.

Thank you for your interest in the City's Minority and Women-Owned Business Enterprise (MBE/WBE) Program.

Sincerely,

Jamie L. Rhee
Chief Procurement Officer

JLR/fn

SCHEDULE C-1

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

FOR NON-CONSTRUCTION PROJECTS ONLY

Project Name: ORD SMS & Fire System Maintenance Specification No.: 784155

From: Quantum Crossings, LLC
(Name of MBE/WBE Firm)

To: Siemens and the City of Chicago.
(Name of Prime Contractor)

The MBE or WBE status of the undersigned is confirmed by the attached City of Chicago or Cook County, Illinois Certification Letter. 100% MBE or WBE participation is credited for the use of a MBE or WBE "manufacturer." 60% participation is credited for the use of a MBE or WBE "regular dealer."

The undersigned is prepared to perform the following services in connection with the above named project/contract. If more space is required to fully describe the MBE or WBE proposed scope of work and/or payment schedule, including a description of the commercially useful function being performed. Attach additional sheets as necessary:
_Commercial Building Construction - Installation & Service for Siemens SMS and Fire Alarm Systems Maintenance

The above described performance is offered for the following price and described terms of payment:
22% of contract and invoiced monthly and paid net 30 days

SUB-SUBCONTRACTING LEVELS

A zero (0) must be shown in each blank if the MBE or WBE will not be subcontracting any of the work listed or attached to this schedule.

0 % of the dollar value of the MBE or WBE subcontract that will be subcontracted to non MBE/WBE contractors.

0 % of the dollar value of the MBE or WBE subcontract that will be subcontracted to MBE or WBE contractors.

NOTICE: **If any of the MBE or WBE scope of work will be subcontracted, list the name of the vendor and attach a brief explanation, description and pay item number of the work that will be subcontracted. MBE/WBE credit will not be given for work subcontracted to Non-MBE/WBE contractors, except for as allowed in the Special Conditions Regarding Minority Business Enterprise Commitment and Women Business Enterprise Commitment.**

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, within three (3) business days of your receipt of a signed contract from the City of Chicago.

The undersigned has entered into a formal written mentor protégé agreement as a subcontractor/protégé with you as a Prime Contractor/mentor: ( ) Yes (X) No

NOTICE: **THIS SCHEDULE AND ATTACHMENTS REQUIRE ORIGINAL SIGNATURES.**

(Signature of President/Owner/CEO or Authorized Agent of MBE/WBE) 7-12-18 (Date)

Roger J. Martinez, President & CEO
(Name/Title-Please Print)

rmartinez@quantumcrossings.com 312-467-0374
(Email & Phone Number)

Schedule D-1: Affidavit of Implementation of MBE/WBE Goals and Participation Plan

SCHEDULE D-1
Compliance Plan Regarding MBE/WBE Utilization
Affidavit of Prime Contractor

FOR NON-CONSTRUCTION PROJECTS ONLY

MUST BE SUBMITTED WITH THE BID. FAILURE TO SUBMIT THE SCHEDULE D-1 WILL CAUSE THE BID TO BE REJECTED. DUPLICATE AS NEEDED.

Project Name: ORD SMS and Fire System Maintenance

Specification No.: 784155

In connection with the above captioned contract, I HEREBY DECLARE AND AFFIRM that I am a duly authorized representative of Siemens.
(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 and/or Cook County, Illinois (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 joint venture and one or more joint venture partners are certified MBEs or WBEs, attach copies of Letters of Certification, Schedule B form and a copy of Joint Venture Agreement clearly describing the role of each MBE/WBE firm(s) and its ownership interest in the joint venture.

B. Complete this section for each MBE/WBE Subcontractor/Supplier/Consultant participating on this contract:

1. Name of MBE/WBE: Quantum Crossings LLC
   Address: 111E Wacker Dr. Ste 990 Chicago, IL 60601
   Contact Person: Roger Martinez
   Phone Number: 312-467-0374
   Dollar Value of Participation $: Dependent Upon Review
   Percentage of Participation %: 22
   Mentor Protégé Agreement (attach executed copy): ( ) Yes ( ) No Add'l Percentage Claimed:[1] ____%
   Total Participation % _____

2. Name of MBE/WBE: _____
   Address: _____
   Contact Person: _____

[1] The Prime Contractor may claim an additional 0.333 percent participation credit (up to a maximum of five (5) percent) for every one (1) percent of the value of the contract performed by the MBE/WBE protégé firm.

Phone Number:_____

Dollar Value of Participation $_____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): ( ) Yes ( ) No Add'l Percentage Claimed: ____%

Total Participation % _____

3. Name of MBE/WBE:_____

Address:_____

Contact Person:_____

Phone Number:_____

Dollar Value of Participation $_____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): ( ) Yes ( ) No Add'l Percentage Claimed: ____%

Total Participation % _____

4. Name of MBE/WBE:_____

Address:_____

Contact Person:_____

Phone Number:_____

Dollar Value of Participation $_____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): ( ) Yes ( ) No Add'l Percentage Claimed: ____%

Total Participation % _____

5. Attach Additional Sheets as Needed

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:

1. Name of MBE/WBE:_____

Address:_____

Contact Person:_____

Schedule D-1: Prime Contractor Affidavit-MBE/WBE Compliance Plan

Phone Number:_____

Dollar Value of Participation $_____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): ( ) Yes ( ) No Add'l Percentage Claimed: ____%

Total Participation % _____

2. Name of MBE/WBE:_____

Address:_____

Contact Person:_____

Phone Number:_____

Dollar Value of Participation $_____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): ( ) Yes ( ) No Add'l Percentage Claimed: ____%

Total Participation % _____

3. Name of MBE/WBE:_____

Address:_____

Contact Person:_____

Phone Number:_____

Dollar Value of Participation $_____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): ( ) Yes ( ) No Add'l Percentage Claimed: ____%

Total Participation % _____

4. Name of MBE/WBE:_____

Address:_____

Contact Person:_____

Phone Number:_____

Dollar Value of Participation $_____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): ( ) Yes ( ) No Add'l Percentage Claimed: ____%

Total Participation % _____

5. Attach Additional Sheets as Needed

Schedule D-1: Prime Contractor Affidavit-MBE/WBE Compliance Plan

III. Summary of MBE/WBE Proposal

A. MBE Proposal **(Direct & Indirect)**

1. MBE Direct Participation

MBE Firm Name	Dollar Amount Participation ($)	Percent Amount Participation (%)
Quantum Crossings	DUR	22
Total Direct MBE Participation		

2. MBE Indirect Participation

MBE Firm Name	Dollar Amount Participation ($)	Percent Amount Participation (%)
Total Indirect MBE Participation		

B. WBE Proposal **(Direct & Indirect)**

1. WBE Direct Participation

WBE Firm Name	Dollar Amount Participation ($)	Percent Amount Participation (%)
Total Direct WBE Participation		

2. WBE Indirect Participation

WBE Firm Name	Dollar Amount Participation ($)	Percent Amount Participation (%)
Total Indirect WBE Participation		

Schedule D-1: Prime Contractor Affidavit-MBE/WBE Compliance Plan

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

Brett Binkley — 847-226-3564

(Name- Please Print or Type) (Phone)

I DO SOLEMNLY DECLARE AND AFFIRM UNDER PENALTIES OF PERJURY THAT THE CONTENTS OF THE FOREGOING DOCUMENT ARE TRUE AND CORRECT, THAT NO MATERIAL FACTS HAVE BEEN OMITTED, AND THAT I AM AUTHORIZED ON BEHALF OF THE PRIME CONTRACTOR TO MAKE THIS AFFIDAVIT.

Siemens Industry Inc.

(Name of Prime Contractor – Print or Type)

State of: Illinois

Brett Binkley

(Signature)

County of: Cook

Brett Binkley - Account Executive

(Name/Title of Affiant – Print or Type)

7/11/18

(Date)

On this 11 day of July, 20 18, the above signed officer Brett Binkley

(Name of Affiant)

personally appeared and, known by me to be the person described in the foregoing Affidavit, acknowledged that (s)he executed the same in the capacity stated therein and for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and seal.

Kathleen P McIntyre

(Notary Public Signature)

Commission Expires: 3-2-22

SEAL:

OFFICIAL SEAL
KATHLEEN P MCINTYRE
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:03/02/22

CERTIFICATE OF FILING FOR

CITY OF CHICAGO ECONOMIC DISCLOSURE STATEMENT

EDS Number: 128923
Certificate Printed on: 06/06/2018

Date of This Filing:06/06/2018 02:58 PM
Original Filing Date:06/06/2018 02:58 PM

Disclosing Party: SIEMENS INDUSTRY INC
Filed by: Mrs. Pauline Ciotola

Title:Licensing Manager

Matter: Preventative maintenance of Siemens Fire Alarm Systems
Applicant: SIEMENS INDUSTRY INC
Specification #:
Contract #:

The Economic Disclosure Statement referenced above has been electronically filed with the City. Please provide a copy of this Certificate of Filing to your city contact with other required documents pertaining to the Matter. For additional guidance as to when to provide this Certificate and other required documents, please follow instructions provided to you about the Matter or consult with your City contact.

A copy of the EDS may be viewed and printed by visiting http://webapps1.cityofchicago.org/EDSWeb and entering the EDS number into the EDS Search. Prior to contract award, the filing is accessible online only to the disclosing party and the City, but is still subject to the Illinois Freedom of Information Act. The filing is visible online to the public after contract award.

SIEMENS

Joseph Zydorowicz
Branch General Manager
(847) 803-2700

June 6, 2018

Abder R. Messar
Manager, O'Hare Maintenance Control Center
Chicago Department of Aviation
H&R Plant office 201
Chicago IL 60666

Re: Pending O'Hare Airport SMS and Fire Alarm Contract

Dear Mr. Messar:

Siemens Industry, Inc., Building Technologies Division has completed their legal review of the template agreement the City of Chicago provided on May 1, 2018 regarding the pending O'Hare Airport SMS and Fire Alarm Contract. This form meets with our approval. Please advise if any further information is required.

Regards,

Joseph Zydorowicz
Branch General Manager

Siemens Industry, Inc.
Building Technologies Division

585 Slawin Ct.
Mount Prospect, IL 60056

RE: NCRB Application Package

Binkley, Brett <brett.binkley@siemens.com>

Fri 5/18/2018 12:00 PM

To: Abder Messar <ABDER.MESSAR@cityofchicago.org>; McAlpin, Brian <brian.mcalpin@siemens.com>;

Abder,

Going to forward this to our legal/management for review and response.

Thank you,

Brett Binkley
Account Executive
SIEMENS Industry, Inc.
Building Technologies Division
Mobile: 847.226.3564
Brett.Binkley@Siemens.com

From: Abder Messar [mailto:ABDER.MESSAR@cityofchicago.org]
Sent: Friday, May 18, 2018 11:57 AM
To: Binkley, Brett (RC-US BT FLD Z3 CHI SAL-BAU2); McAlpin, Brian (RC-US BT FLD Z3 CHI SVC BAU-2)
Subject: NCRB Application Package

Brett/Brian
Another item we need for a sole source is Siemens reviewing and accepting the City's general terms and conditions boilerplate agreement. Please provide something in writing noting you have reviewed and accept the terms and conditions.

Abder R. Messar
Manager, O'Hare Maintenance Control Center
Chicago Department of Aviation
H&R Plant office 201
Chicago IL 60666
abder.messar@cityofchicago.org
abder.messar@ohare.com
773 686 2370 voice

From: David Bowman
Sent: Friday, May 18, 2018 11:43 AM
To: Abder Messar
Subject: Fwd: Heartland Human Care Services, Inc. NCRB Application Package

Abder,
Another item we need for a sole source is the vendor reviewing and accepting the City's general terms and conditions boilerplate agreement. Please send to the vendor and have them provide something in writing noting they have reviewed and accept the terms and conditions. Please see email below that I sent to Gretchen.

I am going to review what you sent the other day.

Sent from my Verizon, Samsung Galaxy smartphone

-------- Original message --------
From: David Bowman <DAVID.BOWMAN@cityofchicago.org>
Date: 5/17/18 10:02 AM (GMT-06:00)
To: Gretchen Meyer <GRETCHEN.MEYER@cityofchicago.org>
Cc: James Hankin <JAMES.HANKIN@cityofchicago.org>, Susan Kurland <Susan.Kurland@cityofchicago.org>, Diane M Pezanoski <Diane.Pezanoski@cityofchicago.org>, Jezieel Cortes <Jezieel.Cortes@cityofchicago.org>
Subject: Re: Heartland Human Care Services, Inc. NCRB Application Package

Attached is a copy of the boilerplate PSA to send to the vendor for their review and approval.

From: David Bowman
Sent: Wednesday, May 16, 2018 4:59:32 PM
To: Gretchen Meyer
Cc: James Hankin; Susan Kurland; Diane M Pezanoski; Jezieel Cortes
Subject: Re: Heartland Human Care Services, Inc. NCRB Application Package

Item #1 – Does the NCRP application need to be revised to include this? Or can we send an addendum? Just redo the form so it is all in one doc.

Item #2 - Provide proof that CDA gave the vendor a copy of the City's general contract terms and conditions.
Where can I find this to send to the vendor and what type of proof can I submit? Will a printout of an email with the terms and conditions suffice? If so, I can send to them today if I can get a copy of it.
I am getting the boilerplate PSA from Jezielle Cortes in DPS and will forward to you. I think an email from the vendor that states, We have reviewed and accept the terms and Conditions of the boilerplate City of Chicago Professional Services Agreement that has been provided to us. If it has a version number or date on it they should reference that as well.

I have informed Heartland to revise their letter and budget to cover items 3 and 5. I'll forward those items as soon as I receive them.

From: Gretchen Meyer
Sent: Wednesday, May 16, 2018 1:14:39 PM
To: David Bowman
Cc: James Hankin; Susan Kurland; Diane M Pezanoski
Subject: RE: Heartland Human Care Services, Inc. NCRB Application Package

A few questions regarding the additional items requested by DPS.

Item #1 – Does the NCRP application need to be revised to include this? Or can we send an addendum?

Item #2 - Provide proof that CDA gave the vendor a copy of the City's general contract terms and conditions.
Where can I find this to send to the vendor and what type of proof can I submit? Will a printout of an email with the terms and conditions suffice? If so, I can send to them today if I can get a copy of it.

I have informed Heartland to revise their letter and budget to cover items 3 and 5. I'll forward those items as soon as I receive them.

Thanks,
Gretchen

From: David Bowman
Sent: Tuesday, May 15, 2018 4:42 PM
To: Gretchen Meyer
Cc: James Hankin; Susan Kurland; Diane M Pezanoski
Subject: Fw: Heartland Human Care Services, Inc. NCRB Application Package

Please see issues 1-3 and 5 below that need to be addressed by you and the vendor prior to DPS agreeing to put the Heartland Human Care Services NCRB request on the June agenda. These need to be addressed quickly otherwise DPS will likely say the new contract request was not able to be posted on the DPS website for comment for a long enough time prior to the meeting and it would be pushed to the following month assuming the revised documents we provide pass the request intake screening performed by DPS that we are addressing here.

Jim Hankin will take care of item 4.

From: Colleen Twohig
Sent: Tuesday, May 15, 2018 4:04 PM
To: James Hankin
Cc: David Bowman; Richard Butler; Steve Loboda
Subject: RE: Heartland Human Care Services, Inc. NCRB Application Package

DPS have given the above referenced NCRB application a preliminary review and the following items need to be addressed:

1) NCRB Application – Under the "Procurement History" explain why CDA is going to a contractual agreement and not a Memorandum of Understanding as it has done in the past.
2) Provide proof that CDA gave the vendor a copy of the City's general contract terms and conditions.
3) Revision of the Heartland letter dated 5/1/18 expounding on the reasons why they are considered the exclusive provider solely capable of supplying these services the reason why they are not available to the city through any other channel(s).
4) Proof that CDA's compliance plan was submitted to the DPS Compliance Unit. An email to Monica Jimenez would suffice.
5) Heartland's proposed budget must be on Heartland's letterhead and signed by vendor.

Please re-submit this paperwork as soon as possible so we can place you on the June agenda.

Any questions, please give me a call.

Colleen Twohig

NCRB Secretary
City of Chicago, Department of Procurement Services
121 N LaSalle Street, Rm. 806, Chicago, IL 60602
Phone: 312-744-7519
Customer Care is our priority. Please contact us with compliments or concerns at dps.feedback@cityofchicago.org.
Please visit our website for information on programs, policies and procedures www.cityofchicago.org/procurement.

From: Colleen Twohig
Sent: Tuesday, May 08, 2018 11:25 AM
To: James Hankin
Cc: David Bowman; Richard Butler; Steve Loboda
Subject: RE: Heartland Human Care Services, Inc. NCRB Application Package

Hi Jim,

The Department of Procurement Services is in receipt of CDA's Heartland Human Care Services, Inc. NCRB application and it is under review.

I'll get back to you soon.

Colleen Twohig
NCRB Secretary
City of Chicago, Department of Procurement Services
121 N LaSalle Street, Rm. 806, Chicago, IL 60602
Phone: 312-744-7519
Customer Care is our priority. Please contact us with compliments or concerns at dps.feedback@cityofchicago.org.
Please visit our website for information on programs, policies and procedures www.cityofchicago.org/procurement.

From: James Hankin
Sent: Tuesday, May 08, 2018 10:21 AM
To: Colleen Twohig
Cc: David Bowman
Subject: Heartland Human Care Services, Inc. NCRB Application Package

Good morning Colleen,

Please provide confirmation of receipt of the Heartland Human Care Services, Inc. NCRB Application Package sent to you by CDA yesterday (5/7/18).

Thank you.

Jim

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you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

---

1. SCOPE OF SERVICES

1.1. INTRODUCTION

This Contract's scope of work includes all of the facilities of Chicago O'Hare International Airport complex served by the Chicago Department of Aviation (CDA). The Contractor shall determine with CDA the exact boundaries. This includes, but is not limited to, the following buildings:

- O'Hare Airport Domestic Terminal Buildings and Tunnels
- Consolidated Rental Car Facilities
- The Heating & Refrigeration (H & R) Plant
- Bus/Shuttle Center/Elevated Parking Structure
- All CDA Outlying Buildings
- O'Hare Airport International Terminal 5 Building 325 and Tunnels*

  (*) Siemens currently (May 2018) provides testing only of both SMS & Fire Life Safety Systems through Skyline Management Group; under this contract Siemens will provide comprehensive coverage for SMS and Fire Life Safety systems. The 1.2 MM Square Foot Terminal 5 contains an additional 93 Siemens SMS Panels, 31 Fire Alarm Control Panels, and 7500 additional system points.
  In order for Siemens to provide comprehensive coverage at Terminal 5 all SMS & Fire Life Safety Systems for Terminal 5 will need to be migrated under separate contract. Comprehensive coverage will be implemented as each phase of the project is completed. Once migrations are complete any future system add-ons will fall under the comprehensive contract under Line Item 1, Section 1.2-1 Preventative Maintenance & Monitoring.
  Additionally, Siemens has provided a separate document to Skyline Management Group titled "Siemens SMS Terminal 5 List of Mechanical-Control Deficiencies" that will need to be addressed under separate contract.

The Contractor must perform all hardware/software/communications/networks upgrades including the related preventative maintenance, installations, training, and software support services for the Supervisory Monitoring System (SMS) and the Fire Alarm System (FAS) and related controls. These shall be performed in a professional and satisfactory manner following, at minimum, CDA requirements, industry practices, guidelines, and Standards, National Electrical Manufacturers Association (NEMA) Standards Publication SB 2-2016 (or the latest edition), the latest edition of National Fire Protection Association (NFPA) 72, Americans with Disabilities Act (ADA), the City of Chicago's Mayor's Office for People with Disabilities (MOPD), and the requirements of the City of Chicago Building Code, the City of Chicago

Brett Riley
5/29/18

Electrical Code, ASHRAE, and any authorities having jurisdiction. Refer to the attached excerpts from various Codes, Standards, and sample industry guidelines.

This Contract includes the on-going maintenance of Supervisory Monitoring System (SMS) and the Fire Alarm System (FAS), related controls, hardware and software upgrades including, but not limited to:

- Graphics
- BACNet Panel Installation
- Software Installation and Updates
- Equipment such as controllers and integral panel components including, but not limited to-electro-pneumatic switches and transducers

All major service and equipment replacement and/or upgrades shall be documented and presented for CDA approval prior to purchase or installation.

Approval for minor service and equipment replacement and/or upgrades previously authorized by CDA is not required as it is included in the monthly Preventative Maintenance, Testing and Monitoring services as specified in this contract.

The Contractor must provide the services listed in the following sections in accordance with the attached Exhibit(s). Exhibit One lists all maintained equipment and systems.

All preventative and monitoring labor hours including all parts, materials and all incidental costs provided under this contract shall be included in the monthly fee proposed by the Contractor. This contract requires the Contractor to become fully responsible for the Supervisory Monitoring System (SMS) and the Fire Alarm System (FAS) and related controls including the preventative maintenance, testing and monitoring as specified in this contract.

1.2 CONTRACTOR RESPONSIBILITIES

A. The Contractor must provide labor and materials at a time or times further specified and described in other provisions of this Specification. The Services include all labor, transportation, supplies, materials, parts, tools, scaffolding, machinery, hoists, employee safety equipment, lubricants, supervision, applicable taxes, overhead, profit and all other work and materials expressly required under this Specification or reasonably inferred whether or not expressly stated herein. The Services must be performed by the Contractor as follows:

    1. Diligently and in a first class, complete and workmanlike manner, free of defect or deficiency, and in conformance with all applicable original manufacturer's specifications.

Brett Ruby
5/29/18

2. In conformance with the City's rules, regulations, codes and requirements for work at O'Hare International Airport that may be modified and supplemented by the City during the term of the Contract.

3. In such manner as to minimize any annoyance, interference, or disruption to occupants of the O'Hare International Airport, other contractors, their invitees and the general public.

4. The Contractor agrees to perform maintenance services, preventative maintenance procedures, testing, repairs, adjustments and component replacements for the SMS and Life Safety Systems, and related apparatus at the O'Hare International Airport as specified herein, and to furnish all labor, supervision, equipment, materials, supplies and other facilities and do all other things necessary or incidental thereto, all in strict accordance with the provisions of the Contract Documents and any future changes therein; and the Contractor further agrees to assume and perform all other duties and obligations imposed upon him by this Contract.

B. Coordinate with other projects at the Airport

1. The Contractor is required to arrange its operations so as not to interfere with the operations of other contractors that may be working within or adjacent to the limits of the project sites at the Airport.

2. The Contractor must protect and save harmless the City from any and all damages or claims that may arise due to inconvenience, delays or loss because of presence of other contractors working within limits of this Contract's work sites.

C. It is expected that the Contractor shall maintain good communications with the CDA Commissioner to include the following action items:

1. Prompt notification of major work required, safety related or serious problems
2. Notification of any damaged or abused equipment
3. Notification of any equipment not operating as designed
4. Prior notification of shutdown of any equipment
5. Submit fixed written time schedule for repairs as well as monthly, quarterly and annual maintenance, testing and inspections as applicable

1.2-1 PREVENTATIVE MAINTENANCE & MONITORING (PROPOSAL PAGES LINE 1)

A. Terms and Condition:

1. The Contractor will provide full comprehensive repair, replacement, adjustment and related service coverage for all component systems unless specifically excluded herein. Failure to define a particular component, service or other procedure does not limit the Contractor's obligation or liability to provide the necessary work or service. The Contractor will perform complete maintenance of the SMS and Life Safety

Brett Pelly
5/29/18

Systems (FAS) to ensure they may be operated safely in accordance with performance standards and other criteria specified in this agreement twenty-four (24) hours per day, seven (7) days per week except for scheduled preventative maintenance and safety test procedures approved by the CDA Commissioner.

2. Pricing for the Preventative Maintenance and Monitoring labor, parts and materials is based on the monthly fee provided by the Contractor as proposed in the proposal worksheet page Exhibit 2 Line 1. This is all inclusive line twenty-four (24) hours per day, seven (7) days per week, including all parts, materials and all incidental costs.

3. The monthly fee shall include all tasks under Section 1.2-1 Preventative Maintenance & Monitoring.

B. Routine Inspections and Testing:

1. The Contractor shall make all mandated and/or recommended periodic and routine inspections and tests of the SMS and Life Safety Systems (FAS) in accordance with the requirements of the latest edition, including, but not limited to the following associations and standards: (Exhibit 4)

    - National Fire Protection Association (NFPA}
    - National Electrical Manufacturers Association (NEMA)
    - Telecommunications Industry Association (TIA)
    - Electronic Industries Alliance (EIA)
    - American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) BACNet Standard 135
    - American National Standards Institute (ANSI)
    - City of Chicago Electrical Code (CCEC)

2. The Contractor shall perform the inspections and tests as they become due without extra charge under the terms of the Contract.

3. Inspection and test procedures shall be conducted in accordance with the referenced standards based on dates of previous procedures and records which may be provided by the CDA Commissioner.

4. The applicable checklist for each Inspection/Test will be required by the CDA Commissioner as evidence that the Inspection/Test was performed. When required, the Contractor will obtain and file any other applicable inspection or test form as required by local or other governing authorities.

Brett Riley
5/29/18

5. It will be the Contractor's responsibility to contact the CDA Commissioner to establish mutually convenient dates for the performance of the inspections and tests. Where possible, these inspections and tests will be scheduled so as to coincide with the Contractor's regular maintenance inspections on a not to interfere basis.

6. Any deficiencies discovered as a result of the inspections and tests performed by the Contractor will be corrected immediately by the Contractor, after which the equipment will be retested by the Contractor without extra charge to verify that the deficiencies have been corrected to the satisfaction of the CDA Commissioner. Upon completion of these inspections and tests and the correction of deficiencies, the Contractor shall render to the CDA Commissioner a written statement of the results of the inspections and tests. All retesting herein will be at no additional cost to the CDA. The Contractor must perform the annual inspection and test (no load or full load) as mandated under State and/or local law requirements.

7. The CDA Commissioner reserves the right to have all inspection and test procedures performed in the presence of a representative of the CDA Commissioner, but such representation does not limit the Contractor's responsibility for performance or recording of the procedures.

8. The Contractor, at no additional expense to the CDA, shall perform the inspection and test procedures under the Contract. Any required retesting or re-inspections shall be performed without extra charge to the satisfaction of the CDA Commissioner.

9. For any new system (s) installed by Siemens and/or added on the Supervisory Monitoring System (SMS) and/or the Fire Alarm System (FAS), the monitoring, controlling, maintenance, repairs, adjustments and component replacements are all included and shall be part of the monthly fee, Exhibit 2 Line 1.

C. Preventative Maintenance and Monitoring Minimum Staffing:
At a minimum the Contractor shall provide the below mentioned staffing Monday-Friday 7:00 am - 4:00 pm, including one hour lunch break. The Contractor is responsible for scheduling sufficient workers to be able to complete the required preventative maintenance, monitoring, and corrective work and be able to respond to all emergency call-backs as specified in **Section 1.2-1 T.**

(Qualifications and resumes for all staffing must be provided to CDA for approval before an employee is staffed at the airport).

The following chart contains the minimum onsite daily staffing requirements required under this contract. This daily staffing must be onsite all year around; Monday through Friday 7:00 am - 4:00 pm, including one hour lunch break, except for the Legal Holidays under **Section 1.2-1 D.** During these Legal Holidays, the Contractor must be able to respond to all emergency call-backs as specified in **Section 1.2-1 T.**

Brett Bielby
5/29/18

Title/Position	Number	Brief Responsibilities/Qualifications
Account Supervisor	1	Manage Daily activities
Software/Systems Engineer	1	Design, Program and Maintain SMS System / Database
Service/System Specialists (BAS/SMS)	4	Trouble Calls/ Preventive Maintenance/ Work Orders
Electrician (BAS/SMS) & Fire (FAS)	1	Preventive Maintenance / Repairs to SMS/FAS / Panel Migrations /
Mechanical/Pipe Fitter	1	Preventive Maintenance of Pneumatic Control Systems (Union 597 Pipe Fitter)
Fire Safety Testing and Inspection Specialist (FAS)	2	Test and Inspect all Fire Life Safety / Preventive Maintenance

D. Legal Holidays

The following Legal Holidays will be observed at the Work Site:
New Year's Day - Memorial Day - Independence Day - Labor Day - Thanksgiving Day - Day After Thanksgiving Day - Christmas Eve - Christmas Day - Two Floating Holidays

E. Preventative Maintenance Standards & Requirements

The contractor shall perform preventative maintenance on all SMS and fire alarm equipment, which includes, but is not limited to, the list of maintained equipment. Preventative maintenance will be performed in accordance with established industry associations, manufacturers' recommendations, common guidelines and practices, etc., and as directed by CDA. This shall include, but not be limited to, the following associations and standards:

- National Fire Protection Association (NFPA)
- National Electrical Manufacturers Association (NEMA)
- Telecommunications Industry Association (TIA)
- Electronic Industries Alliance (EIA)
- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) BACNet Standard 135
- American National Standards Institute (ANSI)
- City of Chicago Electrical Code (CCEC)

F. Wide Area Network

The Contractor shall consult with and recommend to CDA repairs, updates, and enhancements of the wide area network.

The Contractor shall also be responsible for the following:

Brett Rubb
5/29/18

- The inventory and maintenance of all existing equipment and storage of spare equipment throughout the airport. The inventory shall include the condition of each installed equipment categorized as "Very Good", "Good", "Satisfactory", and "Poor" including remarks on availability of replacement parts for each equipment. All spare equipment shall be stored on-site. The Contractor shall continuously update the inventory list and issue the list quarterly to CDA
- The complete review of the existing network configuration and recommendation to CDA of network performance enhancements
- Software support and the monitoring of systems' networks

G. System Updates

The Contractor shall provide the latest and most up-to-date versions of hardware operating systems, systems software, and firmware. All system software updates, support and licensing shall be included in the monthly fee, Exhibit 2 Line 1

The Contractor shall enable, by upgrading of components, the fire alarm system and devices to seamlessly communicate with each other as if all components of the fire alarm system are from one manufacturer. The Contractor shall replace fire alarm system components that are not able to meet this requirement with a new component presently manufactured and readily available that meets or exceeds the performance of the component/s to be replaced. The new component/s shall be branded and be from the manufacturer that the Contractor will predominantly use for this Contract.

The Contractor shall enable, by upgrading of components, the SMS and devices to seamlessly communicate with each other utilizing BACNet (open protocol). The Contractor shall replace SMS components that are not able to meet this requirement with a new component presently manufactured and readily available that meets or exceeds the performance of the component to be replaced.

All SMS upgrades and updates initiated on or after this Contract's effective date shall utilize BACNet (open protocol).

H. Graphical User Interface

The Contractor shall create modern, simple, intuitive, but detailed graphics and other graphical user interfaces (GUI) to allow for the ease of use by the various user groups and user experience levels of the Operating Engineers and the O'Hare Communications Center (OCC). The graphics shall be kept up-to-date and shall include 3D models of the exterior and interior of every building and accurately depict the official naming designations of the buildings, its floors, and its spaces. The graphics must accurately depict the floor plans and device locations monitored by the systems. The alarm

Brett Bu
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reporting on the GUI shall identify the exact location of the reporting device in simple and understandable terms and pinpoint precisely its location on the floor plan graphics. The graphics and GUI shall navigate the Operating Engineer to the reporting device in the same way that a navigation device leads a user to a destination. The 3D building models, features, and navigating graphics shall be similar to those on Google Maps and Google Earth.

I. System Backups

The Contractor shall create a back-up of the graphics, databases, and program sequences on a weekly basis, as a minimum, and whenever there are changes to the system unless required more frequently elsewhere in this document.

In the event of a system failure, the Contractor shall reload at each component such as desktop, controller, or other equipment able to store information, the graphics databases and system files using the most recent back-up.

In addition to the in-house regular back-up, as mentioned above, the Contractor shall create and maintain a secondary and current back-up in a remote location, in case the in-house back-up becomes unusable.

J. Field Panel Database/System File Backup

The Contractor shall perform a back-up of each field panel database and system files on a weekly basis, as a minimum, and whenever there are changes to the system unless required more frequently elsewhere in this document.

In the event of a failure, the Contractor shall reload the database using the most recent back-up.

In addition to the in-house regular back-up, as mentioned above, the Contractor shall create a secondary back-up in a remote location, in case if the in-house back-up becomes unusable.

K. Field Panel Database Diagnostics

The Contractor shall perform diagnostics of all field panels as part of the preventative maintenance. The Contractor shall analyze the results and recommend to CDA the needed changes to obtain optimal performance of the systems. The Contractor shall implement the changes after receiving approval from CDA.

The Contractor shall work with City personnel, trades or other sub-contractors on maintenance and control issues, issue prompt writing work orders, and follow-up on problems in a timely manner.

Brett Bailey 5/29/18

Analyze and submit for review any recommendations to improve system performance.

L. Control Loop Evaluation & Tuning

The Contractor shall provide evaluation and tuning of the control loops to maintain peak system control and efficiency as building and mechanical system characteristics change. These include but are not limited to energy management control within the air handling units, equipment critical for the heating and cooling or control of the Airport facilities, pumping, and Taxiway Bridge de-icing. Furthermore, the loop shall be evaluated with CDA regarding future plans for any facility equipment upgrades and/or system wide expansion.

The Contractor shall work with City personnel, trades or sub-contractors on maintenance and control issues, issue prompt written reports and follow-up on problems in a timely manner. As a minimum, the checklist for the preventative maintenance of control loops shall include the following:

- Dynamically plot and evaluate overall system performance for improper damping or instability which results in energy loss or poor operation.
- Check, clean, and calibrate input/output sensors.
- Verify sensor readings with the controller and replace as required. Calibration of devices shall occur on an annual basis unless noted more often within this document.
- Test and verify input and output signals/levels of controllers, and verify controller response against input signals.
- Check response and stability of control devices in relation to control elements, and calibrate/adjust to meet system sequences or equipment duty.
- Tune the process variables within the controller as necessary.
- Inspect operation of mechanical systems and verify functionality of the integrated system.
- Analyze and submit for review any recommendations to improve system performance.

M. System Upgrades

The Contractor shall provide the latest and most up-to-date versions of hardware, hardware operating systems, systems software, and firmware.

All upgrades and updates initiated on or after this Contract's effective date shall utilize BACNet.

Brett Rich
5/27/18

N. Software Consultation

The Contractor shall provide software consultation to resolve software issues.

The Contractor shall provide consultants from one or all of the following three (3) sources:

- The Contractor's on-site technical staff described herein.
- District Wide Installation and Integration Engineers. The Contractor shall provide additional and expert technical staff on-site, if required.
- Corporate headquarters product design and manufacturing engineers. The Contractor shall obtain this level of assistance when necessary. Qualified personnel from this source shall be on-site with four (4) hours of the request. The Contractor and the source shall monitor and evaluate the problem condition until it is resolved.

O. Fire Alarm System & SMS Testing

a. Fire Alarm System Testing

The Contractor shall test the Fire Alarm System and related devices at the intervals recommended by NFPA 72 and NEMA SB 2-2016. These items include, but are not limited to:

- Manual Pull Stations
- Heat Detectors
- Smoke Detectors
- Duct Detectors
- Speakers/Visual Alarms/Alarm Indicating Appliances
- Fire Door Releases
- Sprinkler System Components
- Fire Alarm System Control Units
- Zone Addressable Modules
- Auxiliary/Municipal Tie
- Fire Alarm Panels

Testing of all Fire Pumps and Smoke Control System sequence is part of this Contract and included here. This task must be coordinated with Chicago Fire Department.

Brett R.
5/29/19

b. SMS Testing

The Contractor shall test the SMS and related devices at the intervals recommended by ASHRAE Standard 180.

P. Corrective Maintenance & Component Replacement

The Contractor shall test and repair or replace failed or worn Fire Alarm System and SMS components to maintain the equipment and system reliability in peak operating condition and to minimize its obsolescence. The Contractor shall upgrade equipment by systematically modernizing existing components as directed by the leadership of the CDA. Components that are faulty must be repaired or replaced. The labor, parts and material costs are included within the scope of this Technical Support Program in the Monthly Fee, Exhibit 2 Line 1.

Q. System Consultation

The Contractor shall provide the necessary consultants to assist the CDA in isolating, identifying, resolving, and verifying systems problems. The Contractor shall provide consultants from one or all of the following three (3) sources:

a. The Contractor's on-site technical staff described herein.

b. Local installation and integration engineers. The Contractor shall provide additional and expert technical staff on-site, if required.

c. Day-to-day monitoring of systems will be by CDA. The Contractor's technical staff will provide CDA with support as requested and as required.

R. System Engineering & Consultation

The Contractor shall provide professional engineering staff licensed in the State of Illinois to assist CDA to solve problems related to the SMS and Life Safety Systems, recommend sensible and practical upgrades and enhancements related to the systems previously described and including, but not limited to, fire and life safety and interlocks, energy management, HVAC systems, electrical power distribution systems, Plumbing and Fire Protection systems, and other associated engineering disciplines

S. User Training

On-Site Training

The Contractor shall provide on-site training of the systems to all CDA Operating Engineers, OCC Fire Desk personnel and other CDA employees. The Contractor shall schedule this training to meet the 24 hour CDA operational needs so that all CDA

Brett R.C.
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Operating Engineers, OCC Fire Desk personnel and other CDA employees are trained in all topics. The complete cycle of training courses shall repeat quarterly and/or as needed and include refresher as well as new courses to new CDA Operating Engineers, OCC Fire Desk personnel and other CDA employees' needs. Additional system training shall occur following the commissioning of any new system installation.

Training Station Materials

The Contractor shall make available an on-site training center complete with training materials that can be used as reference by the CDA Operating Engineers, OCC Fire Desk personnel and other CDA employees.

T. Emergency & Call-Back Options for Systems Performance Services

The Contractor shall provide emergency service Monday through Sunday including holidays, twenty four (24) hours per day to minimize systems and equipment downtime. The Contractor shall coordinate this need with the leadership of the CDA. The Contractor must respond within the following timeframes:

Emergency On-Line Response within Two (2) Hours: The Contractor shall respond to CDA emergency service requests via remote access within two hours of the request. The Contractor may diagnose the situation remotely. However, the Contractor shall be on-site within the response time required below should the Contractor's remote diagnosis determine that on-site work is required to resolve the problem.

On-Site Response within Four (4) Hours: The Contractor shall be on-site to provide emergency service with Four Hours (4) of the CDA emergency service request if on-site work is required to resolve the problem. The Contractor shall resolve non-emergency calls on the next weekday and inform the leadership of the CDA of this plan.

1.2-2 LABOR COMPENSATION FOR WORK NOT COVERED UNDER THE MONTHLY PREVENTATIVE MAINTENANCE AND MONITORING FEE (PROPOSAL PAGES LINES 2-21)

The Contractor, when executing the Proposal pages of this Specification, will quote only two (2) rates for the worker categories based on the Work Hours stated below. All work not covered within the monthly maintenance, testing and monitoring fee must be approved in advance by the CDA Commissioner.

The Contractor may only charge the hourly rate for work that includes upgrade and modernization projects, or work not covered under the monthly preventative maintenance fee. This work must have prior approval of CDA Commissioner in the form of a purchase order (P.O.) release.

Rudy Reed
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a. Regular Time (Proposal Pages-Line Items 2, 4, 6, 8, 10, 12, 14, 16, 18, 20): Any nine (9) consecutive work hours with an unpaid one hour lunch period, between the hours of 7:00 a.m. and 4:00 p.m., Monday through Friday.

b. Overtime (Proposal Pages-Line Items 3, 5, 7, 9, 11, 13, 15, 17, 19, 21):
   i. Hours worked in excess of eight (8) hours between the hours of 7:00 a.m. 4:00 p.m., Monday through Friday.

   ii. Any hours worked before 7:00 a.m. or after 4:00 p.m., Monday through Friday.

   iii. All day Saturday, Sunday, and holidays as shown above

1.3 PARTS MANUFACTURED BY THE CONTRACTOR AT A CATALOG LIST PRICE DISCOUNT NOT COVERED UNDER THE MONTHLY PREVENTATIVE MAINTENANCE, TESTING AND MONITORING FEE (PROPOSAL PAGES-LINE ITEM 22)

The Contractor shall supply the parts manufactured by the Contractor, at the discounted price agreed upon in Exhibit 2 Line 22. The list price catalog and subsequent revisions shall be made part of this contract.

1.4 PARTS NOT MANUFACTURED BY THE CONTRACTOR AT COST PLUS A MARK UP NOT COVERED UNDER THE MONTHLY PREVENTATIVE MAINTENANCE, TESTING AND MONITORING FEE (PROPOSAL PAGES-LINE ITEM 23)

The Contractor shall acquire and supply to CDA all needed parts not manufactured by the Contractor. These parts will be charged at cost plus a markup percentage of the cost as agreed upon in Exhibit 2 Line 23. The Contractor shall supply all third party parts invoices with the monthly billing.

1.5 SUBCONTRACTOR SERVICES AT COST PLUS A MARK UP NOT COVERED UNDER THE MONTHLY PREVENTATIVE, MAINTENANCE, TESTING AND MONITORING FEE (PROPOSAL PAGES-LINE ITEM 24)

The Contractor shall have access to subcontractors, the services of these subcontractors shall be charged at cost plus a markup percentage of the cost as agreed upon in Exhibit 2 Line 24. The Contractor shall supply all subcontractors' invoices with the monthly billing.

1.6 PERSONNEL RESPONSIBILITES

Account Supervisor - Supervises the operation of multiple installations, including creating and implementing work plans. Completes maintenance contracts and service agreements and ensures they are being met. Supervises projects within the business, including project organization,

Brett Bliss
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definition, planning, implementation and control. Supervises operational activities on an ongoing daily basis, exercising tight cost control and maximizing price realization. Seeks customer feedback and takes action to ensure customer satisfaction. Assists with job cost re-estimates.

Software Systems Engineer - Performs on-site technical and operational support in the design, development, installation and maintenance of equipment and systems of a complex nature. Performs complex site surveys to develop base or installation design plans. Performs training customers to maintain and adjust complex equipment. Completes and submits reports covering all job activity. Performs in maintaining complex tools, test equipment, calibration items, etc. May complete the planning and estimating of labor categories, rates, material dollar costs, transportation expenses and per diem rates to complete complex proposals. Performs the review of complex task plans, drawings, and installation schematics and provides continual guidance throughout task duration.

Service Specialist SMS - Guides the most complex maintenance on tools, test equipment, etc., and completes documents of all installations, inspections, maintenance and repair work, and failures. Leads the most complex service or systems calls and interfaces with customer personnel to provide quality service and feedback on problem evaluation and resolution. Guides assessment of the most complex installation and service of product/equipment performance based on field support data and designs modifications or improvements.

Service Specialist Fire - Guides the most complex maintenance on tools, test equipment, etc., and completes documents of all installations, inspections, maintenance and repair work, and failures. Leads the most complex service or systems calls and interfaces with customer personnel to provide quality service and feedback on problem evaluation and resolution. Guides assessment of the most complex installation and service of product/equipment performance based on field support data and designs modifications or improvements.

Mechanical/Pipe Fitter - the Contractor shall provide the services of a journeyman Mechanic/Pipe Fitter, who shall possess the skills necessary to inspect service, upgrade, install, and calibrate the pneumatic and/or electronic control devices of the SMS.

SMS and FAS- Electrician - The Contractor must provide access to the services of a highly skilled and capable control system electrician specialized in electrical installation capability for dedicated controllers interlocks and related fiber optic and fire life safety system installation.

The Contractor shall have the necessary expertise of experience in the installation of multiplexed fire alarm systems. The Contractor shall provide the services of a National Institute for Certification in Engineering Technologies (NICET) Level IV technician supplied by the fire alarm system manufacturer to supervise installation, adjustments, and tests of the system.

Fire Alarm Inspector - Assists with routine equipment installation, trial runs and service activity runs to ensure that it meets specifications. Provides assistance with training customers to

Rod Ble
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maintain and adjust routine equipment. Performs routine maintenance on tools, test equipment, etc. and completes required service or systems paperwork. Assists with responding to routine service or systems calls. Performs routine work within technical or paraprofessional area. Identifies problems as they occur and suggests appropriate steps to solve them in situations where the problem is not difficult or complex. Seeks advice and guidance on non-routine or problem areas from others.

Energy Engineer - Conducts facility site visits, analyzes current situation and produces facility improvement measures plans. Performs and supervises preliminary and detailed facility audits to identify facility improvement measures (FIMS) and/or opportunities. Coordinates and leads facility site visits and communicates with outside vendors as it pertains to FIMS. Analyzes blue prints and performs site surveys to identify mechanical, electrical, and control systems and determines facility operational characteristics. Applies building energy simulation programs to develop energy, cooling, and heating load-building models using modeling software. Prepares financial models related to payment including an understanding of ROI, life cycle costing and internal rate of return. Participates in client meetings and presentations.

1.8 DOCUMENTATION AND QUALITY ASSURANCE

A. Documentation of All Services Provided

The Contractor shall document each remote and on-site service call and furnish CDA with a copy of the report which includes the time, date, and a brief description of the activity. Work orders for on-site system preventative maintenance shall list the inspection date, the reporting CDA personnel, equipment identification, work to be performed and any special instructions. Upon completion of the work, the Contractor shall obtain a signature from the CDA Commissioner confirming that the service work has been completed. Certified attendance payroll records must be submitted to CDA with the monthly invoices.

The Contractor shall also complete all pertinent required documentation per NFPA 72 Chapter 7.

B. Quality Assurance Program

The Contractor shall meet with the leadership of the CDA to evaluate the performance of the systems and to review the quality of the service that the Contractor is providing under this Technical Support Program. Provide this report and evaluation to the leadership of the CDA who will then submit this report and evaluation to the CDA Commissioner.

Brett Bailey
3/29/18

EXHIBIT 1

LIST OF MAINTAINED EQUIPMENTAND SYSTEMS

Contractor will maintain, repair, and replace all existing and new installations

SYSTEM COMPONENTS	Repair/ Replace/ Maintain	Quantity As of February 2013	Quantity As of February 2018	Note 1
CENTRAL CONTROL PANEL(Siemens XLS FACP)	X	9	35	
ANNUNCIATORS	X	14	14	
PRE-ACTION PANELS	X	51	55	
INITIATING DEVICES:				
HEAT DETECTOR	X	387	400	
SMOKE DETECTORS(CEILING & DUCT)	X	1751	1950	
WATER FLOWS	X	271	325	CDA personnel to assist in test and reset of system
PULL STATIONS	X	132	233	
FLAME DETECTORS	X	2	3	
Supervisory Devices:				
LOW PRESSURE SWITCH	X	60	60	CDA personnel to assist in test and reset of system
TAMPER SWITCHES	X	403	425	
OUTPUTS:				
ELEVATOR RECALL	X	59	60	CDA personnel to assist in test & reset of system
FIRE DOOR TESTING	X	135	135	CDA personnel to assist in test & reset of system
SMS TIE IN INTERFACE	X	13	22	CDA personnel to assist in test & reset of system
Miscellaneous Systems:				
CO2 FIRE TESTING	X	2	4	
FIRE PUMP TEST	X	8	9	
PNEUMATIC FIRE DEVICES (COMPRESSORS) FITTER	X		135	CDA personnel to assist in test and reset of system
FAA TOWER REPORT TO CENTRAL STATION	X		2	

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SMS & FIRE INTERFACE DEVICES

Contractor will maintain, repair, and replace all existing and new installations

Siemens Interface Devices	Type	3rd Party Vendor Note 1
Fire Systems		
BUILDING 122 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 123 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 200 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 205 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 210 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 215 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 250 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 260 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 300	XLS DRIVER	SIEMENS FIRE
BUILDING 305	XLS DRIVER	SIEMENS FIRE
BUILDING 310	XLS DRIVER	SIEMENS FIRE
BUILDING 315	XLS DRIVER	SIEMENS FIRE
BUILDING 320	XLS DRIVER	SIEMENS FIRE
ELEVATED PARKING	XLS DRIVER	SIEMENS FIRE
BUILDING 450	XLS DRIVER	SIEMENS FIRE
BUILDING 804	XLS DRIVER	SIEMENS FIRE
BUILDING 502	XLS DRIVER	SIEMENS FIRE
BUILDING 512	XLS DRIVER	SIEMENS FIRE
BUILDING 472	XLS DRIVER	SIEMENS FIRE
BUILDING 451	XLS DRIVER	SIEMENS FIRE
BUILDING 836	XLS DRIVER	SIEMENS FIRE
BUILDING 837	XLS DRIVER	SIEMENS FIRE
BUILDING 843	XLS DRIVER	SIEMENS FIRE
BUILDING 891	XLS DRIVER	SIEMENS DESIGO FIRE
BUILDING 793	XLS DRIVER	SIEMENS FIRE
BUILDING 702	XLS DRIVER	SIEMENS FIRE
BUILDING 721	XLS DRIVER	SIEMENS FIRE
BUILDING 830	XLS DRIVER	SIEMENS FIRE
BUILDING 822	XLS DRIVER	SIEMENS FIRE
BUILDING 821	XLS DRIVER	SIEMENS FIRE
BUILDING 820	XLS DRIVER	SIEMENS FIRE
SOUTH ACCESS ROAD TUNNEL	XLS DRIVER	SIEMENS FIRE
SOUTH CARGO TUNNEL	XLS DRIVER	SIEMENS FIRE
BUILDING 602	XLS DRIVER	SIEMENS FIRE
BUILDING 607	XLS DRIVER	SIEMENS FIRE
POST OFFICE ROAD TUNNEL	XLS DRIVER	SIEMENS FIRE
Electrical Switchgear Metering		
BUILDING 607 GENERATORS\SWITCHGEAR	MODBUS	EATON
BUILDING 450 C&D EATON SWITCHGEAR	MODBUS	EATON
BUILDING 472 EMERGENCY GENERATOR	MODBUS	
Pumping Stations		
SOUTH DETENTION BASIN	MODBUS	ALLEN\BRADLEY
CENTRAL DETENTION BASIN	MODBUS	ALLEN\BRADLEY
NORTH DETENTION BASIN	MODBUS	ALLEN\BRADLEY
BUILDING 505 DEICER SYSTEM	MODBUS	ALLEN\BRADLEY

Brett Reh
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DAYTONA BEACH BASIN	MODBUS	ALLEN\BRADLEY
Lift Stations		
BUILDING 800 LIFTSTATION	MODBUS	
BUILDING 640 LIFTSTATION	MODBUS	
BUILDING 993 LIFTSTATION	MODBUS	
BUILDING 825 LIFTSTATION	MODBUS	
BUILDING 622 LIFTSTATION	MODBUS	
Miscellaneous Systems		
BUILDING 450 HTW GENERATORS	MODBUS	SIEMENS ENERGY
BUILDING 819 GENERATOR	MODBUS	CATERPILLAR
HOT BOX AIRFIELD (5)	Hardwire	

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3rd Party Maintained Systems	Total Units As of February 2013	Total Units As of February 2018	Note
OCC LIEBERTS	5	5	Note 1
FED X LIFT STATION PLC	1	1	Note 1,3
UNITED CARGO LIFT STATION PLC	1	1	Note 1,3
BUILDING 643 LIFT STATION PLC	1	1	Note 1,3
BUILDING 800 LIFT STATION (SIGNATURE) PLC	1	1	Note 1,3
ST140 PUMP STATION PLC	1	1	Note 1,3
SOUTH BASIN PLC	1	1	Note 1,3
NORTH BASIN PLC	1	1	Note 1,3
CENTRAL BASIN PLC	1	1	Note 1,3
BUILDING 505 DEICER PLC	1	1	Note 1,3
BUILDING 622 PLC	-	1	Note 1,3
BUILDING 640 PLC	-	1	Note 1,3
CYSTRAL CREEK PLC	-	1	Note 1,3
WATER METER CALIBRATION	14	14	Note 1,3
MWRD DATA STORAGE	1	1	Note 1,3
BUILDING 450 HTW GENERATORS PLC\FRONT END	10	10	Note 1,3
CLIENT COMPUTERS\PRINTERS	35	35	Note 1
LIGHTING CONTROL	3	3	Note 1
EBTRON AIR FLOW STATION CALIBRATION	6	12	Note 1
HMI TOUCHSCREENS	-	30	Note 1
VFD INTERFACE		ALL	Note 1
SUB-METERING SYSTEMS (ELECTRICAL, GAS, WATER, ETC.)		H&R Plant	Note 1,3
PNEUMATIC CONTROLS		ALL	Note 2
Note 1: Any future add-ons will fall under the SMS contract.			
Note 2: Siemens Fitter to demo, troubleshoot, repair, and replace throughout terminals and outlying buildings. Fitter preventative maintenance is included under Line Item 1 Fixed Price, repair projects are under T&M.			
Note 3: If needed, Third Party will be used on T&M			

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Network/SMS Hardware	Quantity As of February 2013	Quantity As of February 2018	
Equipment			**Manufacturer Note 1**
COMPUTERS			
APOGEE DATABASE SERVER	1	1	DELL
APOGEE WORKSTATIONS	49	70	VARIOUS
APOGEE SOFTWARE	ALL	ALL	SIEMENS
DESIGO DATABASE SERVER	1	1	SIEMENS
DESIGO SOFTWARE	-	ALL	SIEMENS
NETWORK			
Unmanaged Switch	42	42	
FIELD PANELS			
FLN FIELD PANELS	311	311	SIEMENS
TEC PI	272	272	SIEMENS
MODEMS	16	16	VARIOUS
ALN BACNET\IP CONTROLLER	186	609	SIEMENS
BACNET MSTP CONTROLLER	182	510	SIEMENS
SIEMENS XLS FACP DRIVER ETHERNET CONTROLLERS	11	36	SIEMENS
3RD PARTY BACNET DEVICES	-	129	VARIOUS
Note 1: Any future add-ons will fall under the SMS contract			

Brett R
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HVAC	Quantity As of February 2013	Quantity As of February 2018	Note
Equipment Controls			Note 1
AC UNITS			
OCC	4	4	
AHUs			
FULL DDC CONTROL	165	192	
HEAT EXCHANGERS			
FULL DDC CONTROL	46	68	
AIR COMPRESSORS			
AIR COMPRESSOR (FULL DDC CONTROL)	6	6	
PUMP SYSTEMS			
CHILLED WATER PUMP (FULL DCC CONTROL)	12	12	
HTW SYSTEM PUMPS (FULL DDC CONTROL)	1	1	
DOMESTIC WATER PUMP (FULL DDC CONTROL)	1	1	
BOILER CONTROL (FULL DDC CONTROL)	3	3	
VAV BOX CONTROL (FULL DDC CONTROL)	467	510	
HEAT PUMP CONTROL (FULL DDC CONTROL)	11	11	
LTW PUMP (FULL DDC CONTROL)	158	162	
Note 1: Any future add-ons will fall under the SMS contract.			

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Miscellaneous	Quantity As of February 2013	Quantity As of February 2018	Note
Equipment			Note 1
CARBON MONOXIDE SYSTEMS			
UAL BAGGAGE	1	2	
AAL BAGGAGE	1	2	
H&R	1	2	
MOVING EQUIPMENT (ALARMS TO SMS)			
ELEVATORS	92	98	
ESCALATORS	69	69	
LIFT STATIONS			
TOUHY (EAST/WEST)	2	2	
DAYTONA BEACH	1	1	
LAKE O'HARE (SOUTH BASIN)	1	1	
BURN PIT	1	1	
MIAMI BEACH	1	1	
NORTH STORM WATER (ST140)	1	1	
9C-27C RUNWAY (539)	-	1	
FEDEX	1	1	
UNITED CARGO	1	1	
BUILDING 622	1	1	
BUILDING 640	1	1	
VEEDER ROOT SYSTEM	1	1	
Note 1: Any future add-ons will fall under the SMS contract.			

Brett R. Lee
5/29/18

O'HARE INTERNATIONAL AIRPORT CONSOLIDATED RENTAL CAR FACILITIES

LIST OF MAINTAINED EQUIPMENTAND SYSTEMS

Contractor will maintain, repair, and replace all existing and new installations

SYSTEM COMPONENTS	Quantity	Note
System Components		**Note 1**
CENTRAL CONTROL PANEL (Siemens XLS FACP)	5	
ANNUNCIATORS	7	
PRE-ACTION PANELS	5	
INITIATING DEVICES:		
HEAT DETECTOR	381	
SMOKE DETECTORS(CEILING & DUCT)	187	
PULL STATIONS	22	
OUTPUTS:		
ELEVATOR RECALL	ALL	
FIRE DOOR TESTING	ALL	
SMS TIE IN INTERFACE	5	
Miscellaneous Systems:		
CO2 FIRE TESTING	ALL	
FIRE PUMP TEST	ALL	
Note 1: Any future add-ons will fall under the SMS contract		

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5/29/18

O'HARE INTERNATIONAL AIRPORT CONSOLIDATED RENTAL CAR FACILITIES

SMS & FIRE INTERFACE DEVICES

Contractor will maintain, repair, and replace all existing and new installations

Siemens Interface Devices	Type	3rd Party Vendor
Fire Systems		
BUILDING 830 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 823 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 822 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 821 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE
BUILDING 820 FIRE SYSTEM	XLS DRIVER	SIEMENS FIRE

Network/SMS Hardware	Quantity	Note
Equipment		**Note 1**
COMPUTERS		
APOGEE WORKSTATIONS	2	SIEMENS
APOGEE SOFTWARE	2	SIEMENS
DESIGO WORKSTATIONS	1	SIEMENS
DESIGO SOFTWARE	1	SIEMENS
NETWORK		
Unmanaged Switch	30	CISCO
FIELD PANELS		
BACNET MS/TP CONTROLLER	150	SIEMENS
ALN BACNET\IP CONTROLLER	13	SIEMENS
SIEMENS XLS FACP DRIVER ETHERNET CONTROLLERS	5	SIEMENS
3RD PARTY BACNET DEVICES	50	VARIOUS
Note 1: Any future add-ons will fall under the SMS contract		

HVAC	Quantity	Note
Equipment Controls		**Note 1**
AC UNITS		
SPLIT SYSTEMS	21	
AHUs		
FULL DDC CONTROL	8	

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HOT WATER BOILERS		
FULL DDC CONTROL	10	
EXHAUST FANS		
FULL DDC CONTROL	60	
WATER COOLED CHILLERS		
FULL DDC CONTROL	2	
COOLING TOWERS		
FULL DDC CONTROL	2	
PUMP SYSTEMS		
CHILLED WATER PUMP (FULL DCC CONTROL)	3	
CONDENSER PUMPS (FULL DDC CONTROL)	3	
AHU RECIRCULATION PUMP (FULL DDC CONTROL)	10	
HOT WATER PUMPS (FULL DDC CONTROL)	14	
VAV BOX CONTROL (FULL DDC CONTROL)	150	
Note 1: Any future add-ons will fall under the SMS contract.		

Miscellaneous Equipment	Quantity	Note Note 1
MOVING EQUIPMENT (ALARMS TO SMS)		
ELEVATORS	1	
SNOW MELT SYSTEM	1	
Note 1: Any future add-ons will fall under the SMS contract.		

Brett Rieb
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O'HARE INTERNATIONAL TERMINAL 5 BUILDING 325

LIST OF MAINTAINED EQUIPMENT AND SYSTEMS

Contractor will maintain, repair, and replace all existing and new installations

System Components	Quantity	Note 1
FIRE ALARM CONTROL PANELS	31	
ANNUNCIATORS	2	
PRE-ACTION PANELS	25	
INITIATING DEVICES:		
HEAT DETECTOR	99	
SMOKE DETECTORS(CEILING & DUCT)	572	
WATER FLOWS	58	
PULL STATIONS	39	
Supervisory Devices:		
LOW PRESSURE SWITCH	25	
OUTPUTS:		
ELEVATOR RECALL	17	
FIRE DOOR TESTING	80	
SMS TIE IN INTERFACE	3	
Note 1: Any future add-ons will fall under the SMS contract		

Network/SMS Hardware Equipment	Quantity	Note Note 1
COMPUTERS		
APOGEE DATABASE SERVER	1	DELL
APOGEE WORKSTATIONS	3	VARIOUS
APOGEE SOFTWARE	1	SIEMENS
NETWORK		
RS-485 NETWORK	1	
FIELD PANELS		
BLN FIELD PANELS	93	SIEMENS
BLN EXPANSION I/O	128	SIEMENS
Note 1: Any future add-ons will fall under the SMS contract.		

Brett Ridley
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HVAC	Quantity	Note
Equipment Controls		**Note 1**
AC UNITS		
SPLIT SYSTEM	4	
AHUs		
FULL DDC CONTROL	80	
HEAT EXCHANGERS		
FULL DDC CONTROL	6	
AIR COMPRESSORS		
AIR COMPRESSOR (FULL DDC CONTROL)	6	
PUMP SYSTEMS		
LTW PUMPS (FULL DCC CONTROL)	16	
HTW SYSTEM PUMPS (FULL DDC CONTROL)	2	
DOMESTIC WATER PUMP (FULL DDC CONTROL)	2	
Note 1: Any future add-ons will fall under the SMS contract.		

Miscellaneous	Quantity	Note
Equipment		**Note 1**
CARBON MONOXIDE SYSTEMS		
CO MONITOR	30	
MOVING EQUIPMENT (ALARMS TO SMS)		
ELEVATORS	17	
ESCALATORS	27	
Note 1: Any future add-ons will fall under the SMS contract		

Brett Riley
5/29/18

EXHIBIT 2-Year One –Including Terminal 5

Line #	Item Description	UOM	Estimated Usage Quantity (Monthly)	Unit Price	Extended Price (Monthly)	Extended Price (Yearly)
1	PREVENTATIVE & MONITORING LABOR, PARTS, MATERIALS	Monthly	12	$266,909.30	$266,909.30	$3,202,911.54
	Up to $250,000 shall be budgeted every year for the length of the contract to cover CDA special projects and work not included under the Monthly Preventative Maintenance and Monitoring Fee (Line Item 1) paid for using Line Items 2-24					$250,000
2	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR	Hour		$131		
3	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR, OVERTIME	Hour		$197		
4	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST	Hour		$111		
5	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST-OVERTIME	Hour		$167		
6	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE	Hour		$117		
7	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE-OVERTIME	Hour		$176		
8	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL	Hour		$136		
9	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL-OVERTIME	Hour		$204		

Scott Rich
5/29/18

10	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER	Hour		$111		
11	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER-OVERTIME	Hour		$167		
12	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR	Hour		$206		
13	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR-OVERTIME	Hour		$310		
14	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS	Hour		$111		
15	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS-OVERTIME	Hour		$167		
16	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL, FIRE SYSTEMS	Hour		$136		
17	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL FIRE SYSTEMS - OVERTIME	Hour		$204		
18	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST	Hour		$111		
19	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST - OVERTIME	Hour		$167		
20	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER	Hour		$158		

Brett Ruby
5/29/18

21	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER - OVERTIME	Hour		$237		
22	PARTS MFR BY SIEMENS AT A ___% DISCOUNT FROM LIST PRICE	Discount		-52%		
23	PARTS NOT MFR BY SIEMENS AT A ___% MARKUP FROM COST VERIFIABLE BY SUPPLIER'S INVOICES	Mark up		+10%		
24	SUBCONTRACTOR SERVICES AT COST PLUS ___% CONTRACT ADMINISTRATION MARKUP	Mark up		+10%		
	Total $ Year One					$3,452,911.54

Note: The fully loaded hourly rates, shown above, include all benefits, overhead, profit, burden and any and all costs to perform the work specified under this Contract.

Brett Rule
5/29/18

EXHIBIT 2-Year Two –Including Terminal 5

Line #	Item Description	UOM	Estimated Usage Quantity (Monthly)	Unit Price	Extended Price (Monthly)	Extended Price (Yearly)
1	PREVENTATIVE & MONITORING LABOR, PARTS, MATERIALS	Monthly	12	$274,916.57	$274,916.57	$3,298,998.89
	Up to $250,000 shall be budgeted every year for the length of the contract to cover CDA special projects and work not included under the Monthly Preventative Maintenance and Monitoring Fee (Line Item 1) paid for using Line Items 2-24					$250,000
2	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR	Hour		$135		
3	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR, OVERTIME	Hour		$202		
4	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST	Hour		$115		
5	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST-OVERTIME	Hour		$172		
6	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE	Hour		$121		
7	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE-OVERTIME	Hour		$181		
8	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL	Hour		$140		
9	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL-OVERTIME	Hour		$210		

Brett Duby
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10	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER	Hour		$115		
11	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER-OVERTIME	Hour		$172		
12	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR	Hour		$213		
13	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR-OVERTIME	Hour		$319		
14	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS	Hour		$115		
15	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS-OVERTIME	Hour		$172		
16	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL, FIRE SYSTEMS	Hour		$140		
17	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL FIRE SYSTEMS -OVERTIME	Hour		$210		
18	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST	Hour		$115		
19	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST - OVERTIME	Hour		$172		
20	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER	Hour		$163		

Brett Riley
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21	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER - OVERTIME	Hour		$244		
22	PARTS MFR BY SIEMENS AT A ___% DISCOUNT FROM LIST PRICE	Discount		-52%		
23	PARTS NOT MFR BY SIEMENS AT A ___% MARKUP FROM COST VERIFIABLE BY SUPPLIER'S INVOICES	Mark up		+10%		
24	SUBCONTRACTOR SERVICES AT COST PLUS ___% CONTRACT ADMINISTRATION MARKUP	Mark up		+10%		
	Total $ Year Two					$3,548,998.89

Brett Riley
5/09/19

EXHIBIT 2-Year Three–Including Terminal 5

Line #	Item Description	UOM	Estimated Usage Quantity (Monthly)	Unit Price	Extended Price (Monthly)	Extended Price (Yearly)
1	PREVENTATIVE & MONITORING LABOR, PARTS, MATERIALS.	Monthly	12	$283,164.07	$283,164.07	$3,398,968.85
	Up to $250,000 shall be budgeted every year for the length of the contract to cover CDA special projects and work not included under the Monthly Preventative Maintenance and Monitoring Fee (Line Item 1) paid for using Line Items 2-24					$250,000
2	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR	Hour		$139		
3	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR, OVERTIME	Hour		$209		
4	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST	Hour		$118		
5	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST-OVERTIME	Hour		$177		
6	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE	Hour		$124		
7	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE-OVERTIME	Hour		$186		
8	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL	Hour		$144		
9	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL-OVERTIME	Hour		$216		

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10	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER	Hour		$118		
11	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER-OVERTIME	Hour		$177		
12	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR	Hour		$219		
13	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR-OVERTIME	Hour		$328		
14	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS	Hour		$118		
15	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS-OVERTIME	Hour		$177		
16	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL, FIRE SYSTEMS	Hour		$144		
17	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL FIRE SYSTEMS - OVERTIME	Hour		$216		
18	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST	Hour		$118		
19	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST - OVERTIME	Hour		$177		
20	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER	Hour		$168		

Rick Day
5/29/18

21	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER - OVERTIME	Hour		$251		
22	PARTS MFR BY SIEMENS AT A ___% DISCOUNT FROM LIST PRICE	Discount		-52%		
23	PARTS NOT MFR BY SIEMENS AT A ___% MARKUP FROM COST VERIFIABLE BY SUPPLIER'S INVOICES	Mark up		+10%		
24	SUBCONTRACTOR SERVICES AT COST PLUS ___% CONTRACT ADMINISTRATION MARKUP	Mark up		+10%		
	Total $ Year Three					$3,647,968.85

Brett Daly
5/29/18

EXHIBIT 2-Year Four-Including Terminal 5

Line #	Item Description	UOM	Estimated Usage Quantity (Monthly)	Unit Price	Extended Price (Monthly)	Extended Price (Yearly)
1	PREVENTATIVE & MONITORING LABOR, PARTS, MATERIALS.	Monthly	12	$291,658.99	$291,658.99	$3,499,907.92
	Up to $250,000 shall be budgeted every year for the length of the contract to cover CDA special projects and work not included under the Monthly Preventative Maintenance and Monitoring Fee (Line Item 1) paid for using Line Items 2-24					$250,000
2	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR	Hour		$143		
3	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR, OVERTIME	Hour		$215		
4	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST	Hour		$122		
5	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST-OVERTIME	Hour		$182		
6	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE	Hour		$128		
7	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE-OVERTIME	Hour		$192		
8	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL	Hour		$148		
9	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL-OVERTIME	Hour		$222		

Brett Riley
5/29/18

10	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER	Hour		$122		
11	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER-OVERTIME	Hour		$182		
12	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR	Hour		$226		
13	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR-OVERTIME	Hour		$338		
14	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS	Hour		$122		
15	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS-OVERTIME	Hour		$182		
16	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL, FIRE SYSTEMS	Hour		$148		
17	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL FIRE SYSTEMS - OVERTIME	Hour		$223		
18	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST	Hour		$121		
19	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST - OVERTIME	Hour		$183		
20	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER	Hour		$173		

Bill Dr
5/29/18

21	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER - OVERTIME	Hour		$259		
22	PARTS MFR BY SIEMENS AT A ___% DISCOUNT FROM LIST PRICE	Discount		-52%		
23	PARTS NOT MFR BY SIEMENS AT A ___% MARKUP FROM COST VERIFIABLE BY SUPPLIER'S INVOICES	Mark up		+10%		
24	SUBCONTRACTOR SERVICES AT COST PLUS ___% CONTRACT ADMINISTRATION MARKUP	Mark up		+10%		
	Total $ Year Four					$3,749,907.92

Brett Ruby
5/29/18

EXHIBIT 2-Year Five-Including Terminal 5

Line #	Item Description	UOM	Estimated Usage Quantity (Monthly)	Unit Price	Extended Price (Monthly)	Extended Price (Yearly)
1	PREVENTATIVE & MONITORING LABOR, PARTS, MATERIALS.	Monthly	12	$300,408.76	$300,408.76	$3,604,905.16
	Up to $250,000 shall be budgeted every year for the length of the contract to cover CDA special projects and work not included under the Monthly Preventative Maintenance and Monitoring Fee (Line Item 1) paid for using Line Items 2-24					$250,000
2	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR	Hour		$147		
3	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SUPERVISOR, OVERTIME	Hour		$221		
4	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST	Hour		$125		
5	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS SPECIALIST-OVERTIME	Hour		$188		
6	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE	Hour		$132		
7	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEERING SOFTWARE-OVERTIME	Hour		$198		
8	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL	Hour		$153		
9	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SMS/BAS ELECTRICAL-OVERTIME	Hour		$229		

Brett Reddy
5/29/18

10	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER	Hour		$125		
11	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, MECHANICAL/PIPE-FITTER-OVERTIME	Hour		$188		
12	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR	Hour		$232		
13	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENGINEER, HIGH TEMPERATURE WATER GENERATOR-OVERTIME	Hour		$348		
14	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS	Hour		$125		
15	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, SPECIALIST, FIRE SYSTEMS-OVERTIME	Hour		$188		
16	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL, FIRE SYSTEMS	Hour		$153		
17	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ELECTRICAL FIRE SYSTEMS - OVERTIME	Hour		$230		
18	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST	Hour		$125		
19	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, FIRE SYSTEMS-TESTING/INSPECTION SPECIALIST - OVERTIME	Hour		$188		
20	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER	Hour		$178		

Brett Rich
5/29/18

21	MAINTENANCE, CONTROLLING, INDICATING RECORDING EQUIPMENT - LABOR, ENERGY ENGINEER - OVERTIME	Hour		$266		
22	PARTS MFR BY SIEMENS AT A ___% DISCOUNT FROM LIST PRICE	Discount		-52%		
23	PARTS NOT MFR BY SIEMENS AT A ___% MARKUP FROM COST VERIFIABLE BY SUPPLIER'S INVOICES	Mark up		+10%		
24	SUBCONTRACTOR SERVICES AT COST PLUS ___% CONTRACT ADMINISTRATION MARKUP	Mark up		+10%		
	Total $ Year Five					$3,854,905.15

Brett Rubin
5/29/18

EXHIBIT 3

Samples of Items Within the Scope of Monthly Fixed Fee Coverage Line 1:

- Desigo CC Automation software upgrade subscription
- Software and hardware maintenance, troubleshooting, and upgrades for Desigo CC Automation and Fire System graphics, points, alarm, and database
- Training on new Desigo CC including Fire XLS platform for CDA personnel
- Automation healthy report to diagnose network and system performance
- Evaluation of data networks include analysis of bandwidth, disturbances, and network traffic
- Ensure CDA network data security by updating software patches, passwords, and firewalls
- Run point summary report including points in alarm and operator override points
- Run PPCL report and document unresolved points
- Add or modify applications, sensors, points, panels and /or software where needed to improve building operation and performance
- Desigo energy dashboard reports for HR Plant and CDA buildings
- Modify and perform necessary upgrades to system graphics to Desigo enhanced version
- Clean up and remove unused graphics
- All SMS and FAS equipment installed post construction project is to be phased into comprehensive coverage at project completion
- CDA directed support to troubleshoot issues and resolve work orders on SMS and Fire XLS systems
- CDA replaces HVAC equipment like for like, the Contractor will re-install controls on new pump, motor, damper etc.
- A point(s) need to be added to an existing piece of equipment to a local panel, this would be done under the contract.
- Small repairs/replacements of equipment not necessarily defective which takes 1 man day or less to perform
- FAA Tower reporting (alarms) to Central Station
- Preventive Maintenance Fire and SMS Building Automation System
- Provide all necessary manpower, tools, computers, software and training on site at the O'Hare International Airport
- Repair and Replacement all Siemens equipment found defective
- As equipment is found to be defective on normal PM, the equipment will be replaced to keep system operational, all labor for repair and replacement of equipment found defective
- Monthly Fire System FAS reporting to help with insurance regulations
- Monthly SMS Building Automation reports of PM performed
- Perform scheduled backups of workstation database and graphics and/or field panel databases and provide safe storage of critical business information on a weekly basis

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- Secondary back up kept in separate Siemens virtual and physical location of airport
- Restore databases on-site within emergency response time frame when required
- Emergency Service on line within 2 hours.
- Emergency Service on-site within 4 hours
- Control Loop Evaluation and Tuning includes software control check's on Direct Digital Controls for AHU's, Chilled Water Plant, and High Temperature Water System
- Provide system commissioning to verify system sequence of operation working as designed
- Utilize Siemens CAP+ Analysis tool to troubleshoot and optimize air flow and temperature parameters on VAV Boxes
- Ongoing operator coaching and training of CDA personnel in operation of System(s)
- Analyze and submit for review any recommendations to improve system performance.
- Check clean and calibrate all input/output devices at field panel
- Check all electrical wiring and tighten loose connections at field panel
- Verify all pneumatics are working properly including air pressure and checking/fixing leaks on supply and branch lines
- Verify Sensor readings with computer and replace sensors as needed.
- Inspect operation of mechanical systems and verify capability of integrated systems.
- Bring in corporate resources for testing, training, and roll out for technology enhancements
- Work with program management and engineering consultants that are brought in by CDA.
- Any new systems installed by Siemens and/or put on Siemens Automation System or Fire Life Safety System
- Yearly Fire Pump Testing
- All materials that are found defective during normal PM or on an emergency call.
- All labor for emergency service after hours.

Samples of Items Not Within the Scope of Monthly Fixed Fee Coverage Line 1:

- When an Act of God or accidental destruction of equipment by someone other than Siemens employee happens, this will be replaced at billable rates for parts only, labor cost will be included in the monthly fixed fee up to one (1) man day or less to perform.

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EXHIBIT 4

Current Industry Standards & Guidelines:

Code	URL
National Electrical manufacturers Association (NEMA) Standards Publication SB 2-2016	https://www.nema.org/news/Pages/NEMA-Revises-Training-Manual-on-Fire-Alarm-Systems-NEMA-SB-2-2016.aspx
National Fire Protection Association (NFPA) 72	https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=72
American with Disabilities Act (ADA)	https://www.ada.gov/
City of Chicago Mayor's Office for People with Disabilities (MOPD)	https://www.cityofchicago.org/city/en/depts/mopd.html
City of Chicago Building Code (CBC)	https://www.cityofchicago.org/city/en/depts/bldgs/provdrs/inspect/svcs/chicago_buildingcodeonline.html
City of Chicago Electrical Code (CCEC)	https://www.cityofchicago.org/city/en/depts/bldgs/supp_info/electrical_inspections.html
American Society of Heating, Ventilation, Air Conditioning and Refrigeration Engineers (ASHRAE)	https://www.ashrae.org/
American Society of Heating, Ventilation, Air Conditioning and Refrigeration Engineers (ASHRAE 180) Standard 180	https://www.ashrae.org/standards-research--technology/standards-interpretations/interpretations-for-standard-180-2008
Telecommunications Industry Association (TIA)	https://www.tiaonline.org/
Electronic Industries Alliance (EIA)	https://www.ecianow.org/standards-practices/standards/
American National Standards Institute	https://www.ansi.org/
BACNet Standard 135	https://www.ashrae.org/resources--publications/bookstore/BACNet

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