

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	
Office of Emergency Management and Communication	Zachary Williams		312-746-92		March 30, 2020	Id. Cour	
Contract Liaison	Email Contract Liaiso	on	Telephone			(
Lylianis Gonzalez	lylianis.gonzalez@ cityofchicago.org		312.746.942	21	_	3 0	
List Name of NCRB Atte	endees/Department						
Zachary Williams, OEMO Lylianis Gonzalez, OEM Lisa Clark, OEMC Natalie Gutierrez, OEMC	С		Frank Lindl	bloom, OPS	SA		
Request NCRB review b	e conducted for the p	roduct(s) a	and/or servi	ce(s) descr	ibed herein	l.	
Company: Northrop Gre	umman Systems Corp	oration					
Contact Person:		Phone:		Email:			
John Kouri		703-556-1	1 comment & section				
Project Description: Mo Dispatch (CAD) System	dification to PO 55123 Maintenance."	7 with Nort	hrop Grumr	man Systen	ns Corpora	tion: "Altaris Gold Computer Aided	
This is a request for:							
□ New Contract				nent / Modi	fication		
Contract Type			Type of Mo	dification			
☐ Blanket Agreement	Term: (# of mo)		tension	⊠ Vend	dor Limit Increase ☐ Scope Change	
☐ Standard Agreement			Contract Nu	mber: <u>55127</u>	7		
			Specification		206684		
			Modification	Number:	Δ		
Department Request	Annroval		l Bo	commend	of Abarra	ual .	
DEPARTMENT HEAD OR D By Natalie PRINT NAME)\ ce	2/20/20 DATE	20 🐰	AND CHAIRF	PERSON M. Lol	MAY 1 2 2020 Toda	
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Recommend Approval/Date: _			V				
Return to Department/Date:			4		5. MM	MAY 1 2 2020	
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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. Northrop Grumman Systems Corporation (formerly Northrop Grumman Information Technology, which was formerly PRC Public Sector, Inc.) has been responsible for furnishing the hardware and developing certain proprietary computer software and related system integration and maintenance for the CAD system for the City's 9-1-1 System since September 1995. The original Agreement (dated April 22, 1993) was between the City and Fluor Daniel, Illinois, Inc. which was acquired by PRC. The Altaris software is at the core of the CAD System's functionality, and was proprietary to PRC. PRC has now been acquired by Northrop Grumman, which now has proprietary rights to the Altaris software.

In 2006, the Non-Competitive Review Board (NCRB) approved a request from OEMC to enter into a contract with Northrop Grumman for the hardware/software maintenance for the CAD system. The terms of the contract were a seven (7) year contract with the option of three (3), one (1) year extensions, for a total of \$91,800,000.

Contract 13270 was executed with approval from the Non-Competitive Review Board (NCRB) in October, 2006. The contract's number was revised in 2016 to PO 28821 due the name change to Northrop Grumman Systems Corporation. PO 28821 expired October 19, 2016.

The OEMC received approval for a new contract, but continuation of services, in October 2016 (PO 55127). PO 55127 had a 2 year base term with the option to extend for an additional one (1) year. Although necessary, this would not be enough time to fully implement the new CAD system.

The OEMC had started the RFP process in September 2014, working with the Department of Innovation and Technology (DoIT). The OEMC and DoIT advertised a Task Order for the analysis of the City's CAD system. The Task Order was awarded to Clarity Partners, LLC and approved by DPS in January 2015. Immediately after DoIT issued the Notice to Proceed, Clarity Partners and their affiliates began analyzing the CAD system through a variety of methods. Clarity Partners' deliverables on the Task Order were to evaluate the CAD system, report their findings, and draft a Request for Proposal to be used by OEMC for the replacement and maintenance of the new CAD systems. Upon completion of the Clarity Partners' analysis, it was clear to OEMC that we could undertake a new RFP, but would have to phase out the Northrop Grumman platform while leaving all services intact and fully functional. This would take time and subject matter experts..

At this juncture, the OEMC is requesting to extend PO 55127 for up to four (4) years and adding \$23M to the contract. This will cover all services until the new CAD is implemented, operational, and accepted. On December 31, 2019, the OEMC successfully completed a contract signing/agreement with Tritech Software Systems. Tritech will spend the next 3-4 years implementing, training and testing the new CAD sytem before going live with the new system for the City of Chicago.

- 2. No, this is a continuation of previous modification request to PO 55127. This contract expires October 19, 2020.
- 3. Prior to this recent Request for Proposal, the competitive bid process has not been attempted in the last 20 years because of the complexity of this technology platform and during the contract development, no other vendor could provide the platform that the OEMC required. The current CAD system manages the City's 9-1-1 calls and operations, and a full system changeout could cause system failure. It is imperative to maintain the current system, with no downtime, while any system is changed over. Continuation of PO 55127 while the new CAD system is implemented, fully operational, and accepted will allow the OEMC for continuity of operations.
- 4. In 2015, the OEMC employed Clarity Partners to do a complete review of the current state of the City of Chicago CAD system, including technical aspects, operational procedures and requirements, future needs, interoperability, and other functionality variables. This review produced a number of draft documents outlining, among other things, the core requirements of a new CAD system, a full review of our current full CAD and mobile CAD client (used by First Responders), and an inventory of the data reports needed by the various departments that interact with the

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CAD daily. LR Kimball, one of the nations' foremost experts in Public Safety systems, was brought on to serve as subject matter experts for the review.

This comprehensive assessment provided the OEMC with the foundation it needed to develop a Request for Proposal (RFP).

The RFP was released to the public in 2016. After releasing and subsequently selecting a vendor, Tritech Software Systems was awarded the City's CAD contract. However, the newly awarded CAD provider will not be able to provide CAD services until at least 2023. Thus, there is too much risk with letting the services lapse.

At this time, OEMC MUST maintain continuity of operations for the CAD 9-1-1 system. Otherwise there will be no means to dispatch First Responders to a location in the event of an emergency. A downed system could result in severe injury or death, which would have catastrophic repurcussions for the City.

- 5. The current request is to extend PO 55127 for up to four (4) years and add \$23,590,318 to the contract including a Task Order. This will allow time to fully implement and accept the new CAD system without any downtime. Northrop Grumman's expertise is currently integral to the City of Chicago's public safety system.
- 6. A contract to replace this one has been awarded on 12/31/2019, with Tritech Software Systems, PO 117722.

□ ESTIMATED COST

- 1. The vendor limit increase for this Sole Source is \$23,174,318.00. This Sole Source will include a Task Order for the amount of 416,000 for CAD Airport Integration/CAD to CAD System with the 9-1-1 Center for a total of \$23,590,318 for the Sole Source. The funding will be from Corporate dollars.
- 2. The estimated cost per year is \$5,793,579.50.
- 3. Northrop Grumman's costs are based on previous usage with estimated future costs. In addition, the OEMC is adding Mobile Maintenance, which will increase the costs accordingly. This plan will allow the City to maintain current services (with the added mobile maintenance) for the contract duration. This approach will greatly reduce systems failures

Northrop Grumman will provide onsite Subject Matter Experts (SME) for the ongoing maintenance for our Altaris®Gold CAD platform and related systems. These onsite SMEs are already familiar with City of Chicago's 9-1-1 Operations processes and will significantly reduce problems or gaps in the process of adopting a new system. It is imperative that the CAD System be properly functioning at all times, as the CAD is the vital system to the OEMC's mission of public safety. The CAD also provides daily support for both Chicago Fire Department (CFD) and the Chicago Police Department (CPD) first responders, and is crucial to the City of Chicago to provide safety and quick response to citizens in need of help. Additionally, the CAD is used by many departments to provide data for both reporting functions as well as operational analysis.

The City's current Altaris®Gold CAD system is a highly customized solution.

4. Network costs – The current CAD network is completely separated from any other City networks by design. This network was designed by and is maintained by Northrop Grumman, with secure interfaces to many other needed applications such as Hot Desk, Safetypad, etc. The OEMC will use Northrop Grumman to maintain a platform that is already in place, so cost increases will be based on the increased cost of labor and equipment. However, changing to a new system under a different vendor would be very costly in the short term. The OEMC has identified and allocated costs for the next 3 years (plus one).

Additional training costs – The 9-1-1 Operations Floor, as well as Chicago Police Department and Chicago Fire Department end users, have used the current Northrop Grumman CAD for over 20 years. While some re-training would be necessary, a full blown training is not needed since the new contract maintains existing services. Additional training could potentially be needed for the added mobile maintenance.

Interoperability costs (eg – cameras, LEADS, HotDesk) – Northrop Grumman has already built interfaces into a number of systems used every day by CAD end users. That interoperability will automatically be included going forward with the new contract, since it maintains existing services. Any such interoperability would have to be analyzed, designed, and implemented for a completely new CAD system by a new vendor.

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Knowledge of OEMC processes and history – Because of Northrop Grumman's history with the City of Chicago and 9-1-1 operations here, they have infinitely more knowledge surrounding our day to day procedures than any new vendor could provide. This knowledge is essential in understanding the needs of the city, specifically in terms of 9-1-1 response.

5. In addition to the short-term savings outlined above, the costs for maintaining the current system are less than a new system. The current CAD contract expires in October, 2020. With any other 3rd party solution, the City would be forced to pay to keep the current system running for the entirety of the implementation of a new system, while also paying for the new system. That alone will save the City nearly \$5 million each year.

1. The OEMC has been exploring the possibility of a new CAD for several years. More specifically, the OEMC employed Clarity Partners in 2015 to undertake a full CAD review in preparation for a possible RFP for a new CAD. This review lasted over 6 months, and produced many important summary documents of what the City of Chicago currently has in terms of CAD, what could potentially be included for a future CAD, and an overview of other CAD installations across the country. Clarity Partners interviewed and researched a sample of every end user of the current CAD in an effort to understand the business processes the City of Chicago currently uses. This was also done to help identify possible improvements that could be made by a Next Generation CAD system.

The current contract with Northrop Grumman is set to expire in October of 2020. The OEMC's request offers a short term solution to maintain operations without excessive costs. The same reliable network would be maintained, as well as the current storage and data warehousing.

- 2. No, lack of drawing and/or specifications is not a constraining factor to competitive bidding. When the contract was first implemented, Northrop Grumman was the only vendor that could develop the platform meeting the OEMC's needs. In the 20 years since development of the platform, there are now other vendors who could potentially provide the OEMC a CAD system. The OEMC has selected a new CAD vendor, but the new CAD's implementation could be 3+ years away. We must maintain the current level of service while the new CAD's implementation is in process.
- 3. Under this extension, the City will maintain current level of performance with no interruption in service. The OEMC is requesting to extend PO 55127 for up to four (4) years.
- 4. With a system the size of the CAD, the competitive bid process (RFP) was quite lengthy, and the newly awarded contract will not be in place by October 2020. In addition, know although a new vendor has been selected, the implementation process to the new system will be an enormous task to undertake. Data migration must be considered, as well as complete re-training, network costs, and other factors that could negatively affect the CAD system. This could result in a very complicated system for our users. Any system failure would negatively impact public safety.

Our research also shows that historically, new CAD system implementations have consistently run well over timelines and over budget. While cost is certainly a concern, the CAD system is integral in the safety of the citizens of the City of Chicago.

■ EXCLUSIVE OR UNIQUE CAPABILITY

- 1. Northrop Grumman is one of the industry leaders in the public safety system industry. The City currently uses the Northrop Grumman Altaris®Gold CAD. Northrop Gruman knows the City's requirements and future needs. They have provided the City with a support team at OEMC for the entirety of the contract. See attachments for the cost proposal and the scope of services.
- 2. Specific to Chicago, they have provided the city's CAD for over 20 years and are intimately familiar with not only the City of Chicago's processes, but many of the end users of the CAD system. They have provided the City with a support team at OEMC for the entirety of the contract, something that cannot be guaranteed where the City of Chicago go out to bid for a new system and vendor. Many of the onsite personnel are very familiar with the 9-1-1 operations and floor procedures, something that is essential in providing the best support possible to such a system. In addition to the CAD system, Northrop Grumman designed, built, and has maintained the CAD network

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for the City of Chicago. Support for that network or the building of a new network would come at a considerable cost for any new potential vendor.

- 3. Northrop Grumman is one of only a handful of vendors that has demonstrated the capability to handle a CAD system with the size and scope of the City of Chicago. At the time of implementation, Northrop Grumman was the only vendor that could provide the OEMC with a customized CAD system that would meet our needs.
- 4. This does not apply.
- 5. In addition to the network and implementation risks that can be avoided with Northrop Grumman's expertise, the cost of training cannot be overlooked. The end users are already very familiar with a Northrop Grumman system, and the onsite support staff of Northrop Grumman has worked with the end users in the city for over 20 years. They understand the way the end users work, what they want, and the easiest and most efficient ways to get there. They have also earned the trust of many of the end users both on the 9-1-1 operations floor as well as in the field (first responders).
- 6. The OEMC is procuring maintenance services for this contract. The current system, Altaris®Gold CAD, will have continuous maintenance during this contract.
- 7. This does not apply.
- 8. This does not apply.

1. This does not apply.

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OFFICE OF EMERGENCY MANAGEMENT AND COMMUNICATIONS CITY OF CHICAGO

THE OFFICE OF THE EXECUTIVE DIRECTOR

TO:

Shannon E. Andrews, Chief Procurement Officer

THE DEPARTMENT OF PROCUREMENT SERVICES (DPS)

FROM:

Richard Muldice Ly Notherro

Richard Guidice, Executive Director
THE OFFICE OF EMERGENCY MANAGEMENT

AND COMMUNICATIONS (OEMC)

DATE:

March 17, 2020

SUBJECT:

Contract Modification NCRB Sole Source Northrop Grumman Systems Corporation

Altaris®Gold Computer Aided Dispatch (CAD) System Maintenance Contract: 55127 Specification: 206684 Requisition: 331970

The Office of Emergency Management and Communications (OEMC) is respectfully submitting this package to the Non-Competitive Review Board (NCRB) for review and approval for a contract modification with Northrop Grumman Systems Corporation (PO 55127) which expires October 31, 2020. OEMC is requesting a vendor limit increase in the amount of \$23,174,318, and a time extension for four (4) years or until the new contract with TriTech Software Systems (PO 117722) is implemented and fully accepted for the CAD system.

The total requested amount of this vendor limit increase is \$23,590,318, which includes the \$416,000 for the CAD to CAD System project, and the NCRB in the amount of \$23,174,318.

HISTORY

The Hardware/Software Maintenance for the Altaris®Gold CAD is and will be an ongoing requirement. This requirement is currently being fulfilled by contract number 55127 with Northrop Grumman Systems Corporation.

Northrop Grumman Systems Corporation has been responsible for furnishing the hardware and developing certain proprietary computer software and related system integration and maintenance for the Computer Aided Dispatch (CAD) System for the City's 911 System since September 1995. The Altaris®Software is at the core of the CAD System's functionality.



OFFICE OF EMERGENCY MANAGEMENT AND COMMUNICATIONS CITY OF CHICAGO

SUPPORTING DOCUMENTATION

In support of this request, please find the attachments:

- 1. Non-Competitive Review Board Application (NCRB)
- 2. DPS Project Checklist
- 3. Northrop Grumman Systems Corporation Sole Source Justification for Amendment
- 4. Northrop Grumman Systems Corporation Detailed Scope of Work and Compensation Schedule
- 5. Northrop Grumman Systems Corporation Services and Fees
- 6. Northrop Grumman Systems Corporation Compliance Plan
 - a. Good Faith Efforts Plan Letter
 - b. Subcontractors' Schedules C1 and D1
 - c. Certification Letter
- 7. OEMC Compliance Concurrence Letter
- 8. Approved DPS OBM Form
- 9. Professional Services Insurance Requirements
- 10. Northrop Grumman Systems Corporation Certificates of Insurance
- 11. Economic Disclosure Statement Certificate*

*Note: Northrop Grumman Corporation (NGC) is owned by State Street (an investment group). By law, State Street does not have to submit an EDS, but the online system still forces them to be invited by NGC. We are not able to print NGC's Certificate of filing, so we included the hard copy of the EDS. The State Street EDS is in "Draft" status.

If you should have any questions, please contact Lylianis González at (312)746-9421. Thank you.

cc: Natalie Gutierrez, Administration Lisa Clark, Contracts Lylianis Gonzalez, Contracts Zachary Williams, PSIT Frank Lindbloom, OPSA

Enclosure(s)



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: March 6,	2020	the Blan	ket Agreer	ments, the lea	funded, at							
Department Name: OEMC		Note: 1) Fu	nding: Atte	unding sources the source of t	on If multip		108	on parch Li	ajson Sign	andro -	el .	
Requisition No: 331970	Specification No: 206684	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.						rmation				
PO No: 55127	Modification No:	-			-					-		
Contract Lialeon: Lylianis Gonzalez		Title:	Altaris	Gold CAD) Maintei	nance						
Telephone: 312,746,9421		Project										
Email:	alez@cityofchicago.org	Descrip	otion: N	on-Compe ontract mo endor Limi	dification	n to PO 55					four (4) y	ears and a
Project / Program Manage Zachary Willia		Fundi				_						
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312.746.9236	3	IDOT		☐ IDOT/Highway			Enterprise		Grant		Other:	
Emall: zachary.willi	iams@cityofchicago.org	LINE	FY	FUND	DEPT	FHW		□ F1	-) FAA	FORMALIAN
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*By signing below, I attes contract are true and acc	st the estimates provided for this urate.											
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EDS Certification of Filling (included)			A	ddress:	7575 Col	shire Drive	, McLea	n, VA	22102			
EDS Certification of IDOT Concurrence	Filling (included)	es 🔲 No	A	9910981		shire Drive		in, VA	22102			

EXHIBIT 1: SCOPE OF WORK

Northrop Grumman will provide onsite Subject Matter Experts (SME) for the ongoing maintenance of the Altaris®Gold CAD platform. It is always imperative that the CAD system be properly functioning, as the CAD is the vital system to the OEMC's mission of public safety. The CAD also provides daily support for both Chicago Fire Department (CFD) and the Chicago Police Department (CPD) first responders and is crucial to the City of Chicago to provide safety and quick response to citizens in need of help. Additionally, the CAD is used by many departments to provide data for both reporting functions as well as operational analysis.

1. CAD System Description

- A. The CAD System, including all subsystems and associated items to be maintained under this agreement are as follows: Proprietary Northrop Grumman Computer Aided Dispatch (CAD) system software
- B. Proprietary Northrop Grumman E-AVL system software
- C. Proprietary Northrop Grumman CAD Client Computer Aided Dispatch system software
- D. Oracle database software
- E. Linux RedHat v6 Server Operating system (Administration only. City purchases maintenance and Red Hat operating system support directly from Dell)
- F. Microsoft .NET 4 Framework data software
- G. Windows "X" Operating systems (Administration only. City purchases maintenance support from Dell)
- H. Safety Pad software

Note: The City reserves the right to remove SafetyPad from this Agreement at any time, with no effect on the Terms and Conditions.

- I. NFIRS FirstOnScene software
- J. Agent 511 MMS software (SMS messaging)
- K. Oristar Mapping software
- L. Locution
- M. Hewlett Packard Open View (Administration only. City purchases maintenance support directly from Dell)
- N. CAD network maintenance
- O. Mobile management on a Time and Materials ("T&M") basis
- P. Iron Mountain (Escrow of Northrop Grumman Altaris Software only)
- Q. Embacardo (Database monitoring software used by DBA)
- R. Cisco SmartNET (Maintenance on existing CAD network appliances)
- S. VNC (Troubleshooting software for CAD workstations)

The following Exhibits provide further detail in the Scope of Work.

Attachment	
Exhibit 1A	Performance and Capacity Standards
Exhibit 1B	Key Personnel
Exhibit 1C	Initial Problem Detection
Exhibit 1D	Escrow Agreement
Exhibit 2	Detail of Compensation Schedule

2. Maintenance and Technical Support Program

- General. During the term of this Agreement and all subsequent extensions of this Agreement pursuant to amendment, Northrop Grumman will provide the Maintenance and Technical Support Program for the CAD System at rates set forth in Northrop Grumman's - Schedule of Compensation/Fees (separate document), in compliance with Exhibit 1B - Performance and Capacity Standards. The Maintenance and Technical Support Program shall include: (1) Preventive Maintenance and Support; (2) Corrective Maintenance and Support; and (3) Operational Support Services. The Preventive and Corrective Maintenance Support programs are designed to ensure proactive support, and the break/fix support is provided 24x7 365 days a year. The Preventive Maintenance portion shall ensure support personnel are proactively reviewing and watching systems for abnormal activity which could be mitigated before a catastrophic circumstance occurs. The Corrective Maintenance portion shall ensure all software, operating systems, databases and associated systems problems are resolved to ensure operational continuity of all systems. The Operational Support Services are further described below. In addition, the Northrop Grumman will provide account management and configuration management services as further described below. Northrop Grumman is not responsible for equipment maintained by the City or for the maintenance of the equipment not provided by the Contractor pursuant to This SOW or a Task Order; provided that the Contractor shall be responsible for maintenance of all portions of the CAD System provided pursuant to a Task Order and for resolving defects or deficiencies arising from the interaction of equipment maintained by the City and all other components of the CAD System. The Maintenance and Technical Support Program shall maintain the CAD System in compliance with the Performance Standards set forth in Section 4 and Exhibit 1B -Performance and Capacity Standards. The Maintenance and Technical Support Program shall include warranty maintenance on all Equipment and Software within any Task Order provided by Contractor at no additional charge to the City for a period of one year following Final Acceptance of such Equipment and Software.
- (b) Preventive Maintenance Services. Northrop Grumman will provide Preventive Maintenance Services as required to maintain proper CAD System performance, including performance at or exceeding the Performance Standards. The Preventive Maintenance Services shall be performed primarily by the following Contractor personnel, who may be located on-site at City Facilities during regular business hours (Monday – Friday, 9:00am to 5:00pm): (1) Database Administrator; (2) System Administrator; and (3) Technical Lead/Applications Programmer (collectively, the "On-site PM Staff"). The On-site PM Staff, in coordination with Contractor's On-site Project Manager and with the City's approval, shall manage their work schedules to allow for routine checks of the CAD System (on-site or remotely) at least once during any thirty-six (36) hour period during all weekends and holidays without any of the On-site PM Staff exceeding the expected forty (40) hour work week. In the event that a member of the On-site PM Staff is temporarily unavailable, or as otherwise required to provide the Preventive Maintenance Services, Contractor shall provide, at no additional cost to the City, substitute or supplemental personnel to perform the required Preventive Maintenance Services. Such substitute and supplemental personnel may perform such Services on-site or remotely, as agreed by the parties. All such substitute and supplemental personnel shall be subject to the City's approval, which will not be unreasonably withheld.
- (c) Corrective Maintenance Services. The Corrective Maintenance Services shall provide on-call support 24 hours a day, seven days a week, including all holidays, in accordance with the

performance standard requirements and priority level descriptions set forth in Exhibit 1B - Performance and Capacity Standards. With respect to Priority One and Priority Two issues, the Contractor's Key Personnel shall be available to provide the required Corrective Maintenance Services. If Contractor's Key Personnel are temporarily unavailable to respond to such failures, and for Priority Three and Priority Four issues, Contractor shall provide, at no additional cost to the City, substitute or supplemental personnel to perform the required Corrective Maintenance Services. Such substitute and supplemental personnel may perform such Services on-site or remotely, as agreed by the parties. All such substitute and supplemental personnel shall be subject to the City's approval, which will not be unreasonably withheld. The City shall have the right to make an initial designation of what priority level (as defined in Exhibit 1B-Performance and Capacity Standards, section d) to assign to a particular maintenance issue. At Contractor's request, the parties shall meet, to review the City's classification of maintenance issues during the preceding quarter to ensure the proper use of such classification. Any disputes regarding the City's classification of maintenance issues shall be raised at such quarterly meetings and resolved in accordance with the Support if necessary.

- (d) Contractor must remedy any defect in any Software or Equipment making up the CAD System or in any integration or interface between the Software and the Equipment and either repair, or at the City's option, replace the defective element or module or swap any defective unit. Contractor shall supply, at no additional cost, all replacement parts or elements and perform or cause to be performed all labor necessary to ensure proper function of the CAD System.
- (e) If, in performance of the normal maintenance update program, the Contractor determines that System performance will not be adversely affected, the Contractor shall provide one copy of any updated release of the Proprietary Software, or part thereof, without charge which the City may copy in the appropriate quantity and substitute in a prior release. In addition, Contractor must provide published bulletins describing new releases, maintenance releases, temporary problem resolution and circumventions, support level change and other information with respect to all Software, except for Contractor's then-applicable mailing and media changes.
- (f) Operational Support Services ("OSS") Services. As part of the Maintenance and Technical Support Program, Contractor shall furnish professional dedicated technical personnel to provide Operational Support Services ("OSS Services") on site at City Facilities.

Contractor's Program Manager shall be responsible for managing all aspects of the day- to- day performance of the personnel providing OSS Services (e.g., HR benefits, attendance and time sheets, personal time off, sick time, vacation time, and all other HR-related matters).

- 1. OSS Personnel. Contractor will ensure that its personnel and it subcontractors personnel providing OSS Services are familiar with and skilled in dealing with the CAD System environment, including, at a minimum, satisfying the requirements set forth in Exhibit 1C-Key Personnel. Because of the sensitive and confidential nature of the CAD System and the OEMC, the City reserves the right to conduct reasonable background checks to the extent permitted by law on personnel providing OSS. The City will provide reasonable cooperation in educating Contractor's personnel in the CAD System environment.
- 2. Removal/Replacement. The City may also direct Contractor in writing to retain or replace

subcontractors providing OSS Services after showing cause. As directed by the City, Contractor will replace dismissed OSS personnel. Contractor shall submit resumes for consideration by the City within ten (10) business days. The City and the Contractor, by mutual agreement, may also add to or remove personnel performing OSS Services as needed.

- 3. Attendance/Absences. OSS subcontractors shall follow all City work assignment and attendance regulations, including the use of time sheets and will not use City resources for personal use unless authorized by the City. Absences from work for any reason by OSS subcontractors must be coordinated with the Contractor's Program Manager and approved by the City. Discrepancies in attendance or assignment of OSS subcontractors shall be negotiated and resolved by Contractor immediately upon being brought to Contractor's attention. The City and Contractor will meet quarterly or more frequently if required by the City to discuss OSS Service performance and to resolve outstanding issues. Contractor shall use its best efforts to keep the same OSS subcontractors in place though the term of this Agreement.
- (g) Contractor shall furnish reports and analyses for CAD System performance and verifiable system performance measurements, together with statistical data, charts and graphs as reasonably requested by the City. Such reports shall be furnished no less frequently than annually but may be furnished at six month intervals at the Executive Director's request. Such reports and measurements shall be in a format agreed to by the City and Contractor.
- (h) Contractor shall provide special OSS Services not covered in the Maintenance and Technical Support Program at the request of the Executive Director at the rates to be negotiated through a Task Order.
- (i) Contractor shall also provide through its OSS Services support and information to OEMC personnel Subcontractors and third-party vendors regarding problem identification and resolution.
- (j) The Maintenance and Technical Support Program shall include maintenance and support of all Commercial Software provided by Contractor.
- (k) The City will be responsible for the limited tasks and activities associated with maintenance of the CAD System set forth below. Such limited tasks are for the convenience of the Contractor and performance thereof does not reduce or vitiate any of Contractor's warranties for the Products set forth in this Agreement which shall remain as set forth in the Agreement.
 - 1. The City will provide "Initial" problem detection following the procedures set forth in Exhibit 1D- Initial Problem Detection.
 - 2. The City will assign a primary contact to assist Contractor's On-site Project Manager in the coordination of schedules for Contractor's maintenance activities. Northrop Grumman's Program Manager will be responsible for managing and coordinating all aspects of

the day to day performance of Contractor's employees (e.g., HR benefits, attendance and time sheets, personal time off, sick time, vacation time, and all other HR-related matters).

- 3. The City will perform system file disk back-ups in accordance with Contractor provided and documented procedures.
 - 4. The City will provide CAD System security in accordance with Contractor provided and documented procedures.
 - (I) The Contractor as part of the Preventive Maintenance Services will:
- 1. provide for data integrity, file management and system configuration management.
- 2. perform file management and system configuration and software audits as part of their normal business practices in providing proactive preventive maintenance,
- 3. identify, evaluate, and report system warning messages, and provide the City with explanations and recommendations for their correction.
- 4. evaluate the impact of proposed Equipment and Software upgrades, modifications, and changes to system processes as requested by the City.
- 5. assist and advise the City and its third-party hardware and software vendors during critical Equipment and Software upgrades, repair services, and/or proposed new applications.
- (m) Overtime costs related to OSS Services requested or approved by the City shall be addressed in accordance with Exhibit 2 Compensation. All requests for Overtime submitted by the Contractor to the City shall include supporting documentation including time sheets. The City will comply with all applicable Illinois statutes and regulations as to its payment of Overtime costs.
- (n) Account Management Services. Contractor will provide off-site Account Management services, which include the following:
 - 1. Personnel/Resource Administration, which includes monitoring, in conjunction with the OEMC, onsite staff's performance, conducting performance review of those onsite personnel, approving onsite staff's timesheets and expense reports, tracking their times off and arranging for back fills when necessary, arranging for training. The Project Manager will also work with Contractor's technical managers to make sure that technical resources are properly organized for corrective maintenance support.
 - 2. Subcontractor/Vendor Management, which includes ensuring that subcontractors deliver their goods and services as promised, renewing subcontracts when

necessary, making sure vendors' invoices are reviewed and processed timely, and taking all necessary actions to correct/remedy any problems related to performance by subcontractors or vendors.

- 3. Configuration Management, which includes coordinating the configuration management services, as summarized below, with onsite staff, corrective maintenance team, and Contractor's QA team and tracking the changes to the CAD System.
- (o) Configuration Management Services. In addition to day-to-day as needed configuration management activities, the Contractor will perform a complete system build on a quarterly basis to assure that the CAD System in the City's configuration management environment is in synch with that in the LIVE environment. The Contractor will maintain a copy of the latest, properly configured source code of the CAD system and the configuration environment in its Off-site office and deposit such source code with the escrow agent to be covered by the Source Code Escrow Agreement entered by the parties. Contractor will bring the City's development environment in alignment with Contractor's configuration management standard. OEMC will test and validate the quarterly build.
- (p) Routine System Updates. In the event that the City requires Contractor to perform Services related to routine CAD System updates that the parties mutually agree are not part of the Preventive Maintenance Services or the Corrective Maintenance Services (e.g., developing interfaces to external systems; development of "drivers" for code calls), then, upon the City's written and authorized request, Contractor shall perform such services under a mutually agreeable Task Order and require the issuance of a Task Order.

3. <u>Mobile Maintenance</u>

Northrop Grumman will provide Mobile Maintenance as part of this Agreement. NGSC will provide the following:

- 1. General management tasks
- 2. Mobile maintenance and support project description
- 3. Completion of milestones

1. General Management Tasks

Northrop Grumman has proven experience in managing projects at the OEMC and understands the importance of the successful operation of CAD police and fire mobile computers, future Android phone and tablet devices. All devices demand proper support and maintenance for CAD operations to be successful.

The general project tasks will include the following services to be provided by Northrop Grumman as part of this scope of work:

- Project and technical management.
- Technical interfacing and coordination with the OEMC.
- Provide management and engineers that are knowledgeable on the mobile solutions at the OEMC.

- Planning and coordination with the OEMC.
- Develop an implementation plan when required for activities that have significant impact and need to be coordinated with the OEMC.
- Provide execution of implementation plan and provide any risk impact to mobile devices regarding access to the CAD system.
- Provide project status through the Northrop Grumman Bi-Weekly Project Action Tracker to the OEMC.

2. Mobile Maintenance and Support Project Description

The mobile support and maintenance project will provide a comprehensive scope of work to cover various aspects of the mobile components including coordination of the devices and GPS devices, management of the devices, assist in identifying future options, maintaining the appropriate device master images, managing and monitoring the deployment of the patches, testing and validation, troubleshooting issues with the OEMC and respective vendors and documentation.

Northrop Grumman will provide the technical services described below:

- 1. Support the OEMC in meeting with stakeholders to gather requirements. The goal is to ensure the user community is involved and has input in identifying improvements or enhancements to the mobile solutions.
- 2. Identify potential future devices, capabilities, features, and stakeholder requirements from NG perspective.
- 3. Interface, and coordinate activities with the OEMC, respective agencies, vendors e.g., Panasonic, Verizon, and Heartland.
- 4. Identify, collaborate, review, establish with OEMC to determine upcoming device images and updates.
- 5. Identify, collaborate, review, plan with the OEMC to determine mobile application changes and deployment builds.
- 6. Support for the following images:
 - a. 4 CF 29 Images operating under MS XP
 - b. 2 CF30 Images operating under MS XP
 - c. 1 MS WIN-7 CF31 Image Notes: Supports 2 CF31 Types
 - d. 1 CF19 WIN7
 - e. 1 CF53 WIN7
 - f. 1 LPR Support for CPD License Plate Reader
 - g. Blackberry Blackberry OS No further development, support for existing NG image only.
 - h. Android Phone if the CAD application is purchased through Northrop Grumman.
 - Windows Tablet if the CAD application purchased through Northrop Grumman.
- 7. Mobile Operating System
 - a. Identify, review, operating system & futures.
 - b. Identify, review mobile operating system patches and updates.

 Note: Mobile operating system updates, patch updates and futures will be evaluated on a case by case basis. The task may require additional resources and labor outside this scope of work.
- 8. Mobile 3rd Party Software Components. Assist in the evaluation with the vendor and

the OEMC on potential new Air Cards.

- a. Air Card
- 9. Mobile Police/Fire Applications. Assist the OEMC and their respective agencies to access the below applications:
 - a. ARIA
 - b. CLEAR
- 10. Mobile Bug Fixes.
 - a. Identify Patch
 - b. Review Patch
 - c. Test and Field Patch
 - d. Build Patch
- 11. Support for the CPD application update program.
 - a. Build packages
 - b. Package Administration
 - c. Deploy/Activate Patches
 - d. Monitor deployment of Application Updates
 - e. Verify Patches to Mobiles
- 12. GPS Devices.
 - a. Assist the OEMC in the management of the GPS devices and assignments to vehicles and units.
 - b. Troubleshoot GPS device issues for mobiles that operate the Northrop Grumman Mobile GPS application that send GPS information to the E-AVL Server. These will consist of the Grey Island devices that directly attach via to the Northrop Grumman Mobile application.
 - c. Troubleshoot GPS device issues for standalone devices, e.g., Grey Island and Trimble that report to the E-AVL Server.
 - Note: The City of Chicago and OEMC is responsible for maintaining and repairing the actual GPS hardware and physical connectivity to the mobile application. In addition, the City and their respective repair facility and vendors will assist Northrop Grumman in troubleshooting the actual GPS devices.
- 13. Device management administration and CAD coordination of defining new devices. Assist the OEMC with the management of the IP's and mobile device assignments and CAD network changes needed to support new mobile IP ranges.
- 14. 24 X 7 Level Mobile Maintenance and Support for Priority 1 issues.
- 15. Documentation.
 - 3. Status Reporting
- 1. A quarterly status report will be sent to the designated OEMC CAD project manager regarding mobile mobility activities, issues, resolution, planned tasks, and futures.
- 2. Active activities including priority one trouble ticket issues will be coordinated with the OEMC CAD project manager and status provided through email and working sessions as required.
- 3. Activity statuses will also be placed on the Bi-Weekly Action Tracker to ensure proper follow-up and notification to the OEMC.

4. Customer Responsibilities

The OEMC will be responsible for the following:

- Provide timely access to the City vehicle maintenance staff and Unisys who is responsible for some critical access network segments for troubleshooting mobile and GPS related issues when required.
- 2. Provide any operating system software, hardware, 3rd party software, application program interfaces specifications (API's), and licenses. This is to include current active technical support access for products used by the OEMC, including mobile and mobility products and 3rd party support.
- 3. Provide the physical hardware and server support at CPD in support of the CPD updater application and database components that Northrop Grumman will operate and distribute the mobile software and updates from. This includes backup and restoration in case of failure for the CPD updater application and related software and database components.
- 4. Provide timely access and working sessions to 3rd party vendors used by the OEMC in the mobile mobility solutions, like, Heartland and Verizon, etc., when required.
- 5. Provide timely access and working session to the mobile mobility stakeholders when required.
- 6. Provide on-site system administrator engineer, database administrator, and software engineer when requested.

4. Task Orders

The City may order changes in Services, including the Equipment or Software to be provided, covered in an outstanding Task Order ("Request"). Such changes include the addition of extra work, equipment, software, materials or equipment, the deletion of work, materials or equipment, substitutions thereof or changes in the manner of completing a Task Order. The City will provide written notice to the Contractor of any proposed change in the work by a letter signed by the Executive Director, or his designee. The Contractor shall, within ten (10) business days after receipt of any Request, comment to the City in writing whether or not such Request would require a delay of time or result in an increase or decrease in the price set forth in an outstanding Task Order, or have any permanent or temporary material adverse effect on the functions or performance of the CAD system, giving the details thereof, including whether the price set forth in an outstanding Task Order would be affected or if an extension of time would be necessary, as well as any proposed change in price and proposed extension time ("Request Comments.")

A Task Order is the written order to Contractor signed by the Executive Director and the Chief Procurement Officer authorizing a material change in the Services or a material change in the method or manner of performance of the Services covered under the Agreement or under an outstanding Task Order after receipt of Request Comments, if any, from the Contractor. A Task Order shall set forth the adjustment, if any, in price and Schedule under one or more outstanding Task Orders as well as any permanent material adverse effects as the functions or performance of the CAD System. Contractor shall submit a price proposal in response to any notice of a material change properly itemized and supported by sufficient substantiating data to permit evaluation including unit prices as appropriate. Each Task Order shall set forth the elements of the applicable Task Orders to be changed. The price under a Task Order will be increased by the aggregate amount of any price changes assessed in connection with any such change and a Task Order may be authorized in the appropriate amount. If an

adjustment in price under an outstanding Task Order in connection with a change in the Services is not agreed upon and it is both a matter of public safety and there is an exigent or urgent need for the change in Services and not proceeding therewith will cause a delay in the implementation Schedule, then Contractor, upon written order signed by the Chief Procurement Officer and the Executive Director, shall proceed with the work directed by the Task Order and such work to comply with any such Task Order shall be performed by Contractor at the time and materials rates as set forth in Exhibit 2-Schedule of Compensation, (not subject to Overtime).

The Contractor will maintain an action-tracker listing all open issues, task — order opportunities and scheduled software releases. The Contractor will review the action-tracker on a bi-monthly basis with the City, reviewing the status of each item and mutually discussing and formulating plans to resolve each issue. The City is responsible for periodically prioritizing each of the items listed in the action tracker.

If a City caused delay materially increases Contractor's cost of performance, the parties shall meet to discuss the cause and significance of such increases in cost, including ways in which such costs might be mitigated and/or avoided. If mutually agreed by the parties after such analysis, the parties will amend the Agreement in accordance with in order to grant Contractor an equitable adjustment to reimburse Contractor for such increased costs

5. Clarification Procedures

Except as set forth elsewhere in this Agreement (including any time frames set forth herein with respect to testing and acceptance of Products), each party will have ten (10) Business Days to respond to written correspondence from the other party which requires a written response. The party requesting a response will identify in the initial correspondence whether there are any tasks that are dependent upon receiving a timely response. If a written response is not received within the required ten (10) Business Days, then the party sending the initial correspondence shall be entitled to delay performance of the dependent tasks identified in the initial correspondence until the required response is received.

If the CAD System, the S9-1-1 System or any portion thereof suffers a Priority 1 or Priority 2 failure (as defined at the end of this scope of services and in Exhibit 1B - Performance and Capacity Standards) and such failure was caused by Contractor or any of its Subcontractors, Contractor shall immediately commence efforts to cure such failure.

6. Performance Standards; Professional Standards

(a) No work performed by Contractor or performed in the performance of any work under this Agreement shall degrade the Performance Standards for the CAD System, or any improved Performance Standards which result from City authorized and approved modifications, enhancements or changes to the CAD System performed by Contractor (as such improved Performance Standards may be agreed to by the parties). At all times during the performance of work under this Agreement, the CAD System shall meet or, upon mutual agreement, exceed the Performance Standards. In addition, the following supplemental performance levels must be adhered to:

- 1. No work performed under this Agreement, nor under any Task Order, nor any Software or Equipment introduced into the CAD System by Contractor as a result thereof shall degrade, restrict, or reduce the end user's present CAD Systems operation functionality as set forth in Exhibit 1B-Performance and Capacity Standards. Contractor shall advise the City in writing of any adverse effects upon the Performance Standards that may result from a proposed Task Order or Change Request. If, after receiving such notice from Contractor, the City decides to proceed with such Task Order or Change Request, Contractor shall be relieved of its obligation to achieve any such Performance Standards to the extent identified in such notice.
- 2. During and after completion of any work under this Agreement or any Task Order, the use by the City of the CAD System in the performance of system commands and tasks, (both internally and initiated by the Altaris® System) and the use of any other part of the CAD System or any Software used in connection with this Agreement shall not degrade, or lessen the Performance Standards, including, but not limited to, service levels, end-to-end command executions, task response times, optimum concurrent and serially executable task and commands, and concurrent number of on-line and active CAD System users.
- 3. During the term of this Agreement and all subsequent extensions of this Agreement pursuant to amendment, except for City-approved planned outages, and outages caused by factors beyond the reasonable control of Contractor, the CAD System must be available for use in accordance with the Performance Standards ("CAD System Availability") not less than 99.995% in any Contract year period ("Availability Requirement"). If the CAD System fails to meet the Availability Requirements for more than three consecutive days, or more than two consecutive weeks; or more than two consecutive months, the City will notify Contractor within a reasonable time that the System does not meet the required CAD System Availability Requirements. CAD System Availability Requirements for use is determined by dividing the actual minutes of CAD System uptime during a time period (e.g. days, weeks, months) by the total amount of minutes in such time period. For example, if the CAD System was only available for 12 hours on one day, the CAD System Availability that day would be 50% (720 minutes / 1440 minutes).

The Performance Standards set forth in this Section 6 and in Exhibit 1B- Performance and Capacity Standards may not be modified without express City approval and waiver as set forth in a Task Order executed by both the City and Contractor.

(b) The Contractor must perform all Services required of it under this Agreement with that degree of skill, care and diligence normally shown by a contractor performing services of a scope and purpose and magnitude comparable with the nature of the Services to be provided under this Agreement. Contractor acknowledges that it is entrusted with or has access to valuable and highly confidential information and records of the City ("Confidential Information") and with respect to the Confidential Information and to this Agreement, Contractor agrees to be held to the standard of care of a fiduciary. All Services completed under this Agreement once completed shall result in a Work Product which meets or, upon mutual agreement, surpasses the functional requirements set forth in the Agreement and any applicable Task Order and will satisfy the statement of work set forth in the Agreement and any such Task Order, as modified

by Change Directive.

(c) Contractor must assure that all Services that require the exercise of professional skill or judgment are accomplished by professionals qualified and competent in the applicable discipline and appropriately licensed, if required by law. Upon the request of the City, Contractor must deliver to the Executive Director copies of any such licenses. Contractor shall be responsible for the professional and technical accuracy of all Services or Work Product furnished, whether by Contractor or its Subcontractors or others on its behalf. All Work Product must be prepared in a form and content consistent with the requirements of this Agreement and delivered in a timely manner consistent with the requirements of this Agreement.

7. Additional Equipment; City Modifications

- (1) In the event City wishes to permanently connect any Equipment or any Software to the CAD System not already agreed to by the parties ("City Permanent Modification"), City will notify Contractor in writing at least thirty (30) days prior to any such City Permanent Modification. Contractor shall respond in writing to the City regarding the proposed City Permanent Modification within said thirty (30) day period. Such response must advise in sufficient detail whether or not the City Permanent Modification would materially adversely affect performance of the CAD System. To the extent Contractor determines that the City Permanent Modification will not have such a material adverse impact, then the Contractor's warranties for system performance remain in full force and effect.
- (2) If the Contractor determines a City Permanent Modification will, to the extent set forth in the letter referred to in (b)(1) above, materially adversely impact performance of the CAD System, Contractor shall give the City written notice of such adverse impact in accordance with paragraph (b)(l) above. If the City decides to proceed with the City Permanent Modification, the Contractor's warranties for system performance for those portions of the System materially adversely affected by the City Permanent Modification, as identified in Contractor's notice to the City, will be void. Any problems encountered in CAD performance as a result of a City Permanent Modification will be corrected by the Contractor at agreed upon rates once authorization to proceed has been received from the City via a Task Order and/or amendment.
- (3) The City is entitled to make temporary modifications (for diagnostic and other purposes) ("City Temporary Modification") that directly or indirectly interact with portions of the CAD System maintained by Contractor without Contractor's review of the City Temporary Modification. The City shall, as soon as reasonably practical, advise Contractor of the details of such City Temporary Modification. If such a City Temporary Modification adversely impacts CAD System functionality or performance, the Contractor shall give written notice to the City describing the reduction in functionality or performance caused by the City Temporary Modification. Upon City receipt of this notice a new baseline for CAD System performance will be in effect so long as such City Temporary Modification remains part of the CAD System and Contractor's remedy, if any, of functional or performance related problems arising directly from the City Temporary Modifications, if accepted by the City, would become an additional cost item subject to modification of the applicable Task Order. The City, however, shall have, upon receipt of such written notice from Contractor, the option to remove such City Temporary Modification and restore the CAD System to its prior state, in which case the

Contractor warranties shall be in full force and effect upon such removal after recertification of the system by Contractor. Contractor will not be liable, nor responsible for any outages, slowdowns or diminished functionality as a result of any City Temporary Modification. Notwithstanding the foregoing, the Propriety Software may not be modified at any time by the City or its agents.

8. Additional Software; New Releases

- (a) Contractor will provide notice to the City of updates, enhancements or modifications to Commercial Software needed for the operation of the CAD System. If requested by the City, Contractor will further notify the City of the probable effect on the CAD System of installation of such update, enhancement, or modification, and provide a recommendation to the City as to whether or not any such update, enhancement or modification should be installed. Following receipt of Contractors notice and recommendation, the City may elect whether to have such updated, enhanced, or modified Commercial Software installed in the CAD System and whether to incur the costs for such updated, enhanced or modified Commercial Software.
- (b) During the term of this Agreement, Contractor shall provide to the City an Application Programmer to provide updates, enhancements, and modifications to the Proprietary Software as further described in Exhibit 1C-Key Personnel. The cost for such person and work shall be included in the Maintenance and Technical Support Program fees set forth in Exhibit 1.

9. <u>License: Copyright Ownership</u>

(1) Contractor owns all rights, title and interest to the Proprietary Software and related documentation, including all custom modifications, derivative works and all technical and functional designs and functional designs relating thereto. Neither the Proprietary Software nor the Services related to Proprietary Software hereunder shall be considered "work for hire" within the meaning of Federal copyright law (17 U.S.C. Section 101 et seq). The City shall not disassemble, decompile or reverse engineer the Proprietary Software and any information obtained in violation of this provision shall be deemed confidential information owned exclusively by the Contractor. With respect to the Altaris® Proprietary Software the parties acknowledge and agree that the City currently holds a fully paid, perpetual license to use such software in accordance with the license terms set forth in the License. With respect to the Proprietary Software provided under the Original Agreement, the parties acknowledge and agree that the City currently holds a fully paid, perpetual license to use such software in accordance with the license terms set forth in the Original Agreement. With respect to Proprietary Software provided under subject to or modified under this Agreement, pursuant to a Task Order or otherwise, the City shall be granted a paid-up, perpetual, non-exclusive, royalty-free, not transferable operating license in object code form to install, store, load, execute and display (collectively, "Use") such Proprietary Software for the City's internal use. on either (i) those processing units currently in use (if relating to updates, enhancements or modifications to already licensed Proprietary Software), or (ii) those processing units specified in the Task Orders and in the quantities and types specified in the Task Orders (if relating to new Proprietary Software). The City may make one (1) archival copy for backup purposes. Except as set forth in this Agreement, the license will be for operations use only and does not authorize the City to make any alterations, adaptations, translations or derivative works to such

Software without approval of Contractor. Licensing and maintenance terms for Commercial Software shall be subject to the terms of the provider of such Commercial Software. Nothing herein shall prevent the City from access to and manipulation of the Commercial Software consistent with the licensing provisions for such Commercial Software. As a precondition of acceptance of any software, Contractor warrants that, to the best of its knowledge and belief, no license provided to the City pursuant to this Agreement violates any third-party intellectual property rights in any way.

Source Code Escrow Agreement (in substantially the form attached hereto as Exhibit 1D – Escrow, pursuant to which the Contractor shall promptly deposit into trust with a mutually acceptable escrow agent, one copy of the Source Code for each component of the Contractor's Proprietary Software, any associated available documentation pertaining to the Contractor's Proprietary Software, and any other material required in the Source Code Escrow Agreement, to assist the City in its ability to configure, install and support the Contractor's Proprietary Software. Contractor shall pay the reasonable costs of the Escrow Agent. If any of the Release Conditions as specified in the Source Code Escrow Agreement are met, the City shall have access to Source Codes for the Proprietary Software and be entitled to alter, adjust, translate or create derivative works from such Proprietary Software as needed solely for the City's own use in support of the operations of the CAD System.

The City will not allow any person or entity to have access to the Proprietary Software except employees of the City who need to have access to the Proprietary Software for purposes in which such Proprietary Software is licensed. In the event of improper access or disclosure or breach of the license, Contractor as its sole remedies against the City shall be entitled to seek temporary or permanent injunctive relief damages at law.

(b) If requested by the City, Contractor will provide or cause to be provided any updates, enhancements or modifications to Commercial Software after acceptance of such Commercial Software. Contractor shall and shall cause its Subcontractor(s) to promptly provide any updates or enhancements to licensed Commercial Software promptly after such updates and enhancements first became available in accordance with this provision. Contractor shall further provide or cause to be provided a notification of the provided effect on the CAD System if installation of any upgrade or enhancement occurs, and of its recommendations to the City as to whether or not any such upgrade or enhancement should be installed. Such update and enhancements shall exclude custom software designed exclusively for use by a specific third party other than the City of Chicago. Notwithstanding any other terms of this provision, Contractor shall only be obligated to provide such updates, upgrades enhancements or modifications to Commercial software which it is able to certify to function properly with the Contractor's Proprietary Software.

10. CAD Network Support

Contractor shall provide CAD Network Support for the City of Chicago, OEMC. Specifically, the Contractor shall perform the following network related activities:

- (a) Plan and install CISCO related appliance IOS patches and updates, including security related updates.
- (b) Monitor, troubleshoot, and optimize the network and network configurations.
- (c) Maintain and update network device configurations for related network changes.
- (d) Maintain, monitor, and optimize network security appliances.
- (e) Plan and support for network security scanning.
- (f) Perform regular network device configuration backups and restoration of network configurations, if needed.
- (g) Perform quarterly and annual maintenance checks.
- (h) Work with Dell support to provide recommended updates to the Dell Force10 and MXL switches that are part of the CAD network

Contractor will not provide 24 x 7 help desk coverage for the network and assumes that the City will continue in this role. The City will provide internal and external network connectivity to Northrop Grumman engineers for diagnostic and maintenance purposes.

Other OEMC/Chicago (non-CAD) networks: Contractor shall provide basic network connectivity troubleshooting as needed to assist remote users with access to the CAD network, and devices on the CAD network. Overall management and support for the non-CAD networks resides with the City.

The support provided will be limited to 576 hours annually. CAD network support that exceeds this will be invoiced at Time and Material (T&M). Any time used to correct issues caused by Northrop Grumman shall not be counted in the 576-hour limit.

11. Client Workstation Upgrade to Microsoft Windows 10

This Section outlines the Client Workstation Upgrade to Microsoft Windows 10 for the Northrop Grumman CAD system.

1. Client Workstations

Northrop Grumman will provide the skilled labor and management services necessary to upgrade the CAD client(s) to Microsoft Windows 10 for the following:

- Operations Floor Workstations
- Remote Police Workstations
- Police Administrative Workstations
- Remote Fire Workstations
- Fire Administrative Workstations

The CAD client for the Fire Joker-stands operating at the fire houses will be provided to operate on a minimum of Microsoft Windows 7 given 3rd party components for touch screens, Locution, and Telpar printers may not be available for Microsoft Windows 10.

2. Porting and Related Components

(a) CAD Client Core Component Port to Windows-10

Northrop Grumman will port the CAD client core components to Microsoft Windows-10 64-bit architecture. This will bring the CAD client software core components to be in alignment with Microsoft newest operating system offering.

The existing Northrop Grumman CAD GUI client will be ported to Microsoft .NET 4.6 or later. The current CAD client operates under Microsoft Windows XP; Windows XP is only supported up to Microsoft .NET 4.0. Northrop Grumman is committed to providing the latest Microsoft .NET 4.6 or greater to the OEMC given the rich set of features and capabilities of .NET as it continues to evolve with enabling technologies along with the latest updates for security vulnerabilities. The CAD GUI client will also be updated to the latest Infragistics 3rd party software libraries which provide specialized widgets that are used in the CAD GUI to support the CAD triage functionality.

(b) OriStar Map and OriPlay Components

Northrop Grumman will be supplying through OriStar, a software port of the OriStar Map and OriPlay for Microsoft WIN-10. OriPlay provides the ability to playback unit GPS information. This will include all the necessary software porting, testing and validation for WIN-10.

(c) Locution Components

Locution is used by the CAD GUI at remote fire joker-stand to provide annunciation in the fire station when the fire station is dispatched to an event. Fire station speakers are activated and based up on the CAD type, as to whether EMS service or the fire service is being requested or both regarding annunciation. Locution is still working to validate their product on WIN-10. It may or may not be ready at the time of the WIN-10 upgrade, and a fall back plan to WIN-7 will be provided. Locution will supply future updates as long as there is a valid maintenance contract in place.

(d) Hummingbird Components

The Hummingbird product which is used for MIS access will be provided and twenty-five (25) licenses for the WIN-10 workstation upgrade.

(e) CAD Workstation Desktop Infra-Structure and Management Components Northrop Grumman will update the CAD GUI Start-OPS client workstation scripts for WIN-10; validate deployment scripts on the WIN-10 image configuration and workstation hardware; and a new workstation image(s) will be developed with the Acronis software for each workstation image type.

(f) CAD Functionality Testing and Validation on WIN-10

Northrop Grumman will provide for the high-level CAD functional testing for WIN-10 and WIN-7 for the Joker-stands. The GUI Acceptance Test Matrix (ATM) will be used as the basis for the commands and functional testing: Event Entry, Status Commands, e.g., Dispatch, On-scene, Close, etc., CAD Queries, Status Monitors, PSAP CAD integration and related functionality, OriStar Map Note: Appropriate workstations types that have maps, and WIN-7/Joker-stand CAD functionality.

(g) Operations Floor Workstation Environment Validation

The Operations Floor Workstation Environment will consist of the following validation and verification points for the final hardware and software integration: workstation use cases for Operations Floor, e.g., police and fire call-taker, and police and fire dispatcher; dual network teaming and multiple network card(s); Vetra multiple keyboard and mouse arbitrator; multiple video displays; PSAP Integration Testing and Validation where applicable- Note: OEMC will provide any necessary support for Vesta; printers/models will be validated that exist today, e.g., Canon, HP, etc.; VNC (Virtual Remote Desktop); Open Secure Shell (SSH); OriStar Map and OriPlay port/upgrade to WIN-10; and Symantec Anti-Virus

(h) Police and Fire Remote Workstation Environment Validation

The Police and Fire Remote Workstation Environment will consist of the following validation and verification points for the final hardware and software integration: network card; printers/models will be validated that exist today, e.g., Canon, HP, etc.; VNC (Virtual Remote Desktop); Open Secure Shell (SSH); OriStar Map and OriPlay port/upgrade to WIN-10 will deployed where licenses already exist; and Symantec Anti-Virus.

(i) Fire Remote Joker-stand Workstation Environment Validation

The Fire Remote Joker-stand Workstation Environment will consist of the following validation and verification points for the final hardware and software integration: network card; printers will be validated that exist today, e.g., Telpar Parallel SP-2021, Telpar USB MTP-2283. Note: The Telpar SP-2021 may not be supportable under WIN-10.; Locution (Station Annunciation); NEC Touchscreens, e.g., LCD175M and LCD171M. Note: Vendor drivers must be available from NEC for WIN-7 and WIN-10. VNC (Virtual Remote Desktop); Open Secure Shell (SSH); and Symantec Anti-Virus.

2.1 Customer Responsibilities

The Customer Responsibilities are as follows:

- Provide Dell validation and verification workstation hardware and the Microsoft Operating System WIN-10/WIN-7 (Joker-stand) professional software as required prior to procuring the final Dell workstation for the operations floor.
- Provide Dell workstation hardware and software support. This would include Dell workstation hardware and software support to address configuration or setup issues.
- Provide Dell workstations that are used by the developers for WIN-10 as required.
- Provide the any new Vetra keyboard and mouse arbitrators for the operations floor while the older Vetra units are sent to Vetra for firmware updating.
- Provide Dell test workstations, multiple desktop monitors, Vetra arbitration devices, Canon printer access and any necessary Dell drivers to Northrop Grumman for their engineers for testing and deployment purposes.
- Provide for any needed environmental requirements for the new workstations, HVAC, electrical power, space requirements at the OEMC
- Provide the on-site system administrator, on-site project manager database administrator, on-site software engineer and project manager to assist with any needed specialized testing or support. The Northrop Grumman software engineer will transfer knowledge to on-site project manager so the on-site project manager can provide for future workstation replacement deployments.
- Provide support and access to Northrop Grumman in the troubleshooting of workstation issues during business hours.
- Provide for 3rd Party support including AT&T/Vesta, Canon (printer driver), Symantec Antivirus,

Acronis, as required for WIN-10 support.

- The OEMC on-site project manager will assist in providing the WIN-10 training and documentation required by OEMC training staff.
- Provide for the final testing of the WIN-10 GUI and WIN-7 for the Joker-stands.
- Establish OEMC project manager for interfacing to Northrop Grumman.

Assumptions

The following assumption(s) apply:

- The WIN-10 and WIN-7 operating systems are Microsoft off-the-shelf industry standard offerings. Given the WIN-10/WIN-7 operating systems have different user interfaces, staff training adjustments may have to be made given the differences. No user interface adjustments are in this upgrade for any WIN-10/WIN-7 operating system changes that are beyond Northrop Grumman's ability to control.
- Locution maintenance will continue to be in effect through the maintenance period contract as long as the Locution product is being used in the OEMC environment.
- VNC maintenance will continue to be in effect through the maintenance period.

12. Reporting

As part of the Services, Contractor shall provide the City with reports in the form, and with the frequency, and covering the information, described in Exhibit 1B or as otherwise, mutually agreed in writing.

13. Right of Entry

A. Access

Contractor, and any of its officers, employees, Subcontractors, sub consultants or agents, shall have a right to enter upon any City facility in connection with the performance of the Services, subject to the terms and conditions herein. The Contractor will be required to wear identifying badges while on site at any City Facility. Contractor shall comply with all security measures required by the City, including reasonable limitations on access and restrictions on times of entrance.

B. Care of City Property

Contractor shall use, and shall cause each of its officers, employees, subcontractors, and agents to use all reasonable care when entering upon any property owned or leased by the City. Contractor shall comply and shall cause each of its officers, employees, sub-contractors and agents to comply with any and all instructions and requirements for the use of such property.

14. <u>Personnel</u>

(a) Qualifications of Personnel. Contractor shall, and shall cause the Subcontractors to assign and maintain throughout the completion of all Services an adequate staff of competent

personnel who are fully equipped, licensed as appropriate, available as reasonably needed and qualified to perform all the terms of this Agreement. The level of staffing may be revised from time to time by notice in writing from Contractor to City with written consent of the City.

15. Problem Priority Level Descriptions

Problems will be considered **Priority 1** (Critical) if they result in:

- A software defect or hardware failure which significantly affects the system or a component's ability to accomplish a critical system function, for which there is no workaround/alternate solution available. The following are examples of Priority One Problems:
- Complete system outage (Including failure of standby cluster systems)
- The loss of a major portion of call taker or dispatcher operations
- The inability to dispatch to a geographic area
- Loss of location verification functions
- Loss of unit recommendation functions
- Loss of unit status change functions
- Loss of multiple remote database links or interfaces
- Loss of query functionality (EQ-UQ)
- Loss of MDT/PDT functionality
- Loss of GPS/AVL functionality or mapping

Problems will be considered Priority 2 (Major) if they result in:

- A software defect or hardware failure which may significantly affect the system or a component's ability to accomplish a critical system function, but for which there is a workaround/alternate solution available.
- The loss of an interface.
- A software defect or hardware failure that causes loss of a major system function such as file maintenance, CAD and external queries, or miscellaneous field functions, for which there is no workaround/alternate solution available, but which does not cause the loss of critical system functions.

Problems will be considered Priority 3 (Minor) if they result in:

- Minor software defect or hardware failure in a critical system.
- A software defect or hardware failure that causes loss of a major system function such as file maintenance, CAD and external queries, miscellaneous field functions, for which there is a workaround/alternate solution available.
- A software defect or hardware failure which may significantly affect the system or a components ability to accomplish any support function such as file backups, purging, or statistical reporting.

• Any other software defect or hardware failure that causes operator inconvenience or annoyance, but which does not cause the loss of any critical or major system functions.

All other problems and requests for consultation will be classified as **Priority 4** – Informational Requests.

EXHIBIT 1A PERFORMANCE AND CAPACITY STANDARDS

Introduction

Attachment 2 outlines the Performance and Capacity standards for the Northrop Grumman CAD system.

a. Performance Standards

Northrop Grumman shall perform the Services in a manner necessary and appropriate to ensure that the CAD system operates and is maintained in accordance with the Performance Standards as set forth below:

b. Availability Requirements

The Northrop Grumman CAD System Software Availability:

Time Period	Availability Requirement (percentage of total number of minutes in the Time Period)
Contract year	Not less than 99.995%

Figure 1: Availability Requirements

The Availability Requirements do not include pre-planned system downtime(s) due to system upgrades, software & hardware enhancements, or software & hardware maintenance that are necessary to maintain the systems and system-related components.

The Availability Requirements do not include network outages, electrical outages, hardware failures/outages and/or issues that are outside the Northrop Grumman CAD software and CAD software Contractor domain and ability to control, including acts of God.

Software customization and enhancements that have been requested by the City are excluded from the availability requirement for fourteen (14) days from the time the enhancement(s) is placed into the live production server environment to give the Contractor time to remedy any such problems with the enhancements(s) and/or customizations.

The Contractor will work to provide continuous software support if the customization or enhancement(s) impacts the Northrop Grumman CAD software, including the extracting of the software in question until the issue can be resolved. All pre-planned downtime will be coordinated with the City, with the City providing the time of such occurrences for the planned downtime.

c. Performance and Capacity Monitoring

Northrop Grumman will collect data and system statistics, and retain data for a period of 1 year, for purposes of reporting system performance, and projecting system capacity requirements.

Regular reports will be generated and made available to the City. Reports will be for systems that are deemed "critical" to the operation of the CAD and CAD supporting functions. As of this contract signing, the current capacity reports are generated daily, and represent a 30-day history of system capacity. Reports are made available on an internal City web server, and access to the reports will be granted as requested by the designated City CAD manager.

Special requests may be made for detailed system performance reports, specifically as related to a system change, or a reported system issue/problem.

As the hardware and operating systems are provided by the City, the Contractor will utilize tools and utilities that are available natively on the operating systems, or other specific data gathering utilities that are provided by the City.

The current utility used for performance and capacity data gathering is Hewlett Packard OpenView Performance Agent, which is licensed per operating system, and is available for any Windows, Linux, or UNIX platform. The City owns and maintains the licenses and support for current instances of the HP OpenView Performance Agent software.

d. Support Response Time Requirements

Support Response Times:

Priority of Reported Issue	Response Required	Maximum Response Time		
All Maintenance Reports	Telephone response	30 minutes		
Priority 1 & Priority 2	Remote T1 or VPN access, or site visit	1 hour		
Priority 3 & Priority 4	Remote T1 or VPN access, or site visit	Next Business Day		

Figure 2: Support Respone Time Requirements

The first level of response by Northrop Grumman will be the onsite personnel and will be followed by notification to the designated corrective maintenance staff led by Northrop Grumman's Technical Manager. In the event that the designated staff is not available or additional help is needed, the City will contact the Northrop Grumman Program Manager or designee to facilitate the handling of the situation.

The City will provide a T-1 (or equivalent network capability) for network connectivity between the Chicago OEMC and the Contractor's office. The network appliances and associated software used for this connectivity will be supplied by the Contractor.

e. Reporting Requirements

Type of Report	Report Description	Report Frequency or Due Date
Monthly Report	A monthly report will only be produced when there are ongoing and outstanding task orders requiring the management of a Contractor Project Manager. The City does not require the Contractor to submit a Monthly Report concerning preventative, corrective, or operational support.	5 th Business Day of Month
Weekly	Purpose of outlining the previous week's System Administrator and	Weekly

Status	Database Administrator activities and the planned activities for the near	
Report	term. The weekly reports will be submitted to the City's designated CAD	
	manager.	

Figure 3: Support Respone Time Requirements

f. Problem Priority Level Descriptions

Problems will be considered **Priority 1** (Critical) if they result in:

- A software defect or hardware failure which significantly affects the system or a component's ability to accomplish a critical system function, for which there is no workaround/alternate solution available. The following are examples of Priority One Problems:
- Complete system outage (Including failure of standby cluster systems)
- The loss of a major portion of call taker or dispatcher operations
- The inability to dispatch to a geographic area
- Loss of location verification functions
- Loss of unit recommendation functions
- Loss of unit status change functions
- Loss of multiple remote database links or interfaces
- Loss of query functionality (EQ-UQ)
- Loss of MDT/PDT functionality
- Loss of GPS/AVL functionality or mapping

•

Problems will be considered Priority 2 (Major) if they result in:

- A software defect or hardware failure which may significantly affect the system or a component's ability to accomplish a critical system function, but for which there is a workaround/alternate solution available.
- The loss of an interface.
- A software defect or hardware failure that causes loss of a major system function such as file maintenance, CAD and external queries, or miscellaneous field functions, for which there is no workaround/alternate solution available, but which does not cause the loss of critical system functions.

Problems will be considered **Priority 3** (Minor) if they result in:

- Minor software defect or hardware failure in a critical system.
- A software defect or hardware failure that causes loss of a major system function such as file maintenance, CAD and external queries, miscellaneous field functions, for which there is a workaround/alternate solution available.
- A software defect or hardware failure which may significantly affect the system or a components ability to accomplish any support function such as file backups, purging, or statistical reporting.

 Any other software defect or hardware failure that causes operator inconvenience or annoyance, but which does not cause the loss of any critical or major system functions.
 All other problems and requests for consultation will be classified as Priority 4 – Informational Requests.

EXHIBIT 1B KEY PERSONNEL

Key Personnel

a. TECHNICAL MANAGER (Full-time)

Responsibilities include technical leadership for the Northrop Grumman team – includes (CAD application development, management information systems, interfaces, and collaborating with 3rd party hardware and software vendors, technical scope for change orders, trouble-shooting CAD and E-AVL application, interface and/or CAD network issues.)

b. APPLICATIONS PROGRAMMER (Full-time)

Responsibilities include CAD enhancements to the CAD and ancillary systems at the OEMC, including, E-AVL, etc., at the discretion of the OEMC CAD Manager. The applications software engineer provides customer approved programmatic changes, requirements gathering, design, development, testing and documentation. This will include troubleshooting when required.

c. DATABASE ADMINISTATOR (Full-time)

Responsibilities include maintaining all Oracle databases related to the CAD and MIS Systems. This includes break fix and proactive monitoring. This also includes support for MIS reports

d. SYSTEM ADMINISTRATOR (Full-time)

Responsibilities include maintaining the Linux operating system, reviewing hardware error logs and providing proactive firmware updates on all CAD and MIS servers.

Note: All positions above are expected to work 40 hours per week. These positions are NOT subject to Overtime, however, hours worked in excess of 40 hours per week will be addressed as set forth in Attachment 5.

Other Personnel

e. PROGRAM MANAGER (Part-time)

Responsibilities include leading the team, managing the team (timesheets, expenses, subcontracts etc.), over-site of the implementation maintenance contract, over-site of task orders, subcontractor management, ensuring performance of contract parameters for quality, software defects, customer relations, managing the overall health of the program.

f. PROJECT MANAGER (Part-time)

Responsibilities include managing the implementation of task orders (software enhancements, software updates, and customer facing coordination for onsite NG and vendor visits, meetings and development of system enhancement requests. Maintain professional close user relationship relative to our product and services regarding areas of innovation and improvement. Manage NG relationship with OEMC onsite vendors and NG team.

g. DEPLOYMENT ENGINEER (Part-time)

Responsibilities include testing software releases, deploying software releases, trouble-shooting CAD application issues with OEMC floor employees and support for task-orders.

h. TECHNICAL PROJECT MANAGER (Full-time)

Responsibilities include managing day to day services requests from the OEMC Director of Information Systems and the OEMC Help Desk. This includes CAD hardware issues and requesting vendor repairs per the SLA. Completes OEMC approved CAD data change or addition requests. This position assists with the deployment of CAD releases to the Operations Floor, ARS/311, and Remote Sites as required.

i. JAVA PROGRAMMER (Full-time)

Responsibilities include the daily maintaining and troubleshooting of the OEMC specialized JAVA applications for the OEMC at the discretion of the Director of Information Systems. These will include the JAVA applications programmer to apply approved programmatic changes, requirements gathering, design, develop, testing and documentation.

EXHIBIT 1C INITIAL PROBLEM DETECTION

Introduction

The City will be responsible for execution of the following tasks and activities associated with system failure or fault identification, isolation, diagnostics, and implementation of corrective action.

Initial Problem Detection

a. Initial Analysis

The City will perform the Initial analysis of the maintenance event. This will result in the City identifying the nature (hardware/software/unknown) and seriousness (critical/routine) of the problem. The Initial analysis will include providing the following information to the Help-desk technician(s), (currently staffed by Unisys):

- a) Time and date of incident
- b) Name of staff reporting the problem
- c) Location/console position that reported the problem
- d) Identification of the system, server, or workstation experiencing the problem
- e) Function being attempted at the time the failure or fault occurred
- f) Error messages displayed
- g) System condition prior to failure or fault
- h) Commands being executed or attempted to be executed at the time of the failure or fault
- i) Length of time the problem or fault has been experienced
- j) Failure or fault restricted to a single system, server, workstation, or other component
- k) Present condition of other systems, server, or workstations

b. Hardware and Software Maintenance

The City will continue to maintain mission critical hardware and software maintenance support under separate maintenance agreements.

c. Primary Contact

The City will assign a primary contact to assist the Help Desk in the initial problem detection, diagnostic, and initiation of corrective action; and to coordinate appropriate schedules in connection with helpdesk services, and to provide other coordination activities that are necessary for the helpdesk to perform its maintenance duties.

d. Backups

The City will perform system and file backup according to Contractor documented procedures.

e. Personnel and Security

The City will administer and maintain CAD System personnel and security in accordance with Contractor documented procedures.

EXHIBIT 1D ESCROW AGREEMENT

EXHIBIT 2 COMPENSATION

Preventative and Corrective Maintenance (includes Security Support)

The annual fee for the preventive and corrective maintenance and support services to be provided by Contractor under this Agreement shall be in accordance with the following Schedule. Contractor may invoice the City annually in advance of such annual fee.

Base Contract	Security Support (included in Total Annual Amount)	Total Annual Amount
1. Year 1	\$213,932.00	\$2,998,199.00
2. Year 2	\$221,871.00	\$2,985,902.00
3. Year 3	\$229,512.00	\$3,079,308.00
Option Years	Annual Amount	Total Annual Amount
4. Optional Year 4 Total:	\$237,531.00 \$12,215,536.00	\$3,152,127.00

Preventative and Corrective Maintenance Disaster Recovery

The annual fee for the preventive and corrective maintenance and support services to be provided by Contractor under this Agreement shall be in accordance with the following Schedule. Contractor may invoice the City annually in advance of such annual fee.

Base Contract	DR (included in Total Annual Amount)	Quarterly Payment
1. Year 1	\$379,501.00	\$94,875.25
2. Year 2	\$390,383.00	\$97,595.75
3. Year 3	\$401.423.00	\$100,355.75
Option Years	Annual Amount	
4. Optional Year 4 Total:	\$413,508.00 \$1,584,815.00	\$103,377.00

Account Manager/Configuration Management

The annual fee for Account Manager/Configuration Management services to be provided by Contractor under this Agreement shall be in accordance with the following Schedule. Contractor may invoice the City annually in advance such annual fee. This shall include off-site project management/financial management of Contractor, plus quarterly Altaris® software builds.

Base Contract	Annual Amount	Quarterly Payment
1. Year 1	\$759,933.00	\$189,983.25
2. Year 2	\$757,511.00	\$189,377.75
3. Year 3	\$783,716.00	\$195,929.00
Option Years	Annual Amount	Quarterly Payment
4. Year 4	\$811,135.00	\$202,783.75
Total:	\$3,112,295.00	

Mobile Maintenance-Time and Materials Charges

Any work which may under the terms of the Agreement be provided on a time and materials basis shall be performed at the time and materials rates shown below.

<u>Title</u>	Hourly Rate Year 1	Hourly Rate Year 2	Hourly Rate Year 3	Hourly Rate Year Option 4
Mobile Maintenance Engineer	\$323.00	\$334.00	\$346.00	\$358.00

Any third-party materials and other direct charges not specifically described herein shall be provided pursuant to a Task Order and, unless otherwise agreed in such Task Order, shall be billed at actual cost incurred plus 20%.

Any Services required beyond such stated amounts shall be considered Additional Services and require the issuance of a Task Order.

Base Contract	Estimated Annual Amount
Year 1	\$54,910.00
Year 2	\$56,780.00
Year 3	\$58,820.00
Option Years	Estimated Annual Amount
Option Year 4	\$60,860.00

Total: \$231,370.00

OSS Services

Contractor will invoice the City on a monthly basis for OSS Services actually performed by OSS Personnel during the preceding month at the time and materials rates shown below per person per hour. The total estimated fees are based on 1,880 hours per position. Any authorized overtime fees for OSS Services shall be in addition to those estimated below:

Base Contract	Estimated Annual Amount	
Year 1		
1 OEMC Admin – 1,880 hours @ \$123.22	\$231,653.60	
1 Java Programmer – 1,880 hours @ \$158.39	\$297,773.20	

Year 2

1 OEMC Admin – 1,880 hours @ \$129.38	\$243,234.40
1 Java Programmer – 1.880 hours @ \$166.31	\$312,662,80

Year 3

1 OEMC Admin – 1,880 hours @ \$135.85	\$255,398.00
1 Java Programmer – 1,880 hours @ \$174.63	\$328,304.40

Option Years Estimated Annual Amount

Optional Year 4

1 OEMC Admin – 1,880 hours @ \$142.64	\$268,163.20
1 Java Programmer – 1,880 hours @ \$183.36	\$344,716.80

Total: \$2,281,906.40

Third Party Charges

Third Party Vendors (excluding Open, Inc.)

Contractor will invoice the City on a one-time annual basis, for certain third party charges actually incurred by Contractor on the City's behalf under the terms of this Agreement (other than OSS Services, which are addressed above). Along with such invoice, Contractor shall provide detailed written documentation itemizing the rights and benefits to which the City is entitled in connection with such third party product and/or service. Contractor shall provide all such maintenance coverage provided it remains available from the third party provider. If any such coverage becomes unavailable, Contractor shall work with the City to find a mutually agreeable solution. Contractor shall not increase any annual charges unless a third party provider(s) increases its charges to Contractor. In such event, Contractor may only increase its charges proportionate to any increase made by the third party provider.

Annual Amount
\$296,907.00
\$357.00
\$182,298.00
\$46,710.00
\$5,159.00
\$35,854.00
\$6,401.00
\$1,670.00
\$2,783.00
\$2,992.00
\$581,131.00
\$171,821.00
\$119,993.00
\$291,814.00

Year	2
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Oracle Software Maintenance	\$311,970.00
Cisco Any ConnectOristar	\$362.00
Oristar	\$198,007.00
MS System Center	\$47,399.00
Infragistics	\$5,235.00
Locution Systems, Inc.	\$36,387.00
VNC	\$6,497.00
Tableau Desktop Maintenance	\$1,695.00
Tableau Server Maintenance	\$2,825.00
Iron Mountain Maintenance	\$3,037.00
Year 2 Subtotal:	\$613,414.00
The following 3rd party charges will be invoiced separately from the 3rd party charges above	
FirstOnScene	\$181,354.00
Agent 511	
Year 2 Subtotal:	\$121,779.00
	\$303,133.00

Year	3
------	---

Oracle Software Maintenance	\$327,596.00
Cisco Any Connect	\$368.00
Oristar	\$209,906.00
MS System Center	\$48,155.00
Infragistics	\$5,319.00
Locution Systems, Inc.	\$36,965.00
VNC	\$6,600.00
Tableau Desktop Maintenance	\$1,722.00
Tableau Server Maintenance	\$2,870.00
Iron Mountain Maintenance	\$3,085.00
Year 3 Subtotal:	\$642,586.00
The following 3rd party charges will be invoiced separately from the 3rd party charges above	
FirstOnScene	\$191,319.00
Agent 511	\$123,714.00
Year 3 Subtotal:	\$315,033.00

Option Years	Estimated Annual Amount
Year 4	
Oracle Software Maintenance	\$343,976.00
Cisco Any Connect	\$375.00
Oristar	\$222,500.00
MS System Center	\$49,012.00
Infragistics	\$5,413.00
Locution Systems, Inc.	\$37,623.00
VNC	\$6,717.00
Tableau Desktop Maintenance	\$1,752.00
Tableau Server Maintenance	\$2,921.00
Iron Mountain Maintenance	\$3,146.60
Year 4 Subtotal:	\$673,435.60
The following 3rd party charges will be invoiced separately from the 3rd party charges above	
FirstOnScene	\$201,935.00
Agent 511	\$125,914.00
Year 4 Subtotal:	\$327,849.00

Total cost for 4 year proposal:

\$23,174,318.00

REVIEW AND APPROVAL

This form must be signed by both the Originator of the request and approved by the Department Head or authorized designee. After review and final disposition from the Board, this form will be stamped to indicate the final disposition and signed by the Chairperson of the Board Head or authorized designee.

Zachary Williams

OEMC

Director of Information Services

Richard Guidice

OEMC

Executive Director

City of Chicago

Po 55127

Information for Amendment 1

Subsequent to the signing of PO 55127, the following changes have occurred which should be reflected in an Amendment to the contract to Modify **Exhibit 9 - Fees**:

Open, Inc. - Safety Pad® Product – This is the last item in Exhibit 9 – Fees of the Contract.
 The City assumed responsibility for and payment of Open, Inc. for this Maintenance effective August 1, 2018.

Year 1 - Therefore the last quarter of the Year 1 payment, or \$53,697.42 should be deleted from from \$214,789.69 to result in a total value for Year 1 of \$161,092.27.

Year 2 - \$222,370.15 should be deleted in its entirety.

Optional Year 3 - \$229,558.75 should be deleted in its entirety.

Therefore, the total payments for Open, Inc. – SafetyPad® will be \$161,092.27.

 Oristar Maintenance – Oristar maintenance charges are listed in Exhibit 9 under <u>Third Party</u> <u>Charges.</u>

<u>Year 1</u> – There was a delay in getting Oristar under contract and performing its maintenance from October 19, 2017 through January 31, 2018. Therefore Northrop Grumman did not invoice the City \$16,372.38 of the listed annual price of \$57,322.90. It should therefore reflect a price of \$40,950.52.

Year 2 and Optional Year 3 are unaffected.

AMENDMENT #1 And Extension TO CONTRACT 55127

This Amendment is entered into as the	day of	,2020 by and between
Northrop Grumman Systems Corporation, a Delav	vare Corporation	authorized to do business in
Illinois (the "Contractor" or "Northrop Grumman"), and the City of	Chicago a municipal
corporation and home role unit of local government	nt existing under	the Constitution of the State of
Illinois ("City"), acting through its Office of Emer	gency Managem	ent and Communications
("OEMC"), at Chicago, Illinois.		

BACKGROUND

The City of Chicago, Office of Emergency Management and Communications (OEMC) uses the AltarisTM Gold software platform for its 9-1-1 Computer Aided Dispatch (CAD) system. Northrop Grumman Systems Corporation (NGSC) owns and maintains this proprietary platform, which NGSC licensed to City pursuant to agreements between City and NGSC (or its affiliate or predecessor in interest) prior to the Effective Date, and which is a critical component of public safety for the City of Chicago ("License"). The City requires continued maintenance, including software upgrades and enhancements, repair services, operational support services, and preventive maintenance to be performed to the AltarisTM Gold platform and associated systems. Northrop Grumman has maintained the entire CAD system, both software and hardware, for many years, and has the professional experience and expertise to provide for continuity of operations.

Northrop Grumman currently maintains the Altaris™ Gold software under a Professional Services Agreement, City Contract # 55127 that expires October 31, 2020. This Non-Competitive Contract extension is being awarded without advertising and without bond in accordance with Section 8-10-4 of the Municipal Purchasing Act.

The Contractor warrants that it is ready, willing and able to extend it performance under Contract 55127 effective as of November 1, 2020.

NOW, THEREFORE, the City and Contractor agree as follows:

1. <u>Recognition of Task Orders.</u> The parties have entered into the following Task Orders under Contract 55127 prior to this Amendment.

IL Chicago - Smart 911	\$75,502.00
IL Chicago - KFCi Fire Alarm Box	\$51,314.00
IL Chicago - OriStar 15 Licenses	\$2,207.00
IL Chicago - Fire Alarm Repair TM 2018-19	\$40,000.00
IL Chicago - Cyber Penetration Test	\$71,608.00
IL Chicago - Keyboards and Mice	\$5,328.00
IL Chicago - CAD CISCO Upgrade	\$361,158.00
IL Chicago - Net Clock Card	\$5,861.00
Total	\$612,978.00

- 2. <u>Deletions from Contract.</u> The following maintenance services are deleted for the existing scope of maintenance:
 - a. Oristar Year 1 11/1/2017 10/31/2018. There was a delay in getting Oristar under contract. Therefore the parties have agreed to a reduction in the contract for the reduction in service of \$16,732.38
 Charges for all remaining periods remain the same.
 - b. <u>Open, Inc. SafetyPad The City assumed responsibility for the Open, Inc.</u> /SafetyPad product effective August 1, 2017. Therefore theses services and their associated charges are deleted from Exhibit 9 Pricing of this Contract:

	Total Deletions from Contract	<u>\$522,358.70</u>
iii.	November 1, 2019 – October 31, 2020	<u>\$229,558.75</u>
ii.	November 1, 2018 – October 31, 2019	\$222,370.15
i.	August 1, 2018 – October 31, 2018 (last quarter)	\$53,697.42

3. Extension of Contract Term. The parties agree to extend the contract for a period of four (4) Years commencing November 1, 2020. Pricing for the following years is detailed in the attached "Exhibit 9 – Extension Pricing":

Contract '	Year		<u>Price</u>	
1.	Year 1	11/1/2020 - 10/31/2021	\$5,594,914.80	
2.	Year 2	11/1/2021 - 10/31/2022	\$5,663,020.20	
3.	Year 3	11/1/2022 - 10/31/2023	\$5,864,588.40	
4.	Year 4	11/1/2023 - 10/31/2024	\$6,051,794.60	
Total Price – for all years <u>\$23,174,318</u> .				

The city must provide Northrop Grumman Corporation a 90 day notice to terminate the contract. The city will be liable for any costs for third party suppliers that Northrop Grumman may incur for that year.

- 4. <u>Additional Amendment Changes</u>. The Contractor has additions and deletions to the current contract that will be covered in this section.
 - a) The following services were removed:
 - Maintenance of Cisco Hardware and Software reflecting the City's decision to purchase the equipment and the maintenance of the equipment from a 3rd party.

- b) The following services were added:
 - i) Maintenance for Oristar Nearmap and Camera software applications integrated with the Oristar map application. This work was previously performed by Dennis Berry and included in the contract as an on-site Software Engineer. The costs in the previous contract were paid by Northrop Grumman to Oristar for maintenance of these services once Dennis retired in 2017. This arrangement will continue going forward.
 - ii) Added maintenance support for the Tableau software application.
 - iii) Server patching and security services above and beyond the work of system administration. This function and requirement continues to expand as cyber security becomes more of an important element for the City's CAD system. Ensuring proactive resistance to hackers has become more of a risk as more 3rd party applications expose the CAD network via access to and/or dependency on the Internet.
 - Following are items currently performed for network security:
 - Develop and maintain OS and hardening standards, including OS firewall where appropriate
 - Full-cycle ownership of Endpoint Security for Production,
 O'Hare Active Disaster Recovery site, RPR CAD remotes
 and PSN locations as they are brought online
 - o Identify, validate and apply regular OS security updates for multiple platforms across Dev, Test, Production and DR
 - Regular host security scanning, vulnerability prioritization, reporting and remediation
 - Represent and support CAD Security with DoIT Information Security (Infosec), to include continuing Intrusion Prevention System/IPS integration and support at CAD perimeter, triage and remediation with team
 - Security vulnerabilities and issues prioritization tracking and reporting
 - Maintain CAD systems and network Security Posture, with support of OEMC Security Champion
 - We recommend the addition of the following to provide additional resistance to hacking and unwanted elements in the CAD system:
 - Enhance and grow Security Posture through expansion of security tools portfolio and best practices
 - Cisco Security solutions full-cycle support
 - Better integrate and align with key industry standards: CERT advisories/best practices, STIG, Mitre ATT&CK and SCAP/NIST Risk Management Framework
 - Audit and continually improve existing IPS & firewall rules with full team and DoIT Infosec
 - o Enhanced host security scanning: platform-specific target scan policy drill-down and initiate compliance checks
 - Regular security tools upgrade and reconfigurations to maintain support

Exhibit 9 - Extension Pricing

1a. Preventative and Corrective Maintenance (includes Security Support)

The annual fee for the preventive and corrective maintenance and support services to be provided by Contractor under this Agreement shall be in accordance with the following Schedule. Contractor may invoice the City quarterly in advance for such annual fee.

	Security Support (included in Total			
	Annual Amount)	Т	otal Annual Amount	Quarterly Payment
Year 1	\$ 213,932.00	\$	2,998,199.00	\$749,549.75
Year 2	\$ 221,871.00	\$	2,985,902.00	\$746,475.50
Year 3	\$ 229,512.00	\$	3,079,308,00	\$769,827.00
Year 4	\$ 237,531.00	\$	3,152,127.00	\$788,031.75

Sub Total for Preventative and Corrective Maintenance \$ 12,215,536.00 \$ 12,215,536.00

1b. Preventative and Corrective Maintenance - Disaster Recovery

The annual fee for the preventive and corrective maintenance and support services to be provided by Contractor under this Agreement shall be in accordance with the following Schedule. Contractor may invoice the City quarterly in advance for such annual fee.

	- 1	DR (included in Total		19		
		Annual Amount)	Qu	arterly Payment		
Year 1	\$	379,501.00	\$	94,875.25		
Year 2	\$	390,383,00	\$	97,595.75		
Year 3	\$	401,423.00	\$	100,355.75		
Year 4	\$	413,508.00	\$	103,377.00		
Sub Total for Preventative and Corrective Maintenance	\$	1,584,815.00			\$	1,584,815.00

2. OSS Services

Contractor will invoice the City on a monthly basis for OSS Services actually performed by OSS Personnel during the preceding month at the time and materials rates shown below per person overtime fees for OSS Services shall be in addition to those estimated below:

		Estimated Annual			
	Hours	Hourly Rate	Amount		
Year 1					
1 OEMC Admin	1880	\$123.22	\$231,653.60		
1 Java Programmer	1880	\$158.39	\$297,773.20		
Year 2					
1 OEMC Admin	1880	\$129.38	\$243,234.40		
1 Java Programmer	1880	\$166.31	\$312,662,80		
Year 3					
1 OEMC Admin	1880	\$135.85	\$255,398.00		
1 Java Programmer	1880	\$174.63	\$328,304,40		
Year 4					
1 OEMC Admin	1880	142.64 \$	268,163,20		
1 Java Programmer	1880	183,36 \$	344,716.80		
Sub Total for OSS Services	ere tere-longs no starts a	A London Andrew States and States	\$2,281,906.40		

3. Account Manager / Configuration Management

The annual fee for Account Manager/Configuration Management services to be provided by Contractor under this Agreement shall be in accordance with the following Schedule. Contractor may invoice the City quarterly in advance for such annual fee. This shall include off-site project management/financial management of Contractor, plus quarterly Altaris® software builds.

x.		Annual Ammount	Quarterly Payment	
Year 1		\$759,933.00	\$189,983.25	
Year 2		\$757,511.00	\$189,377.75	
Year 3		\$783,716,00	\$195,929.00	
Year 4		\$811,135.00	\$202,783.75	
Sub Total for Account Manager / Configuration Management	:	\$3,112,295.00		\$3,112,295.00

4. Mobile Maintenance: Time and Materials Charges

Any work which may under the terms of the Agreement be provided on a time and materials basis shall be performed at the time and materials rates shown below and will be invoiced as incurred.

\$2,281,906.40

Mobile Maintenance Engineer	\$323,00	\$54,910.00	
Year 2 Mobile Maintenance Engineer	\$334.00	\$56,780.00	
Year 3 Mobile Maintenance Engineer	\$346.00	\$58,820.00	
Year 4 Mobile Maintenance Engineer	\$358.00 \$	60,860.00	
Sub Total for Mobile Maintenance: Time and Material Charges		\$231,370.00	\$231,370,00

Any third party materials and other direct charges not specifically described herein shall be provided pursuant to a Task Order and, unless otherwise agreed in such Task Order, shall be invoiced at actual cost incurred plus 20%.

5. CAO Network Support-Time and Materials Charges

Any CAD Network Support, if any, in excess of the 840 hours for CAD Network Support of Exhibit 2 Other Maintenance ServicesI shall be invoiced at the following rates and will be invoiced as incurred.

	Hourly Rate
Year 1 CAD Network Support	\$323.00
Year 2 CAD Network Support	\$334.00
Year 3 CAD Network Support	\$346.00
Year 4 CAD Network Support	\$358.00

Any third party materials and other direct charges, which includes travel, not specifically described herein shall be provided pursuant to a Task Order and, unless otherwise agreed in such Task Order, shall be billed at actual cost incurred plus 20%.

6. Time and Materials Charges : Other

Any work which may under Section 3.9 of the Agreement, or any other terms of the Agreement, which my be provided on a time and materials basis shall be performed at the time and materials rates shown below and will be invoiced as incurred.

		Hourly Rate
Year 1 All Labor Classes		\$323.00
Year 2 All Labor Classes		\$334.00
Year 3 All Labor Classes	¥	\$346.00
Year 4 All Labor Classes		\$358.00

Any third party materials and other direct charges, including travel, not specifically described herein shall be provided pursuant to a Task Order and, unless otherwise agreed in such Task Order, shall be involced at actual cost incurred plus 20%.

7. Third-Party Charges

Contractor will invoice the City quarterly for the third party charges shown below. Along with such invoice, Contractor shall provide detailed written documentation itemizing the rights and benefits to which the City is entitled in connection with such third party product and/or service. Contractor shall provide all such maintenance coverage provided it remains available from the third party provider. If any such coverage becomes unavailable, Contractor shall work with the City to find a mutually agreeable solution. Contractor shall not increase any annual charges unless a third party provider(s) increases its charges to Contractor. In such event, Contractor may only increase its charges proportionate to any increase made by the third party provider.

2	Annual Amount	Quarterly Amount
Year 1		
Oracle Software Maintenance	\$ 296,907.00	\$74,226.75
Cisco Any Connect	\$ 357.00	\$89.25
Oristar	\$ 182,298.00	\$45,574.50
MS System Center	\$ 46,710.00	\$11,677.50
Infragistics	\$ 5,159.00	\$1,289.75
Locution Systems Inc.	\$ 35,854.00	\$8,963.50
VNC	\$ 6,401.00	\$1,600.25
Tableau Desktop Maintenance	\$ 1,670.00	\$417.50
Tableau Server Maintenance	\$ 2,783.00	\$695.75

Iron Mountain Maintenance	\$	2,992,00	\$748.00	
Year 1 Subtotal	\$	581,131.00		581,131.00
The following 3rd party charges will be invoiced separately from the 3rd party charges above				
FirstOnScene	\$	171,821.00	\$42,955.25	
Agent 511	\$	119,993.00	\$29,998,25	
Year 1 Subtotal	\$	291,814.00	\$23,330,23	291,814.00
Year 2		Annual Amount	Quarterly Amount	
Oracle Software Maintenance	\$	311,970.00	\$77,992.50	
Cisco Any Connect	\$	362,00	\$90,50	
Oristar	\$	198,007.00	\$49,501.75	
MS System Center	\$	47,399.00	\$11,849.75	
Infragistics	\$	5,235,00	\$1,308.75	
Locution Systems Inc.	\$	36,387.00	\$9,096.75	
VNC	\$	6,497.00	\$1,624.25	
Tableau Desktop Maintenance	\$	1,695.00	\$423.75	
Tableau Server Maintenance	\$	2,825.00	\$706.25	
Iron Mountain Maintenance	\$	3,037.00	\$759.25	
Year 2 Subtotal	\$	613,414.00		613,414.00
The following 3rd party charges will be invoiced separately from the 3rd party charges above				
FirstOnScene	ċ	101 354 00	645 330 50	
Agent 511	\$	181,354.00	\$45,338.50	
Year 2 Subtotal	\$	121,779.00	\$30,444.75	202 422 00
Test & Subtotal	9	303,133.00	•	303,133.00
Year 3		Annual Amount	Quarterly Amount	
Oracle Software Maintenance	\$	327,596.00	\$81,899.00	
Cisco Any Connect	\$	368.00	\$92.00	
Oristar	\$	209,906.00	\$52,476.50	
MS System Center	\$	48,155.00	\$12,038.75	
Infragistics	\$	5,319.00	\$1,329,75	
Locution Systems Inc.	\$	36,965.00	\$9,241.25	
VNC	\$	6,600.00	\$1,650.00	
Tableau Desktop Maintenance	\$	1,722.00	\$430,50	
Tableau Server Maintenance	\$	2,870.00	\$717.50	
Iron Mountain Maintenance	\$	3,085.00	\$771.25	
Year 3 Subtotal	\$	642,586.00	\$	642,586.00
The following 3rd party charges will be invoiced separately from the 3rd party charges above				
FirstOnScene	\$	191,319.00	\$47,829.75	
Agent 511	\$	123,714.00	\$30,928.50	
Year 3 Subtotal	\$	315,033.00	\$	315,033.00
Year 4				
Oracle Software Maintenance	ė	Annual Amount	Quarterly Amount	
Cisco Any Connect	\$ \$	343,976.00	\$85,994.00	
Oristar	\$	375.00	\$93.75	
MS System Center	\$	222,500.00 49,012.00	\$55,625.00	
Infragistics	\$		\$12,253.00	
Locution Systems Inc.	\$	5,413,00 37,623,00	\$1,353.25	
VNC		37,623.00 6.717.00	\$9,405.75 \$1,670.35	
Tableau Desktop Maintenance	\$ \$	6,717.00 1,752.00	\$1,679.25 \$438.00	
Tableau Server Maintenance	\$	2,921.00	\$730.25	
Iron Mountain Maintenance	\$	3,146.60	\$786,65	
Year 4 Subtotal	\$	673,435.60		\$673,435.60
The following 3rd party charges will be invoiced separately from the 3rd party charges above				
FirstOnScene	ė	201 025 00	¢50 402 75	
Agent 511	\$	201,935.00 125,914.00	\$50,483.75	
Year 4 Subtotal	\$	327,849.00	\$31,478.50 \$	327,849.00
	4	361,073.00	÷	327,043.00
Subtotal For Third Party Charges (4 years):				\$3,748,395.60
				421. 101222.00



THREE-PARTY ESCROW SERVICE AGREEMENT

Deposit Account Number:	

1. Introduction.

This Three Party Escrow Service Agreement (the "Agreement") is entered into by and between Northrop Grumman
Information Technology, Inc., located at 12005 Sunrise Valley Drive, Reston, VA 20191 (the "Depositor") and
Depositor's affiliates and subsidiaries, and by the City of Chicago a municipal corporation and home role unit of local
government existing under the Constitution of the State of Illinois ("City"), acting through its Office of Emergency
Management and Communications ("OEMC"), , located at 1411 West Madison Street, Chicago, IL 60607 (the
"Beneficiary") and by Iron Mountain Intellectual Property Management, Inc. ("Iron Mountain") on this day of
, 200_ (the "Effective Date"). Depositor, Beneficiary, and Iron Mountain may be referred to individually as a "Party" or collectively as the "Parties" throughout this Agreement.
WHEREAS, Depositor and Beneficiary have entered into a Service Agreement dated as of
WHEREAS, the availability and maintenance of such Proprietary Software is critical to Beneficiary in the conduct of its operations and, as a consequence, Depositor has agreed to deposit in escrow a machine-readable copy of source code, object code, source code specifications, and other items as described in this Agreement, to operate, support, and maintain

WHEREAS, the Deposits are to be held by Iron Mountain in accordance with the terms and conditions of this Agreement. NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein, the parties agree to the foregoing and as follows:

the Proprietary Software without reliance on or support from Depositor; and

The use of the term "Services" in this Agreement shall refer to Iron Mountain Services that facilitate the creation, management, and enforcement of software and/or other technology escrow accounts as described in Exhibit A attached hereto. A Party shall request Services under this Agreement (i) by submitting a work request associated for certain Iron Mountain Escrow Services via the online portal maintained at the Website located at www.ironmountainconnect.com or any other Websites or Web pages owned or controlled by Iron Mountain that are linked to that Website (collectively the "Iron Mountain Website"), or (ii) by submitting a written work request attached hereto as Exhibit A (each, individually, a "Work Request"). The Parties desire this Agreement to be supplementary to the Service Agreement and pursuant to Chapter 11 United States [Bankruptcy] Code, Section 365(n).

2. Depositor Responsibilities.

- (a) Depositor shall provide all information designated as required to fulfill a Work Request ("Required Information") and may also provide other information ("Optional Information") at their discretion to assist Iron Mountain in the fulfillment of requested Services.
- (b) Depositor must authorize and designate one or more persons whose action(s) will legally bind the Depositor ("Authorized Person(s)" who shall be identified in the Authorized Person(s)/Notices Table of this Agreement) and who may manage the Iron Mountain escrow account through the Iron Mountain Website or via written Work Request. Authorized Person(s) will maintain the accuracy of their name and contact information provided to Iron Mountain during the Term of this Agreement (the "Depositor Information").
- (c) Depositor shall deposit the following: (i) All Depositor-developed or owned source code for the Proprietary Software supported and maintained for Beneficiary under the Service Agreement, including all source code listings in human-readable and machine-readable form; (ii) All enhancements to the Proprietary Software to which Beneficiary is entitled under the Service Agreement, to the extent the source code for such enhancements is not provided to Beneficiary pursuant to the terms of the Service Agreement; (iii) Any available sub-programs, routines, program files, data files, file and data definitions and relationships, data definition specifications, data models, program and system logic, interfaces, algorithms, program architecture, design concepts, system designs, program structure, sequence and organization, screen displays and report layouts of the Proprietary Software, whether in human-readable or machine-

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readable form (collectively, "Additional Programs") that are currently in the possession of the Depositor; (iv) Any available program load and start-up instructions, directions, information and material currently in depositor's possession which will enable a reasonably skilled programmer to load and execute (including compiling if necessary), the source code without the assistance of Depositor or any other person or reference to other materials (collectively, "Load Instructions"); (v) All available Depositor-developed or owned maintenance and support tools, utilities, diagnostic programs, and supporting programs used or utilized by Depositor internally in the support or maintenance of the Proprietary Software, whether in human-readable or machine-readable form (collectively "Support Tools"); (vi) All currently available documentation and source code specifications including, without limitation, a list of all the names and business addresses and telephone numbers of key programmers or authors currently employed by Depositor, of any portion of the Proprietary Software ("Programmer List"); (vii) A complete list of third party products, including versions, incorporated in the Proprietary Software; (viii) All third party system utilities (compiler and assembler descriptions), a description of the system/program generation, and descriptions and locations of programs not owned by Depositor that are required for use and/or support of the Proprietary Software to the extent that such items exist and are currently in Depositor's possession; and (ix) Any other information and technical materials in Depositor's possession that are required for a reasonably skilled computer programmer to maintain, modify or enhance the Proprietary Software without the aid of Depositor or any other person and without reference to any other materials.

- (d) Depositor shall make an initial deposit that is complete and functional of all Proprietary Software and other materials as described in the preceding paragraph ("Deposit Material") to Iron Mountain within thirty (30) days of the Effective Date. Depositor shall also update the Deposit Material thirty (30) calendar days after the close of each calendar quarter during the Term of this Agreement so that a minimum of one (1) complete and functional copy of the current Deposit Material is deposited with Iron Mountain at all times. At the time of each deposit or update, Depositor will provide an accurate and complete description of all Deposit Material sent to Iron Mountain via the Iron Mountain Website or using the form attached hereto as Exhibit B.
- (e) Depositor consents to Iron Mountain's performance of any level(s) of verification Services described in Exhibit A attached hereto, consents, upon receipt of notice from Iron Mountain that Beneficiary has submitted a Work Request for verification Services, to promptly completing and returning the Escrow Deposit Questionnaire attached as Exhibit Q to Iron Mountain, and further consents to Iron Mountain's use of a subcontractor (who shall be bound by the same confidentiality obligations as Iron Mountain and who shall not be a direct competitor to either Depositor or Beneficiary) to provide such Services as needed.
- (f) Depositor represents that it lawfully possesses all Deposit Material provided to Iron Mountain under this Agreement free of any liens or encumbrances as of the date of their deposit. Any Deposit Material liens or encumbrances made after their deposit will not prohibit, limit, or alter the rights and obligations of Iron Mountain under this Agreement;
- (g) Depositor represents that all Deposit Material is readable and useable in its then current form; if any portion of such Deposit Material is encrypted the necessary decryption tools and keys to read such material are deposited contemporaneously;
- (h) Depositor represents that all Deposit Material is provided with all rights necessary for Iron Mountain to verify such proprietary technology and materials upon receipt of a Work Request for such Services; and
- (i) Depositor warrants that Iron Mountain's use of the Deposit Material or other materials supplied by Depositor to perform the verification Services described in Exhibit A is lawful and does not violate the rights of any third parties. Depositor agrees to use commercially reasonable efforts to provide Iron Mountain with any necessary use rights or permissions to use materials necessary to perform verification of the Deposit Material. Depositor agrees to reasonably cooperate with Iron Mountain by providing its facilities, computer software systems, and technical personnel for verification Services whenever reasonably necessary.

3. Beneficiary Responsibilities.

- (a) Beneficiary shall provide all information designated as required to fulfill any Beneficiary Work Request ("Required Information") and may also provide other information ("Optional Information") at their discretion to assist Iron Mountain in the fulfillment of requested Services.
- (b) Beneficiary must authorize and designate one or more persons whose action(s) will legally bind the Beneficiary ("Authorized Person(s)" who shall be identified in the Authorized Person(s)/Notices Table of this Agreement) who shall manage the Iron Mountain escrow account through the Iron Mountain Website or via written Work Request. Authorized Person(s) will maintain the accuracy of their name and contact information provided to Iron Mountain during the Term of this Agreement (the "Beneficiary Information").
- (c) Beneficiary acknowledges that, solely as between Beneficiary and Iron Mountain, in the absence of a Work Request for verification Services, that Beneficiary assumes all responsibility for the completeness and/or functionality of all Deposit Material. Beneficiary may submit a verification Work Request to Iron Mountain for one of more of the

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- Services defined in Exhibit A attached hereto and further consents to Iron Mountain's use of a subcontractor if needed to provide such Services.
- (d) In the event that Beneficiary submits a written Work Request for Iron Mountain to perform verification Services, Beneficiary shall warrant in such request that Iron Mountain's use of any materials supplied by Beneficiary to perform the verification Services requested therein is lawful and does not violate the rights of any third parties.

4. Iron Mountain Responsibilities.

- (a) Iron Mountain agrees to use commercially reasonable efforts to provide the Services requested by authorized Depositor and Beneficiary representatives in a Work Request. Iron Mountain may reject a Work Request (in whole or in part) that does not contain all Required Information at any time upon notification to the Party originating the Work Request.
- (b) Iron Mountain will conduct a deposit inspection upon receipt of any Deposit Material and associated Exhibit B. If Iron Mountain determines that the Deposit Material does not match the description provided by Depositor represented in Exhibit B attached hereto, Iron Mountain will provide Depositor with notice by regular mail of such discrepancies. Iron Mountain will work directly with the Depositor to resolve any such discrepancies prior to accepting Deposit Material. Iron Mountain will provide Depositor with notice from time to time during the first ninety (90) days from the Effective date as a reminder that submission of initial Deposit Material is required. Iron Mountain may also send notices every ninety (90) days thereafter to Depositor and/or Beneficiary related to Deposit Material activity if such Services are requested in a Work Request.
- (c) Iron Mountain will provide notice by regular mail to the Beneficiary of all Deposit Material that is accepted and deposited into the escrow account under this Agreement.
- (d) Iron Mountain will work with a Party who submits any verification Work Request for Deposit Material covered under this Agreement to either fulfill any standard verification Services Work Request or develop a custom Statement of Work ("SOW"). Iron Mountain and the requesting Party will mutually agree in writing to a SOW on the following terms and conditions that include but are not limited to: description of Deposit Material to be tested; description of Verification testing; requesting Party responsibilities; Iron Mountain responsibilities; Service Fees; invoice payment instructions; designation of the Paying Party; designation of authorized SOW representatives for both the requesting Party and Iron Mountain with name and contact information; and description of any final deliverables prior to the start of any fulfillment activity. After the start of fulfillment activity, each SOW may only be amended or modified in writing with the mutual agreement of both Parties, in accordance with the change control procedures set forth therein.
- (e) Iron Mountain will hold and protect all Deposit Material in physical and/or electronic vaults that are either owned or under the direct control of Iron Mountain.
- (f) Iron Mountain will permit the replacement and/or removal of previously submitted Deposit Material upon Work Request that may be subject to the written joint instructions of the Depositor and Beneficiary.
- (g) Iron Mountain will strictly follow the procedures set forth in Exhibit C attached hereto to process any Beneficiary Work Request to release Deposit Material.

5. Payment.

The Paying Party shall pay to Iron Mountain all fees as set forth in the Work Request form attached hereto as Exhibit A ("Service Fees"). Except as set forth below, all Service Fees are due to Iron Mountain within thirty (30) calendar days from the date of invoice in U.S. currency and are non-refundable. Iron Mountain may update Service Fees with a ninety (90) calendar day written notice to the Paying Party during the Term of this Agreement. The Paying Party is liable for any taxes related to Services purchased under this Agreement or shall present to Iron Mountain an exemption certificate acceptable to the taxing authorities. Applicable taxes shall be billed as a separate item on the invoice, to the extent possible. Any Service Fees not collected by Iron Mountain when due shall bear interest until paid at a rate of .86% per month (10% per annum) or the maximum rate permitted by law, whichever is less. Delinquent accounts may be referred to a collection agency at the sole discretion of Iron Mountain. Notwithstanding, the non-performance of any obligations of Depositor to deliver Deposit Material under the Service Agreement or this Agreement, Iron Mountain is entitled to be paid all Service Fees that accrue during the Term of this Agreement. All Service Fees will not be subject to offset except as specifically provided hereunder.

6. Term and Termination.

(a) The initial "Term" of this Agreement is for a period of one (1) year from the Effective Date and will automatically renew for additional one (1) year Terms and continue in full force and effect until one of the following events occur:
 (i) Depositor and Beneficiary provide joint written instructions of their intent to cancel this Agreement within sixty
 (60) days to Iron Mountain; (ii) Beneficiary provides a sixty (60) day written notice regarding cancellation of this

- Agreement to both Depositor and Iron Mountain; or (iii) Iron Mountain provides a sixty (60) day written notice to the Depositor and Beneficiary Authorized Persons that it can no longer perform the Services under this Agreement.
- (b) In the event this Agreement is terminated under Sections 6(a)(i) or 6(a)(iii) above, Depositor and Beneficiary may provide Iron Mountain with joint written instructions authorizing Iron Mountain to forward the Deposit Material to another escrow company and/or agent or other designated recipient. If Iron Mountain does not receive joint written instructions within sixty (60) calendar days after the date of the notice of termination, Iron Mountain shall return or destroy the Deposit Material.
- (c) In the event of the nonpayment of Service Fees owed to Iron Mountain, Iron Mountain shall provide all Parties to this Agreement with notice by regular mail. Any Party to this Agreement shall have the right to make the payment to Iron Mountain to cure the default. If the past due payment is not received in full by Iron Mountain within thirty (30) calendar days of the date of such notice, then Iron Mountain shall have the right to terminate this Agreement at any time thereafter by sending notice by regular mail of termination to all Parties. Iron Mountain shall have no obligation to take any action under this Agreement so long as any Iron Mountain invoice issued for Services rendered under this Agreement remains uncollected.

General Indemnity.

Depositor and Iron Mountain shall defend, indemnify and hold harmless each other and Beneficiary, their corporate affiliates and their respective officers, directors, employees, and agents and their respective successors and assigns from and against any and all claims, losses, liabilities, damages, and expenses (including, without limitation, reasonable attorneys' fees), arising under this Agreement from the negligent or intentional acts or omissions of the indemnifying Party or its subcontractors, or the officers, directors, employees, agents, successors and assigns of any of them.

If there is a claim brought against Iron Mountain that the Deposit Material infringes intellectual property rights or any other rights of a third party and such claim includes a threat of liability for Iron Mountain (as reasonably determined by Iron Mountain) in the event of release of the Deposit Material by Iron Mountain to Beneficiary (an "IP Infringement Claim"), then Depositor shall defend, indemnify and hold harmless Iron Mountain, its corporate affiliates and its officers, directors, employees, and agents and its successors and assigns from and against any and all claims, losses, liabilities, damages, and expenses (including, without limitation, reasonable attorneys' fees), incurred by Iron Mountain in connection with such IP Infringement Claim including any liability Iron Mountain incurs as a result of a release of the Deposit Material to Beneficiary.

8. Warranties.

- (a) Iron Mountain. ANY AND ALL SERVICES PROVIDED HEREUNDER SHALL BE PERFORMED IN A WORKMANLIKE MANNER. EXCEPT AS SPECIFIED IN THIS SECTION, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, AGAINST INFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE, ARE HEREBY EXCLUDED TO THE EXTENT ALLOWED BY APPLICABLE LAW. AN AGGRIEVED PARTY MUST NOTIFY IRON MOUNTAIN PROMPTLY OF ANY CLAIMED BREACH OF ANY WARRANTIES. THIS DISCLAIMER AND EXCLUSION SHALL APPLY EVEN IF THE EXPRESS WARRANTY AND LIMITED REMEDY SET FORTH ABOVE FAILS OF ITS ESSENTIAL PURPOSE. THE WARRANTY PROVIDED IS SUBJECT TO THE LIMITATION OF LIABILITY SET FORTH IN SECTION 11 HEREIN.
- (b) <u>Depositor</u>. Depositor warrants that all Depositor Information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Depositor Information during the Term of this Agreement.
- (c) <u>Beneficiary</u>. Beneficiary warrants that all Beneficiary Information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Beneficiary Information during the Term of this Agreement.

9. <u>Insurance</u>.

Iron Mountain shall, at its sole cost and expense, throughout the term of this Agreement, procure and maintain in full force and effect, the following insurance coverage, with an insurance carrier that is rated B+ or better by A.M. Best.

TYPE OF INSURANCE	COVERAGE AMOUNT	Type of Insurance	COVERAGE AMOUNT
General Liability	\$2,000,000 General Aggregate	Crime Insurance	\$2,000,000 Each Occurrence

General Liability	\$1,000.000 Each Occurrence	Umbrella Coverage	\$5,000,000 General Aggregate
Professional Liability	\$1,000,000 Each Occurrence		

All certificates of insurance shall name Depositor and Beneficiary as additional beneficiaries with respect to General Liability coverage. All certificates of insurance shall require that Depositor and Beneficiary be provided with advance written notice of cancellation of the stated coverage, and Iron Mountain shall request that its insurer use its best efforts to provide at least thirty (30) days' advance written notification of such cancellation.

10. Confidential Information.

Iron Mountain shall have the obligation to reasonably protect the confidentiality of the Deposit Material. Except as provided in this Agreement Iron Mountain shall not disclose, transfer, make available or use the Deposit Material. Iron Mountain shall not disclose the terms of this Agreement to any third party. If Iron Mountain receives a subpoena or any other order from a court or other judicial tribunal pertaining to the disclosure or release of the Deposit Material, Iron Mountain will immediately notify the Parties to this Agreement unless prohibited by law. It shall be the responsibility of Depositor and/or Beneficiary to challenge any such order; provided, however, that Iron Mountain does not waive its rights to present its position with respect to any such order. Iron Mountain will not be required to disobey any order from a court or other judicial tribunal, including, but not limited to, notices delivered pursuant to Section 13(g) below.

11. Limitation of Liability.

NOTWITHSTANDING ANYTHING ELSE IN THIS AGREEMENT BUT EXCEPT AS OTHERWISE SET FORTH BELOW IN THIS SECTION 11, ALL LIABILITY, IF ANY, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, OF ANY PARTY TO THIS AGREEMENT SHALL BE LIMITED TO THE AMOUNT EQUAL TO TEN TIMES THE THEN ANNUAL FEES PAID OR OWED TO IRON MOUNTAIN UNDER THIS AGREEMENT. THIS LIMIT SHALL NOT APPLY FOR: (I) ANY CLAIMS OF INFRINGEMENT OF ANY PATENT, COPYRIGHT, TRADEMARK OR OTHER PROPRIETARY RIGHT; (II) LIABILITY FOR DEATH OR BODILY INJURY; (III) DAMAGE TO TANGIBLE PROPERTY (EXCLUDING THE DEPOSIT ITEMS); (IV) THEFT; (V) PROVEN GROSS NEGLIGENCE OR WILLFUL MISCONDUCT; OR (VII) DAMAGES ARISING OUT OF ANY BREACH OF CONFIDENTIALITY OBLIGATIONS AS STATED IN SECTION 10, SAID BREACH SOLELY ARISING OUT OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT. NOTWITHSTANDING THE FOREGOING, DEPOSITOR'S LIABILITY TO BENEFICIARY FOR ANY BREACH OF DEPOSITOR'S OBLIGATIONS HEREUNDER SHALL BE GOVERNED BY THE TERMS OF THE SERVICE AGREEMENT.

12. Consequential Damages Waiver.

IN NO EVENT SHALL ANY PARTY TO THIS AGREEMENT BE LIABLE TO ANOTHER PARTY FOR ANY INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, LOST PROFITS OR LOST DATA OR INFORMATION, ANY COSTS OR EXPENSES FOR THE PROCUREMENT OF SUBSTITUTE SERVICES, OR ANY OTHER INDIRECT DAMAGES, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE EVEN IF THE POSSIBILITY THEREOF MAY BE KNOWN IN ADVANCE TO ONE OR MORE PARTIES.

13. General.

- (a) <u>Incorporation of Work Requests</u>. All Depositor and/or Beneficiary Work Requests are incorporated into this Agreement.
- (b) <u>Purchase Orders</u>. The terms and conditions of this Agreement prevail regardless of any conflicting or additional terms on any Purchase Order or other correspondence. Any contingencies or additional terms contained on any Purchase Order are not binding upon Iron Mountain. All Purchase Orders are subject to approval and acceptance by Iron Mountain.
- (c) Right to Make Copies. Iron Mountain shall have the right to make copies of all Deposit Material as reasonably necessary to perform this Agreement. Iron Mountain shall copy all copyright, nondisclosure, and other proprietary notices and titles contained on Deposit Material onto any copies made by Iron Mountain. Any copying expenses incurred by Iron Mountain as a result of a Work Request to copy will be borne by the Party requesting the copies. Iron Mountain may request Depositor's reasonable cooperation in promptly copying Deposit Material in order for Iron Mountain to perform this Agreement.
- (d) <u>Choice of Law</u>. The validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of Illinois, United States of America, as if performed wholly within the state and without giving effect to the principles of conflicts of laws.

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- (c) Right to Rely on Instructions. Iron Mountain may act in reliance upon any instruction, instrument, or signature reasonably believed by Iron Mountain to be genuine. Iron Mountain may assume that any employee of Depositor or Beneficiary who gives any written notice, request, or instruction has the authority to do so. Iron Mountain will not be required to inquire into the truth or evaluate the merit of any statement or representation contained in any notice or document. Iron Mountain shall not be responsible for failure to act as a result of causes beyond the reasonable control of Iron Mountain.
- (f) Force Majeure. Except for the obligation to pay monies due and owing, no Party shall be liable for any delay or failure in performance due to events outside the defaulting Party's reasonable control, including without limitation acts of God, earthquake, labor disputes, shortages of supplies, riots, war, acts of terrorism, fire, epidemics, or delays of common carriers or other circumstances beyond its reasonable control. The obligations and rights of the excused Party shall be extended on a day-to-day basis for the time period equal to the period of the excusable delay.
- (g) Notices. All notices regarding Exhibit C shall be sent by commercial express mail. All other correspondence, including invoices, payments, and other documents and communications, shall be sent via regular mail to the Parties at the addresses specified in the Authorized Persons/Notices Table which shall include the title(s) of the individual(s) authorized to receive notices; or (iii) via the online portal maintained at the Iron Mountain Website. It shall be the responsibility of the Parties to notify each other as provided in this Section in the event of a change of addresses. The Parties shall have the right to rely on the last known address of the other Parties. Any correctly addressed notice or last known address of the other Parties that is relied on herein that is refused, unclaimed, or undeliverable because of an act or omission of the Party to be notified as provided herein shall be deemed effective as of the first date that said notice was refused, unclaimed, or deemed undeliverable by the postal authorities by mail, through messenger or commercial express delivery services.
- (h) <u>No Waiver</u>. No waiver of rights under this Agreement by any Party shall constitute a subsequent waiver of this or any other right under this Agreement.
- (i) <u>Assignment</u>. No assignment of this Agreement by Depositor and/or Beneficiary or any rights or obligations of Depositor and/or Beneficiary under this Agreement is permitted without the written consent of Iron Mountain, which shall not be unreasonably withheld or delayed.
- (j) Severability. In the event any of the terms of this Agreement become or are declared to be illegal or otherwise unenforceable by any court of competent jurisdiction, such term(s) shall be null and void and shall be deemed deleted from this Agreement. All remaining terms of this Agreement shall remain in full force and effect. Notwithstanding the foregoing, if this paragraph becomes applicable and, as a result, the value of this Agreement is materially impaired for either Party, as determined by such Party in its sole discretion, then the affected Party may terminate this Agreement by notice to the others.
- (k) Independent Contractor Relationship. Depositor and Beneficiary understand, acknowledge, and agree that Iron Mountain's relationship with Depositor and Beneficiary will be that of an independent contractor and that nothing in this Agreement is intended to or should be construed to create a partnership, joint venture, or employment relationship.
- (1) No Agency. No Party has the right or authority to, and shall not, assume or create any obligation of any nature whatsoever on behalf of the other Parties or bind the other Parties in any respect whatsoever.
- (m) <u>Disputes</u>. Any dispute, difference or question relating to or arising among any of the Parties concerning the construction, meaning, effect or implementation of this Agreement or any Party hereof will be submitted to, and settled by arbitration by a single arbitrator chosen by the Chicago Regional Office of the American Arbitration Association in accordance with the Commercial Rules of the American Arbitration Association. The arbitrator shall apply Illinois law. Unless otherwise agreed by the Parties, arbitration will take place in Chicago, Illinois, U.S.A. Any court having jurisdiction over the matter may enter judgment on the award of the arbitrator. Service of a petition to confirm the arbitration award may be made by regular mail or by commercial express mail, to the attorney for the Party or, if unrepresented, to the Party at the last known business address. If however, Depositor and/or Beneficiary refuse to submit to arbitration, the matter shall not be submitted to arbitration and Iron Mountain may submit the matter to any court of competent jurisdiction for an interpleader or similar action. Unless adjudged otherwise, any costs of arbitration incurred by Iron Mountain, including reasonable attorney's fees and costs, shall be divided equally and paid by Depositor and Beneficiary.
- (n) Regulations. All Parties are responsible for and warrant to the extent of their individual actions or omissions compliance with all applicable laws, rules and regulations, including but not limited to: customs laws; import; export and re-export laws; and government regulations of any country from or to which the Deposit Material may be delivered in accordance with the provisions of this Agreement.
- (o) <u>Counterparts</u>. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

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(p) <u>Survival</u>. Sections 6 (Term and Termination), 7 (General Indemnity), 8 (Warranties), 10 (Confidential Information), 11 (Limitation of Liability), 12 (Consequential Damages Waiver), and 13 (General) of this Agreement shall survive termination of this Agreement or any Exhibit attached hereto.

NOTE: SIGNATURE BLOCKS AND AUTHORIZED PERSONS/NOTICES TABLE FOLLOW ON THE NEXT PAGE

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The Parties agree that this Agreement is the complete agreement between the Parties hereto concerning the subject matter of this Agreement and replaces any prior or contemporaneous oral or written communications between the Parties. There are no conditions, understandings, agreements, representations, or warranties, expressed or implied, which are not specified herein. Each of the Parties herein represents and warrants that the execution, delivery, and performance of this Agreement has been duly authorized and signed by a person who meets statutory or other binding approval to sign on behalf of its business organization as named in this Agreement. This Agreement may only be modified by mutual written agreement of the Parties.

Note: If contracting electronically via the online portal, clicking the "I Accept" button displayed as part of the ordering process, evidences agreement to the preceding terms and conditions (the 'Agreement'). If you are entering into this Agreement via the online portal on behalf of a company or other legal entity, you represent that you have the authority to bind such entity to these terms and conditions, in which case the terms "you" or "your" shall refer to such entity. If you do not have such authority, or if you do not agree with these terms and conditions, you must select the "I Decline" button.

DEPOSITOR

COMPANY NAME: Northrop Grumman Information Technology, Inc. SIGNATURE: PRINT NAME: TITLE: DATE:

BENEFICIARY

COMPANY NAME:	City of Chicago	
SIGNATURE:		
PRINT NAME:		
TITLE:		
DATE:		

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.

SIGNATURE;	
PRINT NAME:	
TITLE:	
DATE:	
EMAIL ADDRESS:	ipmclientservices@ironmountain.com

Approved as to Form and Legal Content: Iron Mountain Legal Department

Thomas Lane, Contracts Specialist

Date: 10/17/07

Approved as to Operational Content:

Iron Mountain Operations

Kawa Austave

Name: Karen Gustave Sr. Contracts Administrator Date: October 17, 2007

AUTHORIZED PERSONS/NOTICES TABLE

Please provide the name and contact information of the Authorized Persons under this Agreement. All Notices will be sent to these individuals at the addresses set forth below.

DEPOSITÓR

AUTHORIZED PERSON(S)/NOTICES TABLE

Please provide the name(s) and contact information of the Authorized Person(s) under this Agreement. All Notices will be sent electronically and/or through regular mail to the appropriate address set forth below.

PRINT NAME:	PRINT NAME:	
TITLE:	TITLE:	
STREET ADDRESS 1	STREET ADDRESS 1	
PROVINCE/CITY/STATE	PROVINCE/CITY/STATE	
POSTAL/ZIP CODE	POSTAL/ZIP CODE	
PHONE NUMBER	PHONE NUMBER	
Fax Number	FAX NUMBER	

BENEFICIARY

AUTHORIZED PERSON(S)/NOTICES TABLE

Please provide the name(s) and contact information of the Authorized Person(s) under this Agreement. All Notices will be sent electronically and/or through regular mail to the appropriate address set forth below.

		WITH COPIES TO:	
TITLE;	Chief Procurement Officer	TITLE:	Executive Director
	Department of Purchases, Contracts & Supplies		Office of Emergency and Management Communications
STREET ADDRESS 1	Room 403, City Hall 121 North LaSalle Street	STREET ADDRESS 1	1411 W. Madison Street Room 400
Province/City/State	Chicago, Illinois	Province/City/State	Chicago, Illinois
POSTAL/ZIP CODE	60602	POSTAL/ZIP CODE	60607
PHONE NUMBER		PHONE NUMBER	
FAX NUMBER		FAX NUMBER	
		AND	
		TITLE:	Corporation Counsel
			Department of Law
		STREET ADDRESS 1	Room 600, City Hall 121 North LaSalle Street
		PROVINCE/CITY/STATE	Chicago, Illinois
		POSTAL/ZIP CODE	60602
		PHONE NUMBER	
		FAX NUMBER	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.

All notices should be sent to ipmclientservices@ironmountain.com OR Iron Mountain, Attn: Client Services, 2100 Norcross Parkway, Suite 150, Norcross, Georgia, 30071, USA.

SERVICE	SERVICE DESCRIPTION - THREE PARTY ESCROW AGREEMENT	ONE-TIME	ANNUAL FEES	PAYING PARTY	
Check box(es) to order service	All services are listed below. Services in shaded tables are required for every new escrow account set up. Some services may not be available under the Agreement.	FEES		Check box to identify the Paying Party for each service below.	
⊠ Setup Fee	fron Mountain will setup a new escrow deposit account using a standard escrow agreement. Custom contracts are subject to the Custom Contract Fee noted below.	\$1250		☐ Depositor - OR - ☐ Beneficiary	
Deposit Account Fee- including Escrow Management Center Access	Iron Mountain will set up one deposit account to manage and administrate access to Deposit Material that will be securely stored in controlled media vaults. Furthermore, Iron Mountain will provide account services that include unlimited deposits, electronic vaulting, access to Iron Mountain Connect TM Escrow Management Center for secure online account management, submission of electronic Work Requests, and communication of status. A Client Manager will be assigned to each deposit account and provide training upon request to facilitate secure Internet access to the account and ensure fulfillment of Work Requests. An oversize fee may apply.		\$1,000	Depositor - OR - Beneficiary	
⊠ Beneficiary Fee including Escrow Management Center Access	Iron Mountain will fulfill a Work Request to add a Beneficiary to an escrow deposit account and manage access rights associated with the account. Beneficiary will have access to Iron Mountain Connect™ Eserow Management Center for secure online account management, submission of electronic Work Requests, and communication of status. A Client Manager will be assigned to each deposit account and provide training upon request to facilitate secure Internet access to the account and ensure fulfillment of Work Requests,		\$700	☐ Depositor - OR – ☐ Beneficiary	
Add Deposit Fracking Notification	At least serm-annually, Iron Mountain will send an update reminder to Depositor, Thereafter, Beneficiary will be notified of last deposit.	N/A	\$375	Depositor - OR - Beneficiary	
⊠ Add File List Test	fron Mountain will fulfill a Work Request to perform a File List Test, which includes analyzing deposit media readability, file listing, creation of file classification table, virus scan, and assurance of completed deposit questionnaire, A final report will be sent to the Paying Party regarding the Deposit Material to ensure consistency between Depositor's representations (i.e., Exhibit B and Supplementary Questionnaire) and stored Deposit Material.	\$2,500	N/A	Depositor - OR - Benefictary	
Add Level 1 = Inventory Test	Iron Mountain will perform an Inventory Test on the initial deposit, which includes Analyzing deposit media readability, virus scanning, developing file classification tables, identifying the presence/absence of build instructions, and identifying materials required to recreate the Depositor's software development environment, Output includes a report which will include build instructions, file classification tables and listings. In addition, the report will list required software development materials, including, without limitation, required source code languages and compilers, third-party software, libraries, operating systems, and hardware, as well as Iron Mountain's analysis of the deposit. Fee Contingencies Enclosed.	\$5,000 N/A		□ Depositor – OR – □ Beneficiary	
Add Level 2 - Deposit Compile Test	Iron Mountain will fulfill a Work Request to perform a Deposit Compile Test, which includes the Inventory Test as described above plus recreating the Depositor's software development environment, compiling source files and modules, linking libraries and recreating executable code, pass/fail determination, creation of comprehensive build instructions with a final report sent to the Paying Party regarding the Deposit Material. The Paying Party and Iron Mountain will agree on a custom Statement of Work ("SOW") prior to the start of fulfillment.		N/A	Depositor - OR - Beneficiary	
Add Level 3 - Ocposit Usability Test - Sinary Comparison	Iron Mountain will fulfill a Work Request to perform one Deposit Compile Test Binary Comparison which includes a comparison of the files built from the Deposit Compile Test to the actual licensed technology on the Beneficiary's site to ensure a full match in file size, with a final report sent to the Requesting Party regarding the Deposit Material. The Paying Party and Iron Mountain will agree on a custom Statement of Work ("SOW") prior to the start of fulfillment.	Based on SOW	N/A	Depositor - OR - Beneficiary	
Add Level 4 - Deposit Usability Test - Full Usability Test	Iron Mountain will fulfill a Work Request to perform one Deposit Compile Test Full Usability which includes a confirmation that the built applications work properly when installed. A final report will be sent to the Paying Party regarding the Deposit Material. The Paying Party and Iron Mountain will agree on a custom Statement of Work ("SOW") prior to the start of fulfillment.	Based on SOW			
Add Dual/Remote	Iron Mountain will fulfill a Work Request to store deposit materials in one additional location as defined within the Service Agreement. Duplicate storage request may be in the form of either physical media or electronic storage.	N/A	\$500	Depositor - OR -	

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				☐ Beneficiary
□ Release Deposit Material	Iron Mountain will process a Work Request to release Deposit Material by following the specific procedures defined in Exhibit C "Release of Deposit Materials" the Escrow Service Agreement.	\$500	N/A	Depositor - OR -
Add Custom Services	hon Mountain will provide its Escrow Expert consulting based on a custom SOW mutually agreed to by All Parties.	\$175/hour	N/A	Depositor - OR -
Custom Contract	Custom contracts are subject to the Custom Contract Fee, which covers the review and processing of custom or modified contracts.	\$500	N/A	Depositor - OR -

Note: Parties may submit Work Requests via written instruction or electronically through the online portal.

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EXHIBIT B DEPOSIT MATERIAL DESCRIPTION

DEPOSIT NAME	AND DEPOSI	T VERSION	(Deposit Name	e will appe	ear in account histo	ory reports)
Deposit Media (Please Label	ALL MEDIA WITH THE DE	POSIT NA	ME PROVIDED ABOVE)	`		
Media Type		Media 7	V TO SHOOT THE STATE OF	Married School	ANTITY	
CD-ROM / DVD		☐ 3.5" Floppy Disk				
DLT Tape		☐ Docu	☐ Documentation			
DAT Tape		☐ Hard	Drive / CPU			
		Circ	iit Board			
	TOTAL SIZE OF TRANSMISSIO		ON # OF FILE	ES	# of Folders	
	(SPECIFY IN BYTES	s)		i		
☐ Internet File Transfer						
Other (please describe below	w):					
Is the media or are any of the fi If yes, please include any passw this deposit.	ords and decryption tool	s descripti				
Encryption tool name						
Hardware required						
Software required						
Other required information						
DEPOSIT CERTIFICATION (Please	e check the box below to Co	ertify and l	Provide your Contact I	Informatio	n)	
I certify for Depositor that the above described Deposit Material has been transmitted electronically or sent via commercial express mail carrier to Iron Mountain at the address below.			☐ Iron Mountain has inspected and accepted the above described Deposit Material either electronically or physically. Iron Mountain will notify Depositor of any discrepancies.			
NAME:			Name:			
DATE:			DATE:			
EMAIL ADDRESS:						
BITALE ! IDDICESS!						
TELEPHONE NUMBER:						

Note: If Depositor is physically sending Deposit Material to Iron Mountain, please label all media and mail all Deposit Material with the appropriate Exhibit B via commercial express carrier to the following address:

Iron Mountain Intellectual Property Management, Inc.

Attn: Vault Administration

2100 Norcross Parkway, Suite 150

Norcross, GA 30071 Telephone: (770) 239-9200 Facsimile: (770) 239-9201

EXHIBIT C

RELEASE OF DEPOSIT MATERIALS

Deposit Account	Number:	

Iron Mountain will use the following procedures to process any Beneficiary Work Request to release Deposit Material.

- Release Conditions. Depositor and Beneficiary agree that Iron Mountain will provide notice via commercial express
 mail to the Depositor if a Beneficiary under this Agreement submits a Deposit Material release Work Request based
 on one or more of the following conditions (defined as "Release Conditions"):
 - (i) Depositor's uncured breach of its support and maintenance obligations under the Service Agreement for the Deposit Material covered under this Agreement; or
 - (ii) Depositor's discontinuation of support services for the proprietary technology that is the subject of the Deposit Materials; or
 - (iii) Failure of the Depositor to function as a going concern or operate in the ordinary course; or
 - (iv) Depositor is subject to voluntary or involuntary bankruptcy; or
 - (vi) Depositor requests in writing that Iron Mountain release the Deposit Materials to Beneficiary.
- 2. <u>Release Work Request.</u> A Beneficiary may submit a Work Request to Iron Mountain to release the Deposit Material covered under this Agreement. Iron Mountain will send a written notice of this Beneficiary Work Request within five (5) business days to the authorized Depositor representative(s).
- 3. Contrary Instructions. From the date Iron Mountain mails written notice of the Beneficiary Work Request to release Deposit Material covered under this Agreement, Depositor representative(s) shall have ten (10) business days to deliver to Iron Mountain contrary instructions ("Contrary Instructions"). Contrary Instructions shall mean the written representation by Depositor that a Release Condition has not occurred or has been cured. Contrary Instructions shall be on company letterhead and signed by an authorized Depositor representative. Upon receipt of Contrary Instructions, Iron Mountain shall send a copy to an authorized Beneficiary representative by commercial express mail. Additionally, Iron Mountain shall notify both Depositor representative(s) and Beneficiary representative(s) that there is a dispute to be resolved pursuant to the Disputes provisions of this Agreement. Iron Mountain will continue to store Deposit Material without release pending (i) joint instructions from Depositor and Beneficiary that accept release of Deposit Material; or (ii) dispute resolution pursuant to the Disputes provisions of this Agreement; or (iii) receipt of an order from a court of competent jurisdiction.
- 4. Release of Deposit Material. If Iron Mountain does not receive Contrary Instructions from an authorized Depositor representative, Iron Mountain is authorized to release Deposit Material to the Beneficiary or, if more than one Beneficiary is registered to the deposit, to release a copy of Deposit Material to the Beneficiary. Iron Mountain is entitled to receive any uncollected Service fees due Iron Mountain from the Beneficiary before fulfilling the Work Request to release Deposit Material covered under this Agreement. This Agreement will terminate upon the release of Deposit Material held by Iron Mountain.
- 5. Right to Use Following Release. Beneficiary has the right under this Agreement to use the Deposit Material for the sole purpose of continuing the benefits afforded to Beneficiary by the Service Agreement. Notwithstanding, the Beneficiary shall not have access to the Deposit Material unless there is a release of the Deposit Material in accordance with this Agreement. Beneficiary shall be obligated to maintain the confidentiality of the released Deposit Material.

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EXHIBIT Q ESCROW DEPOSIT QUESTIONNAIRE

Introduction

From time to time, technology escrow beneficiaries may exercise their right to perform verification services. This is a service that Iron Mountain provides for the purpose of validating relevance, completeness, currency, accuracy and functionality of deposit materials.

Purpose of Questionnaire

In order for Iron Mountain to determine the deposit material requirements and to quote fees associated with verification services, a completed deposit questionnaire is requested. It is the responsibility of the escrow depositor to complete the questionnaire.

Instructions

Please complete the questionnaire in its entirety by answering every question with accurate data. Upon completion, please return the completed questionnaire to the beneficiary asking for its completion, or e-mail it to Iron Mountain Technology Escrow Services to the attention of Shane Ryan at *shaneryan@ironmountain.com*.

Escrow Deposit Questionnaire

General Description

- 1. What is the general function of the software to be placed into escrow?
- 2. On what media will the source code be delivered?
- 3. What is the size of the deposit in megabytes?

Requirements for the Execution of the Software Protected by the Deposit

- 1. What are the system hardware requirements to successfully execute the software? (memory, disk space, etc.)
- 2. How many machines are required to completely set up the software?
- 3. What are the software and system software requirements, to execute the software and verify correct operation?

Requirements for the Assembly of the Deposit

- 1. Describe the nature of the source code in the deposit. (Does the deposit include interpreted code, compiled source, or a mixture? How do the different parts of the deposit relate to each other?)
- 2. How many build processes are there?
- 3. How many unique build environments are required to assemble the material in the escrow deposit into the deliverables?

- 4. What hardware is required for each build environment to compile the software? (including memory, disk space, etc.)
- 5. What operating systems (including versions) are used during compilation? Is the software executed on any other operating systems/version?
- 6. How many separate deliverable components (executables, share libraries, etc.) are built?
- 7. What compilers/linkers/other tools (brand and version) are necessary to build the application?
- 8. What, if any, third-party libraries are used to build the software?
- 9. How long does a complete build of the software take? How much of that time requires some form of human interaction and how much is automated?
- 10. Do you have a formal build document describing the necessary steps for system configuration and compilation?
- 11. Do you have an internal QA process? If so, please give a brief description of the testing process.
- 12. Please list the appropriate technical person(s) Iron Mountain may contact regarding this set of escrow deposit materials.

Please provide your contact information below:

Name:	
Telephone:	
Company:	
Address:	
City, State	Postal Code
Country:	
E-mail:	

For additional information about Iron Mountain Technical Verification Services, please contact Shane Ryan at 978-667-3601 ext. 100 or by e-mail at mailto:shaneryan@ironmountain.com.

www.ironmountain.com

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 12/20/2019

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.

this certificate does not confer rights PRODUCER	.0 .110	Servinous rivider in lied Of S	CONTA		· J·			
Marsh USA Inc. 1717 Arch Street				NAME:				
				PHONE (A/C, No, Ext): (A/C, No, Ext): (A/C, No):				
Philadelphia, PA 19103-2797			E-MAIL ADDRE	SS:				
				INSURER(S) AFFORDING COVERAGE				NAIC#
CN107993899-1M W-Umbpr-19-21 MS			INSURER A : New Hampshire Insurance Co.					23841
INSURED Northrop Grumman Corporation			INSURER B : Insurance Company Of The State Of Pennsylvania					19429
Its Divisions and Subsidiaries				ER C : National U	nion Fire Ins. Co.	of Pittsburgh, PA		19445
2980 Fairview Park Drive					Home Assurance			19380
Falls Church, VA 22042						o o mpany		
			INSURER F :					1=
COVERAGES CE	RTIFIC	ATE NUMBER:	CLE-005903323-11 REVISION NUMBER: 6					
THIS IS TO CERTIFY THAT THE POLICIE INDICATED. NOTWITHSTANDING ANY IS CERTIFICATE MAY BE ISSUED OR MAY EXCLUSIONS AND CONDITIONS OF SUCH SIR TYPE OF INSURANCE	REQUIRE PERTA POLICI	MENT, TERM OR CONDITION IN, THE INSURANCE AFFORE IES. LIMITS SHOWN MAY HAVE UBR	OF AN DED BY	Y CONTRACT	OR OTHER S DESCRIBE PAID CLAIMS	DOCUMENT WITH RESPE D HEREIN IS SUBJECT TO	CT TO O ALL	WHICH THIS
C X COMMERCIAL GENERAL LIABILITY	INSD V	GL6862492		01/01/2020	01/01/2021	LIMIT		F 000 000
A GOMMENTIAL GENERAL ENDIENT		JL0002432		01/01/2020	01/01/2021	EACH OCCURRENCE DAMAGE TO RENTED	\$	5,000,000
CLAIMS-MADE X OCCUR						PREMISES (Ea occurrence)	\$	5,000,00
	-1 1					MED EXP (Any one person)	\$	5,000
	-1					PERSONAL & ADV INJURY	\$	5,000,00
GEN'L AGGREGATE LIMIT APPLIES PER:	11 1					GENERAL AGGREGATE	\$	5,000,00
X POLICY PRO- DTHER:						PRODUCTS - COMP/OP AGG	\$	5,000,00
C AUTOMOBILE LIABILITY		CA5320364 (AOS)		01/01/2020	01/01/2021	COMBINED SINGLE LIMIT (Ea accident)	\$	2,000,00
C X ANY AUTO		CA5320365 (MA)		01/01/2020	01/01/2021	BODILY INJURY (Per person)	\$	
C OWNED SCHEDULED AUTOS ONLY AUTOS		CA5320366 (VA)		01/01/2020	01/01/2021	BODILY INJURY (Per accident)	\$	
C HIRED NON-OWNED		CA5320367 (AOS) PO Fleet		01/01/2020	01/01/2021	PROPERTY DAMAGE	\$	
C AUTOS ONLY AUTOS ONLY		CA5320368 (MA) PO Fleet		01/01/2020	01/01/2021	(Per accident)	\$	
UMBRELLA LIAB OCCUR	+						_	
- CCCCR						EACH OCCURRENCE	\$	
CLAIIVIS-IVIAD	티					AGGREGATE	\$	
A WORKERS COMPENSATION	+	WC020608696 (AOS)		01/01/2020	01/01/2021	X PER OTH-	\$	
AND EMPLOYERS' LIABILITY		WC020608695 (CA)		01/01/2020	01/01/2021	III TO THE PERSON OF THE PERSO		4 000 000
B ANYPROPRIETOR/PARTNER/EXECUTIVE N	N/A	WC020608697 (FL)		01/01/2020	01/01/2021	E.L. EACH ACCIDENT	\$	1,000,000
(Mandatory in NH) A If yes, describe under		WC020608702 (SEE ACORD 10	1\	01/01/2020	01/01/2021	E.L. DISEASE - EA EMPLOYEE	\$	1,000,000
DESCRIPTION OF OPERATIONS below	-		1)			E.L. DISEASE - POLICY LIMIT	\$	1,000,000
C CYBER PROFESSIONAL LIABILITY		016138881		08/01/2019	08/01/2020	LIMITS		15,000,00
						SIR		10,000,00
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHI The Certificate Holder is included as additional insured (in nsurance and limited to liability arising out of the operation	except work	kers compensation and professional lial	oility) wher	e required by writ	e space is requir ten contract. This	ed) insurance is primary and non-con	lribulory	over any existing
CERTIFICATE HOLDER			CANO	CELLATION				
City of Chicago Office of Emergency Management & Communications 1411 W. Madison Chicago, IL 60607			SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.					
				RIZED REPRESE sh USA Inc.	NTATIVE			

Mariaoni Mukerenjee

Manashi Mukherjee



EVIDENCE OF PROPERTY INSURANCE

DATE (MM/DD/YYYY) 12/17/2019

THIS EVIDENCE OF PROPERTY INSURANCE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE ADDITIONAL INTEREST NAMED BELOW. THIS EVIDENCE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS EVIDENCE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE ADDITIONAL INTEREST. AGENCY PHONE (A/C, No, Ext): COMPANY Marsh USA Inc. Northrop Grumman Risk Management Inc. 1717 Arch Street Philadelphia, PA 19103-2797 CN107993899-Prop-19-20 MS FAX (A/C, No): E-MAIL ADDRESS CODE: SUB CODE: AGENCY CUSTOMER ID #: INSURED LOAN NUMBER POLICY NUMBER Northrop Grumman Corporation 433-1PRO019 Northrop Grumman Systems Corporation **EFFECTIVE DATE** Its Division and Subsidiaries **EXPIRATION DATE** CONTINUED UNTIL 2980 Fairview Park Drive 06/15/2019 06/15/2020 TERMINATED IF CHECKED Falls Church, VA 22042 THIS REPLACES PRIOR EVIDENCE DATED: PROPERTY INFORMATION LOCATION/DESCRIPTION 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 EVIDENCE OF PROPERTY INSURANCE 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. **COVERAGE INFORMATION** PERILS INSURED BASIC BROAD **SPECIAL** COVERAGE / PERILS / FORMS AMOUNT OF INSURANCE DEDUCTIBLE Property 1,000,000 Transit 1,000,000 REMARKS (Including Special Conditions) The City of Chicago is included as Loss Payee to the extent of their interest. Policy contains Valuable Papers coverage. Valuable Papers Limit: \$1,000,000 Property insurance coverage applies to Certificate Holder property while in the care, custody and control of insured **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. CLE-005214942-10 ADDITIONAL INTEREST NAME AND ADDRESS ADDITIONAL INSURED LENDER'S LOSS PAYABLE LOSS PAYEE MORTGAGEE The City of Chicago LOAN # Office of Emergency Management & Communications Attn: Rosemary McDonnell 1411 W. Madison St. **AUTHORIZED REPRESENTATIVE** Chicago, IL 60607 Manashi Mukherjee Manashi Mukherjee

ACORD 27 (2016/03)

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AGENCY CUSTOMER ID: CN107993899

LOC #: Philadelphia



ADDITIONAL REMARKS SCHEDULE

Page 2 of 2

AGENCY Marsh USA Inc.		NAMED INSURED Northrop Grumman Corporation Its Divisions and Subsidiaries
POLICY NUMBER		2980 Fairview Park Drive Falls Church, VA 22042
CARRIER	NAIC CODE	
		EFFECTIVE DATE:
ADDITIONAL REMARKS		
THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACO	RD FORM,	
FORM NUMBER: 25 FORM TITLE: Certificate of Lia	bility Insura	ance

Workers' Compensation policy no. WC020608702 covers states MA, MN , ND, NJ, OH, WA, WI, WY.



Marsh USA Inc. 11001 Lakeline Blvd Bldg. 1, Suite 200 Austin, TX 78717 Philadelphia.certe@marsh.com

MEMO

TO:

Whom It May Concern:

DATE:

December 1, 2019

FROM:

Marsh CSS

SUBJECT:

Northrop Grumman Corporation

Certificates of Insurance

2020 - 2021 Policy Year

As a Northrop Grumman Corporation Certificate Holder, please find attached your company's renewal certificate for the 1/1/2020 - 1/1/2021 policy period.

If you do not require this Certificate of Insurance, we would greatly appreciate you advising such by marking "delete" on the certificate and returning it via email (Philadelphia.Certs@marsh.com) or fax to (212) 948 0503.

Best regards,

Marsh CSS



PROFESSIONAL SERVICES INSURANCE REQUIREMENTS

Office of Emergency Management and Communications Altaris®Gold CAD Maintenance

Contractor must provide and maintain at Contractor's own expense, during the term of the Agreement and any time period following expiration if Contractor is required to return and perform any of the Services or Additional Services under this Agreement, the insurance coverage and requirements specified below, insuring all operations related to the Agreement.

A. INSURANCE TO BE PROVIDED

Workers Compensation and Employers Liability

Workers Compensation Insurance, as prescribed by applicable law, covering all employees who are to provide a service under this Agreement and Employers Liability coverage with limits of not less than \$500,000 each accident, illness or disease.

2) <u>Commercial General Liability</u> (Primary and Umbrella)

Commercial General Liability Insurance or equivalent with limits of not less than \$5,000,000 per occurrence for bodily injury, personal injury and property damage liability. Coverages must include the following: All premises and operations, products/completed operations, separation of insureds, defense and contractual liability (not to include Endorsement CG 21 39 or equivalent).

The City of Chicago is to be named as an additional insured under the Contractor's and any subcontractor's policy. Such additional insured coverage shall be provided on ISO endorsement form CG 2010 for ongoing operations or on a similar additional insured form acceptable to the City. The additional insured coverage must not have any limiting endorsements or language under the policy such as but not limited to, Contractor's sole negligence or the additional insured's vicarious liability. Contractor's liability insurance shall be primary without right of contribution by any other insurance or self-insurance maintained by or available to the City. Contractor must ensure that the City is an additional insured on insurance required from subcontractors.

Subcontractors performing Services for Contractor must maintain limits of not less than \$1,000,000 with the same terms herein.

3) Automobile Liability (Primary and Umbrella)

When any motor vehicles (owned, non-owned and hired) are used in connection with Services to be performed, Contractor must provide Automobile Liability Insurance with limits of not less than \$2,000,000 per occurrence for bodily injury and property damage. The City of Chicago is to be named as an additional insured on a primary, non-contributory basis.

Subcontractors performing Services for Contractor must maintain limits of not less than \$1,000,000 with the same terms herein.

Error & Omissions/Professional Liability

When any system technician, data base administrator, systems administrator, project managers or EDP professionals including but not limited to system programmers, hardware an software designer, hardware and software designers/consultants or other professional consultants perform Services in connection with this Agreement, Professional Liability Insurance covering acts, errors or omissions must be maintained with limits of not less than \$5,000,000. Coverage must include but not limited to contractual liability, performance of or failure to perform other computer services and failure of CAD System Software product to perform or cause to be performed the function for the purpose intended. When policies are renewed or replaced, the policy retroactive date must coincide with, or precede start of

Services on the Agreement. A claims-made policy which is not renewed or replaced must have an extended reporting period of 2 years.

Subcontractors performing professional Services for Consultant must maintain limits of not less than \$2,000,000 with the same terms herein.

5) Valuable Papers

When any media, data, reports, record, analysis, specifications and other documents are produced or used under this Agreement, Valuable Papers Insurance must be maintained in an amount to insure against any loss whatsoever, and must have limits sufficient to pay for the re-creation and reconstruction of such records.

6) All Risk Property/Installation Insurance

All Risk Property/Installation Insurance must be maintained by the Contractor at replacement cost insuring loss or damage to City property including Office Emergency Management and Communications equipment, materials, parts and supplies that are part of the project during the course of development, implementation, installation, testing and repair rehabilitation replacement/maintenance of the CAD System in the care, custody and control of the Contractor. Coverage must include in transit offsite, faulty workmanship or materials, testing and mechanical-electrical breakdown. The City of Chicago is to be named as an additional insured and loss payee.

Contractor is responsible for all loss or damage to City property including materials, part or supplies at full replacement cost incurred during inspection installation, modification, maintenance and/or repairs to Computer-Aided Dispatch (CAD) system and equipment while in the care, custody and control of the Contractor or loss to any other City property as a result of the Agreement.

Contractor is responsible for all loss or damage to personal property (including materials, equipment, tools and supplies) owned, rented or used by Contractor.

B. ADDITIONAL REQUIREMENTS

Contractor must furnish the City of Chicago, Department of Procurement Services, City Hall, Room 806, 121 North LaSalle Street, Chicago IL. 60602, original Certificates of Insurance, or such similar evidence, to be in force on the date of this Agreement, and Renewal Certificates of Insurance, or such similar evidence, if the coverages have an expiration or renewal date occurring during the term of this Agreement. Contractor must submit evidence of insurance on the City of Chicago Insurance Certificate Form (copy attached as Exhibit-) or equivalent prior to execution of Agreement. The receipt of any certificate does not constitute agreement by the City that the insurance requirements in the Agreement have been fully met or that the insurance policies indicated on the certificate are in compliance with all requirements of Agreement. The failure of the City to obtain certificates or other insurance evidence from Contractor is not a waiver by the City of any requirements for the Contractor to obtain and maintain the specified coverages. Contractor must advise all insurers of the Agreement provisions regarding insurance. Non-conforming insurance does not relieve Contractor of the obligation to provide insurance as specified in this Agreement. Nonfulfillment of the insurance conditions may constitute a violation of the Agreement, and the City retains the right to suspend this Agreement until proper evidence of insurance is provided, or the Agreement may be terminated.

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

Any deductibles or self-insured retentions on referenced insurance coverages must be borne by Contractor.

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

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

Any insurance or self-insurance programs maintained by the City of Chicago do not contribute with insurance provided by Contractor under this Agreement.

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

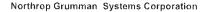
If the Contractor maintain higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

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

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

If Contractor or Subcontractor desire additional coverages, the party desiring the additional coverages is responsible for the acquisition and cost.

Notwithstanding any provisions in the Agreement to the contrary, the City of Chicago Risk Management Department maintains the right to modify, delete, alter or change these requirements.





Integrated Fires & Protective Systems
Land Forces & Protective Systems
First Responder Solutions
7575 Colshire Drive

McLean, Virginia 22102

February 27, 2020

Executive Director Rich Guidice Office of Emergency Management and Communications 1411 West Madison Street Chicago, IL 60607

Re: Sole Source Justification

Altaris®Gold CAD Maintenance - Extension Proposal 2020 - 2024

Dear Mr. Guidice,

Northrop Grumman Systems Corporation ("Northrop Grumman") has provided its the continued maintenance of your *Altaris* @ *Gold* CAD system since 1996.

Northrop Grumman is the sole entity that can provide the products and services in the manner proposed. The *Altaris*®*Gold* CAD software, the foundation of the City's current dispatch operations, has historically provided uninterrupted operation ensuring reliable emergency response for the City's citizens and employees. *Altaris*®*Gold* CAD software is the proprietary property of Northrop Grumman. There are no other contactors authorized or qualified to maintain this software. Northrop Grumman's experience with the operation and maintenance of this system for over 20 years means Northrop Grumman is the sole company that is able to provide ongoing support services for CAD maintenance and the support required to maintain high levels of availability.

The City has, through the years, had Northrop Grumman provide hardware and software ungrades and enhancements to your CAD system, so it continues to meet the needs of the City. The City's continued use of the *Altaris®Gold* CAD provides the lowest risk option for continued dispatch for the City's emergency services. Extending the life of your *Altaris® Gold* CAD is also a price-effective option for the City. The implementation of your new CAD system will take an indetermanable time to implement, and it is criticial to continue services with Northrop Grumman during the implementation of the new system.

We are proposing an option to continue to maintain your current system for up to 4 years from November 1, 2020 – October 31, 2024 that consists of *Altaris®Gold* Maintenance, in the manner in which we are currently providing maintenance.

Northrop Grumman has provided CAD systems continuously since the first CAD systems were deployed by us in the early 1970s. There is unrivaled corporate continuity with Northrop Grumman as your provider. With more than \$34 billion in annual sales and 85,000 employees, Northrop Grumman has the resources to support the City in the 9-1-1 arena as well as within the greater aspects of Command & Control should the City require our services.

Northrop Grumman is committed to the continuation of our longstanding partnership with the City of Chicago. We look forward to working with you to answer questions or provide additional information as you continue to move forward with this process.

Northrop Grumman's proprietary CAD system has provided near perfect reliability over a long period of time, assuring rapid emergency response to the City, keeping the citizens of the City safe. Continuity of our CAD system assures that there would not be any risk of downtime or the substantial additional cost for the conversion to a new system.

Sincerely,

John C. Kouri Contracts Manager

Northrop Grumman Systems Corporation

John C. Low.

	Section I: General Contract Information		
Department Name	Office of Emergency Management and Communications		
Department Contact Name	Lylianis Gonzalez		
Department Contact Number	312.746.9421		
Department Contact Email	<u>lylianis.gonzalez@cityofchicago.org</u>		
Contract Number	55127		
Contract Subject Name	Altaris Gold Computer Aided Dispatch (CAD) System Maintenance		
Contract Initiation Date	11/01/2017		
Original Contract Amount	\$17,061,233.39		
Original Contract Expiration Date	10/31/2020		
Budgeted amount for current year	\$5,897,580.00		
Year to date expenditure	\$14,983,497.67		
And founds IV On 11	that Tip Count		
Are funds X_Operating Capi	italTIFGrant		
What is the funding strip?	020-0353-058-0584110-0138-200138 - \$23,174,318 Sole Source		
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	020-0353-058-0584110-0138-200138 - \$23,174,318 Sole Source Yes, Northrop Grumman Solutions Corporation provided a quote for the		
What is the funding strip? If contract modification or task request	O20-0353-058-0584110-0138-200138 - \$23,174,318 Sole Source Yes, Northrop Grumman Solutions Corporation provided a quote for the next 4 years. OEMC is requesting a vendor limit increase and time		
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What is the funding strip? If contract modification or task request Is approved, will department have enough funds to cover new expenditure? If no, what is the plan to address the	Yes, Northrop Grumman Solutions Corporation provided a quote for the next 4 years. OEMC is requesting a vendor limit increase and time extension up to 4 years for PO 55127 to continue services while the new CAD system is implemented and accepted. OEMC has the funds available to cover the VLI and extension for the next 4 years. Section II: Contract Modifications		
What is the funding strip? If contract modification or task request Is approved, will department have enough funds to cover new expenditure? If no, what is the plan to address the short fall?	Yes, Northrop Grumman Solutions Corporation provided a quote for the next 4 years. OEMC is requesting a vendor limit increase and time extension up to 4 years for PO 55127 to continue services while the new CAD system is implemented and accepted. OEMC has the funds available to cover the VLI and extension for the next 4 years. Section II: Contract Modifications		

City of Chicago March 11, 2020

New contract expiration date	October 31, 2024. OEMC is requesting up to a four (4) year time extension. This will be effective until the new CAD system is implemented and fully operational.
Goods/services provided by this contract	This contract provides project management and maintenance for our Altaris Gold Computer Aided Dispatch (CAD) system (9-1-1 system). The CAD system provides a critical role in the OEMC's mission of public safety and support for the Chicago Fire Department (CFD) and the Chicago Police Department (CPD).
Justification of need to modify this	The PO limit is close to being reached. Additional funds and time are
contract	necessary to maintain this contract while the new CAD system is implemented.
Impact of denial	City operations will be compromised, and this will hinder OEMC's mission of public safety.
Section III. Issue a	Request for Services to a Master Consulting Agreement
Complete this section if you want to issu	e a request for services to a Master Consulting Agreement
Value of planned task order request	
Expiration date of planned task order request	
Scope of services	
Justification of need to issue request for services	
Impact of denial	
Section IV: Asse	ssment of Office of Budget and Management Analyst
Approve/Deny	
OBM Analyst Initials	Xms
OBM Analyst Name/number	Kevin Schuster 744-8924



OFFICE OF EMERGENCY MANAGEMENT AND COMMUNICATIONS CITY OF CHICAGO

THE OFFICE OF THE EXECUTIVE DIRECTOR

TO:

Shannon E. Andrews, Chief Procurement Officer
THE DEPARTMENT OF PROCUREMENT SERVICES (DPS)

Monica Jimenez, First Deputy Procurement Officer Department of Procurement Services (DPS)

FROM:

Richard Muide by N. Mutera

Richard Guidice, Executive Director

THE OFFICE OF EMERGENCY MANAGEMENT

AND COMMUNICATIONS (OEMC)

DATE:

March 17, 2020

SUBJECT:

Compliance Concurrence

Contract Modification NCRB Sole Source Northrop Grumman Systems Corporation

Altaris@Gold Computer Aided Dispatch (CAD) System Maintenance Contract: 55127 Specification: 206684 Requisition: 331970

The Office of Emergency Management and Communications (OEMC) concurs with Northrop Grumman Systems Corporation. The current contract has an approved compliance of 6.54% Minority Business Enterprise (MBE) and 0% Women Business Enterprise (WBE) [Northrop Grumman was granted a full WBE waiver]. For this extension, System Solutions, Inc., (SSI) one of their MBE participant currently notified Northrop Grumman that they are not certified with the City of Chicago, their certification lapse. SSI have initiated their certification process with Department of Procurement Services. Northrop Grumman will show 2.39% MBE participation with Data Defenders LLC., and will continue to utilize SSI as their subcontractor. This contract had limited opportunities when it began. In addition, the City assumed responsibility to maintain the Open, Inc.-Safety Pad®, thus reducing the cost to the City and also reducing the opportunity for compliance. The opportunities for participation are in the areas of technical project manager and network engineering. Northrop Grumman has done its due diligence for compliance opportunities, and they will periodically review for MBE and WBE participation during the course of this contract. Northrop Grumman submitted a "Good Faith Efforts Letter" with an explanation and their plan to comply if possible.

If you should have any questions, please contact Lylianis Gonzalez at (312)746-9421. Thank you.

cc:

Natalie Gutierrez, Administration Lisa Clark, Contracts Lylianis Gonzalez, Contracts Zachary Williams, PSIT Frank Lindbloom, OPSA



CERTIFICATE OF FILING FOR

CITY OF CHICAGO ECONOMIC DISCLOSURE STATEMENT

EDS Number: 147385

Certificate Printed on: 02/27/2020

Date of This Filing:12/11/2019 09:07 AM

Original Filing Date: 12/11/2019 09:07 AM

Disclosing Party: Northrop Grumman Systems Title: Contracts Manager

Corporation

Filed by: Mr. John Carroll Kouri

Matter: Altaris Gold Computer Aided Dispatch

(CAD) Maintenance

Applicant: Northrop Grumman Systems

Corporation

Specification #: 206684

Contract #: 55127

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.



Northrop Grumman Systems Corporation Mission Systems Sector Missile Defense & Protective Systems Division Integrated Fires & Protective Systems 7555 Colshire Drive McLean, Virginia 22102

March 17, 2020

Ms. Lylianis Gonzalez
Office of Emergency Management
& Communications (OEMC)
1411 W Madison Street
Chicago, IL 60607

Lylianis Gonzalez < Lylianis. Gonzalez @cityofchicago.org

Subject:

Amendment #1 to Contract #55127

Altaris™ CAD Maintenance Extension 2020 - 2024

Ms. Gonzalez:

Northrop Grumman Systems Corporation, herein referred to as "Northrop Grumman", is pleased to provide the Office of Emergency Management & Communications (OEMC) with its proposal to extend the current maintenance for your Altaris Gold Computer Aided Dispatch as set forth in the attached Amendment #1 to Contract #55127.

The price for this maintenance extension, as detailed in the attached Amendment #1 and Extension to Contract 55127 for up to the full 4 year period of performance is:

Contract Year	Price	
Year 1 – 11/1/2020 – 10/31/2021	\$5,594,899	
Year 2 – 11/1/2021 – 10/31/2022	\$5,663,056	
Year 3 – 11/1/2022 – 10/31/2023	\$5,864,572	
Year 4 – 11/1/2023 – 10/31/2024	<u>\$6,051,791</u>	
Total Price – 4 years	\$23,174,318	

The nature of the work is technical and proprietary to Northrop Grumman, and little opportunity exists for subcontracting of any kind. We have separately submitted our waiver request for this work. We propose to use of firms System Solutions, Inc. and Data Defenders, LLC.

This quote is valid through October 31, 2020. If you have any questions regarding this quotation, please contact either me at (703) 556-1351, or Dwain Saulsberry at (312) 846-5946.

Ms. Lylianis Gonzalez City of Chicago OEMC

John C. Kouri

Sincerely,

John C. Kouri

Contracts Manager

ce: Zachary Williams - Zachary. Williams@cityofchicago.org

Dwain Saulsberry Shannon Bent Joan Biebel Forrest Nutter



Northrop Grumman Systems Corporation Defense Systems Sector Information Solutions and Services Division 7555 Colshire Drive McLean, Virginia 22102

March 17, 2020

Ms. Shannon E. Andrews, Chief Procurement Officer Department of Procurement Services 121 North LaSalle Street, Room 806 Chicago, IL 60602

Attn: Jacquelyn Charleston, Deputy Procurement Officer (Compliance)

Re: Good Faith Efforts Compliance Plan

Altaris®Gold CAD Maintenance Agreement - Extension Contract (PO) No. 55127 Specification No.: 206684

Dear Ms. Andrews:

Northrop Grumman Systems Corporation (NGSC) is submitting a proposal to extend the Altaris® Gold CAD (Computer Aided Dispatch) Maintenance for up to 4 additional years. This four year contract extension will continue the maintenance of the OEMC's current Altaris®Gold CAD system (and its associated subsystems).

Under the terms of **EXHIBIT 5 – MINORITY-OWNED AND WOMEN-OWNED BUSINESS COMPLIANCE PLAN** for this contract provided we would receive a waiver of the standard MBE/WBE goals and established the following commitment for this Contract:

MBE Percentage: 6.54% WBE Percentage: 0%

We have reviewed the potential participation of our MBE/WBE partners and advise the commitment to which Northrop Grumman is proposing for the contract extension of this Agreement as follows:

MBE Percentage: 2.39% WBE Percentage: 0%

We hereby request a reduction of the MBE percentage accordance with Article V. of the Special Conditions for the following reasons:

1. The maintenance services we perform for the OEMC is substantially for the maintenance of our proprietary Computer Aided Dispatch (CAD) software. These services may only be provided by our employees and specialized consultants (who have signed confidentiality agreements with us) with expertise in our software. These products were developed at our expense and are regarded as trade secrets.

- 2. Other maintenance services that are provided under this agreement are primarily for the associated third party products associated with the CAD system. These services are ultimately provided from the providers/maintainers of those proprietary items.
- 3. Therefore, the opportunity for participation in this Agreement is for the services of a single MBE firm that is currently engaged in the maintenance of the system:
 - a. <u>Network Engineering</u> will be provided by Data Defenders LLC. Their work will involve maintaining the City's network used by our CAD. The network engineering will assure communications between the various elements of the CAD system and with other systems with which our CAD communicates.
- 4. This Agreement is for a term of 1 year plus 3 one year options. In the event there are any changes or additions to the Systems or services we provide, we will endeavor to provide MBE and WBE to the maximum extent we are able.

The reduction of the MBE percentage is due to the fact that the other MBE firm, System Solutions, Inc. (SSI) has had its MBE status lapse. We continue to provide a Technical Project Manager through SSI, however, they no longer have a certification as an MBE from the City or Cook County and are not included in the attached D-1. One of the co-owners of SSI is recently deceased and they have only recently applied for re-certification. This is the reason we are requesting the reduction of our MBE percentage. We have engaged our Procurement Department who is actively searching for a qualified MBE to provide this service. However, they have not been able to locate a suitable MBE at this time. At this time, we will continue to utilize SSI as a subcontractor without obtaining compliance credit.

We will periodically review opportunities for MBE and WBE participation during the course of this contract, and should new opportunities become available (such as new certified firms that can do some of the work) then we will increase the percentages accordingly.

Accordingly, we request you approve our full and partial waiver request.

The Schedule C-1 for Data Defenders, and our form D-1 are attached.

Should you have any additional questions or comments please feel free to e-mail me at John.Kouri@ngc.com or contact me by phone at (703) 556-1351.

Sincerely,

Northrop Grumman Systems Corporation

John C. Kouri Contracts Manager

John C. Kouri

cc: Monica Jimenez, First Deputy Procurement Officer



SCHEDULE C-1

FOR NON-CONSTRUCTION PROJECTS ONLY

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

Project Name: Altaris Gold CAD Maintenance	Specification No.: 206684
From:_ Data Defenders, LLC	
(Name of MBE/WBE Firm)	
To: Northrop Grumman Systems Corporation (Name of Prime Contractor)	and the City of Chicago.
	d by the attached City of Chicago or Cook County, Illinois redited for the use of a MBE or WBE "manufacturer." 60% dealer."
The undersigned is prepared to perform the following services space is required to fully describe the MBE or WBE proposed description of the commercially useful function being performed Provide network engineering services to support City's network associated.	ed. Attach additional sheets as necessary:
The above described performance is offered for the following Network engineering services for up to 4 years or 3,264 hours @ average of 4 years. Also, due to escalating rates, average price would be somewhat less for less	f \$170.09/hour or \$555,173 for full 4 year term. Will be less for a term of less than
SUB-SUBCONTRACTING LEVELS A zero (0) must be shown in each blank if the MBE or WBE w this schedule.	ill not be subcontracting any of the work listed or attached to
0 % of the dollar value of the MBE or WBE subcontra	act that will be subcontracted to non MBE/WBE contractors.
0 % of the dollar value of the MBE or WBE subcontra	act that will be subcontracted to MBE or WBE contractors.
brief explanation, description and pay item no credit will not be given for work subcontracted	e subcontracted, list the name of the vendor and attach a umber of the work that will be subcontracted. MBE/WBE to Non-MBE/WBE contractors, except for as allowed in the s Enterprise Commitment and Women Business Enterprise
	or the above work with you as a Prime Contractor, conditioned thin three (3) business days of your receipt of a signed contract
The undersigned has entered into a formal written mentor Prime Contractor/mentor: () Yes (^X) No	protégé agreement as a subcontractor/protégé with you as a
NOTICE: THIS SCHEDULE AND ATTACHMENTS REQUIR	E ORIGINAL SIGNATURES.
(Signification of Mean	12/12/2019 (Date)
Cyrus Walker, Managing Principal	
(Name/Title-Please Print)	
Cyrus.Walker@data-defenders.com 312-2	24-8831x402
(Email & Phone Number)	



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: Altaris Gold CAD Maintenance
Specification No.: 206684
In connection with the above captioned contract, I HEREBY DECLARE AND AFFIRM that I am a duly authorized representative of
(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).
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: Data Defenders, LLC
Address:10 W. 35th St., Suite 9F5-1, Chicago, IL 60616
Contact Person: Cyrus Walker
Phone Number: (312) 603-5502
Dollar Value of Participation \$_\$555,173 for full 4 year term. May be lessif less than full 4 years
Percentage of Participation % _ 2.39
Mentor Protégé Agreement (attach executed copy): () Yes (x) No Add'l Percentage Claimed: 1%
Total Participation % 2.39
2. Name of MBE/WBE: Data Defenders, LLC
Address:
Contact Person: Cyrus Walker

08/2013

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 (X) 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 P	articipation of MBE/WBE Firms
outlined i expected	his section need not be completed if the MBE/WBE goals have been met through the direct participation n Section I. If the MBE/WBE goals have not been met through direct participation, Contractor will be to demonstrate that the proposed MBE/WBE direct participation represents the maximum achievable under instances. Only after such a demonstration will indirect participation be considered.
MBE/WBE Sul performance of	bcontractors/Suppliers/Consultants proposed to perform work or supply goods or services where such does not directly relate to the performance of this contract:
1.	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 %	
2.	Name of MBE/WBE:	_
	Address:	
	Contact Person:	_
	Phone Number:	_
	Dollar Value of Participation \$	_
	Percentage of Participation %	4
	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

III. Summary of MBE/WBE Proposal

A. MBE Proposal (Direct & Indirect)

1. MBE Direct Participation

MBE Firm Name	Dollar Amount Participation (\$)	Percent Amount Participation (%)
Data Defenders, LLC	DUR	2.39
•		
Total Direct MBE Participation	DUR	2.39

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 (%)
	ž.	
Total Direct WBE Participation		

2. WBE Indirect Participation

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

The Prime Contractor designates the following person a	s its MBE/WBE Liaison Officer:	
Dwain Saulsberry	(312) 846-5946	
(Name- Please Print or Type)	(Phone)	
I DO SOLEMNLY DECLARE AND AFFIRM UNDER F FOREGOING DOCUMENT ARE TRUE AND CORRECT THAT I AM AUTHORIZED ON BEHALF OF THE PRIME	, THAT NO MATERIAL FACTS H	HAVE BEEN OMITTED AND
Norhtrop Grumman Systems Corporation		
(Name of Prime Contractor – Print or Type)	State of: Virginia	
(Signature) C. Kozuri	County of: Fairfax	# E
John C. Kouri (Name/Title of Affiant – Print or Type)		
3/12/2020 (Date)	3	
On this 1st day of March, 20 20, the above signed	Officer John C. K (Name of Affiant)	LOVRI
personally appeared and, known by me to be the person d executed the same in the capacity stated therein and for the	lescribed in the foregoing Affidavit ne purposes therein contained.	, acknowledged that (s)he
IN WITNESS WHEREOF, I hereunto set my hand and sea	al.	
(Notary Public Signature)	Page	
Commission Expires: 0 30 202)	SEAL:	SEGISTRATION NO. PARTIES IN COMM. EXPIRES IN COMM. EXPIRES IN VIOLATION OF VIRGINIA IN THE PROPERTY PUBLISHED IN THE PROPERTY PUBLISHED IN THE PUBLISH IN THE PUBLISH IN THE PUBLISHED IN THE PUBLISH IN THE PUBLI



TONI PRECKWINKLE

PRESIDENT

Cook County Board
of Commissioners

RBRANDON JOHNSON

1st District

DENNIS DEER 2nd District

BILL LOWRY

3rd District

STANLEY MOORE 4th District

DEBORAH SIMS 5th District

DONNA MILLER
6th District

ALMA E. ANAYA 7th District

LUIS ARROYO, JR. 8th District

PETER N. SILVESTRI 9th District

BRIDGET GAINER

10th District

JOHN P. DALEY 11th District

BRIDGET DEGNEN 12th District

LARRY SUFFREDIN
13th District

SCOTT R. BRITTON 14th District

KEVIN B. MORRISON 15th District

JEFFREY R. TOBOLSKI 16th District

SEAN M. MORRISON 17th District

OFFICE OF CONTRACT COMPLIANCE

EDWARD H. OLIVIERI

DIRECTOR

118 N. Clark, County Building, Room 1020 O Chicago, Illinois 60602 (312) 603-5502

January 10, 2020

Mr. Cyrus Walker, Managing Principal Data Defenders, LLC 10 West 35th Street, Suite 9FS-1 Chicago, IL 60616

Re: Annual Certification Expires: January 10, 2021

Dear Mr. Walker:

Congratulations on your continued eligibility for Certification as a **Minority-owned Business Enterprise (MBE)** by Cook County Government. This certification is valid until **January 10, 2025**; however, you must re-validate your firms' certification annually.

As a condition of continued Certification during this five (5) year term, you must file a "No Change Affidavit" within sixty (60) business days prior to the date of Annual Certification Expiration. Failure to file this Affidavit shall result in the termination of your Certification. You must notify Cook County Government's Office of Contract Compliance of any change in ownership or control or any other matters or facts affecting your firm's eligibility for Certification within fifteen (15) business days of such change.

Cook County Government may commence action to remove your firm as an **MBE** vendor if you fail to notify us of any changes of facts affecting your firm's Certification, or if your firm otherwise fails to cooperate with the County in any inquiry or investigation. Removal of status may also be commenced if your firm is found to be involved in bidding or contractual irregularities.

Your firm's name will be listed in Cook County's Directory of certified firms in the following area(s) of specialty:

TECHNOLOGY: IT CONSULTING-COMPUTER FORENSIC AND INFORMATION SECURITY; SOFTWARE DEVELOPMENT AND TESTING

Your firm's participation on Cook County contracts will be credited toward MBE goals in your area(s) of specialty. While your participation on Cook County contracts is not limited to your specialty, credit toward MBE goals will be given only for work performed in the specialty category.

Thank you for your continued interest in Cook County Government's Minority, Women, Veteran, and Service-Disabled Veteran Business Enterprise Programs.

Edward H. Olivieri

Contract Compliance Director

EHO/ew

Sincerely