



# AGENDA

## LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

BOARD OF DIRECTORS MEETING  
Thursday, November 2, 2017 • 9:00 a.m.  
Los Angeles County Sheriff's Department  
The Hertzberg Davis Forensic Science Center  
1800 Paseo Rancho Castilla, Conference Room 263  
Los Angeles, CA 90032

Los Angeles Regional Interoperable Communications System Authority (the "Authority")

### **AGENDA POSTED: October 27, 2017**

Complete agendas are made available for review at the designated meeting location. Supporting documentation is available at the LA-RICS Office located at 2525 Corporate Place, Suite 100, Monterey Park, CA 91754 during normal business hours and may also be accessible on the Authority's website at <http://www.la-rics.org>.

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#### **Members:**

1. **Sachi Hamai**, CEO, County of Los Angeles
2. **Daryl L. Osby**, Vice-Chair, Fire Chief, County of Los Angeles Fire Dept.
3. **Jim McDonnell**, Chair, Sheriff, Los Angeles County Sheriff's Dept.
4. **Cathy Chidester**, Dir., EMS Agency, County of LADHS
5. **Chris Donovan**, Fire Chief, City of El Segundo Fire Dept.
6. **Joe Ortiz**, Chief of Police, City of Sierra Madre Police Dept.
7. **Mark R. Alexander**, City Manager, CA Contract Cities Assoc.
8. **Mark Fronterotta**, Chief of Police, City of Inglewood Police Dept.
9. **Chris Nunley**, Chief of Police, City of Signal Hill Police Dept.
10. **John Curley**, Chief of Police, City of Covina Police Dept.

#### **Alternates:**

**John Geiger**, General Manager, CEO, County of Los Angeles  
**Chris Bundesen**, Asst., Fire Chief, County of Los Angeles Fire Dept.  
**Dean Gialamas**, Division Dir., Los Angeles County Sheriff's Dept.  
**Kay Fruhwirth**, Asst., Dir., EMS Agency, County of LADHS  
**Scott Haberle**, Fire Chief, City of Monterey Park Fire Dept.  
**Donna Cayson**, Captain, City of Sierra Madre Police Dept.  
**Marcel Rodarte**, Executive Dir., CA Contract Cities Assoc.  
**Louis Perez**, Deputy Chief, City of Inglewood Police Dept.  
**Richard Rocchi**, Captain, City of Signal Hill Police Dept.  
**David Povero**, Captain, City of Covina Police Dept.

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#### **Officers:**

**Scott Edson**, Executive Director  
**John Naimo**, County of Los Angeles Auditor-Controller  
**Joseph Kelly**, County of Los Angeles, Treasurer and Tax Collector  
**Priscilla Lara**, Board Secretary



**NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA**

**I. CALL TO ORDER**

**II. ANNOUNCE QUORUM – Roll Call**

**III. APPROVAL OF MINUTES (A)**

**A. October 5, 2017 – Regular Meeting Minutes**

Agenda Item A

**IV. PUBLIC COMMENTS**

**V. CONSENT CALENDAR – (None)**

**VI. REPORTS (B-C)**

**B. Director’s Report – Scott Edson**

- LTE Update
- LMR Update
- LA-RICS Grant Status
- Status of PSBN Agency Onboarding
- State Audit
- OIG Audit Report

Agenda Item B

**C. Project Manager’s Report – Chris Odenthal**

Agenda Item C

**D. Joint Operations and Technical Committee Chairs Report – Ted Pao and Kyle Zuniga**



**VII. DISCUSSION ITEMS (E-F)**

**E. Outreach Update**

Agenda Item E

**F. PSBN Onboarding Update**

Agenda Item F

**VIII. ADMINISTRATIVE MATTERS (G-L)**

**G. 2018 SCHEDULE OF LA-RICS BOARD MEETINGS**

It is recommended that your Board:

1. Approve the following dates for the calendar year 2018 Board Regular Meeting Schedule:

January 4

February 1

March 1

April 5

May 3 (Conference Room 263)

June 7

July 5 (day after 4<sup>th</sup> of July Holiday)

August 2

September 6 (week of Labor Day Holiday)

October 4

November 1

December 6

All Regular Meetings will be held at 9:00 a.m., Pacific Time at the at the Los Angeles County Sheriff's Department, The Hertzberg Davis Forensic Science Center, 1800 Paseo Rancho Castilla, Conference Rooms 223 through 227 and 263, Los Angeles, California 90032.

Agenda Item G



## **H. APPROVE REVISIONS TO LA-RICS SPECIAL EVENTS DEPLOYMENT POLICY**

It is recommended that your Board:

1. Approve revisions and adopt the existing Special Events Deployment Policy to reflect the following:
  - a. Update the policy to reflect the revisions contemplated in the LA-RICS Asset Deployment Policy (Enclosure A) to align with current deployment processes and operations for LA-RICS Assets (e.g. System on Wheels [SOW], portable radios, radio accessories, Public Safety Broadband Network [PSBN] devices, etc.) in support of an event.
  - b. Delegate authority to the Executive Director to determine whether a Member and Non-Member of the Authority shall be responsible for costs associated with staff required to support the event as well as other costs that may be necessary to support the event.
  - c. Delegate authority to the Executive Director to execute a Memorandum of Understanding (MOU) for Use of LA-RICS Assets (Enclosure B), substantially similar to the enclosed, when LA-RICS assets are deployed to a Member and Non-Member event, which includes a cost-recovery provision, in the event a Member and Non-Member is responsible for costs associated with supporting the event.
  - d. Delegate authority to the Executive Director to make the determination whether an MOU is required to be executed depending on the nature of the deployment of an event, in particular, (1) whether or not a Member and Non-Member will be responsible for costs associated with supporting the event, and (2) whether a Member and Non-Member will take temporary possession of any LA-RICS assets as part of the event.

Agenda Item H

## **I. APPROVE THE LA-RICS CYBERSECURITY INCIDENT RESPONSE POLICY AND ADOPTION OF THE LA-RICS CYBERSECURITY INCIDENT RESPONSE PLAN**



It is recommended that your Board:

1. Approve the enclosed LA-RICS Cybersecurity Incident Response Policy to ensure the Authority has the appropriate measures to respond to any cybersecurity threat to the LMR and/or PSBN Systems.
2. Authorize the Executive Director to implement whatever appropriate procedures and/or plans necessary to carry out the Policy.

Agenda Item I

#### **J. MINISTERIAL PERMIT APPLICATION POLICY UPDATE**

It is recommended that your Board approve revisions to the Enclosed LA-RICS Ministerial Permit Application Process to expand the Executive Director's authority to approve and sign ministerial applications as well as any other ministerial documents necessary for ongoing operations and maintenance of the LMR and PSBN as well as for jurisdictional approval needed to comply with codes, ordinances, and regulations to enable site construction, implementation, operation, and maintenance of the Land Mobile Radio (LMR) System and the Public Safety Broadband Network (PSBN).

Agenda Item J

#### **K. APPROVE A NO-COST AGREEMENT WITH THE GSMA, LTD.**

It is recommended that your Board:

1. Delegate authority to the Executive Director to execute a no-cost agreement between the Authority and GSMA, in substantially similar form to the Enclosure, to allow the Authority to receive certain database Services, on a gratis basis, for the purposes of tracking LTE devices and their associated network performance on the PSBN for a period of one (1) year from the date of execution.
2. Delegate authority to the Executive Director to approve and execute amendments to the no-cost agreement, including but not limited to renewing the term for successive one (1) year terms on a gratis basis should the Services still be required, provided that any such amendments are approved as to form by Counsel to the Authority.

Agenda Item K



**L. APPROVE AMENDMENT NO. 30 TO AGREEMENT NO. LA-RICS 007 FOR LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM LAND MOBILE RADIO SYSTEM**

It is recommended that your Board:

1. Make the following findings:
  - a. Find that (a) approval of the changes necessary to reflect the reconciliation of four (4) LMR System Sites (Burnt Peak 1 [BUR1], Frost Peak [FRP], Johnstone Peak 2 [JPK2] and Magic Mountain Link [MML]) to align with the updated LMR System Design is within the scope of the Final Environmental Impact Report (EIR) for the LA-RICS LMR System, which was previously certified under CEQA on March 29, 2016; and (b) there are no changes to the project at these four (4) sites or to the circumstances under which the project is undertaken that require revisions to the previous EIR due to new significant effects or substantial increase in the severity of previously identified significant effects.
  - b. Find that approval of the changes necessary to reflect the reconciliation of three (3) LMR System Sites (Los Angeles County Department of Public Works Pump Station 38 [DPW38], Mirador [MIR], and Rolling Hills Transmit [RHT]) to align with the updated LMR System Design is within the scope of the design, construction, implementation, operation and maintenance activities for the LMR System previously authorized at these three (3) sites, which your Board previously found statutorily exempt from review under CEQA pursuant to Public Resources Code Section 21080.25, the exemption adopted specifically for the Los Angeles Regional Interoperable Communications System (LA-RICS) project, and any leased circuit work that may occur outside of Sites DPW38, MIR and RHT, if needed to provide network connectivity to the LMR System, categorically exempt under CEQA pursuant to Guidelines section 15301 (existing facilities), 15303 (new construction or conversion of small structures) and 15304 (minor alterations to land).
  - c. Find that the inclusion of one (1) LMR System Site (Universal Studios [UNIV]) into Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), and exercising of the Unilateral Options



to align with the updated LMR System Design is within the scope of the design, construction, implementation, operation and maintenance activities for the LMR System previously authorized at this one (1) site. The LMR activities at Site UNIV was previously found by your Board to be categorically exempt from review under California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines sections 15301 (existing facilities), 15303 (new construction or conversion of small structures) and 15304 (minor alterations to land), and any leased circuit work that may occur outside of Site UNIV, if needed to provide network connectivity to the LMR System, were previously found by your Board to be categorically exempt under CEQA pursuant to Guidelines sections 15301, 15303 and 15304.

2. Approve Amendment No. 30 (Enclosure) to Agreement No. LA-RICS 007 for a LMR System with Motorola Solutions, Inc. (Motorola), which revises the Agreement to reflect the following:
  - a. Inclusion of one (1) LMR System Site into the scope of Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), and exercising the Unilateral Options of the same, to align with the updated LMR System Design for a cost increase in the amount of \$1,228,018.
  - b. Reconciliation of seven (7) LMR System Sites to align with the updated LMR System Design for a cost decrease in the amount of \$1,664,767.
  - c. Upgrade equipment for the Multiprotocol Label Switching (MPLS) and backhaul capacity necessary for network performance reliability and functionality for a cost increase in the amount of \$2,200,000.
  - d. Make changes necessary to incorporate LMR Change Order Modifications for a cost increase in the amount of \$4,195.
3. Authorize an increase to the Maximum Contract Sum from \$298,264,291 to \$300,031,737 when taking the cost increases and decreases into consideration.
4. Allow for the issuance of one or more Notices to Proceed for the Work contemplated in Amendment No. 30.



5. Delegate authority to the Executive Director to execute Amendment No. 30, in substantially similar form, to the enclosed Amendment (Enclosure).

Agenda Item L

**IX. MISCELLANEOUS – NONE**

**X. ITEMS FOR FUTURE DISCUSSION AND/OR ACTION BY THE BOARD**

**XI. CLOSED SESSION REPORT**

1. CONFERENCE WITH LEGAL COUNSEL – Anticipated Litigation (subdivision (d) of Government Code Section 54956.9) (1 cases)

**XII. ADJOURNMENT and NEXT MEETING:**

Thursday, December 7, 2017, at 9:00 a.m., at the Los Angeles Sheriff's Department, Scientific Services Bureau, located at 1800 Paseo Rancho Castilla, Los Angeles, CA 90032.





## BOARD MEETING INFORMATION

Members of the public are invited to address the LA-RICS Authority Board on any item on the agenda prior to action by the Board on that specific item. Members of the public may also address the Board on any matter within the subject matter jurisdiction of the Board. The Board will entertain such comments during the Public Comment period. Public Comment will be limited to three (3) minutes per individual for each item addressed, unless there are more than ten (10) comment cards for each item, in which case the Public Comment will be limited to one (1) minute per individual. The aforementioned limitation may be waived by the Board's Chair.

*(NOTE: Pursuant to Government Code Section 54954.3(b) the legislative body of a local agency may adopt reasonable regulations, including, but not limited to, regulations limiting the total amount of time allocated for public testimony on particular issues and for each individual speaker.)*

Members of the public who wish to address the Board are urged to complete a Speaker Card and submit it to the Board Secretary prior to commencement of the public meeting. The cards are available in the meeting room. However, should a member of the public feel the need to address a matter while the meeting is in progress, a card may be submitted to the Board Secretary prior to final consideration of the matter.

It is requested that individuals who require the services of a translator contact the Board Secretary no later than the day preceding the meeting. Whenever possible, a translator will be provided. Sign language interpreters, assistive listening devices, or other auxiliary aids and/or services may be provided upon request. To ensure availability, you are advised to make your request at least 72 hours prior to the meeting you wish to attend. (323) 881-8291 or (323) 881-8295

SI REQUIERE SERVICIOS DE TRADUCCION, FAVOR DE NOTIFICAR LA OFICINA CON 72 HORAS POR ANTICIPADO.

The meeting is recorded, and the recording is kept for 30 days.



# **BOARD OF DIRECTORS**

## **MEETING MINUTES**

**LOS ANGELES REGIONAL  
INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY**

October 5, 2017  
The Hertzberg Davis Forensic Science Center  
1800 Paseo Rancho Castilla, Conference Room 223 through 227  
Los Angeles, CA 90032

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**Board Members Present:**

**Joe Ortiz**, Chief of Police, City of Sierra Madre Police Dept.  
**Mark R. Alexander**, City Manager, CA Contract Cities Assoc.  
**Mark Fronterotta**, Chief of Police, City of Inglewood Police Dept.  
**John Curley**, Chief of Police, City of Covina Police Dept.

**Alternates For Board Members Present:**

**John Geiger**, General Manager, CEO, County of Los Angeles  
**Chris Bundesen**, Vice-Chair, Asst. Fire Chief, County of Los Angeles Fire Dept.  
**Kay Fruhwirth**, Asst., Dir., EMS Agency, County of LADHS

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**Officers Present:**

**Scott Edson**, LA-RICS Executive Director  
**Priscilla Lara**, LA-RICS Board Secretary

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**Absent:**

**Chris Donovan**, Fire Chief, City of El Segundo Fire Dept.  
**Chris Nunley**, Captain, City of Signal Hill Police Dept.  
**Dean Gialamas**, Division Dir., Los Angeles County Sheriff's Dept.

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**NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA**

**I. CALL TO ORDER**

Assistant Fire Chief Chris Bundesen called the Regular Meeting of the Board to order at 9:03 a.m. and acknowledged the Las Vegas incident and reminded everyone to keep family and friends in our thoughts and prayers.

**II. ANNOUNCE QUORUM – Roll Call**

Assistant Fire Chief Bundesen acknowledged that a quorum was present and asked for a roll call.

**III. APPROVAL OF MINUTES FOR THE REGULAR MEETING**

**A. September 7, 2017 – Regular Meeting Minutes**

Board Member Fronterotta motioned first, seconded by Alternate Board Member Geiger.

Ayes 6: Ortiz, Fronterotta, Curley, Geiger, Bundesen and Fruhwirth.

Abstained 1: Alexander

**MOTION APPROVED**

**IV. PUBLIC COMMENTS – (None)**

**V. CONSENT CALENDAR – (None)**

**VI. REPORTS (B-C)**

**B. Director's Report – Susy Orellana-Curtiss**

Administrative Deputy Orellana-Curtiss stated Executive Director Edson sends his apologies as he is presenting at the Area Fire Chiefs Conference in Palm Springs. Administrative Deputy Orellana-Curtiss referred the Board to the Executive Summary, Agenda Item B, explaining the Executive Summary provides updates regarding the Long Term Evolution (LTE) and Land Mobile Radio (LMR) Systems. For the LTE Update, Mrs. Orellana-Curtiss stated Agenda Item H is an amendment, which will allow the Authority to reconcile final closeout activity related to Round 1 of the Public Safety Broadband Network (PSBN).



Administrative Deputy Orellana-Curtiss also stated that power and final fiber is being tested for connectivity for all Southern California Edison (SCE) Cell-on-Wheels (COW). Final meter placement is expected on October 4, 2017.

Administrative Deputy Orellana-Curtiss went on to state the closeout documentation review is complete for all site closeout binders. The Authority has determined final documentation has been achieved and is working with Motorola to finalize payment.

Administrative Deputy Orellana-Curtiss further stated that multiple technical and network integration meetings have occurred with AT&T and FirstNet and discussions have also occurred with Verizon. Verizon asked to present to your Board and will do so under Discussion Item D. A meeting to further address user migration with AT&T is scheduled for next week.

Administrative Deputy Orellana-Curtiss informed the Board that LA-RICS is actively involved with the State of California First Responders Network (CalFRN) and continues to participate in the review of the FirstNet state plan. The Final State Plan was received on Friday, September 22, 2017.

In regards to the LTE network, Administrative Deputy Orellana-Curtiss indicated that the LA-RICS sites are built to “public safety grade” based on requirements gathered by the FirstNet Public Safety Advisory Committee (PSAC) the National Public Safety Telecommunications Council (NPSTC). There are representatives from LA-RICS serving on the state plan review committee and they were tasked with reviewing and commenting in one week. Their comments were submitted on Friday, September 29, 2017. Each committee member was tasked to review a section and assigned a grading system, your team commented on their respective sections as well as other sections, which was appreciated and currently under review by California Governor’s Office of Emergency Services (CalOES). The plan is for the state to present to the California First Responder Network (CalFRN) Board next Wednesday at their Board meeting of October 11, 2017 and subsequently to the Governor.

On September 19, 2017, CalOES informed the Authority the Governor is awaiting certain information from National Telecommunications and Information Administration (NTIA) that is affecting his ability to make a decision regarding the opt-out process. For example, how much California would be allocated if it were to opt-out and deploy its own system? CalOES staff has indicated the importance of the dollar amount and how much the state of California would have to pay to use the licensing spectrum or spectrum core; this is the information that is missing yet required prior to making a recommendation / decision. Alternate Board Member John Geiger asked who is the sender and how did it make its way up the chain. Administrative Deputy Orellana-Curtiss stated NTIA is the sender of the cost as well as grant allocation provided to each state, if they decide to opt-out. This is the money that the state is able to use for its alternative plan. Administrative Deputy Orellana-Curtiss further stated we will have



more information from the CalFRN Board meeting next Wednesday, October 11, 2017, and we will be reporting to your Board in November. Alternative Board Member Geiger stated due to the urgency of opt-in/opt-out and the need for information, he requested a Memo be issued rather than waiting for the next Board Meeting. Administrative Deputy Orellana-Curtiss confirmed a memo would be provided to the Board if there is an update.

The LA-RICS team continues to communicate to all stakeholders that it will not accept anything less than the public safety grade data network we have today, and that the LA-RICS PSBN should be absorbed as part of the NPSBN. LA-RICS will work with the State, FirstNet and AT&T to that end. The Authority asked FirstNet/AT&T to identify current and future sites built to public safety grade. AT&T provided information on the number of sites in Los Angeles County that have generators.

LA-RICS urged the Governor (via a letter from the Chair and Vice-Chair of the Board) to issue an RFP as soon as possible so we have something to compare to the AT&T state plan, and urged the Governor make no opt in decision without ensuring the absorption of LA-RICS' entire LTE network.

Administrative Deputy Orellana-Curtiss deferred to Jacobs Project Manager Chris Odenthal to provide a detailed report regarding the LMR System. With respect to UASI, the grant spending is on track as detailed in the Jacobs Project Manager Report and the Grant Status section of the Executive Summary. Amendment No. 25 to the PSBN Agreement contemplated in Agenda Item H will allow us to closeout grant related activities under Round 1 of the PSBN, which will allow us to issue payment to Motorola for Round 1 activities.

Agenda Item F contemplates PSBN Agency Onboarding, provided that we are in the State Plan review period and are pending a decision from the Governor of California, we continue to work in parallel with agencies interested in utilizing the PSBN. The Authority completed configuration work with Claremont, Inglewood and Bell Police Departments. We are finalizing connections with UCLA Health and Motorola has completed the end-to-end connection for their Access Point Name (APN). The table provided shows the agencies that have been on-boarded to the PSBN.

Board Member Alexander asked, if it is a coincidence that all the cities on the Onboarding update are in the San Gabriel Valley. Administrative Deputy Orellana-Curtiss stated it is coincidental as we are targeting all of the LA-RICS members and concluded the Director's Report.



### C. Project Manager's Report – Chris Odenthal

Jacobs Project Manager Chris Odenthal stated that LA-RICS' Lead Engineer, Ted Pao, will cover and provide an update on the PSBN performance with slides during the PowerPoint Presentation.

Project Manager Odenthal stated that PSBN is in the final stages of closeout, however, we will continue to operate the network we started in 2014. Agenda Item H requests approval for closing out LTE activities.

We have been updating your Board on SCE COWs for the last 18 months and as of today, all SCE COWs are complete from an infrastructure prospective. Nine (9) sites will be added to your network, which is approximately 13% of your total network capacity coverage.

In regards to the LMR update, we've been presenting updates on construction and punch list items with UASI 12' and 14'. Motorola and the Authority figured out a way to adjust each party's process. We were able to take months off the schedule because we found a workaround that benefitted both parties. As for the Environmental approval process, we found out last week that EMIS Group 5 sites have been cleared by FEMA and we are awaiting formal notification from CalOES and the City of Los Angeles, which will allow us to begin constructing those sites. Geotechnical work has been approved for the US Forest Service sites and that work will begin in two (2) weeks.

Project Manager Odenthal stated we cannot move forward without Site Access Agreements (SAA). We are currently in discussions for two (2) state parks sites; three (3) Waterworks District sites and have been working with independent cities as well, and we are very close on five (5) sites and in the next two (2) months we should be signing for an additional ten (10) sites.

Project Manager Odenthal also provided a Construction/Implementation update via PowerPoint to the Board that consisted of information regarding the following sites:

#### Active Sites:

- Bald Mountain (BMT)
- Mir Loma Detention Center (MLM)
- Hauser Peak (HPK)
- FCCF
- PHN
- Los Angeles Department of Water and Power Aqueduct Cascades (LDPW243)
- Los Angeles Sheriff's Department Temple Station (LASDTEM)
- Airport Courthouse (APC)



- Compton Courthouse Building (CCB)
- Clara Shortridge Foltz Criminal Court (CCT)

Board Member Ortiz asked if the San Dimas site is the Sheriff's Department. Project Manager Odenthal stated that it is not. Board Member Alexander asked if the San Dimas tower serves the 10 and 57 freeways in the Cal Poly area. Project Manager Odenthal deferred to Ted Pao who indicated that there is a water tower site that will focus on the Cal Poly/South Diamond Bar area.

Project Manager Odenthal further informed the Board of the next sites scheduled for construction:

- Monte Vista (MVS)
- Oat Mountain Nike (ONK)
- Verdugo Peak (VPK)
- Mount McDill (MMC)
- Tejon Peak (TPK) – Gorman
- SDW
- PLM

Board Member Alexander asked if the VPK site was near the fire. Project Manager Odenthal stated yes, the power pole was partially burned in the fire but the City of Los Angeles and County of Los Angeles Fire Departments worked hard to make sure that site was not destroyed.

Ted Pao presented a PowerPoint presentation regarding the PSBN, in particulate regarding data usage. Ted Pao indicated that technical staff, with the help of FirstNet and Motorola, established a data warehouse for the PSBN, which allows us to store all the data counter logs for PSBN. We can now provide reports on usage. Mr. Pao proceeded to display Usage Reports via PowerPoint consisting of the following information:

- Daily usage by APN
- Data user count
- Heat Map
- Heat Map by site

## **I. DISCUSSION ITEMS (D-G)**

**D. Verizon Presentation – Presentation by Verizon Wireless regarding plan in Los Angeles County to provide a public safety grade broadband network.**

Russell Svoboda and David Widrick along with other team members from Verizon Wireless were in attendance. Mr. Svoboda stated that Verizon remains dedicated to



its public safety partners as never before. Ultimately we are going forward with this initiative and FirstNet and also with you as our clients moving forward. We have a huge commitment to everyone in the FirstNet family and believe there is a way to utilize Verizon to do that.

Mr. Svoboda displayed a PowerPoint presentation that consisted of the following speaking points:

- Verizon Public Safety Mission
- Statistics from Hurricanes Harvey and Irma
- Why Verizon?
- Investment in Southern California since the year 2002 in our network.
- Innovated product services
- #1 wireless communications service provider to public safety agencies across the nation.
- Third party organizations say Verizon is #1
- Overall the best when it comes to speed, call, text and network reliability in the United States.
- Spent \$180 billion wireless since 2000 on 2.4 million square miles of 4G LTE
- Outreach Program

Mr. Widrick discussed the following information in the presentation:

- Flexible options that meet the unique needs of public Safety
- Verizon investment for Public Safety
- Verizon commitment and proposal
- Band Class 14 smartphones w/routers have capabilities
- How do we help you have more capabilities with Verizon
- Enable to accessibility to the Public Safety Interoperable Agreement with FirstNet
- Verizon made it very clear that we will be building our Core and it's our Core that we would like to ensure we operate with FirstNet Network

Mr. Widrick closed by expressing the importance of working together to accomplish the goal of FirstNet. Board Member Alexander inquired about Verizon's \$1.5 billion investment in Southern California, by asking how much of that is for the Los Angeles metropolitan area? The Verizon team stated they do not have the specifics but the majority is for Los Angeles County, approximately 60%. Alternate Board Member Geiger asked if the state of California were to opt-in to FirstNet but LA-RICS wants to work with Verizon, does Verizon commit to public safety grade and will they absorb the LA-RICS footprint? Mr. Widrick stated that Verizon would like to have ongoing discussions with





LA-RICS regarding this information, which would require LA-RICS to sign a Non-Disclosure Agreement (NDA) to have a more specific conversation. Alternate Board Member Geiger asked if Verizon would have a local data center that connects to FirstNet's core and by connecting Verizon's core will there be a seamless interface and how would that be locally orchestrated and controlled? Mr. Widrick stated they would have them, especially in metropolitan areas.

**E. Outreach Update**

Executive Assistant Wendy Stallworth-Tait provided an update on the status of outreach activities pertaining to the LA-RICS PSBN and LMR project and stated that Volume 2 Issue 6 of the newsletter was released and consisted of an article highlighting our Site on Wheels (SOW), NFL Charger Team at the STUBHUB center, Deputy Program Manager Justin Delfino and article highlighting the reality of recent calamities. LA-RICS received a humbling response from a Neighborhood Council President from the City of Los Angeles, Mary Garcia where she stated, "this is beautiful and thank you for keeping me informed, especially now that our country is not unified. Also personally, I feel safer since you put your antenna up at our Police Station in North Hollywood." There was no further discussion.

**F. PSBN Onboarding Update**

Executive Assistant Stallworth-Tait stated Administrative Deputy Orellana-Curtiss provided the PSBN Onboarding Update in her report. There was no further discussion.

**G. Quarterly Update on No-Cost Agreements**

Administrative Deputy Orellana-Curtiss stated that there was no update regarding this item and that moving forward staff would only provide a status if there was activity to report. There was no further discussion.

**II. ADMINISTRATIVE MATTERS (H-I)**

**H. APPROVE AMENDMENT NO. 25 FOR AGREEMENT NO. LA-RICS 008 FOR LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM PUBLIC SAFETY BROADBAND NETWORK**

Contracts Manager Jeanette Arismendez presented to the Board Agenda Item H and requested that the Board take the following actions:



1. Approve Amendment No. 25 to Agreement No. LA-RICS 008 for the PSBN with Motorola, in substantially similar form to the Enclosure, which revises the Agreement to reflect the following:
  - a. Revise Exhibit A (Statement of Work) and Exhibit B (PSBN Specifications) to reflect a reduction in the scope of certain Work related to Network Management System and Inventory Management System and a corresponding reduction in the cost in the amount of \$316,767.
  - b. Reflect a reduction in the scope of certain Work related to Documentation and a corresponding reduction in the cost in the amount of \$68,515.
  - c. Reflect a reduction in the scope of certain Work related to Additive Alternate No. 2 (Redundant Evolved Packet Core [EPC]) and a corresponding reduction in the cost in the amount of \$1,061,704.
  - d. Reflect the removal of the scope of all Work related to Additive Alternate No. 3 (Location Services) and a corresponding reduction in the cost in the amount of \$2,592,246.
  - e. Reflect a reduction in the scope of certain Work related to Cell on Wheels (COWs) and a corresponding reduction in the cost in the amount of \$129,977.
  - f. Reflect a reduction in the scope of certain Work related to Site Construction Changes and a corresponding reduction in the cost in the amount of \$14,046.
  - g. Decrease the Maximum Contract Sum by \$4,183,255 from \$137,331,906 to \$133,148,651 when taking the cost decreases into consideration.
2. Delegate authority to the Executive Director to execute Amendment No. 25, in substantially similar form to the enclosed Amendment, and issue one or more Notices to Proceed (NTP) for this Work.

Board Member Alexander stated he appreciates the Amendment decreasing in dollar amount.

Board Member Alexander motioned first, seconded by Board Member Fronterotta.

Ayes 6: Ortiz, Fronterotta, Curley, Geiger, Bundesen and Fruhwirth.



**MOTION APPROVED**

**I. APPROVE A NO-COST AGREEMENT APPROVAL FOR MUTUALINK, INC.**

Contracts Manager Arismendez presented to the Board Agenda Item I and requested that the Board take the following actions:

1. Delegate authority to the Executive Director to execute a No-Cost Agreement between the Authority and Mutualink, in substantially similar form to the Enclosure, to allow the Authority to accept the loan of certain equipment, goods, and/or services, on a gratis basis, for the purposes of testing and evaluating compatibility and functionality of the Loaned Resources on the PSBN and the LMR Early Deployment System until January 31, 2018.
2. Delegate authority to the Executive Director, or his designee, to approve and execute amendments to the No-Cost Agreement, provided that they are approved as to form by counsel to the Authority.

Board Member Alexander asked if equipment is damaged while in our possession and are we responsible for repair and replacement, if so, how will that be refunded. Administrative Deputy Orellana-Curtiss stated funds will be paid from LTE Operations. Counsel Truc Moore stated that it may also be covered by insurance. Alternate Board Member Geiger asked that the item be amended under item number 2 to remove "or his designee". Alternate Board Member Geiger stated he feels uncomfortable to give the Executive Director's designee the authority to approve.

Alternate Board Member Geiger motioned first, seconded by Board Member Fronterotta.

Ayes 6: Ortiz, Fronterotta, Curley, Geiger, Bundesen and Fruhwirth.

**MOTION APPROVED**

**III. MISCELLANEOUS – NONE**

**IV. ITEMS FOR FUTURE DISCUSSION AND/OR ACTION BY THE BOARD**

There was none.

Board Member Fronterotta asked if there was a COW at the last Charger football game. Project Manager Odenthal stated Carson is looking into if a COW is necessary but they have not reached a conclusion yet. Board Member Fronterotta acknowledged and thanked Ted Pao and Project Manager Odenthal for their assistance with the buildout for the stadium as it relates to the communication component.



**V. CLOSED SESSION REPORT**

The Board did not enter into Closed Session.

**VI. ADJOURNMENT and NEXT MEETING:**

Thursday, November 2, 2017, at 9:00 a.m., at the Los Angeles Sheriff's Department, Scientific Services Bureau, located at 1800 Paseo Rancho Castilla, Los Angeles, CA 90032.

## Executive Summary

November 2, 2017

### LTE Update

Below are the remaining activities associated with PSBN

- SCE COW completion – Backhaul connectivity issue being resolved by LA County ISD for SCE COWs.
- Multiple technical and network inclusion meetings occurring with AT&T and FirstNet. Talks also began with Verizon.
- We are still working with the State on the Governor's decision. The next CalFRN meeting is next week.
- Our LTE network is built to "public safety grade" based on requirements gathered by the FirstNet Public Safety Advisory Committee (PSAC) and with significant input from the National Public Safety Telecommunications Council (NPSTC).
- The LA-RICS team is continuing to communicate that it will not accept nothing less than the public safety grade data network we have today, and that the LA-RICS should be absorbed as part of any network, and will work with the State, FirstNet and AT&T to that end. We asked FirstNet/AT&T to identify current and future sites built to public safety grade. AT&T provided information on the number of sites in LA County that have generators.
- We asked the Governor to issue a RFP as soon as possible so we have something to compare to the AT&T plan, and we requested he make no opt in decision without ensuring assumption of our entire LTE network and our recommendation.
- Additionally, since we are the largest 24/7 Band 14 network and a great test bed for FirstNet and AT&T when it comes to roaming between the networks, interoperability, credentialing, provisioning, and so much more; we continue to offer our knowledge and expertise to the State, FirstNet and AT&T during this plan review and discussions.

### LMR Update

- Zoning Drawing – 18 Sites, 11 of which are approved to proceed to 50%
- 50% Construction Drawings – 19 Sites, 13 in development for 75%
- 75% Construction Drawings – 1 Site and is approved to proceed to 100%
- 100% Construction Drawings (Reviewing for Building Permit Submittal) – 10 sites, 8 of which have been submitted for Building Permit review
- Building Permit Received – 12 Sites
- Active Sites (Construction and/or Equipment Installs) & Locations
  - APC – Junction of I-105 and I-405
  - BMT – Angeles, overlooking CA-138 and I-5
  - CCB – Compton
  - CCT – Downtown
  - FCCF – 1320 Eastern Ave
  - HPK – Northern Angeles, overlooking Palmdale
  - LDWP243 – Junction of I-5 and CA-14
  - LASDTEM – Temple City
  - PHN – Puente Hills
  - MMC – Palmdale *early construction*
  - MVS – Whittier *early construction*
  - PLM – Palmdale *early construction*
  - TPK – Gormon *early construction*
- Sites Complete through Phase 2 (constructions and modification complete) = 10

<b>LA-RICS GRANT STATUS</b>					
<b>Grant</b>	<b>Award</b>	<b>Costs Incurred/NTP Issued</b>	<b>Invoiced / Paid</b>	<b>Remaining Balance</b>	<b>Performance Period</b>
UASI 12	\$18,263,579	\$18,263,579	\$18,263,579	\$-	3/31/17
UASI 13	\$13,744,067	\$13,057,621	\$-	\$686,446	3/31/18
UASI 14	\$4,997,544	\$4,997,544	\$4,997,544	\$-	7/31/17
UASI 16	\$5,240,456	\$3,691,186	\$-	\$1,549,270	5/31/19
UASI 17	\$34,763,780	\$-	\$-	\$-	Not yet awarded
UASI 18	\$35,000,000	\$-	\$-	\$-	Not yet awarded
UASI 19	\$35,000,000	\$-	\$-	\$-	Not yet awarded
BTOP	\$120,117,137	\$-	\$112,637,292	\$7,479,845	9/30/20

<b>STATUS OF PSBN AGENCY ONBOARDING</b>		
<b>Agency</b>	<b>Onboarding Status</b>	<b>Number of Units Installed/Demo Kit/SIM cards Received</b>
LASD	Installations in progress.	694
LACoFD	Installations in progress.	351
Inglewood PD	Private Access Point Name (APN) configuration in complete.	8
Claremont PD	Private Access Point Name (APN) configuration complete.	2
Bell PD	Private Access Point Name (APN) configuration in complete.	2
Covina PD	2 VML routers configured, provisioned, delivered and are pending installation.	2
UCLA Health	Private Access Point Name (APN) configuration complete.	1
Health Services / EMS	Portable hotspot kits are tested, final packaging needed for delivery underway.	2
El Segundo Fire & PD	ELFD installing two routers.	2
Signal Hill PD	Additional routers requested from AT&T. AT&T has indicated that they will provide additional routers with AT&T priority service.	0
La Verne PD & FD	Planning for the delivery of 2 VML routers at the end of November.	
Azusa PD	No longer interested in Demo Kit.	0
Irwindale	Irwindale PD investigating their preparedness to install two routers.	0
Sierra Madre PD & FD	Demo Kits picked up and results reviewed. Follow up in November to determine if they want to install LA-RICS routers.	2

## **AGENDA ITEM B**

# Los Angeles Regional Interoperable Communications System

## PROJECT DESCRIPTION

Events of September 11, 2001 highlighted the need for first responders to be able to communicate with each other. Emergency communications primarily address local jurisdictional needs and most agencies utilize separate radio towers, equipment, and radio frequencies. LA-RICS is designed to address each of these concerns.

Currently, there is duplication of costs and first responders cannot communicate with each other. Many legacy systems around the County are obsolete and well beyond their useful life. The LA-RICS Project vision is to provide innovative solutions for the public safety community by removing barriers to interoperable voice and data communications and allow individuals and agencies to focus on accomplishing their mission with the tools necessary to provide excellent service to their communities. To accomplish this vision, the program will establish a County-wide public safety wireless voice and data radio system for all first and secondary responders. Existing radio frequencies will be pooled and the current infrastructure utilized wherever practical. New FCC licensed broadband spectrum will be utilized.

Design, construction, and deployment of two County-wide systems (1) Land Mobile Radio (LMR) voice network utilizes 61 sites in its System Design and (2) Long Term Evolution (LTE) broadband data network is deployed at 76 sites. Both systems comply with CEQA and NEPA standards.

Project and Construction Management Services will provide network, infrastructure, project, and advisory services across four of the five program phases (Phase 5 – Maintenance is excluded) for each of the LMR and LTE projects:

- Phase 1 - System design
- Phase 2 - Site construction and modification
- Phase 3 - Supply telecommunication system components
- Phase 4 - Telecommunications system implementation
- Phase 5 - Telecommunications system maintenance

## *Location:*

2525 Corporate Place, Suite 100  
Monterey Park, CA 91754

## *Authority:*

Los Angeles Regional Interoperable  
Communications System

## *Management:*

LA-RICS Project Team

## *Consultant:*

Jacobs Program Management Company

## *Communications Vendor:*

LMR - Motorola Solutions, Inc.  
LTE - Motorola Solutions, Inc.



**Monthly Report No. 67**

**For October, 2017**

**Submitted October 26, 2017**

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# LTE-1 UPDATES

## Site/Civil/Closeout

- The remaining nine (9) SCE COW's are now construction complete. The final power delivery at Studebaker sub-station (SCESTUD) was connected in early October which concludes the utility power connections for all the SCE COW's. The SCE engineers have completed the fiber ring testing for 7 of the 9 COW's adding the other two (2) COW locations SCESTUD and SCENIDO in the coming weeks. MSI has initiated router configuration and end to end testing for the initial seven (7) sites, final commissioning and integration of all nine (9) sites is scheduled for completion by early November. The Authority is currently working on a fiber routing issue within the County's fiber ring that is holding up the connectivity of the COWs.
- The Office of The Statewide Health and Planning Department (OSHPD) issued the permit to MSI and their contractor earlier this year. The Authority has received the method of procedure (MOP) which is currently under review and comment from the LARICS construction manager. The scope of work (SOW) or redesign of the two (2) sectors of antennas including coax and cable trays is to provide a more efficient use of the roof top at the hospital. Construction for this re-design is expected to start in mid-October.

## PSBN OnBoarding

- Active engagement is ongoing with an emphasis on connecting agencies applications through a private Access Point Name (APN) replacing the use of the generic LA-RICS APN. Initial configurations were completed for Claremont and UCLA Health, while Inglewood and Bell Police Departments remain in progress. Other activities for interested agencies continue emphasizing on demonstrations providing test demo kits and technical coordination meetings with the participation of the Los Angeles County Sheriff's Department (LASD) and the County of Los Angeles Fire Department (LACoFD).

## Operations/Governance

The LA-RICs Operations team is holding meetings three (3) times a week to focus on the following:

1. Manage and Govern MSI
2. Ensure PSBN operational performance
3. Ensure internal LA-RICS operational aspects are in place
4. Develop and Implement Policies
5. Govern Change Management

The weekly Operations meetings are scheduled as follows:

- **Tuesdays - Network Fault and Performance:** (Joint LA-RICs and MSI meeting) The session provides updates and resolutions for Network deficiencies, trouble tickets including system alarms occurring throughout the Radio Access Network (RAN) as well as the Core. This one (1) hour meeting focuses on reviewing and examining all incidents identified during the past week that affect and determine Service Level Agreements (SLAs) and KPIs. Areas of operational performance governance include trouble identification, sectionalization, resolution including processes and activities MSI could improve to effectively manage the network.
- **Wednesday - Internal Operations Meeting:** This internal meeting encompasses a pool of objectives formulated to address internal functional and resource structures, assignments, process and procedures as well as strategies to govern MSI and work through their deficiencies. Included are progress reports on daily functions, change management as well as updates on assigned action items.
- **Thursday - Process Improvements, Policy and Governance:** The team (Joint LA-RICS and MSI meeting) meets once a week to discuss Governance and resources focused on improving MSI processes specifically targeted towards alarms, trouble ticketing including Radio Access Network (RAN) and Core upgrades and functionality.

## Special Events

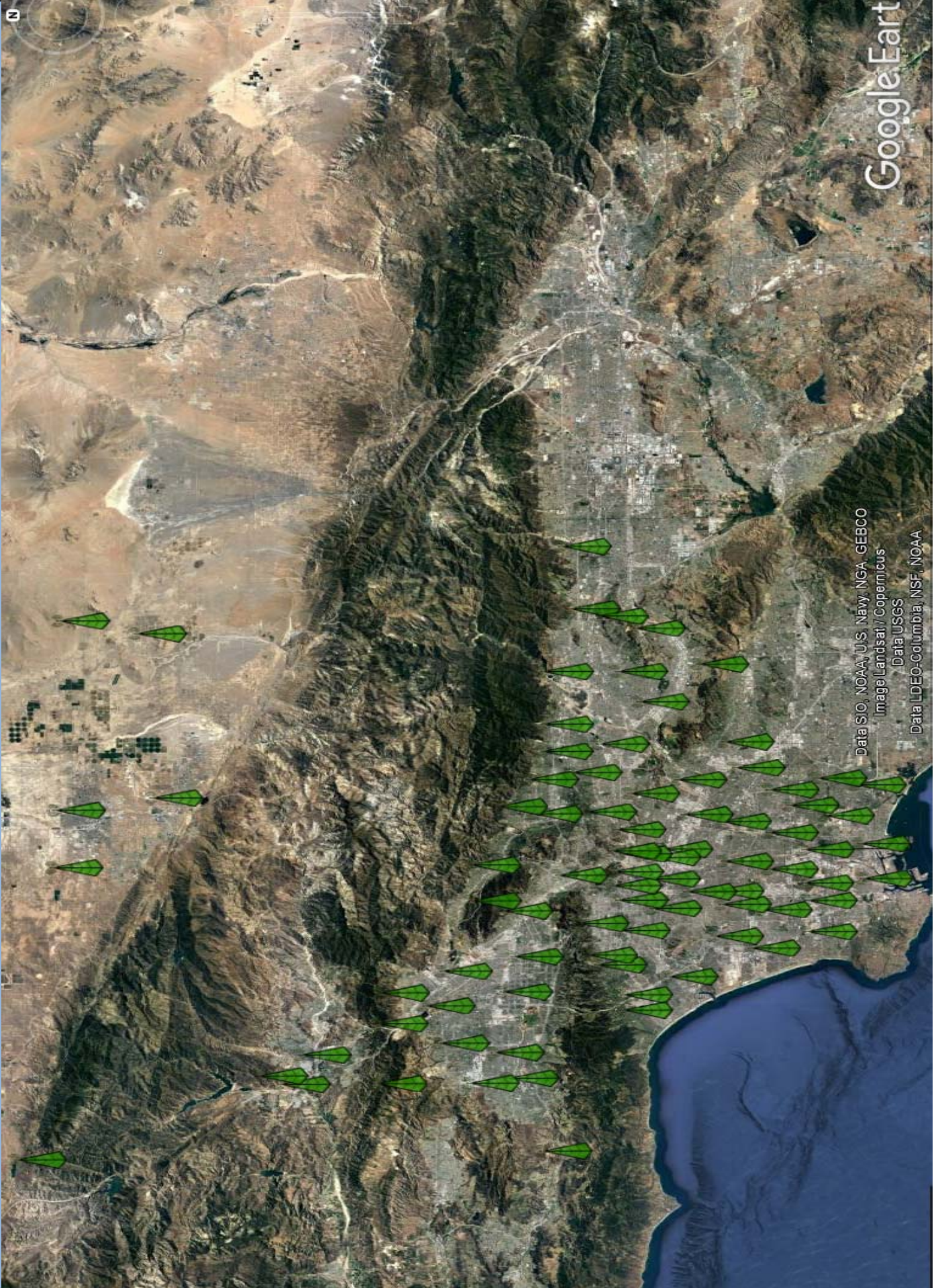
The current events the team is focused on includes Halloween Carnival located in West Hollywood and the New Year's day parade located in Pasadena (Rose Parade). A host of activities play an important role allowing the techs and engineers to monitor and better target areas within the system for quality assurance providing first responders the highest quality service through the LTE PSBN. As we get closer to the Halloween Carnival pre-testing at a smaller venue will take place to validate the current test plan for the larger event in West Hollywood.

Current preparations and activities:

- Testing
  - ◊ ATT – Priority
  - ◊ 75 phones
  - ◊ 25 Routers
  - ◊ ATT Sims (LASD connections only)
  - ◊ Verizon Sims and Mobile cards
- Devices
  - ◊ Antennas for testing
  - ◊ Camera/video placement
  - ◊ Testing scenarios
    - ◆ Video comparison
    - ◆ UL & DL



**LTE-1 SITES**



**AGENDA ITEM C**

# LMR UPDATES

## Environmental Update

- Attended teleconference with FEMA and CalOES on October 3.
- Attended a teleconference with the USFS on September 27, and a teleconference with the Angeles National Forest visual resources person on October 18.
- Continued to review Pyramid's and FCS's pre-construction forms and weekly and daily compliance reports
- Continued visits to LMR sites.
- Drafting regulatory letters for polygon changes at Site SGH for submittal to FEMA.

## Permitting Support

- Jacobs continues to review MSI's work and meet weekly with MSI to support MSI's developing and adhering to a P6 schedule for individual coastal development permit (CDP) submittal packages for sites included in the Santa Catalina Island, Santa Monica Mountains, both administered by the County of Los Angeles Department of Regional Planning (DRP); and City of Malibu Local Coastal Plans (LCPs), administered by the City of Malibu. This effort includes review of MSI-submitted zoning and construction parameters (e.g., proposed tower heights and other site design features) to verify these are consistent with Authority requirements and compliant with each applicable LCP, and directing MSI to modify design drawings as appropriate to meet program needs. The request for a pre-application meeting with DRP has been made for Site WWY.
- Jacobs continues to drive the submittal of the Proposal and SF 299 application (SUP) packages for proposed construction and operations of LMR sites on the ANF. Jacobs continues to meet weekly with MSI to drive MSI in completing an LMR system design compliant with the ANF's Land Management Plan that meets system needs, and is working with MSI in developing a P6 schedule associated with successful Proposal and SUP submissions. Jacobs and Authority staff continue to meet with key ANF staff on a twice-monthly basis.
- Jacobs continues to work with MSI to process and receive building permits from the applicable jurisdictions. Both team's focus has been on ensuring permits are received for the UASI 13 sites with an eye on securing additional permits to ensure continuous work.

## Budget

- Jacobs and MSI are currently working through contractual True-up for all remaining sites Phases 2-4.

## Site/Civil

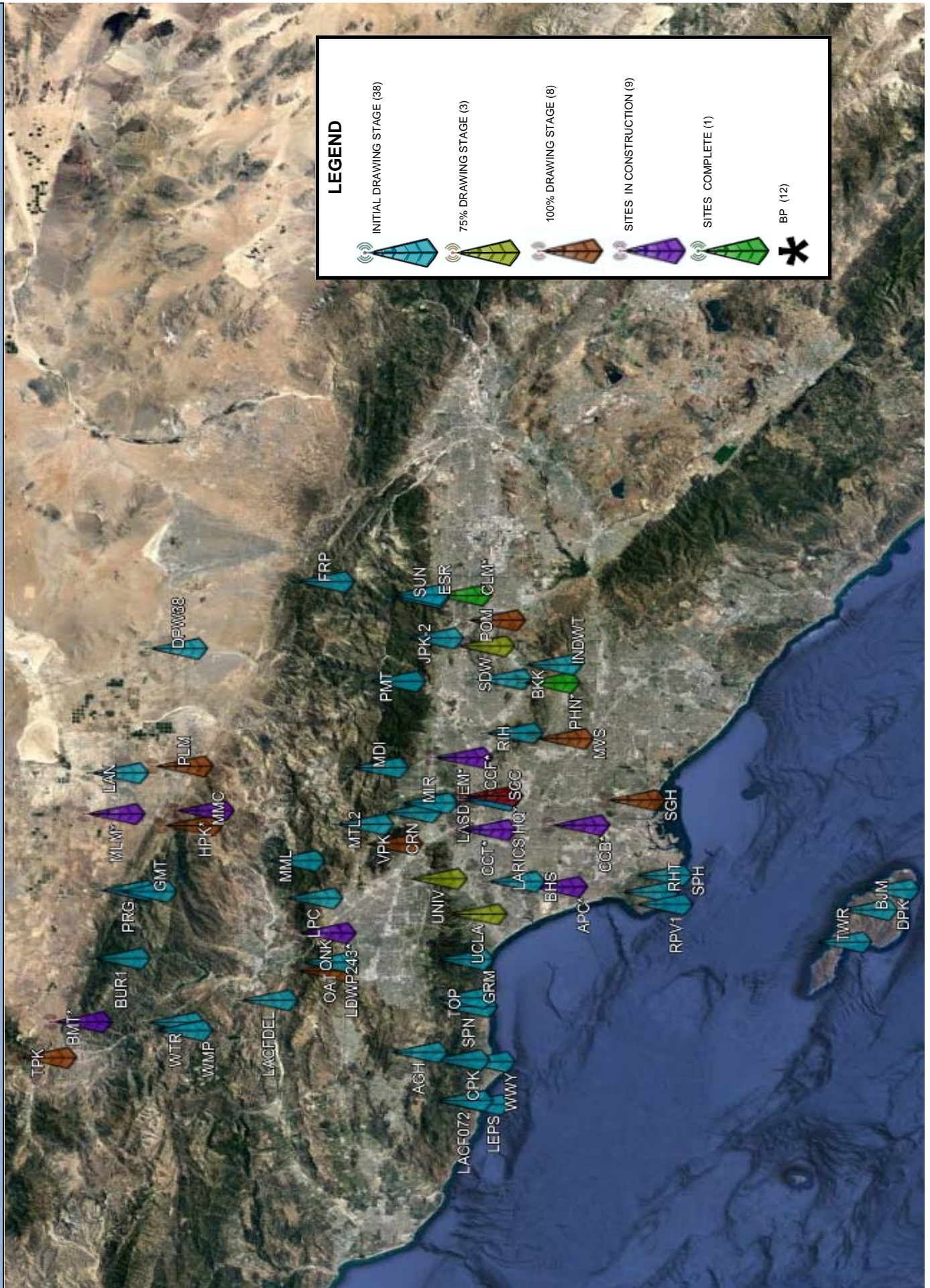
Construction efforts have been completed on a handful of LMR sites including stacking of towers, concrete foundations for both shelters and generators, building of rooms in Courthouse penthouses, and the installation of lines and antennas on numerous sites. Other permit reviews recently completed by the local jurisdiction or the State have yielded additional permits allowing those sites to begin Phase 2 (Construction) as well keeping site progress on schedule. As indicated below, a group of site construction drawings are being reviewed and approved on a weekly basis providing the required pool of sites for future submittals and permits.

The LMR Radio Frequency (RF) System Design is on-going and at times very dynamic with updates and changes supporting the network microwave design. The base RF Voice layers are complete from a design perspective although there may be tweaks to individual sites based on tower heights. MSI initial review of the Backhaul design including all field path studies have been completed except for San Pedro Hill (SPH). All gathered data is currently under review by MSI engineers. MSI and the Authority met to review findings and any lingering issues. Several sites are still under consideration for exact location due to backhaul availability.

MSI efforts to complete drawings and submit sites into the jurisdiction for building permits are on-going. Twenty (20) building permit applications (PHN, BMT, HPK, LDWP243, LASDTEM, FCCF, APC, CCB, CCT, PLM, MLM, MVS, ONK, LARICSHQ, CLM, MMC, TPK, SDW, VPK, and POM) have been submitted and approvals have been received for thirteen (13) of the nineteen sites. Below is an update of the remaining LMR sites and the status or phase of which the drawings are in. As of 10/23/2017 thirteen LMR Building Permit Applications have been approved and construction is underway on ten sites.

- 51 each 50% CD's have been received for review and approval by the authority as of 10/23/2017.
- 23 each 75% CD's have been received for review and approval by the authority as of 10/23/2017.
- 19 each 100% CD's have been received for review and approval by the authority as of 10/23/2017 of which 19 of them have been submitted to respective jurisdictional agencies for review and Building Permit issuance.
- The proposed LMR Rio Hondo (RIH) site at Puente Hills Landfill has been relocated outside the LA County lease area and LA-RICS will be negotiating a Site Access Agreement (SAA) directly with LA County Sanitation District 18. With the addition of RIH, Jacobs is now tasked with obtaining SAA's for 18 LMR sites. SAA's for the remainder sites are being processed by LA County CEO-RED.
- As of 10/23/2017 twenty five (25) executed SAA's are in place.

# LMR SITES





# LMR Summary Schedule by Phase

Data Date 14-Oct-17

Summary

Activity ID	Activity Name	Original Duration	Remaining Duration	Duration % Complete	Start	Finish	Schedule Gantt Chart											
							2016	2017	2018	2019	2020	2021	2022					
<b>Total</b>		1963	1270	35.3%	09-Nov-15 A	01-Sep-22	[Gantt bar from Nov 2015 to Sep 2022]											
LMR Phase 1		1142	449	60.68%	09-Nov-15 A	10-Jul-19	[Gantt bar from Nov 2015 to Jul 2019]											
LMR Phase 2		838	575	31.38%	29-Sep-16 A	02-Jan-20	[Gantt bar from Sep 2016 to Jan 2020]											
LMR Phase 3		787	524	33.42%	29-Sep-16 A	23-Oct-19	[Gantt bar from Sep 2016 to Oct 2019]											
LMR Phase 4a (Site)		867	604	30.33%	29-Sep-16 A	12-Feb-20	[Gantt bar from Sep 2016 to Feb 2020]											
LMR Phase 4b ( SI )		1549	1270	18.01%	07-Sep-16 A	01-Sep-22	[Gantt bar from Sep 2016 to Sep 2022]											



## **Monthly Report #50**

**Reporting Period: 9/21/17 thru 10/18/17**

**Los Angeles Regional Interoperable Communications  
System (LA-RICS) - Land Mobile Radio System**

**Motorola Solutions, Inc.**



***MOTOROLA SOLUTIONS***

**AGENDA ITEM C**

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## 1. Executive Summary

The Los Angeles Regional Interoperable Communications System Land Mobile Radio (LA-RICS LMR) program consists of the following five (5) phases; Phase 1 LMR System Design, Phase 2 LMR Site Construction and Site Modification, Phase 3 Supply LMR System Components, Phase 4 LMR System Implementation, and Phase 5 LMR System Maintenance. Phases 1-4 span over a five (5) year period which includes one (1) year of system warranty. Phase 5 provides the Authority with fifteen (15) one year options for Motorola Solutions Inc. (MSI) to provide system monitoring and maintenance services.

The LA-RICS LMR program is currently in Phase 1 LMR System Design. Notices-To-Proceed numbers 1 through 16 have been issued authorizing distinct work for system Design services, the design and implementation of the initial deployment of the LMR system elements termed “Early Equipment”, “Specified Equipment and System on Wheels”, and “Station B Equipment”, “Frequency Licensing”, “UPS System”, and “Portable Radios, Consolettes and Consoles”, “Portable Radio Equipment”, alternate sites “Project Descriptions”, “Frequency Licensing for the Base System”, “Bridge Warrant for Early”, “Retuning of SOW & Station B UHF Frequencies”, “Project descriptions for Nine Potential Replacement Sites” and “LMR System Redesign and Relocation of Core 2”.

On April 25 the Authority executed **Amendment 17** to make necessary changes to Phase 1 for additional project descriptions, to make changes to reflect the Work in the applicable Phases for the change in the number of sites in the LMR system, to exercise the Unilateral Options for all Work pertaining to Phases 2-4.

On April 27, 2016 the Authority issued **NTP17** authorizing specific Work related Phases 2, 3, and 4 for ten (10) LMR sites.

On May 4, 2016 the Authority executed **Amendment 18** to make necessary changes to Phase 1 for additional project descriptions and to make adjustments to Phase 1 services to accommodate additional sites.

On May 5, 2016 the Authority Board of Directors approved **Amendment 19** to remove one (1) site from the system and to reconcile equipment quantities for certain LMR sites. **Amendment 19** was executed with an effective date of May 5, 2016.

On June 2, 2016 the Authority issued **NTP18** authorizing Work to develop Project Descriptions for two LMR sites.

On September 8, 2016 the Authority Board of Directors approved **Amendment 20** to reconcile nine (9) LMR Sites to reflect the updated LMR System Design, inclusion of 3D modeling drawings, and remove certain Site Lease Exhibits from the contract.

On October 6, 2016 the Authority Board of Directors approved **Amendment 21** to reconcile ten (10) LMR sites to reflect the updated LMR System Design, replace one (1) LMR site with a new site, remove five (5) Project Descriptions from the contract, and make administrative cost changes to one (1) LMR site.

On October 11, 2016 the Authority issued **NTP 19** authorizing specified Work related to Phases 2-4 for nine (9) LMR sites.

On November 3, 2016 the Authority Board of Directors approved **Amendment 22** to reconcile three (3) LMR sites to reflect the updated LMR System Design and to make administrative changes to Exhibit F (Administration of Agreement). On December 12, 2016 the Authority issued **NTP 20** authorizing specified Work related to Phases 2-4 for two (2) replacement LMR sites along with Special Operations Testing for DTVRS, ACVRS, LARTCS, and NMDN.

On December 12, 2016 the Authority Board of Directors approved **Amendment 23** to authorize specified Work related to Phases 2-4 for ten (10) LMR sites.

On December 2, 2016 the Authority issued **NTP 20** authorizing Phase 2-4 work at two (2) sites; and specified pre-installation acceptance testing for DTVRS, ACVRS, LARTCS, NMDN, and final core staging and SOT Prep.

On December 19, 2016 the Authority issued **NTP 21** authorizing specified Work related to Phases 2-4 for Six (6) LMR sites; all remaining work in Phase 2-4 at one (1) site; and all work related to ACVRS equipment in Phase 3 for six (6) sites.

On January 12, 2017 the Authority Board of Directors approved **Amendment 24** reconciling the following five (5) LMR System Sites (CLM, LACFDEL, LARICSHQ, WMP, WTR) to align with the updated System Design.

On March 2, 2017 the Authority Board of Directors approved **Amendment 25** reconciling the following six (6) LMR System Sites (AGH, VPK, BMT, CRN, MVS, and ONK) to align with the updated System Design. This Amendment also acknowledges three (3) sites (BHS, DPW38, and RPV1) into the scope of Phases 2, 3, and 4 to align with the updated LMR System Design.

On March 31, 2017 the Authority issued a Supplemental **NTP 21** authorizing specified Work related to Phases 2-4 for Seven (7) LMR sites (AGH, CRN, MVS, ONK, TPK, VPK, and LDWP243).

On April 6, 2017 Authority Board of Directors approved **Amendment 26** reconciling the following seven (7) LMR System Sites (BUR1, JPK2, LPC, MDI, MML, MTL2, and PRG) to align with the updated System Design. This Amendment also acknowledges one (1) site (LAN) into the scope of Phases 2, 3, and 4 to align with the updated LMR System Design.

On June 1, 2017 Authority Board of Directors approved **Amendment 27** reconciling the following two (2) LMR System Sites (FRP and PLM) to align with the updated System Design. This Amendment also includes two (2) sites (BKK and UCLA) into the scope of Phases 2, 3, and 4 to align with the updated LMR System Design.

On June 29, 2017 the Authority issued **NTP 22** authorizing specified Work related to work for Task A.1.9.1 (Mitigation Monitoring and Reporting Plan (MMRP)).

On August 3, 2017 Authority Board of Directors approved **Amendment 28** reconciling one (1) LMR System Site (BMT) to align with the updated System Design.



On September 7, 2017 Authority Board of Directors approved **Amendment 29** reconciling one (1) LMR System Site (POM) to align with the updated System Design and to make changes necessary to reflect LMR Change Order Modifications.

On September 14, 2017 the Authority issued **NTP 23** authorizing specified Work related to Phases 2-4 for Five (5) LMR sites.

**This report covers the period from 8/24/17 thru 9/20/17**

During this reporting period associated Phase 1 tasks were performed to include A&E activities, site and network design, frequency planning, site scope reviews, Site Access Agreement drawings, backhaul/microwave path surveys, and Environmental Reviews. A&E activities included site walks, site sketch development, site surveys, and development of the Zoning Drawings, geotechnical plans, and Construction Drawings.

The primary Phase 1 activities for this period include:

**LMR System Design**

System design activities for this period included frequency identification and planning, backhaul network design, narrowband mobile data network design, fleet mapping, Spectrum Fingerprinting and Noise Floor Monitoring process review, and incorporation of system design parameters into the construction drawing process. MSI is utilizing the Design of Record dated 9/6/16 to support the site True-Up process as well as information as it is refined and determined weekly. MSI and the Authority continue to refine the backhaul design and have identified areas of concern and their corresponding solutions.

**Site Design Activities**






Site design activities for this period included continued site evaluation walks, site sketch development and submittals, site survey walks, project description development and submittals for additional sites, Site Access Agreement exhibits, Zoning Drawing development and submittal, and Construction Drawing development and submittal for Authority review. Additional activities included power load studies, evaluation of as-built drawings and tower mapping, tower structural analysis for the applicable sites, submittal of applicable geotechnical drilling plans, and review of electrical one-line drawing designs.

**LA-RICS Deliverables - Authority Site Access Agreements**

Authority's efforts to develop and execute the applicable Right of Entry and Site Access Agreements for the required sites in the LMR design are ongoing. This activity is primarily being driven by the Authority's Site Access Team in conjunction with LA County CEO Real Estate Division. As of this reporting period 25 (out of 60) Site Access Agreements have been executed.

The Authority continues to work with FEMA to obtain independent site environmental approvals which are required prior to the start of construction at a site.

The following table provides a dashboard snapshot of the projects' health signs.

LMR Project Dashboard			
Category	Rating	Change	Comments
Schedule			Revisions to the baseline schedule for all phases (1-4) are reviewed weekly. A&E drawing progress is still slow but is being followed and tracked on a weekly basis. MSI and the Authority continue to see slips in individual site schedules that impact its overall Program schedule due to delays in A&E drawings, Building Permit Submissions, and construction. These delays continue to negatively impact the schedule.
Quality			The construction drawing, review, and approval process continues to be challenging. Corrective actions continue to be put into place. The Authority and MSI will continue to work together to identify additional means to shorten this process. MSI will continue with improvements to its quality control processes and cycle times. Both parties have agreed to a process to streamline the cycle times which address the quality and comment incorporation issues experienced to date while simultaneously limiting the number of revisions necessary prior to approval.
Risk			Risk items have been identified regarding: Spectrum, Site Access Agreements, and Site Conditions. FEMA independent site environmental approvals required. Additional risk items include Phase 2 procurement, A&E drawings (length of time to create and edit), and management of the Building Permit release process.
Scope			Scope is well defined, although there may be increased scope associated with the design enhancement recommendations and in construction once geotechnical investigations are complete. Change Order processes are in place and being discussed and reviewed weekly with MSI, Jacobs, and the Authority.
Budget			Current budget reflects contract pricing and include the sites that have gone through the true-up review. Revised budgets for each site will be determined at the completion of each true-up.

## 2. Project Status

The following sections identify task activities during the reporting period and the planned activities for the next reporting period.

## 2.1 Tasks In Progress or Completed

The following depict the task activity that occurred during the current reporting period.

Activity Name	Activity Status
<b>LA-RICS Deliverables</b>	
Lease Negotiations & Site Access Use Agreements	In Process
FEMA Environmental Site Approvals & Construction Waivers	In Process
Notice To Proceed for applicable sites	In Process
<b>LMR System Design</b>	
Design baseline site parameters & Design development	In Process
Contract True-up of site designs and equipment for each site	In Process
<b>Site Design, Zoning and Permitting</b>	
Site Walks and Site Sketch Development & Approvals (PLM, VPK, SDW,SGH)	In Process
Site Surveys	In Process
Develop Zoning Drawings & Approvals	In Process
Geotechnical Boring (applicable sites)	In Process
Develop Construction Drawings & Approvals	In Process
Submit Permits Drawings and Approvals	In Process
<b>Pre- Construction</b>	
Pre- Construction Plans in review (MMC, TPK, SDW, VPK,PLM,MVS,ONK, POM)	In Process
<b>Construction</b>	
Construction (PHN/BMT/HPK/FCCF/LDWP243/LASDTEM/APC/CCB/CCT/MLM)	In Process

## 2.2 Tasks Planned for Next Period

The following depict the task activity that is planned for the next reporting period.

Activity Name	Planned Status
<b>LA-RICS Deliverables</b>	
Lease Negotiations & Site Access Use Agreement	On Going
Access to Core Sites	On Going
FEMA Environmental Site Approvals & Construction Waivers	In Process
Review and Approve Zoning and Construction Drawings	In Process
Notice To Proceed for applicable sites	In Process
<b>Environmental Review &amp; Documentation (Authority)</b>	
Additional Sites for Consideration Environmental Reviews	In Process
<b>LMR System Design</b>	
Baseline site parameters & design development	In Process
Contract True-up of site designs and equipment for each site	In Process
<b>Site Design</b>	
Site Walks and Site Sketch Development & Approvals	In Process
Site Surveys	In Process

Activity Name	Planned Status
Develop Zoning Drawings & Approvals	In Process
Submittal of Zoning Drawings	In Process
Geotechnical Boring – USFS Sites	In Process
Develop Construction Drawings and Approvals	In Process
Submit Permits Drawings and Approvals	In Process
<b>Pre-Construction</b>	
Pre- Construction Packages & Site Monitoring (where applicable)	In Process

Activity Name	Activity Status
<b>Site Construction</b>	
Outreach to Neighborhoods for Applicable Sites	On Going
Pre- Construction Packages Review & Approval	On Going
Site Construction & Site Monitoring (where applicable)	On Going
Site Construction Inspection Approvals	On Going
Site Construction – (ONK,SDW,VPK,TPK, MVS,POM,PLM,MMC)	On Going

### 2.3 Authority Look-Ahead Tasks (120-Day)

For the Authority planning purposes the following table provides a one hundred twenty (120) Day look-ahead of the Authority-specific activities to conduct coordination, inspections, approvals, consents, and or provide decisions necessary from the Authority to facilitate Contractor's progress.

Activity Name	Activity Status
<b>LA-RICS Deliverables</b>	
Lease Negotiations & Site Access Use Agreement	On Going
LA-RICS Provides Access to Core Sites	On Going
FEMA Environmental Site Approvals & Construction Waivers	On Going
Review and Approve Zoning and Construction Drawings	On Going
Notice To Proceed for applicable sites	On Going
<b>Environmental Review &amp; Documentation (Authority)</b>	
Additional Sites for Consideration Environmental Reviews	On Going
<b>LMR System Design</b>	
Review and Approve design baseline site parameters & design sections	On Plan to Finish
Contract True-up of site designs and equipment for each site	On Going
<b>Site Design</b>	
Schedule Access for the Development A&E Activities at Selected Sites	On Going
Review and Approve Site Sketches	On Going
Review and Approve Zoning Drawings	On Going
Review and Approve Geotechnical Boring Plans	On- Going

Activity Name	Activity Status
Review and Approve Construction Drawings	On Going
Review and Approve Building Permit Packages	On Going
<b>Site Construction</b>	
Outreach to Neighborhoods for Applicable Sites	On Going
Pre- Construction Packages Review & Approval	On Going
Site Construction & Site Monitoring (where applicable)	On Going
Site Construction Inspection Approvals	On Going
Site Construction - (ONK,SDW,VPK,TPK, MVS,POM,PLM,MMC)	Started

### 3. Project Risk Register

Title	Assigned	Impact	Risk Description	Status
Site Parameters	Authority	High	Site parameters (e.g. tower heights, RF equipment configurations) are different from the baseline agreement and may impact System performance.	Active
Delayed Drawings and Permit Release	Motorola	High	Delay in permit submission and release has impacted the construction schedule and ability to meet grant spending guidelines. Site changes and System redesign elements are impacting drawing progress for certain sites. The Authority and MSI continue to struggle to incorporate Authority comments, creating a quality control issue which requires additional rounds of review. This has inhibited the submission of drawings for permit.	Active
Site Access Agreements	Authority	High	Lease holders approvals are needed in order to implement LA-RICS improvements.	Active
Project Schedule	Motorola	High	Overall project schedule and individual site permit submissions/work starts impacted by implementation of LMR System redesign enhancements, slow A&E construction development progress, and individual site true-ups.	Active

### 4. Areas of Concern

This section describes any events and or circumstances of which the Contractor is aware that has delayed or may delay project activities and what corrective or remedial actions was taken or will be

taken to resolve the issue. Outstanding Issues Log (the “OIL Log”) entries are also tabulated and monitored in this section. “Oil Log” items include, for example, sequencing, infrastructure, site access, coordination issues, congestion of workers and equipment, time requirements for design, procurement, and installation.

ID	Event / Circumstance	Remedial Action Taken or Required
02-02	System Design impacts due to changes in site conditions	Motorola and the Authority have analyzed probable site changes and suitable site replacement candidates. Adjusted tower heights and undetermined site parameters at several of the sites will impact the coverage. System design efforts will determine system impacts. Impact includes, microwave backhaul, equipment reconfigurations, channel plan changes, system coverage, licensing, and site design and permitting.

## 5. Disputes and Claims

This section describes any disputes, potential claims, and claims made during the reporting period.

Dispute / Claim / Potential Claim	Status / Actions	Resolution Date
None at this time		

## 6. Financial Status

The following represents the invoice payments that were completed during the reporting period and the remaining amount to be invoiced and paid.

Invoice Payment Category	Invoice Payment Totals (\$)
Contract Sum Full Payable Amount (Amendment 25)	167,711,336
Cumulative Invoice Payments from Last Report	63,160,431
Total Invoice Payments This Period	617,563
Remaining Amount to be Paid	103,933,342

## 7. LA-RICS Master Schedule

Schedule review meetings are held weekly. The project schedule includes the latest list of sites and the Authority’s actual and projected dates for Site Access Agreements, FEMA independent site environmental approvals, FEMA construction waivers, and site Notice to Proceeds. An exported file (XER) of the master project schedule is delivered on a weekly basis.

(See attached LMR Executive Project Summary Snapshots)



## **Monthly Report - #44**

**Reporting Period: 9/21/17 thru 10/18/17**

**Los Angeles Regional Interoperable Communications  
System (LA-RICS) – Public Safety Broadband Network**

**Motorola Solutions, Inc.**



***MOTOROLA SOLUTIONS***



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## 1. Executive Summary

The Los Angeles Regional Interoperable Communications System - Public Safety Broadband Network (LA-RICS PSBN) project is a 700 MHz Long Term Evolution (LTE) public safety mobile broadband network that will provide broadband services across the County of Los Angeles for the Authority's Member Agencies.

The LA-RICS Authority was awarded a Comprehensive Community Infrastructure (CCI) Broadband Technology Opportunity Program (BTOP) grant by Department of Commerce's National Telecommunications and Information Administration (NTIA) to deploy the LA-RICS PSBN system. The BTOP grant program requires that the LA-RICS PSBN system be compatible with the future Nationwide Public Safety Broadband Network (NPSBN) currently being designed and developed by FirstNet, an independent authority within the NTIA. Additionally the Authority executed a Spectrum Manager Lease Agreement (SMLA) with FirstNet for spectrum usage rights to operate on the 700 MHz public safety broadband spectrum (D-Block). The LA-RICS-PSBN system provides the Authority with the opportunity to work cooperatively with FirstNet, while participating in testing and providing input in what will ultimately form the National Public Safety Broadband Network (NPSBN).

The LA-RICS PSBN program consists of the following five (5) phases; Phase 1 PSBN System Design, Phase 2 PSBN Site Construction and Site Modification, Phase 3 Supply PSBN Components, Phase 4 PSBN System Implementation, and Phase 5 PSBN Maintenance. Phases 1-4 must have construction activities substantially completed by September 30, 2015 to be in compliance with the BTOP grant funding program. The cost for all Work performed that is not covered by the BTOP grant program will be the sole responsibility of the Authority. Phase 5 provides the Authority with the first five (5) years of one year options for Motorola to provide system monitoring and maintenance services.

On March 10, 2014 the Authority issued **NTP 1** authorizing Motorola to begin all work in Phase 1 for System Design services. Phase 1 primary activities include:

- LA-RICS Deliverables
- Project Management Plans
- System Design
- Site Design
- RF Emissions Report
- Inventory and Management System

On April 7, 2014 the Authority issued **NTP 2** for **Amendment 2** to add detailed design services to Phase 1 for Additive Alternate No. 1, a Home Subscriber Server (HSS), and Additive Alternate No. 2, a Redundant Evolved Packet Core (EPC).

On June 20, 2014 the Authority issued **Amendment 3** to exercise the Unilateral Options for all Work pertaining to Phase 2, Site Construction and Site Modification, and Phase 3, Supply PSBN Components.

On June 20, 2014 the Authority issued **NTP 3** to begin limited work related to Phase 2 and Phase 3. Microwave equipment was excluded from NTP 3 until the Authority approves the backhaul design and issues a separate NTP. NTP 3 also authorized Motorola to proceed with all planning and non-site mobilization work related to Phase 2, Site Construction and Site Modification, however, no construction work at a specific project site location will be conducted until the Authority has received all required NEPA and/or any other applicable Federal and State Environmental approvals for each specific location.

On July 10, 2014 the Board of Directors approved **Amendment 4** for Phase 2, Site Construction and Site Modification, and Phase 3, Supply PSBN Components of Additive Alternate No. 1, a Home Subscriber Server (HSS) and Additive Alternative No. 2, a Redundant Evolved Packet Core (EPC).

On September 8, 2014 the Authority issued **NTP 4** to proceed with work related to Phase 3 Supply PSBN Components for Additive Alternate No. 1, a Home Subscriber Server (HSS). Phases 2 and 4 were excluded from NTP 4 as they relate to Additive Alternative No. 1. Per NTP 4, authorization to design and purchase the HSS have been issued but installation and implementation have been excluded.

On September 17, 2014 the Authority issued **NTP 5** authorizing Motorola to proceed with Work related to Site Construction and Site Modification under Phase 2 for Additive Alternate No. 1, Home Subscriber Server (HSS). With respect to Phase 2, Site Construction and Site Modification, the services to be performed for Additive Alternate No. 1 involve minor site preparation activities in order to receive applicable equipment racks within the existing communications rooms at the Fire Command and Control Facility.

On September 25, 2014 the Authority issued **NTP 6** authorizing Motorola to proceed with ordering 40 additional standard equipment packages. As of NTP 6, Motorola is not authorized to proceed with ordering any equipment that is dependent on final design approval from the Authority, including for microwave and backhaul, until such time as the Authority has approved the final design for such sites and issues an NTP. The final site and backhaul design will be completed within 60 days of the Authority finalizing site locations and tower configurations.

On September 26, 2014 the Authority issued **NTP 7** authorizing Motorola to proceed with Phase 4, PSBN Implementation Work. The work related to the installation of the Primary EPC at FCCF consists of installing, optimizing, testing, commissioning, and deploying all of the Authority-authorized portion of the PSBN including, without limitation, all hardware, software, physical and network infrastructure, data, and all other deliverables and other work necessary to implement the full functionality of the PSBN and training staff on the use of the PSBN. NTP 7 excludes installation of the System Management Monitoring Servers (SMMS - the servers required to manage and monitor the PSBN).

On October 1, 2014 the Authority approved **Amendment 6** for the removal of three (3) PSBN Sites and to make the changes necessary to reflect the replacement of undisguised antenna support structures to disguised antenna support structures at 32 PSBN Sites. Amendment 6 increases the Maximum Contract Sum by \$2,613,300 from \$175,583,275 to \$178,196,575.

On October 10, 2014 the Authority issued **NTP 8** authorizing Motorola to modify the existing order of 40 sites contemplated in NTP No. 6 (standard antenna support structures - 70 foot undisguised monopoles) to order 40 sites worth of equipment considering any mix of antenna support structures (undisguised and/or disguised, with disguised antenna support structures limited to 31 sites pursuant to Amendment No. 6) that Motorola deems necessary to commence construction activities. As of this NTP, construction activities remain prohibited pending the Authority receiving FONSI and SHPO approvals.

On October 22, 2014 the Authority issued **NTP 9** authorizing Motorola to proceed with all Phase 4 Work related to the installation of the System Management and Monitoring Subsystem (SMMS) at the County of Los Angeles' Fire Department's Fire Command and Control Facility (FCCF). The NTP included the statement: "Motorola Solutions has agreed to provide a fully geo-redundant SMMS configuration (to

begin implementation in November, 2015).” Motorola provided clarification that the agreement was still under negotiation for cost and schedule delivery and that the deployment of the geo-redundant SMMS was predicated on the NTP for the redundant Evolved Packet Core (EPC).

On November 4, 2014 the Authority issued **NTP 10** authorizing Motorola to begin construction on 94 sites provided within the NTP.

On December 2, 2014 the Authority issued **NTP 11** authorizing Motorola to proceed with all Work necessary for ordering and installing site routers and core routers at FCCF, LAPDVDC, and all sites for Phase 3, Supply PSBN Components. NTP also authorized Motorola to proceed with all Work related to Phase 3 for Additive Alternate 2 Redundant EPC to be located at LAPDVDC.

On December 2, 2014 the Authority issued **NTP 12**, authorizing Motorola to proceed with ordering an additional 75 PSBN Sites worth of standard equipment, such as antenna support structures Evolved Packet Core (EPC) components, eNodeB components, antennas, and associated accessories for all sites that are not dependent on final design approval. Additionally, Motorola is authorized to proceed with the ordering of all Work related to Phase 3, Supply PSBN Components, and Phase 4, PSBN Implementation, for TMR Cabinets and TMR battery backup components for 75 PSBN Sites.

On December 30, 2014 the Authority issued **NTP 13**, authorizing Motorola to begin construction on 31 City of Los Angeles Sites listed in NTP.

On December 31, 2014 the Authority approved **Amendment 7** to make changes necessary to reflect the replacement of undisguised antenna support structures with various types of antenna support structures at eight PSBN Sites.

On January 22, 2015 the Authority issued **NTP 14**, authorizing Motorola to proceed with ordering 25 vehicular routers.

On January 28, 2015 the Authority issued **NTP 15**, authorizing Motorola to begin construction on the two sites VEFD001 and VEFD003

On February 5, 2015 the Authority approved **Amendment 8** for the removal of thirty-six (36) PSBN Sites, include six (6) new PSBN Sites and to make the changes necessary to reconcile the hose tower installation costs for twenty-eight (28) PSBN Sites. Amendment 8 decreases the Maximum Contract Sum from \$178,196,575 to \$166,254,679.

On March 3, 2015 the Authority issue **NTP 16**, authorizing Motorola to begin construction on the four sites; ARCPD01, AZPD001, ELMNTPD, LACF159.

On March 4, 2015 the Authority issue **NTP 17**, authorizing Motorola to proceed with ordering and implementing TMR cabinets for seventy-five (75) sites.

On March 3, 2015 the Authority and Motorola presented its project status report to the NTIA and NOAA representatives. The meeting highlighted the equipment procurement plan and implementation plan to deploy 182 sites by August 15, 2015. Motorola presented the updated PSBN system coverage maps based on the 182 sites.

On March 5, 2015 the Authority approved **Amendment 9** for the removal of twenty-four (24) PSBN Sites, include six (6) new PSBN Sites and to make the changes necessary to accommodate various changes in civil construction scope at applicable sites.. Amendment 9 decreases the Maximum Contract Sum from \$166,254,679, to \$158,930,274.

On March 10, 2015 the Authority issue **NTP 18**, authorizing Motorola to proceed with ordering the necessary microwave radio equipment and accessories to implement the PSBN microwave paths identified in the approved PSBN backhaul design.

On March 18, 2015 the Authority issue **NTP 19**, authorizing Motorola to proceed with all Work related to Phase 4 (PSBN implementation) for Additive Alternate 2, Redundant Evolved Packet Core (EPC) at the Los Angeles Police Department Valley Dispatch Center (LAPDVDC).

On April 2nd, 2015 the Authority issued a formal **Suspension Order**, directing Motorola to halt the procurement equipment.

On April 3<sup>rd</sup>, 2015 the Authority received a **Stop Work Notice** for all work and was issued a Corrective Action Plan (CAP) from NOAA to be submitted by April 13, 2015. Between 3/3/15 and 3/13/15 Motorola produced numerous supporting coverage scenarios for the Authority to include within the CAP response.

On April 16, 2015 the Authority issued a letter to Motorola requesting a plan for reduced scope and an analysis of cost impact. A Schedule was released on 5/07/15 and is updated on a weekly basis.

On May 7, 2015 the Authority issued **NTP 20**, authorizing Motorola to proceed with ordering the necessary microwave radio equipment and accessories to implement the PSBN microwave paths remaining as part of the CAP site list.

On May 7, 2015 the Authority issued **NTP 21**, partially cancelling the Suspension Order that was issued on April 3, 2015 and authorized construction to resume at the 69 sites identified in the Corrective Action Plan.

On May 7, 2015 the Authority issued **NTP 22**, directing Motorola to 1) look at options are returning Additive Alternate No. 1, the Redundant Evolved Packet Core (EPC), assigned to the Los Angeles Police Department Valley Dispatch Center (LAPDVDC) to Ericsson; (2) recover the redundant EPC for Motorola's use in other projects or (3) resell the Redundant EPC to a secondary market. Motorola is evaluating the cost impacts and the legal possibilities with the directive issued in this NTP.

On May 12, 2015 the Authority issued **NTP 23**, authorizing Motorola to order fiber optic equipment and provide services via contract between Fujitsu and Motorola in order to create a link between the FCCF and the City fiber ring. NTP 23 was limited to the County portion of the design.

On May 15, 2015 the Authority issued **NTP 24**, authorizing Motorola to order leased fiber services from AT&T, Verizon, and Time Warner to provide connections between the applicable CAP sites and the FCCF EPC site.

On May 15, 2015 the Authority issued **NTP 25**, directing Motorola to 1) return the excess PSBN equipment to its manufacturers, 2) recover the excess equipment for Motorola's use in other projects,

or 3) resell the excess PSBN equipment to a secondary market, in accordance with the list of equipment in the NTP. Motorola is evaluating the list of equipment provided in the NTP and the cost impacts and the legal possibilities with the directive issued in this NTP.

On May 20, 2015 the Authority issued **NTP 26** Authorizing Motorola to order fiber optic equipment and provide services via contract between Fujitsu and Motorola to create a link between the EPC located at the Los Angeles County Fire Department's FCCF facility and the City Los Angeles fiber ring. NTP 26 expands upon the products and services in NTP 23 to include the City portion of the fiber scope.

On June 18, 2015 the Authority approved **Amendment 10** for the Inclusion of 15 Cell-On-Wheels and the Construction Restoration Work at 30 PSBN Sites.

On June 25, 2015 the Authority issued **NTP 27** Authorizing Motorola to proceed with all Phase 1 (System Design) Work for fifteen (15) Cell-On-Wheels (COWs) sites.

On June 30, 2015 the Authority issued **NTP 28** Authorizing Motorola to proceed with all Work related to construction restoration for thirty (30) PSBN Sites that have been removed from the program.

On June 30, 2015 the Authority issued **NTP 29** Authorizing Motorola to proceed with ordering nine hundred and seventy-five (975) VML-750 in-vehicle router units.

On July 16, 2015 the Authority approved **Amendment 11** to add 15 Cell-On-Wheels (COWs) and the PASDNPD site to the PSBN program.

On July 16, 2015 the Authority issued **NTP 30** Authorizing Motorola to proceed with all Phase 2 (Site Construction and Site Modification), Phase 3 (Supply PSBN components), and Phase 4 (PSBN Implementation) Work for fifteen (15) Cell-On-Wheels (COWs).

On August 13, 2015 the Authority approved **Amendment 12** to remove forty-two (42) sites from the PSBN system, authorize the removal of seven (7) tower foundations at the applicable restoration sites, to purchase 5,000 Universal Integrated Circuit Cards (UICC), purchase of five (5) CISCO routers and five (5) corresponding units of data services, and approvals for applicable change orders.

On August 13, 2015 the Authority issued **NTP 31** Authorizing Motorola to proceed with ordering five thousand (5,000) standalone universal Integrated Circuit Cards (UICCs)

On September 1, 2015 the Authority issued **NTP 32** authorizing Motorola to proceed with ordering five (5) CISCO routers and five (5) corresponding units of data and related Work that are capable of operating a 4G cellular aircard on a commercial carrier that will allow Motorola and the Authority to temporarily test eNodeB sites in the event that the permanent backhaul solution is not available at the time of site commissioning.

On September 4, 2015 the Authority approved **Amendment 13** to confirm the prior removal of 77 additional sites.

On September 23, 2015 the Authority issued **NTP 33** authorizing Motorola to proceed with replacing the security certificates at the EPC core.

On October 9, 2015 the Authority approved **Amendment 14** to adjust the contract for scope changes to tower sites.

On October 15, 2015 the Authority issued **NTP 34** instructing Motorola to provide a portion of the training plan for 9 classes.

On December 17, 2015 the Authority Approved **Amendment 15** to: (a) Settle and resolve all outstanding claims with the Contractor, including all claims from Contractor's subcontractors, and including all known and all potential future claims through the completion of the work under the Agreement, with the exception of changes to the Work directed in writing by the Authority; (b) Approve payment to the Contractor of \$15,764,246 in the specific amounts for the specific claims identified in tab C.16 of Exhibit C (Schedule of Payments) attached to the Amendment; (c) Approve the reduction of project management fees payable to the Contractor in the Agreement for sites not constructed, for a total reduction in project management fees of \$5,078,774, as reflected in tabs C.3, C.4 and C.5 of Exhibit C (Schedule of Payments) attached to the Amendment; and (d) Authorize an increase to the Maximum Contract Sum by the net amount of \$10,685,472 from \$132,899,485 to \$143,584,957.

On December 3, 2015, the Authority issued a Suspension Order for Waterway Coverage Testing, Special Operations Testing (SOT), and the Public Safety Broadband Network (PSBN) Burn-in Testing (Burn-in).

On December 21, 2015 the Authority and Motorola executed **Amendment 15** as described above.

On February 23, 2016, the Authority issued a Termination for Convenience for the Wide Area Coverage Testing.

On March 9, 2016 the Authority issued Motorola a **Termination for Convenience** for all Waterway Coverage Testing, Special Operations Testing (SOT), Public Safety Broadband Network (PSBN) Burn-in Testing (Burn-in) Testing, and for Freeway Coverage Testing.

On March 9, 2016 the Authority approved **Amendment 16** to include all Work related to additional Radio Frequency (RF) Emissions testing at twelve (12) PSBN sites to include six (6) indoor emission tests at identified sites.

On March 16, 2016 the Authority issued **NTP 35** authorizing Motorola to conduct additional RF Emissions Testing at twelve (12) PSBN Sites.

On May 4, 2016 the Authority approved **Amendment 17** to remove all Work related to Coverage, Stress, and Burn-in testing. On May 5, 2016 MSI submitted a claim for the portion of Work completed on the terminated scope. The Authority is currently reviewing MSI's submission.

On August 31, 2016 the Authority and MSI executed **Amendment 18** to extend the warranty period until 12/31/16, reconciliation of excess equipment and spare equipment, corrected construction costs associated with the LASDCVS site, and correction of administrative errors in Exhibit C.

On December 12, 2016, the Authority and MSI executed **Amendment 19** to extend the warranty period until 3/31/17; make changes necessary to upgrade the Authority's Deployable Vehicle to support upcoming special events; reflect the reduction in certain training; reflect a reduction in Wide Area Coverage Testing; reflect an increase in Optimization Work; authorize the Authority to release the ten

(10) percent Holdback for certain completed, accepted, invoiced, and paid work; and identify a net decrease in the Maximum Contract Sum by \$1,567,382.

On December 23, 2016 the Authority issued **NTP 36** authorizing Motorola to upgrade the Authority's Deployable Vehicle, System on Wheels (SOW) to support upcoming events.

On March 20, 2017, the Authority and MSI executed **Amendment 20** to reflect the relocate of certain equipment (towers, generator fuel tanks, tower hardware, etc) from the SCE Mesa Substation to the County of Los Angeles Fire Department's Del Valle Training Facility.

On March 20, 2017, the Authority and MSI executed **Amendment 21** to extend the Warranty Period on a month-to-month basis, at no additional cost; with the first month commencing on April 1, 2017 and expiring on April 30, 2017.

On March 23, 2017 the Authority issued **NTP 37** authorizing Motorola to relocate certain equipment (towers, generator fuel tanks, tower hardware, etc) from the SCE Mesa Substation to the County of Los Angeles Fire Department's Del Valle Training Facility.

On April 13, 2017, the Authority and MSI executed **Amendment 22** to create one (1) Access Point Name (APN) for a minimum of four (4) agencies.

On April 13, 2017, the Authority and MSI executed **Amendment 23** to extend the Warranty Period until May 31, 2017, at no additional cost.

On April 18, 2017 the Authority issued **NTP 38** authorizing Motorola to create one (1) Access Point Name (APN) for four (4) of the Authority's member agencies from a pool of six (6) member agencies.

On May 18, 2017, the Authority and MSI executed **Amendment 24** to exercise the first one-year Option Term for Maintenance Work under Phase 5 (PSBN Maintenance), commencing on June 1, 2017 and expiring on May 31, 2018; replace Exhibit A (Statement of Work), in particular Task 9 (Public Safety Enterprise Network Services) with new verbiage .

On May 31, 2017 the Authority issued **NTP 39** authorizing Motorola to proceed with one-year of Maintenance Work under Phase 5 (PSBN Maintenance), commencing on June 1, 2017, and expiring on May 31, 2018, unless sooner terminated or extended, in whole or in part.






On August 2, 2017 the Authority issued **NTP 40** authorizing Motorola to perform additional Access Point Name (APN) and Public Safety Enterprise Network (PSEN) Work for four (4) of the Authority's member agencies (Bell PD, Claremont PD, Inglewood PD, UCLA Health Dept.)

On October 5, 2017, approved **Amendment 25** to capture the agreement to close out any remaining open issues and to close out this project. Amendment captures reduction in Network Management System and Inventory Management System scope; Reduction in Documentation Work; Reduction is Additive Alternate No. 2 (Redundant Evolved Packet Core) Work; Removal of Additive Alternate No. 3 (Location Services Work; Reduction in Cell on Wheels (COW) Site Work; Reduction in Site Construction Changes Work; Amendment to the Base Document; and Amendment to the Agreement Exhibits.

**This report covers the period from 9/21/17 thru 10/18/17.**



The following table provides a dashboard snapshot of the projects' health signs.

PSBN Project Dashboard			
Category	Rating	Change	Comments
Schedule			The project schedule is complete (other than the closeout items Motorola has agreed to complete during the maintenance phase).
Quality			No quality issues at this time.
Risk			Maintenance Agreement payments rejected. Amendment 25 approved by this Board to ratify changes to the contract that addresses this issue. WACs for maintenance resubmitted.
Scope			Nothing new to report.
Budget			Authority has not yet authorized payment for excess equipment that was ordered by Authority and delivered prior to any stop work notices.

## 2. Project Status

The following sections identify task activities during the reporting period and the planned activities for the next reporting period.

### 2.1 Tasks In-Progress and Completed

The following depict the task activity that occurred during the current reporting period.

Activity Name	Activity Status
<b>LA-RICS Deliverables</b>	
Construction, Power & Fiber for 9 SCE COW Sites	Complete
<b>Site Construction &amp; Site Modification (Phase 2)</b>	
Permit Clear for Applicable LTE Sites (1 LACUSC)	
Reconfiguration of Antennas at LACUSC	In Planning
<b>System Implementation (Phase 4)</b>	
COW Sites Install, Configuration, Commissioning / Test	In Progress

Activity Name	Activity Status
Complete re-installation of all equipment at LACUSC	In Planning
<b>Overall Project Closeout</b>	
Completion of documentation submissions (Fixed Sites)	Complete
Completion of documentation submissions (COW Sites)	In Progress
<b>Warranty - Start of Maintenance</b>	
Year One Maintenance Agreement	In Progress

## 2.2 Tasks Planned for Next Period

The following depict the task activities that are planned for the next reporting period.

Activity Name	Planned Status
<b>LA-RICS Deliverables</b>	
COW Sites Install, Configuration, Commissioning / Test	In Progress

## 2.3 Authority Look-Ahead Tasks (120-Day)

Activity Name	Start
<b>LA-RICS Deliverables</b>	
<b>MSI Deliverables</b>	
Completion of documentation submissions (COW Sites)	In Progress
Reconfiguration of Antennas at LACUSC	In Progress

## 3. Project Risk Register

For this monthly report, the following items are at risk.

Title	Assigned	Impact	Risk Description	Status
None				

## 4. Areas of Concern

This section describes any events and/or circumstances of which the Contractor is aware that has delayed or may delay project activities and what corrective or remedial actions were taken or will be taken to resolve the issue. Outstanding Issues Log (the "OIL Log") entries are also tabulated and monitored in this section. "Oil Log" items include, for example, sequencing, infrastructure, site access, coordination issues, congestion of workers and equipment, time requirements for design, procurement, and installation.

ID	Event / Circumstance	Remedial Action Taken or Required
M1-1	Missed Payment for 1 <sup>st</sup> Month of Maintenance Agreement	Approve Amendment 25 resolves all outstanding issues. MSI to resubmit invoice which the Authority

ID	Event / Circumstance	Remedial Action Taken or Required
		has agreed to pay.
M1-2	Missed Payment for 2 <sup>nd</sup> Month of Maintenance Agreement	Approve Amendment 25 resolves all outstanding issues. MSI to resubmit invoice which the Authority has agreed to pay.
M1-3	Missed Payment for 3rd Month of Maintenance Agreement	Approve Amendment 25 resolves all outstanding issues. MSI to resubmit invoice which the Authority has agreed to pay.

## 5. Disputes and Claims

This section describes any disputes, potential claims, and claims made during the reporting period.

Dispute / Claim / Potential Claim	Status / Actions	Resolution Date
None		

## 6. Financial Status

The following table represents the invoice payments that have been completed to date. The revised Contract Sum amount based on the Corrective Action Plan is being reviewed by the Authority and Motorola. For this reporting period the Contract Sum is based on Amendment 18.

PSBN Invoice Payment Category	Invoice Payment Totals
PSBN Contract Sum Full Payable Amount (Phases 1-4)	\$ 100,568,500
Cumulative Invoice Payments from Last Report	(\$ 82,972,716)
Total Invoice Payments This Period	(\$ 0)
Remaining Amount to be Paid	\$ 17,595,784

## 7. LA-RICS PSBN Project Schedule

No project schedule as this project is completed and in the one-year maintenance period.



# LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

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SCOTT EDSON  
EXECUTIVE DIRECTOR

November 2, 2017

To: LA-RICS Authority Board of Directors

From: Scott Edson  
Executive Director

## OUTREACH UPDATE

The purpose of this discussion item is to update your Board on the status of outreach activities pertaining to the LA-RICS Public Safety Broadband Network (PSBN) and Land Mobile Radio (LMR) project. The below meetings occurred since our last report to you:

Municipality	Meeting Date
<i>Meeting with representatives from AT&amp;T</i>	September 29, 2017
<i>LA Fire Chief's Association Annual Conference</i>	October 3-5, 2017
<i>CalFRN Board of Director's Meeting</i>	October 11, 2017
<i>COLT Demonstration Vehicle</i>	October 11, 2017
<i>Meeting with representatives from AT&amp;T</i>	October 12, 2017
<i>Meeting with AT &amp; T Management</i>	October 19, 2017
<i>International Association of Chiefs of Police (IACP) Conference</i>	October 21-24, 2017
<i>Meeting with representative from National Telecommunication and Information Administration (NTIA)</i>	October 24, 2017
<i>Meeting with Supervisor Janice Hahn's Staff</i>	October 26, 2017

Executive Director Edson and Members of the LA-RICS Technical Team met with representatives from AT&T to continue technical discussions regarding device and customer migration strategy.

Executive Director Edson attended the Los Angeles Fire Chief's Association Annual Conference in Palm Springs, CA, provided an update on various LA-RICS activities, and participated on an emerging technology panel.

**AGENDA ITEM E**

Administrative Deputy Susy Orellana-Curtiss attended the California First Responder Network Board of Director's Monthly Meeting.

Members of the LA-RICS Team was given a demonstration of a rapid deployable vehicle (COLT) from Sunwest Engineering.

Executive Director Edson and members of the LA-RICS Team met with representatives from AT&T to continue migration strategy discussions.

Executive Director Edson held an introductory meeting with Shane Harper, Sales Manager, West Region-FirstNet Program and Steve Klein, Principal Consultant, AT&T and FirstNet Program.

Executive Director Edson attended the International Association of Chiefs of Police (IACP) Conference in Philadelphia and provided an update on the LA-RICS LTE and LMR systems, and our position on the FirstNet/AT&T service.

Members of the LA-RICS Team met with Scott Woods from National Telecommunication and Information Administration (NTIA) to discuss PSBN assets.

Program Manager Odenthal and Executive Assistant Wendy Stallworth-Tait met with representatives from Supervisor Janice Hahn's Office to update them on the LTE and LMR sites in the 4<sup>th</sup> Supervisorial District.

Lastly, members of the LA-RICS Team provided door to door outreach to residents within 500 feet of the Monte Vista Star Center Site (MVS) as requested by the Los Angeles County Board of Supervisors.

WST:pl



**LOS ANGELES REGIONAL INTEROPERABLE  
COMMUNICATIONS SYSTEM AUTHORITY**

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SCOTT EDSON  
 EXECUTIVE DIRECTOR

November 2, 2017

To: LA-RICS Authority Board of Directors

From: Scott Edson  
 Executive Director

**PSBN ONBOARDING UPDATE**

The purpose of this discussion item is to update your Board on the status of onboarding users, exercising the system, and other onboarding related activities pertaining to the Public Safety Broadband Network (PSBN) project. The below activities have occurred:

STATUS OF PSBN AGENCY ONBOARDING		
Agency	Onboarding Status	Number of Units Installed/Demo Kit/SIM cards Received
LASD	Installations in progress.	694
LACoFD	Installations in progress.	351
Inglewood PD	Private Access Point Name (APN) configuration in complete.	8
Claremont PD	Private Access Point Name (APN) configuration complete.	2
Bell PD	Private Access Point Name (APN) configuration in complete.	2
Covina PD	2 VML routers configured, provisioned, delivered and are pending installation.	2
UCLA Health	Private Access Point Name (APN) configuration complete.	1
Health Services / EMS	Portable hotspot kits are tested, final packaging needed for delivery underway.	2
El Segundo Fire & PD	ELFD installing two routers.	2
Signal Hill PD	Additional routers requested from AT&T. AT&T has indicated that they will provide additional routers with AT&T priority service.	0
La Verne PD & FD	Planning for the delivery of 2 VML routers at the end of November.	
Azusa PD	No longer interested in Demo Kit.	0
Irwindale	Irwindale PD investigating their preparedness to install two routers.	0
Sierra Madre PD & FD	Demo Kits picked up and results reviewed. Follow up in November to determine if they want to install LA-RICS routers.	2

**AGENDA ITEM F**

Active engagement continued with an emphasis on connecting agency applications through a private Access Point Name (APN) thus replacing the use of the generic LA-RICS APN. Engagement also continues for interested agencies via demonstrations, providing test Demo Kits, and technical coordination meetings with the participation of the Los Angeles County Sheriff's Department (LASD) and the County of Los Angeles Fire Department (LACoFD). Preparation continues for future migration of the PSBN to FirstNet.

Motorola has completed the end to end connection of the APN for UCLA Health. UCLA Health is operational with the LA-RICS APN and has plans to schedule the completion of internal tests for their dedicated APN in the coming month. A joint DHS/EMS, LA-RICS and UCLA Health meeting took place on October 12, 2017, to discuss the Mobile Stroke Unit and other opportunities to collaborate. Several joint follow up actions are planned to improve the performance of the unit.

Lastly, the LA-RICS Team provided a PSBN connection to DHS/EMS for the Taste of Soul Event on October 21, 2017, with approximately 250,000 people in attendance. They will also be using LA-RICS for Camp Flog Gnaw Music Festival at USC on October 28 and 29, 2017, and the West Hollywood Carnival on October 31<sup>st</sup>. They continue to find the LA-RICS PSBN very valuable for these events. LA-RICS planning continues for the Rose Parade including testing of AT&T and Verizon priority services performance.

WST:pl





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SCOTT EDSON  
EXECUTIVE DIRECTOR

November 2, 2017

Board of Directors  
Los Angeles Regional Interoperable Communications System ("LA-RICS") Authority  
(the "Authority")

Dear Directors:

**2018 SCHEDULE OF LA-RICS BOARD MEETINGS**

**SUBJECT**

Board approval is requested for the 2018 Schedule of LA-RICS Board Regular Meetings. The location for the 2018 Board meetings will be at the Los Angeles County Sheriff's Department, The Hertzberg Davis Forensic Science Center, 1800 Paseo Rancho Castilla, Conference Rooms 223 through 227 and 263, Los Angeles, California 90032.

**RECOMMENDED ACTIONS**

It is recommended that the Board:

1. Approve the following dates for the calendar year 2018 Board Regular Meeting Schedule:

January 4  
February 1  
March 1  
April 5  
May 3 (Conference Room 263)  
June 7  
July 5 (day after 4<sup>th</sup> of July Holiday)  
August 2  
September 6 (week of Labor Day Holiday)  
October 4  
November 1  
December 6

**AGENDA ITEM G**

LA-RICS Board of Directors  
November 2, 2017  
Page 2

All Regular Meetings will be held at 9:00 a.m. Pacific Time at the at the Los Angeles County Sheriff's Department, The Hertzberg Davis Forensic Science Center, 1800 Paseo Rancho Castilla, Conference Rooms 223 through 227 and 263, Los Angeles, California 90032.

**PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION**

The approval of the recommended action will set the date, time, and location for each Regular Meeting of this Board for calendar year 2018.

Respectfully submitted,



SCOTT EDSON  
EXECUTIVE DIRECTOR

WST:pl

c: Counsel to the Authority



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SCOTT EDSON  
EXECUTIVE DIRECTOR

November 2, 2017

Board of Directors  
Los Angeles Regional Interoperable Communications System Authority (the "Authority")

Dear Directors:

**APPROVE REVISIONS TO LA-RICS SPECIAL EVENTS DEPLOYMENT POLICY**

**SUBJECT**

Board approval is requested to adopt the revised Los Angeles Regional Interoperable Communications System (LA-RICS) Special Events Deployment Policy (Policy) and include a Memorandum of Understanding (MOU) with a cost recovery provision in order to, among other things, align with current LA-RICS operations.

**RECOMMENDED ACTION**

It is recommended that your Board:

1. Approve revisions and adopt the existing Special Events Deployment Policy to reflect the following:
  - a. Update the policy to reflect the revisions contemplated in the LA-RICS Asset Deployment Policy (Enclosure A) to align with current deployment processes and operations for LA-RICS Assets (e.g. System on Wheels [SOW], portable radios, radio accessories, Public Safety Broadband Network [PSBN] devices, etc.) in support of an event.
  - b. Delegate authority to the Executive Director to determine whether a Member and Non-Member of the Authority shall be responsible for costs associated with staff required to support the event as well as other costs that may be necessary to support the event.

**AGENDA ITEM H**

- c. Delegate authority to the Executive Director to execute a Memorandum of Understanding (MOU) for Use of LA-RICS Assets (Enclosure B), substantially similar to the enclosed, when LA-RICS assets are deployed to a Member and Non-Member event, which includes a cost-recovery provision, in the event a Member and Non-Member is responsible for costs associated supporting the event.
- d. Delegate authority to the Executive Director to make the determination whether an MOU is required to be executed depending on the nature of the deployment of an event, in particular, (1) whether or not a Member and Non-Member will be responsible for costs associated with supporting the event, and (2) whether a Member and Non-Member will take temporary possession of any LA-RICS assets as part of the event.

### **BACKGROUND**

On February 2, 2017, your Board approved the LA-RICS Special Event Deployment Policy authorizing at the time, the Executive Director, the authority to approve LA-RICS' participation in certain special events/pre-planned events.

At this meeting, your Board approved a motion to allow the Executive Director the discretion to take the following actions:

1. Approve participation in special and/or pre-planned events (event) on a case by case basis, as follows:
  - a. LA-RICS Authority will provide available equipment and use of the System(s) to Members free of charge;
  - b. Members and Non-Members may be responsible for direct costs associated with staff required to support the event;
    - i. Members and Non-Members will be responsible to enter into cost-recovery agreement(s) with agencies employing the support staff;
  - c. Members and Non-Members may be responsible for other direct costs associated with LA-RICS' participation in the event.
2. Executive Director will provide a monthly report summarizing past events as well as upcoming pre-planned/special events.

On October 24, 2017, the Joint Operations and Technical Committee approved the recommended revisions to the Special Events Deployment Policy.

### **PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION**

Approval of the recommended action will authorize the Executive Director to align the policy with current operations and recommend approval of an MOU with a cost recovery provision to the Board.

It is necessary to update the policy to align with current operations regarding the deployment of LA-RICS assets at special events, pre-planned event, demonstrations, and emergency situations, excluding any incident governed under the regulations/policies in place for Mutual Aid. In particular, revising the policy to include guidelines/procedures and providing more detailed levels of responsibility associated with the deployment of LA-RICS assets at specific Member and Non-Member events as set forth in Enclosure A (LA-RICS Asset Deployment Policy).

Additionally, it is necessary to revise the policy to grant the Executive Director the authority to determine whether a Member and Non-Member agency will be responsible for costs associated with staff required to support the event or other costs that may be necessary to support the event.

Further, as part of the initial policy presented to the Board, it was determined that if a Member/Non-Member agency was to be responsible for the direct costs associated with staff required to support the event, the Member/Non-Member was to enter into cost-recovery agreement(s) with those agencies providing the support staff. Authority staff is now recommending a change for the Authority to recover the funds, and offset it against Member and Non-Member agency costs to the Authority for the associated staff and any other costs. The enclosed MOU contains a cost-recovery provision to be exercised in the event it is determined that a Member and Non-Member agency is to be responsible for the direct costs and other costs associated with LA-RICS' participation in an event.

The cost-recovery provision will contemplate a not-to-exceed amount mutually agreed upon by the Member/Non-member agency and the Authority prior to execution and will be in accordance with the hourly rates, positions, resources (e.g. vehicles, trucks, tractors, mileage, fuel, etc.), and other costs (e.g. parking costs, contingency for unforeseen/unexpected incidentals, etc.) as set forth in Exhibit B (Agreement Budget) of the MOU.

The hourly rates, positions, resource costs are based on the positions and resources (County of Los Angeles Sheriff's Department, County of Los Angeles Fire Department, and County of Los Angeles Internal Services Department) that would be deployed in support of an event. In the event it is determined that a Member/Non-Member will be

responsible for the cost of an event, the Authority will develop a cost estimate of the staff, resources, and other costs necessary to support the event which will be the basis of the not-to-exceed amount and the Member/Non-Member will be invoiced for actual costs, within the not-to-exceed amount. In instances where direct costs for staff hours to support an event is being recovered, the Authority will ensure that staff time is tracked accordingly to ensure event billing to Members and Non-Members is accurate and appropriate.

The cost-recovery contemplated in the MOU is an interim solution until such time as an official LA-RICS subscription model is adopted and implemented by the Board, which will include the cost for the deployment of the LA-RICS assets.

Lastly, it is necessary to delegate authority to the Executive Director to make the determination whether an MOU is required to be executed depending on the nature of the deployment, in particular, (1) whether or not a Member/Non-Member will be responsible for costs associated with costs that may be necessary to support the event, and (2) whether a Member/Non-Member will take possession of any LA-RICS assets as part of the event. If LA-RICS' participation in an event does not result in a cost-recovery or a Member/Non-Member taking physical possession of any LA-RICS assets (e.g. SOW, portable radios, radio accessories, PSBN devices, etc.), there may not be a need to execute an MOU with a Member/Non-Member.

### **FISCAL IMPACT/FINANCING**

The activities contemplated in the recommended action have no fiscal impact at this time. The fiscal impact will be on a case-by-case basis depending on whether or not a Member/Non-Member will be responsible for costs associated with supporting the event.

In the event there is no cost-recovery associated with supporting the event, the Authority will bear such costs which are contemplated as part of the LA-RICS Adopted Operating Budget for Fiscal Year 2017-18. Future budgets will include the requisite allocations for staff and other costs that that may be necessary for the deployment of events.

**CONCLUSION**

The recommended action will allow the Authority to adopt and replace the existing version of the Special Events Deployment Policy with Enclosure A (LA-RICS Asset Deployment Policy), delegate authority to the Executive Director to execute an MOU for Use of LA-RICS Assets if a Member/Non-Member is responsible for event costs, and delegate authority to the Executive Director to determine whether a Member/Non-Member of the Authority shall be responsible for certain costs and whether an MOU requires execution based on the nature of the event.

Respectfully submitted,



SCOTT EDSON  
EXECUTIVE DIRECTOR

JA:ms:pl

M:\LA-RICS POLICIES\Policy No. 018-2017 (LA-RICS Special Events Deployment Policy)\Policy Revision 1\JPA BL Nov2017\_Special Events\Agenda Item X - Board Letter\_Special Events\_10.23.17.docx

Enclosures

c: Counsel to the Authority



# LA-RICS POLICIES

POLICY TITLE		POLICY NO.
LA-RICS <del>Special Events</del> <u>Asset</u> Deployment Policy		018-2017
APPROVED BY	EFFECTIVE DATE	DATE LAST REVISED
LA-RICS JPA Board of Directors	02/02/17	---

## 1.0 PURPOSE

~~Provide Agencies with~~ To establish a process to allow the Los Angeles Regional Interoperable Communications System (LA-RICS) Authority (Authority) to deploy Authority-owned assets such as System on Wheels (SOW), Rapid Response Vehicles, Cell-on-Light-Truck (COLTs), portable radios, radio accessories, consolettes, consoles, Public Safety Broadband Network (PSBN) devices, and any other LA-RICS equipment or assets (collectively LA-RICS Assets), to provide agencies with PSBN and Land Mobile Radio (LMR) System coverage, to the extent available, for certain pre-planned events, special events in order to test certain functionalities of the system in live, demonstrations, and emergency situations, while in parallel demonstrating the system utility to (hereinafter referred to as "Event") for Members, prospective users, and other stakeholders and Non-Members.

## 2.0 POLICY

Pursuant to this LA-RICS ~~Special Event~~Asset Deployment Policy, the Executive Director has authority to approve participation in ~~special and/or pre-planned events~~Events on a case-by-case basis as described in Section 3.0 (Responsibility) to this Policy.

As a further part of this policy, the Executive Director will provide a monthly report to the —LA-RICS Joint Powers Authority (JPA) Board of Directors (Board) summarizing past ~~events~~Events as well as upcoming ~~pre-planned/special events~~Events.

Until such time as an official LA-RICS subscription model is adopted and implemented by the Board, which depicts the cost for the deployment of LA-RICS Assets, the use of the LA-RICS Assets during the construction, testing, and optimization phase of the LMR System may be granted on a gratis basis as determined by the Executive Director.

## 3.0 RESPONSIBILITY



POLICY TITLE	POLICY NO.
LA-RICS <del>Special Events</del> <u>Asset</u> Deployment Policy	018-2017

### 3.1 Use of LA-RICS Assets and System by Members

If it is determined that LA-RICS will participate in ~~a special and/or pre-planned event~~ an Event for Members, ~~LA-RICS will provide available equipment~~ LA-RICS Assets and use of the PSBN and/or LMR System(s) to Members free of charge. ~~The Executive Director will make the determination regarding participation in an Event.~~

### 3.2 Cost Recovery from Members/ and Non-Members

If it is determined that LA-RICS will participate in ~~a special and/or pre-planned event~~ an Event for Members/ and Non-Members, LA-RICS will provide available ~~equipment~~ LA-RICS Assets and use of the PSBN and/or LMR System(s), however, Members/ and Non-Members may be responsible for direct costs associated with staff required to support the event.

~~Members/~~ The Executive Director will make the determination regarding participation in an Event. With respect to the recovery of any direct and other costs, the Executive Director will assess the direct and other costs associated with the participation and deployment of LA-RICS Assets at an Event and determine whether a Member or Non-Members Member will be responsible for such costs.

a. If it is determined that a Member/Non-Member will be responsible for direct costs, the Member/Non-Member will be responsible to enter into a Memorandum of Understanding (MOU) for the Use of LA-RICS Assets (Enclosure 1), which includes a cost-recovery agreement(s) with provision for agencies employing the support staff;. The cost-recovery provision will contemplate a not-to-exceed amount mutually agreed upon by the Member/Non-member and the Authority prior to execution and will be in accordance with the hourly rates and positions as set forth in Exhibit B (Agreement Budget) of the MOU.

~~a. Members/Non-Members may be responsible for other direct costs associated with LA-RICS' participation in the event.~~

b. Members and Non-Members may be responsible for other costs associated with LA-RICS' participation/deployment of LA-RICS assets in an Event. If it is determined that a Member/Non-Member is responsible for other costs, the Member/Non-Member will be responsible to enter into a Memorandum of Understanding (MOU) for the Use of LA-RICS Assets (Enclosure 1), which includes a cost-recovery provision for other costs. The cost-recovery provision will

POLICY TITLE	POLICY NO.
LA-RICS <del>Special Events</del> <u>Asset</u> Deployment Policy	018-2017

contemplate a not-to-exceed amount mutually agreed upon by the Member/Non-Member and the Authority prior to execution and will be in accordance with the other costs as set forth in Exhibit B (Agreement Budget) of the MOU.

- c. In the event that a Member/Non-Member is not responsible for direct costs associated with staff required to support the Event and/or other costs, the Member/Non-Member may be required to enter into a Memorandum of Understanding (MOU) for the Use of LA-RICS Assets (Enclosure 1), depending on the nature of the deployment, in particular, whether or not a Member/Non-Member agency takes possession of any LA-RICS Assets as part of the Event. The Executive Director will make the determination as to whether a particular deployment will require the use of the MOU.

### 3.3 Authority

In the event that a Member/Non-Member is responsible for direct costs associated with staff required to support the Event and/or other costs, such cost-recovery will be in accordance with the respective Hourly Rates for the respective positions and other costs as set forth in Exhibit B (Agreement Budget) of the MOU. In instances where direct costs for staff hours to support an Event is being recovered, the Authority will ensure that staff time is tracked accordingly to ensure event billing to Members and Non-Members is accurate and appropriate.

## 4.0 GUIDELINES/PROCEDURES

Members and Non-Member agencies may contact the Authority to request the temporary use of LA-RICS Assets for Events. For use of LA-RICS Assets, such as the SOW, the requesting agency may be required to have compatible Project 25 (P25) subscriber equipment in the event that the Authority does not have such subscriber/portable equipment to deploy in support of the Event.

Executive Director approval is required prior to deploying any LA-RICS Assets, excluding any incident governed under the regulations/policies in place for Mutual Aid. Requests for LA-RICS participation in an Event and the deployment of LA-RICS assets may be made by contacting Authority staff during normal business hours at (323) 881-2891.

Once an agency requests the deployment of an LA-RICS Asset(s), a determination by the Executive Director will be made whether the Member/Non-Member agency will be responsible for the direct costs associated with staff required to support the

POLICY TITLE	POLICY NO.
LA-RICS <del>Special Events</del> <u>Asset</u> Deployment Policy	018-2017

event and/or any other costs pursuant to Section 3.2 (Cost Recovery from Members and Non-Members) of this Policy No. 018-2017.

If it is determined by the Executive Director that the Member/Non-Member agency will not be responsible for the direct costs associated with the Event, the Member/Non-Member agency may be required to execute the MOU for the Use of LA-RICS Assets (Enclosure 1), that excludes a cost-recovery provision pursuant to Section 3.2 (Cost Recovery from Members and Non-Members) of this Policy No. 018-2017, and the assets are scheduled for deployment.

In the event that a determination is made by the Executive Director that the Member/Non-Member agency will be responsible for the direct and/or other costs associated with the Event, the Authority and Member/Non-Member agency will enter into the MOU for the Use of LA-RICS Assets (Enclosure 1) that includes a cost-recovery provision pursuant to Section 3.2 (Cost Recovery from Members and Non-Members) of this Policy No. 018-2017 and the assets are scheduled for deployment.

To review the MOU in its entirety, please refer to Enclosure 1. Enclosure 2 sets forth the MOU execution process.

#### References:

- February 2, 2017 – LA-RICS JPA Board of Directors Action (Agenda Item G)
  - Approval of LA-RICS Special Events participation and deployment.

#### Policy Updates:

- October 24, 2017 – LA-RICS Joint Operations and Technical Committee Meeting (Agenda Item E)
  - Approval of recommendation to LA-RICS Board to revise the existing Special Events Deployment Policy.



## LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

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SCOTT EDSON  
EXECUTIVE DIRECTOR

November 2, 2017

Board of Directors  
Los Angeles Regional Interoperable Communications System Authority (the "Authority")

Dear Directors:

### **APPROVE THE LA-RICS CYBERSECURITY INCIDENT RESPONSE POLICY AND ADOPTION OF THE LA-RICS CYBERSECURITY INCIDENT RESPONSE PLAN**

#### **SUBJECT**

Board approval is requested to approve the LA-RICS Cybersecurity Incident Response Policy (Policy) and delegate authority to the Executive Director to implement whatever actions necessary to carry out the Policy. Establishment of the Policy and adoption of the Plan will ensure that Authority personnel will be able to respond effectively to any cybersecurity threat to either the LA-RICS Land Mobile Radio (LMR) System and/or Public Safety Broadband Network (PSBN).

#### **RECOMMENDED ACTION**

It is recommended that your Board:

1. Approve the enclosed LA-RICS Cybersecurity Incident Response Policy to ensure the Authority has the appropriate measures to respond to any cybersecurity threat to the LMR and/or PSBN Systems.
2. Authorize the Executive Director to implement whatever appropriate procedures and/or plans necessary to carry out the Policy.

#### **BACKGROUND**

Cybersecurity is an important component of any business or agency ensuring their computer systems, networks, data, programs, etc., are protected from any unauthorized

**AGENDA ITEM I - ENCLOSURE**

breach and/or attack. It is critical the Authority establish and maintain a cybersecurity policy to ensure the safety and integrity of the LMR and PSBN systems which are intended for use at a public safety grade level.

On October 24, 2017, the Joint Operations and Technical Committee approved recommending to your Board approval of the LA-RICS Cybersecurity Incident Response Policy as well as adoption by the Executive Director of the LA-RICS Cybersecurity Response Plan.

### **PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION**

Approval of the recommended actions will ensure the Authority will have cybersecurity protocols in place in the event of a cybersecurity attack on any of the Authority's computers, programs, data, and/or network systems.

### **FISCAL IMPACT/FINANCING**

The activities contemplated in these actions have no fiscal impact at this time.

### **CONCLUSION**

Approval of the recommended actions will allow the Authority to establish the LA-RICS Cybersecurity Incident Response Policy and allow the Executive Director to adopt the LA-RICS Cybersecurity Incident Response Plan.

Respectfully submitted,



SCOTT EDSON  
EXECUTIVE DIRECTOR

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Enclosure

c: Counsel to the Authority



# LA-RICS POLICIES

POLICY TITLE		POLICY NO.
Cybersecurity Incident Response Policy		021-2017
APPROVED BY	EFFECTIVE DATE	DATE LAST REVISED
LA-RICS JPA Board of Directors	---	---

## 1.0 PURPOSE

To establish a policy to ensure that Los Angeles Regional Interoperable Communications System (LA-RICS) Authority (Authority) personnel respond appropriately and consistently to any cybersecurity threat to the LA-RICS Public Safety Broadband Network (PSBN) and Land Mobile Radio (LMR) System.

## 2.0 DEFINITION

Cybersecurity is defined as measures taken to protect a computer, programs, data, and/or network systems (as in the Internet) against unauthorized access, damage, and/or attack.

## 3.0 POLICY

The Authority Executive Director has authority to implement appropriate procedures and/or plans necessary to carry out this Policy, including adopting and implementing an LA-RICS Cybersecurity Incident Response Plan (Plan). LA-RICS personnel will be provided a copy of the confidential Plan and be expected to follow the process specified in the Plan in the event of a cybersecurity threat.

## 4.0 GUIDELINES/PROCEDURES

The Plan details the guidelines and procedures in the event of a cybersecurity incident, which may be updated from time to time.

## 5.0 RESPONSIBILITY FOR PERSONNEL

The Authority Executive Director, with appropriate recommendations from the Joint Operations and Technical Committee established by the LA-RICS Joint Powers Authority (JPA) Board of Directors (Board), is responsible for the maintenance and updates to the Plan, which may be updated from time to time.

POLICY TITLE	POLICY NO.
Cybersecurity Incident Response Policy	021-2017

## 6.0 EXPECTATIONS

All designated LA-RICS personnel are expected to be familiar with the Plan and follow it in event of a cybersecurity incident.

### References:

- June 29, 2017– LA-RICS Joint Operations and Technical Committee Meeting (Agenda Item D)
  - Discussion of implementing a Cyber Incident Response Plan for LA-RICS.
- October 24, 2017 – LA-RICS Joint Operations and Technical Committee Meeting (Agenda Item F)
  - Approval of recommendation to LA-RICS Board to implement the LA-RICS Cybersecurity Policy.



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SCOTT EDSON  
EXECUTIVE DIRECTOR

November 2, 2017

Board of Directors  
Los Angeles Regional Interoperable Communications System Authority (the "Authority")

Dear Directors:

**APPROVE REVISIONS TO THE POLICY FOR THE  
LA-RICS MINISTERIAL PERMIT APPLICATION PROCESS**

**SUBJECT**

Board approval is requested to revise the policy regarding the LA-RICS Ministerial Permit Application Process to broaden the scope of the Executive Director's authority to approve and sign various types of ministerial documents required for ongoing operations and maintenance of the Land Mobile Radio (LMR) System as well as the Public Safety Broadband System (PSBN).

**RECOMMENDED ACTION**

It is recommended that your Board approve revisions to the Enclosed LA-RICS Ministerial Permit Application Process to expand the Executive Director's authority to approve and sign ministerial applications as well as any other ministerial documents necessary for ongoing operations and maintenance of the LMR and PSBN as well as for jurisdictional approval needed to comply with codes, ordinances, and regulations to enable site construction, implementation, operation, and maintenance of the Land Mobile Radio (LMR) System and the Public Safety Broadband Network (PSBN).

**BACKGROUND**

On May 4, 2017, your Board took action resulting in the LA-RICS Ministerial Permit Application Process policy which authorized the Executive Director to sign ministerial permit applications and permits supporting the LMR System.

**AGENDA ITEM J**



Staff is conducting a comprehensive review of LA-RICS policies to determine if policy updates are required. This exercise prompted revision of the LA-RICS Ministerial Permit Application Process as reflected in the Enclosure.

**PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION**

Approval of the recommended action will allow the Executive Director to approve and sign various types of ministerial documents not only for the LMR System but also for the PSBN to prevent any delays with site construction as well as allow for smooth implementation, operation, and maintenance of either system.

**FISCAL IMPACT/FINANCING**

The activities contemplated in this action have no fiscal impact.

Respectfully submitted,



SCOTT EDSON  
EXECUTIVE DIRECTOR

JA:ms:pl

M:\LA-RICS POLICIES\Policy No. 019-2017 (LA-RICS Ministerial Permit Application Process)\Policy Revision 1\Board Letter\_Ministerial Policy\_Revision 1\_10-26-17.docx

Enclosure

c: Counsel to the Authority



# LA-RICS POLICIES

POLICY TITLE		POLICY NO.
LA-RICS Ministerial Permit Application Process		019-2017
APPROVED BY	EFFECTIVE DATE	DATE LAST REVISED
LA-RICS JPA Board of Directors	05/04/17	---

## 1.0 PURPOSE

To authorize the Los Angeles Regional Interoperable Communications System (LA-RICS) Authority (Authority) Executive Director to sign ministerial applications, permit applications and permits, as well as any other ministerial documents necessary for the maintenance of ongoing Authority operations or for jurisdictional approval needed to comply with codes, ordinances, and regulations to enable site construction and the implementation, operation, and maintenance of the Land Mobile Radio (LMR) System or the Public Safety Broadband Network (PSBN).

## 2.0 POLICY

On May 4, 2017, the LA-RICS Joint Powers Authority (JPA) Board of Directors took action to authorize the Executive Director to sign, any and all, ministerial permit applications and/or related permits, including but not limited to, the United States Department of Agriculture (USDA), Forest Service Special Use Permit (SUP) application, Federal Aviation Administration (FAA) outgrant application, coastal development permit, conditional use permit and other permit application and permits for jurisdictional approval needed to comply with codes, ordinances and regulations to enable site construction and the implementation, operation and maintenance of the LMR System. Pursuant to this LA-RICS Ministerial Permit Application Process Policy, the Executive Director has authority to approve ministerial applications, permit applications, permits, as well as any other ministerial documents necessary for the maintenance of ongoing Authority operations or for jurisdictional approval needed to comply with codes, ordinances, and regulations to enable site construction and the implementation, operation, and maintenance of the LMR System or the PSBN.

## 3.0 GUIDELINES/PROCEDURES

Certain Federal, State and local agencies require ministerial ~~permit~~ permits and the submittal of permit ~~application~~ applications for jurisdictional approval prior to any construction related activity occurring, which includes certain LMR System sites.

POLICY TITLE	POLICY NO.
LA-RICS Ministerial Permit Application Process	019-2017

Additionally, it may be necessary for the Executive Director to sign ministerial applications, permit applications, permits, as well as any other ministerial documents necessary for the maintenance of ongoing Authority operations.

**References:**

- May 4, 2017 – LA-RICS JPA Board of Directors Action (Agenda Item J)
  - Approval of signing of ministerial permit applications and/or related permits.



**LOS ANGELES REGIONAL INTEROPERABLE  
COMMUNICATIONS SYSTEM AUTHORITY**

2525 Corporate Place, Suite 100  
Monterey Park, California 91754  
Telephone: (323) 881-8291  
<http://www.la-rics.org>

SCOTT EDSON  
EXECUTIVE DIRECTOR

November 2, 2017

Board of Directors  
Los Angeles Regional Interoperable Communications System Authority (the "Authority")

Dear Directors:

**APPROVE A NO-COST AGREEMENT WITH THE GSMA, LTD.**

**SUBJECT**

Board approval is requested to delegate authority to the Executive Director to execute a no-cost agreement with GSMA, Ltd. (GSMA) for the use of database services (Services), on a gratis basis, for the purposes of tracking Long Term Evolution (LTE) devices and their associated network performance on the Public Safety Broadband Network (PSBN). The enclosed agreement is the standard agreement required by GSMA for its Services, which has been reviewed as to form by Counsel to the Authority.

**RECOMMENDED ACTIONS**

It is recommended that your Board:

1. Delegate authority to the Executive Director to execute a no-cost agreement between the Authority and GSMA, in substantially similar form to the Enclosure, to allow the Authority to receive certain database Services, on a gratis basis, for the purposes of tracking LTE devices and their associated network performance on the PSBN for a period of one (1) year from the date of execution.
2. Delegate authority to the Executive Director to approve and execute amendments to the no-cost agreement, including but not limited to renewing the term for successive one (1) year terms on a gratis basis should the Services still be required, provided that any such amendments are approved as to form by Counsel to the Authority.

**AGENDA ITEM K**

## **BACKGROUND**

In order to receive the database Services on a gratis basis, the GSMA requires the Authority sign its standard agreement, which is substantially similar to the enclosed. This agreement differs from the template agreement previously approved by your Board, thus staff is presenting it to your Board for approval.

## **PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION**

The purpose of the recommended action is to allow the Executive Director to accept the database Services from GSMA on a gratis basis, and execute an agreement in substantially similar form to the enclosed.

GSMA maintains a unique system known as the International Mobile Equipment Identity Database (IMEI DB), a centralized database of serial number (IMEI) ranges of all LTE mobile devices. The Authority will benefit from access to this database by enabling the LA-RICS LTE data warehouse to relate specific Member Agency devices and device types to their associated network performance. This will allow LA-RICS to provide comprehensive information to its members so they can better manage their user traffic. The capabilities offered by the database Services will continue to be useful when Governor and regional adoption decisions are made relating to FirstNet.

## **FISCAL IMPACT/FINANCING**

There is no fiscal impact associated with the recommended actions as the database Services will be provided to the Authority on a gratis basis.

## **FACTS AND PROVISIONS/LEGAL REQUIREMENT**

Counsel to the Authority has reviewed the agreement and recommended actions and approved as to form.

**CONCLUSION**

The recommended actions will authorize the Executive Director to execute and amend the agreement with GSMA for the use of the database Services contemplated in this Board Letter, on a gratis basis.

Respectfully submitted,



SCOTT EDSON  
EXECUTIVE DIRECTOR

JA:pl

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Enclosure

c: Counsel to the Authority



This **AGREEMENT** is dated as of **(Please Insert Date)** (the "**Effective Date**") by and between:

**GSMA Ltd.**, having an office located at 1000 Abernathy Road, Suite 450, Atlanta, Georgia, 30328, U.S.A. ("**GSMA**"); and Los Angeles Regional Interoperable Communications System (LA-RICS), having an office located at 2525 Corporate Place, Suite 100, Monterey Park, CA 91754 ("**Customer**").

**RECITALS:**

**WHEREAS**, Customer is in the business of device management or is a database supplier, a device provisioning tools supplier or a government agency;

**WHEREAS**, Customer has requested GSMA to provide it with information contained in the IMEI Database (as defined herein) maintained by GSMA (the "**Information**"); and

**WHEREAS**, GSMA and Customer wish to establish terms which will govern the provision of such Information.

**TERMS AND CONDITIONS:**

The parties, intending to be legally bound, do agree as follows:

**1. FEES AND PAYMENT**

- 1.1 As full consideration for the provision of the Information as provided herein, Customer shall pay to GSMA the fees specified on the Service Order attached hereto as Annex A (each, a "**Service Order**"). Per Annex A, the services are being provided free of charge for each new Term, and GSMA shall issue a new Service Order confirming this for such new Term.
- 1.3 Save as expressly set out herein, each party will bear its own expenses incurred in the performance of its obligations under this Agreement.

**2. LICENSE**

- 2.1 Subject to the terms and conditions set forth in this Agreement, GSMA grants to Customer, a non-exclusive, non-transferrable and revocable right, on a worldwide basis and without the right to sublicense, to use, reproduce and modify the Information on internal basis only, solely for the Term of this Agreement.
- 2.2 The parties acknowledge and agree that title to the Information and all intellectual property rights therein remain vested in GSMA or its licensors and that Customer is not granted any licence, whether express or implied, under any of GSMA's intellectual property rights, except as specified herein.
- 2.3 The parties acknowledge and agree that the license grant in Clause 2.1 shall not apply to Affiliates of Customer unless the parties have otherwise contracted in writing. "Affiliate" shall mean any subsidiary or holding company of an entity, any subsidiary of any of its holding companies and any partnership, company or undertaking (whether incorporated or unincorporated) in which that entity has the majority of the voting rights or economic interest.
- 2.4 In order to extend a subscription to Affiliates, the Customer shall not:

- 2.4.1 disclose any of the Information to an Affiliate of Customer that is a device manufacturer; and
- 2.4.2 publish, nor permit an Affiliate of Customer to publish, data, including aggregated data, derived from the Information.

**3. CONFIDENTIALITY**

- 3.1 In consideration of its being provided with the Information, Customer agrees:
  - 3.1.1 to treat the Information as confidential and to ensure that it is used for no purpose whatsoever other than to verify the validity of TACs contained in the International Mobile Equipment Identity Database (the "**IMEI Database**") and the identity of mobile devices to which they have been allocated by GSMA to mobile device manufacturers. The Information may not be used for any purpose other than that described herein. Without prejudice to the generality of the foregoing, the Information must not be used in a manner which could be considered as being harmful or detrimental to GSMA, its members, TAC holding mobile device manufacturers or the GSM Standard. For the purposes of this Agreement, the "**GSM Standard**" shall mean the standard as defined by the relevant European Telecommunications Standards Institute technical specifications, 3GPP Specifications and the Permanent Reference Documents of GSMA;
  - 3.1.2 not to disclose or in any other way make available any portion of the Information to any person other than its employees or agents to whom disclosure is strictly necessary in accordance with 3.1.1 above, and only then when such persons agree to maintain the confidentiality of the Information;
  - 3.1.3 to copy, reproduce or otherwise transmit Information only as may reasonably be necessary for purposes approved by GSMA (clearly marking each copy, reproduction or transmission "Strictly Confidential") and to keep the Information under security conditions no less rigorous than those used for confidential information of Customer of equivalent sensitivity, and in any event taking reasonable precautions for its safe custody; and
  - 3.1.4 The restrictions set forth in this Clause 3 shall not apply to information that is or becomes public knowledge otherwise than through a default of the party concerned, or is already in possession of the party concerned, or is legally acquired by such party from a third party. Nothing herein shall prevent Customer from disclosing confidential Information to a court of competent jurisdiction in compliance with a court order served on Customer. Such disclosure shall not be made without first informing GSMA in writing of the court order and of the measures necessary to comply with the same.

**4. RETURN OF INFORMATION**

- 4.1 Upon GSMA's request, Customer shall return to GSMA all copies of the Information in the possession of Customer or its employees and agents, including all abstracts, notes, drawings and other papers, programmes and records incorporated or based upon any of the same (and by whomsoever prepared) and will certify to GSMA in writing that such persons have not retained any of the same. The obligation of confidentiality detailed in Clause 3 above shall continue following the return of all copies of the Information and shall survive any termination of this Agreement.



**5. TERM AND TERMINATION**

- 5.1 The initial term (the "Term") of this Agreement shall begin on (Please Insert Date) and shall continue for a period of one (1) year unless otherwise terminated as set forth herein. The Agreement shall renew for successive one (1) year Terms unless one party provides the other with notice of its intention not to renew, such notice to be received at least thirty (30) days prior to the end of the then-current Term.
- 5.2 Either party may terminate this Agreement immediately upon written notice to the other party if that other party files a petition in bankruptcy, becomes insolvent, goes into receivership or dissolves.
- 5.3 Either party may terminate this Agreement for default by the other party in the performance of any substantial or material obligation or a continuing material breach of this Agreement where such default or breach remains uncorrected for a period of thirty (30) days after written notice thereof to the defaulting party. The foregoing right of termination shall be cumulative with any other right or remedy of a party for default or breach by that other party.
- 5.4 GSMA may terminate this Agreement for convenience upon thirty (30) days written notice to Customer.
- 5.5 In the event that GSMA terminates this Agreement pursuant to Clause 5.4, GSMA shall refund to Customer any amounts paid by Customer for Information not received, e.g. pro rata for the months remaining in the Customer's then current Term.
- 5.6 Except as otherwise provided herein, any obligations and duties which either expressly or by their nature extend beyond the expiration or termination of this Agreement shall survive the expiration or termination of this Agreement.

**6. NO WARRANTY AND LIMITATION OF LIABILITY**

- 6.1 GSMA does not make any representation, warranty or undertaking, express or implied, with respect to, and does not accept any responsibility for, and hereby disclaims liability for, the accuracy or completeness of the Information. GSMA is not responsible for any loss or damage, direct or indirect, financial or otherwise occasioned by reliance on the Information.
- 6.2 GSMA's entire liability in connection with this Agreement shall not in the aggregate exceed one (1) year's Fees paid by Customer hereunder. Nothing in this Agreement shall limit or exclude GSMA's liability for the following:
  - 6.2.1 Death or personal injury resulting from its, its employees or its sub-contractors' gross negligence;
  - 6.2.2 Compliance with the obligations of section 12 of the Sale of Goods Act of 1979 or section 2 of the Supply of Goods and Services Act of 1982;
  - 6.2.3 Any fraudulent misrepresentation on the part of GSMA; or
  - 6.2.4 Any other liability that cannot be excluded by law.

**7. GENERAL PROVISIONS**

- 7.1 Regardless of the Effective Date of this Agreement, this Agreement shall be deemed effective as of the date any Information is first made available to Customer.

- 7.2 Customer may not assign or subcontract any of its rights or obligations under this Agreement without GSMA's prior written consent. GSMA may assign any of its rights or obligations under this Agreement to an affiliate without consent. Any attempted assignment or subcontract without such consent shall be null and void.
- 7.3 Neither party shall, without the other party's prior written approval, make any public announcement nor any disclosure as to the existence of or matters set forth in this Agreement, unless otherwise required by law. Neither party will use the name of other party or any of its affiliates in any customer listing, advertising or publicity without the other party's prior written consent.
- 7.4 If any provision of this Agreement is held to be invalid or unenforceable in whole or in part, such invalidity or unenforceability shall attach only to such provision or part thereof and the remaining part of such provision and all other provisions hereof shall continue in full force and effect.
- 7.5 Customer acknowledges that money damages would not be a sufficient remedy for any breach of this Agreement and that GSMA will be entitled to seek specific performance and injunctive relief as remedies for any such breach. Such remedies will be in addition to any other remedies available.
- 7.7 This Agreement represents the entire agreement between the parties and supersedes and cancels all previous negotiations, agreements or commitments (whether written or oral) with respect to the subject matter hereof. This Agreement shall not be amended or modified in any manner, except by an instrument in writing signed by a duly authorized representative of each of each of the parties hereto.
- 7.8 The parties agree to treat documents sent via email and facsimile as original documents, provided that either party may require the other to provide a manually executed or authenticated original or duplicate of any document so sent within any reasonable period of time, and if such original or duplicate is not provided within that time, then to treat the document as not having been received initially until the manually executed or authenticated original or duplicate is delivered.
- 7.9 In the event of any conflict or inconsistency between the provisions of this Agreement and those of any of the Service Orders, the following order of priority shall apply to the extent necessary to resolve the conflict or inconsistency: (i) the Service Order(s), and (ii) the Agreement.

\* \* \*

**IN WITNESS WHEREOF** the hands of the duly authorised representatives on the date first above written.

**ON BEHALF OF GSMA**

**ON BEHALF OF CUSTOMER**

**Signed:** \_\_\_\_\_

**Signed:** \_\_\_\_\_

**Print Name:** Tyler Smith

**Print Name:** Scott Edson

**Title:** Operations Manager

**Title:** Executive Director

**Date:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**ANNEX A**

[INSERT SERVICE ORDER(S)]



**ANNEX A**  
**SERVICE ORDER**

This **Service Order** is dated as of **(Please Insert Date)** (the “**Effective Date**”) by and between:

**GSMA Ltd.**, having an office located at 1000 Abernathy Road, Suite 450, Atlanta, Georgia, 30328, U.S.A. (“**GSMA**”); and

Los Angeles Regional Interoperable Communications System (LA-RICS), having an office located at 2525 Corporate Place, Suite 100, Monterey Park, CA 91754

(“**Customer**”).

**Service:**

To supply the Device Database Report on the 1st, 8th, 15th & 22nd of every month.

The Device Database will be sent by email to the following three (3) email addresses:

1. [srmoreno@lasd.org](mailto:srmoreno@lasd.org)
2. [eileen.healy@la-rics.org](mailto:eileen.healy@la-rics.org)
3. [tpao@lasd.org](mailto:tpao@lasd.org)

The Customer is a government agency.

**Main Contact Information**

Name: Susy Orellana-Curtiss  
Title: Administrative Chief  
Phone: (323) 881-8292  
Email: [susy.orellana-curtiss@la-rics.org](mailto:susy.orellana-curtiss@la-rics.org)  
Organization Name: LA-RICS

**FEES**

**(X)** The service is provide free of charge.

**IN WITNESS WHEREOF** the hands of the duly authorised representatives on the date first above written.

**ON BEHALF OF GSMA**

**ON BEHALF OF CUSTOMER**

**Signed:** \_\_\_\_\_

**Signed:** \_\_\_\_\_

**Print Name:** Tyler Smith

**Print Name:** Scott Edson

**Title:** Operations Manager

**Title:** Executive Director

**Date:** \_\_\_\_\_

**Date:** \_\_\_\_\_



**LOS ANGELES REGIONAL INTEROPERABLE  
COMMUNICATIONS SYSTEM AUTHORITY**

2525 Corporate Place, Suite 100  
Monterey Park, California 91754  
Telephone: (323) 881-8291  
<http://www.la-rics.org>

SCOTT EDSON  
EXECUTIVE DIRECTOR

November 02, 2017

LA-RICS Board of Directors  
Los Angeles Regional Interoperable Communications System Authority (the "Authority")

Dear Directors:

**APPROVE AMENDMENT NO. 30 TO AGREEMENT NO. LA-RICS 007 FOR  
LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM –  
LAND MOBILE RADIO SYSTEM**

**SUBJECT**

Board approval is requested to execute Amendment No. 30 to Agreement No. LA-RICS 007 (Agreement) to contemplate the reconciliation of seven (7) Land Mobile Radio (LMR) System Sites; the inclusion of one (1) Land Mobile Radio (LMR) System Site in the scope of Phases 2, 3, and 4; upgrade equipment for the Multiprotocol Label Switching (MPLS) and backhaul capacity necessary for network performance reliability and functionality and incorporation of certain LMR Change Order Modifications; all resulting in an increase to the Maximum Contract Sum in the amount of \$1,767,446.

**RECOMMENDED ACTIONS**

It is recommended that your Board:

1. Make the following findings:
  - a. Find that (a) approval of the changes necessary to reflect the reconciliation of four (4) LMR System Sites (Burnt Peak 1 [BUR1], Frost Peak [FRP], Johnstone Peak 2 [JPK2] and Magic Mountain Link [MML]) to align with the updated LMR System Design is within the scope of the Final Environmental Impact Report (EIR) for the LA-RICS LMR System, which was previously certified under CEQA on March 29, 2016; and (b) there are no changes to the project at these four (4) sites or to the circumstances under which the project

is undertaken that require revisions to the previous EIR due to new significant effects or substantial increase in the severity of previously identified significant effects.

- b. Find that approval of the changes necessary to reflect the reconciliation of three (3) LMR System Sites (Los Angeles County Department of Public Works Pump Station 38 [DPW38], Mirador [MIR], and Rolling Hills Transmit [RHT]) to align with the updated LMR System Design is within the scope of the design, construction, implementation, operation and maintenance activities for the LMR System previously authorized at these three (3) sites, which your Board previously found statutorily exempt from review under CEQA pursuant to Public Resources Code Section 21080.25, the exemption adopted specifically for the Los Angeles Regional Interoperable Communications System (LA-RICS) project, and any leased circuit work that may occur outside of Sites DPW38, MIR and RHT, if needed to provide network connectivity to the LMR System, categorically exempt under CEQA pursuant to Guidelines section 15301 (existing facilities), 15303 (new construction or conversion of small structures) and 15304 (minor alterations to land).
  - c. Find that the inclusion of one (1) LMR System Site (Universal Studios [UNIV]) into Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), and exercising of the Unilateral Options to align with the updated LMR System Design is within the scope of the design, construction, implementation, operation and maintenance activities for the LMR System previously authorized at this one (1) site. The LMR activities at Site UNIV was previously found by your Board to be categorically exempt from review under California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines sections 15301 (existing facilities), 15303 (new construction or conversion of small structures) and 15304 (minor alterations to land), and any leased circuit work that may occur outside of Site UNIV, if needed to provide network connectivity to the LMR System, were previously found by your Board to be categorically exempt under CEQA pursuant to Guidelines sections 15301, 15303 and 15304.
2. Approve Amendment No. 30 (Enclosure) to Agreement No. LA-RICS 007 for a LMR System with Motorola Solutions, Inc. (Motorola), which revises the Agreement to reflect the following:
    - a. Inclusion of one (1) LMR System Site into the scope of Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), and exercising the Unilateral Options

of the same, to align with the updated LMR System Design for a cost increase in the amount of \$1,228,018.

- b. Reconciliation of seven (7) LMR System Sites to align with the updated LMR System Design for a cost decrease in the amount of \$1,664,767.
  - c. Upgrade equipment for the Multiprotocol Label Switching (MPLS) and backhaul capacity necessary for network performance reliability and functionality for a cost increase in the amount of \$2,200,000.
  - d. Make changes necessary to incorporate LMR Change Order Modifications for a cost increase in the amount of \$4,195.
3. Authorize an increase to the Maximum Contract Sum from \$298,264,291 to \$300,031,737 when taking the cost increases and decreases into consideration.
  4. Allow for the issuance of one or more Notices to Proceed for the Work contemplated in Amendment No. 30.
  5. Delegate authority to the Executive Director to execute Amendment No. 30, in substantially similar form, to the enclosed Amendment (Enclosure).

### **BACKGROUND**

The Authority continues to work closely with Motorola Solutions, Inc. (Motorola), on the reconciliation of sites to align with the LMR System redesign. As this is an iterative process, the ongoing design work has resulted in the need to reconcile certain Work, equipment, and corresponding costs for certain LMR System Sites to reflect the updated design.

With respect to the LMR Change Order Modifications contemplated in Amendment No. 30, Authority staff, including its consultants, and the LMR Contractor, Motorola have reviewed and negotiated each claim, including the associated costs, for each change order. The changes presented in Amendment No. 30 benefit the LMR project and are required for the completion of the LMR System. LMR change orders are considered for a variety of reasons and reflect items that were not originally considered in the contract or are performed in order to ratify an agreement between the Authority and its Contractor, Motorola, regarding work to be performed.

### **PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION**

Approval of the recommended actions will find certain changes at a site previously found to be exempt from the CEQA or within the scope of the LA-RICS LMR EIR previously

certified by the Board to be within the scope of the previously approved environmental documents.

As a result of the membership opt outs and redesign efforts to date, it is necessary to reconcile the Work and equipment at the BUR1, DPW38, FRP, JPK2, MIR, MML, and RHT LMR System Sites. Such reconciliations include, but are not limited to, changes in the type of antenna support structure, shelter, generator, battery, etc. Further, the redesign has necessitated changes in the equipment counts and configuration (e.g. antennas, bay stations, equipment racks, and other auxiliary communications equipment) at particular sites.

Pursuant to Agreement No. LA-RICS 007, the Contractor's microwave and/or fiber and other network links will be configured with hot standby and diverse/redundant paths as required to achieve the required availability. The microwave backhaul will be constructed so that it is Multiprotocol Label Switching Equipment (MPLS) capable and have backhaul capacity. Technology improvements since the initial contract was signed allow for an increase in reliability and functionality that is necessary for the Network to function as desired. This includes additional network hardware, software, and services in order to realize the benefits of the technology.

It is necessary to include the change order modification contemplated in Amendment No. 30, for work previously not contemplated in the site design. The work includes, but is not limited to, provide asbestos-containing material and lead-containing material testing services. As construction continues to progress, approval of certain change order modifications may be necessary to address and continue construction activities that are above Motorola's originally contemplated scope.

### **FISCAL IMPACT/FINANCING**

The activities contemplated in Amendment No. 30 will increase the Maximum Contract Sum by \$1,767,446 from \$298,264,291 to \$300,031,737 when considering the cost increases, and shall be fully reimbursed by the Urban Areas Security Initiative (UASI) grant.

### **ENVIRONMENTAL DOCUMENTATION**

The environmental impacts of the project at four (4) LMR System Sites: BUR1, FRP, JPK2 and MML contemplated for reconciliation were evaluated in the EIR prepared by the LA-RICS Authority for the LMR System. On March 29, 2016, your Board certified the Final EIR for the LMR System in compliance with CEQA, made findings with respect to the environmental impacts of the project, and adopted the Mitigation Monitoring Program (MMP) as a condition of approval for the project. The currently recommended actions related to these four (4) LMR System Sites are within the scope of the impacts analyzed



in the previously certified Final EIR and the Board's previous environmental findings. There have been no changes to the impacts analyzed or to the circumstances under which the project is undertaken for these four (4) LMR System Sites that would require revisions to the previous EIR due to new significant effects or a substantial increase in the severity of previously identified significant effects pursuant to Public Resources Code section 21166 or CEQA Guidelines sections 15162 and 15163. The previously adopted MMP will continue to apply.

As the CEQA lead agency, the Authority previously determined on November 13, 2014 (RHT), December 17, 2015 (MIR), and on December 12, 2016 (DPW38) that design, construction, implementation, operation, and maintenance of LMR System infrastructure at these three (3) LMR System Sites is exempt from review under CEQA pursuant to Public Resources Code Section 21080.25, the statutory CEQA exemption adopted specifically for the LA-RICS, which exempts these activities as long as they meet certain criteria set forth in the exemption. The Authority also determined on December 12, 2016 that design, construction, implementation, operation, and maintenance of LMR System infrastructure at LMR System Site UNIV is categorically exempt from CEQA pursuant to State CEQA Guidelines sections 15301 (existing facilities), 15303 (new construction or conversion of small structures) and 15304 (minor alterations to land). In connection with those CEQA determinations for LMR System Sites RHT, MIR, DPW38 and UNIV, the Authority also determined that leased circuit work that may occur outside of these four (4) LMR System Sites as needed to provide connectivity to the LMR System is categorically exempt under CEQA pursuant to CEQA Guidelines section 15301 (existing facilities), 15303 (new construction or conversion of small structures), and 15304 (minor alterations to land). Approval of reconciliation to align with the updated LMR System Design for Sites DPW38, MIR and RHT, and inclusion into the scope of Phases 2, 3, and 4, and exercising of the Unilateral Options for Site UNIV and to align with the updated LMR System Design are within the scope of the previously authorized activities, and the determination that these activities are exempt from CEQA remains unchanged. This determination is supported by substantial evidence in the custody of the Authority, which is incorporated in relevant part into the record of proceedings for this Amendment No. 30.

Upon the Board's approval of the recommended actions for this Amendment No. 30, the Authority will file a Notice of Determination for the four (4) LMR System Sites (BUR1, FRP, JPK2 and MML) with the County Clerk in accordance with Section 21152(a) of the California Public Resources Code and Section 15094 of the State CEQA Guidelines, and will file a Notice of Exemption (NOE) for four (4) LMR System Sites (DPW38, MIR, RHT and UNIV) with the County Clerk in accordance with Section 15062 of the State CEQA Guidelines.

**FACTS AND PROVISIONS/LEGAL REQUIREMENT**

The Authority's counsel has reviewed the recommended actions.

**CONCLUSION**

Upon the Board's approval of the recommended actions, the Executive Director, or his designee, will have delegated authority to proceed in a manner described in the recommended actions.

Respectfully submitted,



SCOTT EDSON  
EXECUTIVE DIRECTOR

JA:rf

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Enclosure

c: Counsel to the Authority

**AMENDMENT NUMBER THIRTY**  
**TO AGREEMENT NO. LA-RICS 007**  
**FOR**  
**LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM –**  
**LAND MOBILE RADIO SYSTEM**

**Recitals**

This Amendment Number Thirty (together with all exhibits, attachments, and schedules hereto, "Amendment No. 30") is entered into by and between the Los Angeles Regional Interoperable Communications System Authority ("Authority") and Motorola Solutions, Inc. ("Contractor"), effective as of November \_\_\_\_\_, 2017, based on the following recitals:

Authority and Contractor have entered into that certain Agreement No. LA-RICS 007 for Los Angeles Regional Interoperable Communications System ("LA-RICS") – Land Mobile Radio System, dated as of August 15, 2013 (together with all exhibits, attachments, and schedules thereto, all as amended prior to the date hereof, the "Agreement").

The Agreement has been previously amended by Amendment Number One, effective as of September 5, 2013, to exercise the Unilateral Option for all Work pertaining to Phase 1 (System Design), without the Additive Alternates; with no change to the Maximum Contract Sum.

The Agreement has been previously amended by Amendment Number Two, effective as of October 29, 2013, to exercise the Unilateral Option for all Work pertaining to Project Descriptions in Phase 1 (System Design) for the Bounded Area Coverage Additive Alternate; with no change to the Maximum Contract Sum.

The Agreement has been previously amended by Amendment Number Three, effective as of December 19, 2013, to, among other things, exercise the Unilateral Option for all Work pertaining to Contractor's provision and implementation of Specified Equipment (as defined in Amendment No. 3) increasing the Maximum Contract Sum by \$1,285,230, from \$280,354,954 to \$281,640,184.

The Agreement has been previously amended by Amendment Number Four, effective as of December 19, 2013, to, among other things, provide and implement under Phase 1 (System Design) certain additional equipment referred to as "Station B Equipment" increasing the Maximum Contract Sum by \$1,169,047, from \$281,640,184 to \$282,809,231.

The Agreement has been previously amended by Amendment Number Five, effective as of March 27, 2014, to, among other things; include license coordination fees, increasing the Maximum Contract Sum by \$20,240, from \$282,809,231 to \$282,829,472.

The Agreement has been previously amended by Amendment Number Six, effective as of April 17, 2014, to, among other things, upgrade to the Los Angeles Police Department's Valley Dispatch Center's ("LAPDVDC") Uninterruptible Power Supply ("UPS") to accommodate the installation and deployment of Core 2 at this facility, increasing the Maximum Contract Sum by \$68,146, from \$282,829,472 to \$282,897,618.

The Agreement has been previously amended by Amendment Number Seven, effective as of May 8, 2014, to, among other things, purchase portable radios, radio accessories, consolettes, and consoles; and to add a provision to address potential joint obligations of Authority and Contractor under the Antennae Lease Agreement dated April 17, 2014, between the City of Los Angeles, the Authority, and Contractor; increasing the Maximum Contract Sum by \$5,177,051, from \$282,897,618 to \$288,074,669.

The Agreement has been previously amended by Amendment Number Eight, effective as of August 28, 2014, to purchase additional portable radios and radio accessories; increasing the Maximum Contract Sum by \$3,671,006, from \$288,074,669 to \$291,745,675.

The Agreement has been previously amended by Amendment Number Nine, effective November 19, 2014, to (a) make changes necessary to reflect the removal of one (1) LMR System Site and all the Work and equipment associated with the removal of this site; (b) make the necessary changes to reflect Phase 1 (System Design) Project Description Work only for twenty-six (26) potential replacement sites; (c) exercise the Unilateral Options for all Work pertaining to Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation) for twenty-six (26) existing LMR System Sites; with no increase to the Maximum Contract Sum.

The Agreement has been previously amended by Amendment Number Ten, effective February 17, 2015, to (a) make the necessary changes to reflect Phase 1 (System Design) Description Work for one (1) potential replacement site; (b) make changes necessary to reflect the removal of four (4) LMR System Sites and all the Work and equipment associated with these sites; (c) make changes necessary to reflect the inclusion of four (4) LMR System Sites and all the Work and equipment associated with these sites and exercise the Unilateral Options for all Work pertaining to Phase 1 (System Design), Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation) for these four (4) LMR System Sites; (d) exercise the Unilateral Options for all Work pertaining to Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation) for eight (8) LMR System Sites currently contemplated in the Design; (e) allow for two power load studies to be conducted; and (f) make other certain changes as reflected in Amendment No. 10, increasing the Maximum Contract Sum by \$1,101,138, from \$291,745,675 to \$292,846,813.

The Agreement has been previously amended by Amendment Number Eleven, effective April 28, 2015, to (a) make the necessary changes to reflect Phase 1 (System Design) Description Work for two (2) potential replacement sites; (b) make changes

necessary to reflect an existing credit from Amendment No. 3 in the amount of \$547,158 in Phase 3 (Supply LMR System Components) for one (1) LMR System Site, (c) make changes necessary to add project management costs that were inadvertently omitted in Amendment No. 10 in the amount of \$64,282 in Phase 4 (LMR System Implementation) for one (1) LMR System Site, and (d) make other certain changes as reflected in Amendment No. 11, all of which reduced the Maximum Contract Sum by \$459,529, from \$292,846,813 to \$292,387,284.

The Agreement has been previously amended in Amendment Number Twelve, effective August 27, 2015, to (a) make the necessary changes to reflect the shifting of FCC Licensing Work and costs from Phase 3 (Supply LMR System Components) to Phase 1 (System Design) in the amount of \$284,041; (b) make certain changes to reflect the increase of FCC Licensing Work to contemplate the licensing of all UHF T-Band frequencies as referenced in Attachment B, at each of the applicable subsystem sites in order to achieve compliance with the performance criteria set forth in the Agreement, all in the amount of \$139,076; (c) make the necessary changes to reflect the inclusion of a bridge warranty for the Specified Equipment (Core 1, Core 2, repeater sites, Site on Wheels, and Station B Equipment) previously purchased under Amendment No. 3 and Amendment No. 4, to bridge the gap in warranty for this equipment until such time as Final LMR System Acceptance is achieved in the amount of \$647,533; and (d) to purchase portable radios, radio accessories, consolettes, and a control station for the Los Angeles Sheriff's Department Aero Bureau for purposes of mutual aid in the amount of \$386,234; increasing the Maximum Contract Sum by \$1,172,843 from \$292,387,284 to \$293,560,127.

The Agreement has been previously amended to Amendment Number Thirteen effective October 30, 2015 to make the necessary changes to reflect Phase 1 (System Design) Work to add lease exhibits to twenty-nine (29) LMR System Sites; increasing the Maximum Contract Sum by \$14,888 from \$293,560,127 to \$293,575,015.

The Agreement has been previously amended in Amendment Number Fourteen, effective November 17, 2015, to reflect the Work to reprogram UHF frequencies in accordance with Attachment A and purchase upgraded equipment for the County of Los Angeles Sheriff's Department's (LASD) Station B, as well as the Authority's System on Wheels to prepare for use at certain scheduled events in the amount of \$64,256, increasing the Maximum Contract Sum from \$293,575,015 to \$293,639,271.

The Agreement has been previously amended in Amendment Number Fifteen, effective December 17, 2015, to reflect the inclusion of Phase 1 (System Design) Project Description Work for eleven (11) potential replacement sites in the amount of \$128,414, increasing the Maximum Contract Sum from \$293,639,271 to \$293,767,685.

The Agreement has been previously amended in Amendment Number Sixteen, effective December 23, 2015, to (a) reflect the removal of thirty-one (31) LMR System Sites from the scope of Phase 1 (System Design) Work only for a cost reduction in the amount of \$1,132,374; (b) reflect the inclusion of seventeen (17) LMR System Sites into the scope of Phase 1 (System Design) only which includes all Work associated with the

addition of these sites into Phase 1 (System Design) for a cost increase in the amount of \$635,537; (c) exercise the Unilateral Options for all Work pertaining to Phase 1 (System Design) for seventeen (17) LMR System Sites; (d) include Phase 1 (System Design) Project Description Work only for one (1) potential replacement site (LACF134) for a cost increase in the amount of \$11,674; (e) account for a comprehensive redesign of the LMR System and all associated Work for a cost increase in the amount of \$1,054,440; (f) reflect the removal, relocation, and deployment of the LMR System Core 2 equipment from Los Angeles Police Department Valley Dispatch Center (LAPDVDC) to Palmdale Sheriff Station (PLM) and necessary Work associated with this relocation and for a cost increase in the amount of \$499,912; increasing the Maximum Contract Sum by \$1,069,189 (\$635,537 + \$11,674 + \$1,054,440 + \$499,912 - \$1,132,374 when taking the above cost increases and decreases into consideration) from \$293,767,685 to \$294,836,874.

The Agreement has been previously amended in Amendment Number Seventeen, effective April 25, 2016, as follows:

- (a) Make changes necessary to reflect the removal of thirty-four (34) LMR System Sites from the scope of Phase 1 (System Design), Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation), respectively, and all associated Work of the same for a cost reduction in the amount of \$45,143,083.
- (b) Make the changes necessary to reflect the inclusion of nineteen (19) LMR System Sites into the scope of Phase 1 (System Design), Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation), respectively, and all associated Work of the same for a cost increase in the amount of \$23,677,589.
- (c) Re-baselining of the project management overhead expenses, attributable in the Agreement to each phase of the work that contemplates project management fees, to more accurately reflect the current project scope, and to establish a formula to more accurately price the net impact on project management overhead expenses of any subsequent addition or removal of sites. The re-baseline removes costs on a per site basis to a new per phase deliverable as contemplated in Amendment No. 17 in the amount of \$8,207,108. This re-baselining does however result in a net cost reduction in the amount of \$572,826 which is contemplated in the re-baseline.
- (d) Reconcile equipment necessary for certain LMR System Sites as well as the logging recorder as a result of redesign for a cost increase in the amount of \$3,171,159.
- (e) Exercise the Unilateral Options for all Work pertaining to Phase 1 (System Design), Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation)

respectively, for those LMR System Sites contained in the LMR System reflecting the reconciliation of sites contemplated in Amendment No. 17.

- (e) Decreasing the Maximum Contract Sum by \$10,087,227 ( $-\$45,143,083 + \$23,677,589 + \$8,207,108 + \$3,171,159$ ) when taking the above cost increases and decreases into consideration) from \$294,836,874 to \$284,749,647.
- (f) Make other certain changes as set forth in Amendment No. 17.

The Agreement has been previously amended in Amendment Number Eighteen, effective May 4, 2016, to (a) reflect the inclusion of eight (8) LMR System Sites into the scope of Phase 1 (System Design) Work only which includes all Work associated with the addition of these sites into Phase 1 (System Design) for a cost increase in the amount of \$76,136; (b) exercise the Unilateral Options for all Work pertaining to Phase 1 (System Design) for eight (8) LMR System Sites; (c) reflect the inclusion of Phase 1 (System Design) Project Description Work for four (4) LMR System Sites for a cost increase in the amount of \$46,696; and (d) increasing the Maximum Contract Sum by \$122,832 ( $\$76,136 + \$46,696$ ), when taking the cost increases into consideration from \$284,749,647 to \$284,872,479.

The Agreement has been previously amended in Amendment Number Nineteen, effective May 5, 2016, to make changes necessary to (a) reflect the removal of one (1) LMR System Site from the scope of Phase 1 (System Design), Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation) for a cost reduction in the amount of \$1,192,712, which includes a reduction in the amount of \$20,322 for project management costs for this site; (b) reconcile equipment necessary for certain LMR System Sites as a result of redesign for a cost increase in the amount of \$1,197,256; increasing the Maximum Contract Sum by \$4,544 ( $\$1,197,256 - \$1,192,712$ ), when taking the cost increases and decreases into consideration, from \$284,872,479 to \$284,877,023; and (c) make other certain changes as set forth in Amendment No. 19.

The Agreement has been previously amended in Amendment Number Twenty, effective September 28, 2016, to make changes necessary to (a) reconcile nine (9) LMR System Sites to reflect the updated LMR System Design for a cost increase in the amount of \$367,144, (b) include 3D Modeling Work for certain LMR System Sites for a cost increase in the amount of \$6,534; (c) remove Site Lease Exhibit Work for certain LMR System Sites for a cost decrease in the amount of \$14,884; (d) increasing the Maximum Contract Sum by \$358,794 ( $\$367,144 + \$6,534 - \$14,884$ ) from \$284,877,023 to \$285,235,817 when taking the cost increases and decreases into consideration and (e) make other certain changes as set forth in Amendment No. 20.

The Agreement has been previously amended in Amendment Number Twenty-One, effective October 27, 2016, to make changes necessary to reflect (a) the replacement of one (1) LMR System Site Johnstone Peak (JPK) with site Johnstone Peak 2 (JPK2) by (1) removing site JPK from the scope of Phase 1 (System Design), Phase 2

(Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation), respectively, and all associated Work of the same; and (2) include the JPK2 site into the scope of Phase 1 (System Design), Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation), respectively, and all associated Work of the same, with the equivalent scope and cost for all Phases as JPK resulting in a cost neutral replacement; (b) exercise the Unilateral Options for all Work pertaining to Phase 1 (System Design) only for the replacement site Johnstone Peak 2; (c) reconcile ten (10) LMR System Sites to reflect the updated LMR System Design for a cost increase in the amount of \$804,944; (d) remove five (5) Project Descriptions from the scope of Phase 1 Work for a cost decrease in the amount of \$58,370; (e) make changes necessary to reflect an administrative revisions for a cost decrease in the amount of \$32,001; (f) increasing the Maximum Contract Sum by \$714,573 (\$804,944 - \$58,370 - \$32,001) from \$285,235,817 to \$285,950,390, when taking the cost increases and decreases into consideration; and (g) make other certain changes as set forth in Amendment No. 21.

The Agreement has been previously amended in Amendment Number Twenty-Two, effective November 17, 2016, to make changes necessary to reflect (a) the reconciliation of three (3) LMR System Sites to reflect the updated LMR System Design for a cost increase in the amount of \$476,676; (b) increasing the Maximum Contract Sum by \$476,676 from \$285,950,390 to \$286,427,066, when taking the cost increase into consideration; and (c) make other certain changes as set forth in Amendment No. 22.

The Agreement has been previously amended in Amendment Number Twenty-Three, effective December 21, 2016, to make changes necessary to (a) include four (4) LMR System Sites and all Work and equipment associated with these sites into Phase 1 (System Design) to be contemplated in the LMR System for a cost increase in the amount of \$36,068; (b) exercise the respective Unilateral Options all Phase 1 (System Design) Work pertaining to the four (4) LMR System Sites; (c) purchase certain Radio Equipment to be used with Authority's User Equipment for a cost increase in the amount of \$948; (d) increase the Maximum Contract Sum by \$39,016 from \$286,427,066 to \$286,466,082, when taking the cost increases into consideration; and (d) make other certain changes as set forth in Amendment No. 23.

The Agreement has been previously amended in Amendment Number Twenty-Four effective January 25, 2017, to make changes necessary to reflect (a) the reconciliation of six (6) LMR System Sites to align with the updated LMR System Design for a cost increase in the amount of \$2,379,232; (b) increase the Maximum Contract Sum by \$2,379,232 from \$286,466,082 to \$288,845,314, when taking the cost increase into consideration; and (c) make other certain changes as set forth in Amendment No. 24.

The Agreement has been previously amended in Amendment Number Twenty-Five effective March 20, 2017, to make changes necessary to reflect (a) the reconciliation of five (5) LMR System Sites to align with the updated LMR System Design for a cost decrease in the amount of \$330,670; (b) the inclusion of three (3) LMR System Sites into the scope of Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), and exercising the Unilateral



Options of the same, to align with the updated LMR System Design for a cost increase in the amount of \$4,684,205 (c) increase the Maximum Contract Sum by \$4,353,535 from \$288,845,314 to \$293,198,849, when taking the cost increase and decrease into consideration; and (d) make other certain changes as set forth in Amendment No. 25.

The Agreement has been previously amended in Amendment Number Twenty-Six, effective April 13, 2017, to make changes necessary to reflect (a) the reconciliation of seven (7) LMR System Sites to align with the updated LMR System Design for a cost increase in the amount of \$2,336,048; (b) the inclusion of one (1) LMR System Site into the scope of Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), and exercising the Unilateral Options of the same, to align with the updated LMR System Design for a cost increase in the amount of \$64,744 (c) increase the Maximum Contract Sum by \$2,400,792 from \$293,198,849 to \$295,599,641, when taking the cost increase into consideration; and (d) make other certain changes as set forth in Amendment No. 26.

The Agreement has been previously amended in Amendment Number Twenty-Seven, effective June 1, 2017, to make changes necessary to reflect (a) the reconciliation of two (2) LMR System Sites to align with the updated LMR System Design for a cost decrease in the amount of \$355,410 (b) the inclusion of two (2) LMR System Sites into the scope of Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), and exercising the Unilateral Options of the same, to align with the updated LMR System Design for a cost increase in the amount of \$1,439,627 (c) make changes necessary to reflect an administrative reconciliation, a reconciliation related to dropped sites, and a reconciliation related to services performed in Phase 1 for a cost decrease in the amount of \$3,434,574; (d) increase the scope to include all Work necessary to implement an environmental Mitigation Monitoring and Reporting Plan into the LMR program to assess and ensure mitigation measures are met for a cost increase in the amount of \$2,912,356, (e) increase the Maximum Contract Sum by \$561,999 from \$295,599,641 to \$296,161,640 when taking the cost increases and decreases into consideration; and (f) make other certain changes as set forth in Amendment No. 27.

The Agreement has been previously amended in Amendment Number Twenty-Eight, effective August 21, 2017, to make changes necessary to reflect (a) the reconciliation of one (1) LMR System Site to align with the updated LMR System Design for a cost increase of \$868,771 (b) make changes necessary to reflect LMR Change Order Modifications for a cost increase in the amount of \$31,487; (c) increase the Maximum Contract Sum by \$900,258 from \$296,161,640 to \$297,061,898 when taking the cost increases into consideration; and (d) make other certain changes as set forth in Amendment No. 28.

The Agreement has been previously amended in Amendment Number Twenty-Nine, effective September 07, 2017, to make changes necessary to reflect (a) the inclusion of one (1) LMR System Site into the scope of Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), and exercise the Unilateral Options of the same, to align with the

updated LMR System Design for a cost increase in the amount of \$1,170,471 (b) make changes necessary to reflect LMR Change Order Modifications for a cost increase in the amount of \$31,922; (c) increase the Maximum Contract Sum by \$1,202,393 from \$297,061,898 to \$298,264,291 when taking the cost increases into consideration; and (d) make other certain changes as set forth in Amendment No. 29.

The Authority and Contractor desire to further amend the Agreement to make changes necessary to reflect (a) the reconciliation of seven (7) LMR System Site to align with the updated LMR System Design for a cost decrease of \$1,664,767 (b) the inclusion of one (1) LMR System Site into the scope of Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), and exercise the Unilateral Options of the same, to align with the updated LMR System Design for a cost increase in the amount of \$1,228,018 (c) make changes necessary to reflect LMR Change Order Modifications for a cost increase in the amount of \$4,195; (d) upgrade equipment for the Multiprotocol Label Switching (MPLS) Mobile Backhaul which will provide the backhaul capacity necessary for network performance reliability and functionality for a cost increase in the amount of \$2,200,000; (e) increase the Maximum Contract Sum by \$1,767,446 from \$298,264,291 to \$300,031,737 when taking the cost increases and decreases into consideration; and (f) make other certain changes as set forth in Amendment No. 30.

This Amendment No. 30 is authorized under Section 2 (Changes to Agreement) of the Agreement.

NOW THEREFORE, in consideration of the foregoing recitals, all of which are incorporated as part of this Amendment No. 30, and for other valuable consideration, the receipt and sufficiency of which are acknowledged, Authority and Contractor hereby agree as follows:

1. Capitalized Terms; Section References. Capitalized terms used herein without definition (including in the recitals hereto), have the meanings given to such terms in the Base Document. Unless otherwise noted, section references in this Amendment No. 30 refer to sections of the Base Document, as amended by this Amendment No. 30.
2. LMR System Site Reconciliation. The parties agree and acknowledge to reconcile seven (7) LMR System Sites and all corresponding Work and Components to reflect the updated LMR System Design for these sites. The costs associated with these seven (7) LMR System Sites is included in the relevant portions of Exhibit C (Schedule of Payments). Additionally, pursuant to Section 6.6 of this Amendment No. 30, the detailed costs associated with this reconciliation are contained in Exhibit C.13.1 (LMR System Detailed Cost Summary).

RECONCILIATION OF AN LMR SYSTEM SITE – AMENDMENT 30		
Item No.	Site ID	Site Description
2.1	BUR1	Burnt Peak 1

RECONCILIATION OF AN LMR SYSTEM SITE – AMENDMENT 30		
Item No.	Site ID	Site Description
2.2	DPW38	Los Angeles County Department of Public Works Pump Station 38
2.3	FRP	Frost Peak
2.4	JPK1	Johnstone Peak 2
2.5	MIR	Mirador
2.6	MML	Magic Mountain Link
2.7	RHT	Rolling Hills Transmit

3. LMR System Site Inclusion. The parties agree and acknowledge to include one (1) LMR System Sites into the scope of Phases 2, 3, and 4 to align with the updated LMR System Design. The costs associated with the inclusion of this one (1) LMR System Site is included in the relevant portions of Exhibit C (Schedule of Payments). Additionally, pursuant to Section 6.6 of this Amendment No. 30, the detailed costs associated with the inclusion of these sites are contained in Exhibit C.13.1 (LMR System Detailed Cost Summary).

RECONCILIATION OF AN LMR SYSTEM SITE – AMENDMENT 30		
Item No.	Site ID	Site Description
3.1	UNIV	Universal Studios

4. Exercise of Unilateral Options. As provided in Section 4.1.2.2(c) of the Base Document, Authority has determined in its sole and unilateral discretion to exercise the Unilateral Options for all Work as it relates to one (1) LMR System Site currently contemplated in the Design and reflected in this Amendment No. 30 and Exhibit C (Schedule of Payments) for all Work pertaining to Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation), to construct, purchase, and implement this one (1) LMR System Sites. Subject to Section 4.1.2.3 (Notices to Proceed) of the Base Document, the Contractor agrees that it shall, on a timely basis and in accordance with the Agreement, fully perform, provide, complete, and deliver all Work encompassed in such Unilateral Options for Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation) Work of the one (1) LMR System Site contemplated in this Amendment No. 30, in exchange for the amounts set forth in Exhibit C (Schedule of Payments) for such Work.
5. Amendments to the Base Document.
- 5.1 Section 8.1.1 of the Base Document is deleted in its entirety and replaced with the following:

- 8.1.1. The "Maximum Contract Sum" under this Agreement is Three Hundred Million, Thirty-One Thousand, Seven Hundred Thirty-Seven Dollars (\$300,031,737), which includes the Contract Sum and all Unilateral Option Sums, as set forth in Exhibit C (Schedule of Payments).
- 5.2 Section 24.4.1 of the Base Document is deleted in its entirety and replaced with the following:
- 24.4.1 Except for liability resulting from personal injury, harm to tangible property, or wrongful death, Contractor's total liability to the Authority, whether for breach of contract, warranty, negligence, or strict liability in tort, will be limited in the aggregate to direct damages no greater than Three Hundred Million, Two Hundred Ninety-Two Thousand, Seven Hundred Twenty Dollars (\$300,292,720). Notwithstanding the foregoing, Contractor shall not be liable to the Authority for any special, incidental, indirect, or consequential damages.
6. Amendments to Agreement Exhibits.
- 6.1 The parties agree and acknowledge that Contractor will upgrade equipment for the Multiprotocol Label Switching (MPLS) Mobile Backhaul which will provide the backhaul capacity necessary for network performance reliability. To account for the inclusion of this Work, Exhibit B.1 (LMR System Specifications), is deleted in its entirety and replaced with Exhibit B.1 (LMR System Specifications) attached to this Amendment No. 30, is incorporated herein by this reference, which reflects the inclusion of Section 6 (Multiprotocol Label Switching Mobile Backhaul) and all corresponding Work necessary to provide the MPLS Mobile Backhaul in exchange for the costs set forth in Exhibit C.18 (Multiprotocol Label Switching Mobile Backhaul) to Exhibit C (Schedule of Payments).
- 6.2 Exhibit C.1 (LMR System Payment Summary) to Exhibit C (Schedule of Payments) is deleted in its entirety and replaced with Exhibit C.1 (LMR System Payment Summary) to Exhibit C (Schedule of Payments) attached to this Amendment No. 30, which is incorporated herein by this reference.
- 6.3 Exhibit C.3 (Phase 2 – Site Construction and Site Modification) to Exhibit C (Schedule of Payments) is deleted in its entirety and replaced with Exhibit C.3 (Phase 2 – Site Construction and Site Modification) to Exhibit C (Schedule of Payments) attached to this Amendment No. 30, which is incorporated herein by this reference.
- 6.4 Exhibit C.4 (Phase 3 – Supply LMR System Components) to Exhibit C (Schedule of Payments) is deleted in its entirety and replaced with Exhibit C.4 (Phase 3 – Supply LMR System Components) to Exhibit C (Schedule

of Payments) attached to this Amendment No. 30, which is incorporated herein by this reference.

- 6.5 Exhibit C.5 (Phase 4 – LMR System Implementation) to Exhibit C (Schedule of Payments) is deleted in its entirety and replaced with Exhibit C.5 (Phase 4 – LMR System Implementation) to Exhibit C (Schedule of Payments) attached to this Amendment No. 30, which is incorporated herein by this reference.
  - 6.6 Exhibit C.13.1 (LMR System Detailed Cost Summary), dated August 2017, is deleted in its entirety and replaced with Exhibit C.13.1 (LMR System Detailed Cost Summary), dated October 2017, and shall be added to Exhibit C.13 (Contractor's Response to Appendix H (Pricing Requirements) to RFP No. LA-RICS 007) to Exhibit C (Schedule of Payments), which is incorporated herein by this reference.
  - 6.7 Exhibit C.17 (LMR Change Order Modifications) to Exhibit C (Schedule of Payments) is deleted in its entirety and replaced with Exhibit C.17 (LMR Change Order Modifications), attached to this Amendment No. 30, which is incorporated herein by this reference.
  - 6.8 Exhibit C (Schedule of Payments) is revised to include Exhibit C.18 (Multiprotocol Label Switching Mobile Backhaul), attached to this Amendment No. 30, which is incorporated herein by this reference.
7. This Amendment No. 30 shall become effective as of the date identified in the recitals, which is the date upon which:
    - 7.1 An authorized agent of Contractor has executed this Amendment No. 30;
    - 7.2 Los Angeles County Counsel has approved this Amendment No. 30 as to form;
    - 7.3 The Board of Directors of the Authority has authorized the Executive Director of the Authority, if required, to execute this Amendment No. 30; and
    - 7.4 The Executive Director of the Authority has executed this Amendment No. 30.
  8. Except as expressly provided in this Amendment No. 30, all other terms and conditions of the Agreement shall remain the same and in full force and effect.
  9. Contractor and the person executing this Amendment No. 30 on behalf of Contractor represent and warrant that the person executing this Amendment No. 30 for Contractor is an authorized agent who has actual authority to bind Contractor to each and every term and condition of this Amendment No. 30, and that all requirements of Contractor to provide such actual authority have been fulfilled.

10. This Amendment No. 30 may be executed in one or more original or facsimile counterparts, all of which when taken together shall constitute one in the same instrument.

\* \* \*

**AMENDMENT NUMBER THIRTY**  
**TO AGREEMENT NO. LA-RICS 007**  
**FOR**  
**LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM –**  
**LAND MOBILE RADIO SYSTEM**

IN WITNESS WHEREOF, the parties hereto have caused this Amendment No. 30 to be executed on their behalf by their duly authorized representatives, effective as of the date first set forth above.

LOS ANGELES REGIONAL  
INTEROPERABLE COMMUNICATIONS  
SYSTEM AUTHORITY

MOTOROLA SOLUTIONS, INC.

By: \_\_\_\_\_

Scott Edson  
Executive Director

By: \_\_\_\_\_

Howard Chercoe  
MSSSI Vice President

APPROVED AS TO FORM FOR THE  
LOS ANGELES REGIONAL  
INTEROPERABLE COMMUNICATIONS  
SYSTEM AUTHORITY:

MARY C. WICKHAM  
County Counsel

By: \_\_\_\_\_

Truc L. Moore  
Principal Deputy County Counsel

**6. MPLS Mobile Backhaul****6.1. Overview**

The purpose of the LA-RICS Mobile Backhaul Solution provided by Motorola Solutions Inc (MSI) is to provide LA-RICS a MPLS network that is scalable, resilient, and flexible. This solution will be provided with Nokia’s 7705 Service Aggregation Routers (SAR). Nokia’s SAR devices were selected for their scalability, support for legacy interfaces, and single chassis redundancy features.

The selected MPLS devices will add the following technologies/features to the mobile backhaul network:

Advanced Layer 3 Functionality
Layer 3 VPN (L3VPN or VPRN)
Virtual Private LAN Service (VPLS)
IP/MPLS with Traffic Engineering (RSVP-TE)
Dynamic Routing (BGP, MP-BGP, OSPFv3, ISIS, RIP, etc.)
Access Control Lists (ACL)
Circuit Emulation (VLL)
Fast Reroute over MPLS, ATM over MPLS, DS1 over MPLS
Integrated Timing: NTP, GPS, ToD, PTP, Sntp
QoS with DiffServ-TE

**6.1.1 Key advantages**

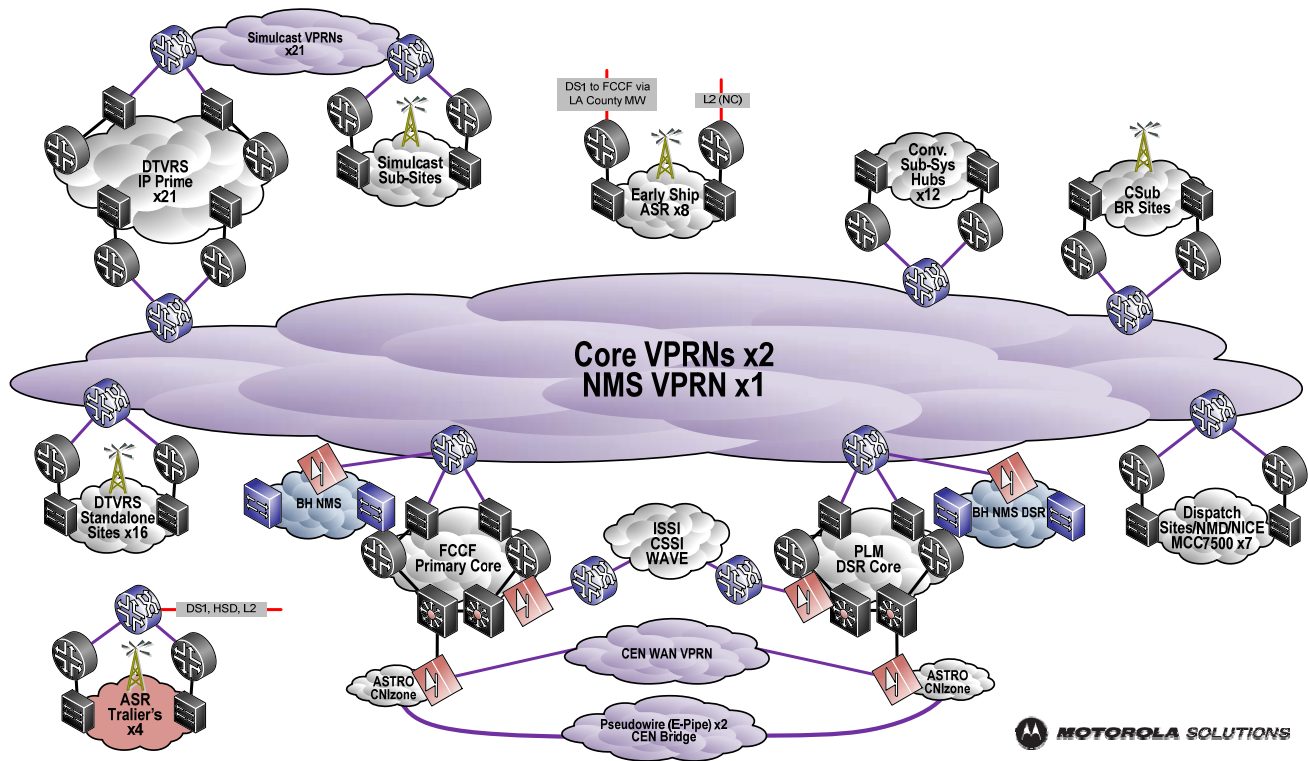
- Flexibility implementing the system
- Facilitates the integration and addition of other agencies with minimum interruptions to the system
- Can integrate current/existing systems into the layer 3 network while maintaining operational independence
- More robust/resilient design (multiple layers of failure protection)
- Legacy interface support
- Traffic Engineering – more efficient use of available bandwidth/paths
- Ease of management
- High degree of scalability
- Advanced interoperability (Inter/Intra-agency communications)
- Long term cost savings (i.e. software upgrades versus hardware replacement)



**6.1.2 Design Overview**

The MPLS network will be designed to support all LA-RICS LMR voice and data traffic with attention paid to allow future services currently not designated. The following services will be designed from a high level and low level design perspective by MSI.

1. Virtual Private Routed Networks (VPRN) – for the purpose of:
  - a. Transport of core and simulcast radio traffic
  - b. Transport of Core to Core or Interzone traffic
  - c. Transport of all LARTCS and ACVRS conventional subsystem traffic
  - d. Transporting all SMMS system traffic to and from remote sites to the NOC and core locations.
  - e. Transport of all NMDN conventional subsystem traffic
  - f. Customer Enterprise Network (CEN) Wide Area Network (WAN) transport
  - g. ISSI transport as required
2. Ethernet Virtual Leased Lines (VLL) for the purpose of:
  - a. High availability CEN configuration
  - b. 3<sup>rd</sup> party console audio as required
3. 4 Wire Audio E&M Virtual Leased Lines (VLL) for the purpose of:
  - a. 3<sup>rd</sup> party console audio as required



**6-1: LA-RICS MPLS Mobile Backhaul Overview**

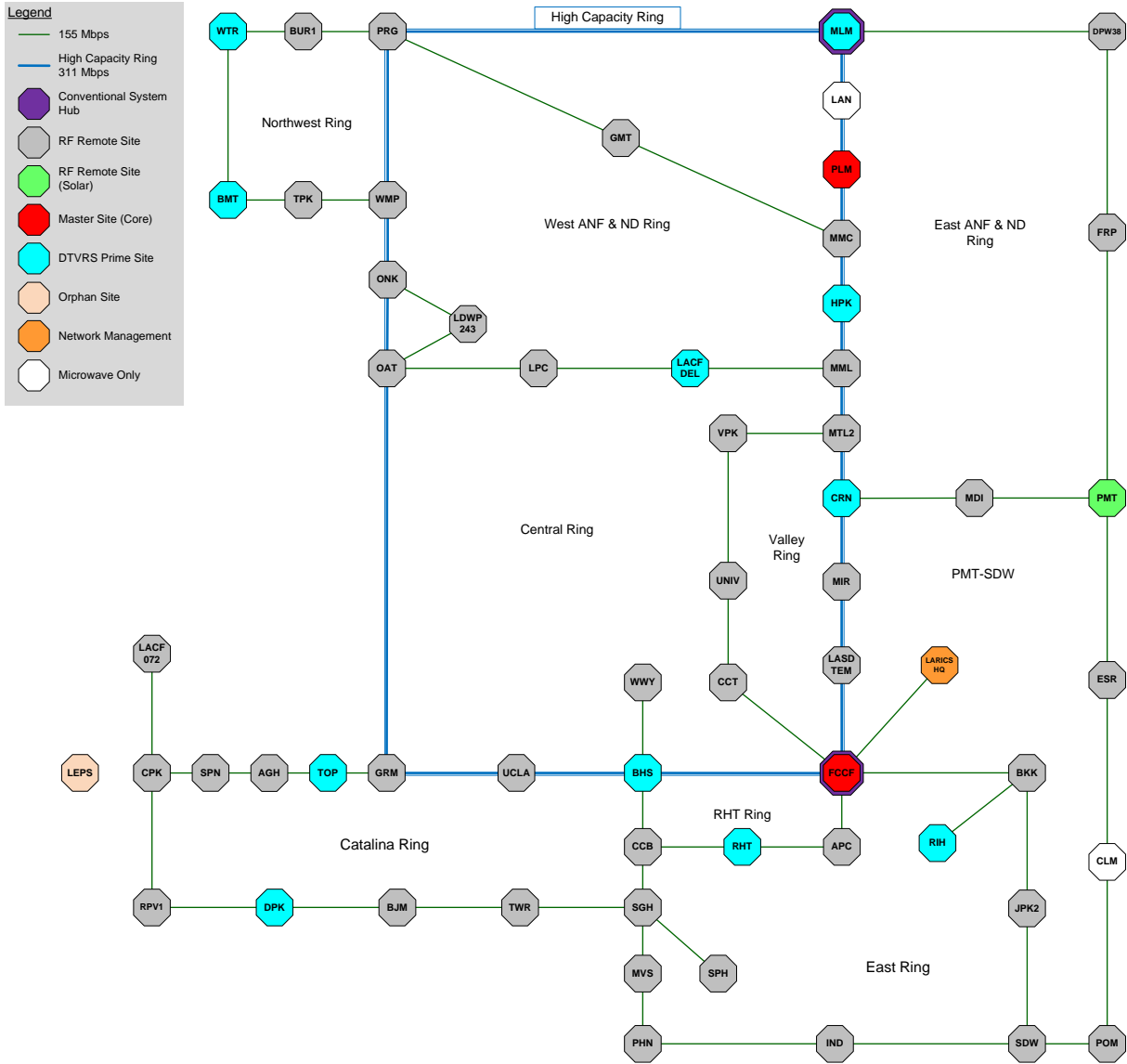
**6.1.3 Network Management**

Nokia’s 5620 Service Aware Manager (SAM) with redundant servers is included in the MPLS design. The SAM will allow web based and Java client based, fault management, network supervision, and north bound interface.

**6.1.4 Network Scope**

- 7705 SAR-8 for 61 sites
- Dual 8 port 1GE version 3 Ethernet cards per SAR-8 chassis (minimum)
- Dual 16 port DS1 cards per SAR-8 chassis (minimum)
- Dual 6 port E&M at ACVRS prime site locations (minimum)
- Dual Omni Switch 6450 for 61 sites
- 7705 SAR-18 for 2 core sites
- 10% equipment spares
- Dual redundant SAM servers
- NMS System firewalls, workstations, and switches

*Note: For detailed bill of materials and site list see attachment A*



**6-2: Logical Overview Map**

**6.1.5 Network and MPLS Specifications**

The following is a list of services and protocol specifications that will be followed for the MPLS mobile backhaul design:

- All network interface (microwave facing) will be 1GE capable
- Node scalability will be at no more than 20% after initial system configuration
- All routers will be selected so that they contain two redundant routing engines or control switch modules and dual power supply feeds.

- Maximum Transmission Unit (MTU) of Microwave (MW) facing interfaces will be at least 2048
- An appropriate interior gateway (IGP) protocol will be selected and authentication will be enabled to prevent accidental or malicious network events
- The IGP will be configured as a single area and provisioned for traffic engineering
- Targeted Label Distribution Protocol (LDP) will be used for VLL service label distribution
- Bi-directional Forwarding Detection (BFD) will be used to speed up link failure detection and network convergence
- Border Gateway Protocol (BGP) will be used for VPRN service label distribution. Route reflectors will be used for scalability purposes
- A single autonomous system will be used for the BGP
- All MPLS tunnels for critical services will use Label Switched Paths (LSP) with fast reroute and/or standby protection paths
- Less than 100 msec service recovery time will be achieved for critical services
- Resource Reservation Protocol (RSVP) with traffic engineering extensions will be used for all MPLS tunnels for critical services
- Constrained Shortest Path First (CSPF) will be used for all MPLS tunnels for critical services
- Admin groups and Shared Risk Link Groups (SRLG) will be used for traffic engineering purposes. Explicit Route Object will only be used only in limited special cases
- Quality of Service (QoS) policies will be used at all service ingress point to protect the core network
- All network links (microwave facing interfaces) will utilize QoS to prioritize voice and other critical traffic
- All traffic will be classified and marked/remarked using dot1p, EXP, or DSCP markings
- Reasonable security measures will be taken to protect the MPLS core routing instances and management instance to include the following:
  - Dual redundant firewalls
  - SNMPv3
  - Secure Shell (SSH) only

- Access control lists and filtering rules
- NTP and SNTP will be used for clock synchronization

## **6.2 DESIGN AND INSTALLATION SERVICES PROVIDED**

MSI will create the high level network design. The high level design will consist of network drawings and documents and describe the network design from a high level. The design will account for and include all LA-RICS LMR services. The following documents will be provided as part of an initial release and part of the final system documentation.

- IGP Network Detail
- Logical Overview
- Traffic Engineering Map
- Route Reflector Topology
- Microwave Logical layout
- Network Management Systems diagram

MSI will provide the low level design which will consist of network drawings and documents that detail the network design from a low level (at the box level). MSI will provide all low level design documents which will consist of the following:

- Firewall configuration files
- SAR configuration files
- Switch configuration files
- Any ancillary configuration files or information
- MPLS Workbook

MSI will install, configure, optimize and test all routers, switches, firewalls and cabling

MSI will provide an Acceptance Test Plan (ATP) to verify design meets specifications. A customer witnessed test will be provided

MSI will provide vendor specific and LA-RICS network design training to LA-RICS

MSI will install, design, and configure the network for high availability, scalability, and resilient network designs

All installations will follow R56 standards with appropriate power and grounding

MSI will provide SAM server design and configuration services to include the following:

- Client configuration and installation
- The following number of active web clients allowed is 250
- The following number of active Java client is 10
- Virtual machine configuration and installation
- Red Hat Enterprise Linux configuration and installation
- SAM Server configuration and installation
- Network device discovery
- Initial network device map views
- SAM server and client training
- SAM user training

### **6.3 MAINTENANCE AND SUPPORT**

#### **6.3.1 Hardware Maintenance**

MSI will provide all system hardware maintenance through Nokia up until system acceptance. After that time LA-RICS will have the option to continue maintenance support with Nokia. See attachment B for Nokia's maintenance terms.

#### **6.3.2 System Support**

MSI will provide system support during system installation, and construction up and until final system acceptance in accordance with already approved LA-RICS and MSI support and services agreements.

### **6.4 ACCEPTANCE TEST PLAN (ATP)**

The acceptance test will be mutually agreed to by LA-RICS and MSI. The test will consist of both factory/staging tests, and field testing. The staging ATP will be designed and scoped to demonstrate the network functionality on the agreed to selected links and routers. The functional ATP will be conducted after the final implementation and will test the system MPLS functionality. Tests will include but may not be limited to the following devices and services:

- SAM & NMS Equipment located at FCCF and LASDPLM Core sites (field test only)
- 7705 SAR-8
- 6450 OMNI Switches

- 77505 SAR-18 located at 2 sites
- Service disruption testing
- Network prioritization testing or Quality of Service (QoS)
- Failure mode testing (link, power, control card)
- End to end DS1 service testing
- End to end 4 Wire E&M service testing
- End to end Ethernet VLL service testing
- End to end VPRN service testing using ITU Y.1564

<b>EXHIBIT C.1 - SCHEDULE OF PAYMENTS</b>				
<b>LMR SYSTEM PAYMENT SUMMARY</b>				
<b>Summary</b>	<b>Unilateral Option Sum</b>	<b>Contract Sum - Full Payable Amount</b>	<b>10% Holdback Amount</b>	<b>Payment Minus 10% Holdback Amount</b>
<b>Phase 1</b> <sup>(Note 1)</sup>	\$ -	\$ 43,491,414	\$ 3,126,924	\$ 40,364,490
<b>Phase 2</b>	\$ -	\$ 45,040,439	\$ 4,394,654	\$ 40,645,785
<b>Phase 3</b>	\$ -	\$ 63,204,326	\$ 5,142,491	\$ 58,061,835
<b>Phase 4</b>	\$ -	\$ 28,987,338	\$ 2,835,362	\$ 26,151,976
<b>SUBTOTAL (Phases 1 to 4):</b>	<b>\$ -</b>	<b>\$ 180,723,517</b>	<b>\$ 15,499,431</b>	<b>\$ 165,224,085</b>
<b>Phase 5 (15 Years)</b>	\$ 55,898,518	\$ -	\$ -	\$ 55,898,518
<b>TOTAL (Phases 1 to 5):</b>	<b>\$ 55,898,518</b>	<b>\$ 180,723,517</b>	<b>\$ 15,499,431</b>	<b>\$ 221,122,604</b>
Bounded Area Coverage Additive Alternate <sup>(Note 1)</sup>	\$ 19,109,375	\$ -	\$ 1,910,937	\$ 17,198,437
Mandatory Building Coverage Additive Alternate	\$ 29,828,448	\$ -	\$ 2,982,845	\$ 26,845,603
Metrorail Coverage Additive Alternate	\$ 4,792,260	\$ -	\$ 479,226	\$ 4,313,034
LMR System Maintenance for Additive Alternates	\$ 19,620,355	\$ -	\$ 1,962,036	\$ 17,658,320
Source Code Software Escrow	\$ 1,304,000	\$ -	\$ 130,400	\$ 1,173,600
LMR Mitigation Monitoring and Reporting Plan		\$ 2,912,356	\$ -	\$ 2,912,356
LMR Change Order Modifications		\$ 67,604	\$ 6,760	\$ 60,844
Multiprotocol Label Switching Mobile Backhaul		\$ 2,200,000	\$ 220,000	\$ 1,980,000
<b>SUBTOTAL</b>	<b>\$ 130,552,956</b>	<b>\$ 185,903,477</b>	<b>\$ 23,191,636</b>	<b>\$ 293,264,797</b>
<b>TOTAL CONTRACT SUM:</b>	<b>\$185,903,477</b>			
<b>LMR Discounts</b> <sup>(Note 2)</sup>	<b>-\$16,424,696</b>			
<b>MAXIMUM CONTRACT SUM(Total Unilateral Option Sum plus Total Contract Sum):</b>	<b>\$300,031,737</b>			
<p><b>Note 1:</b> The cost for the Project Descriptions for the Bounded Area Coverage <u>only</u> are reflected in Exhibit C.2 (Phase 1 - System Design) as amended and restated in Amendment No. 2., and included (\$173, 110) in Phase 1 Contract Sum - Full Payable Amount. The balance of the remaining Unilateral Option Sum for Bounded Area Coverage Additive Alternate Work is reflected in Exhibit C.7 (Bounded Area Coverage Additive Alternate).</p>				
<p><b>Note 2:</b> The total remaining balance of the LMR Discounts applied to the Max Contract Sum will be utilized at the discretion of the Authority.</p>				



**EXHIBIT C.3 - SCHEDULE OF PAYMENTS**  
**PHASE 2 - SITE CONSTRUCTION AND SITE MODIFICATION**

Deliverable/ Task/ Section No. <small>(Exhibit A, Exhibit B, or Base Document)</small>	Site ID	Deliverable <small>(Refer to Site Development Matrix in Exhibit B for further details on the capacity and sizes of site components)</small>	Phase 2 Total						
			Qty.	Unilateral Option Sum for Site Construction Only	Unilateral Option Sum Incuding Project Management	Credits <small>(Note 1)</small>	Contract Sum - Payable Amount for Phase 2 <small>(Note 1,3)</small>	10% Holdback Amount	Payable Amount Less 10% Holdback
<b>B.2.2</b>		<b>Site Construction</b>							
<del>B.2.2</del>	BAH	Baldwin Hills		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	BJM	Black Jack Peak		\$ -	\$ -	\$ -	\$ 1,146,012	\$ 114,601	\$ 1,031,411
B.2.2	BMT	Bald Mountain		\$ -	\$ -	\$ -	\$ 453,781	\$ 45,378	\$ 408,403
B.2.2	BRK	Blue Roek		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	BUR	Burnt Peak		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	BVG	Beverly Glen		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	CCB	Compton Court Building		\$ -	\$ -	\$ -	\$ 451,517	\$ 45,152	\$ 406,365
<del>B.2.2</del>	CEP	Century Plaza		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	CLM	Claremont		\$ -	\$ -	\$ -	\$ 7,780	\$ 778	\$ 7,002
B.2.2	CPK	Castro Peak		\$ -	\$ -	\$ -	\$ 641,071	\$ 64,107	\$ 576,964
B.2.2	DPK	Dakin Peak		\$ -	\$ -	\$ -	\$ 620,065	\$ 62,006	\$ 558,058
<del>B.2.2</del>	ELSGDPD	El Segundo PD		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	ENC1	Encinal Fire Camp		\$ -	\$ -	\$ -	\$ 469,641	\$ 46,964	\$ 422,677
B.2.2	GRM	Green Mountain		\$ -	\$ -	\$ -	\$ 625,114	\$ 62,511	\$ 562,603
B.2.2	HPK	Hauser Peak		\$ -	\$ -	\$ -	\$ 599,484	\$ 59,948	\$ 539,536
<del>B.2.2</del>	JPK	Johnstone Peak		\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0
<del>B.2.2</del>	LACF028	FS 28		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LACF056	FS 56		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LACF071	FS 71		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	LACF072	FS 72		\$ -	\$ -	\$ -	\$ 524,184	\$ 52,418	\$ 471,766
<del>B.2.2</del>	LACF077	FS 77		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LACF084	LACF84		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	LACF091	FS 91		\$ -	\$ -	\$ -	\$ 358,453	\$ 35,845	\$ 322,608
<del>B.2.2</del>	LACF099	FS99		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LACF119	FS 119		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LACF144	FS 144		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LACF149	FS 149		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LACF157	FS 157		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LACF196	FS 169		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LACFCP09	LACFCP09		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	LACFDEL	Los Angeles County Fire Departmental Del Valle Training Camp		\$ -	\$ -	\$ -	\$ 536,490	\$ 53,649	\$ 482,841
<del>B.2.2</del>	LAH	LA City Hall		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	LBR	Lower Blue Ridge		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	LDWP243	DWP Sylmar Water Ladder		\$ -	\$ -	\$ -	\$ 213,691	\$ 21,369	\$ 192,322
<del>B.2.2</del>	MAM	Magie Mountain		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	MDI	Mount Disappointment		\$ -	\$ -	\$ -	\$ 770,946	\$ 77,095	\$ 693,851
B.2.2	MLE	Mount Lee		\$ -	\$ -	\$ -	\$ 499,969	\$ 49,997	\$ 449,972
B.2.2	MLM	Mira Loma Facility		\$ -	\$ -	\$ -	\$ 574,787	\$ 57,479	\$ 517,308
B.2.2	MMC	Mount McDill		\$ -	\$ -	\$ -	\$ 735,075	\$ 73,507	\$ 661,567
<del>B.2.2</del>	MTL	Mount Lukens		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	MTT	Mt Thom		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	MTW	Mount Washington		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	MVS	Monte Vista (Star Center)		\$ -	\$ -	\$ -	\$ 312,077	\$ 31,208	\$ 280,870
B.2.2	OAT	Oat Mountain OAT		\$ -	\$ -	\$ -	\$ 507,627	\$ 50,763	\$ 456,864
<del>B.2.2</del>	OMC	Oat Mountain OMC		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	ONK	Oat Mountain Nike		\$ -	\$ -	\$ -	\$ 544,369	\$ 54,437	\$ 489,932
B.2.2	PHN	Puente Hills		\$ -	\$ -	\$ -	\$ 205,959	\$ 20,596	\$ 185,363
B.2.2	PRG	Portal Ridge		\$ -	\$ -	\$ -	\$ 739,261	\$ 73,926	\$ 665,335
<del>B.2.2</del>	PSH	Pomona 1620 Hillcrest		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	RDNBPD	Redondo Beach PD		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>B.2.2</b>	<b>RHT</b>	<b>Rolling Hills Transmit</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 735,910</b>	<b>\$ 73,591</b>	<b>\$ 662,319</b>
B.2.2	RIH	Rio Hondo		\$ -	\$ -	\$ -	\$ 755,872	\$ 75,587	\$ 680,285
<del>B.2.2</del>	RPVE001	Rancho Palos Verde City Hall		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<del>B.2.2</del>	SAG	San Augustine		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	SDW	San Dimas		\$ -	\$ -	\$ -	\$ 679,371	\$ 67,937	\$ 611,434
B.2.2	SGH	Signal Hill		\$ -	\$ -	\$ -	\$ 350,623	\$ 35,062	\$ 315,561
<del>B.2.2</del>	SPC	San Pedro Hill		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	SPN	Saddle Peak		\$ -	\$ -	\$ -	\$ 438,967	\$ 43,897	\$ 395,071
B.2.2	SUN	Sunset Ridge		\$ -	\$ -	\$ -	\$ 433,020	\$ 43,302	\$ 389,718
<del>B.2.2</del>	SVP	San Vicente Peak		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**EXHIBIT C.3 - SCHEDULE OF PAYMENTS  
PHASE 2 - SITE CONSTRUCTION AND SITE MODIFICATION**

Deliverable/ Task/ Section No. <small>(Exhibit A, Exhibit B, or Base Document)</small>	Site ID	Deliverable <small>(Refer to Site Development Matrix in Exhibit B for further details on the capacity and sizes of site components)</small>	Phase 2 Total							
			Qty.	Unilateral Option Sum for Site Construction Only	Unilateral Option Sum Incuding Project Management	Credits <small>(Note 1)</small>	Contract Sum - Payable Amount for Phase 2 <small>(Note 1,3)</small>	10% Holdback Amount	Payable Amount Less 10% Holdback	
B.2.2	SWP	Southwest Area Station		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.2.2	TOP	Topanga Peak		\$ -	\$ -	\$ -	\$ 559,263	\$ 55,926	\$ 503,337	
B.2.2	TPK	Tejon Peak		\$ -	\$ -	\$ -	\$ 590,720	\$ 59,072	\$ 531,648	
B.2.2	TWR	Tower Peak		\$ -	\$ -	\$ -	\$ 623,539	\$ 62,354	\$ 561,185	
B.2.2	VPC	Verdugo Peak (city)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
B.2.2	WAD	Walker Drive		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
B.2.2	WMP	Whitaker Middle Peak		\$ -	\$ -	\$ -	\$ 591,434	\$ 59,143	\$ 532,291	
B.2.2	WS1	100 Wilshire		\$ -	\$ -	\$ -	\$ 185,718	\$ 18,572	\$ 167,146	
B.2.2	WTR	Whitaker Ridge		\$ -	\$ -	\$ -	\$ 629,583	\$ 62,958	\$ 566,625	
B.2.2	LAPD077	77TH Street Area Complex		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
B.2.2	LAPDDVN	Devonshire Area station		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
B.2.2	FCCF	L A County Fire Command		\$ -	\$ -	\$ -	\$ 186,715	\$ 18,671	\$ 168,043	
B.2.2	LAPDVDC	Valley Dispatch Center		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Subtotal for Site Construction and Modifications Site Detail</b>				\$ -	\$ -	\$ -	\$ 18,298,088	\$ 1,829,809	\$ 16,468,279	
<b>ADDITIONAL SITES (AMENDMENT NO. 10)</b>										
B.2.2		<b>Site Construction</b>								
B.2.2	APC	Airport Courthouse		\$ -	\$ -	\$ -	\$ 152,578	\$ 15,258	\$ 137,320	
B.2.2	BCHCPRK	Beverly Hills' Coldwater Canyon Park		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
B.2.2	LACF136	FS 136		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
B.2.2	LAHE	LA City Hall East		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
B.2.2	OLI	Olinda		\$ -	\$ -	\$ -	\$ 187,439	\$ 18,744	\$ 168,695	
<b>Subtotal for Additional Sites (Amendment No. 10)</b>				\$ -	\$ -	\$ -	\$ 340,017	\$ 34,002	\$ 306,015	
<b>ADDITIONAL SITES (AMENDMENT NO. 17)</b>										
B.2.2		<b>Site Construction</b>								
B.2.2	AGH	Agoura Hills		\$ -	\$ -	\$ -	\$ 532,096	\$ 53,210	\$ 478,886	
B.2.2	BUR1	Burnt Peak 1		\$ -	\$ -	\$ -	\$ 720,568	\$ 72,057	\$ 648,511	
B.2.2	CCT	Criminal Court (Foltz)		\$ -	\$ -	\$ -	\$ 555,734	\$ 55,573	\$ 500,161	
B.2.2	CRN	Cerro Negro		\$ -	\$ -	\$ -	\$ 557,562	\$ 55,756	\$ 501,806	
B.2.2	FRP	Frost Peak (Upper Blue Ridge)		\$ -	\$ -	\$ -	\$ 760,736	\$ 76,074	\$ 684,662	
B.2.2	GMT	Grass Mountain		\$ -	\$ -	\$ -	\$ 2,021,991	\$ 202,199	\$ 1,819,792	
B.2.2	H-17A	H-17 Helipad		\$ -	\$ -	\$ -	\$ 358,453	\$ 35,845	\$ 322,608	
B.2.2	LARICSHQ	LA-RICS Headquarters		\$ -	\$ -	\$ -	\$ 27,508	\$ 2,751	\$ 24,757	
B.2.2	LASDTEM	Los Angeles County Sheriff's Department Temple Station		\$ -	\$ -	\$ -	\$ 297,580	\$ 29,758	\$ 267,822	
B.2.2	LPC	Loop Canyon		\$ -	\$ -	\$ -	\$ 475,498	\$ 47,550	\$ 427,948	
B.2.2	LEPS	Lower Encinal Pump Station		\$ -	\$ -	\$ -	\$ 451,070	\$ 45,107	\$ 405,963	
B.2.2	MIR	Mirador		\$ -	\$ -	\$ -	\$ 412,858	\$ 41,286	\$ 371,572	
B.2.2	MML	Magic Mountain Link		\$ -	\$ -	\$ -	\$ 758,650	\$ 75,865	\$ 682,785	
B.2.2	MTL2	Mount Lukens 2		\$ -	\$ -	\$ -	\$ 818,220	\$ 81,822	\$ 736,398	
B.2.2	PDC	Pacific Design Center		\$ -	\$ -	\$ -	\$ 241,099	\$ 24,110	\$ 216,989	
B.2.2	PLM	Los Angeles County Sheriff's Department Palmdale Station		\$ -	\$ -	\$ -	\$ 212,651	\$ 21,265	\$ 191,386	
B.2.2	PMT	Pine Mountain		\$ -	\$ -	\$ -	\$ 2,027,826	\$ 202,783	\$ 1,825,043	
B.2.2	PWT	Portshead Tank		\$ -	\$ -	\$ -	\$ 402,033	\$ 40,203	\$ 361,830	
B.2.2	VPK	Verdugo Peak County)		\$ -	\$ -	\$ -	\$ 682,724	\$ 68,272	\$ 614,452	
<b>Subtotal for Additional Sites (Amendment No. 17)</b>				\$ -	\$ -	\$ -	\$ 12,314,857	\$ 1,231,486	\$ 11,083,371	
Base.22.3.2		Project Management	Included	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
		Performance Bond	1	\$ -	\$ -	\$ -	\$ 193,803	\$ -	\$ 193,803	
		Materials and Labor Bond	Included	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
		Total Lease Costs		\$ -	N/A	\$ -	\$ -	\$ -	\$ -	
Base.22.2.2		Builder's Insurance	1	\$ -	\$ -	\$ -	\$ 372,599	\$ -	\$ 372,599	
Base.22.2.1		Liability Insurance (General and Professional)	1	\$ -	\$ -	\$ -	\$ 527,500	\$ -	\$ 527,500	
B.2.2		Phase 2 Completion Acceptance					\$ 8,963,268	\$ 896,327	\$ 8,066,941	
<b>ADDITIONAL SITE (AMENDMENT NO. 21)</b>										
B.2.2		<b>Site Construction</b>								
B.2.2	JPK2	Johnstone Peak - 2		\$ -	\$ -	\$ -	\$ 661,912	\$ 66,191	\$ 595,721	
<b>Subtotal for Additional Site (Amendment No. 21)</b>				\$ -	\$ -	\$ -	\$ 661,912	\$ 66,191	\$ 595,721	
<b>ADDITIONAL SITES (AMENDMENT NO. 25)</b>										
B.2.2		<b>Site Construction</b>								
B.2.2	BHS	Baldwin Hills County					\$ 744,255	\$ 74,426	\$ 669,830	

**EXHIBIT C.3 - SCHEDULE OF PAYMENTS  
PHASE 2 - SITE CONSTRUCTION AND SITE MODIFICATION**

Deliverable/ Task/ Section No. <small>(Exhibit A, Exhibit B, or Base Document)</small>	Site ID	Deliverable <small>(Refer to Site Development Matrix in Exhibit B for further details on the capacity and sizes of site components)</small>	Phase 2 Total						
			Qty.	Unilateral Option Sum for Site Construction Only	Unilateral Option Sum Incuding Project Management	Credits <small>(Note 1)</small>	Contract Sum - Payable Amount for Phase 2 <small>(Note 1,3)</small>	10% Holdback Amount	Payable Amount Less 10% Holdback
B.2.2	DPW38	Los Angeles County Department of Public Works Pump Station 38					\$ 746,949	\$ 74,695	\$ 672,254
B.2.2	RPV1	Rancho Palos Verde					\$ 344,492	\$ 34,449	\$ 310,043
<b>Subtotal for Additional Site (Amendment No. 25)</b>				\$ -	\$ -	\$ -	\$ 1,835,696	\$ 183,570	\$ 1,652,126
<b>ADDITIONAL SITE (AMENDMENT NO. 26)</b>									
B.2.2		<b>Site Construction</b>							
B.2.2	LAN	Lancaster		\$ -	\$ -	\$ -	\$ 8,430	\$ 843	\$ 7,587
<b>Subtotal for Additional Site (Amendment No. 26)</b>				\$ -	\$ -	\$ -	\$ 8,430	\$ 843	\$ 7,587
<b>ADDITIONAL SITES (AMENDMENT NO. 27)</b>									
B.2.2		<b>Site Construction</b>							
B.2.2	BKK	BKK Landfill					\$ 313,118	\$ 31,312	\$ 281,806
B.2.2	UCLA	UCLA (Factor Building)					\$ 420,011	\$ 42,001	\$ 378,010
<b>Subtotal for Additional Sites (Amendment No. 27)</b>				\$ -	\$ -	\$ -	\$ 733,129	\$ 73,313	\$ 659,816
<b>ADDITIONAL SITES (AMENDMENT NO. 29)</b>									
B.2.2		<b>Site Construction</b>							
B.2.2	POM	Pomona Courthouse					\$ 308,134	\$ 30,813	\$ 277,321
<b>Subtotal for Additional Sites (Amendment No. 29)</b>							\$ 308,134	\$ 30,813	\$ 277,321
<b>ADDITIONAL SITES (AMENDMENT NO. 30)</b>									
B.2.2		<b>Site Construction</b>							
B.2.2	UNIV	Universal Studios					\$ 483,007	\$ 48,301	\$ 434,706
<b>Subtotal for Additional Sites (Amendment No. 30)</b>							\$ 483,007	\$ 48,301	\$ 434,706
<b>Total for Phase 2 - Site Construction and Modifications (including Subtotals for Site Detail)</b>				\$ -	\$ -	\$ -	\$ 45,040,439	\$ 4,394,654	\$ 40,645,785

Note 1: Pursuant to Amendment No. Nine, effective November 19, 2014, the Authority removed 1 LMR System Site for Phases 1 through 4. As such, Credits were realized in the amount of \$646,001. However, the cost for preparing Project Descriptions for 26 potential replacement sites in the amount of \$303,524 was utilized in Phase 1. As such, the remaining Credit balance of \$342,477 is reserved for use for a future replacement site.

Note 2: Pursuant to Amendment No. Ten, effective February 17, 2015, Exhibit C.2 (Schedule of Prices - Site Construction and Site Modification) was amended by Amendment No. 10 to reflect (a) the conversion of Unilateral Option Sum to Contract Sum for for eight (8) LMR System Site currently contemplated in the Design and the addition of five (5) LMR System Sites; and (b) the removal of four (4) sites.

Note 3: Pursuant to Amendment No. Seventeen, thirty-four (34) LMR System Sites were removed from further consideration; nineteen (19) LMR System Sites were included as part of the LMR System; and Phase 2 Completion Acceptance was included. In connection therewith, and in addition to all activities contemplated in this Phase 2, Unilateral Option Sums, not previously exercised, were converted into Contract Sums.

Note 4: Pursuant to Amendment No. Nineteen, one (1) LMR System Site was removed from further consideration in Phases 1-4. Also, two (2) LMR System Sites were reconciled in Phases 2-4.

**EXHIBIT C.4 - SCHEDULE OF PAYMENTS  
PHASE 3 - SUPPLY LMR SYSTEM COMPONENTS**

Deliverable/ Task/ Section No. <i>(Exhibit A, Exhibit B, or Base Document)</i>	Site ID	Deliverable	Equipment Purchase in Phase 1 Credit per Site <i>(Note 1,11,12,13, 14,15)</i>	DTVRS	ACVRS	LARTCS	NMDN	Microwave	Credits <i>(Note 2)</i>	Total Contract Sum Total Payable Amount for Phase 3 <i>(Note 1, 3, 8)</i>	10% Holdback Amount	Payable Amount Less 10% Holdback
<b>B.3.2 to B.3.6</b>		<b>Equipment Delivery</b>										
B.3.2 to B.3.6	BAH	Baldwin Hills	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	BJM	Black Jack Peak	\$ -	\$ 917,609	\$ 198,138	\$ 515,961	\$ 80,765	\$ 28,058	\$ -	\$ 1,740,531	\$ 174,053	\$ 1,566,478
B.3.2 to B.3.6	BMT	Bald Mountain	\$ -	\$ 1,351,696	\$ -	\$ 171,631	\$ 45,509	\$ 36,032	\$ -	\$ 1,604,868	\$ -	\$ 1,604,868
B.3.2 to B.3.6	BRK	Blue Rock	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	BUR	Burnt Peak	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	BVG	Beverly Glen	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	CCB	Compton Court Building	\$ -	\$ 482,398	\$ 171,692	\$ -	\$ 80,244	\$ 36,176	\$ -	\$ 770,510	\$ -	\$ 770,510
B.3.2 to B.3.6	CEP	Century Plaza	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	CLM	Claremont	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,252	\$ -	\$ 30,252	\$ 3,025	\$ 27,227
B.3.2 to B.3.6	CPK	Castro Peak	\$ -	\$ 548,134	\$ 318,690	\$ 381,450	\$ 80,765	\$ 51,596	\$ -	\$ 1,380,635	\$ 138,064	\$ 1,242,572
B.3.2 to B.3.6	DPK	Dakin Peak	\$ -	\$ 483,519	\$ 198,375	\$ 427,810	\$ 80,962	\$ 39,604	\$ -	\$ 1,230,270	\$ 123,027	\$ 1,107,243
B.3.2 to B.3.6	ELSGDPD	El Segundo PD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	ENC1	Encinal 1 (Fire Camp)	\$ -	\$ 241,401	\$ -	\$ 79,902	\$ 45,705	\$ 27,363	\$ -	\$ 394,371	\$ 39,437	\$ 354,934
B.3.2 to B.3.6	GRM	Green Mountain	\$ -	\$ 548,134	\$ 231,585	\$ 302,182	\$ 45,708	\$ 64,130	\$ -	\$ 1,191,740	\$ 119,174	\$ 1,072,566
B.3.2 to B.3.6	HPK	Hauser Peak	\$ -	\$ 917,311	\$ 145,772	\$ 296,409	\$ 45,509	\$ 46,753	\$ -	\$ 1,451,754	\$ -	\$ 1,451,754
B.3.2 to B.3.6	JPK	Johnstone Peak	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF028	FS-28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF056	FS-56	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF074	FS-74	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF072	FS-72	\$ -	\$ 546,319	\$ 83,252	\$ 210,233	\$ -	\$ 26,897	\$ -	\$ 866,701	\$ 86,670	\$ 780,031
B.3.2 to B.3.6	LACF077	FS-77	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF084	FS-84	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF091	FS-91	\$ -	\$ 176,055	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 176,055	\$ 17,606	\$ 158,450
B.3.2 to B.3.6	LACF099	FS-99	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF119	FS-119	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF144	FS-144	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF149	FS-149	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF157	FS-157	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF196	FS-169	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACFCP09	CP-9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACFDEL	Los Angeles County Fire Departmental Del Valle Training Camp	\$ -	\$ 372,867	\$ 74,338	\$ 85,268	\$ -	\$ 32,590	\$ -	\$ 565,063	\$ 56,506	\$ 508,557
B.3.2 to B.3.6	LAH	LA City Hall <i>(Note 4)</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LBR	Lower Blue Ridge	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LDWP243	DWP Sylmar Water Ladder	\$ -	\$ 431,751	\$ 74,185	\$ 79,467	\$ -	\$ 27,849	\$ -	\$ 613,252	\$ -	\$ 613,252
B.3.2 to B.3.6	MAM	Magic Mountain	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	MDI	Mount Disappointment	\$ -	\$ 548,133	\$ 271,717	\$ 381,450	\$ 80,565	\$ 30,684	\$ -	\$ 1,312,551	\$ 131,255	\$ 1,181,296
B.3.2 to B.3.6	MLE	Mount Lee	\$ -	\$ 548,133	\$ 262,589	\$ 391,402	\$ 123,657	\$ 29,482	\$ -	\$ 1,355,262	\$ 135,526	\$ 1,219,736
B.3.2 to B.3.6	MLM	Mira Loma Facility	\$ -	\$ 917,609	\$ 121,774	\$ 39,740	\$ 80,764	\$ 31,324	\$ -	\$ 1,191,212	\$ 119,121	\$ 1,072,091
B.3.2 to B.3.6	MMC	Mount McDill	\$ -	\$ 483,224	\$ 146,308	\$ 376,943	\$ 45,189	\$ 60,498	\$ -	\$ 1,112,162	\$ 111,216	\$ 1,000,946
B.3.2 to B.3.6	MTL	Mount Lukens	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	MFT	Mount Thom	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	MTW	Mount Washington	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	MVS	Monte Vista (Star Center)	\$ -	\$ 524,294	\$ 95,096	\$ -	\$ 80,245	\$ 30,352	\$ -	\$ 729,986	\$ 72,999	\$ 656,987

## EXHIBIT C.4 - SCHEDULE OF PAYMENTS PHASE 3 - SUPPLY LMR SYSTEM COMPONENTS

Deliverable/ Task/ Section No. <i>(Exhibit A, Exhibit B, or Base Document)</i>	Site ID	Deliverable		Equipment Purchase in Phase 1 Credit per Site <i>(Note 1,11,12,13, 14,15)</i>	DTVRS	ACVRS	LARTCS	NMDN	Microwave	Credits <i>(Note 2)</i>	Total Contract Sum Total Payable Amount for Phase 3 <i>(Note 1, 3, 8)</i>	10% Holdback Amount	Payable Amount Less 10% Holdback
B.3.2 to B.3.6	OAT	Oat Mountain OAT	\$ -	\$ -	\$ 176,493	\$ 162,062	\$ -	\$ -	\$ 80,168	\$ -	\$ 418,724	\$ 41,872	\$ 376,852
B.3.2 to B.3.6	OMC	Oat Mountain OMC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	ONK	Oat Mountain Nike	\$ -	\$ -	\$ 432,751	\$ 146,308	\$ 376,943	\$ 80,245	\$ 27,470	\$ -	\$ 1,063,717	\$ 106,372	\$ 957,345
B.3.2 to B.3.6	PHN	Puente Hills	\$ -	\$ -	\$ 524,774	\$ 365,910	\$ 297,006	\$ 80,565	\$ 32,899	\$ -	\$ 1,301,154	\$ -	\$ 1,301,154
B.3.2 to B.3.6	PRG	Portal Ridge	\$ -	\$ -	\$ 483,223	\$ 144,298	\$ 299,795	\$ 80,565	\$ 54,116	\$ -	\$ 1,061,999	\$ 106,200	\$ 955,799
B.3.2 to B.3.6	PSH	Pomona-1620 Hillcrest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	RDNBPD	Redondo Beach PD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	RHT	Rolling Hills Transmit	\$ -	\$ -	\$ 917,609	\$ 237,432	\$ -	\$ 123,657	\$ 28,417	\$ -	\$ 1,325,656	\$ 132,566	\$ 1,193,090
B.3.2 to B.3.6	RIH	Rio Hondo	\$ -	\$ -	\$ 969,351	\$ 365,666	\$ 79,785	\$ 80,566	\$ 32,596	\$ -	\$ 1,527,962	\$ 152,796	\$ 1,375,166
B.3.2 to B.3.6	RPVE001	Rancho Palos Verde City Hall	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	SAG	San Augustine	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	SDW	San Dimas	\$ -	\$ -	\$ 525,073	\$ 232,167	\$ -	\$ 80,765	\$ 45,368	\$ -	\$ 883,373	\$ 88,337	\$ 795,036
B.3.2 to B.3.6	SGH	Signal Hill <i>(Note 9)</i>	\$ -	\$ -	\$ 483,224	\$ -	\$ -	\$ -	\$ 42,926	\$ -	\$ 526,150	\$ 52,615	\$ 473,535
B.3.2 to B.3.6	SPC	San Pedro Hill	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	SPN	Saddle Peak <i>(Note 9)</i>	\$ -	\$ -	\$ 548,134	\$ -	\$ 296,341	\$ 45,189	\$ 30,636	\$ -	\$ 920,299	\$ 92,030	\$ 828,270
B.3.2 to B.3.6	SUN	Sunset Ridge	\$ -	\$ -	\$ -	\$ 205,228	\$ 428,999	\$ 123,333	\$ 35,984	\$ -	\$ 793,544	\$ 79,354	\$ 714,189
B.3.2 to B.3.6	SVP	San Vicente Peak	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	SWP	Southwest Area Station	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	TOP	Topanga Peak <i>(Note 9)</i>	\$ -	\$ -	\$ 1,002,900	\$ 231,585	\$ 79,904	\$ 45,708	\$ 39,457	\$ -	\$ 1,399,555	\$ 139,956	\$ 1,259,600
B.3.2 to B.3.6	TPK	Tejon Peak	\$ -	\$ -	\$ 483,224	\$ 144,298	\$ 211,208	\$ 45,708	\$ 43,043	\$ -	\$ 927,481	\$ 92,748	\$ 834,733
B.3.2 to B.3.6	TWR	Tower Peak	\$ -	\$ -	\$ 482,444	\$ 197,515	\$ 423,935	\$ 45,189	\$ 37,676	\$ -	\$ 1,186,760	\$ 118,676	\$ 1,068,084
B.3.2 to B.3.6	VPC	Verdugo Peak (city)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	WAD	Walker Drive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	WMP	Whittaker Middle Peak	\$ -	\$ -	\$ 482,412	\$ 74,451	\$ 85,265	\$ 45,167	\$ 38,076	\$ -	\$ 725,374	\$ 72,537	\$ 652,837
B.3.2 to B.3.6	WS1	100 Wilshire	\$ -	\$ -	\$ -	\$ 197,561	\$ -	\$ -	\$ 75,330	\$ -	\$ 272,892	\$ 27,289	\$ 245,602
B.3.2 to B.3.6	WTR	Whittaker Ridge	\$ -	\$ -	\$ 482,412	\$ 145,877	\$ 297,675	\$ 45,167	\$ 42,956	\$ -	\$ 1,014,087	\$ 101,409	\$ 912,678
B.3.2 to B.3.6	LAPD077	77TH Street Area Complex	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LAPDDVN	Devonshire Area station	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	FCCF	L.A. County Fire Command	\$ -	\$ -	\$ 548,134	\$ 334,775	\$ 136,826	\$ -	\$ 109,185	\$ -	\$ 1,128,920	\$ -	\$ 1,128,920
B.3.2 to B.3.6	LAPDVDC	Valley Dispatch Center	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6		FCCF_Core	\$ -	\$ -	\$ 404,329	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 404,329	\$ -	\$ 404,329
B.3.2 to B.3.6		LAPDVDC_Core	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Site Equipment Subtotal</b>			\$ -	\$ -	\$ 18,985,074	\$ 5,578,645	\$ 6,753,530	\$ 1,837,409	\$ 1,425,945	\$ -	\$ 34,599,151	\$ 2,732,436	\$ 31,866,715
<b>ADDITIONAL SITES (AMENDMENT NO. 10)</b>													
B.3.2 to B.3.6		<b>Equipment Delivery</b>											
B.3.2 to B.3.6	APC	Airport Courthouse	\$ -	\$ -	\$ 177,033	\$ -	\$ -	\$ -	\$ 36,176	\$ -	\$ 213,209	\$ -	\$ 213,209
B.3.2 to B.3.6	BCHCPRK	Beverly Hills Coldwater Canyon Park	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LACF136	FS-136	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	LAHE	LA City Hall East <i>(Note 4)</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	OLI	Olinda	\$ -	\$ -	\$ 248,275	\$ 164,079	\$ -	\$ -	\$ 31,324	\$ -	\$ 443,678	\$ 44,368	\$ 399,310
<b>Subtotal for Additional Sites (Amendment No. 10)</b>			\$ -	\$ -	\$ 425,308	\$ 164,079	\$ -	\$ -	\$ 67,500	\$ -	\$ 656,887	\$ 44,368	\$ 612,519
<b>ADDITIONAL SITES (AMENDMENT NO. 17)</b>													

## EXHIBIT C.4 - SCHEDULE OF PAYMENTS PHASE 3 - SUPPLY LMR SYSTEM COMPONENTS

Deliverable/ Task/ Section No. <i>(Exhibit A, Exhibit B, or Base Document)</i>	Site ID	Deliverable	Equipment Purchase in Phase 1 Credit per Site <i>(Note 1,11,12,13, 14,15)</i>	DTVRS	ACVRS	LARTCS	NMDN	Microwave	Credits <i>(Note 2)</i>	Total Contract Sum Total Payable Amount for Phase 3 <i>(Note 1, 3,8)</i>	10% Holdback Amount	Payable Amount Less 10% Holdback
<b>B.3.2 to B.3.6</b>		<b>Equipment Delivery</b>										
B.3.2 to B.3.6	AGH	Agoura Hills	\$ -	\$ 546,316	\$ 232,589	\$ 88,027	\$ -	\$ 49,600	\$ -	\$ 916,532	\$ 91,653	\$ 824,879
B.3.2 to B.3.6	BUR1	Burnt Peak 1	\$ -	\$ 10,714	\$ 144,298	\$ 296,341	\$ 45,188	\$ 33,298	\$ -	\$ 529,839	\$ 52,984	\$ 476,855
B.3.2 to B.3.6	CCT	Criminal Court (Foltz)	\$ -	\$ 547,631	\$ 101,375	\$ -	\$ -	\$ 49,600	\$ -	\$ 698,606	\$ -	\$ 698,606
B.3.2 to B.3.6	CRN	Cerro Negro	\$ -	\$ 700,610	\$ 359,241	\$ -	\$ 80,245	\$ 49,600	\$ -	\$ 1,189,696	\$ 118,970	\$ 1,070,726
B.3.2 to B.3.6	FRP	Frost Peak (Upper Blue Ridge)	\$ -	\$ 11,540	\$ 342,483	\$ 382,524	\$ 80,565	\$ 43,713	\$ -	\$ 860,825	\$ 86,083	\$ 774,743
B.3.2 to B.3.6	GMT	Grass Mountain	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 483,223	\$ 48,322	\$ 434,901
B.3.2 to B.3.6	H-17A	H-17 Helipad	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 215,658	\$ 21,566	\$ 194,092
B.3.2 to B.3.6	LARICSHQ	LA-RICS Headquarters	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,252	\$ 3,025	\$ 27,227
B.3.2 to B.3.6	LASDIEM	Temple Station	\$ -	\$ 218,743	\$ -	\$ -	\$ -	\$ 43,430	\$ -	\$ 262,173	\$ -	\$ 262,173
B.3.2 to B.3.6	LPC	Loop Canyon	\$ -	\$ 176,493	\$ 74,451	\$ 83,473	\$ -	\$ 105,885	\$ -	\$ 440,302	\$ 44,030	\$ 396,272
B.3.2 to B.3.6	LEPS	Lower Encinal Pump Station	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 823,549	\$ 82,355	\$ 741,194
B.3.2 to B.3.6	MIR	Mirador	\$ -	\$ 548,134	\$ -	\$ -	\$ -	\$ 27,795	\$ -	\$ 575,929	\$ 57,593	\$ 518,336
B.3.2 to B.3.6	MML	Magic Mountain Link	\$ -	\$ 154,395	\$ 144,298	\$ 382,884	\$ 80,565	\$ 89,241	\$ -	\$ 851,383	\$ 85,138	\$ 766,245
B.3.2 to B.3.6	MTL2	Mount Lukens 2	\$ -	\$ 547,298	\$ 504,306	\$ 299,795	\$ 80,565	\$ 73,460	\$ -	\$ 1,505,422	\$ 150,542	\$ 1,354,880
B.3.2 to B.3.6	PDC	Pacific Design Center	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 742,588	\$ 74,259	\$ 668,329
B.3.2 to B.3.6	PLM	Palmdale Station	\$ -	\$ 177,192	\$ -	\$ -	\$ -	\$ 91,168	\$ -	\$ 672,689	\$ -	\$ 672,689
B.3.2 to B.3.6	PMT	Pine Mountain	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 483,223	\$ 48,322	\$ 434,901
B.3.2 to B.3.6	PWT	Portshead Tank	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 314,877	\$ 31,488	\$ 283,389
B.3.2 to B.3.6	VPK	Verdugo Peak County <sup>(Note 9)</sup>	\$ -	\$ 546,316	\$ 232,589	\$ 163,600	\$ 80,565	\$ 49,600	\$ -	\$ 1,072,670	\$ 107,267	\$ 965,403
<b>Subtotal for Additional Sites (Amendment No. 17)</b>			\$ -	\$ 4,185,382	\$ 2,135,630	\$ 1,696,644	\$ 447,693	\$ 706,390	\$ -	\$ 12,669,436	\$ 1,103,597	\$ 11,565,839
<b>ADDITIONAL SITE (AMENDMENT NO. 21)</b>												
<b>B.3.2 to B.3.6</b>		<b>Equipment Delivery</b>										
B.3.2 to B.3.6	JPK2	Johnstone Peak - 2	\$ -	\$ 10,714	\$ 271,717	\$ 299,795	\$ 80,565	\$ 43,712	\$ -	\$ 706,504	\$ 70,650	\$ 635,854
<b>Subtotal for Additional Site (Amendment No. 21)</b>			\$ -	\$ 10,714	\$ 271,717	\$ 299,795	\$ 80,565	\$ 43,712	\$ -	\$ 706,504	\$ 70,650	\$ 635,854
<b>ADDITIONAL SITES (AMENDMENT NO. 25)</b>												
<b>B.3.2 to B.3.6</b>		<b>Equipment Delivery</b>										
B.3.2 to B.3.6	BHS	Baldwin Hills County	\$ -	\$ 1,002,901	\$ 163,066	\$ -	\$ 80,245	\$ 79,826	\$ -	\$ 1,326,038	\$ 132,604	\$ 1,193,434
B.3.2 to B.3.6	DPW38	Los Angeles County Department of Public Works Pump Station 38	\$ -	\$ 153,569	\$ 146,308	\$ 297,675	\$ 80,245	\$ 63,231	\$ -	\$ 741,028	\$ 74,103	\$ 666,925
B.3.2 to B.3.6	RPV1	Rancho Palos Verdes	\$ -	\$ 177,192	\$ -	\$ -	\$ -	\$ 28,417	\$ -	\$ 205,609	\$ 20,561	\$ 185,048
<b>Subtotal for Additional Sites (Amendment No. 25)</b>			\$ -	\$ 1,333,662	\$ 309,374	\$ 297,675	\$ 160,490	\$ 28,417	\$ -	\$ 2,272,675	\$ 227,268	\$ 2,045,408
<b>ADDITIONAL SITE (AMENDMENT NO. 26)</b>												
<b>B.3.2 to B.3.6</b>		<b>Equipment Delivery</b>										
B.3.2 to B.3.6	LAN	Lancaster	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,252	\$ -	\$ 30,252	\$ 3,025	\$ 27,227
<b>Subtotal for Additional Site (Amendment No. 26)</b>			\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,252	\$ -	\$ 30,252	\$ 3,025	\$ 27,227
<b>ADDITIONAL SITES (AMENDMENT NO. 27)</b>												
<b>B.3.2 to B.3.6</b>		<b>Equipment Delivery</b>										
B.3.2 to B.3.6	BKK	BKK Landfill	\$ -	\$ 218,743	\$ 35,341	\$ -	\$ -	\$ 44,353	\$ -	\$ 298,437	\$ 29,844	\$ 268,593
B.3.2 to B.3.6	UCLA	UCLA (Factor Building)	\$ -	\$ 240,747	\$ -	\$ -	\$ -	\$ 38,076	\$ -	\$ 278,823	\$ 27,882	\$ 250,941
<b>Subtotal for Additional Sites (Amendment No. 27)</b>			\$ -	\$ 459,490	\$ 35,341	\$ -	\$ -	\$ 82,429	\$ -	\$ 577,260	\$ 57,726	\$ 519,534
<b>ADDITIONAL SITES (AMENDMENT NO. 29)</b>												
<b>B.3.2 to B.3.6</b>		<b>Equipment Delivery</b>										
B.3.2 to B.3.6	POM	Pomona Courthouse	\$ -	\$ 524,294	\$ 203,198	\$ -	\$ -	\$ 30,252	\$ -	\$ 757,744	\$ 75,774	\$ 681,970
<b>Subtotal for Additional Sites (Amendment No. 29)</b>			\$ -	\$ 524,294	\$ 203,198	\$ -	\$ -	\$ 30,252	\$ -	\$ 757,744	\$ 75,774	\$ 681,970

## EXHIBIT C.4 - SCHEDULE OF PAYMENTS PHASE 3 - SUPPLY LMR SYSTEM COMPONENTS

Deliverable/ Task/ Section No. <small>(Exhibit A, Exhibit B, or Base Document)</small>	Site ID	Deliverable	Equipment Purchase in Phase 1 Credit per Site <small>(Note 1,11,12,13, 14,15)</small>	DTVRS	ACVRS	LARTCS	NMDN	Microwave	Credits <small>(Note 2)</small>	Total Contract Sum Total Payable Amount for Phase 3 <small>(Note 1, 3, 8)</small>	10% Holdback Amount	Payable Amount Less 10% Holdback
<b>ADDITIONAL SITES (AMENDMENT NO. 30)</b>												
<b>B.3.2 to B.3.6</b>		<b>Equipment Delivery</b>										
B.3.2 to B.3.6	UNIV	Universal Studios	\$ -	\$ 548,134	\$ -	\$ 85,268	\$ -	\$ 38,076	\$ -	\$ 671,478	\$ 67,148	\$ 604,330
<b>Subtotal for Additional Sites (Amendment No. 30)</b>			<b>\$ -</b>	<b>\$ 548,134</b>	<b>\$ -</b>	<b>\$ 85,268</b>	<b>\$ -</b>	<b>\$ 38,076</b>	<b>\$ -</b>	<b>\$ 671,478</b>	<b>\$ 67,148</b>	<b>\$ 604,330</b>
B.3.7		Consoles for LARTCS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 502,275	\$ 50,228	\$ 452,048
B.3.8		Logging Recorder	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,743,216	\$ -	\$ 1,743,216
B.3.9		Subsystem	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 445,681	\$ 44,568	\$ 401,113
B.1.6		FCC Licensing <small>(Note 6)</small>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.10		Pre-Installation Testing Acceptance - Core Staging for SOT Prep	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.10.1.DTVRS		Pre-Installation Testing Acceptance - Core Staging for SOT Prep (DTVRS)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,344,147	\$ 234,415	\$ 2,109,732
B.3.10.1.ACVRS		Pre-Installation Testing Acceptance - Core Staging for SOT Prep (ACVRS)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 746,582	\$ 74,658	\$ 671,924
B.3.10.1.LARTCS		Pre-Installation Testing Acceptance - Core Staging for SOT Prep (LARTCS)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 966,294	\$ 96,629	\$ 869,664
B.3.10.1.NMDN		Pre-Installation Testing Acceptance - Core Staging for SOT Prep (NMDN)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 254,660	\$ 25,466	\$ 229,194
B.3.10.1.FINAL		Pre-Installation Testing Acceptance - Core Staging for SOT Prep FINAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,626	\$ 25,063	\$ 225,563
B.3.10.2.BALANCE		Pre-Installation Testing Acceptance - Balance of Sites by Site	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,456,627	\$ 245,663	\$ 2,210,964
		Equipment Shipment: Credit for Portable Radio Upgrades	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (361,900)	\$ (36,190)	\$ (325,710)
Base.22.3.2		Performance Bond for Phase 3 - Supply LMR System Components	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 474,041	\$ -	\$ 474,041
		Total Lease Costs for Phase 3 - Supply LMR System Components	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Base.22.2.1		Liability Insurance (General and Professional)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 440,691	\$ -	\$ 440,691
<b>Total for Phase 3 - Supply LMR System Components:</b>			<b>\$ -</b>	<b>\$ 25,923,924</b>	<b>\$ 8,697,984</b>	<b>\$ 9,047,644</b>	<b>\$ 2,526,157</b>	<b>\$ 2,384,645</b>	<b>\$ -</b>	<b>\$ 63,204,326</b>	<b>\$ 5,142,491</b>	<b>\$ 58,061,835</b>

Note 1: Pursuant to Amendment No. Three, effective as of December 19, 2013, (a) Contractor's provision and implementation of certain equipment reflected in Exhibit C.2 (Schedule of Payments Phase 1 – System Design) to Exhibit C (Schedule of Payments), as amended by Amendment No. Three, was moved from Phases 3 and 4 to Phase 1; and (b) Contractor was engaged to provide and implement under Phase 1, certain additional equipment reflected in Exhibit C.2 (Schedule of Payments Phase 1 – System Design) to Exhibit C (Schedule of Payments), as amended by Amendment No. Three, (the equipment described in clauses (a) and (b) is collectively referred to as the "Specified Equipment").

In connection therewith, (i) a Unilateral Option Sum in the amount of \$4,362,681 was moved from Schedules C.4 (Schedule of Payments Phase 3 – Supply LMR System Components) and C.5 (Schedule of Payments Phase 4 – System Implementation) to Exhibit C (Schedule of Payments) to Schedule C.2 (Schedule of Payments Phase 1 – System Design) to Exhibit C (Schedule of Payments), as amended by Amendment No. Three, and thereafter such Unilateral Option Sum was converted to a Contract Sum; and (ii) a Unilateral Option Sum in the amount of \$1,285,230 was added to Schedule C.2 (Schedule of Payments Phase 1 – System Design) to Exhibit C (Schedule of Payments), as amended by Amendment No. Three, and thereafter such Unilateral Option Sum was converted to a Contract Sum.

Note 2: Pursuant to Amendment No. Nine, effective November 19, 2014, the Authority removed 1 LMR System Site for Phases 1 through 4. As such, Credits were realized in the amount of \$646,001. However, the cost for preparing Project Descriptions for 26 potential replacement sites in the amount of \$303,524 was utilized in Phase 1. As such, the remaining Credit balance of \$342,477 is reserved for use for a future replacement site.

Note 3: Pursuant to Amendment No. Ten, effective February 17, 2015, Exhibit C.3 (Schedule of Prices - Supply LMR System Components) was amended by Amendment No. 10 to reflect the conversion of Unilateral Option Sum to Contract Sum for (a) the conversion of Unilateral Option Sum to Contract Sum for eight (8) LMR System Site currently contemplated in the Design and the addition of five (5) LMR System Sites; and (b) the removal of four (4) sites.

Note 4: Credit in the amount of \$547,158 for LAH was moved to LAHE in Amendment No. 10 for recordkeeping purposes.

Note 5: Pursuant to Amendment No. Eleven, effective April 28, 2015, Exhibit C.3 (Schedule of Prices - Supply LMR System Components) was amended by Amendment No. 11 to reflect the a credit in the amount of \$547,158 that was moved from LAH to LAHE in Amendment No. 10.

Note 6: Pursuant to Amendment No. Twelve, effective August 27, 2015, Exhibit C.3 (Schedule of Prices - Supply LMR System Components) was amended by Amendment No. 12 to shift FCC Licensing costs to Phase 1, in the amount of \$284,041.

**EXHIBIT C.4 - SCHEDULE OF PAYMENTS  
PHASE 3 - SUPPLY LMR SYSTEM COMPONENTS**

Deliverable/ Task/ Section No. <i>(Exhibit A, Exhibit B, or Base Document)</i>	Site ID	Deliverable	Equipment Purchase in Phase 1 Credit per Site <i>(Note 1,11,12,13, 14,15)</i>	DTVRS	ACVRS	LARTCS	NMDN	Microwave	Credits <i>(Note 2)</i>	Total Contract Sum Total Payable Amount for Phase 3 <i>(Note 1, 3, 8)</i>	10% Holdback Amount	Payable Amount Less 10% Holdback
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Note 7: Pursuant to Amendment No. Sixteen, effective December 23, 2015, the Authority removed thirty-one (31) LMR System Sites for Phase 1. As such, Credits were realized in the amount of \$1,132,374. However, adding seventeen (17) new LMR System Sites to Phase 1 in the amount of \$635,537 will be taken from the credited amount of \$1,132,374, bringing the total amount of credits down to \$363,599 (inclusive of Phase 1 Work performed for 75% drawings and building permits in the amount of \$133,238) and shall be reflected in the Whitaker Middle Peak site in Phase 3. The remaining Credit balance of \$363,599 is reserved for use for a future replacement site(s).

Note 8: Pursuant to Amendment No. Seventeen, thirty-four (34) LMR System Sites were removed from further consideration; nineteen (19) LMR System Sites were included as part of the LMR System; and Phase 3 Completion Acceptance was included. In connection therewith, and in addition to all activities contemplated in this Phase 3, Unilateral Option Sums, not previously exercised, were converted into Contract Sums.

Note 9: Pursuant to Amendment No. Seventeen, a credit in the amount of \$1,002,901 was transferred from Baldwin Hills (BAH) to Saddle Peak (SPN); a credit in the amount of \$547,298 was transferred from Mount Lukens (MTL) to Signal Hill (SGH); a credit in the amount of \$522,426 was transferred from Verdugo Peak City (VPC) to Verdugo Peak County (VPK); and a credit in the amount of \$547,158 was transferred from LACity Hall East (LAHE) to Topanga Peak (TOP).

Note 10: Pursuant to Amendment No. Nineteen, one (1) LMR System Site was removed from further consideration in Phases 1-4. Also, two (2) LMR System Sites were reconciled in Phases 2-4.

Note 11: Pursuant to Amendment No. Twenty-One, credit in the amount of \$563,761 from CPK was moved to BUR1, credit in the amount of \$943,771 from MLM was moved to MTL2, credit in the amount of \$181,525 from OAT was moved to LPC, credit in the amount of \$497,000 from SDW was moved to SUN, credit in the amount of \$547,298 from SGH was moved to MML, credit in the amount of \$547,158 from TOP was moved to FRP, credit in amount of \$497,000 from TPK was moved to MDI.

Note 12: Pursuant to Amendment No. Twenty-Two, credit in the amount of \$248,500 from MMC was moved to BJM and credit in the amount of \$248,000 from MMC was moved to TWR; credit in the amount of \$471,732 from RIH was moved to CPK and credit in the amount of \$471,732 from RIH was moved to DPK; credit in the amount of \$501,450 from SPN was moved to MIR and credit in the amount of \$501,451 from SPN was moved to TPK.

Note 13: Pursuant to Amendment No. Twenty-Four, credit in the amount of \$482,444 from MVS was moved to LEPS and credit in the amount of \$501,451 from TPK was moved to LACDEL.

Note 14: Pursuant to Amendment No. Twenty-Five, credit in the amount of \$501,451 from LACFDEL was moved to DPK; credit in the amount of \$496,165 from WTR was moved to FRP and \$396,000 from WTR was moved to GMT. Credit in the amount of \$496,165 from WMP was moved to JPK2 and credit in the amount of \$363,599 from WMP was moved to MTL2.

Note 15: Pursuant to Amendment No. Twenty-Six, credit in the amount of \$200,000 from BUR1 was moved to DPK, credit in the amount of \$363,761 from BUR1 was moved to ENCI. Credit in the amount of \$285,000 from JPK2 was moved to SUN, credit in the amount of \$440,000 from JPK2 was moved to TWR, and credit in the amount of \$268,165 from JPK2 was moved to WS1. Credit in the amount of \$181,525 from LPC was moved to H-17A. Credit in the amount of \$300,000 from MDI was moved to MIR, credit in the amount of \$600,000 from MDI was moved to PDC, and credit in the amount of \$141,634 from MDI was moved to PWT. Credit in the amount of \$547,298 from MML was moved to BJM. Credit in the amount of \$943,771 from MTL2 was moved to RIH and credit in the amount of \$363,599 from MTL2 was moved to RIH. Credit in the amount of \$480,139 from PRG was moved to PMT.



**EXHIBIT C.5 - SCHEDULE OF PAYMENTS  
PHASE 4 - LMR SYSTEM IMPLEMENTATION**

Deliverable/Task /Section No. (Exhibit A, Exhibit B, or Base Document)	Site ID	Deliverable	Phase 4 Total							
			Qty.	Unilateral Option Sum for Site Installation Only	Unilateral Option Sum for Acceptance Including Project Management (Note 1)	Contract Sum - Payable Amount for Phase 4	10% Holdback Amount	Payable Amount Less 10% Holdback		
<b>B.4.2.2</b>		<b>Site Installation Test Acceptance</b>								
B.4.2.2	BAH	Baldwin Hills		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	BJM	Black Jack Peak		\$ -	\$ -	\$ -	224,415	22,441	201,973	
B.4.2.2	BMT	Bald Mountain		\$ -	\$ -	\$ -	139,685	13,968	125,716	
B.4.2.2	BRK	Blue Rock		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	BUR	Burnt Peak		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	BVG	Beverly Glen		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	CCB	Compton Court Building		\$ -	\$ -	\$ -	97,624	9,762	87,862	
B.4.2.2	CEP	Century Plaza		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	CLM	Claremont		\$ -	\$ -	\$ -	26,062	2,606	23,456	
B.4.2.2	CPK	Castro Peak		\$ -	\$ -	\$ -	171,152	17,115	154,037	
B.4.2.2	DPK	Dakin Peak		\$ -	\$ -	\$ -	200,523	20,052	180,471	
B.4.2.2	ELSGDDP	El Segundo PD		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	ENCI	Encinal 1 (Fire Camp)		\$ -	\$ -	\$ -	86,186	8,619	77,568	
B.4.2.2	GRM	Green Mountain		\$ -	\$ -	\$ -	160,697	16,070	144,627	
B.4.2.2	HPK	Hauser Peak		\$ -	\$ -	\$ -	169,859	16,986	152,873	
B.4.2.2	JPK	Johnstone Peak		\$ -	\$ -	\$ -	0	0	0	
B.4.2.2	LACF028	FS 28		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACF056	FS 56		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACF071	FS 71		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACF072	FS 72		\$ -	\$ -	\$ -	98,585	9,858	88,726	
B.4.2.2	LACF077	FS 77		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACF084	FS 84		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACF091	FS 91		\$ -	\$ -	\$ -	42,234	4,223	38,010	
B.4.2.2	LACF099	FS 99		\$ -	\$ -	\$ -	0	-	-	
B.4.2.2	LACF119	FS 119		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACF144	FS 144		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACF149	FS 149		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACF157	FS 157		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACF196	FS 169		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACFCP09	CP 9		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LACFDEL	Los Angeles County Fire Departmental Del Valle Training Camp		\$ -	\$ -	\$ -	59,918	5,992	53,926	
B.4.2.2	LAH	LA City Hall		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LBR	Lower Blue Ridge		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LDWP243	DWP Sylmar Water Ladder		\$ -	\$ -	\$ -	70,592	7,059	63,532	
B.4.2.2	MAM	Magic Mountain		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	MDI	Mount Disappointment		\$ -	\$ -	\$ -	210,954	21,095	189,858	
B.4.2.2	MLE	Mount Lee		\$ -	\$ -	\$ -	225,470	22,547	202,923	
B.4.2.2	MLM	Mira Loma Facility		\$ -	\$ -	\$ -	122,899	12,290	110,609	
B.4.2.2	MMC	Mount McDill		\$ -	\$ -	\$ -	177,266	17,727	159,539	
B.4.2.2	MTL	Mount Lukens		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	MTT	Mount Thom		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	MTW	Mount Washington		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	MVS	Monte Vista (Star Center)		\$ -	\$ -	\$ -	74,197	7,420	66,777	
B.4.2.2	OAT	Oat Mountain OAT		\$ -	\$ -	\$ -	31,374	3,137	28,236	
B.4.2.2	OMC	Oat Mountain OMC		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	ONK	Oat Mountain Nike		\$ -	\$ -	\$ -	201,776	20,178	181,598	
B.4.2.2	PHN	Puente Hills		\$ -	\$ -	\$ -	165,029	16,503	148,526	
B.4.2.2	PRG	Portal Ridge		\$ -	\$ -	\$ -	148,148	14,815	133,333	
B.4.2.2	PSH	Pomona 1620 Hillcrest		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	RDNBPD	Redondo Beach PD		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	RHT	Rolling Hills Transmit		\$ -	\$ -	\$ -	151,120	15,112	136,008	
B.4.2.2	RIH	Rio Hondo		\$ -	\$ -	\$ -	151,646	15,165	136,481	
B.4.2.2	RPVE001	Rancho Palos Verde City Hall		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	SAG	San Augustine		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	SDW	San Dimas		\$ -	\$ -	\$ -	118,369	11,837	106,532	
B.4.2.2	SGH	Signal Hill		\$ -	\$ -	\$ -	80,521	8,052	72,469	
B.4.2.2	SPC	San Pedro Hill		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	SPN	Saddle Peak		\$ -	\$ -	\$ -	129,610	12,961	116,649	
B.4.2.2	SUN	Sunset Ridge		\$ -	\$ -	\$ -	143,789	14,379	129,410	
B.4.2.2	SVP	San Vicente Peak		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	SWP	Southwest Area Station		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	TOP	Topanga Peak		\$ -	\$ -	\$ -	142,673	14,267	128,405	
B.4.2.2	TPK	Tejon Peak		\$ -	\$ -	\$ -	153,478	15,348	138,131	
B.4.2.2	TWR	Tower Peak		\$ -	\$ -	\$ -	179,547	17,955	161,592	
B.4.2.2	VPC	Verdugo Peak (City)		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	WAD	Walker Drive		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	WMP	Whittaker Middle Peak		\$ -	\$ -	\$ -	90,473	9,047	81,426	
B.4.2.2	WS1	100 Wilshire		\$ -	\$ -	\$ -	87,459	8,746	78,713	
B.4.2.2	WTR	Whittaker Ridge		\$ -	\$ -	\$ -	129,385	12,938	116,446	
B.4.2.2	LAPD077	77TH Street Area Complex		\$ -	\$ -	\$ -	-	-	-	
B.4.2.2	LAPDDVN	Devonshire Area station		\$ -	\$ -	\$ -	-	-	-	

**EXHIBIT C.5 - SCHEDULE OF PAYMENTS  
PHASE 4 - LMR SYSTEM IMPLEMENTATION**

Deliverable/Task /Section No. <small>(Exhibit A, Exhibit B, or Base Document)</small>	Site ID	Deliverable	Phase 4 Total					
			Qty.	Unilateral Option Sum for Site Installation Only	Unilateral Option Sum for Acceptance Including Project Management <small>(Note 1)</small>	Contract Sum - Payable Amount for Phase 4	10% Holdback Amount	Payable Amount Less 10% Holdback
B.4.2.2	FCCF	L.A. County Fire Command		\$ -	\$ -	\$ 215,429	\$ 21,543	\$ 193,886
B.4.2.2	LAPDVDC	Valley Dispatch Center		\$ -	\$ -	\$ -	\$ -	\$ -
<b>Phase 4 Subtotals Phase 4 - LMR System Implementation Per Site Detail</b>				\$ -	\$ -	\$ 4,678,143	\$ 467,814	\$ 4,210,328
<b>ADDITIONAL SITES (AMENDMENT NO. 10)</b>								
B.4.2.2		<b>Site Installation Test Acceptance</b>						
B.4.2.2	APC	Airport Courthouse		\$ -	\$ -	\$ 39,361	\$ 3,936	\$ 35,425
B.4.2.2	BCHCPRK	Beverly Hills' Coldwater Canyon Park		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	LACF136	FS 136		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	LAHE	LA City Hall East		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	OLI	Olinda		\$ -	\$ -	\$ 60,600	\$ 6,060	\$ 54,540
<b>Subtotal for Additional Sites (Amendment No. 10)</b>				\$ -	\$ -	\$ 99,961	\$ 9,996	\$ 89,965
<b>ADDITIONAL SITES (AMENDMENT NO. 17)</b>								
B.4.2.2		<b>Site Installation Test Acceptance</b>						
B.4.2.2	AGH	Agoura Hills		\$ -	\$ -	\$ 95,136	\$ 9,514	\$ 85,622
B.4.2.2	BUR1	Burnt Peak 1		\$ -	\$ -	\$ 125,813	\$ 12,581	\$ 113,232
B.4.2.2	CCT	Criminal Court (Foltz)		\$ -	\$ -	\$ 88,854	\$ 8,885	\$ 79,969
B.4.2.2	CRN	Cerro Negro		\$ -	\$ -	\$ 100,942	\$ 10,094	\$ 90,848
B.4.2.2	FRP	Frost Peak (Upper Blue Ridge)		\$ -	\$ -	\$ 210,220	\$ 21,022	\$ 189,198
B.4.2.2	GMT	Grass Mountain		\$ -	\$ -	\$ 65,679	\$ 6,568	\$ 59,111
B.4.2.2	H-17A	H-17 Helipad		\$ -	\$ -	\$ 45,737	\$ 4,574	\$ 41,163
B.4.2.2	LARICSHQ	LA-RICS Headquarters		\$ -	\$ -	\$ 26,062	\$ 2,606	\$ 23,456
B.4.2.2	LASDTEM	Los Angeles County Sheriff's Department Temple Station		\$ -	\$ -	\$ 45,805	\$ 4,581	\$ 41,225
B.4.2.2	LPC	Loop Canyon		\$ -	\$ -	\$ 61,062	\$ 6,106	\$ 54,956
B.4.2.2	LEPS	Lower Encinal Pump Station		\$ -	\$ -	\$ 87,347	\$ 8,735	\$ 78,612
B.4.2.2	MIR	Mirador		\$ -	\$ -	\$ 85,601	\$ 8,560	\$ 77,041
B.4.2.2	MML	Magic Mountain Link		\$ -	\$ -	\$ 217,932	\$ 21,793	\$ 196,139
B.4.2.2	MTL2	Mount Lukens 2		\$ -	\$ -	\$ 163,524	\$ 16,352	\$ 147,172
B.4.2.2	PDC	Pacific Design Center		\$ -	\$ -	\$ 102,627	\$ 10,263	\$ 92,364
B.4.2.2	PLM	Los Angeles County Sheriff's Department Palmdale Station		\$ -	\$ -	\$ 111,498	\$ 11,150	\$ 100,348
B.4.2.2	PMT	Pine Mountain		\$ -	\$ -	\$ 65,679	\$ 6,568	\$ 59,111
B.4.2.2	PWT	Portshhead Tank		\$ -	\$ -	\$ 61,450	\$ 6,145	\$ 55,305
B.4.2.2	VPK	Verdugo Peak County		\$ -	\$ -	\$ 129,751	\$ 12,975	\$ 116,776
<b>Subtotal for Additional Sites (Amendment No. 17)</b>				\$ -	\$ -	\$ 1,890,719	\$ 189,072	\$ 1,701,647
<b>ADDITIONAL SITE (AMENDMENT NO. 21)</b>								
B.4.2.2		<b>Site Installation Test Acceptance</b>						
B.4.2.2	JPK2	Johnstone Peak - 2		\$ -	\$ -	\$ 147,023	\$ 14,702	\$ 132,321
<b>Subtotal for Additional Site (Amendment No. 21)</b>				\$ -	\$ -	\$ 147,023	\$ 14,702	\$ 132,321
<b>ADDITIONAL SITES (AMENDMENT NO. 25)</b>								
B.4.2.2		<b>Site Installation Test Acceptance</b>						
B.4.2.2	BHS	Baldwin Hills County		\$ -	\$ -	\$ 118,898	\$ 11,890	\$ 107,008
B.4.2.2	DPW38	Los Angeles County Department of Public Works Pump Station 38		\$ -	\$ -	\$ 163,508	\$ 16,351	\$ 147,157
B.4.2.2	RPV1	Rancho Palos Verdes		\$ -	\$ -	\$ 43,428	\$ 4,343	\$ 39,085
<b>Subtotal for Additional Site (Amendment No. 25)</b>				\$ -	\$ -	\$ 325,834	\$ 32,583	\$ 293,251
<b>ADDITIONAL SITE (AMENDMENT NO. 26)</b>								
B.4.2.2		<b>Site Installation Test Acceptance</b>						
B.4.2.2	LAN	Lancaster		\$ -	\$ -	\$ 26,062	\$ 2,606	\$ 23,456
<b>Subtotal for Additional Site (Amendment No. 26)</b>				\$ -	\$ -	\$ 26,062	\$ 2,606	\$ 23,456
<b>ADDITIONAL SITES (AMENDMENT NO. 27)</b>								
B.4.2.2		<b>Site Installation Test Acceptance</b>						
B.4.2.2	BKK	BKK Landfill				\$ 68,467	\$ 6,847	\$ 61,620
B.4.2.2	UCLA	UCLA (Factor Building)				\$ 60,771	\$ 6,077	\$ 54,694
<b>Subtotal for Additional Sites (Amendment No. 27)</b>				\$ -	\$ -	\$ 129,238	\$ 12,924	\$ 116,314
<b>ADDITIONAL SITES (AMENDMENT NO. 29)</b>								
B.4.2.2		<b>Site Installation Test Acceptance</b>						
B.4.2.2	POM	Pomona Courthouse				\$ 104,593	\$ 10,459	\$ 94,134
<b>Subtotal for Additional Sites (Amendment No. 29)</b>				\$ -	\$ -	\$ 104,593	\$ 10,459	\$ 94,134

### EXHIBIT C.5 - SCHEDULE OF PAYMENTS PHASE 4 - LMR SYSTEM IMPLEMENTATION

Deliverable/Task /Section No. (Exhibit A, Exhibit B, or Base Document)	Site ID	Deliverable	Phase 4 Total					
			Qty.	Unilateral Option Sum for Site Installation Only	Unilateral Option Sum for Acceptance Including Project Management (Note 1)	Contract Sum - Payable Amount for Phase 4	10% Holdback Amount	Payable Amount Less 10% Holdback
<b>ADDITIONAL SITES (AMENDMENT NO. 30)</b>								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	UNIV	Universal Studios				\$ 73,533	\$ 7,353	\$ 66,180
<b>Subtotal for Additional Sites (Amendment No. 30)</b>				\$ -	\$ -	\$ 73,533	\$ 7,353	\$ 66,180
B.4.1.1.1.5		Consoles	9	\$ -	\$ -	\$ 58,462	\$ 5,846	\$ 52,616
B.4.1.1.1.5		Logging Recorder	1	\$ -	\$ -	\$ 6,496	\$ -	\$ 6,496
B.4.1.1.1.7		System Management and Monitoring Subsystem	1	\$ -	\$ -	-	Included in Phase 3	
B.1.15		Inventory and Maintenance Tracking Subsystem		\$ -	\$ -	-	Included in Phase 3	
B.4.3		Training		\$ -	\$ -	-	Included	
B.4.1.2		Spares and Test Equipment	1	\$ -	\$ -	-	Included	
B.4.2		Acceptance Testing	1	\$ -	\$ -	-		
B.4.2.3		Functional Test Acceptance	1	\$ -	\$ -	\$ 423,142	\$ 42,314	\$ 380,828
B.4.2.4		Special Operational Test Acceptance	1	\$ -	\$ -	\$ 1,375,212	\$ 137,521	\$ 1,237,690
B.4.2.5		Voice System Testing Acceptance	1	\$ -	\$ -	\$ 528,928	\$ 52,893	\$ 476,035
B.4.2.6		Stress Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.2.8		Voice Wide Area Coverage Test Acceptance		\$ -	\$ -	-		
B.4.2.8.Zone 1		Basin Zone Coverage Test Acceptance	1	\$ -	\$ -	\$ 846,284	\$ 84,628	\$ 761,656
B.4.2.8.Zone 2		Northern Desert Coverage Test Acceptance	1	\$ -	\$ -	\$ 740,499	\$ 74,050	\$ 666,449
B.4.2.8.Zone 3		Angeles National Forest Coverage Test Acceptance	1	\$ -	\$ -	\$ 634,713	\$ 63,471	\$ 571,242
B.4.2.8.Zone 4		Santa Monica Mountains Coverage Test Acceptance	1	\$ -	\$ -	\$ 423,142	\$ 42,314	\$ 380,828
B.4.2.8.Zone 5		CA-14 Corridor Coverage Test Acceptance	1	\$ -	\$ -	\$ 423,142	\$ 42,314	\$ 380,828
B.4.2.8.Zone 6		Foothills Coverage Test Acceptance	1	\$ -	\$ -	\$ 423,142	\$ 42,314	\$ 380,828
B.4.2.8.Zone 7		Catalina Island Coverage Test Acceptance	1	\$ -	\$ -	\$ 317,357	\$ 31,736	\$ 285,621
B.4.2.9		Voice Aerial Coverage Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.2.10		Voice Waterway Coverage Test Acceptance	1	\$ -	\$ -	\$ 211,571	\$ 21,157	\$ 190,414
B.4.2.13		Voice Railway Coverage Test Acceptance	1	\$ -	\$ -	\$ 211,571	\$ 21,157	\$ 190,414
B.4.2.14		Voice Freeway Coverage Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.2.15		Voice Subscriber Access Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.2.17		Voice System Burn-in Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.2.18.1		NMDN Throughput Test Acceptance	1	\$ -	\$ -	\$ 528,928	\$ 52,893	\$ 476,035
B.4.2.18.2		NMDN Wide Area Coverage Test Acceptance		\$ -	\$ -	-		
B.4.2.18.2.Zone 1		Basin Zone Coverage Test Acceptance	1	\$ -	\$ -	\$ 528,928	\$ 52,893	\$ 476,035
B.4.2.18.2.Zone 2		Northern Desert Coverage Test Acceptance	1	\$ -	\$ -	\$ 423,142	\$ 42,314	\$ 380,828
B.4.2.18.2.Zone 3		Angeles National Forest Coverage Test Acceptance	1	\$ -	\$ -	\$ 423,142	\$ 42,314	\$ 380,828
B.4.2.18.2.Zone 4		Santa Monica Mountains Coverage Test Acceptance	1	\$ -	\$ -	\$ 211,571	\$ 21,157	\$ 190,414
B.4.2.18.2.Zone 5		CA-14 Corridor Coverage Test Acceptance	1	\$ -	\$ -	\$ 211,571	\$ 21,157	\$ 190,414
B.4.2.18.2.Zone 6		Foothills Coverage Test Acceptance	1	\$ -	\$ -	\$ 211,571	\$ 21,157	\$ 190,414
B.4.2.18.2.Zone 7		Catalina Island Coverage Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.2.18.5		NMDN Data Aerial Coverage Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.2.18.6		NMDN Fire Stn & Parking Coverage Test Acceptance	1	\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.18.7		NMDN Freeway Coverage Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.2.18.8		NMDN Waterway Coverage Test Acceptance	1	\$ -	\$ -	\$ 211,571	\$ 21,157	\$ 190,414
B.4.2.18.9		NMDN Projected Load Test Acceptance	1	\$ -	\$ -	\$ 211,571	\$ 21,157	\$ 190,414
B.4.2.18.10		NMDN CAD Baseline System Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.2.18.11		NMDN Burn-in Test Acceptance	1	\$ -	\$ -	\$ 105,786	\$ 10,579	\$ 95,207
B.4.4.1		Final Migration/Cutover Plan Delivered		\$ -	\$ -	-	Included	\$ - \$ -
B.4.5		Final System Support Plan Delivered		\$ -	\$ -	-	Included	\$ - \$ -
B.4.6		Final Disaster Recovery Plan Delivered		\$ -	\$ -	-	Included	\$ - \$ -
B.4.7		Final Special Event Plans Delivered		\$ -	\$ -	-	Included	\$ - \$ -
B.4.8/Base.11.2.1		Final LMR System Acceptance		\$ -	\$ -	-	As provided for in Base.11.2.1	\$ - \$ -
B.4.9		Final Warranty Plan Delivered		\$ -	\$ -	-	Included	\$ - \$ -
		Credit for Services Performed in Phase 1	1	\$ -	\$ -	\$ -	\$ -	\$ -
		Project Management	1	\$ -	\$ -	-	Included as Reflected	\$ - \$ -
Base.22.3.2		Performance Bond	1	\$ -	\$ -	\$ 99,722	\$ -	\$ 99,722
		Total Lease Costs		\$ -	\$ -	-	\$ -	\$ -
Base.22.2.1		Liability Insurance (Professional and General)	1	\$ -	\$ -	\$ 527,500		\$ 527,500
B.4.10		Phase 4 Completion Acceptance		\$ -	\$ -	\$ 10,241,503	\$ 1,024,150	\$ 9,217,352
<b>Total for Phase 4 - LMR System Implementation:</b>				\$ -	\$ -	\$ 28,987,338	\$ 2,835,362	\$ 26,151,976

**Note 1:** Pursuant to Amendment No. Three, effective as of December 19, 2013, (a) Contractor's provision and implementation of certain equipment reflected in Exhibit C.2 (Schedule of Payments Phase 1 – System Design) to Exhibit C (Schedule of Payments), as amended by Amendment No. Three, was moved from Phases 3 and 4 to Phase 1; and (b) Contractor was engaged to provide and implement under Phase 1, certain additional equipment reflected in Exhibit C.2 (Schedule of Payments Phase 1 – System Design) to Exhibit C (Schedule of Payments), as amended by Amendment No. Three, (the equipment described in clauses (a) and (b) is collectively referred to as the "Specified Equipment").

In connection therewith, (i) a Unilateral Option Sum in the amount of \$4,362,681 was moved from Schedules C.4 (Schedule of Payments Phase 3 – Supply LMR System Components) and C.5 (Schedule of Payments Phase 4 – System Implementation) to Exhibit C (Schedule of Payments) to Schedule C.2 (Schedule of Payments Phase 1 – System Design) to Exhibit C (Schedule of Payments), as amended by Amendment No. Three, and thereafter such Unilateral Option Sum was converted to a Contract Sum; and (ii) a Unilateral Option Sum in the amount of \$1,285,230 was added to Schedule C.2 (Schedule of Payments Phase 1 – System Design) to Exhibit C (Schedule of Payments), as amended by Amendment No. Three, and thereafter such Unilateral Option Sum was converted to a Contract Sum.

**Note 2:** Pursuant to Amendment No. Nine, effective November 19, 2014, the Authority removed 1 LMR System Site for Phases 1 through 4. As such, Credits were realized in the amount of \$646,001. However, the cost for preparing Project Descriptions for 26 potential replacement sites in the amount of \$303,524 was utilized in Phase 1. As such, the remaining Credit balance of \$342,477 is reserved for use for a future replacement site.

**Note 3:** Pursuant to Amendment No. Ten, effective February 17, 2015, Exhibit C.4 (Schedule of Prices - LMR System Implementation) was amended by Amendment No. 10 to reflect the conversion of Unilateral Option Sum to Contract Sum for (a) the conversion of Unilateral Option Sum to Contract Sum for eight (8) LMR System Site currently contemplated in the Design and the addition of five (5) LMR System Sites; and (b) the removal of four (4) sites.

**EXHIBIT C.5 - SCHEDULE OF PAYMENTS  
PHASE 4 - LMR SYSTEM IMPLEMENTATION**

Deliverable/Task /Section No. <i>(Exhibit A, Exhibit B, or Base Document)</i>	Site ID	Deliverable	Phase 4 Total			
			Qty.	Unilateral Option Sum for Site Installation Only	Unilateral Option Sum for Acceptance Including Project Management <i>(Note 1)</i>	Contract Sum - Payable Amount for Phase 4

Note 4: Pursuant to Amendment No. Eleven, effective April 28, 2015, Exhibit C.4 (Schedule of Prices - LMR System Implementation) was amended by Amendment No. 11 to reflect the project administration costs for one (1) LMR System Site.

Note 5: Pursuant to Amendment No. Seventeen, thirty-four (34) LMR System Sites were removed from further consideration; nineteen (19) LMR System Sites were included as part of the LMR System; and Phase 4 Completion Acceptance was included. In connection therewith, and in addition to all activities contemplated in this Phase 4, Unilateral Option Sums, not previously exercised, were converted into Contract Sums.

Note 6: Pursuant to Amendment No. Eleven, effective April 28, 2015, Exhibit C.4 (Schedule of Prices - LMR System Implementation) was amended by Amendment No. 11 to reflect the project administration costs for one (1) LMR System Site.

Note 7: Pursuant to Amendment No. Nineteen, one (1) LMR System Site was removed from further consideration in Phases 1-4. Also, two (2) LMR System Sites were reconciled in Phases 2-4.

**SCHEDULE OF PAYMENTS**  
**EXHIBIT C.17 - LMR CHANGE ORDER MODIFICATIONS**

Change Order Number	Site ID	Item/Category	Contract Sum - Payable Amount	10% Holdback Amount	Payable Amount Less 10% Holdback Amount
<b>Amendment No. 28</b>					
MSI 003 Revised	OLI	MSI-003 OLI Tower Mapping (Revised)	\$ -	\$ -	\$ -
MSI-007	LDWP243	MSI-007 LDWP243 Additional Structural Analysis for Coverage Enhancement	\$ 2,200	\$ 220	\$ 1,980
MSI-008	LMR	MSI-008 Station B Reprogramming of 700 MHz DTVRS Stations	\$ 9,912	\$ 991	\$ 8,921
MSI-009	AGH	MSI-009 AGH SCE Engineering Fee Reimbursement	\$ 5,634	\$ 563	\$ 5,071
MSI-012	LMR	MSI-012 Site 3D Models per Authority Request BJM, DPK, TWR	\$ -	\$ -	\$ -
MSI-015	BUR1	MSI-015 BUR1 SCE Engineering Fee	\$ 3,308	\$ 331	\$ 2,977
MSI-016	BMT	MSI-016 BMT SCE Engineering Fee	\$ 592	\$ 59	\$ 533
MSI-017	MML	MSI-017 MML SCE Engineering Fee	\$ 3,308	\$ 331	\$ 2,977
<b>Amendment No. 28 Subtotal</b>			<b>\$ 24,953</b>	<b>\$ 2,495</b>	<b>\$ 22,458</b>
<b>Amendment No. 29</b>					
MSI-030	APC	MSI-030 Saturday Labor and Crane Cost	\$ 2,405	\$ 241	\$ 2,165
MSI-020R	BKK	MSI-020R Tower Mapping and Painting	\$ 26,225	\$ 2,623	\$ 23,603
MSI-024	BKK	MSI-024 Dispersive Wave Testing	\$ 5,426	\$ 543	\$ 4,883
MSI-1208	POM	MSI-LMR1208 ACM and LCP Testing Services	\$ 4,400	\$ 440	\$ 3,960
<b>Amendment No. 29 Subtotal</b>			<b>\$ 38,456</b>	<b>\$ 3,846</b>	<b>\$ 34,610</b>
<b>Amendment No. 30 Subtotal</b>					
MSI-1205	MVS	MSI-1205 MVS LCP Testing Services	\$ 4,195	\$ 420	\$ 3,776
<b>Amendment No. 30 Subtotal</b>			<b>\$ 4,195</b>	<b>\$ 420</b>	<b>\$ 3,776</b>
<b>TOTAL FOR ALL LMR CHANGE ORDER MODIFICATIONS</b>			<b>\$ 67,604</b>	<b>\$ 6,760</b>	<b>\$ 60,844</b>

**Note 1: The above identified Change Order Modifications have been fully negotiated between the Authority and the Contractor, and the above amounts represent a full and final resolution of all changes contained in those identified Change Order Modifications.**

**SCHEDULE OF PAYMENTS**  
**EXHIBIT C.18 - MULTIPROTOCOL LABEL SWITCHING (MPLS) MOBILE BACKHAUL**

Deliverable/ Task No./ Subtask No./ Section No. <small>(Exhibit A, B, or Base Document)</small>	Task/Measure	Deliverable	Contract Sum - Payable Amount	10% Holdback Amount	Payable Amount Less 10% Holdback Amount
<b>MPLS MOBILE BACKHAUL EQUIPMENT UPGRADE (HARDWARE/SOFTWARE AND SPARES)</b>					
B.3.6.5	7705 SAR-8	7705 SAR-8 Chassis, Cards, Misc	\$ 597,756	\$ 59,776	\$ 537,980
B.3.6.5	OmniSwitch	6450 OmniSwitch	\$ 99,320	\$ 9,932	\$ 89,388
B.3.6.5	7705 SAR-18	7705 SAR-18 Chassis, Cards, Misc	\$ 54,200	\$ 5,420	\$ 48,780
B.3.6.5	E&M Cards	E&M Cards for SAR-8 and SAR-18	\$ 27,677	\$ 2,768	\$ 24,909
B.3.6.5	5620 SAM	5620 SAM and Licesnse Points	\$ 108,392	\$ 10,839	\$ 97,553
B.3.6.5	NMS Zone Equipment	Fortigate FWs, Switches, HP Servers	\$ 89,804	\$ 8,980	\$ 80,824
B.3.6.5	Spares	10% spares (SAR-8,SAR-18, OMNI SW)	\$ 82,184	\$ 8,218	\$ 73,965
B.3.6.5	Optional T1 Cards and Accessories	16 Port ASAP card, Cable for Distribution and 32 port T1 RJ45 Panel	\$ 195,984	\$ 19,598	\$ 176,386
B.3.6.5	5620 SAM for Optional T1 Cards	License Points for T1 Cards	\$ 23,039	\$ 2,304	\$ 20,735
<b>Subtotal Cost for MPLS Mobile Backhaul Equipment Upgrade (Hardware/Software and Spares):</b>			<b>\$ 1,278,356</b>	<b>\$ 127,836</b>	<b>\$ 1,150,520</b>
B.3.6.5	MPLS Equipment	MPLS Equipment MSI Mark Up	\$ 127,836	\$ 12,784	\$ 115,052
B.3.6.5	MPLS Equipment	MPLS Equipment MSI Tax Amount	\$ 133,588	\$ 13,359	\$ 120,229
<b>Total Cost for MPLS MOBILE BACKHAUL EQUIPMENT UPGRADE (HARDWARE/SOFTWARE AND SPARES):</b>			<b>\$ 1,539,779</b>	<b>\$ 153,978</b>	<b>\$ 1,385,802</b>
<b>MPLS MOBILE BACKHAUL DEPLOYMENT SERVICES</b>					
B.3.6.5	IP/MPLS Engineering		\$ 287,199	\$ 28,720	\$ 258,479
B.3.6.5	IP/MPLS Integration		\$ 367,026	\$ 36,703	\$ 330,324
B.3.6.5	MSI Systems Integration:		\$ 183,600	\$ 18,360	\$ 165,240
B.3.6.5	Site Materials		\$ 53,034	\$ 5,303	\$ 47,731
B.3.6.5	Installation		\$ 208,524	\$ 20,852	\$ 187,671
B.3.6.5	Project Management Services	PM services from Nokia	\$ 116,059	\$ 11,606	\$ 104,453
B.3.6.5	Bridge Warranty		\$ -	\$ -	\$ -
B.3.6.5	Additional Services for Option T1 Cards	Engineering and Installation	\$ 42,210	\$ 4,221	\$ 37,989
<b>Subtotal Cost for MPLS Mobile Backhaul Deployment Services:</b>			<b>\$ 1,257,652</b>	<b>\$ 125,765</b>	<b>\$ 1,131,887</b>
B.3.6.5	MPLS Deployment Services	MPLS Deployment Services	\$ 107,405	\$ 10,741	\$ 96,665
<b>Total Cost for MPLS MOBILE BACKHAUL DEPLOYMENT SERVICES:</b>			<b>\$ 1,365,057</b>	<b>\$ 136,506</b>	<b>\$ 1,228,551</b>
<b>MPLS MOBILE BACKHAUL EQUIPMENT UPGRADE AND SERVICES DISCOUNTS</b>					
B.3.6.5	*Equipment Overlap	HP 2620-24, NEC MPLS License, NEC DS1 Accessories	\$ (242,500)	\$ (24,250)	\$ (218,250)
B.3.6.5	*Services Overlap	MSI Systems Integration, Site Materials, Installation	\$ (200,000)	\$ (20,000)	\$ (180,000)
B.3.6.5	***MPLS System Package Incentive- Services	One-Time Incentive	\$ (262,337)	\$ (26,234)	\$ (236,103)
<b>Subtotal Cost for MPLS Mobile Backhaul Equipment Upgrade (Hardware/Software and Spares) including Discounts</b>			<b>\$ 1,297,279</b>	<b>\$ 129,728</b>	<b>\$ 1,167,552</b>
<b>Subtotal Cost for MPLS Mobile Backhaul Deploement Services including Discounts</b>			<b>\$ 902,721</b>	<b>\$ 90,272</b>	<b>\$ 812,448</b>
<b>TOTAL COST FOR MPLS MOBILE BACKHAUL:</b>			<b>\$2,200,000</b>	<b>\$220,000</b>	<b>\$1,980,000</b>

\*MSI Systems Integration overlap discount only applies if IP/MPLS network is deployed initially, delayed deployment will reduce this discount as this would require additional integration efforts

\*\*\*MPLS System Package Incentive- Services applies for NTP as quoted above, any reduction in scope will eliminate this incentive in its entirety

Deliverable/ Task No./ Subtask No./ Section No. (Exhibit A, B, or Base Document)	Task/Deliverable <sup>Note 1</sup>	Contract Sum - Payable Amount
<b>MAINTENANCE (YEARS 1 - 10)</b>		
Technical Support Gold	(63) 7705 SAR-8 and (2) SAR-18 with 5620 SAM	\$ 231,672
Return for Repair	(63) 7705 SAR-8 and (2) SAR-18	\$ 221,899
Software Subscription Plan	(63) 7705 SAR-8 and (2) SAR-18	\$ 129,567
Software Subscription Plan	5620 SAM	\$ 218,540
On Site Response	MSI On-Site Response	\$ 659,529
	10 Year Maintenance Subtotal:	\$ 1,461,207
	Total w/MSI 10% Markup	\$ 1,607,328
	****Per Year Maintenance Average	\$ 160,733

\*\*\*\* Exclusive of Omniswitch Maintenance

NOTE 1: Unilateral Option Sums are converted to Contract Sums as provided for in the Base Document.