



AGENDA

LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

BOARD OF DIRECTORS MEETING

Thursday, June 4 2020 • 9:00 a.m.

Teleconference Meeting*

Meeting Call-in Number for Board Members and Public:

Telephone Number: (562) 526-3800

Access Code: 999 370 440

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

AGENDA POSTED: May 29, 2020

Complete agendas are available on the Authority's website at <http://www.la-rics.org>.

*The procedures used for this Teleconference Meeting is permitted pursuant to Executive Order N-29-20 issued on March 17, 2020, by the Governor of the State of California.

Members:

1. **Sachi Hamai**, CEO, County of Los Angeles
2. **Daryl L. Osby**, Vice-Chair, Fire Chief, County of Los Angeles Fire Dept.
3. **Alex Villanueva**, 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 South Pasadena 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
Thomas Ewald, Deputy Fire Chief, County of Los Angeles Fire Dept.
Mark Glatt, Chief, Los Angeles County Sheriff's Dept.
Roel Amara, Asst., Dir., EMS Agency, County of LADHS
Vacant
Brian Solinsky, Captain, City of South Pasadena Police Dept.
Marcel Rodarte, Executive Dir., CA Contract Cities Assoc.
Louis Perez, Deputy Chief, City of Inglewood Police Dept.
Brian Leyn, Captain, City of Signal Hill Police Dept.
David Povero, Captain, City of Covina Police Dept.

Officers:

Scott Edson, Executive Director
Arlene Barerra, County of Los Angeles Auditor-Controller
Keith Knox, County of Los Angeles, Treasurer and Tax Collector
Priscilla Dalrymple, 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. May 7, 2020 – Minutes

Agenda Item A

IV. PUBLIC COMMENTS

V. CONSENT CALENDAR – NONE

VI. REPORTS (B-E)

B. Director's Report – Scott Edson

- Executive Summary

Agenda Item B

C. Project Manager's Report – Justin Delfino

Agenda Item C

D. Joint Operations and Technical Committee Chairs Report – Lieutenant Sven Crongeyer

E. Finance Committee Chair Report – No Report

VII. DISCUSSION ITEMS (F)

F. Outreach Update

Agenda Item F



VIII. ADMINISTRATIVE MATTERS (G-H)

G. APPROVE THE FISCAL-YEAR 2019-20 AMENDED LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY (LA-RICS) OPERATING BUDGET

It is recommended that your Board adopt the enclosed Amended Budget to reflect an increase of \$1,744,000 to the revenue and corresponding Public Safety Broadband Network (PSBN) Equipment Payment line item.

Agenda Item G

H. APPROVE AMENDMENT NO. 47 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 with respect to the reconciliation of certain LMR System equipment and the LMR Change Order Modifications:
 - a. Find that (a) approval of Amendment No. 47 to contemplate certain LMR Change Order Modifications at two (2) LMR System sites Rio Hondo (RIH) and Loop Canyon (LPC) related to soil removal at these sites, is within the scope of the Final Environmental Impact Report (EIR) for the Los Angeles Regional Interoperable Communications System (LA-RICS) LMR System, which was previously certified by the Board under CEQA on March 29, 2016; and (b) that there are no changes to the project at these 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 (a) approval of Amendment No. 47 to contemplate certain Change Order Modifications at three (3) LMR System sites, Oat Mountain Nike (ONK) related to the addition of prime site, Baldwin Hills County (BHS) related to soil removal at this site, and Mount Disappointment (MDI) related to soil sampling, are 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, on



November 13, 2014 (ONK), on February 5, 2015 (MDI) and on December 12, 2016 (BHS), the exemption adopted specifically for the LA-RICS project, and any leased circuit work that may occur outside of Sites ONK, BHS, and MDI, if needed to provide network connectivity to the LMR System, are 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).

2. Approve Amendment No. 47 (Enclosure) to Agreement No. LA-RICS 007 for a LMR System with Motorola Solutions, Inc. (Motorola), which revises the Agreement to reconcile certain LMR System equipment and incorporate certain LMR Change Order Modifications as further described in this letter for a net cost decrease in the amount of \$2,496,129.
3. Authorize a decrease to the Maximum Contract Sum in the amount \$2,496,129 from \$290,634,053 to \$288,137,924.
4. Delegate authority to the Executive Director to execute Amendment No. 47, in substantially similar form, to the enclosed Amendment (Enclosure).

Agenda Item H

IX. MISCELLANEOUS – NONE

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

XI. CLOSED SESSION REPORT

PUBLIC EMPLOYEE PERFORMANCE EVALUATION
(Government Code Section 54957(b)(1))
Title: Executive Director

XII. ADJOURNMENT AND NEXT MEETING:

Thursday, July 9, 2020, at 9:00 a.m., via Teleconference Meeting.



BOARD MEETING INFORMATION

In accordance with Executive Order No. 25-20 on March 17, 2020 by the Governor of the State of California, this Meeting can be conducted via teleconference. Members of the public are invited to participate in the Teleconference meeting via the phone number provided above, and 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) requests 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.)

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 as soon as possible. (323) 881-8291 or (323) 881-8295

SI REQUIERE SERVICIOS DE TRADUCCION, FAVOR DE NOTIFICAR LA OFICINA LO MAS PRONTO POSIBLE. (323) 881-8291 o (323) 881-8295

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



BOARD OF DIRECTORS MEETING MINUTES

**LOS ANGELES REGIONAL
INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY**

Thursday, May 7, 2020 • 9:00 a.m.

Teleconference Meeting

Meeting Call-in Number for Board Members and Public:

(562) 526-3800

Access Code: 992-487-094

Board Members Present:

Mark Alexander, City Manager, CA Contract Cities Assoc.

Cathy Chidester, Dir., EMS Agency, County of LADHS

John Curley, Chief of Police, City of Covina Police Dept.

Chris Donovan, Fire Chief, City of El Segundo Fire Dept.

Joe Ortiz, Chief of Police, City of South Pasadena Police Dept.

Alternates For Board Members Present:

John Geiger, General Manager, CEO, County of Los Angeles

Thomas Ewald, Deputy Fire Chief, County of Los Angeles Fire Dept.

Mark Glatt, Chief, Los Angeles County Sheriff's Dept.

Louis Perez, Deputy Chief, City of Inglewood Police Dept.

Officers Present:

Scott Edson, LA-RICS Executive Director

Priscilla Dalrymple, LA-RICS Board Secretary

Absent:

Chris Nunley, Chief of Police, City of Signal Hill Police Dept.



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

I. CALL TO ORDER

Alternate Chair, Mark Glatt, called the regular meeting and special meeting of the Board to order concurrently at 9:02 a.m.

II. ANNOUNCE QUORUM – Roll Call

Alternate Chair Glatt asked for a roll call and acknowledged a quorum was present.

III. APPROVAL OF MINUTES (A-B)

A. March 25, 2020 – Special Minutes

Alternate Chair Glatt asked if there were any questions or comments from the Board.

There were none.

Board Member Mark Alexander motioned first, seconded by Board Member Chris Donovan.

Ayes 9: Alexander, Chidester, Curley, Donovan, Ewald, Geiger, Glatt, Ortiz, and Perez.

MOTION APPROVED.

B. April 2, 2020 – Minutes

Alternate Chair Glatt asked if there were any questions or comments from the Board.

There were none.

Board Member Mark Alexander motioned first, seconded by Board Member Chris Donovan.

Ayes 9: Alexander, Chidester, Curley, Donovan, Ewald, Geiger, Glatt, Ortiz, and Perez.

MOTION APPROVED.



Alternate Chair Glatt stated there were no minutes to approve for the Special Agenda dated May 7, 2020.

IV. PUBLIC COMMENTS – NONE

V. CONSENT CALENDAR – NONE

VI. REPORTS (C-F)

C. Director's Report – Scott Edson

Executive Director Scott Edson stated he is sure Board members have been very busy and hopes Members, their families, and organization's members, and the communities they serve, are staying safe.

Executive Director Edson provided an update and stated last month has been a very busy month and much progress continues to be made, despite most of the team working from outside the office. Because the lack of ability to have spontaneous discussions and impromptu meetings, we find ourselves much busier with many conference calls a day and many more emails.

Executive Director Edson stated there is no doubt in his mind closing the office and directing the team to telework protected our team and may have even saved a life. As stated before, he is very impressed with the processes the administrative staff, led by Administrative Deputy Susy Orellana-Curtiss put in place to ensure our business is still conducted most efficiently and greatly appreciate the staffs' attention to detail in every aspect of this process.

Additionally, Director Edson stated he is grateful to the team members that are in the field continuing to perform the essential work needed to complete this system, including members from LA-RICS, Jacobs, Motorola (MSI), Pyramid, and other Land Mobile Radios (LMR) subcontractors and the many others hired for the LTE 2 project.

In regards to the Land Mobile Radio side of the program, Executive Director stated all but six (6) Site Access Agreement (SAA)'s executed for the LMR program. MTL2 received the Special Use Permit (SUP) from the United States Forest Service (USFS) on Monday which is excellent news!

Burnt Peak1 (BUR1) was recalled as the site requiring solar power and is pending updated solar design documents to finalize the SUP.



Tower Peak (TWR), Black Jack Mountain (BJM) and Dakin Peak (DPK); Catalina Island Sites should be executed soon. The County is working with the conservancy on terms and they understand the site is needed as soon as possible.

East Sunset Ridge (ESR), the team is working aggressively with a TV Station to confirm signature on SAA document and finally Rancho Palos Verdes Tee (RPVT) is before your Board again as Agenda Item I, seeking delegated authority to enter into a Memoranda of Understanding (MOU) for access to the site.

Executive Director Edson went on to state forty-four (44) building permits are in hand, with fourteen (14) remaining including the seven (7) coastal sites. Notification was received from the Department of Regional Planning (DRP) indicating two (2) of our coastal sites (Topanga and Castro Peak) will be submitted for exemption very soon. The twelve (12) remaining are BJM, TWR, DPK, GRM, BUR1, ESR, LACF072, MTL2, RPVT, SPN, SPH, and UNIV (one of two permits required has been obtained) and the team is working diligently to obtain these permits.

Additionally, Agenda Item K is a change and amendment to four (4) sites: Johnstone Peak (JPK2), Verdugo Peak (VPK), Rolling Hills Transmit (RHT), and Pomona Courthouse (POM), with a contract increase of nearly \$358,000, details will be presented when the item is called.

In regards to the LTE2 Update, there are four (4) building permits in hand, with an additional six (6) ready to issue in the next week. LA-RICS has experienced COVID-19 related delays, which will be touched upon in the grants report, as it relates to permits, specifically impacting permits issuance due to Southern California Edison (SCE) power plan delays, as well as SCE inspections. Of the sixteen (16) sites pending permit, six (6) are USFS sites that are in process; they are Loop Canyon (LPC2), Portal Ridge (PRG2), Whitaker Middle Peak 2 (WMP2), Whitaker Ridge 2 (WTR2), Mount Lukens 2 (MML2) including BUR1-2 and its completed solar power design, which is also moving forward.

They're twenty (20) executed SAAs, with an additional eight (8) in final redlines including three (3) contingency sites and one SAA for the Port of Long Beach back again before your Board resulting from a shift made by the Port in desired SAA format. This will be discussed during Agenda Item I, as well. As shared with your Board in the past, finalizing agreements with a 3rd party AT&T/FirstNet involved as well as site owners' negotiating rent with AT&T has slowed down our ability to execute our Agreements, which are typically free of such complicated terms. Nonetheless, AT&T has committed to finalizing negotiations with site owners in time for our build to proceed uninterrupted. With SAA's in place and contracts awarded for construction of the sites, we are on track to build within the performance period of the grant, taking into account

the impacts of the COVID-19 pandemic, expediting every opportunity, including performing parallel construction activities during grant close out if grantor permits.

Finally, regarding grants, the Broadband Technology Opportunities Program (BTOP) grant, LA-RICS has been in communication with the Department of Commerce/National Telecommunications and Information Administration (NTIA) since COVID-19 orders were issued in March and have shared details regarding certain supply chain orders (Towers) and construction activities, such as SCE power orders, power inspections and other site inspections, as well as limits on the number of people allowed at a site; which may stretch out the construction schedule especially in instances where environmental teams need to be on site along with the construction crews. LA-RICS continues discussions with grantor while in parallel aggressively moving forward on all activities not impacted by the pandemic, which is why the Special Meeting for Amendment No. 43 was added to the PSBN contract which will allow us to aggressively move forward with certain LTE 2 activities for completion by end of June.

In addition, queue up activities continue on contingency sites in the event a prime site drops due to COVID-19 delays that cannot be mitigated, and that is why we have returned with the Montebello Police Department site, as Agenda Item L. As mentioned earlier the grantor is considering whether they can allow us to wrap up certain construction activities through some of the grant close out period, and those discussions are progressing.

In regards to the LMR update, with successful closeout of the UASI 17 grant, spending is underway for the UASI 18 grant monies.

Delegated authority to accept the UASI 19 grant (\$35 million), the last UASI build fund, is before you as Agenda Item J.

This concludes the Director's Report.

There was no further discussion.

D. Project Manager's Report – Justin Delfino

LTE Round 2 Highlights

Current Status:

Program Manager Delfino provided a status update on building permit submittals and stated twenty-six (26) sites have been submitted. To date, four (4) building permits have been issued, comprised of IGPD, MVS2, COUG and AZUCYN. The building permit submittal for Irwindale up is imminent, followed by six (6) SCE sites. All twenty-six 26 sites have gone out to bid and bids have been received. To date, twenty-three



(23) of the sites have been awarded and the Authority expects the remaining contracts to be executed within the following week. Twenty-five (25) sites are planned to start construction in May 2020. The equipment for all twenty-six (26) sites has been processed and included expedited shipping to meet the Authority's target completion dates.

Program Manager Delfino stated DPW's plan reviewer was recently assigned to disaster relief efforts but DPW took action to immediately locate a replacement. The absence of a plan reviewer resulted in certain delays with the issuance of permits and also impacted the ability to start construction on schedule. A request for a grant performance deadline extension was made to NTIA to account for the delays due to the COVID-19 pandemic and weather setbacks. The Authority also demonstrated to NTIA how it could compensate for the time lost and closeout the grant within the grant award period. NTIA indicated it would review the request and issue a response. The impact of COVID-19 has taken completion of certain activities beyond June 30, 2020, but well ahead of the September 30th grant closeout deadline.

ENVIRONMENTAL

Project Manager Delfino stated Special Award Condition (SAC) compliance reporting was submitted for Current Year 2020-Quarter 1 on April 16, 2020. Environmental compliance monitoring of construction activity began at Site AZUCYN.

LABOR COMPLIANCE

Project Manager Delfino stated there were no labor compliance disputes or open compliant cases and no accidents or injuries reported to date.

SAA's

Project Manager Delfino stated POLA 1 and 2 will require a Coastal Permit and the process is underway, and a less time consuming process than typical is anticipated.

LMR Highlights

CONSTRUCTION OVERVIEW

Project Manager Delfino stated forty-five (45) out of fifty-eight (58) permits issued to date; with 78% completed. Fifty-two (52) of fifty-eight (58) SAA processed, with 90% completed. A total of 1,150 Workers have been WEAP trained with zero recordable injuries to date.

Project Manager Delfino stated construction has started on approximately 40 sites; representing 70% of sites. Equipment has been ordered for fifty-one (51) sites; representing an 89% of all equipment orders.



Fifteen (15) sites have open work including BHS, which will help to complete downtown cell and will provide coverage for new stadium in Inglewood. Eighteen (18) more sites will start in 2020. ATP completions for SMMS and NMDN. Channel 15 Equipment reductions and Prime site reconfiguration are underway. Contractor License issue is resolved and even though Los Angeles area experienced three (3) contiguous weeks of rain in April, the contractor remains on target for system completion in March 2022.

COVID-19 IMPACTS

Project Manager Delfino stated DPW plan reviewer has been assigned to disaster relief efforts but DPW took action immediately for a replacement. Some sites are impacted as it relates to finalization of SAAs also due to COVID-19 where agencies real estate and risk management offices are closed. DRP & Coastal Conservancy experienced calendar reshuffles.

USFS SITES

Project Manager Delfino stated eleven (11) USFS sites are approved out of thirteen (13). The remaining two sites are ESR and BUR1. A meeting with USFS on color compliance for microwave antennae took place for sites BUR1 and MTL2. The contractor will need to make minor adjustments to select dishes in order to comply with the color ordinance. BUR1-2 design will be complete by end of week. California Condors have visited WMP the in the past couple of weeks and the USFS field reps. have cited our conduct as exemplary in hazing techniques for the protected species and has complimented the detailed reporting of the encounters to the USFS.

COASTAL SITES

Project Manager Delfino stated Topanga Peak (TOP) and Castro Peak (CPK) exemption letters are routing for execution and will be sent to California Coastal Commission for a two (2) week review period. The project team is currently sorting out the remaining issues with the final Coastal applications and are planning to have all submittals back to Regional Planning in May 2020.

SAA's

Project Manager Delfino stated since our last update there are six (6) outstanding sites pending execution of SAAs: USFS (BUR1, ESR), Coastal (TWR, BJM, DPK) and RPVT.

Current Focus:

Project Manager Delfino stated that the Authority and Contractor teams have focused on streamlining administrative processes for better efficiency, example is NTP No. 33 issued on April 27, 2020, for the purpose of approved COR's being authorized to work. In addition, the teams spent time working through Soil management processes, and contract training for all staff re-refresh. The contractor presented its additions to the IMS (Schedule) with an emphasis for Phase 4 activities. Planning efforts narrow-banding



for Ch.16 are and will remain an area of focus until the work is completed. The Teams are also focused on USFS site construction, monitoring COVID19, communications with DRP, optimization of cells Phase 4, and site close out for Phase 2. This concludes the Project Manager's Report.

Executive Director Edson asked Project Manager Delfino to elaborate on the Baldwin Hills (BHS) update. Project Manager Delfino stated Baldwin Hills started a week and a half ago. The Contractor is currently working on the tower foundations, containment and disposal of hazardous soils. The team and MSI agreed to use a process flowchart to provide guidance to subcontractors who must dispose of the soil. The site was supposed to start two months ago but did not due to misunderstanding how to handle the soils on site. Currently, construction is moving along well and when the sites is completed MSI will work on optimizing the downtown cell particularly on 700MHz. Once the System is completed BHS will provide coverage for the new stadium and shopping plaza in Inglewood. Alternate Board Member Louis Perez asked for the project completion date. Project Manager Delfino stated about three (3) months out; with a construction start date of May 22, 2020, and end date of mid-June 2020.

There was no further discussion.

E. Joint Operations and Technical Committee Chairs Report – No Report

F. Finance Committee Report – No Report

VII. DISCUSSION ITEM (G-H)

G. Outreach Update

Executive Assistant Wendy Stallworth-Tait provided the update for Agenda Item G and stated the Outreach summary for the month of April highlights consist of ongoing meetings with AT&T, and; various meetings to discuss proposed LTE2 sites. These meetings took place with representatives from City of Glendale, the Port of Long Beach, Montebello and County Supervisor Kathryn Barger's staff. Members of the LA-RICS Team met with representatives from San Gabriel Police Department to discuss early onboarding opportunities and lastly, Volume 5, Issue 17 of the Newsletter was released on April 6, 2020.

There was no further discussion.

H. Statement of Receipts and Disbursements for AT&T Business Agreement Fund for Public Safety Broadband Network.



Administrative Deputy Susy Orellana-Curtiss provided the update for Agenda Item H, summarizing Business Agreement expenditures. This report includes the disallowed cost made by the UASI grant in relations to certain Los Angeles County Fire staff expenditures that were incurred in previous fiscal years but were deemed supplanting. Those adjustments were taken from previous fiscal-years and charged as an adjustment reflected in this statement March 31, 2020, and is captured here in this report.

Alternate Board Member Geiger asked if there was any written finding from the grant management agent as to the supplanting that could be shared with the JPA Members for this and future fiscal years. Administrative Deputy Orellana-Curtiss stated we did receive a finding and can share with your Board. There were no additional questions.

VIII. ADMINISTRATIVE MATTERS (I-L)

I. DELEGATE AUTHORITY TO EXECUTIVE DIRECTOR TO NEGOTIATE AGREEMENTS FOR LAND MOBILE RADIO AND LONG TERM EVOLUTION ROUND 2 SYSTEM SITES

Executive Assistant Stallworth-Tait presented Agenda Item I and explained these two items were previously approved by your Board. In regards to LMR RPVT site, it was subsequently established County Parks and Recreation was the owner of this site and an agreement between LA-RICS and Parks and Recreation will now be required. After months of negotiation with Parks and Recreation an agreement was reached to transfer the parcel for RPVT site to the Authority by utilizing an MOU agreement.

In regards to LTE2 POLB site; notification was received from the Port Real Estate Division that a Telecommunications Equipment License Agreement instead of the SAA your board approved in February would be required. The Port of Long Beach is also requiring us to obtain Owner Controlled Insurance (OCIP) to ensure our contractors are covered in the event a claim arises during construction activity at this site.

It is recommended the Board take the following action:

1. Find the approval and execution of the MOU for the RPVT site with the Los Angeles County Department of Parks and Recreation which would allow the construction, implementation, operation and maintenance of the LMR System at this site are within the scope of activities previously authorized on July 11, 2019, which your Board found categorically exempt from CEQA pursuant to 14 Cal. Code Regs §§15303 and 15304 for the reasons stated in

this Board Letter and as noted in the record of the LMR project and the determination that these activities are exempt from CEQA remains unchanged.

2. Find the approval and execution of the Telecommunications Equipment License Agreement with the Port of Long Beach for the POLB1 site, to allow for the construction, implementation, operation and maintenance of the LTE2 System infrastructure that will be incorporated into the First Responder Network Authority (FirstNet) Nationwide Public Safety Broadband Network (NPSBN), is within the scope of activities previously authorized on January 24, 2019, for site POLB1, which your Board previously found categorically exempt from review under CEQA pursuant to 14 Cal. Code Regs. §§15301, 15303, 15304, and/or 15332 for the reasons stated in this Board Letter and as noted in the record of the LTE2 project, and the determination that these activities are exempt from CEQA remains unchanged.
3. Authorize the Executive Director to finalize and execute the two (2) real estate agreements identified herein, substantially similar in form to the agreements attached hereto.

Board Member Alexander motioned first, seconded by Alternate Board Member Thomas Ewald.

Ayes 9: Alexander, Chidester, Curley, Donovan, Ewald, Geiger, Glatt, Ortiz, and Perez.

MOTION APPROVED.

J. ACCEPT 2019 URBAN AREAS SECURITY INITIATIVE (UASI) FUNDS

Administrative Deputy Orellana-Curtiss presented Agenda Item J and recommended the Board take the following action:

1. Accept \$35,000,000 in grant funds from the Fiscal Year 2019 UASI funds as distributed through the California Office of Emergency Services (CalOES);
2. Authorize the Executive Director to execute the enclosed 2019 UASI Sub-Recipient Agreement between the City of Los Angeles and the Authority; and
3. Delegate authority to the Executive Director to execute any subsequent amendments to the Agreement that do not impact the award amount.

Alternate Board Member John Geiger motioned first, seconded by Board Member Mark Alexander.



Ayes 9: Alexander, Chidester, Curley, Donovan, Ewald, Geiger, Glatt, Ortiz, and Perez.

MOTION APPROVED.

K. APPROVE AMENDMENT NO. 46 TO AGREEMENT NO. LA-RICS 007 FOR LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM LAND MOBILE RADIO SYSTEM

Contracts Manager Jeanette Arismendez presented Agenda Item K and recommended the Board take the following action:

1. Make the following findings with respect to the LMR Change Order Modifications
 - a. Find that (a) approval of Amendment No. 46 to contemplate Change Order Modifications at two (2) LMR System sites, Johnstone Peak 2 (JPK2) and Verdugo Peak (VPK), related to the updating of equipment at this site is within the scope of the Final Environmental Impact Report (EIR) for the Los Angeles Regional Interoperable Communications System (LA-RICS) LMR System, which was previously certified by the Board under CEQA on March 29, 2016; and (b) that there are no changes to the project at these 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 (a) approval of Amendment No. 46 to contemplate Change Order Modifications at one (1) LMR System site, Rolling Hills Transmit (RHT), related to the updating of equipment at this site is within the scope of the design, construction, implementation, operation and maintenance activities for the LMR System previously authorized at this one (1) site, which your Board previously found statutorily exempt from review under CEQA pursuant to Public Resources Code Section 21080.25, on November 13, 2014, the exemption adopted specifically for the LA-RICS project, and any leased circuit work that may occur outside of Site 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 (a) approval of Amendment No. 46 to contemplate Change Order Modifications at one (1) LMR System site, Pomona Courthouse (POM), related to asbestos abatement work is within the scope of the design, construction, implementation, operation and maintenance activities for the LMR System previously authorized at this one (1) site, which your Board previously found statutorily exempt from review under CEQA pursuant to Public Resources



Code Section 21080.25, on December 12, 2016, the exemption adopted specifically for the LA-RICS project, and any leased circuit work that may occur outside of Site POM, 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).

2. Approve Amendment No. 46 to Agreement No. LA-RICS 007 for a LMR System with Motorola Solutions, Inc. (Motorola), which revises the Agreement to incorporate certain LMR Change Order Modifications as described in the board letter for a cost increase in the amount of \$375,728.
3. Authorize an increase to the Maximum Contract Sum in the amount \$375,728 from \$290,258,325 to \$290,634,053.
4. Delegate authority to the Executive Director to execute Amendment No. 46, in substantially similar form, to the Amendment enclosed with the board letter.

Alternate Board Member Geiger had questions for the team with respect to this item. He indicated it appeared the amendment is largely asbestos abatement related with approximately \$45,000 in new equipment. Alternate Board Member Geiger inquired if the Amendment has been vetted by the Joint Technical and Operations Committees (Joint Committees). Contracts Manager Arismendez informed Alternate Board Member Geiger and the Board the item was vetted by the Change Order Control Board, which includes representatives from both the LA-RICS and the Motorola teams. Alternate Board Member Geiger stated infrastructure changes should be passed through the subject matter experts from our stakeholders and members prior to placing them on the agenda for Board approval.

Administrative Deputy Orellana-Curtiss explained to Alternate Board Member Geiger and the Board that all change orders are vetted by the Change Control Board, which is made up of representatives from the Committees and other Subject Matter Experts (SMEs). Administrative Deputy Orellana-Curtiss further explained the Authority's Operations lead, a Lieutenant from County of Los Angeles Sheriff's Department and a Captain from the County of Los Angeles Fire Department, as well as the Authority's Technical Lead Engineer, Fiscal team members, and SMEs depending on the nature of the change order all form part of the Change Order Control Board. The Change Control Board reviews the change orders and makes recommendations and approvals for final review and presentation to your Board. Alternate Board Member Geiger stated the Board Letter does not reflect the Change Order Control Board make up and approval, but recommended moving forward that level of review and approval be reflected in Board Letters. Administrative Deputy Orellana-Curtiss concurred with this recommendation and commented the process will be reflected in future board letters.

Alternate Board Member Geiger inquired about the funding, in particular if the \$46,000 for equipment is fully covered by the grant funds and if the maximum contract sum remains fully covered. Administrative Deputy Orellana-Curtiss responded the maximum contract sum including the sum increase reflected in this Amendment are fully covered by the grant. Alternate Board Member Geiger asked if there are any risks of non-reimbursement at the end of the program due to payment of these change orders, to which Administrative Deputy Orellana-Curtiss responded that there are no risks as this is being paid out of the mandated change order contingency line item.

A discussion between Alternate Board Member Geiger and Project Director Chris Odenthal took place regarding who is the responsible entity for the asbestos abatement. County Counsel Truc Moore stated instances where unknown situations exist, it is incumbent upon the Authority to assume those costs for change orders.

Alternate Board Member John Geiger motioned first, seconded by Board Member Chris Donovan.

Ayes 9: Alexander, Chidester, Curley, Donovan, Ewald, Geiger, Glatt, Ortiz, and Perez.

MOTION APPROVED.

L. APPROVE AN INCREASE TO THE BUDGET FOR ONE (1) TELECOMMUNICATION FACILITY CONSTRUCTION AND INSTALLATION PROJECT

Contracts Manager Arismendez presented Agenda Item L and recommended the Board take the following action:

1. Find the work and cost contemplated in the recommended action at the Montebello Police Department (MNTBLPD) site, are within the scope of the activities your Board previously found statutorily exempt from review on March 6, 2014, under the CEQA pursuant to Public Resources Code §21080.25, the exemption adopted specifically for the LA-RICS project, and any leased circuit work that may occur outside of the site, if needed, to provide connectivity to the Long Term Evolution (LTE) (inclusive of phase 2 LTE) System, is categorically exempt under CEQA pursuant to CEQA Guidelines §§15301, 15303 and 15304, and the determination that these activities are exempt from CEQA remains unchanged.
2. Increase the project budget by \$28,290 to a new total of \$410,000 for one (1) LA-RICS Telecommunication Facility Construction and Installation site, Montebello Police Department (MNTBLPD), and delegate authority to the Executive Director to award a contract and issue notices to proceed for that amount.



Board Member Cathy Chidester motioned first, seconded by Board Member John Curley.

Ayes 9: Alexander, Chidester, Curley, Donovan, Ewald, Geiger, Glatt, Ortiz, and Perez.

MOTION APPROVED.

Alternate Chair Glatt stated moving on to the Special Agenda, Agenda Item A.

VIII. ADMINISTRATIVE MATTER (A)

A. APPROVE AMENDMENT NO. 43 TO AGREEMENT NO. LA-RICS 008 FOR LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM PUBLIC SAFETY BROADBAND NETWORKSYSTEM

Contracts Manager Arismendez presented Agenda Item K and recommended the Board take the following action:

1. Make the following findings with respect to Amendment No. 43:
 - a. Find that the approval of Amendment No. 43 to reconcile PSBN Components at PSBN site CLRMPD1 is within the scope of the design, construction, implementation, operation and maintenance activities for the PSBN System previously authorized at this site, which your Board found on December 5, 2019, categorically exempt from the CEQA pursuant to 14 Cal. Code Regs. §§ 15303, 15304, and/or 15332, and the determination that these activities are exempt from CEQA remains unchanged.
 - b. Find that approval of Amendment No. 43 to reconcile PSBN Components at the three (3) PSBN sites of IGPD, SCEGAL and SCEMERC, and the change order work at the six (6) USFS sites of BUR2, LPC2, MML2, PRG2, WMP2 and WTR2, is within the scope of the design, construction, implementation, operation and maintenance activities for the PSBN System previously authorized at these sites, which your Board found on January 24, 2019 categorically exempt from the California Environmental Quality Act (CEQA) pursuant to 14 Cal. Code Regs. §§



15301, 15303, 15304, and/or 15332, and the determination that these activities are exempt from CEQA remains unchanged.

2. Approve Amendment No. 43 to Agreement No. LA-RICS 008 for the PSBN with Motorola to contemplate the following:
 - a. Reconcile certain PSBN Components at four (4) sites resulting in a cost decrease in the amount of \$2,797.
 - b. Reflect the inclusion of certain Change Orders as further described in this Board Letter for additional work scope at six (6) United States Forest Services (USFS) sites for a cost increase in the amount of \$411,914.
3. Authorize an increase to the Maximum Contract Sum in the amount of \$409,117 from \$137,920,789 to \$138,329,906 when taking the recommended actions into consideration.
4. Delegate authority to the Executive Director to execute Amendment No. 43, in substantially similar form, to the Amendment enclosed with the Board Letter.
5. Allow for the issuance of one or more Notices to Proceed for the work contemplated in Amendment No. 43.

Alternate Board Member Thomas Ewald motioned first, seconded by Alternate Board Member Louis Perez.

Ayes 9: Alexander, Chidester, Curley, Donovan, Ewald, Geiger, Glatt, Ortiz, and Perez.

MOTION APPROVED.

IX. MISCELLANEOUS – NONE

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

XI. CLOSED SESSION REPORT - NONE

XII. ADJOURNMENT AND NEXT MEETING:

The Board meeting adjourned at 10:03 a.m., and the next meeting will be held on Thursday, June 4, 2020, at 9:00 a.m., via Teleconference.

Executive Summary

June 4, 2020

LTE Update

- PSBN Round 1 site assignment agreements are nearing completion between AT&T and LA-RICS legal counsel. AT&T is conducting field work to upgrade sites for integration into AT&T network operating center.
- PSBN Round 2 design and entitlement activities although hampered by protracted review and approvals for Phase 1 work at the onset of the Program; Phase1 work is now progressing better than ever before and nearly completed but for outstanding drawing review comments on eight (8) sites, one of which is a contingency site. All building permit applications have been submitted to review. All remaining permits are expected to be released in June 2020, including BUR1-2 which requires concurrence from the USFS by way of SUP issuance. Site Access Agreements (SAA's) have been initiated with all land owners at all sites, although not all SAA's are completed. Scholl Canyon (SCHOL) has proven to be particularly difficult to resolve as well as the Port of Los Angeles sites, and Port of Long Beach. Currently thirteen (13) SAA's are executed, an additional eleven (11) sites are pending execution in the upcoming two weeks. Twenty-six (26) sites are currently under contract for construction. The majority of the sites are planned to start construction by end of May and early June of 2020. The Fifth (5th) and final Supplemental Environmental Assessment (SEA) was submitted to NTIA, and a finding of no significant impact (FONSI) was found on January 16, 2020, and issued shortly thereafter in February 2020.

LMR Update

- Building Permit(s) Received – 44 Sites to date. There are 14 building permits remaining. Total site count remains 58 sites.
- All Ph.2 work will be completed in 2021. All Ph.4 work will be completed by March 28, 2022, according to Integrated Master Schedule dated May 12, 2020.
- Sites Eligible to Construct: (Includes Completed Sites, Sites under Construction and/or Equipment Installs and Locations).

- | | |
|---|-------------------------------------|
| 1. APC – Junction of I-105 and I-405 | 15. ONK – Oat Nike |
| 2. BMT – Angeles, overlooking CA-138 and I-5 | 16. PHN – Puente Hills |
| 3. CCB – Compton | 17. PLM – Palmdale |
| 4. CCT – Downtown | 18. SDW – San Dimas Water Tank |
| 5. CLM – Claremont | 19. TPK – Gorman |
| 6. FCCF – 1320 Eastern Ave | 20. VPK – Verdugo Peak – Glendale |
| 7. HPK – Northern Angeles, | 21. SGH – Signal Hill |
| 8. LAN – Lancaster Sherriff Station | 22. MIR – Mirador |
| 9. LDWP243 – Junction of I-5 and CA-14 | 23. BKK - West Covina |
| 10. LASDTEM – Temple City | 24. OAT – Nike |
| 11. LA-RICS HQ, - Monterey Park | 25. AGH – Agoura Hills |
| 12. MLM – Mira Loma Detention Center | 26. INDWT – Industry Water Tank |
| 13. MMC – Palmdale – Sierra Pelona Mountain Way | 27. BHS – Baldwin Hills |
| 14. MVS – Whittier | 28. RIH – Rio Hondo |
| | 29. CRN – Cerro Negro |
| | 30. POM – Pomona Courthouse |
| | 31. DPW038 – Water Works Substation |

32. UCLA
33. Del Valle Training Center
34. RHT – Rolling Hills Transmit
35. GMT – Grass Mountain
36. JPK2 – Johnstone Peak 2
37. PRG – Portal Ridge
38. WMP – Whitaker Middle Peak
39. WTR – Whitaker Ridge
40. LPC – Loop Canyon

41. MML – Magic Mountain Link
42. PMT – Pine Mountain
43. MDI – Mount Disappointment
44. FRP – Frost Peak

LA-RICS GRANT STATUS					
Grant	Award	Costs Incurred/NTP Issued	Invoiced / Paid	Remaining Balance	Performance Period
UASI 12	\$18,263,579	\$18,263,579	\$18,263,579	\$-	3/31/17
UASI 13	\$13,744,067	\$13,744,067	\$13,744,067	\$-	3/31/18
UASI 14	\$4,997,544	\$4,997,544	\$4,997,544	\$-	7/31/17
UASI 16	\$5,240,455	\$5,240,455	\$5,240,455	\$-	5/31/19
UASI 17	\$34,763,750	\$34,763,750	\$34,763,750	\$-	5/31/20
UASI 18	\$35,000,030	\$32,473,444	\$-	\$-	5/31/21
UASI 19	\$35,000,000	\$8,520,932	\$-	\$26,479,068	Not yet awarded
BTOP	\$154,365,165	\$144,786,948	\$132,653,102	\$9,578,217	9/30/20



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 systems which leads to increased costs while continuing to inhibit first responders' ability 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 is implementing 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.

Design, construction, and deployment of a County-wide Land Mobile Radio (LMR) voice network utilizes 59 sites. Additionally, the Authority is analyzing twenty-six (26) sites for the purpose of augmenting the FirstNet deployment in the region. All sites in both the LMR and LTE augmentation will 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., David Evans
& Associates, Metrocell, Inc., Diversified
Communications, Inc, Motive Energy, Inc.
and Jitney, Inc.



Monthly Report No. 97

For May 2020

Submitted May 26, 2020

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AGENDA ITEM C

LTE UPDATES

- No new activity

Operations/Governance

- The LA-RICS Operations team is holding meetings three (3) times a week to focus on the following:
 1. Manage network migration from LA-RICS PSBN to AT&T FirstNet
 2. Ensure internal LA-RICS operational aspects are in place
 3. Develop and Implement Policies

LTE Round 1 Updates

- Construction and testing of LTE Round 1 (LTE1) sites are complete. Final SAA negotiations continue with AT&T and site owners as AT&T continues their efforts to complete site improvements to tie the LTE1 sites into the NPSBN System.

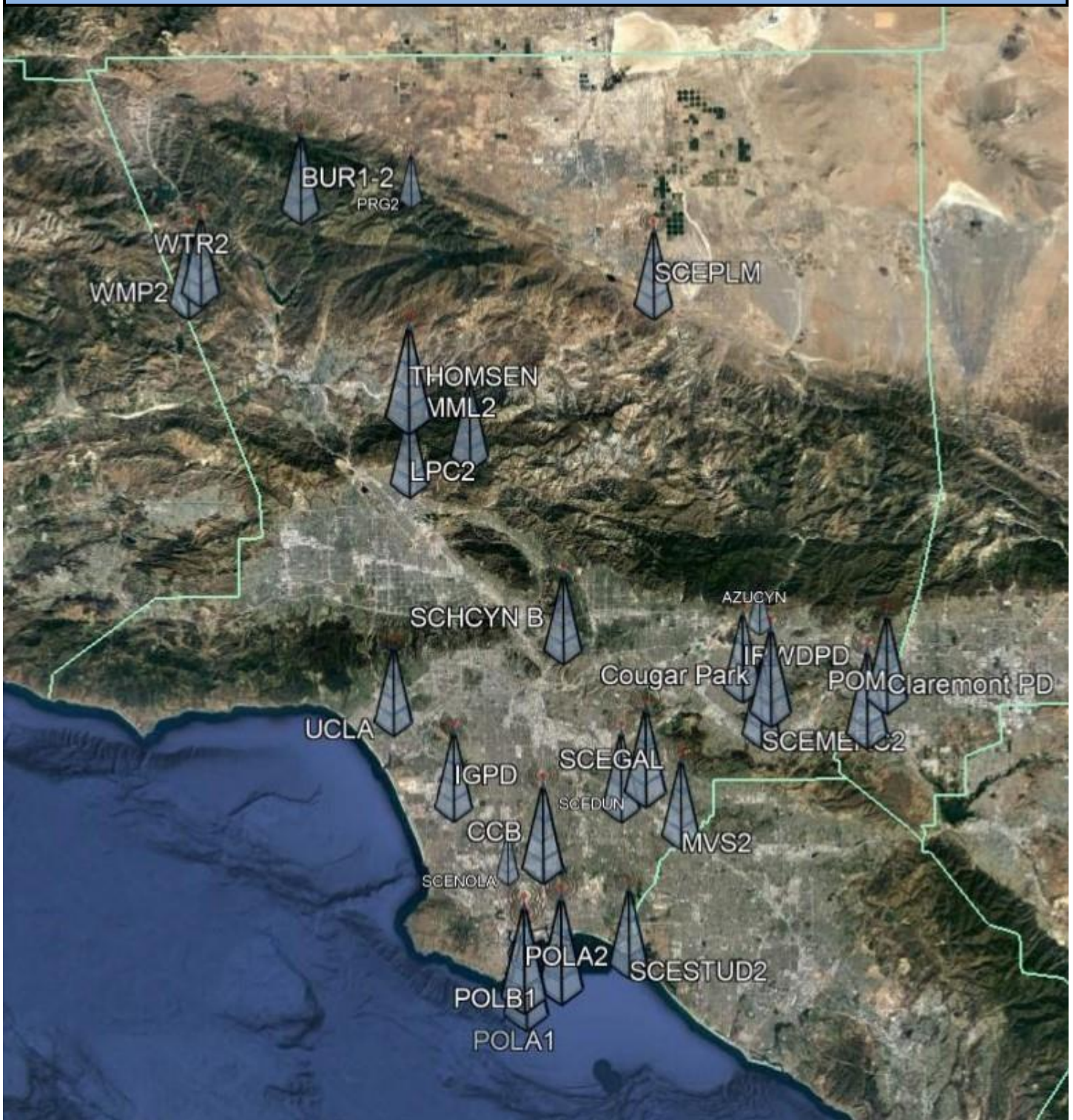
Special Events

- No new activity.

LTE Round 2 Updates

- Building permit submittals have been made for Twenty-six (26) sites.
- Eleven (11) building permits have been issued to date. IGPD, MVS2, COUG, AZUCYN, CLMPD1, LPC, MML2, PRG, WMP2, WTR2 and IRWDPD.
- All Twenty-six (26) sites have gone out to bid and bids were returned for sites.
- Twenty-five (26) of the sites have contractors awarded to date.
- It is expected that all twenty-six (26) sites will be under construction in by end of June 2020.
- Zero recordable injuries to date.
- Current contractors are in good standing and following labor compliance guidelines.
- Zoning applications were approved by Los Angeles County for the THOMSEN site, and by the City of Claremont for the CLRMPD site.
- The Authority continues its efforts in coordinating and participating in multiple weekly meetings with AT&T RAN, and AT&T Construction and Engineering to ensure the schedule and scope of work are identified appropriately. A request for performance extension was made to NTIA to account for COVID-19 Pandemic. NTIA has indicated that they will review the request and issue a response.
- Special Award Condition (SAC) compliance reporting was submitted for CY 2020-Q1 on April 16.
- Environmental compliance monitoring of construction activity began at Site AZUCYN.
- Nesting bird surveys are planned just prior to each site going into construction.

LTE SITES



LMR UPDATES

Environmental Update

- LMR EIR/EA team meetings with Authority staff, environmental counsel, and key EIR/EA team members continued during the period as needed.
- Continued to review PNS' and FCS' pre-construction forms and weekly and daily compliance reports, and to attend a weekly compliance status meeting.
- Have accomplished Worker Environmental Awareness Program (WEAP) training for 1,182 persons as of May 8.
- Continued to support development of and to review MSI's coastal development permitting documents and planning documents for USFS sites. Coordinated with Catalina Conservancy and with LA County Department of Regional Planning on coastal permitting issues.
- Prepared NOEs for sites POM and RHT and a NOD for sites JPK2 and VPK for filing after the May 7 Board meeting.
- Drafted regulatory correspondence for USFWS and SHPO to address a polygon expansion at Site LACFFDEL. These are still in internal Authority review.
- Prepared materials in support of obtaining an environmental clearance for Site SPH and submitted them to FEMA on April 27

Permitting Support

- Authority, Jacobs, and MSI personnel met with DRP staff to submit seven of the eight California Coastal Commission sites to the Department of regional planning, the last submission was made on 9/12/2019. To date all the first-round review comments have been received by the Project Team and some comments have proven difficult to resolve such as selecting a cost-effective alternative to color stained chain-link fence.
- The Decision Memo for the 13 LMR sites on the ANF was issued by the Angeles National Forest (ANF) on October 31st, 2019. USFS released leases for the Batch 1 sites (LPC, MML, PRG, WMP, and WTR) on February 7th, 2020 accompanied by a joint LA-RICS-USFS press release on February 12th, 2020; it released leases for three Batch 2 sites (JPK2, MDI, and PMT) on February 18th, 2020 and a fourth site (GMT) on February 26th, 2020. USFS has released the lease for Site FRP on March 31. The plan of development for Site MTL2 was submitted April 3 and the lease for MTL2 and the SUP was issued for the site in May 2020. Construction on sites GMT, JPK2, PRG, WMP, LPC and WTR is currently underway. Construction at MDI started on May 20th, and MML starts on May 26th, 2020. Construction at FRP is pending snow melt in order to access the site, anticipating end of June 2020 for work start.
- In the month of May there has been a particular focus on ensuring that the microwave equipment complies with the USFS requirements for coloration, as a result the contractor will now powder coat select 3' microwave dishes and purchase others from factory with grey finish in order to comply with the USFS color ordinance.

Site/Civil

- The LMR program has entered the into its most active construction season despite the complications brought on by COVID-19 Pandemic. MSI will have fifteen (15) active sites in May 2020 four (4) of which are colocation projects with LTER2 in the USFS. On May 13th the Authority transmitted a formal letter to MSI requesting that action be taken to ensure adequate resources are deployed particularly at the USFS sites where fire watch is required particularly when weather indicates a qualifying PAL level. MSI responded that they are complying with the requirements of the USFS and that no additional personnel is required, however just days after having sent the letter it was observed that MSI's subcontractor, PNS had one (1) CM attempting and failing to cover both WMP and WTR at the same time during PAL level E. A response will go back to MSI so that the more completely understand how to remain compliant with the requirements under the Forest Permits. The May Program schedule (IMS) dated 5/12/2020 showed an overall finish date of the program of 5/28/2022, still keeping a March of 2022 LMR System completion despite adding a great deal of activities for Phase 4 scope.
- MSI efforts to complete drawings and submit sites into the jurisdiction for building permits is an on-going challenge for MSI and its design build partners typically there are several rounds of comments by the plan checkers. In order to assist the contractor with this issue the Authority delivers to LA County DPW prioritized lists of sites to review and target permit issue dates for projects. The plan checkers believe this process is assisting in their effort to review and approve drawing packages Notice to Proceed No. 033 was issued April 27th which included authorization to proceed on all future approved change order requests. This NTP was issued to stream line documentation and allow for more efficient work flow, and thus far in May it has proven effective in reducing the amount of administrative document handling for each change order approved.
- Forty-five (45) building permit applications have been made to date (LACFDEL, PHN, BMT, HPK, LDWP243, LASDTEM, FCCF, APC, CCB, CCT, PLM, MLM, MVS, ONK, LARICSHQ, CLM, MMC, TPK, VPK, POM, LAN, CRN, SDW, SGH, DPW038, OAT, UCLA, INDWT, AGH, BKK, MIR, BHS, BUR1, FRP, GMT, JPK2, LPC, MDI, MML, PMT, PRG, WMP, WTR, RIH and RHT) and forty-five (45) of the forty-four (44) sites have permits issued to date, BUR1 is ready to issue but is being held up by the SUP from the USFS which is expected 3rd week of June 2020. MSI has elected to split permits at a number of project sites in the program for various reasons. An example of splitting the Ph. 2 scope into multiple permits is at RHT, where there is a "civil work" building permit issued, but the antenna support structure scope is an entirely separate permit and the electrical distribution scope is also a separate permit.

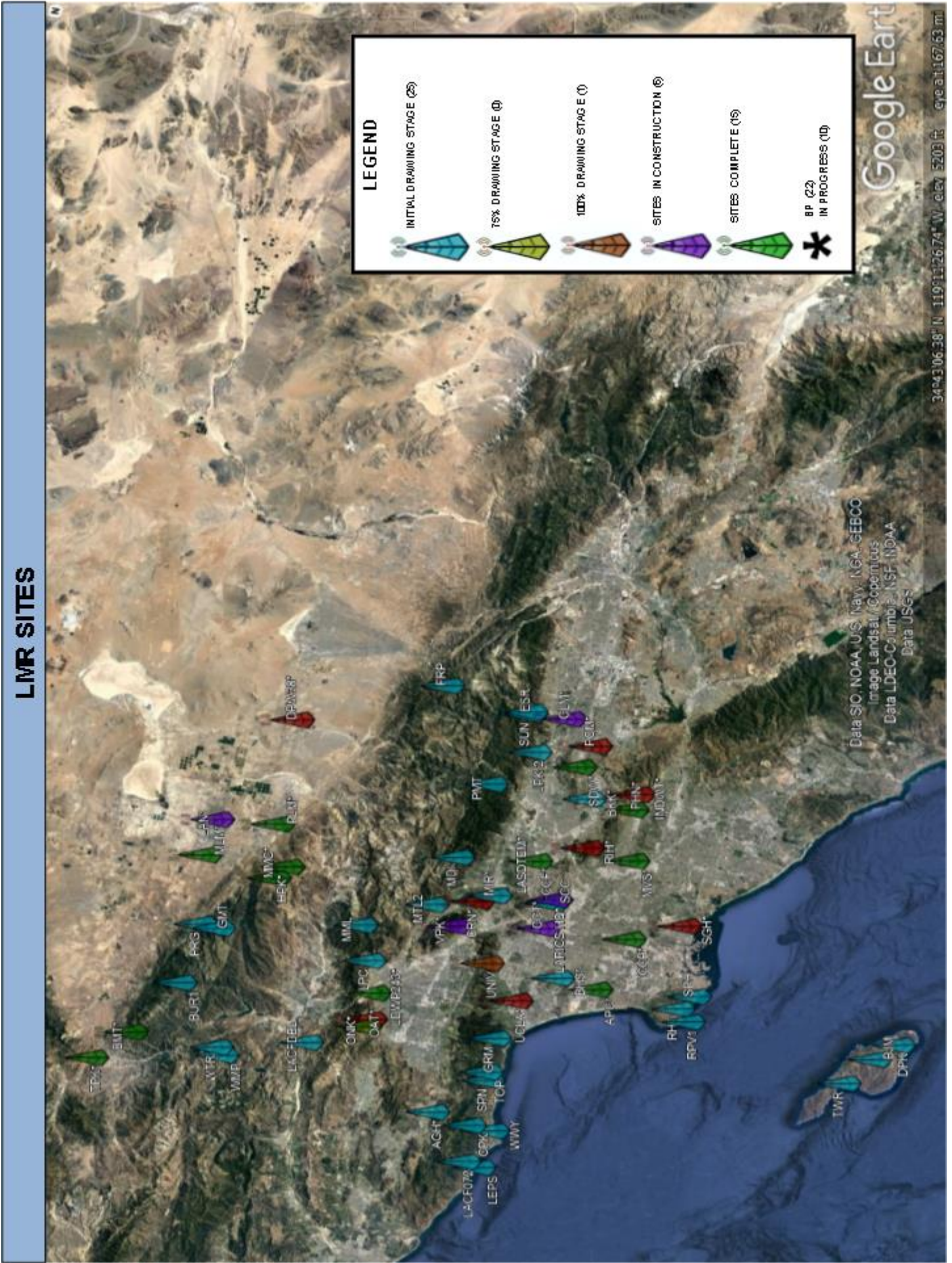
LMR UPDATES Continued

- Below is an update of the remaining LMR sites and their projected permit submission dates based on Motorola's Microsoft Projects schedule data date 5/12/2020.

SPN 5/20/2020 date not hit, TWR 6/9/2020, TOP 5/29/2020, CPK 5/29/2020, DPK 6/10/2020, BJM 5/27/2020, LACF072 5/19/2020, RPVT 7/23/2020, ESR 7/2/2020, GRM 5/18/2020 date not hit, SPH 10/20/2020, UNIV 9/14/12/2020 and BUR1 6/19/2020.

- As of 5/22/2020 there are fifty-three (53) executed SAA's.
Those sites remaining are ESR, BUR1, TWR, BJM, and DPK.

LMR SITES





Monthly Report #81

Reporting Period: 4/24/2020 thru 5/20/2020

**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 Modifications, 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, Phase 2 Site Construction and Site Modifications, and Phase 3 Supply LMR System Components. 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, and 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 the 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 the 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 the 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 the 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.

On September 25, 2017 the Authority issued **NTP 24** authorizing specified Work related to Phases 2-4 for Five (5) LMR sites.

On November 9, 2017 the Authority Board of Directors approved **Amendment 30** reconciling seven (7) LMR System Sites (BUR1/DPW38/FRP/JPK1/MIR/MML/RHT) to reflect the updated LMR System Design for these sites. This Amendment also includes one (1) LMR System Site (UNIV) into the scope of Phases 2, 3, and 4 to align WITH THE UPDATED LMR SYSTEM Design.

On December 20, 2017 the Authority issued **NTP 25** authorizing specified Work related to Phases 2-4 for Eighteen (18) LMR sites – with the exception of ACRVS and NMDN equipment order. This NTP also authorized Motorola to proceed with Work for Task 6 Multiprotocol Label Switching (MPLS) Mobile Backhaul.

On February 28, 2018 the Oversight Committee approved **Amendment 31** approving Change Order Modifications in the amount of \$19,573.00.

On March 6, 2018 the Authority Board of Directors approved **Amendment 32** reconciling three (3) LMR System Sites to align with the updated LMR System Design for a cost decrease in the amount of \$4,131,931; (b) a cost neutral administrative reconciliation in connection with the Narrowband Mobile Data Network (NMDN) Subsystem to align all corresponding per site NMDN costs to a single line item cost, impacting thirty-three (33) LMR System Sites; (c) decrease the Maximum Contract Sum by \$4,131,931 from \$300,051,310 to \$295,919,379 when taking the cost decrease into consideration; and (d) make other certain changes as set forth in this Amendment No. 32.

On May 30, 2018 the Authority Board of Directors approved **Amendment 33** to make changes necessary to reflect (a) certain LMR Change Order Modifications for a cost increase in the amount of \$17,490.

On June 15, 2018 the Authority issued **NTP 26** authorizing all Work related to Phases 3 for Twelve (12) LMR sites – with the exception of the Phase 3 ACRVS equipment which was previously captured in NTP25. This NTP also authorized Motorola to proceed with Work for Task 6 Multiprotocol Label Switching (MPLS) Mobile Backhaul.

On July 31, 2018 the Authority Board of Directors approved **Amendment 34** 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 \$1,016,780; (b) certain LMR Change Order Modifications for a cost increase in the amount of \$90,744; (c) the removal of certain Authority equipment, in particular an Uninterruptible Power Supply (UPS), from the Los Angeles Police Department's Valley Dispatch Center (LAPDVDC) for a cost increase in the amount of \$6,010; (d) an extension of a bridge warranty for the certain Early

Deployment/Specified Equipment purchased and deployed under previously approved Amendments to bridge the warranty gap for this equipment until December 31, 2019, for a cost increase in the amount of \$430,800; (e) increase the Maximum Contract Sum by \$1,544,334 from \$295,936,869 to \$297,481,203 when taking the cost increase into consideration; and (f) make other certain changes as set forth in this Amendment No. 34.

On August 28, 2018 the Authority issued **NTP 27** authorizing Work related to Phases 2-4 for the LMR INDWT LMR site, extension of the bridge warranty for certain deployed/specified equipment under previously approved Amendments until December 31, 2019.

On October 11, 2018 the Authority Board of Directors approved **Amendment 35** to make changes necessary to reflect (a) the reconciliation of one (1) LMR System Site Olinda (OLI) 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 decrease in the amount of \$701,234; (b) the inclusion of one (1) LMR System Site Winding Way (WWY) 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 1,064,388; (c) certain LMR Change Order Modifications for a cost increase in the amount of \$13,115 (d) make changes necessary to reflect an administrative reconciliation, a reconciliation related to the removal of certain Authority equipment, in particular an Uninterruptible Power Supply (UPS), from the Los Angeles Police Department's Valley Dispatch Center (LAPDVDC) for a cost increase in the amount of \$601; (e) increase the Maximum Contract Sum by \$376,870 from \$297,481,203 to \$297,858,073 when taking the cost decrease and increase into consideration; and (f) make other certain changes set forth in this Amendment No. 35.

On November 1, 2018 the Authority Board of Directors approved **Amendment 36** to make changes necessary to reflect (a) the reconciliation of five (5) LMR System Sites to align with the updated LMR System Design; (b) the inclusion of one (1) LMR System Site San Pedro Hill (SPH) into the scope of Phase 2 (Site Construction and Site Modification), Phase 3(Supply LMR Components), Phase 4 (LMR System Implementation), exercising the Unilateral Options of the same, to align with the updated LMR System Design; (c) incorporate an LMR Change Order Modification; (d) increase the Maximum Contract Sum by \$311,442 from \$297,858,073 to \$298,169,515 when taking the cost decreases and increases into consideration; and (e) make other certain changes as set forth in this Amendment No. 36.

On December 20, 2018 the Authority issued **NTP 28** authorizing Work related to Phases 2-4 for seventeen (17) sites – BJM, DPK, GMT, GRM, LPC, MDI, MTL2, PRG, PMT, RIH, RPV1, SPH, SPN, TWR, WMP, WTR, and WWY. This amendment reiterated the directive to suspend the purchase of UHF DTVRS equipment and corresponding work tied to the UHF DTVRS equipment.

On February 26, 2019 the Authority Board of Directors approved **Amendment 37** to make changes necessary to reflect (a) incorporate certain LMR Change Order Modifications for a cost increase in the amount of \$56,337; (b) increase the Maximum Contract Sum by \$56,337 from \$298,169,515 to \$298,255,852 when taking the cost increases into consideration; and (c) make other certain changes as set forth in this Amendment No. 37.

On June 11, 2019 LARICS executed **Amendment 38** to make changes necessary to reflect (a) incorporate certain LMR Change Order Modifications resulting in a net cost decrease in the amount of \$47,393; (b) decrease the Maximum Contract Sum by \$47,393 from \$298,225,852 to \$298,178,459 when taking the cost increases and decreases into consideration; and (c) make other certain changes as set forth in this Amendment No. 38.

On 1 August 2019, the Authority Board of Directors approved **Amendments 39 and 40**. **Amendment 39** makes changes necessary to (a) reflect a reconciliation related to the Narrowband Mobile Data Network (NMDN) Subsystem resulting in a cost decrease in the amount of \$720,207, (b) incorporate certain LMR Change Order Modifications as further described in this Amendment No. 39 that results in a cost increase in the amount of \$73,606, (c) decrease the Maximum Contract Sum by \$646,601 from

\$298,178,459 to \$297,531,858 when taking the cost increase and decrease into consideration, and (d) make other certain changes as set forth in this **Amendment No. 39**. **Amendment 40** makes changes to

- (a) remove Lower Encinal Pump Station (LEPS) and Winding Way (WWY) Phase 2 through Phase 4 scope,
- (b) incorporate certain LMR Change Order Modifications for a cost decrease in the amount of \$10,920,
- (c) decrease the Maximum Contract Sum by \$1,261,169 from \$297,531,858 to \$296,270,689 when taking the cost increase and decrease into consideration, (d) incorporation of Channel 15 and Channel 16 Interference Mitigation into LMR System Specifications, and (e) make other certain changes as set forth in this **Amendment No. 40**.

On 3 October 2019, the Authority Board of Directors approved **Amendment 41**. **Amendment 41** makes changes necessary to (a) incorporate Land Mobile Radio (LMR) Change Order Modifications for a cost increase in the amount of \$255,975 as further described in this **Amendment 41**, and (b) increase Maximum Contract Sum in the amount \$255,975 from \$296,270,689 to \$296,526,664 when taking the cost increase into consideration.

On 15 January 2020, the Authority Board of Directors approved **Amendment 42**. **Amendment 42** makes changes necessary to (a) revise Exhibit B.1, Section 4.1 (Acceptance Testing), (b) revise Exhibit C.1 (LMR System Payment Summary) to reflect the payment revisions contemplated in this **Amendment 42**, (c) revise Exhibit C.4 (Phase 3 – Supply LMR System Components) to reflect the reduction in certain Pre-Installation Acceptance Test costs, (d) revise Exhibit C.5 (Phase 4 – LMR System Implementation) to reflect reduction in costs in connection with the modified ATP, (e) revise Exhibit C.16 (LMR Mitigation Monitoring and Reporting Plan [MMRP]) to reflect collective amounts for LMR Monitoring, Surveys, and Reporting Tasks and LMR Contingency Tasks, (f) revise Exhibit C (Schedule of Payments) to include Exhibit C.20 (LMR Bridge Warranty), and (g) revise Exhibit D (LMR System Maintenance and Warranty), Section 9, replacing it with Bridge Warranty for Specified Equipment included in this **Amendment 42**, (h) revise Exhibit D.2.1 (Motorola Customer Support Plan) to reflect updated information which is incorporated in this **Amendment 42**, and (i) revise Base Document, Section 8.1 (Maximum Contract Sum and Contract Sum – General) by a decrease in Maximum Contract Sum in the amount \$6,445,029 from \$296,526,664 to \$290,081,636 when taking the cost decrease into consideration.

On 5 March 2020, the Authority Board of Directors approved **Amendment 43**. **Amendment 43** makes changes necessary to (a) reflect a reconciliation of certain equipment reductions which results in a cost decrease in the amount of \$50,313 (b) incorporate certain LMR Change Order Modifications for three microwave links that results in a cost increase in the amount of \$185,344; (c) increase the Maximum Contract Sum by \$135,031 from \$290,081,635 to \$290,216,666 when taking aforementioned actions and costs into consideration; and (d) make other certain changes as set forth in this **Amendment No. 43**.

On 26 March 2020, the Authority Board of Directors approved **Amendment 44**. **Amendment 44** revises the Agreement to reflect a reconciliation of certain LMR Change Order Modifications for a cost increase in the amount of \$2,609, increasing the Maximum Contract Sum from \$290,216,666 to \$290,219,275.

(a) incorporate certain LMR Change Order Modifications as further described in this **Amendment No. 45** which results in a cost increase in the amount of \$39,050 (b) increase the Maximum Contract Sum by \$39,050 from \$290,219,275 to \$290,258,325 when taking aforementioned actions and costs into consideration; and (c) make other certain changes as set forth in **Amendment No. 45**.

The Agreement has been previously amended in **Amendment Number 46**, effective April 27, 2020 to make changes necessary to (a) incorporate certain LMR Change Order Modifications as further described in this **Amendment No. 46** which results in a cost increase in the amount of \$375,728 (b) increase the Maximum Contract Sum by \$375,728 from \$290,258,325 to \$290,634,053 when taking aforementioned actions and costs into consideration; and (c) make other certain changes as set forth in this **Amendment No. 46**.

This report covers the period from 4/24/2020 thru 5/20/2020

During this reporting period Phase 1 design tasks continue for the remaining LMR sites. MSI is finalizing 100% progress construction drawings with LA-RICS for 6 of 7 Coastal sites within LA County jurisdiction, in anticipation of LA-RICS and LA County Department of Regional Planning (DRP) permission to submit the design packages to plan check ahead of site zoning approvals. The seventh Coastal site under LA County jurisdiction, LACF072 has been submitted to plan check for review and approval, pending LA County Department of Regional Planning zoning application approval. In parallel, the Coastal zoning application developments continues with revised applications, in response to DRP comments. In this period, DRP returned a third round of review comments for the LACF072 zoning application package. GRM Coastal site, within the City of Los Angeles jurisdiction, is at 100% Progress construction drawings with comments received from LA-RICS in advance of permit package submission. Special Use Permits (SUP) or Communications Use Leases for the final 2 of 13 USFS sites (BUR1 and ESR) are now expected in mid-June and late May 2020, respectively. The SUP for MTL2 was

received in this period.

Motorola and its partners continue design, engineering and construction work despite the COVID-19 pandemic. Construction work continues at seven USFS sites (GMT, JPK2, LPC, MDI, PRG, WMP, and WTR). Sites FRP, and MML are expected to commence construction at the end of May, with BUR1 ready to mobilize upon issuance of SUP.

The Authority and MSI senior management team continue to meet bi-weekly to review and manage the project's critical path schedule.

LMR System Design

System design activities for this period include Los Angeles Regional Tactical Communications System (LARTCS) design, narrowband mobile data network (NMDN) design, system management and monitoring system (SMMS) design, fleet mapping, site optimization, and incorporation of early user cutovers into the LMR System engineering design activities.

LA-RICS is working with the agencies for LASD narrow banding and LA County Fire Channel 14 voice cutover to Channel 16.

LA-RICS and MSI confirmed RF and microwave dish color requirements with the USFS representative arising out of the USFS Decision Memo and individual site SUPs to address aesthetic (visual impact) measures. The RF antennas and the majority of the microwave dishes comply with the color requirements; with the small balance of the microwave antennas being powder coated or ordered to meet these requirements.

System Management and Monitoring System – The joint technical teams continue to review the need for implementing additional alarms at sites with existing on-site alarm monitoring, on a site by site basis. The revised SMMS Description and Acceptance Test Plan (ATP) has been jointly reviewed by the MSI and LA-RICS technical team. MSI will be formally resubmitting these documents for LA-RICS approval.

Fleet Mapping – MSI continues to assist LA-RICS and agencies in fleet mapping development for LA-RICS with the teams targeting to complete the effort early in the third quarter.

LA-RICS Deliverables - Authority Site Access Agreements

Authority's efforts to develop and execute the applicable Right of Entry and Site Access Agreements (SAA) for the remaining 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 (43 out of 59) Site Access Agreements have been executed. USFS Communications Use Leases (aka SUPs) remain to be executed for 2 USFS Sites BUR1 and ESR, with MTL2 SUP received in this period. The 7 Coastal Development Packages are still outstanding, with applications all submitted and under review by LA County Department of Regional Planning. LA-RICS is waiting for final application comments or approvals, and subsequent scheduling of public hearings for each site.

Site Design Activities

LMR sites not yet permitted include 3 of 13 USFS sites (ESR, PMT, and MTL2), 8 Coastal sites, and other sites including RPVT, UNIV (2 locations, 2 separate jurisdictions), and SPH. Site BUR1 was modified to eliminate the emergency backup system with this civil work updated cleared by plan check. LA-RICS is supplying solar power to this site under a separate design and permit. Site MDI required a new design permit for the relocated third party fuel tank, since the LMR tower is to be situated at the tank's original location. This design supplement was approved by plan check. Motorola continues to respond to LA County DPW plan check comments for PMT. DPW now requires separate permit packages for the PMT solar power infrastructure and the LMR civil improvements. These updates are underway. The DPW plan checkers continue to work remotely and are using a new digital process for delivery of approved permit packages.

The road to the MTL2 site, sections of which are in need of repair, remains a challenge. MSI has provided several quotes and proposed measures to address various road access alternatives. MSI and LA-RICS performed another joint road assessment to assess and determine maintenance or repair work. MSI will present an updated statement of work and quotation for these additional road work services needed to access Site MTL2. In parallel, MTL2 100% construction drawings are under LA-RICS review with an expected comments or approval on May 20, 2020.

100% Progress Construction Drawing are in development or review for the remaining LMR sites, 7 of these drawings sets are for Coastal sites within the LA County jurisdiction. The construction drawing set for Coastal Site LACF072 has been reviewed and approved by LA-RICS and submitted to DPW for plan check. This submission is in advance of zoning approval by DRP, so a permit will not be issued until receipt of site zoning approval and incorporation of any required zoning changes. Two of the Catalina sites require plant restorations plans and alternate fencing (chain link and barbed wire fencing are prohibited) that LA-RICS has to resolve with the Santa Catalina Island Conservancy prior to completion of the zoning applications. MSI continues to assist LA-RICS in support of its desired zoning exemptions for the CPK and TOP Coastal sites, originally forecast to be a four month zoning process and granted in January 2020. The zoning application approvals for the other five Coastal sites were forecast by LA-RICS to be completed no later than May 2020. These five are still in the DRP zoning approval process.

GRM 100% Progress construction drawings have been reviewed by LA-RICS with MSI updating the package prior to submission

to City of Los Angeles plan check. Universal (UNIV) 100% Progress Construction Drawings for both locations have been provided to LA-RICS for review and comments. MSI received existing electrical feed information from LA-RICS for the Universal (CityWalk) location and is currently using this input to finalize the electrical design. MSI is waiting for site-specific environmental clearance for Site SPH in order to conduct geotechnical drilling. A geotechnical report is necessary for MSI's engineering firm to design tower, shelter, and generator foundations, as well as develop a site grading plan. This environmental clearance is expected in early June.

MSI and LA-RICS refined a soil management process for those sites requiring special soil disposal. Additionally, LA-RICS implemented a streamlined notice to proceed (NTP) process once the joint Change Control Board reviews and approves change order requests. This has assisted in ensuring sites move faster into construction or for those sites in construction, minimizing work delays. MSI has presented the first of thirteen change orders associated with USFS site coloring requirements, for Site PRG. The finalization and approval of the PRG change order will be the template for submission of the remaining USFS color change requests. MSI and LA-RICS continue to negotiate change orders associated with the MIR site. MSI has proactively and in good faith moved forward with the design updates and construction is in process.

12 site design packages remain to be submitted to LA County DRP, including the one of two UNIV locations. The UNIV CityWalk equipment locations are under the LA City jurisdiction for permitting.

Pre-Construction Activities

The teams continue to prepare for work starts at upcoming sites: FRP and BUR1. Towers for USFS sites are ready to ship from the manufacturer: PRG, MML, LPC, WMT, and WTR.

Construction Activities

During this reporting period, Phase 2 construction tasks continue. 28 of 59 (includes 2 UNIV locations) sites are substantially complete with construction activities ongoing at 11 sites. To date, 16 of 44 new towers have been erected. 28 of 57 shelters or equipment rooms are complete. MSI is working with LA-RICS to obtain Phase 2 construction completion acceptance by sites, as Phase 2 civil site work is completed. MSI has submitted over 20 Phase 2 Construction Closeout Packages and has been working to mutually agree on content and format since last October. LA-RICS has reviewed and commented on the initial group of Phase 2 site documents, but it has yet to formally approve any of them.

The site construction at UCLA is substantially complete under UASI 2017 grants with power to the site yet to be provided

by UCLA. Construction teams are completing utility runs and associated work on behalf of LA-RICS to AGH and LACFDEL. LA-RICS continues to address easements needed by the electrical utility to bring commercial power to numerous sites. The lack of these utility easements is delaying completion of Phase 2 construction completion at several sites, including AGH.



Equipment Supply

MSI responded to a Request for Quote to evaluate the potential RF subsystem reduction and re-use of delivered LMR equipment originally intended for certain sites. MSI is completing staging for 4 sites and will be shipping this equipment in early June. Orders have been processed for the 7 of 8 remaining sites. MSI has also ordered supplemental software, licenses, and equipment for SMMS. Solar equipment has been ordered for USFS site PMT. NMDM equipment orders are being processed. LARTCS equipment orders are pending final design and Agreement modification change order approval.

System Implementation

MSI contractors continue to install RF and microwave antennas and lines at sites, install and configure low-voltage site alarms, and configure RF equipment. Initial Phase 4a internal site audits and checks were completed. MSI System Technologists have started site optimization at sites including FCCF and LASDTEM.

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

Category	Rating	Change	Comments
Schedule			A new August 2019 baseline for the master schedule has been approved 12/5/2019. The current schedule shows LMR System Acceptance on 3/28/2022. Activity sequencing and durations for SMMS, NMDN, Frequency Licensing and Coordination, and Backhaul Sequencing was reviewed with LA-RICS on 4/23/2020. Agency cutover durations need to be incorporated into the schedule. Follow up meetings will be conducted to evaluate impact on final LMR System acceptance.
Risk			Risk items have been identified regarding: zoning approval process, Site Access Agreements, plan check approval process, spectrum, narrow banding, Channels 15 and 16 interference, site power, and site conditions. FEMA independent site environmental approvals required.

Additional USFS site environmental mitigation measures
(RF and MW antennas).

2. Project Status

2.1 Tasks in Progress or Completed

See IMS Look Ahead File, data date 5/12/2020

2.2 Tasks Planned for Next Period

See IMS Look Ahead File, data date 5/12/2020

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
Environmental Process	Authority	High	The individual determination of environmental impacts or mitigation may impact the schedule for site work (e.g., bird nesting season). Individual environmental releases from FEMA are required to start work at sites.	Active
Delayed Drawings and Permit Release	Motorola & Authority	High	Site changes and System redesign elements are impacting drawing progress for certain sites, including the coordination of 3 rd party components (antennas, dishes).	Active
Site Access Agreements	Authority	Med	Lease holders approvals are needed in order to implement LA-RICS improvements. Utility easements are required to provide power to sites.	Active

Project Schedule	Authority & Motorola	High	Critical path elements include receipt of SAAs, Coastal sites zoning application approvals, provision of utility power at sites, and completion of replacement site designs and permitting. Timely execution of interference mitigation, narrow banding, functional and coverage testing to achieve System Acceptance in March 2022.	Active
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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 (Phases 1-4)	160,081,097
Cumulative Invoice Payments from Last Report	98,497,652
Total Invoice Payments This Period	143,651
Remaining Amount to be Paid	<hr/> 61,439,794

7. LA-RICS Master Schedule

A new August 2019 baseline for the master schedule has been approved 12/5/2019. The most recent weekly master schedule update has a data date of 5/12/2020. See attached LMR Executive Project Summary Snapshots.



LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

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

SCOTT EDSON
EXECUTIVE DIRECTOR

June 4, 2020

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>Attendance at Glendale City Council Meeting</i>	May 5, 2020
<i>Meetings with representatives from AT&T</i>	May 6, 13 and 20, 2020
<i>Meeting with representatives from San Gabriel Police Department</i>	May 8, 2020
<i>Informational Meeting for LTE2 Scholl Canyon Site</i>	May 12, 2020
<i>Attendance at Montebello City Council Meeting</i>	May 13, 2020
<i>Attendance at CalFRN Meeting</i>	May 20, 2020
<i>Meeting with representatives from Cal State Long Beach</i>	May 27, 2020
<i>Door to door outreach to residents near LTE2 sites SCEDUN and SCEMER2</i>	May 29, 2020

Executive Director Edson and Program Director Chris Odenthal attended the Glendale City Council Meeting via Teleconference and provided a presentation on the proposed LTE2 site at Scholl Canyon.

Various meetings continued in the month of May with AT&T to discuss ongoing Technical and Program Management concerns, Transfer Transition logistics, Checkpoint Calls, Round 2 Specifications and Site Leases, Assignment and Assumption Agreements, Network Coverage Review and quarterly progress review.

Lieutenant Sven Crongeyer and LA-RICS representatives met with San Gabriel Police Department and conducted coverage testing in their city.

AGENDA ITEM F

Executive Director Edson and Program Director Chris Odenthal and members of the LA-RICS Team conducted an Informational Meeting via Teleconference and provided a presentation on the proposed LTE2 site at Scholl Canyon to nearby residents.

Administrative Deputy Susy Orellana-Curtiss and Deputy Program Manager Tanya Roth attended the Montebello City Council meeting in support of their approval of LTE2 Montebello Police Department site.

Executive Director Edson attended the CalFRN teleconference meeting.

Lieutenant Sven Crongeyer and LA-RICS representatives met with Cal State University Long Beach to visit the Campus and conducted a needs assessment review.

Lastly, members of the LA-RICS Outreach Team conducted door to door outreach to residents within 500 feet of LTE2 sites SCEDUN, located in Whittier and SCEMER2, located in West Covina.

WST:pdd



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SCOTT EDSON
EXECUTIVE DIRECTOR

June 4, 2020

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

Dear Directors:

APPROVE THE FISCAL-YEAR 2019-20 AMENDED LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY OPERATING BUDGET

SUBJECT

Staff is requesting your Board adopt the Fiscal-Year 2019-20 Amended Los Angeles Regional Interoperable Communications System Authority Operating Budget.

RECOMMENDED ACTION

It is recommended that your Board adopt the enclosed Amended Budget to reflect an increase of \$1,744,000 to the revenue and corresponding Public Safety Broadband Network (PSBN) Equipment Payment line item.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The Enclosed Recommended Amended Operating Budget will allow the Authority to pay for certain PSBN equipment which was ordered in Round 1 of the Public Safety Broadband Network project.

FISCAL IMPACT/FINANCING

The funds included in this recommended action are provided by the County of Los Angeles to pay for equipment ordered and not deployed under the Public Safety Broadband Network project.

FACTS AND PROVISIONS/LEGAL REQUIREMENT

The Finance Committee met on May 21, 2020, and voted unanimously to recommend adoption of the amended budget. In addition, the LA-RICS Fiscal Agent / County's Auditor-Controller and Authority's counsel reviewed the recommended action.

Respectfully submitted,



SCOTT EDSON
EXECUTIVE DIRECTOR

SOC

Enclosure

cc: Counsel to the Authority

Los Angeles Regional Interoperable Communications System (LARICS)
Recommended Amended Operating Budget
Fiscal Year 2019-20

		FY 2017-18	FY 2018-19	FY 2019-20	FY 2019-20
FINANCING USES		ACTUALS	ADOPTED	ADOPTED	RECOMMENDED AMENDED
Grant Funded Expenditures					
Project Team		2,685,401	6,008,000	6,029,000	6,029,000
	BTOP (1)	315,441	3,947,000	3,481,000	3,481,000
	UASI Grant	2,369,960	2,061,000	2,548,000	2,548,000
Travel & Training		18,731	90,000	41,000	41,000
	BTOP	9,407	20,000	10,000	10,000
	UASI Grant	9,324	70,000	31,000	31,000
Admin and Other Contractors		49,287	300,000	316,000	316,000
	BTOP (1)	0	220,000	236,000	236,000
	UASI Grant	49,287	80,000	80,000	80,000
Miscellaneous * (3)		77,958	630,000	630,000	630,000
	BTOP	0	0	0	0
	UASI Grant	77,958	630,000	630,000	630,000
Other Charges* (4)		110,127	384,000	759,000	759,000
	BTOP	0	0	0	0
	UASI Grant	110,127	384,000	759,000	759,000
Contractors/Consultants Services		19,145,873	67,706,000	95,499,048	95,499,048
	BTOP (1)	4,061,684	14,037,000	27,695,048	27,695,048
	UASI	15,084,189	53,669,000	67,804,000	67,804,000
Total Grant Funded Expenditures		22,087,377	75,118,000	103,274,048	103,274,048
Member Funded JPA Operations (2)					
Project Team		223,961	276,000	491,000	491,000
Travel & Training		17,464	50,000	40,000	40,000
Services & Supplies		58,988	60,000	60,000	60,000
Admin and Other Contractors		172,200	119,000	116,000	116,000
Miscellaneous *(3)		72,232	135,000	138,000	138,000
Capital Assets & Furniture		0	20,000	20,000	20,000
Other Charges *(4)		26,296	60,000	70,000	70,000
Lease & Other Services - Suite 100		0	120,000	120,000	120,000
Contractors/Consultants Services		0	460,000	245,000	245,000
Total Member Funded JPA Operations		571,141	1,300,000	1,300,000	1,300,000
LMR Administrative Cost (2) (5)		507,456	850,000	850,000	850,000
LTE Administrative Cost (2) (5)		676,530	850,000	850,000	850,000
LTE Operation & Maintenance (2)		5,951,323	0	0	0
AT&T Business Agreement Services (BAS)		0	2,500,000	1,865,000	1,865,000
LTE Equipment Payment (6)		0	0	4,248,000	5,992,000
Total LTE & LMR Member Funded, AT&T BAS and LTE Equipment		7,135,309	4,200,000	7,813,000	9,557,000
TOTAL FINANCING USES		29,793,827	80,618,000	112,387,048	114,131,048
FINANCING SOURCES					
Federal Grant Revenue			75,118,000	103,274,048	103,274,048
Member Contribution			3,000,000	3,000,000	3,000,000
AT&T Business Agreement Services			2,500,000	1,865,000	1,865,000
LTE Equipment Payment			0	4,248,000	5,992,000
Total Available Financing			80,618,000	112,387,048	114,131,048

Note 1: BTOP Award in FY 19-20 includes the remaining funds in PSBN Round 2 budget.

Note 2: Member Funded JPA Operations, LTE Administrative Cost, and LMR Administrative Cost will be paid for out of the LA-RICS AT&T Business Agreement Funds

Note 3: Fees including utilities, Notices of Exception, Escort and permit fees, etc.

Note 4: Liability Insurance for LA-RICS JPA, Commercial Property Insurance and FCC Licensing.

Note 5: LTE Administrative Cost and LMR Administrative Cost include certain costs associated with the management & implementation of the LTE & LMR Systems in accordance with the Adopted Funding Plan.

Note 6: LTE Equipment Payment is provided by the County of Los Angeles as a loan.

**LA-RICS
FY 2019-2020**

PROJECT TEAM	BTOP	UASI/SHSGP Funding	Member Funded JPA Operations	LTE Admin Cost	LMR Admin Cost	Yearly Costs (Salary & Employee Benefits)
<u>DISTRICT ATTORNEY (DA)</u>						
Administrative Deputy II *	132,000	0	68,000	20,000	44,930	264,930
Fiscal Officer II *	124,904	0	58,274	20,000	27,392	230,570
DA Total	256,904	0	126,274	40,000	72,322	\$ 495,501
<u>TREASURER & TAX COLLECTOR (TTC)</u>						
Administrative Services Manager I *	84,830	30,000	20,000	11,996	22,000	168,826
TTC Total	84,830	30,000	20,000	11,996	22,000	\$ 168,826
<u>PUBLIC WORKS (PW)</u>						
Senior Management Secretary III *	68,000	22,000	20,000	1,988	25,958	137,946
PW Total	68,000	22,000	20,000	1,988	25,958	\$ 137,946
<u>SHERIFF (SH)</u>						
Operations Assistant III *	36,461	52,297	20,000	7,784	8,000	124,542
SH Total	36,461	52,297	20,000	7,784	8,000	\$ 124,542
<u>PROBATION (PB)</u>						
Administrative Services Manager I	82,960	53,000	0	7,182	22,000	165,142
Executive Assistant	108,143	85,000	0	9,448	15,071	217,662
PB Total	191,103	138,000	0	16,630	37,071	\$ 382,804
<u>ISD</u>						
Administrative Services Manager III *	116,015	76,000	10,000	20,278	10,000	232,293
ISD Total	116,015	76,000	10,000	20,278	10,000	\$ 232,293
<u>MENTAL HEALTH (MH)</u>						
Administrative Services Manager I	79,321	38,000	20,000	21,246	0	158,567
MH Total	79,321	38,000	20,000	21,246	0	\$ 158,567
<u>REGISTRAR RECORDER COUNTY CLERK (RRCC)</u>						
Accounting Officer II *	75,905	0	20,000	20,524	50,000	166,429
RRCC Total	75,905	0	20,000	20,524	50,000	\$ 166,429
<u>AUDITOR CONTROLLER (A/C)</u>						
S&EB						
Principal Accountant	0	0	3,700	7,575	0	11,275
Supervising Accountant	0	0	10,000	14,833	0	24,833
Senior Accountant	0	0	22,584	40,936	20,000	83,520
S&S						
Travel Administrative Cost	0	0	0	1,000	2,000	3,000
Single Audit	0	0	0	15,000	50,000	65,000
A/C Total	0	0	36,284	79,344	72,000	\$ 187,627
<u>COUNTY COUNSEL</u>						
Principal/Senior County Counsel (4)	241,041	180,210	20,000	0	10,000	451,251
Environmental Legal Services	44,500	40,000	0	0	0	84,500
County Counsel Total	285,541	220,210	20,000	0	10,000	\$ 535,751

**LA-RICS
FY 2019-2020**

PROJECT TEAM	BTOP	UASI/SHSGP Funding	Member Funded JPA Operations	LTE Admin Cost	LMR Admin Cost	Yearly Costs (Salary & Employee Benefits)
INTERNAL SERVICES DEPARTMENT (ISD)						
Information Technology Manager III	124,219	116,732	0	4,676	10,000	255,627
Sr. Telecom Systems Engineer (3)	361,012	206,049	0	0	10,000	577,061
Supervising Telecom System Engineer	108,710	107,817	0	0	0	216,527
Communication Tower & Line Supervisor (2)	181,336	115,005	0	0	0	296,341
Sr. Electronics Communications Technician (2)	147,352	145,207	0	10,000	0	302,559
ISD Total	922,629	690,810	0	14,676	20,000	\$ 1,648,115
LOS ANGELES COUNTY FIRE (FR)						
Fire Captain (2)	200,626	237,026	0	0	4,348	442,000
Fire Fighter Specialist (2)	180,873	180,127	0	0	15,000	376,000
FR Total	381,499	417,153	0	0	19,348	\$ 818,000
LOS ANGELES COUNTY SHERIFF (LASD)						
S&EB						
Lieutenant (1)	210,000	182,104	0	10,000	0	402,104
Sergeant (1)	151,587	159,580	0	0	7,877	319,044
Deputy (5)	621,466	521,511	0	28,534	0	1,171,511
S&EB Total						\$ 1,892,659
S&S						
Human Resources & Procurement Services	0	0	0	10,000	9,424	19,424
LASD Total	983,053	863,195	0	48,534	17,301	\$ 1,912,083
Total	3,481,261	2,547,665	292,558	283,000	364,000	6,968,483
Total Budgeted Project Team for FY 19-20						\$ 6,968,483
* These Positions are Underfills						

**LA-RICS
FY 2019-2020**

ADMIN AND OTHER CONTRACTORS		Maximum Contract Sum	Funding Source
Executive Director		232,000	50% BTOP & 50% Member Funded JPA
MISC County Contracts (DPW, CEO, CEO RED, RP, & ISD)		200,000	60% BTOP & 40% UASI/SHSGP
Total Admin and Other Contractors		\$ 432,000	
CONTRACTORS/CONSULTANTS		Maximum Contract Sum	Funding Source
Project Construction Management		6,115,729	BTOP
		3,603,000	UASI 17
		3,250,000	UASI 18
Broadband Engineering		404,000	BTOP
		245,000	LTE Admin
		245,000	Member Funded
Telecommunications & Devices Contractors		21,175,319	BTOP
		31,060,000	UASI 17
		29,891,000	UASI 18
		5,992,000	LTE Equipment Payment
Total Contractors/Consultants Services		\$ 101,981,048	
MEMBER FUNDED JPA OPERATIONS			Funding Source
Project Team		491,000	Member Funded
Travel & Training		40,000	Member Funded
Services & Supplies		60,000	Member Funded
Admin and Other Contractors		116,000	Member Funded
Miscellaneous		138,000	Member Funded
Capital Assets & Furniture		20,000	Member Funded
Other Charges		70,000	Member Funded
Lease & Other Services - Suite 100		120,000	Member Funded
Contractors/Consultants Services		245,000	Member Funded
Total Member Funded JPA Operations		\$ 1,300,000	
LMR ADMINISTRATIVE COST (MEMBER FUNDED)			Funding Source
Project Team & Professional Consultants		614,000	Member Funded
Services, Supplies, Travel, lease & Misc		236,000	Member Funded
Total LMR Administrative Cost		\$ 850,000	
LTE ADMINISTRATIVE COST (MEMBER FUNDED)			Funding Source
Project Team & Professional Consultants		528,000	Member Funded
Services, Supplies, Travel, lease & Misc		322,000	Member Funded
Total LTE Administrative Cost		\$ 850,000	
AT&T Business Agreement Services			Funding Source
Professional Consultants & Swap Services Providers		1,865,000	AT&T Business Agreement Services
Total AT&T Business Agreement Services		\$ 1,865,000	
LTE Equipment Payment			Funding Source
Telecommunications Contractor		5,992,000	LTE Equipment Payment
		\$ 5,992,000	

AGENDA ITEM G - ENCLOSURE



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

June 4, 2020

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

Dear Directors:

APPROVE AMENDMENT NO. 47 TO AGREEMENT NO. LA-RICS 007 FOR LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM LAND MOBILE RADIO SYSTEM

SUBJECT

Board approval is requested to authorize the Executive Director to execute Amendment No. 47 to Agreement No. LA-RICS 007 (Agreement) to contemplate the reconciliation of certain LMR System equipment and the incorporation of certain Change Order Modifications for the Land Mobile Radio (LMR) System as further described in this Board Letter resulting in a net decrease to the Maximum Contract Sum in the amount of \$2,496,129.

RECOMMENDED ACTIONS

It is recommended that your Board:

1. Make the following findings with respect to the reconciliation of certain LMR System equipment and the LMR Change Order Modifications:
 - a. Find that (a) approval of Amendment No. 47 to contemplate certain LMR Change Order Modifications at two (2) LMR System sites Rio Hondo (RIH) and Loop Canyon (LPC) related to soil removal at these sites, is within the scope of the Final Environmental Impact Report (EIR) for the Los Angeles Regional Interoperable Communications System (LA-RICS) LMR System, which was previously certified by the Board under CEQA on March 29, 2016; and (b) that there are no changes to the project at these 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 (a) approval of Amendment No. 47 to contemplate certain Change Order Modifications at three (3) LMR System sites, Oat Mountain Nike (ONK) related to the addition of prime site, Baldwin Hills County (BHS) related to soil removal at this site, and Mount Disappointment (MDI) related to soil sampling, are 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, on November 13, 2014 (ONK), on February 5, 2015 (MDI) and on December 12, 2016 (BHS), the exemption adopted specifically for the LA-RICS project, and any leased circuit work that may occur outside of Sites ONK, BHS, and MDI, if needed to provide network connectivity to the LMR System, are 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).
2. Approve Amendment No. 47 (Enclosure) to Agreement No. LA-RICS 007 for a LMR System with Motorola Solutions, Inc. (Motorola), which revises the Agreement to reconcile certain LMR System equipment and incorporate certain LMR Change Order Modifications as further described in this letter for a net cost decrease in the amount of \$2,496,129.
3. Authorize a decrease to the Maximum Contract Sum in the amount \$2,496,129 from \$290,634,053 to \$288,137,924.
4. Delegate authority to the Executive Director to execute Amendment No. 47, in substantially similar form, to the enclosed Amendment (Enclosure).

BACKGROUND

With respect to the LMR System reconciliation, the Authority has been working closely with Motorola to reconcile the final LMR sites and subsystem makeup to align with the LMR System redesign. As we approach finalizing the design, the work resulted in the need to reconcile certain equipment for the LMR System and revise costs accordingly to align with the final redesign.

As it relates to the Change Order Modifications, as construction continues to progress, approval of change orders is necessary to address changes made in the field and continue construction activities that were not originally contemplated in Motorola's scope. As a result, the recommended actions before your Board for consideration contemplates certain LMR Change Order Modifications deemed necessary.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

Approval of the recommended actions will authorize the Executive Director to execute Amendment No. 47 to reconcile certain LMR System equipment and incorporate certain Change Order Modifications resulting in a net decrease to the Maximum Contract Sum in the amount of \$2,496,129.

LMR System Reconciliation

The Authority and Motorola have been working together to reconcile the LMR System to align with the final redesign and site makeup of the LMR System due to Channel 15 interference. As part of the redesign effort, certain equipment (GTR base stations, antennas, coaxial cable, hardware, etc.) was reassigned to other subsystems while other equipment was no longer required. The recommended action contemplated in this Board Letter reflects the reassignment and reduction of the equipment as well as the corresponding installation efforts for this equipment pursuant to the final redesign. The reassignment and reduction of equipment will not compromise the performance of the LMR System.

LMR Change Order Modifications

The Change Order Modifications contemplated in Amendment No. 47 are necessary in order to convert an existing site (ONK) that is currently configured to operate as a stand-alone site to a site that is integrated into a simulcast cell (ONK and LDWP243). This activity is necessary because of the need to consolidate UHF frequencies due to the frequency limitations created by Channel 15 Interference.

Additionally, the Change Order Modifications contemplate the removal and disposal of soil at three (3) LMR System Sites (BHS, LPC, and RIH), which is required to remove and properly dispose of contaminated soil. Further, the Change Order Modifications include soil sampling at one (1) LMR System Site (MDI) which is required for shallow subsurface soil characterization.

Additionally, topography work at one (1) LMR System Site (RHT) is required by Southern California Edison for a final power design.

Lastly, in connection with the final redesign, it was necessary to revise the architecture and functional design requirements of the LARTCS Subsystem, which is reflected as a Change Order Modification in Amendment No. 47.

Applicable to All Actions Contemplated in Amendment No. 47

The revisions contemplated in Amendment No. 47 have been reviewed by Authority staff, including its consultant (Jacobs) and Motorola, with both parties negotiating and agreeing to each change order, including associated costs.

Further, all recommended actions have been presented to the Change Control Board (CCB) which includes stakeholder participation and oversight from member agency representatives such as the County of Los Angeles Sheriff's Department (Sheriff's Department) and County of Los Angeles Fire Department (Fire Department). Additionally, participation and oversight from Authority project team members representing technical (Internal Services Department), operations (Sheriff's Department and Fire Department), finance, grants, contracts, Jacobs, and Subject Matter Experts (brought in on an as-needed basis depending on the nature of the proposed revision) form part of the CCB.

The CCB participants vetted the revisions presented to your Board for consideration and recommend approval.

FISCAL IMPACT/FINANCING

The activities contemplated in Amendment No. 47 will result in a net decrease to the Maximum Contract Sum by \$2,496,129 from \$290,634,053 to \$288,137,924 when taking the recommended actions into consideration. All work contemplated in Amendment No. 47 shall be fully reimbursed by the Urban Areas Security Initiative (UASI) grant.

ENVIRONMENTAL DOCUMENTATION

The two (2) LMR System Sites (LPC and RIH) contemplated in Amendment No. 47 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 two (2) 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 two (2) 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, (ONK), February 5, 2015 (MDI), and December 12, 2016 (BHS) that design, construction, implementation, operation, and maintenance of LMR System infrastructure at these three (3) LMR System Sites are exempt from review under CEQA pursuant to Public Resources Code Section 21080.25, the statutory CEQA exemption adopted specifically for the Authority, which exempts these activities as long as they meet certain criteria set forth in the exemption. In connection with this approval, the Authority also determined that leased circuit work that may occur outside of these three (3) 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). The currently recommended actions related to these three (3) LMR System Sites is 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. 47.

Upon the Board's approval of the recommended actions for this Amendment No. 47, the Authority will file a Notice of Determination for the two (2) LMR System Sites (LPC and RIH) 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 the three (3) LMR System Sites (BHS, ONK, and MDI) with the County Clerk in accordance with Section 15062 of the State CEQA Guidelines. In accordance with State Executive Order (EO) N-54-20, additionally, the Authority will post these Notices of Exemption and Determinations on the Authority's website at <https://www.la-rics.org/documents/environmental-documents/> and submit all materials electronically to the State Clearinghouse CEQA net web portal, the posting for which can be found at <https://ceqanet.opr.ca.gov/Search/Recent>.

FACTS AND PROVISIONS/LEGAL REQUIREMENT

The Authority's counsel has reviewed the recommended actions and approved as to form.

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

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Enclosure

cc: Counsel to the Authority

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

RECITALS

This Amendment Number Forty-Seven (together with all exhibits, attachments, and schedules hereto, "Amendment No. 47") is entered into by and between the Los Angeles Regional Interoperable Communications System Authority ("Authority") and Motorola Solutions, Inc. ("Contractor"), effective as of June ____ 2020, based on the following recitals:

The 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 Agreement has been previously amended in Amendment Number Thirty, effective November 09, 2017, 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.

The Agreement has been previously amended in Amendment Number Thirty-One, effective February 28, 2018, to make changes necessary to reflect (a) certain LMR Change Order Modifications, in particular the installation of tower lighting at Mira Loma (MLM) LMR System Site, for a cost increase in the amount of \$19,573; (d) increase the Maximum Contract Sum by \$19,573 from \$300,031,737 to \$300,051,310 when taking the cost increases into consideration; and (b) make other certain changes as set forth in Amendment No. 31.

The Agreement has been previously amended in Amendment Number Thirty-Two, effective March 1, 2018, to make changes necessary to reflect (a) the reconciliation of three (3) LMR System Sites to align with the updated LMR System Design for a cost decrease in the amount of \$4,131,931; (b) a cost neutral administrative reconciliation in connection with the Narrowband Mobile Data Network (NMDN) Subsystem to align all corresponding per site NMDN costs to a single line item cost, impacting thirty-three (33) LMR System Sites; (c) decrease the Maximum Contract Sum by \$4,131,931 from \$300,051,310 to \$295,919,379 when taking the cost decrease into consideration; and (d) make other certain changes as set forth in Amendment No. 32.

The Agreement has been previously amended in Amendment Number Thirty-Three, effective May 30, 2018, to make changes necessary to reflect (a) certain LMR Change Order Modifications for a cost increase in the amount of \$17,490 (b) increase the Maximum Contract Sum by \$17,490 from \$295,919,379 to \$295,936,869 when taking the cost increase into consideration; and (c) make other certain changes as set forth in Amendment No. 33.

The Agreement has been previously amended in Amendment Number Thirty-Four, effective July 31, 2018, 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 \$1,016,780; (b) certain LMR Change Order Modifications for a cost increase in the amount of \$90,744; (c) the removal of certain Authority equipment, in particular an Uninterruptible Power Supply (UPS), from the Los Angeles Police Department's Valley Dispatch Center (LAPDVDC) for a cost increase in the amount of \$6,010; (d) an extension of a bridge warranty for the certain Early Deployment/Specified Equipment purchased and deployed under previously approved Amendments to bridge the warranty gap for this equipment until December 31, 2019, for a cost increase in the amount of \$430,800; (e) increase the Maximum Contract Sum by \$1,544,334 from \$295,936,869 to \$297,481,203 when taking the cost increase into consideration; and (f) make other certain changes as set forth in Amendment No. 34.

The Agreement has been previously amended in Amendment Number Thirty-Five, effective October 11, 2018, to make changes necessary to reflect (a) the reconciliation of one (1) LMR System Site Olinda (OLI) 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 decrease in the amount of \$701,234; (b) the inclusion of one (1) LMR System Site Winding Way (WWY) 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 \$1,064,388; (c) certain LMR Change Order Modifications for a cost increase in the amount of \$13,115 (d) make changes necessary to reflect an administrative reconciliation, a reconciliation related to the removal of certain Authority equipment, in particular an Uninterruptible Power Supply (UPS), from the Los Angeles Police Department's Valley Dispatch Center (LAPDVDC) for a cost increase in the amount of \$601; (e) increase the Maximum Contract Sum by \$376,870 from \$297,481,203 to \$297,858,073 when taking the cost decrease and increase into consideration; and (f) make other certain changes as set forth in Amendment No. 35.

The Agreement has been previously amended in Amendment Number Thirty-Six, effective November 19, 2018, to make changes necessary to reflect (a) reconciliation of five (5) LMR System Sites to align with the updated LMR System Design for a cost decrease in the amount of \$535,981; (b) inclusion of one (1) LMR System Site San Pedro Hill (SPH) into the scope of Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR Components), Phase 4 (LMR System Implementation), exercising the Unilateral Options of the same, to align with the updated LMR System Design for a cost increase in the amount of \$842,471; (c) incorporate an LMR Change Order Modification for a cost increase in the amount of \$4,952 (d) increase the Maximum Contract Sum by \$311,442 from \$297,858,073 to \$298,169,515 when taking the cost decreases and increases into consideration; and (e) make other certain changes as set forth in Amendment No. 36.

The Agreement has been previously amended in Amendment Number Thirty-Seven, effective February 26, 2019, to make changes necessary to (a) incorporate

certain LMR Change Order Modifications for a cost increase in the amount of \$56,337; (b) increase the Maximum Contract Sum by \$56,337 from \$298,169,515 to \$298,255,852 when taking the cost increases into consideration; and (c) make other certain changes as set forth in Amendment No. 37.

The Agreement has been previously amended in Amendment Number Thirty-Eight, effective June 11, 2019, to make changes necessary to (a) incorporate certain LMR Change Order Modifications as further described in Amendment No. 38 that results in a net cost decrease in the amount of \$47,393; (b) decrease the Maximum Contract Sum by \$47,393 from \$298,225,852 to \$298,178,459 when taking the cost increases and decreases into consideration; and (c) make other certain changes as set forth in Amendment No. 38.

The Agreement has been previously amended in Amendment Number Thirty-Nine, effective September 16, 2019, to make changes necessary to (a) reflect a reconciliation related to the Narrowband Mobile Data Network (NMDN) Subsystem resulting in a cost decrease in the amount of \$720,207, (b) incorporate certain LMR Change Order Modifications as further described in Amendment No. 39 that results in a cost increase in the amount of \$73,606; (c) decrease the Maximum Contract Sum by \$646,601 from \$298,178,459 to \$297,531,858 when taking the cost increase and decrease into consideration; and (d) make other certain changes as set forth in Amendment No. 39.

The Agreement has been previously amended in Amendment Number Forty, effective September 16, 2019, to make changes necessary to (a) reflect a reconciliation to remove two (2) LMR System Sites, Lower Encinal Pump Station (LEPS) and Winding Way (WWY), from the scope of Phase 2 (Site Construction and Site Modification), Phase 3 (Supply LMR System Components), and Phase 4 (LMR System Implementation) and reconcile the Narrowband Mobile Data Network (NMDN) Subsystem to align with the updated LMR System Design for a net cost decrease in the amount of \$2,053,456; (b) revise Exhibit B (LMR System Specification) to include the scope for certain Work related to Channel 15 and 16 Interference Mitigation resulting in a cost increase in the amount of \$803,207; (c) incorporate certain LMR Change Order Modifications as further described in Amendment No. 40 that results in a cost decrease in the amount of \$10,920; (d) decrease the Maximum Contract Sum by \$1,261,169 from \$297,531,858 to \$296,270,689 when taking the cost increases and decreases into consideration; and (e) make other certain changes as set forth in Amendment No. 40.

The Agreement has been previously amended in Amendment Number Forty-One, effective October 17, 2019, to make changes necessary to (a) incorporate certain LMR Change Order Modifications as further described in Amendment No. 41 that results in a cost increase in the amount of \$255,975; (b) increase the Maximum Contract Sum by \$255,975 from \$296,270,689 to \$296,526,664 when taking the cost increase into consideration; and (c) make other certain changes as set forth in Amendment No. 41.

The Agreement has been previously amended in Amendment Number Forty-Two, effective February 20, 2020 to make changes necessary to (a) reflect a modification to

the scope of the Acceptance Testing Plan (ATP) for a cost decrease in the amount of \$6,512,264; (b) in consideration of the modified ATP scope; (c) reduce certain Pre-Installation Acceptance Testing for a cost decrease in the amount of \$245,663; (d) extend the Bridge Warranty certain Early Deployment/Specified Equipment purchased and deployed under previously approved Amendments to bridge the warranty gap for this equipment until December 31, 2020, for a cost increase in the amount of \$312,897; (e) revise Exhibit C.16 (LMR Mitigation Monitoring and Reporting Plan [MMRP]) to reflect collective amounts for LMR Monitoring, Surveys, and Reporting Tasks and LMR Contingency Tasks, which is cost neutral; (f) decrease the Maximum Contract Sum by \$6,445,029 from \$296,526,664 to \$290,081,635 when taking aforementioned actions and costs into consideration; and (g) make other certain changes as set forth in Amendment No. 42.

The Agreement has been previously amended in Amendment Number Forty-Three, effective April 23, 2020 to make changes necessary to (a) reflect a reconciliation of certain equipment which results in a cost decrease in the amount of \$50,313 (b) incorporate certain LMR Change Order Modifications as further described in this Amendment No. 43 that results in a cost increase in the amount of \$185,344; (c) increase the Maximum Contract Sum by \$135,031 from \$290,081,635 to \$290,216,666 when taking aforementioned actions and costs into consideration; and (d) make other certain changes as set forth in Amendment No. 43.

The Agreement has been previously amended in Amendment Number Forty-Four, effective April 23, 2020 to make changes necessary to (a) reflect a reconciliation related to certain LMR Change Order Modifications as further described in this Amendment No. 44 which results in a cost increase in the amount of \$2,609 (b) increase the Maximum Contract Sum by \$2,609 from \$290,216,666 to \$290,219,275 when taking aforementioned actions and costs into consideration; and (c) make other certain changes as set forth in Amendment No. 44.

The Agreement has been previously amended in Amendment Number Forty-Five, effective April 23, 2020 to make changes necessary to (a) incorporate certain LMR Change Order Modifications as further described in this Amendment No. 45 which results in a cost increase in the amount of \$39,050 (b) increase the Maximum Contract Sum by \$39,050 from \$290,219,275 to \$290,258,325 when taking aforementioned actions and costs into consideration; and (c) make other certain changes as set forth in Amendment No. 45.

The Agreement has been previously amended in Amendment Number Forty-Six, effective May 11, 2020, to make changes necessary to (a) incorporate certain LMR Change Order Modifications as further described in this Amendment No. 46 which results in a cost increase in the amount of \$375,728 (b) increase the Maximum Contract Sum by \$375,728 from \$290,258,325 to \$290,634,053 when taking aforementioned actions and costs into consideration; and (c) make other certain changes as set forth in Amendment No. 46.

The Authority and Contractor desire to further amend the Agreement to make changes necessary to (a) reflect a reconciliation of certain equipment which results in a cost decrease in the amount of \$3,130,664; (b) incorporate certain LMR Change Order Modifications as further described in this Amendment No. 47 which results in a cost increase in the amount of \$634,535; (c) decrease the Maximum Contract Sum by \$2,496,129 from \$290,634,053 to \$288,137,924 when taking aforementioned actions and costs into consideration; and (d) make other certain changes as set forth in this Amendment No. 47.

This Amendment No. 47 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. 47, 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. 47 refer to sections of the Base Document, as amended by this Amendment No. 47.
2. LMR System Components Reconciliation. The parties agree and acknowledge to reconcile the Agreement at eight (8) LMR System Sites in Phase 3 (Supply LMR System Components) and at ten (10) LMR System Sites in Phase 4 (LMR System Implementation), as listed below, to reduce certain LMR System equipment for a cost reduction in the amount of \$3,130,664 pursuant to Change Order No. MSI-6023). The reduction in equipment is reflected in the relevant portions of Exhibit C (Schedule of Payments) contemplated and attached to this Amendment No. 47. Additionally, pursuant to Section 4.4 of this Amendment No. 47, the detailed costs associated with this reconciliation are contained in Exhibit C.13.1 (LMR System Detailed Cost Summary).

RECONCILIATION OF LMR SYSTEM COMPONENTS – AMENDMENT 47			
Item No.	Site ID	Site Name	Reconciliation
PHASE 3 (SUPPLY LMR SYSTEM COMPONENTS)			
1.	BJM	Black Jack Peak	DTVRS, ACVRS and LARTCS equipment reduced (GTR Base Station)
2.	DPK	Dakin Peak	DTVRS, ACVRS and LARTCS equipment reduced (GTR Base Station)
3.	GRM	Green Mountain	DTVRS, ACVRS and LARTCS equipment reduced (GTR Base Station)
4.	PRG	Portal Ridge	ACVRS and LARTCS equipment reduced (GTR Base Station)
5.	SPN	Saddle Peak	DTVRS and LARTCS equipment reduced (GTR Base Station)
6.	TWR	Tower Peak	DTVRS, ACVRS and LARTCS equipment reduced (GTR Base Station)

RECONCILIATION OF LMR SYSTEM COMPONENTS – AMENDMENT 47			
Item No.	Site ID	Site Name	Reconciliation
7.	WMP	Whittaker Middle Peak	DTVRS, ACVRS and LARTCS equipment reduced (GTR Base Station)
8.	WTR	Whittaker Ridge	DTVRS, ACVRS and LARTCS equipment reduced (GTR Base Station)
PHASE 4 (SUPPLY SYSTEM IMPLEMENTATION)			
1.	BJM	Black Jack Peak	ACVRS and LARTCS equipment implementation reduced (GTR Base Station)
2.	CPK	Castro Peak	ACVRS equipment implementation reduced (GTR Base Station)
3.	DPK	Dakin Peak	LARTCS equipment implementation reduced (GTR Base Station)
4.	GRM	Green Mountain	ACVRS and LARTCS equipment implementation reduced (GTR Base Station)
5.	LACF072	FS 72	LARTCS equipment implementation reduced (GTR Base Station)
6.	PRG	Portal Ridge	LARTCS equipment implementation reduced (GTR Base Station)
7.	SPN	Saddle Peak	LARTCS equipment implementation reduced (GTR Base Station)
8.	TWR	Tower Peak	LARTCS equipment implementation reduced (GTR Base Station)
9.	WMP	Whittaker Middle Peak	ACVRS and LARTCS equipment implementation reduced (GTR Base Station)
10.	WTR	Whittaker Ridge	LARTCS equipment implementation reduced (GTR Base Station)

3. LMR Change Order Modifications. The parties agree and acknowledge that Contractor will perform those certain Change Order Modification Work set forth in Exhibit C.17 (LMR Change Order Modifications) and Exhibit C.4 (Phase 3 – Supply LMR System Components) and pursuant to this Section 2, in exchange for the amounts set forth in Exhibit C.17 (LMR Change Order Modifications) and Exhibit C.4 (Phase 3 – Supply LMR System Components) to Exhibit C (Schedule of Payments).

Item No.	Site ID	Site Name	COR No.	Description	Amount
1.	ONK	Oat Mountain Nike	MSI-6045	Add Prime Site and ASR	\$438,279
2.	RIH	Rio Hondo	MSI-6040	Soil Removal and Disposal	\$41,676
3.	BHS	Baldwin Hills County	MSI-6031	Soil Removal and Disposal	\$41,577
4.	LPC	Loop Canyon	MSI-6042	Soil Removal and Disposal	\$41,854
5.	MDI	Mount Disappointment	MSI-6041	Soil Sampling	\$10,134
6.	RHT	Rolling Hills Transit	MSI-6034	Topography	\$3,733
7.	---	---	MSI-6023	Engineering and Re-Racking Services for LMR System Reconciliation	\$174,641
8.	---	---	COR-027R	LARTCS Voting and Control	(\$117,358)
TOTAL AMOUNT:					\$634,535

4. Amendments to the Base Document.

- 4.1 Section 8.1 (Maximum Contract Sum and Contract Sum – General), in particular 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 Two Hundred Eighty-Eight Million, One Hundred Thirty-Seven Thousand, Nine Hundred Twenty-Four Dollars (\$288,137,924) which includes the Contract Sum and all Unilateral Option Sums, as set forth in Exhibit C (Schedule of Payments).

- 4.2 Section 24.4 (Limitation of Liability), in particular 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 Two Hundred Seventy-Nine Million, Four Hundred Seventy-Eight Thousand, Five Hundred Forty-Seven Dollars (\$279,478,547). Notwithstanding the foregoing, Contractor shall not be liable to the Authority for any special, incidental, indirect, or consequential damages.

4. Amendments to Agreement Exhibits.

- 4.1 Section B.4 (LARTCS – Los Angeles Regional Tactical Communications Subsystem) of Exhibit B.1 (LMR System Specifications) is deleted in its entirety and replaced with the language contemplated in Attachment 1, which is attached to this Amendment No. 47 and incorporated herein by this reference.
- 4.2 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), which is attached to this Amendment No. 47 and incorporated herein by this reference.
- 4.3 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), which is attached to this Amendment No. 47 and incorporated herein by this reference.
- 4.4 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), which is attached to this Amendment No. 47 and incorporated herein by this reference.

- 4.5 Exhibit C.13.1 (LMR System Detailed Cost Summary), dated February 2020, is deleted in its entirety and replaced with Exhibit C.13.1 (LMR System Detailed Cost Summary), dated May 2020, 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.
- 4.6 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. 47, which is incorporated herein by this reference.
5. This Amendment No. 47 shall become effective as of the date identified in the recitals, which is the date upon which:
 - 5.1 An authorized agent of Contractor has executed this Amendment No. 47;
 - 5.2 Los Angeles County Counsel has approved this Amendment No. 47 as to form;
 - 5.3 The Board of Directors of the Authority has authorized the Executive Director of the Authority, if required, to execute this Amendment No. 47; and
 - 5.4 The Executive Director of the Authority has executed this Amendment No. 47.
6. Except as expressly provided in this Amendment No. 47, all other terms and conditions of the Agreement shall remain the same and in full force and effect.
7. Contractor and the person executing this Amendment No. 47 on behalf of Contractor represent and warrant that the person executing this Amendment No. 47 for Contractor is an authorized agent who has actual authority to bind Contractor to each and every term and condition of this Amendment No. 47, and that all requirements of Contractor to provide such actual authority have been fulfilled.
8. This Amendment No. 47 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 FORTY-SEVEN
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. 47 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: _____

Arturs A. Vanags
Motorola Project Director

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

EXHIBIT C.1*Agreement No. LA-RICS 007 - Amended and Restated under Amendment No. 47*

EXHIBIT C.1 - SCHEDULE OF PAYMENTS LMR SYSTEM PAYMENT SUMMARY				
Summary	Unilateral Option Sum	Contract Sum - Full Payable Amount	10% Holdback Amount	Payment Minus 10% Holdback Amount
Phase 1 ^(Note 1)	\$ -	\$ 42,322,029	\$ 3,124,069	\$ 39,197,960
Phase 2	\$ -	\$ 43,692,747	\$ 4,259,884	\$ 39,432,862
Phase 3	\$ -	\$ 57,517,668	\$ 4,348,169	\$ 53,169,499
Phase 4	\$ -	\$ 21,474,059	\$ 2,084,034	\$ 19,390,025
SUBTOTAL (Phases 1 to 4):	\$ -	\$ 165,006,503	\$ 13,816,157	\$ 151,190,345
Phase 5 (15 Years)	\$ 55,898,518	\$ -	\$ -	\$ 55,898,518
TOTAL (Phases 1 to 5):	\$ 55,898,518	\$ 165,006,503	\$ 13,816,157	\$ 207,088,864
Bounded Area Coverage Additive Alternate ^(Note 1)	\$ 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		\$ 1,906,627	\$ 190,663	\$ 1,715,965
Multiprotocol Label Switching Mobile Backhaul		\$ 2,200,000	\$ 220,000	\$ 1,980,000
Channel 15 and Channel 16 Interference Mitigation		\$ 803,207		\$ 803,207
LMR Bridge Warranty		\$ 1,391,230		\$ 1,391,230
SUBTOTAL	\$ 130,552,956	\$ 174,219,923	\$ 21,692,264	\$ 280,168,259
TOTAL CONTRACT SUM:	\$174,219,923			
LMR Discounts ^(Note 2)	-\$16,634,955			
MAXIMUM CONTRACT SUM(Total Unilateral Option Sum plus Total Contract Sum):	\$288,137,924			

Note 1: The cost for the Project Descriptions for the Bounded Area Coverage only 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).

Note 2: The total remaining balance of the LMR Discounts applied to the Max Contract Sum will be utilized at the discretion of the Authority.

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 <i>(Note 17)</i>	Microwave	Credits <i>(Note 2)</i>	Total Contract Sum Total Payable Amount for Phase 3 <i>(Note 1, 3, 8, 16)</i>	10% Holdback Amount	Payable Amount Less 10% Holdback
B.3.2 to B.3.6		Equipment Delivery											
B.3.2 to B.3.6	BAH	Baldwin Hills	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	BJM	Black Jack Peak	\$ -	\$ -	\$ 311,506	\$ 121,145	\$ 225,595	\$ -	\$ 28,058	\$ -	\$ 686,304	\$ 68,630	\$ 617,674
B.3.2 to B.3.6	BMT	Bald Mountain	\$ -	\$ -	\$ 1,351,696	\$ -	\$ 171,631	\$ -	\$ 36,032	\$ -	\$ 1,559,359	\$ -	\$ 1,559,359
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	\$ -	\$ -	\$ 36,176	\$ -	\$ 690,266	\$ -	\$ 690,266
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	\$ -	\$ 51,596	\$ -	\$ 1,299,870	\$ 129,987	\$ 1,169,883
B.3.2 to B.3.6	DPK	Dakin Peak	\$ -	\$ -	\$ 746,192	\$ 236,731	\$ 112,217	\$ -	\$ 39,605	\$ -	\$ 1,134,745	\$ 113,475	\$ 1,021,271
B.3.2 to B.3.6	ELSGDPD	El Segundo PD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	ENC1	Encinal 1 (Fire Camp)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	GRM	Green Mountain	\$ -	\$ -	\$ 376,417	\$ 85,781	\$ 146,327	\$ -	\$ 64,130	\$ -	\$ 672,656	\$ 67,266	\$ 605,390
B.3.2 to B.3.6	HPK	Hauser Peak	\$ -	\$ -	\$ 917,311	\$ 145,772	\$ 296,409	\$ -	\$ 46,753	\$ -	\$ 1,406,245	\$ -	\$ 1,406,245
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	LACF071	FS 71	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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 ^(Note 4)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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	\$ -		\$ 548,134	\$ 254,946	\$ 381,450	\$ -	\$ 30,685	\$ -	\$ 1,215,215	\$ 121,522	\$ 1,093,694
	MLE	Mount Lee	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	MLM	Mira Loma Facility	\$ -	\$ -	\$ 917,609	\$ 121,774	\$ 39,740	\$ -	\$ 31,324	\$ -	\$ 1,110,448	\$ 111,045	\$ 999,403
B.3.2 to B.3.6	MMC	Mount McDill	\$ -	\$ -	\$ 483,224	\$ 146,308	\$ 376,943	\$ -	\$ 60,498	\$ -	\$ 1,066,973	\$ 106,697	\$ 960,276
B.3.2 to B.3.6	MTL	Mount Lukens	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	MTT	Mount Thom	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	MTW	Mount Washington	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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 <i>(Note 17)</i>	Microwave	Credits <i>(Note 2)</i>	Total Contract Sum Total Payable Amount for Phase 3 <i>(Note 1, 3, 8, 16)</i>	10% Holdback Amount	Payable Amount Less 10% Holdback
B.3.2 to B.3.6	MVS	Monte Vista (Star Center)	\$ -	\$ -	\$ 524,294	\$ 95,096	\$ -	\$ -	\$ 30,352	\$ -	\$ 649,741	\$ -	\$ 649,741
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	\$ -	\$ 27,470	\$ -	\$ 983,472	\$ 26,127	\$ 957,345
B.3.2 to B.3.6	PHN	Puente Hills	\$ -	\$ -	\$ 524,774	\$ 365,910	\$ 297,006	\$ -	\$ 32,899	\$ -	\$ 1,220,589	\$ -	\$ 1,220,589
B.3.2 to B.3.6	PRG	Portal Ridge	\$ -		\$ 483,223	\$ 93,985	\$ 143,940	\$ -	\$ 54,116	\$ -	\$ 775,266	\$ 77,527	\$ 697,739
B.3.2 to B.3.6	PSH	Pomona 1620 Hillerest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	RDNBPD	Redondo Beach PD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	RHT	Rolling Hills Transmit	\$ -	\$ -	\$ 917,609	\$ 172,269	\$ 127,115	\$ -	\$ 28,417	\$ -	\$ 1,245,411	\$ 124,541	\$ 1,120,870
B.3.2 to B.3.6	RIH	Rio Hondo	\$ -	\$ -	\$ 969,350	\$ 348,895	\$ 79,785	\$ -	\$ 21,676	\$ -	\$ 1,419,705	\$ 141,971	\$ 1,277,735
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	\$ -	\$ -	\$ 45,368	\$ -	\$ 802,608	\$ 80,261	\$ 722,347
B.3.2 to B.3.6	SGH	Signal Hill ^(Note 9)	\$ -	\$ -	\$ 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 ^(Note 9)	\$ -	\$ -	\$ 376,418	\$ -	\$ 140,486	\$ -	\$ 30,636	\$ -	\$ 547,539	\$ 54,754	\$ 492,786
B.3.2 to B.3.6	SUN	Sunset Ridge	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 670,211	\$ 67,021	\$ 603,190
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 ^(Note 9)	\$ -	\$ -	\$ 1,002,900	\$ 231,585	\$ 79,904	\$ -	\$ 39,457	\$ -	\$ 1,353,847	\$ 135,385	\$ 1,218,462
B.3.2 to B.3.6	TPK	Tejon Peak	\$ -	\$ -	\$ 483,224	\$ 144,298	\$ 211,208	\$ -	\$ 43,043	\$ -	\$ 881,773	\$ 47,040	\$ 834,733
B.3.2 to B.3.6	TWR	Tower Peak	\$ -	\$ -	\$ 310,728	\$ 112,136	\$ 92,902	\$ -	\$ 37,676	\$ -	\$ 553,442	\$ 55,344	\$ 498,098
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	\$ -		\$ 310,695	\$ 4,928	\$ 8,720	\$ -	\$ 38,076	\$ -	\$ 362,419	\$ 36,242	\$ 326,177
B.3.2 to B.3.6	WS1	100 Wilshire	\$ -	\$ -	\$ -	\$ 197,560	\$ -	\$ -	\$ 75,330	\$ -	\$ 272,890	\$ 27,289	\$ 245,601
B.3.2 to B.3.6	WTR	Whittaker Ridge	\$ -		\$ 332,160	\$ 94,753	\$ 218,368	\$ -	\$ 42,956	\$ -	\$ 688,237	\$ 68,824	\$ 619,413
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Site Equipment Subtotal			\$ -	\$ -	\$ 17,014,993	\$ 4,571,341	\$ 4,419,933	\$ -	\$ 1,322,198	\$ -	\$ 27,998,678	\$ 1,919,240	\$ 26,079,438
ADDITIONAL SITES (AMENDMENT NO. 10)													
B.3.2 to B.3.6		Equipment Delivery											
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 ^(Note 4)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B.3.2 to B.3.6	OLI	Olinda	\$ -	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal for Additional Sites (Amendment No. 10)			\$ -	\$ -	\$ 177,033	\$ -	\$ -	\$ -	\$ 36,176	\$ -	\$ 213,209	\$ -	\$ 213,209

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 <i>(Note 17)</i>	Microwave	Credits <i>(Note 2)</i>	Total Contract Sum Total Payable Amount for Phase 3 <i>(Note 1, 3, 8, 16)</i>	10% Holdback Amount	Payable Amount Less 10% Holdback
ADDITIONAL SITES (AMENDMENT NO. 17)													
B.3.2 to B.3.6		Equipment Delivery											
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	\$ -	\$ 33,298	\$ -	\$ 484,651	\$ 48,465	\$ 436,186
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	\$ -	\$ -	\$ 49,600	\$ -	\$ 1,109,451	\$ 110,945	\$ 998,506
B.3.2 to B.3.6	FRP	Frost Peak (Upper Blue Ridge)	\$ -	\$ -	\$ 11,540	\$ 342,483	\$ 382,524	\$ -	\$ 43,713	\$ -	\$ 780,260	\$ 78,026	\$ 702,234
B.3.2 to B.3.6	GMT	Grass Mountain	\$ -	\$ -	\$ 483,224	\$ 76,785	\$ 130,106	\$ -	\$ 44,353	\$ -	\$ 734,468	\$ 73,447	\$ 661,021
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	LASDTEM	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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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	\$ -	\$ 89,241	\$ -	\$ 770,818	\$ 77,082	\$ 693,736
B.3.2 to B.3.6	MTL2	Mount Lukens 2	\$ -		\$ 547,298	\$ 487,535	\$ 299,795	\$ -	\$ 73,460	\$ -	\$ 1,408,086	\$ 140,809	\$ 1,267,277
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	\$ -	\$ -	\$ 307,575	\$ 27,643	\$ 80,834	\$ -	\$ 44,353	\$ -	\$ 460,405	\$ 46,041	\$ 414,365
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) ^(Note 9)	\$ -	\$ -	\$ 546,316	\$ 232,589	\$ 163,600	\$ -	\$ 49,600	\$ -	\$ 992,105	\$ 26,703	\$ 965,402
Subtotal for Additional Sites (Amendment No. 17)				\$ -	\$ 4,976,181	\$ 2,223,287	\$ 1,907,584	\$ -	\$ 795,096	\$ -	\$ 11,609,850	\$ 925,131	\$ 10,684,719
ADDITIONAL SITE (AMENDMENT NO. 21)													
B.3.2 to B.3.6		Equipment Delivery											
B.3.2 to B.3.6	JPK2	Johnstone Peak - 2			\$ 10,714	\$ 271,717	\$ 299,795	\$ -	\$ 43,712	\$ -	\$ 625,939	\$ 62,594	\$ 563,345
Subtotal for Additional Site (Amendment No. 21)			\$ -	\$ -	\$ 10,714	\$ 271,717	\$ 299,795	\$ -	\$ 43,712	\$ -	\$ 625,939	\$ 62,594	\$ 563,345
ADDITIONAL SITES (AMENDMENT NO. 25)													
B.3.2 to B.3.6		Equipment Delivery											
B.3.2 to B.3.6	BHS	Baldwin Hills County		\$ -	\$ 1,002,901	\$ 163,066	\$ -	\$ -	\$ 79,826	\$ -	\$ 1,245,793	\$ 124,579	\$ 1,121,214
B.3.2 to B.3.6	DPW38	Los Angeles County Department of Public Works Pump Station 38		\$ -	\$ 153,569	\$ 146,308	\$ 297,675	\$ -	\$ 63,231	\$ -	\$ 660,783	\$ 66,078	\$ 594,705
B.3.2 to B.3.6	RPV1	Rancho Palos Verdes		\$ -	\$ 177,192	\$ -	\$ -	\$ -	\$ 28,417	\$ -	\$ 205,609	\$ 20,561	\$ 185,048
Subtotal for Additional Sites (Amendment No. 25)			\$ -	\$ -	\$ 1,333,662	\$ 309,374	\$ 297,675	\$ -	\$ 171,474	\$ -	\$ 2,112,185	\$ 211,219	\$ 1,900,967
ADDITIONAL SITE (AMENDMENT NO. 26)													
B.3.2 to B.3.6		Equipment Delivery											
B.3.2 to B.3.6	LAN	Lancaster							\$ 30,252	\$ -	\$ 30,252	\$ 3,025	\$ 27,227
Subtotal for Additional Site (Amendment No. 26)			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,252	\$ -	\$ 30,252	\$ 3,025	\$ 27,227
ADDITIONAL SITES (AMENDMENT NO. 27)													
B.3.2 to B.3.6		Equipment Delivery											
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
Subtotal for Additional Sites (Amendment No. 27)			\$ -	\$ -	\$ 459,490	\$ 35,341	\$ -	\$ -	\$ 82,429	\$ -	\$ 577,260	\$ 57,726	\$ 519,534

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 <i>(Note 17)</i>	Microwave	Credits <i>(Note 2)</i>	Total Contract Sum Total Payable Amount for Phase 3 <i>(Note 1, 3, 8, 16)</i>	10% Holdback Amount	Payable Amount Less 10% Holdback
ADDITIONAL SITES (AMENDMENT NO. 29)													
B.3.2 to B.3.6		Equipment Delivery											
B.3.2 to B.3.6	POM	Pomona Courthouse	\$ -		\$ 524,294	\$ 203,198	\$ -	\$ -	\$ 30,252		\$ 757,744	\$ 75,774	\$ 681,970
Subtotal for Additional Sites (Amendment No. 29)			\$ -	\$ -	\$ 524,294	\$ 203,198	\$ -	\$ -	\$ 30,252	\$ -	\$ 757,744	\$ 75,774	\$ 681,970
ADDITIONAL SITES (AMENDMENT NO. 30)													
B.3.2 to B.3.6		Equipment Delivery											
B.3.2 to B.3.6	UNIV	Universal Studios	\$ -		\$ 548,134	\$ -	\$ 85,268	\$ -	\$ 38,076		\$ 671,478	\$ 67,148	\$ 604,330
Subtotal for Additional Sites (Amendment No. 30)			\$ -	\$ -	\$ 548,134	\$ -	\$ 85,268	\$ -	\$ 38,076	\$ -	\$ 671,478	\$ 67,148	\$ 604,330
NMDM (AMENDMENT NO. 32 AND AMENDMENT NO. 39)													
B.3.2 to B.3.6		Equipment Delivery <i>(Note 17)</i>											
B.3.2 to B.3.6		Narrowband Mobile Data Network (NMDN)									\$ 2,044,988	\$ 204,499	\$ 1,840,489
Subtotal for NMDM (Amendment No. 32)			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,044,988	\$ 204,499	\$ 1,840,489
ADDITIONAL SITES (AMENDMENT NO. 34)													
B.3.2 to B.3.6		Equipment Delivery											
B.3.2 to B.3.6	INDWT	Industry Water Tank	\$ -	\$ -	\$ 218,743	\$ 202,744	\$ -	\$ -	\$ 31,324		\$ 452,811	\$ 45,281	\$ 407,530
Subtotal for Additional Sites (Amendment No. 34)			\$ -	\$ -	\$ 218,743	\$ 202,744	\$ -	\$ -	\$ 31,324	\$ -	\$ 452,811	\$ 45,281	\$ 407,530
ADDITIONAL SITES (AMENDMENT NO. 35)													
B.3.2 to B.3.6		Equipment Delivery											
B.3.2 to B.3.6	WWY	Winding Way	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Subtotal for Additional Sites (Amendment No. 35)			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ADDITIONAL SITES (AMENDMENT NO. 36)													
B.3.2 to B.3.6		Equipment Delivery											
B.3.2 to B.3.6	SPH	San Pedro Hill	\$ -	\$ -	\$ 479,002				\$ 44,353		\$ 523,355	\$ 52,336	\$ 471,020
Subtotal for Additional Sites (Amendment No. 36)			\$ -	\$ -	\$ 479,002	\$ -	\$ -	\$ -	\$ 44,353	\$ -	\$ 523,355	\$ 52,336	\$ 471,020
B.3.7		Consoles for LARTCS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 384,917	\$ 38,492	\$ 346,426
B.3.8		Logging Recorder	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,743,216	\$ -	\$ 1,743,216
B.3.9		System Management and Monitoring Subsystem	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 445,681	\$ 44,568	\$ 401,113
B.1.6		FCC Licensing <i>(Note 6)</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,262,102	\$ 226,210	\$ 2,035,891
B.3.10.1.ACVRs		Pre-Installation Testing Acceptance - Core Staging for SOT Prep (ACVRs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 720,452	\$ 72,045	\$ 648,407
B.3.10.1.LARTCS		Pre-Installation Testing Acceptance - Core Staging for SOT Prep (LARTCS)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 932,474	\$ 93,247	\$ 839,226
B.3.10.1.NMDN		Pre-Installation Testing Acceptance - Core Staging for SOT Prep (NMDN)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 245,747	\$ 24,575	\$ 221,172
B.3.10.1.FINAL		Pre-Installation Testing Acceptance - Core Staging for SOT Prep FINAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 241,854	\$ 24,185	\$ 217,668
B.3.10.2.BALANCE		Pre-Installation Testing Acceptance - Balance of Sites by Site	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,370,645	\$ 237,065	\$ 2,133,581

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 <i>(Note 17)</i>	Microwave	Credits <i>(Note 2)</i>	Total Contract Sum Total Payable Amount for Phase 3 <i>(Note 1, 3, 8, 16)</i>	10% Holdback Amount	Payable Amount Less 10% Holdback
		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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18.		Liability Insurance (General and Professional)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 440,691		\$ 440,691
Total for Phase 3 - Supply LMR System Components:			\$ -	\$ -	\$ 25,742,246	\$ 7,817,002	\$ 7,010,255	\$ -	\$ 2,625,342	\$ -	\$ 57,517,668	\$ 4,348,169	\$ 53,169,499

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

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 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.

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 activites 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 trasferred 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 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 ENC1. 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.

Note 16: Pursuant to Amendment No. Thirty-Two, two (2) LMR System Site were removed from further consideration in Phases 1-4.

Note 17: Pursuant to Amendment No. Thirty-Two, the per site NMDM costs contemplated in Phase 3 and Phase 4, have moved to a single line item in the amount of \$2,764,123, resulting Discounts in the amount of \$582,086 have been captured in Exhibit C.15 (LMR Discounts), which will be applied at the discretion of the Authority.

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 <small>(Note 8)</small>	10% Holdback Amount	Payable Amount Less 10% Holdback
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	BAH	Baldwin Hills		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	BJM	Black Jack Peak		\$ -	\$ -	\$ 175,932	\$ 17,593	\$ 158,338
B.4.2.2	BMT	Bald Mountain		\$ -	\$ -	\$ 126,074	\$ 12,607	\$ 113,466
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		\$ -	\$ -	\$ 89,559	\$ 8,956	\$ 80,603
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		\$ -	\$ -	\$ 153,763	\$ 15,376	\$ 138,387
B.4.2.2	DPK	Dakin Peak		\$ -	\$ -	\$ 106,398	\$ 10,640	\$ 95,758
B.4.2.2	ELSGDPD	El Segundo PD		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	ENC1	Encinal 1 (Fire Camp)		\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.2	GRM	Green Mountain		\$ -	\$ -	\$ 126,588	\$ 12,659	\$ 113,929
B.4.2.2	HPK	Hauser Peak		\$ -	\$ -	\$ 158,493	\$ 15,849	\$ 142,644
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		\$ -	\$ -	\$ 89,330	\$ 8,933	\$ 80,397
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		\$ -	\$ -	\$ 195,598	\$ 19,560	\$ 176,038
B.4.2.2	MLE	Mount Lee		\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.2	MLM	Mira Loma Facility		\$ -	\$ -	\$ 105,662	\$ 10,566	\$ 95,096
B.4.2.2	MMC	Mount McDill		\$ -	\$ -	\$ 164,568	\$ 16,457	\$ 148,111
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)		\$ -	\$ -	\$ 62,401	\$ 6,240	\$ 56,161
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		\$ -	\$ -	\$ 184,539	\$ 18,454	\$ 166,085
B.4.2.2	PHN	Puente Hills		\$ -	\$ -	\$ 152,044	\$ 15,204	\$ 136,839
B.4.2.2	PRG	Portal Ridge		\$ -	\$ -	\$ 114,907	\$ 11,491	\$ 103,416
B.4.2.2	PSH	Pomona 1620 Hillcrest		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	RDNBPD	Redondo Beach PD		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	RHT	Rolling Hills Transmit		\$ -	\$ -	\$ 139,955	\$ 13,996	\$ 125,960
B.4.2.2	RIH	Rio Hondo		\$ -	\$ -	\$ 134,625	\$ 13,462	\$ 121,162
B.4.2.2	RPVE001	Rancho Palos Verde City Hall		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	SAG	San Augustine		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	SDW	San Dimas		\$ -	\$ -	\$ 103,786	\$ 10,379	\$ 93,407
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		\$ -	\$ -	\$ 99,371	\$ 9,937	\$ 89,434
B.4.2.2	SUN	Sunset Ridge		\$ -	\$ -	\$ 130,041	\$ 13,004	\$ 117,037
B.4.2.2	SVP	San Vicente Peak		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	SWP	Southwest Area Station		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	TOP	Topanga Peak		\$ -	\$ -	\$ 126,555	\$ 12,655	\$ 113,899
B.4.2.2	TPK	Tejon Peak		\$ -	\$ -	\$ 136,015	\$ 13,602	\$ 122,414
B.4.2.2	TWR	Tower Peak		\$ -	\$ -	\$ 96,430	\$ 9,643	\$ 86,787
B.4.2.2	VPC	Verdugo Peak (City)		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	WAD	Walker Drive		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	WMP	Whitaker Middle Peak		\$ -	\$ -	\$ 58,659	\$ 5,866	\$ 52,794
B.4.2.2	WS1	100 Wilshire		\$ -	\$ -	\$ 87,459	\$ 8,746	\$ 78,713

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 <small>(Note 8)</small>	10% Holdback Amount	Payable Amount Less 10% Holdback
B.4.2.2	WTR	Whittaker Ridge		\$ -	\$ -	\$ 107,906	\$ 10,791	\$ 97,115
B.4.2.2	LAPD077	77TH Street Area Complex		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	LAPDDVN	Devonshire Area station		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	FCCF	L.A. County Fire Command		\$ -	\$ -	\$ 215,429	\$ 21,543	\$ 193,886
B.4.2.2	LAPDVDC	Valley Dispatch Center		\$ -	\$ -	\$ -	\$ -	\$ -
Phase 4 Subtotals Phase 4 - LMR System Implementation Per Site Detail				\$ -	\$ -	\$ 3,752,787	\$ 375,279	\$ 3,377,508
ADDITIONAL SITES (AMENDMENT NO. 10)								
B.4.2.2		Site Installation Test Acceptance						
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		\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal for Additional Sites (Amendment No. 10)				\$ -	\$ -	\$ 39,361	\$ 3,936	\$ 35,425
ADDITIONAL SITES (AMENDMENT NO. 17)								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	AGH	Agoura Hills		\$ -	\$ -	\$ 95,136	\$ 9,514	\$ 85,622
B.4.2.2	BUR1	Burnt Peak 1		\$ -	\$ -	\$ 112,840	\$ 11,284	\$ 101,556
B.4.2.2	CCT	Criminal Court (Foltz)		\$ -	\$ -	\$ 88,854	\$ 8,885	\$ 79,969
B.4.2.2	CRN	Cerro Negro		\$ -	\$ -	\$ 89,001	\$ 8,900	\$ 80,101
B.4.2.2	FRP	Frost Peak (Upper Blue Ridge)		\$ -	\$ -	\$ 194,565	\$ 19,457	\$ 175,109
B.4.2.2	GMT	Grass Mountain		\$ -	\$ -	\$ 101,683	\$ 10,168	\$ 91,515
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
3223	LEPS	Lower Encinal Pump Station		\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.2	MIR	Mirador		\$ -	\$ -	\$ 85,601	\$ 8,560	\$ 77,041
B.4.2.2	MML	Magic Mountain Link		\$ -	\$ -	\$ 205,692	\$ 20,569	\$ 185,123
B.4.2.2	MTL2	Mount Lukens 2		\$ -	\$ -	\$ 147,781	\$ 14,778	\$ 133,003
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		\$ -	\$ -	\$ 92,909	\$ 9,291	\$ 83,618
B.4.2.2	PWT	Portshead Tank		\$ -	\$ -	\$ 61,450	\$ 6,145	\$ 55,305
B.4.2.2	VPK	Verdugo Peak County		\$ -	\$ -	\$ 117,047	\$ 11,705	\$ 105,342
Subtotal for Additional Sites (Amendment No. 17)				\$ -	\$ -	\$ 1,785,350	\$ 178,535	\$ 1,606,815
ADDITIONAL SITE (AMENDMENT NO. 21)								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	JPK2	Johnstone Peak - 2		\$ -	\$ -	\$ 131,347	\$ 13,135	\$ 118,212
Subtotal for Additional Site (Amendment No. 21)				\$ -	\$ -	\$ 131,347	\$ 13,135	\$ 118,212
ADDITIONAL SITES (AMENDMENT NO. 25)								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	BHS	Baldwin Hills County		\$ -	\$ -	\$ 104,318	\$ 10,432	\$ 93,886
B.4.2.2	DPW38	Los Angeles County Department of Public Works Pump Station 38		\$ -	\$ -	\$ 148,928	\$ 14,893	\$ 134,035
B.4.2.2	RPV1	Rancho Palos Verdes		\$ -	\$ -	\$ 43,428	\$ 4,343	\$ 39,085
Subtotal for Additional Site (Amendment No. 25)				\$ -	\$ -	\$ 296,674	\$ 29,667	\$ 267,007
ADDITIONAL SITE (AMENDMENT NO. 26)								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	LAN	Lancaster		\$ -	\$ -	\$ 26,062	\$ 2,606	\$ 23,456
Subtotal for Additional Site (Amendment No. 26)				\$ -	\$ -	\$ 26,062	\$ 2,606	\$ 23,456
ADDITIONAL SITES (AMENDMENT NO. 27)								
B.4.2.2		Site Installation Test Acceptance						
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
Subtotal for Additional Sites (Amendment No. 27)				\$ -	\$ -	\$ 129,238	\$ 12,924	\$ 116,314
ADDITIONAL SITES (AMENDMENT NO. 29)								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	POM	Pomona Courthouse				\$ 104,593	\$ 10,459	\$ 94,134
Subtotal for Additional Sites (Amendment No. 29)				\$ -	\$ -	\$ 104,593	\$ 10,459	\$ 94,134

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 <small>(Note 8)</small>	10% Holdback Amount	Payable Amount Less 10% Holdback
ADDITIONAL SITES (AMENDMENT NO. 30)								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	UNIV	Universal Studios				\$ 73,533	\$ 7,353	\$ 66,180
Subtotal for Additional Sites (Amendment No. 30)				\$ -	\$ -	\$ 73,533	\$ 7,353	\$ 66,180
ADDITIONAL SITES (AMENDMENT NO. 34)								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	INDWT	Industry Water Tank				\$ 60,655	\$ 6,066	\$ 54,590
Subtotal for Additional Sites (Amendment No. 34)				\$ -	\$ -	\$ 60,655	\$ 6,066	\$ 54,590
ADDITIONAL SITES (AMENDMENT NO. 35)								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	WWY	Winding Way				\$ -	\$ -	\$ -
Subtotal for Additional Sites (Amendment No. 35)				\$ -	\$ -	\$ -	\$ -	\$ -
ADDITIONAL SITES (AMENDMENT NO. 36)								
B.4.2.2		Site Installation Test Acceptance						
B.4.2.2	SPH	San Pedro Hill				\$ 74,490	\$ 7,449	\$ 67,041
Subtotal for Additional Sites (Amendment No. 36)				\$ -	\$ -	\$ 74,490	\$ 7,449	\$ 67,041
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	\$ -	\$ -	\$ 458,404	\$ 45,840	\$ 412,563
B.4.2.5		Voice System Testing Acceptance	1	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)
B.4.2.6		Stress Test Acceptance	1	\$ -	\$ -	\$ 10,000	\$ 1,000	\$ 9,000
B.4.2.8		Voice Wide Area Coverage Test Acceptance		\$ -	\$ -			
B.4.2.8.Zone 1		Basin Zone Coverage Test Acceptance	1	\$ -	\$ -	\$ 578,294	\$ 57,829	\$ 520,465
B.4.2.8.Zone 2		Northern Desert Coverage Test Acceptance	1	\$ -	\$ -	\$ 518,349	\$ 51,835	\$ 466,514
B.4.2.8.Zone 3		Angeles National Forest Coverage Test Acceptance	1	\$ -	\$ -	\$ 444,299	\$ 44,430	\$ 399,869
B.4.2.8.Zone 4		Santa Monica Mountains Coverage Test Acceptance	1	\$ -	\$ -	\$ 296,199	\$ 29,620	\$ 266,579
B.4.2.8.Zone 5		CA-14 Corridor Coverage Test Acceptance	1	\$ -	\$ -	\$ 296,199	\$ 29,620	\$ 266,579
B.4.2.8.Zone 6		Foothills Coverage Test Acceptance	1	\$ -	\$ -	\$ 296,199	\$ 29,620	\$ 266,579
B.4.2.8.Zone 7		Catalina Island Coverage Test Acceptance	1	\$ -	\$ -	\$ 222,150	\$ 22,215	\$ 199,935
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	\$ -	\$ -	\$ 62,250	\$ 6,225	\$ 56,025
B.4.2.13		Voice Railway Coverage Test Acceptance	1	\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.14		Voice Freeway Coverage Test Acceptance	1	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)
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	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)
B.4.2.18.1		NMDN Throughput Test Acceptance	1	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)
B.4.2.18.2		NMDN Wide Area Coverage Test Acceptance		\$ -	\$ -			
B.4.2.18.2.Zone 1		Basin Zone Coverage Test Acceptance	1	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)
B.4.2.18.2.Zone 2		Northern Desert Coverage Test Acceptance	1	\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.18.2.Zone 3		Angeles National Forest Coverage Test Acceptance	1	\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.18.2.Zone 4		Santa Monica Mountains Coverage Test Acceptance	1	\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.18.2.Zone 5		CA-14 Corridor Coverage Test Acceptance	1	\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.18.2.Zone 6		Foothills Coverage Test Acceptance	1	\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.18.2.Zone 7		Catalina Island Coverage Test Acceptance	1	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)
B.4.2.18.5		NMDN Data Aerial Coverage Test Acceptance	1	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)
B.4.2.18.6		NMDN Fire Stn & Parking Coverage Test Acceptance	1	\$ -	\$ -	\$ -	\$ -	\$ -
B.4.2.18.7		NMDN Freeway Coverage Test Acceptance	1	\$ -	\$ -	\$ 196,344	\$ 19,634	\$ 176,709
B.4.2.18.8		NMDN Waterway Coverage Test Acceptance	1	\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.18.9		NMDN Projected Load Test Acceptance	1	\$ -	\$ -	\$ 0	\$ 0	\$ 0
B.4.2.18.10		NMDN CAD Baseline System Test Acceptance	1	\$ -	\$ -	\$ 52,893	\$ 5,289	\$ 47,603
B.4.2.18.11		NMDN Burn-in Test Acceptance	1	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)
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	\$ -	\$ -

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 <small>(Note 8)</small>	10% Holdback Amount	Payable Amount Less 10% Holdback
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	\$ 9,217,353
Total for Phase 4 - LMR System Implementation:				\$ -	\$ -	\$ 21,474,059	\$ 2,084,034	\$ 19,390,025

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 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: 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.

Note 8: Pursuant to Amendment No. Thirty-Two, two (2) LMR System Site were removed from further consideration in Phases 1-4.

Note 9: Pursuant to Amendment No. Thirty-Two, the per site NMDM costs contemplated in Phase 3 and Phase 4, have moved to a single line item in the amount of \$2,764,123. Resulting Discounts in the amount of \$582,086 have been captured in Exhibit C.15 (LMR Discounts), which will be applied at the discretion of the Authority.

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
Amendment No. 28					
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
Amendment No. 28 Subtotal			\$ 24,953	\$ 2,495	\$ 22,458
Amendment No. 29					
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
Amendment No. 29 Subtotal			\$ 38,456	\$ 3,846	\$ 34,610
Amendment No. 30					
MSI-1205	MVS	MSI-1205 MVS LCP Testing Services	\$ 4,195	\$ 420	\$ 3,776
Amendment No. 30 Subtotal			\$ 4,195	\$ 420	\$ 3,776
Amendment No. 31					
MSI-1265	ONK	MSI-1265 Environmental Testing ACM and LPC Services	\$ 3,633	\$ 363	\$ 3,270
MSI-1206	CCT	MSI-1206 HVAC Condenser Pad Modification	\$ 9,745	\$ 975	\$ 8,771
MSI-1321	AGH	MSI-1321 Additional Title, Survey, Research	\$ 2,100	\$ 210	\$ 1,890
MSI-1267R	LARICSHQ	MSI-1267R Environmental Testing ACM and LPC Services	\$ 4,095	\$ 410	\$ 3,686
Amendment No. 31 Subtotal			\$ 19,573	\$ 1,957	\$ 17,616
Amendment No. 33					
MSI-1528	MLM	MSI-1528 MLM Tower Light	\$ 17,490	\$ 1,749	\$ 15,741
Amendment No. 33 Subtotal			\$ 17,490	\$ 1,749	\$ 15,741
Amendment No. 34					
MSI-1447	AGH	MSI-1477 AGH Additional Electrical Work	\$ 84,503	\$ 8,450	\$ 76,053
MSI-1435	HPK	MSI-1435 HPK Power Conduit Outside Compound	\$ 6,241	\$ 624	\$ 5,617
Amendment No. 34 Subtotal			\$ 90,744	\$ 9,074	\$ 81,670
Amendment No. 35					
MSI-5002	SDW	MSI-5002 SDW Waveguide Bridge Installation	\$ 13,115	\$ 1,312	\$ 11,804
Amendment No. 35 Subtotal			\$ 13,115	\$ 1,312	\$ 11,804
Amendment No. 36					
MSI-5003	BJM	MSI-5003 BJM Tower Mapping Services	\$ 4,952	\$ 495	\$ 4,457
Amendment No. 36 Subtotal			\$ 4,952	\$ 495	\$ 4,457
Amendment No. 37					
MSI-5010	CRN	CRN Lead Paint Abatement and Consulting Services	\$ 3,754	\$ 375	\$ 3,379
MSI-5008	CRN	CRN Siren	\$ 10,113	\$ 1,011	\$ 9,102
MSI-5015	CRN	CRN Permanent Fence	\$ 5,043	\$ 504	\$ 4,539
MSI-1209R	FCCF	FCCF Receptacle Light Installation	\$ 12,336	\$ 1,234	\$ 11,102
MSI-5031	HPK	HPK SCE Trenching	\$ 12,623	\$ 1,262	\$ 11,361
MSI-UNI-002	MMC	MMC Concrete Under Asphalt	\$ 9,765	\$ 977	\$ 8,789
MSI-UNI-003	MMC	MMC Electrical Power Conduits	\$ 2,703	\$ 270	\$ 2,433
Amendment No. 37 Subtotal			\$ 56,337	\$ 5,634	\$ 50,703

Change Order Number	Site ID	Item/Category	Contract Sum - Payable Amount	10% Holdback Amount	Payable Amount Less 10% Holdback Amount
Amendment No. 38					
MSI-5017	PMT	PMT 2nd GeoTechnical Engineering Services	\$ 23,626	\$ 2,363	\$ 21,263
MSI-5030	UCLA	UCLA ACM and LCP Testing Services	\$ 4,725	\$ 473	\$ 4,253
MSI-UNI-004	FCCF	FCCF Relocated Prime Site Equipment		\$ -	\$ -
MSI-5038	SGH	SGH Barrel Tile Roof	\$ 6,843	\$ 684	\$ 6,159
MSI-5021	SGH	SGH NB CX Stand Down Costs	\$ 7,652	\$ 765	\$ 6,887
MSI-5046	DPW38	DPW38 LCP Testing	\$ 2,363	\$ 236	\$ 2,127
MSI-5043	VPK	VPK Tower Foundation	\$ 34,102	\$ 3,410	\$ 30,692
MSI-5006	VPK	VPK Power Run	\$ 50,027	\$ 5,003	\$ 45,024
MSI-UNI-005	VPK	VPK Retaining Wall Credit	\$ (68,141)	\$ (6,814)	\$ (61,327)
MSI-UNI-006	LACFDEL	LACFDEL Reuse of Existing Shelter	\$ (121,819)	\$ (12,182)	\$ (109,637)
MSI-5024	MIR	MIR Additional Topography	\$ 2,205	\$ 221	\$ 1,985
MSI-5061	MDI	MDI 2nd GeoTechnical Engineering Services	\$ 7,588	\$ 759	\$ 6,829
MSI-5028	MDI	MDI Underground Utility Locator	\$ 756	\$ 76	\$ 680
MSI-5029	MDI	MDI Addition Topo Survey	\$ 2,100	\$ 210	\$ 1,890
MSI-5050	WWY	WWY Native American Monitoring	\$ 580	\$ 58	\$ 522
Amendment No. 38 Subtotal			\$ (47,393)	\$ (4,739)	\$ (42,654)
Amendment No. 39					
MSI-5073	AGH	AGH Encroachment Permit Fee	\$ 4,807	\$ 481	\$ 4,326
MSI-5045	CCB	CCB Abatement and Remediation Work	\$ 13,125	\$ 1,313	\$ 11,813
MSI-5076	LACFDEL	LACFDEL New Phase 1 Work_Rev.1	\$ 43,271	\$ 4,327	\$ 38,944
MSI-5068	SPH	SPH Lease Exhibit Option_Rev.1	\$ 1,065	\$ 107	\$ 959
MSI-5063	UNIV	UNIV Recuperation of Cost for Day Tank for Cancelled Site	\$ 11,338	\$ 1,134	\$ 10,204
Amendment No. 39 Subtotal			\$ 73,606	\$ 7,361	\$ 66,245
Amendment No. 41					
MSI-5071	RIH	Location Change	\$ 37,705	\$ 3,771	\$ 33,935
MSI-5070	UNIV	New Phase 1 Work	\$ 51,024	\$ 5,102	\$ 45,922
MSI-5069	RPV1	New Phase 1 Work	\$ 54,696	\$ 5,470	\$ 49,226
MSI-5042	INDWT	Request for Road Repairs	\$ 14,425	\$ 1,443	\$ 12,983
MSI-5067	RHT	ACM/LCP Testing and Monitoring	\$ 1,697	\$ 170	\$ 1,527
MSI-5066	SPH	RF Engineering Coverage Assessment/Maps	\$ 12,672	\$ 1,267	\$ 11,405
MSI-5072	LMR	Addition of Microwave Link from BHS to SPH	\$ 22,740	\$ 2,274	\$ 20,466
MSI-5078	CPK	Additional Ice Bridge	\$ 1,975	\$ 198	\$ 1,778
MSI-5081	LMR	LARTCS VHF Frequency Changes	\$ 48,041	\$ 4,804	\$ 43,237
MSI-5087	MTL2	Road Repair Design	\$ 11,000	\$ 1,100	\$ 9,900
Amendment No. 41 Subtotal			\$ 255,975	\$ 25,598	\$ 230,378
Amendment No. 43 and Amendment No. 44					
MSI-6017	RIH	Addition of Microwave Link	\$ 51,604	\$ 5,160	\$ 46,444
MSI-6016	SPH	Addition of Microwave Link	\$ 61,638	\$ 6,164	\$ 55,474
MSI-6015	UNIV	Addition of Microwave Link	\$ 74,711	\$ 7,471	\$ 67,240
Amendment No. 43 and Amendment No. 44 Subtotal			\$ 187,953	\$ 18,795	\$ 169,158
Amendment No. 45					
MSI-6018	LPC	Environmental Phase II Limited Subsurface Investigation	\$ 19,740	\$ 1,974	\$ 17,766
MSI-6019	MML	Environmental Phase II Limited Subsurface Investigation	\$ 19,310	\$ 1,931	\$ 17,379
Amendment No. 45 Subtotal			\$ 39,050	\$ 3,905	\$ 35,145
Amendment No. 46					
MSI-6043	POM	Asbestos Abatement Services	\$ 330,000	\$ 33,000	\$ 297,000
MSI-6030	JPK/RHT/VPK	Tower Top Amplifier Upgrade for Early Deployment Site Transition	\$ 45,728	\$ 4,573	\$ 41,155
Amendment No. 46 Subtotal			\$ 375,728	\$ 37,573	\$ 338,155

Change Order Number	Site ID	Item/Category	Contract Sum - Payable Amount	10% Holdback Amount	Payable Amount Less 10% Holdback Amount
Amendment No. 47					
MSI-66023	LARICS	LMR System Reconciliation - Engineering & Re-Racking Services	\$ 174,641	\$ 17,464	\$ 157,177
MSI-6045	ONK	Add ONK Prime Site and ASR	\$ 438,279	\$ 43,828	\$ 394,451
MSI-6040	RIH	Soil Removal	\$ 41,676	\$ 4,168	\$ 37,508
MSI- 6031	BHS	Soil Removal	\$ 41,577	\$ 4,158	\$ 37,419
MSI-6042	LPC	Soil Removal	\$ 41,854	\$ 4,185	\$ 37,668
MSI-6041	MDI	Soil Sampling	\$ 10,134	\$ 1,013	\$ 9,120
MSI-6034	RHT	Additional Topography	\$ 3,733	\$ 373	\$ 3,360
Amendment No. 47 Subtotal			\$ 751,893	\$ 75,189	\$ 676,704
TOTAL FOR ALL LMR CHANGE ORDER MODIFICATIONS			\$ 1,906,627	\$ 190,663	\$ 1,715,965

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.

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3.4. LARTCS – Los Angeles Regional Tactical Communications Subsystem

Task B.3.4: Supply LARTCS – Los Angeles Regional Tactical Communications Subsystem.

The following Subtasks will be performed for Task B.3.4 (Supply LARTCS – Los Angeles Regional Tactical Communications Subsystem):

- 3.4.1. The Contractor will certify that the following minimum LARTCS requirements are met:
 - 3.4.1.1. Base station infrastructure equipment will conform to the Specifications in this Exhibit B (LMR System Specifications), where applicable (e.g., support of P25 Phase 1 and Phase 2 does not apply to LARTCS).
 - 3.4.1.2. LARTCS will support simultaneous operation of each frequency listed in Attachment C (LARTCS Frequencies).
 - 3.4.1.3. LARTCS will reuse frequencies, where applicable, throughout the LARTCS system.
 - 3.4.1.4. LARTCS will be a separate subsystem layer from the DTVRS and ACVRS in terms of coverage. Where possible, LARTCS will utilize or share common infrastructure components. LARTCS components will be connected to each other via a redundant local/wide area network (LAN/WAN). The LAN/WAN network may be part of LA-RICS's existing network. The Contractor will utilize the LA-RICS network whenever possible.
 - 3.4.1.5. Control, monitoring, and management will be provided by the new network and infrastructure being proposed.
 - 3.4.1.6. The Contractor will provide interoperability between the proposed LMR System and surrounding communication systems.
 - 3.4.1.7. LARTCS will interoperate with the frequencies listed in Attachment D (Frequencies). LARTCS will be capable of connecting or patching voice resources to various conventional, P25 conventional and trunked radio systems for interoperability purposes. Some of these conventional radio systems exist, and some are planned for future implementation. LARTCS will be capable of connecting to at least 80 conventional systems.
 - 3.4.1.8. ~~LARTCS Supervisor consoles will display the internal dispatcher who originated each individual patch.~~
 - 3.4.1.9. ~~LARTCS Supervisor consoles will display the agency originating a patch that utilizes resources from the Supervisor's home agency.~~

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- 3.4.1.10. The Guaranteed Channel Access Time from Push-to-Talk to Receiver Open and Ready to Receive in an intra-system unit-to-unit call must not exceed the maximum access time of 590 msec.
- 3.4.1.11. ~~The Guaranteed Channel Access Time from Push-to-Talk to Receiver Open and Ready to Receive in an intra-system unit to LARTCS Virtual Channel (LVC) call must not exceed the maximum access time of 590 msec. The Guaranteed Channel Access Time from Push-to-Talk to Receiver Open and Ready to Receive in a unit-to-unit intra or multiple system call must not exceed the maximum access time of 590 msec.~~
- 3.4.1.12. ~~The Guaranteed Channel Access Time from Push-to-Talk to Receiver Open and Ready to Receive in a unit to LARTCS virtual channel intra or multiple system call must not exceed the maximum access time of 590 msec.~~
- 3.4.1.13. LARTCS must operate in the Wideband and Narrowband Analog mode in the frequencies identified by LARTCS in Attachment C (LARTCS Frequencies).
- 3.4.1.14. LARTCS system control will be available from ~~two~~ **three (2)** locations. The Primary location of the interoperability control will be located at the Los Angeles County Sheriff's Department Communication Center (SCC) and the secondary location will be at the LACO Fire Control and Command Facilities (FCCF). ~~The third location will be at the Los Angeles Police Department Valley Dispatch Center (LAPDVDC).~~
- 3.4.1.15. The Contractor will provide adequate resources to Sheriff's Communication Center, and FCCF ~~and Los Angeles Police Department~~ in order to access and control the interoperability functions of the system. This includes infrastructure, mobiles, portables, and system access.
- 3.4.1.16. The Contractor will design and install the system so that the minimum LARTCS ~~dispatcher control client~~ requirements are met:
- 3.4.1.17. ~~The LARTCS dispatcher must be allowed through the use of the LARTCS control console to manually add or remove any single channel or talkgroup, single site of any frequency band throughout the system.~~
- 3.4.1.18. ~~The LARTCS dispatcher must be allowed through the use of the control console to manually add or remove multiple channels or talkgroups, throughout the frequency band, throughout the system. The Contractor will describe how this will be accomplished.~~
- 3.4.1.19. The LARTCS dispatcher must be allowed through the use of the LARTCS **control client** to access and control the voting system of any particular system to the extent of the Specifications of the LARTCS system.

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- 3.4.1.20. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove multiple low-band channels at multiple sites from the voting system.
- 3.4.1.21. The LARTCS dispatcher must be allowed through the use of the **control client** to select a single low-band channel at a single site for stand-alone repeater operation.
- 3.4.1.22. The LARTCS dispatcher must be allowed through the use of the **control client** to select multiple low-band channels at a single site for stand-alone repeater operation.
- 3.4.1.23. The LARTCS dispatcher must be allowed through the use of the **control client** to select a single low-band channel at multiple sites for stand-alone repeater operation.
- 3.4.1.24. The LARTCS dispatcher must be allowed through the use of the **control client** to select multiple low-band channels at multiple sites for stand-alone repeater operation.
- 3.4.1.25. ~~The LARTCS dispatcher must be allowed through the use of the control client to group any single low band channel or multiple low band channels at a single site or multiple sites in the LARTCS virtual channel (LVCH) scheme desired by the dispatcher.~~
- 3.4.1.26. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove a VHF single channel at a single site from the simulcast system.
- 3.4.1.27. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove multiple VHF channels at a single site from the simulcast system.
- 3.4.1.28. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove a single VHF channel at multiple sites from the simulcast system.
- 3.4.1.29. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove multiple VHF channels at multiple sites from the simulcast system.
- 3.4.1.30. The LARTCS dispatcher must be allowed through the use of the **control client** to select a single VHF channel at a single site for stand-alone repeater operation.
- 3.4.1.31. The LARTCS dispatcher must be allowed through the use of the **control client** to select multiple VHF channels at a single site for stand-alone repeater operation.

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- 3.4.1.32. The LARTCS dispatcher must be allowed through the use of the **control client** to select a single VHF channel at multiple sites for stand-alone repeater operation.
- 3.4.1.33. The LARTCS dispatcher must be allowed through the use of the **control client** to select multiple VHF channels at multiple sites for stand-alone repeater operation.
- 3.4.1.34. ~~The LARTCS dispatcher must be allowed through the use of the control console to group any single VHF channel or multiple VHF channels at a single site or multiple sites in the LARTCS virtual channel scheme desired by the dispatcher.~~
- 3.4.1.35. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove a UHF single channel at a single site from the simulcast system.
- 3.4.1.36. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove multiple UHF channels at a single site from the simulcast system.
- 3.4.1.37. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove a single UHF channel at multiple sites from the simulcast system.
- 3.4.1.38. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove multiple UHF channels at multiple sites from the simulcast system.
- 3.4.1.39. The LARTCS dispatcher must be allowed through the use of the **control client** to select a single UHF channel at a single site for stand-alone repeater operation.
- 3.4.1.40. The LARTCS dispatcher must be allowed through the use of the **control client** to select multiple UHF channels at a single site for stand-alone repeater operation.
- 3.4.1.41. The LARTCS dispatcher must be allowed through the use of the **control client** to select a single UHF channel at multiple sites for stand-alone repeater operation.
- 3.4.1.42. The LARTCS dispatcher must be allowed through the use of the **control client** to select multiple UHF channels at multiple sites for stand-alone repeater operation.
- 3.4.1.43. ~~The LARTCS dispatcher must be allowed through the use of the control console to group any single UHF channel or multiple UHF channels at a single site or multiple sites in the LARTCS virtual channel scheme desired by the dispatcher.~~
- 3.4.1.44. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove an 800 MHz single channel at a single site from the simulcast system.

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- 3.4.1.45. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove multiple 800 MHz channels at a single site from the simulcast system.
- 3.4.1.46. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove a single 800 MHz channel at multiple sites from the simulcast system.
- 3.4.1.47. The LARTCS dispatcher must be allowed through the use of the **control client** to manually remove multiple 800 MHz channels at multiple sites from the simulcast system.
- 3.4.1.48. The LARTCS dispatcher must be allowed through the use of the **control client** to select a single 800 MHz channel at a single site for stand-alone repeater operation.
- 3.4.1.49. The LARTCS dispatcher must be allowed through the use of the **control client** to select multiple 800 MHz channels at a single site for stand-alone repeater operation.
- 3.4.1.50. The LARTCS dispatcher must be allowed through the use of the **control client** to select a single 800 MHz channel at multiple sites for stand-alone repeater operation.
- 3.4.1.51. The LARTCS dispatcher must be allowed through the use of the **control client** to select multiple 800 MHz channels at multiple sites for stand-alone repeater operation.
- 3.4.1.52. The LARTCS dispatcher must be allowed through the use of the **control client** to group any single 800 MHz channel or multiple 800 MHz channels at a single site or multiple sites in the LARTCS virtual channel scheme desired by the dispatcher.
- 3.4.1.53. ~~The LARTCS dispatcher must be allowed through the use of the control console to group any single low band, VHF, UHF, or 800 MHz channel or multiple low band, VHF, UHF, or 800 MHz channels at a single site or multiple sites in the LARTCS virtual channel scheme desired by the dispatcher.~~
- 3.4.1.54. The Contractor will design and install the system so that the additional LARTCS requirements are met:
- 3.4.1.55. All of the network channel status ~~and LARTCS Virtual Channel (LVCH)~~ **configurations** must be displayed continuously on a single large room display.
- 3.4.1.56. ~~LARTCS Virtual Channel set-up must be through the use of a Graphical User Interface (GUI).~~
- 3.4.1.57. ~~The GUI must be touch screen and mouse/track ball controlled.~~

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- 3.4.1.58. LARTCS components will operate in a multi-vendor environment and will be open standards based.
- 3.4.1.59. ~~The control console must support single button set up and knock down of pre-programmed LARTCS virtual channel configurations.~~
- 3.4.1.60. LARTCS will provide expandability to accommodate external network interfaces (Audio Paths) that may be required by the Los Angeles County Sheriff in the future.
- 3.4.1.61. The Contractor will provide the Authority with all Application Programming Interfaces (API) for the LARTCS control console to facilitate building of custom interfaces in the event that the Authority wishes to add additional services or interface to other software.
 - 3.4.1.61.1. The entire subsystem will be provided with end-to-end network management capability. Contractor will fully describe the network management features. The entire wide area coverage must not require any user on the system to intervene in order to support calls within an existing interoperability patch while roaming from one site to another site if required. The Contractor will describe how this will be accomplished
- 3.4.1.62. The entire LMR System, including subsystems, (e.g. LARTCS), will be designed so there is no single point of failure. Should one component fail or become disabled, it will not affect the operation of the other components.
- 3.4.1.63. ~~The subsystem must have LARTCS virtual channel (LVC) configuration capabilities.~~
- 3.4.1.64. ~~A console operator position will support up to 16 LVCs with up to 32 members per LVC and up to 48 members across all LVCs on a console operator position.~~
- 3.4.1.65. LARTCS must have advanced self-testing capabilities.
- 3.4.1.66. LARTCS must have full diagnostic capabilities.
- 3.4.1.67. ~~MLC Voter alarm outputs, ACVRS MLC8000 voting display (standard only)~~
- 3.4.1.68. ~~LARTCS system will provide analog voter alarm outputs to 3rd party consoles.~~
 - 3.4.1.68.1. ~~There will up to 64 voter alarms outputs to be provided at FCCF and SCC.~~
 - 3.4.1.68.2. ~~Alarm outputs will be form C latched outputs when any receiver goes into Fail mode.~~
 - 3.4.1.68.3. ~~Alarms must be reset from the control client or server~~

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- 3.4.1.68.4. Alarm Outputs for 58 channels (LARTCS & ACVRS) will be present at both FCCF and SCC to feed the 3rd party consoles
- 3.4.1.68.5. Operators at either of the control servers or any of the control clients will be able to reset the alarms at both FCCF and SCC with a single mouse press
- 3.4.1.68.6. 64 voter alarm outputs demarcations shall be provided at each control location, (FCCF and SCC)
- 3.4.1.68.7. The alarms will be provided with outputs (form C contact closure) at each control location's demarcation.
- 3.4.1.68.8. The alarms shall be summed per channel to display any voter alarm information
- 3.4.1.68.9. The alarm demarcations will be available to interface with the Zetron console and will be triggered when a voter has an alarm
- 3.4.1.69. ACVRS Channel Voting Monitoring
 - 3.4.1.69.1. LARTCS system will include comparator display and control for ACVRS channels.
 - 3.4.1.69.2. ACVRS voting display will include: Vote Status, Receive Status, Disabled Status and Fail Status
 - 3.4.1.69.3. ACVRS voting control will include: Force-Vote (Momentary), Disable/Enable (Toggle/Latched)
- 3.4.1.70. All LARTCS Channels will be capable of stand-alone repeater operation
 - 3.4.1.70.1. The control client locations (FCCF and SCC) will be able to manually and remotely enable/disable stand-alone repeater operation
 - 3.4.1.70.2. Simulcast cell repeat operation can be manually disabled on the channel prior to enabling in-cabinet repeat via the MSI control client
 - 3.4.1.70.3. A base radio at a site set to stand-alone repeater operation will transmit a single tone periodically over the air indicating that the site is in in-cabinet repeat
 - 3.4.1.70.4. A base radio at a site set to stand-alone repeater operation will produce a single tone periodically over the audio wireline interface to the Zetron console and MSI MCC75000 system consoles
- 3.4.2. Coverage

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3.4.2.1. LARTCS Coverage Specifications vary by zone. The basic coverage requirement definitions are:

3.4.2.1.1. Portable Coverage is defined as a minimum Delivered Audio Quality (DAQ) of 3.0 while using a portable radio with a quarter-wave antenna, outdoors, worn on the hip and used with a remote speaker-microphone. Antenna is located on the portable radio, not on the speaker-microphone.

3.4.2.1.2. Mobile Coverage is defined as a minimum DAQ of 3.0 while using a mobile radio installed in a typical public safety four-door sedan equipped with a quarter-wave antenna installed on the vehicle rooftop (5-ft. AGL), outdoors.

3.4.2.1.3. Coverage Specifications vary by zone, and the Contractor will guarantee that:

3.4.2.2. LARTCS will have Portable Coverage over the following coverage percentages over each of the geographic areas list below with 95% Area Reliability:

3.4.2.2.1. LA Basin

3.4.2.2.1.1. Low Band– 95% (uplink and downlink)

3.4.2.2.1.2. VHF - 95% (uplink and downlink)

3.4.2.2.1.3. UHF - 95% (uplink and downlink)

3.4.2.2.1.4. 800 MHZ - 95% (uplink and downlink)

3.4.2.2.2. Foothills

3.4.2.2.3. Low Band - 95% (uplink and downlink)

3.4.2.2.3.1. VHF - 95% (uplink) and 95% (downlink)

3.4.2.2.3.2. UHF - 87.7% (uplink) and 95% (downlink)

3.4.2.2.3.3. 800 MHZ - 91.9% (uplink) and 95% (downlink)

3.4.2.2.4. CA-14 Corridor

3.4.2.2.4.1. Low Band - 95% (uplink and downlink)

3.4.2.2.4.2. VHF - 95% (uplink and downlink)

3.4.2.2.4.3. UHF - 95% (uplink and downlink)

3.4.2.2.4.4. 800 MHZ - 95% (uplink and downlink)

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- 3.4.2.2.5. Northern Desert
 - 3.4.2.2.5.1. Low Band - 95% (uplink and downlink)
 - 3.4.2.2.5.2. VHF - 95% (uplink and downlink)
 - 3.4.2.2.5.3. UHF - 95% (uplink and downlink)
 - 3.4.2.2.5.4. 800 MHZ – 93.5% (uplink) and 95% (downlink)
- 3.4.2.2.6. Santa Monica Mountains
 - 3.4.2.2.6.1. Low Band - 88.5% (uplink) and 95% (downlink)
 - 3.4.2.2.6.2. VHF - 90.5% (uplink) and 95% (downlink)
 - 3.4.2.2.6.3. UHF - 88.7% (uplink) and 95% (downlink)
 - 3.4.2.2.6.4. 800 MHZ – 89.9% (uplink) and 95% (downlink)
- 3.4.2.3. LARTCS will have the following Portable Coverage at an Area Reliability of 95% over the stipulated coverage percentage by band for all roads depicted in the Exhibit J (Confidential Supplement) for Santa Catalina Coverage, plus the areas depicted near Two Harbors, Little Harbor, Santa Catalina Airport, Middle Ranch, City of Avalon, Pebbly Beach (Helicopter Port), Salta Verde Point, White's Landing, Fisherman's Cove, Empire Landing, Mills Landing, and Helispot 55C (Dive Chamber).
 - 3.4.2.3.1. Low Band - 95% (downlink) and 71.7% (uplink)
 - 3.4.2.3.2. VHF - 95% (uplink and downlink)
 - 3.4.2.3.3. UHF - 95% (downlink) and 93.1% (uplink)
 - 3.4.2.3.4. 800 MHZ 95% (downlink) and 84.6 (uplink)
- 3.4.2.4. LARTCS will have Portable Coverage at an Area Reliability of 95% over 95% of all roads depicted in Exhibit J (Confidential Supplement) for the Angeles National Forest.
 - 3.4.2.4.1. Low Band– 95% (downlink) and 71.7% (uplink)
 - 3.4.2.4.2. VHF – 76.2% (uplink) and 93.4% (downlink)
 - 3.4.2.4.3. UHF – 69.4% (uplink) and 79.2% (downlink)
 - 3.4.2.4.4. 700/800 MHZ – 64.1% (uplink) and 74.7% (downlink)

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- 3.4.2.5. Coverage predictions will be based on the authorized bandwidth for each frequency.
- 3.4.2.6. Terrain data used in the production of coverage predictions will utilize ten (10) meter when available and no larger than thirty (30) meter tile size.
- 3.4.2.7. The Contractor will provide coverage prediction maps that depict coverage and reliability in each of the LA-RICS coverage zones (e.g., 95% reliability in the Foothill zone at DAQ 3.0).
- 3.4.2.8. The Contractor will provide coverage predictions in the form of maps of the LA-RICS coverage area, which will include highways, major streets, County and Municipality boundaries, Law Enforcement Facilities, Fire Stations, County Parks, terrain data, and antenna site locations, with the areas expected to achieve the minimum coverage Specifications identified and overlaid upon it.
- 3.4.2.9. The Contractor will provide each coverage prediction to the Authority in the following formats:
 - 3.4.2.9.1. One paper copy in ANSI E size.
 - 3.4.2.9.2. An Adobe Acrobat (.pdf) file of sufficient resolution and quality to print in ANSI E size.
 - 3.4.2.9.3. A shape file in ESRI and raster formats, including an attribute table containing the latitude, longitude and signal strength for each predicted point. To the extent available in the format, the data will be in:
 - 3.4.2.9.4. Format: GRID.
 - 3.4.2.9.5. Cell size (X, Y): 30 meters, 30 meters.
 - 3.4.2.9.6. Pixel Type: Floating Point.
 - 3.4.2.9.7. Pixel Depth: 32 Bit.
 - 3.4.2.9.8. Projected Coordinate System: State Plane, California Zone V.
 - 3.4.2.9.9. Projection: Lambert Conformal Conic.
 - 3.4.2.9.10. Linear Unit: Foot US.
 - 3.4.2.9.11. Geographic Coordinate System: GCS North American 1983.
 - 3.4.2.9.12. Datum: North American 1983.
 - 3.4.2.9.13. Signal Strength in dBm.

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- 3.4.2.9.14. Reference LA-RICS Zone shape files.
- 3.4.2.9.15. State the coordinate system used if different from above.
- 3.4.2.9.16. Output Format - .csv, .txt or ESRI shape file format.
- 3.4.2.10. A Google Earth© KMZ file (.kmz).
- 3.4.2.11. The Contractor will provide each coverage prediction including a data sheet stating all assumptions that were used in predicting the coverage. At a minimum, the following information must be provided with each coverage map in addition to a description of how the coverage was calculated and the propagation model used:
 - 3.4.2.11.1. The latitude, longitude (NAD83) and height above sea level for each antenna site.
 - 3.4.2.11.2. Spectrum.
 - 3.4.2.11.3. The minimum signal level for the required levels of coverage and reliability.
 - 3.4.2.11.4. The transmitter(s) RF power output and Effective Radiated Power (ERP).
 - 3.4.2.11.5. Manufacturer, model, gain and directivity of each antenna.
 - 3.4.2.11.6. The effective sensitivity of each receiver and how the effective sensitivity was derived.
 - 3.4.2.11.7. Height Above Ground for each antenna.
 - 3.4.2.11.8. Height Above Average Terrain (HAAT) for each antenna.
 - 3.4.2.11.9. Mobile and portable antenna type(s).
 - 3.4.2.11.10. Reliability criteria.
- 3.4.2.12. Except for the parameters in 3.2.5.9.1 and 3.2.5.9.2, the Contractor will provide the following parameters employed in the coverage predictions that account for:
 - 3.4.2.12.1. The Contractor will account for additional signal attenuation due to Land-Use Land Clutter (LULC).
 - 3.4.2.12.2. The Contractor will account for Time Delay Interference/simulcast phasing (TDI).
 - 3.4.2.12.3. Noise floor parameters and interference that may be present at antenna sites.

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- 3.4.2.12.4. Body-shielding effects.
- 3.4.2.12.5. The effects of hardware (such as light bar and siren) typically installed on public safety vehicles.
- 3.4.2.13. The Contractor will provide separate coverage predictions for LARTCS. The required coverage predictions are:
 - 3.4.2.13.1. Composite (all antenna sites on a single map) Mobile and Portable Coverage depicting prescribed reliability, uplink.
 - 3.4.2.13.2. Composite Mobile and Portable Coverage depicting prescribed reliability, downlink.
- 3.4.3. Switches and Controllers
 - 3.4.3.1. The Contractor will design and install the system so that, to the greatest extent possible, LARTCS will share the physical plant with collocated systems (e.g., battery plants, combiner and multi-coupler systems).
 - 3.4.3.2. The Contractor will design and install the system so that the system switches and controllers (low-band, VHF, UHF, and 800 MHz) will be of sufficient capacity allowing operational performance when 100% of the network is in use regardless of the configuration of individual stations, groups of stations, individual sites, or groups of sites.
 - 3.4.3.3. The Contractor will certify that the switches and controllers are high reliability at 99.999%.
 - 3.4.3.4. The Authority requires a very high degree of reliability and failover options and a redundant design that includes two centralized system controllers, each with the capacity to run the entire LA-RICS workload (while still meeting all other Specifications in this Exhibit B) should one of the other controllers fail. The controllers will be geographically separated at LACO Fire Control and Command Facilities and Los Angeles Police Department Valley Dispatch.
 - 3.4.3.5. The Contractor will certify that the switches and controllers are scalable with a minimum of 25% port expansion.
 - 3.4.3.6. The Contractor will certify that all switches and controllers involved within the system are capable of being controlled, monitored and provisioned by the network management subsystem.
 - 3.4.3.7. The Contractor will certify that base stations are linked to the switches and controllers using Transmission Control Protocol TCP/IP-carrier interfaces.

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- 3.4.3.8. The Contractor will certify that audio paths and RF carriers are operated and controlled through the switches and controllers.
- 3.4.3.9. Additionally, the Contractor will design and install the system so that LARTCS **control clients** must be linked to the switches or controllers.
- 3.4.3.10. The Contractor will design and install the system so that the switches and controllers have the capability to interface to the appropriate type of backhaul carrier, e.g., microwave, T-1, fiber, etc.
- 3.4.3.11. The Contractor will design and install the system so that the network sites and base stations are supported by the switch and/or controller, including an increase of 25% overall capacity.
- 3.4.3.12. The Contractor will design and install the system so that the core is designed to support either a hot standby configuration or 1+1 redundancy for all the main units so that in case of faults, the network will be capable of continued operation automatically without service intervention.
- 3.4.3.13. The Contractor will design and install the system so that the redundant system controllers are able to support the same load as the primary controller when active.
- 3.4.3.14. The Contractor will design and install the system so that the redundant system controller are updated in real time and will provide catastrophic backup capabilities in case the main controller location becomes inoperable.
- 3.4.3.15. The Contractor will guarantee the amount of time required for switchover from the active system controllers to the redundant network controllers will be no longer than 75 seconds.
- 3.4.3.16. The Contractor will design and install the system so that LARTCS will automatically or manually switch between the controllers (e.g., automatically switch between the active and inactive controllers will not operate differently regardless of the controller the system is running on.)
- 3.4.3.17. The Contractor will certify that the network is scalable and capable of incorporating additional coverage areas and sites without modifying the switch or controller infrastructure.
- 3.4.3.18. The Contractor will certify that the switch is scalable to meet future expansions and will support 25% additional port capacity for each type of interface port as redundancy.

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- 3.4.3.19. The Contractor will design and install the system so that the backup operating system for switches and controllers is provided at each site to be reinstalled as needed.
 - 3.4.3.20. The Contractor will certify that the switch is provided with self-testing and self-diagnostic software.
 - 3.4.3.21. The Contractor will certify that the switch supports a hot swapping feature so that the modules and cards can be added or replaced without interruption to the overall operation of the system.
 - 3.4.3.22. The Contractor will certify that the core is provided with the gateways so that it can seamlessly interface with the digital and analog radio networks as well as with the wired networks Public Switched Telephone Network (PSTN), Integrated Services Digital Network (ISDN), Private Branch eXchange (PBX), databases, and satellites, etc.
 - 3.4.3.23. The Contractor will design and install the system so that the switch provides interface ports for the recording of radio traffic.
 - 3.4.3.24. The Contractor will design and install the system so that the network supports roaming so that the user can access all the network services wherever he/she is in the coverage areas.
- 3.4.4. Software
- 3.4.4.1. The Contractor will certify that LARTCS subsystem software meets the following minimum requirements:
 - 3.4.4.2. LARTCS will provide remote programming capabilities.
 - 3.4.4.3. LARTCS will have secure remote access to the backbone distribution network (microwave) through secured WAN/LAN, or by being on location with the components.
 - 3.4.4.4. LARTCS will have secure remote access to the network management system through secured WAN/LAN, or by being on location with the components.
 - 3.4.4.5. LARTCS will have secure remote access to all LARTCS control consoles through secured WAN/LAN, or by being on location with the components.
 - 3.4.4.6. LARTCS will have secure remote access to the simulcast control through secured WAN/LAN, or by being on location with the components.
 - 3.4.4.7. LARTCS will have secure remote access to the base stations through secured WAN/LAN, or by being on location with the components.

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- 3.4.4.8. LARTCS will have secure remote access to the voting systems through secured WAN/LAN, or by being on location with the components.
- 3.4.4.9. All the software packages, modules, GUI and applications will be modular in architecture with user-friendly menu-driven commands.
- 3.4.4.10. The Contractor will install, update or upgrade for new features and services and other maintenance updates for the LARTCS subsystem with no interruption to service other than for the following:
 - 3.4.4.10.1. MLC8000 reset time – 1 channel will be unavailable for approximately 50 seconds
 - 3.4.4.10.2. CCGW reset time - 4 channels will be unavailable for approximately 75 seconds.
 - 3.4.4.10.3. GTR8000 Conventional – 1 Base station will be unavailable for approximately 75 seconds.
- 3.4.4.11. The network components specific software parameters will be stored in non-volatile memory, and be locally available without re-download in the event of reset or interruption of power.
- 3.4.4.12. The components will support built-in diagnostic/ testing capabilities to detect any failure in a module manually or automatically.
- 3.4.4.13. System failures will be displayed as alarms along with output of the alarms to a diagnostic printer and displayed in the System Management and Monitoring Subsystem.
- 3.4.5. LARTCS **Control Client**
 - 3.4.5.1. The Contractor will certify that LARTCS **control client** meets the following minimum requirements:
 - 3.4.5.1.1. The LARTCS **Control Client** will be integrated into the LACO Sheriff's, and LACO Fire Command and Control ~~Facility and Los Angeles Police Department voice consoles.~~
 - 3.4.5.1.2. The LARTCS **Control Client** will have built-in system diagnostics perform internally to the system for constant monitoring of system health, module fail alarm display and fail-safe switch-over to redundant modules.
 - 3.4.5.1.3. The LARTCS **Control Client** will have Graphical User Interface consistent in appearance with other LA-RICS user interfaces.

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- 3.4.5.1.4. The LARTCS **Control Client** will have a mouse with keyboard as input for the operator controls.
- 3.4.5.1.5. The LARTCS **Control Client** will have a color laser printer to print-out alarm details.
- 3.4.5.1.6. The LARTCS **Control Client** will have auto redundant data bases with access authorization.
- 3.4.5.1.7. ~~LARTCS Supervisors will be capable of calling other dispatchers, or radios in an individual call mode that will not be overheard by other portable and mobile radio units. Necessary intercom facilities will be provided for this purpose.~~
- 3.4.5.1.8. ~~No service to unauthorized dispatchers will be permitted. If an unauthorized user attempts to log in to the system, an alarm will be displayed on the control console supervisor position.~~
- 3.4.5.1.9. ~~Assignment of channels to operators from supervisory consoles with complete flexibility will be provided.~~
- 3.4.5.1.10. An editor to generate new screen displays and store them for later use will be provided.
- 3.4.5.1.11. ~~The LARTCS Control Console will support standard radio interfaces as well as those to logging recorders, telephone call directors and telephone line interfaces.~~
- 3.4.5.1.12. ~~The LARTCS Control Console will have operator console screens logically divided, color coded, showing the status of channels such as transmit enabled, receive enabled, patch source, and destination etc. Also contained within the control console screen will be fields for including information such as, incident name, requesting agency, type of incident, etc.~~
- 3.4.5.1.13. Operator access to **control client** must be password protected.
- 3.4.5.1.14. ~~Any authorized user of any agency in the system will be able to view console system logs for their respective agency remotely.~~
- 3.4.5.1.15. The LARTCS **Control Client** will automatically archive all console configuration changes with, time and date stamp. LARTCS System configuration changes are automatically archived by the System Management and Monitoring Subsystem.

Deliverable B.3.4: LARTCS Equipment Delivery by Site for All Sites to Designated Warehouse.