

# **AGENDA**

# LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY ("AUTHORITY")

### **BOARD OF DIRECTORS MEETING**

Thursday, August 4, 2022 • 9:00 a.m.

Microsoft Teams Meeting\* Link: Click here to join the meeting

### **Call-in Number for Board Members and Public:**

Public may submit a Public Comment during the meeting to the Board by accessing the Microsoft Teams Meeting Link above or by the Call-In Telephone Number below.

**Telephone Number:** (323) 886-6924

Conference ID: 152 216 530#

AGENDA POSTED: July 28, 2022

Complete agendas are available on the Authority's website at <a href="http://www.la-rics.org">http://www.la-rics.org</a>. \*The procedures used for this Teleconference Meeting are governed by AB 361.

	MEMBERS		ALTERNATES
1.	Fesia Davenport, CEO County of Los Angeles Chief Executive Office	1.	John Geiger County of Los Angeles Chief Executive Office
2.	Anthony Marrone (Vice-Chair), Acting Fire Chief County of Los Angeles Fire Department	2.	Eleni Pappas, Deputy Fire Chief County of Los Angeles Fire Department
3.	Alex Villanueva (Chair), Sheriff County of Los Angeles Sheriff's Department	3.	Brian Yanagi, Acting Chief County of Los Angeles Sheriff's Department
4.	Richard Tadeo, Director, EMS Agency County of Los Angeles Department of Health Services	4.	Vacant, EMS Agency County of Los Angeles Department of Health Services
5.	Phil Ambrose, Battalion Chief Los Angeles Area Fire Chiefs Association	5.	Vacant Seat Los Angeles Area Fire Chiefs Association
6.	Brian Solinsky, Police Chief Los Angeles County Police Chief's Association	6.	Tom Jacobs, Lieutenant Los Angeles County Police Chief's Association
7.	Mark R. Alexander, City Manager California Contract Cities Association	7.	Marcel Rodarte, Executive Director California Contract Cities Association
8.	David Povero, Police Chief At-Large Seat #8 (City of Covina Police Department)	8.	Ric Walczak, Captain At-Large Seat #8 (City of Covina Police Department)
9.	Mark Fronterotta, Police Chief At-Large Seat #9 (City of Inglewood Police Department)	9.	Cardell Hurt, Captain At-Large Seat #9 (City of Inglewood Police Department)
10.	Brian Leyn, Captain At-Large Seat #10 (City of Signal Hill Police Department)	10.	Vacant Seat At-Large Seat #10 (City of Signal Hill Police Department)

OFFICERS	
Scott Edson, LA-RICS Executive Director	
Arlene Barrera, County of Los Angeles, Auditor-Controller	
Keith Knox, County of Los Angeles, Treasurer and Tax Collector	
Susy Orellana-Curtiss, LA-RICS Administrative Deputy	
Beatriz Cojulun, LA-RICS Board Secretary	

August 4, 2022 Page 1 Regular Meeting Agenda



## 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.** July 7, 2022 Regular Meeting Minutes

Agenda Item A

- IV. PUBLIC COMMENTS
- V. CONSENT CALENDAR (B)
  - B. FINDINGS TO CONTINUE TELECONFERENCE MEETINGS UNDER AB 361 AND RELATED ACTIONS

It is recommended that your Board:

- 1. Find, in accordance with AB 361 Section 3(e)(3), California Government Code Section 54953(e)(3), that the Board has reconsidered the circumstances of the State of Emergency due to the COVID-19 pandemic and that the State of Emergency remains active; and
- 2. Find, in accordance with AB 361 Section 3(e)(3), California Government Code Section 54953(e)(3), that local officials continue to recommend measures to promote social distancing.

Agenda Item B

### VI. REPORTS (C - F)

**C.** Director's Report – Scott Edson

Agenda Item C

**D.** Project Manager's Report – Steve Page

Agenda Item D

- **E.** Joint Operations and Technical Committee Chair's Report Lieutenant Robert Weber
- **F.** Finance Committee Chair's Report No Report



### VII. DISCUSSION ITEMS (G - H)

G. Spectrum and Licensing Issues Impacting Land Mobile Radio Deployment – Ted Pao

Agenda Item G

**H.** Outreach Update – Lieutenant Robert Weber

Agenda Item H

### VIII. ADMINISTRATIVE MATTERS (I)

I. APPROVE AMENDMENT NO. 103 TO AGREEMENT NO. LA-RICS 007 LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM LAND MOBILE RADIO (LMR) SYSTEM

It is recommended that your Board:

- Approve Amendment No. 103 to Agreement No. LA-RICS 007 for an LMR System with Motorola Solutions, Inc. (MSI) to reflect a reduction in scope and cost to certain tower removal work and a reduction in cost to the ACVRS TRO5 Subsystem work and for a total cost decrease in the amount of \$199,395.
- 2. Authorize a decrease to the Maximum Contract Sum in an amount of \$199,395 from \$215,407,146 to \$215,207,751 when taking the recommended action into consideration.
- 3. Delegate authority to the Executive Director to execute Amendment No. 103, in substantially similar form to the enclosed Amendment (Enclosure).

Agenda Item I

#### IX. MISCELLANEOUS

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

#### XI. CLOSED SESSION REPORT

1. CONFERENCE WITH LEGAL COUNSEL –Anticipated Litigation (subdivision (d) of Government Code Section 54956.9) (2 cases).

#### XII. ADJOURNMENT AND NEXT MEETING

Board Meeting on Thursday, September 1, 2022, at 9:00 a.m., via Microsoft Teams/ Teleconference Meeting.



#### **BOARD MEETING INFORMATION**

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 <u>as soon as possible</u>. (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.

August 4, 2022 Page 4 Regular Meeting Agenda



# BOARD OF DIRECTORS MEETING MINUTES

# LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

# Thursday, July 7, 2022 • 9:00 a.m.

Conducted via Microsoft Teams Meeting

#### **BOARD MEMBERS PRESENT**

Richard Tadeo, Director, EMS Agency, County of Los Angeles Department of Health Services

Phil Ambrose, Battalion Chief, Los Angeles Area Fire Chiefs Association

Brian Solinsky, Police Chief, Los Angeles County Police Chief's Association

Mark R. Alexander, City Manager, California Contract Cities Association

David Povero, Police Chief, City of Covina Police Department

Mark Fronterotta, Police Chief, City of Inglewood Police Department

#### ALTERNATES FOR BOARD MEMBERS PRESENT

John Geiger, County of Los Angeles Chief Executive Office

Eleni Pappas, Alternate Vice-Chair, Deputy Fire Chief, County of Los Angeles Fire Department

Brian Yanagi, Alternate Chair, Acting Chief, County of Los Angeles Sheriff's Department

#### **OFFICERS PRESENT**

Scott Edson, LA-RICS Executive Director

Susy Orellana-Curtiss, LA-RICS Administrative Deputy

#### **BOARD MEMBERS ABSENT / VACANT**

Brian Leyn, Captain, City of Signal Hill Police Department



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

#### I. CALL TO ORDER

Alternate Board Chair Brian Yanagi called the Regular Meeting of the Board to order at 9:03 a.m.

#### II. ANNOUNCE QUORUM – ROLL CALL

Administrative Deputy Susy Orellana-Curtiss took the roll and acknowledged a quorum was present.

## III. APPROVAL OF MINUTES (A)

- **A.** June 6, 2022 Regular Minutes
- **B.** June 23, 2022 Special Minutes

Alternate Board Chair Yanagi asked the Board if there were any corrections or clarifications to the attached Regular and Special meeting minutes. There were none, therefore, he asked for a motion to approve.

Board Member David Povero motioned first, seconded by Board Member Mark Fronterotta.

Ayes 8: Geiger, Pappas, Yanagi, Ambrose, Solinsky, Alexander, Povero, and Fronterotta.

#### MOTION APPROVED.

#### IV. PUBLIC COMMENTS - NONE

There was no public comment.

### V. CONSENT CALENDAR (C)

# C. FINDINGS TO CONTINUE TELECONFERENCE MEETINGS UNDER AB 361 AND RELATED ACTIONS

Alternate Board Chair Yanagi asked if there were any questions or comments from the Board for Consent Calendar Agenda Item C. There were no questions or comments, therefore, he asked for a motion to approve.

Board Member Richard Tadeo motioned first, seconded by Board Member Mark Alexander.



Ayes 8: Geiger, Pappas, Yanagi, Ambrose, Solinsky, Alexander, Povero, and

Fronterotta.

#### MOTION APPROVED.

### VI. REPORTS (D - E)

### **D. Director's Report** – Scott Edson

Executive Director Scott Edson greeted the Board members and all those in attendance at the meeting. Executive Director Edson shared the Authority had a wonderful, productive month of June with many successes to report.

Executive Director Edson informed the Board that, as he indicated in an email the previous week, the State of California approved \$18.6 million funding for LA-RICS which offsets the Authority's gap. Executive Director Edson stated that specifically, the State approved \$18.6 million to LA-RICS to complete the system, and the funds will be available for encumbrance or expenditure until June 30, 2025. Executive Director Edson thanked again the County of Los Angeles (County) Legislative Team that assisted the Authority, as well as all of the personnel who helped with presentations, emails, letters, and phone calls in support of LA-RICS.

Executive Director Edson went on to inform that Board that in light of the approved funding, the Authority is recommending the Board approve Fiscal Year (FY) 2022/2023 operating budget of \$30,933,000 to be utilized for the continued operation of the Authority. Executive Director Edson thanked the Fiscal Team, led by Administrative Deputy Susy Orellana-Curtiss, for all the time spent building the operating budget and for assisting with information needed to support the Authority's case to the State. Executive Director Edson recommended the Board approve the budget, which would be presented under Agenda Item K.

Executive Director Edson shared the Authority successfully completed all work that was planned for the Urban Authority Security Initiative (UASI) 19' grant, totaling \$35 million. Executive Director Edson stated there was significant oversight and direction from both the Authority and Project Management (PM) Team directed at Motorola Solutions, Inc. (MSI) to ensure the closeout books for sites completing construction, which made up a significant portion of the UASI spend and needed to be completed on time. Executive Director Edson took the opportunity to thank Nancy Yang, Eric Steinberger, and the closeout book team members for their massive effort at grant closing. Executive Director Edson went on to say the team was currently processing all Work Acceptance Certificates and working closely with both the County Auditor-Controller and the grantor to pay for accepted work and submit final grant claims for reimbursement which would close out the Authority's final \$35 million grant under the UASI program.



Executive Director Edson provided a status update on the LMR System with 57 of 58 sites substantially complete through Phase 4a while the Authority constructs the 58<sup>th</sup> site, MCI. Executive Director Edson stated that MSI continues to test and optimize the system. Executive Director Edson went on to say that, unfortunately, the Integrated Master Schedule (IMS) submitted by MSI in June was rejected, since MSI made changes to the critical path, pushed the schedule out about three (3) weeks, and failed to properly document the reasoning. Executive Director Edson expressed that this really came as a surprise since both MSI and the Authority had come to agreement on how to address such changes, which MSI simply ignored. Executive Director Edson informed that Board that after some discussions and exchange of information, the Authority is hopeful the next IMS submission will correct their errors and include an IMS the Authority can approve.

Executive Director Edson reported that, at this point, the completion date, or go-live date, still remains to be September 1, 2023. Executive Director Edson informed the Board that they would be provided more details regarding the Land Mobile Radio (LMR) System, which are mostly good news in the PM Report presented by the LMR System Manager and Acting Program Manager Steve Page.

Executive Director Edson stated that with respect to the Public Safety Broadband Network (PSBN), the Authority continues to work to resolve some issues at the courts, which Project Director Justin Delfino was to provide an update on under Agenda Item H.

Executive Director Edson went on to say that Technical Lead Ted Pao would continue to report on Spectrum and Licensing Issues under Agenda Item I, and Operations Lead Lieutenant Robert Weber would report on the progress made regarding Outreach under Agenda Item J.

Executive Director Edson stated that this morning before the Board is LMR Amendment No. 102 to extend certain Bridge Warranty services until December 31, 2022, for a cost increase in the amount of about \$28,000, under Agenda Item L. Executive Director Edson went on to recommend the Board approve said amendment.

Executive Director Edson said to the Board there was mostly good news to report and looked forward to continue the good work as reported today.

Board Member Mark Fronterotta thanked Executive Director Edson for his leadership and funding gap presentation, which involved several people, but it took someone to lead the team and that he did a good job of that. Board Member Fronterotta was also happy to hear the Governor's Office funded the Authority's gap.



Chair Yanagi also congratulated Executive Director Edson, saying that with tremendous efforts and struggles, Executive Director Edson managed to endure and provide a future for LA-RICS.

### E. Program Manager's Report – Steve Page

Acting Program Manager Steve Page greeted the Board and presented Agenda Item E, which consisted of the following.

Acting Program Manager Page greeted the Board and stated that he would be presenting Agenda Item E, which is an overall construction overview of the LMR Program.

Acting Program Manager Page started his report to the Board with June successes s the end of the Fiscal Year brought with it the last push in finishing twenty-one (21) closeout books ahead of the UASI 19' grant closure deadline.

Acting Program Manager Page reported the teams, led by Eric Steinberger and Nancy Yang, worked diligently on these books, which are the payment milestone that provides the Authority what is essentially the "owner's manual" for all the Phase 2 construction of the sites. Acting Program Manager Page went on to say that no matter what the future brings, the Authority has the information on everything from the concrete mix that was used, the locations of the rebar, to the types of light bulbs and photoelectric cells that are used so that in case something needs service, the Authority is a step ahead in knowing what it is the Authority might be looking at before the Authority gets to the site. Acting Program Manager Page stated that also included in these books are regulatory filings with the Federal Aviation Administration (FAA) and Federal Communications Commission (FCC), and other things that might need to be addressed somewhere along the way, and having it all in one place rather than searching from scratch potentially years from now, will make it less complicated when that happens.

Acting Program Manager Page reported that following last month's successes on Catalina Island, where the MSI Teams have been on site at the three (3) locations on the island, and have been performing the required optimizations, informal testing between the island and the mainland has shown promising results well ahead of formal coverage testing which is expected to begin in the next several months.

Acting Program Manager Page shared the Project Team faced two (2) main challenges over the course of month of June, as mentioned in the "Successes" section, Closeout Books were completed. Acting Program Manager Page further stated they are complete for UASI 19', whereby getting there was a large part of the teams focus throughout the month.



Acting Program Manager Page shared that commercial power remains a challenge at Green Mountain (GRM). Moving forward from the previous month, the Authority's work with the Los Angeles Department of Water and Power (LADWP) has moved the Authority to a point where the requirements from LADWP have been delivered, and the easement generation from State Parks was ready to begin.

Acting Program Manager Page reported that mobilization of primary power generators and the logistics associated with fueling continued to be a colossal team effort. Acting Program Manager Page expressed that, in spite of this, staff continued to monitor the running of the generators and manage the refueling logistics successfully.

Acting Program Manager Page moved on to Key Program Metrics, and stated the view looks better than last month, with the number of sites that have been optimized moving up, and sites on the air (with Catalina) adding to the total.

Acting Program Manager Page shared that as with last month, until MCI is completed, the area map presented to the Board would remain the same with the yellow pins representing substantially complete sites, with the sole pin in red that is still under construction indicating MCI pending Phase 4 installation which will see significant progress over the course of the summer

Acting Program Manager Page stated that at the time, the Authority had fifty-two (52) sites optimized and as mentioned in the previous month, once the Authority got primary power to these sites, MSI would be able to allocate appropriate resources to optimize sites and get them prepared for coverage testing. Acting Program Manager Page believes that as the Authority sees progress with sites getting optimized, sites on-the-air will also tick-up.

Acting Program Manager Page reported the Authority currently stood at forty-eight (48) sites on the air with the West cell sites, San Pedro Hill (SPH) (which is currently under optimization) and Burnt Peak 1 (BUR1), being those remaining to come online.

Acting Program Manager Page clarified why the West cell is not on the air yet, with most of the sites done and constructed with the answer coming down to the MCI site being the Prime Site for the West cell.

Acting Program Manager Page said that several months ago, the Authority started to discuss some of the technical aspects of moving from a Phase 2 focus to a Phase 4 focused program, and for the current month, the Authority wanted to take a quick look at sites versus cells.

Page 6



Acting Program Manager Page stated that LA-RICS Digital Trunked Voice Radio Subsystem (DTVRS) is made up of fifty-eight (58) sites that are divided up into cells for both enhanced coverage and conservation of radio frequency spectrum.

Acting Program Manager Page talked about cells, introducing a "Simulcast Cell" as several sites combined to transmit the same signal at exactly the same time. One thing to note about these Simulcast cells is there is one "Prime" Site and a number of "Remote" sites. Acting Program Manager Page went on to say there is nothing indicating the Prime Site cannot be at the same physical location as a remote site, it is just logic hardware controlling the cell. Acting Program Manager Page indicated that what the audience was viewing on their screens was what the Authority was being used to demonstrate this "cell" example, noting the Authority was extremely excited the three (3) sites on the island are up and running.

Acting Program Manager Page provided an example of a Prime Site by demonstrating Dakin Peak (DPK) as the Prime Site for the Catalina cell, and also has a radio site co-located. Acting Program Manager Page explained that what happens when a transmission is generated by the core (Master Site), the signal gets to the Prime Site, and then the Prime Site calculates when each of the radio sites have to begin their transmissions. Acting Program Manager Page shared that this is not as easy as it sounds as the Authority has to make sure that the transmissions are synchronized to launch from all of the sites at exactly the same time. Acting Program Manager Page went on to say that should one of the sites be off by so much as a few *micro* seconds (not just milliseconds), the transmissions will be received by the portables and mobiles in the field at different times and cause the digital signal to be so out-of-sync, that they cannot be recovered.

Acting Program Manager Page further informed the Board that signals take long to go between the sites, therefore, a formula using Prime Site, the farthest site, adding co-located radio site at DPK, then subtracting it from the time it takes to get to Black Jack (BJM), at this point the Authority knows when the delay has to be programmed, allowing time to get to all three (3) sites in the cell and launch at precisely the same moment.

Acting Program Manager Page presented the Board with a map that indicated the Authority's network map overlay for the Catalina cell, and how a Prime Site versus Remote Sites looks like.

Acting Program Manager Page provided another example of cells by showing the San Gabriel cell with Cerro Negro (CRN) as the co-located Prime Site, and Mount Disappointment (MDI), Mirador (MIR), Mount Lukens (MTL2), and Verdugo Peak (VPK) as Remote Radio Frequency sites.

Acting Program Manager Page referred back to the discussion regarding cells/sites on-the-air. As for the West cell with MCI being the Prime Site, all of the other sites



[Green Mountain (GRM), Agoura Hills (AGH), Castro Peak (CPK), Los Angeles County Fire Station 072 (LACF072)] are waiting for the Prime Site to come online so that the optimization can begin.

Acting Program Manager Page said that stand-alone sites [single sites or Advanced Site Repeaters (ASRs)] like those at Pine Mountain (PMT), DPW38, Frost Peak (FRP), BUR1, Johnstone Peak (JPK), Magic Mountain Link (MML) do not have the extra hardware associated with a Prime Site and, in addition, have limits of coverage related to a single site.

Acting Program Manager Page shared that for the upcoming month, the Authority plans to explore the world of encryption and how the Authority's system handles secure communications.

Acting Program Manager Page stated that July's area of focus will be on the construction at MCI, with staff being on site almost daily to keep construction on track. Acting Program Manager Page concluded his report by saying the Authority continued to work with State Parks for the easement to get power to GRM and continued to monitor the status of optimization and coverage testing of the system.

This concluded the report on Agenda Item E by Acting Program Manager Page. There was no further discussion.

# H. PSBN Round 2 Implementation and Construction Update – Justin Delfino

Project Director Justin Delfino reported the objective for June was met by way of the Authority commencing construction related to the revised detail at Pomona Court House 2 (POM2) with work to be completed that day. Project Director Delfino went on to say the remainder of June was spent transmitting and re-transmitting closeout materials to FirstNet and AT&T Corp. Project Director Delfino concluded his report by stating this would be his last presentation on the status of Public Safety Broadband Network (PSBN)/Long Term Evolution (LTE) Round 2.

This concluded the updated on Agenda Item H. There was no further discussion.

## I. Spectrum and Licensing Issues Impacting Land Mobile Radio Deployment – Ted Pao

Technical Lead Ted Pao expressed that similar to the previous month's report, the Authority does not have any additional T-band permanent licenses granted by the Federal Communications Commission (FCC). Technical Lead Pao reported the applications the Authority has for its T-band sites are still pending status with the FCC. Technical Lead Pao stated the Authority has been made aware there is an internal process discussion between the FCC's Media Bureau and the Public Safety Bureau regarding T-band applications and licenses. Technical Lead Pao said the



Authority is hoping that once both bureaus have come to an agreement, the Authority's remaining applications will be granted.

Technical Lead Pao stated that in regards to the interference issues, after a delay on supply chain issues and contractor personnel issues, the Authority should be able to proceed with its interference investigation for Signal Hill (SGH) and Clara Shortridge-Foltz Criminal Center (CCT) building, with the expectation that work will start this month.

Alternate Board Chair Yanagi posed a question regarding the application for the licensing and if it is a common delay and what was to be expected. Technical Lead Pao answered by stating it is the T-Band market that has the type of delay due to an issue between the FCC and the Media Bureau Public Safety Bureau, but LA-RICS was not singled out.

This concluded the update on Agenda Item I. There was no further discussion.

#### J. Outreach Update – Lieutenant Robert Weber

Operations Lead Robert Weber greeted Board members and referenced the detailed Outreach Summary document for the month of June included in the Agenda Packet for review and information.

Operations Lead Weber shared that Authority Staff conducted LA-RICS system testing with the County of Los Angeles Sheriff's Department's (LASD) Emergency Operations Bureau (EOB) at the Los Angeles Pride Festival and Parade in West Hollywood. Operations Lead Weber went on to say the system metrics from the testing will be shared with the LASD Communications and Fleet Management Bureau (CFMB) staff and EOB Personnel. Operations Lead Weber said that, overall, the system performed extremely well, and the information obtained from the testing will be useful going forward.

Operations Lead Weber reported that Authority staff conducted further outreach to the City of Carson. Operations Lead Weber went on to say they are actively planning for onboarding with the LA-RICS system. Operations Lead Weber said that Authority staff will work closely with them to ensure their needs are met.

Operations Lead Weber reported to the Board that Authority staff members have continued to maintain close contact with California State and Federal partners to ensure interoperability during major events and to further collaborate on regional public safety communication.

Board Member Mark Alexander expressed that he previously requested outreach to the California Contract Cities Association, in particular, the City Managers Committee, since it has been quite some time since they have been updated.

Page 9



Board Member Alexander said the City Managers on the LA-RICS System are overdue for a presentation. Operations Lead Weber believes there should be something in the process but will follow-up with the Executive Director to ensure that a meeting is scheduled.

This concluded the update on Agenda Item J. Operations Lead Weber asked if there were any questions. There was no further discussion.

## VIII. ADMINISTRATIVE MATTERS (K - L)

# K. APPROVE THE FISCAL-YEAR 2022-23 RECOMMENDED LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATION SYSTEM AUTHORITY OPERATING BUDGET

Administrative Deputy Susy Orellana-Curtiss presented Agenda Item K, which was the recommendation for the Board to adopt the Fiscal Year 2022-23 Operating Budget of \$30,933,000 to be utilized for the continued operation of the LA-RICS Authority.

Administrative Deputy Orellana-Curtiss pointed out a few details from the report and stated the Board might be familiar with some of previously adopted budgets, as well as some new line items contingent in the budget. Administrative Deputy Orellana-Curtiss went on to discuss the grant funded expenditures which the recommended budget totaled \$26.8 million. Administrative Deputy Orellana-Curtiss reported those grant funded expenditures would continue to contain the UASI grants which the Board was familiar with. Administrative Deputy Orellana-Curtiss noted the Authority would have to return the State Homeland Security Grant Program (SHSGP) grant, which was received several years back in 2015. Administrative Deputy Orellana-Curtiss said the grant was now back again and the region voted to support the LA-RICS program, understanding there was a funding gap and a portion of those SHSGP grants funds were reflected within the grant funded expenditures. Administrative Deputy Orellana-Curtiss stated the Board could note that UASI and SHSGP are funding LMR activities.

Administrative Deputy Orellana-Curtiss discussed the new California Governor's Office of Emergency Services (Cal OES) Grant Fund for High Frequency (HF) Communications Equipment. The new program, launched by Cal OES, which LA-RICS was a recipient of this grant, totals \$1.5 million. Administrative Deputy Orellana-Curtiss reported the Authority is still pending its formal Subrecipient Agreement from the State and was working out the details of the administration of that grant. Administrative Deputy Orellana-Curtiss went on to report the \$1.5 million is captured in the recommended budget FY 2022-23, with the procurement mostly likely to occur within this current FY 2021-22. Administrative Deputy Orellana-Curtiss stated the funding is intended for the purchase of twenty-five (25) radio units, one (1) for each of the Authority's Member Agency that Cal OES has allowed



the Authority to apply for. Administrative Deputy Orellana-Curtiss stated those were the changes under the grant funded expenditures.

Administrative Deputy Orellana-Curtiss reminded the Board that previously under Member Contributions, all member contributions captured in the previous Adopted Budget effective FY 2018-19, as well as in the current recommended adopted budget, the line items that were not bundled by the grants were items that were deemed to be management administration or were relating to the operations and maintenance of the Program, which were not allowable into the grant fund. Administrative Deputy Orellana-Curtiss went on to say that those member contributions as detailed under Footnote Number One (No. 1) of the Agenda packet, were funded out of the AT&T Business Agreement fund. Administrative Deputy Orellana-Curtiss said the Board voted to approve that Agreement with AT&T which provided the LA-RICS Program with a revenue fund source that continues to fund for one-hundred percent (100%) of the Member Contribution for FY 2022-23, as contained in the recommended budget before the Board. Administrative Deputy Orellana-Curtiss also noted there are no longer any LTE Administrative cost captured in the recommended budget for FY 2022-23, as the Executive Director and Project Director Delfino reported, the LTE Program for sites 21-26 were wrapping up, so therefore, the administrative cost will reflect a zero ("0") for Operating costs for FY 2022-23. However, Administrative Deputy Orellana-Curtiss informed the Board that in the Non-Grant Funded Revenue section, it should be noted the AT&T Business agreement services for sites 21-26 totaling \$492,000, that funding is for the wrap up of activities that Project Director Delfino described for closing out the final invoicing related to work at those sites for the final closeout of the LTE2 Program (also known as PSBN Round 2). Administrative Deputy Orellana-Curtiss said she was happy to report closing out this FY2021-22. Administrative Deputy Orellana-Curtiss stated the \$492,000 is the remaining balance of what was left in that project specifically for sites 21-26 in the LTE2 Program.

Administrative Deputy Orellana-Curtiss informed the Board that under the Non-Grant Funded Revenue, there is a note for a \$400,000 line item for the completion of router swap program. Administrative Deputy Orellana-Curtiss went on to say that previously when LA-RICS entered into an agreement with AT&T, both parties also negotiated and secured an agreement to replace those legacy routers that were no longer going to be operational on FirstNet's system. Administrative Deputy Orellana-Curtiss stated that AT&T provided LA-RICS with funding to secure new routers as well as to provide the services required by the agencies to control the swap work removing the old routers and install the new ones.

Administrative Deputy Orellana-Curtiss concluded by reporting on the State Budget Act of 2022 is a new line item in the recommended budget related to the \$18.6 million dollars that Executive Director reported on and that was appropriated by the Governor under the State Budget Act of 2022. Administrative Deputy



Orellana-Curtiss stated the recommended Budget for this FY 2022-23 reflects \$944,000 in this FY for use from that State Budget fund.

Administrative Deputy Orellana-Curtiss asked if there were any questions, and if none, she requested the Board approve of the recommended budget.

Alternate Board Chair Yanagi asked if there were any other questions from the Board. With no further questions, Alternate Board Chair Yanagi asked for a motion to approve.

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

Ayes 8: Geiger, Pappas, Yanagi, Ambrose, Solinsky, Alexander, Povero, and Fronterotta.

#### MOTION APPROVED.

# L. APPROVE AMENDMENT NO. 102 TO AGREEMENT NO. LA-RICS 007 LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM LAND MOBILE RADIO SYSTEM

Contracts Manager Jeanette Arismendez presented Agenda Item L, which requested approval for Amendment No. 102 to the LMR Agreement for an LMR System with Motorola Solutions, Inc. (MSI) to extend certain bridge warranty services resulting in an increase to Maximum Contract Sum in the amount of \$28,587.

Contracts Manager Arismendez provided the Board with some background and referenced Amendment No. 90, which extended the bridge warranty and included Security Update Services (SUS) and Remote Security Update Services (RSUS). Contracts Manager Arismendez informed the Board that those services were effective until June 2022 as the Authority was awaiting the final IMS from MSI to ensure the SUS and RSUS services aligned with the IMS acceptance date. In light of the submission of the IMS, which was approved by the Board, Authority staff presented this amendment to further extend the SUS and RSUS portion of the bridge warranty to December 31, 2022.

Contracts Manager Arismendez further informed the Board that the Authority was also requesting delegated authority to the Executive Director to execute Amendment No. 102, in substantially similar form to the Amendment enclosed with the Board Letter, as well as to allow for the issuance of one (1) or more Notices to Proceed for the Work contemplated, as may be necessary.



This concluded the Administrative Matter on Agenda Item L. Contracts Manager Arismendez asked if there were any questions. There was no further discussion.

Alternate Board Chair Yanagi asked if there were any other questions from the Board. With no further questions, Alternate Board Chair Yanagi asked for a motion to approve.

Board Member Povero motioned first, seconded by Board Member Tadeo.

Ayes 8: Geiger, Pappas, Yanagi, Ambrose, Solinsky, Alexander, Povero, and Fronterotta.

#### **MOTION APPROVED.**

- IX. MISCELLANEOUS NONE
- X. ITEMS FOR FUTURE DISCUSSION AND/OR ACTION BY THE BOARD NONE
- XI. CLOSED SESSION REPORT

The Board entered into Closed Session at 9:35 a.m.

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

The Board returned from Closed Session at 9:43 a.m. Counsel Truc Moore stated the Board was back in open session and the Brown Act did not require a report.

#### XII. ADJOURNMENT AND NEXT MEETING

Alternate Board Chair Yanagi called for a motion to adjourn the Regular Meeting. Board Member Fronterotta motioned first.

The Regular Board Meeting adjourned at 9:43 a.m., and the next Regular Board Meeting will be held on August 4, 2022, at 9:00 a.m., via Microsoft Teams / Teleconference Meeting.



# 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

August 4, 2022

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

Dear Directors:

# FINDINGS TO CONTINUE TELECONFERENCE MEETINGS UNDER AB 361 AND RELATED ACTIONS

#### **SUBJECT**

The California Legislature passed AB 361 to enhance public access to local legislative body meetings during the COVID-19 pandemic and future applicable emergencies. Under AB 361, to continue to meet via teleconferencing, the local legislative body must adopt, by a majority vote, specific findings within 30 days of the first use of the teleconferencing meeting rules after October 1, 2021, and within every 30 days thereafter. The first Board meeting under AB 361 occurred on October 7, 2021, and the Board made its appropriate findings thereafter. The timing of this meeting falls within the 30-day window for the Board to make another finding to continue to use a telephonic meeting.

## RECOMMENDED ACTIONS

It is recommended that your Board, acting on its behalf, and on behalf of the Finance, Operations and Technical Committees appointed by the Board and which are subject to the Brown Act:

- 1. Find, in accordance with AB 361 Section 3(e)(3), California Government Code Section 54953(e)(3), that the Board has reconsidered the circumstances of the State of Emergency due to the COVID-19 pandemic and that the State of Emergency remains active; and
- 2. Find, in accordance with AB 361 Section 3(e)(3), California Government Code Section 54953(e)(3), that local officials continue to recommend measures to promote social distancing.

## **BACKGROUND**

On September 10, 2021, the Legislature passed AB 361, to enhance public access to local legislative body meetings during the COVID-19 pandemic and future applicable emergencies. The Governor signed AB 361 into law on September 16, 2021. To ensure the safety of members of the public and personnel while guaranteeing the public's right to attend and participate in meetings of local legislative bodies and in alignment with the County of Los Angeles' Health Officer's recommendations to reduce crowding indoors and to support physical distancing, the Board can continue to meet via teleconferencing, in compliance with AB 361 while we are under a State of Emergency and while State or local officials continue to recommend measures to promote physical distancing. However, the Board will need to regularly consider the circumstances of the State of Emergency to determine whether teleconferencing should continue no later than 30 days after the Board's first meeting under AB 361 (October 7, 2021), and within every thirty (30) days thereafter.

## PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

Under AB 361, to continue to meet via teleconferencing, the local legislative body must adopt, by a majority vote, specific findings within 30 days of the first use of the teleconferencing meeting rules after October 1, 2021, and within every 30 days thereafter. As we approach the thirteen 30-day deadline and given the timing of this Board meeting, the Board needs to make the necessary findings. The Governor's declaration of a statewide emergency is still in effect, and the County of Los Angeles' Public Health Officer still currently recommends physical distancing.

## FACTS AND PROVISIONS/LEGAL REQUIREMENT

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

#### CONCLUSION

The Executive Director recommends the Board make the recommended findings.

Respectfully submitted,

SCOTT EDSON

**EXECUTIVE DIRECTOR** 

**MBC** 

c: Counsel to the Authority

## **EXECUTIVE SUMMARY**

**AUGUST 4, 2022** 

#### **LMR UPDATE**

#### Phase 2

- ✓ All Building Permits are in, with the final portion of the MCI Building Permit (the Fire Suppression System permit) being issued in July of 2022.
- ✓ The current Integrated Master Schedule (IMS) is the May 10, 2022DD, which
  shows a Final System Acceptance of September 1, 2023. The May 10, 2022DD
  IMS was approved in Amendment 92.
- ✓ Below is a breakdown of the current site progress for Phase 2 scope:
  - o 57 of 58 sites are substantially complete through Phase 4a.
  - MSI continues to complete punch corrections and resolve assorted issues resulting from installations deviating from approved plans.
  - The work on permanent power at Green Mountain (GRM) continues to proceed with Los Angeles Department of Water and Power (LADWP) continuing to add requirements without providing requested documents. Weekly meetings with LADWP assist in clarifying requirements as there is no single statement of requirements available for providing power to this site.

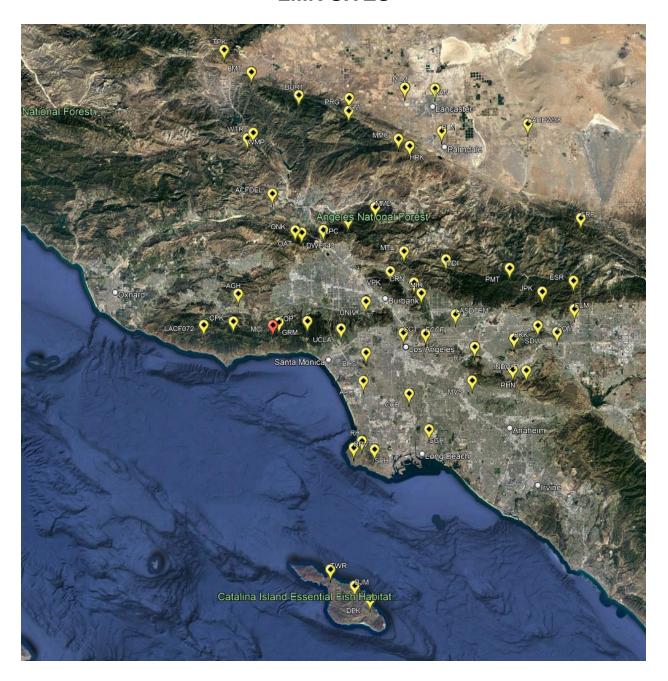
### Phase 4 – Optimization and Closeout

- ✓ There are thirty-three (33) cells on the air; fifty-two (52) sites are optimized; and of these, forty-eight (48) sites are on the air.
- ✓ Cutover plans continue to be developed in a joint effort between LA-RICS and Motorola Solutions, Inc. (MSI). The cutover plans will be managed to ensure that all cutovers occur as planned so no significant delays affect the Schedule.
- ✓ Fifty (50) sites have undergone the Phase 4 audit and the corresponding closeout books were submitted to LA-RICS for review.

# **EXECUTIVE SUMMARY**

**AUGUST 4, 2022** 

# **LMR SITES**



# **EXECUTIVE SUMMARY**

**AUGUST 4, 2022** 

	LA-RICS GRANT STATUS												
Grant	Award	Costs Incurred/NTP Invoiced / P Issued		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	\$35,000,030	\$ 35,000,030	\$-	5/31/21								
UASI 19	\$35,000,000	\$35,000,000	\$35,000,000	\$-	5/31/22								
UASI 21	\$2,000,000	\$2,000,000	\$-	\$0	5/31/24								
UASI 22	*\$11,688,338	\$-	\$-	\$11,688,338	5/31/25								
UASI 23	*\$3,311,662	\$-	\$-	\$3,311,662	5/31/26								
UASI 24	*\$0	\$-	\$-	\$0	5/31/27								
SHSP 22	\$3,520,000	\$-	\$-	\$3,520,000	5/31/25								
SHSP 23	\$1,760,000	\$-	\$-	\$1,760,000	5/31/26								
SHSP 24	\$1,120,000	\$-	\$-	\$1,120,000	5/31/27								
HFCEP	**\$1,500,000	\$-	\$-	\$1,500,000	10/31/23								
ВТОР	\$149,608,227	\$149,608,227	\$149,608,227	\$0	9/30/20								

<sup>\*</sup> Moved \$6,688,338 to UASI 22 from UASI 23 and 24 based on approved project swaps with County Fire and Sheriff

<sup>\*\*</sup> High Frequency Communications Equipment Program - Pending Grant Award Documents

# 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. All sites in both the LMR and LTE augmentation 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 Project Management Company** 

Communications Vendor:

LMR - Motorola Solutions, Inc., Brandow & Johnston

LTE - Motorola Solutions, Inc., David Evans & Associates, Metrocell, Inc., Diversified Communications, Inc, Motive Energy, Inc. and Jitney, Inc.

Monthly Report No. 123

LA-RICS

August 4th, 2022

Submitted July 25th, 2022

Reporting Period: 06/15/2022 - 07/20/2022

Confidentiality Notice: This document may contain confidential or legally privileged information that is intended only for the individual or entity to whom it was addressed. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or reliance upon the contents of this report is strictly prohibited. This document is covered by the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521 and is legally protected.

# **GENERAL UPDATES**

#### Operations/Governance

- LA-RICS Operations holds regular meetings to focus on the following:
  - 1. Manage network migration to LA-RICS to meet milestone cut-over dates established in the approved IMS.
  - 2. Ensure internal LA-RICS operational aspects are in place.
  - 3. Develop and Implement Policies as determined by the operations contributors.

#### **Special Events**

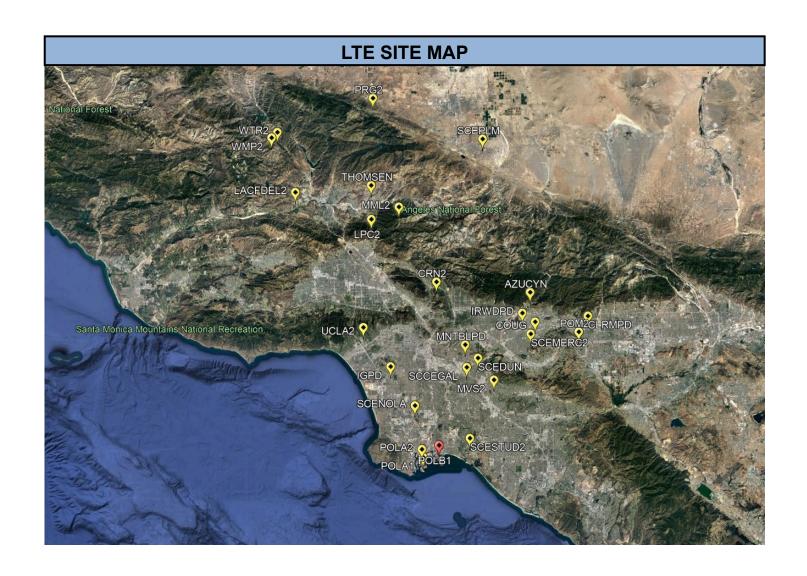
No new activity.

# LTE2 UPDATES

#### LTE Round 2 Updates

• This reporting period saw progress with the final detail related to the antenna sled roof attachments at POM2. The EOR is working with the JCC's roofing contractor to address requested clarification. Once resolved, the work will be scheduled, and then final inspection will take place. The 26<sup>th</sup> site in the LTE Program was POLB1 which LA-RICS designed and permitted but did not build at ATT's direction as ATT was unable to come to terms with the Port on a lease agreement prior to the date of Asset Transfer. The dialogue between ATT and the Port is on-going with the intent of both parties to come to an agreement in the near future. At such time, ATT intends to proceed with the build using the permitted plans from LA-RICS.

The LTE2 Site Map is shown below



#### LMR UPDATES

#### **Environmental Update**

- Jacobs continued the MMRP effort in this period as ground disturbing activities are drawing to a close. It is anticipated that the end of July 2022 will mark the
  end of the MMRP work needed on the Program.
- The Project Team has accomplished Worker Environmental Awareness Program (WEAP) training for 1,718 persons as of July 18, 2022, this was the last training session during the period.

#### **Phase 1: Permitting Support**

• The final building permit for the MCI site was issued on May 19, 2022, Fifty-nine (59) building permit applications have been made to date (AGH, APC, BHS, BJM, BKK, BMT, BUR1, CCB, CCT, CITYWLK, CLM, CPK, CRN, DPK, DPW38, ESR, FCCF, FRP, GMT, GRM, HPK, INDWT, JPK2, LACF072, LACFDEL, LAN, LARICSHQ, LASDTEM, LDWP243, LPC, MCI, MDI, MLM, MMC, MML, MIR, MTL2, MVS, OAT, ONK, PHN, PLM, PMT, POM, PRG, RIH, RHT, RPVT, SDW, SGH, SPH, SPN, TOP, TPK, TWR, UCLA, UNIV, VPK, WMP, WTR), representing 58 Program sites.

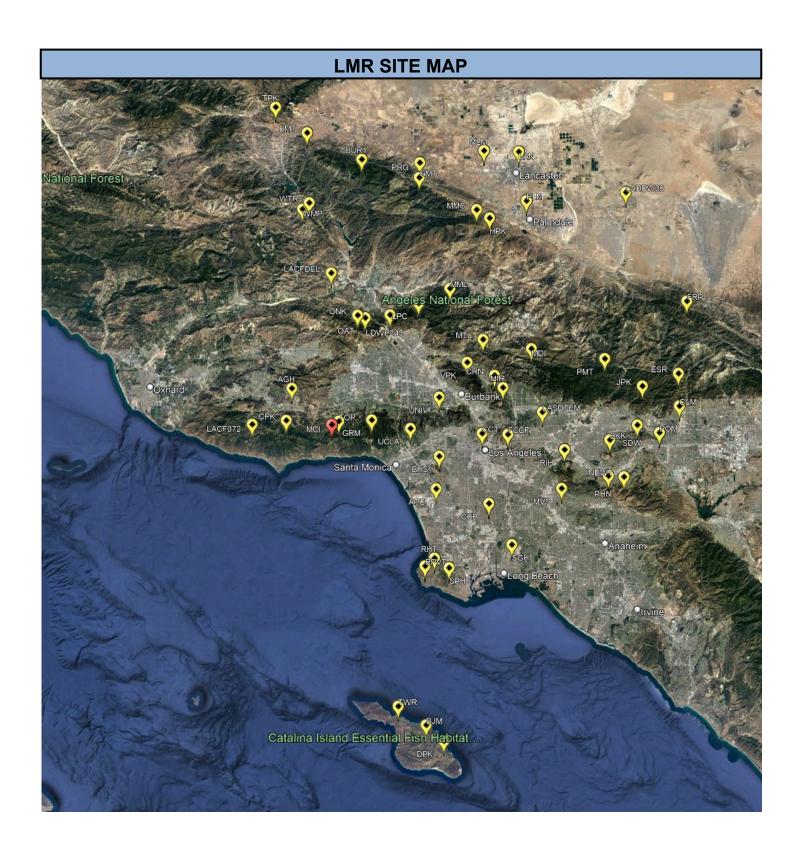
#### Phase 2: Site/Civil

- All Site Access Agreements (SAA's) are complete.
- 57 sites are substantially complete through Ph4a. The 58th and final site in the Program, MCI, commenced construction on May 23, 2022.
- 56 sites have commercial power, this includes MCI, where LA-RICS took over the existing 200-amp service on site. Of the 3 remaining sites pending commercial power, 2 (BUR1 and GRM) have primary power generators on site that are running in support of MSI's activities at these sites.
- The Project Schedule with the data date of May 5, 2022, is the current operative baseline Integrated Master Schedule (IMS). The finish date shown on the 05102022DD IMS has a Final System Acceptance date of September 1, 2023.
- Motorola's focus during this reporting period remains on completing the tasks tied resolving slip sheet requirements from the submitted UASI 18 and UASI 19
  Closeout Books.
- The Authority has sought assistance outside of the City of Los Angeles Mayor's office. During this period, Staff have met with LADWP several times on the LADWP-established weekly meeting series to touch base on action items in each party's court. The Authority has presented an updated land survey for the placement of the new power poles and related easement and is planning to meet with LADWP on a special session to discuss the results. The Authority is acting as the coordinator between LADWP and State Parks and continues to work with LADWP on determining what that organization requires in order to perform the work related to delivery of power within their jurisdiction.
- There are no safety issues to report on in this period.

#### Phase 4: Network

- Focus of the Ph4 effort is Site Audits and Close Out Book (COB) activities related to compiling of the data followed by review and approval of the items submitted. Motorola continues to work through the challenge of submitting accurate documentation in the COBs, resulting in additional Staff time for re-reviews.
- System interference on Ch. 16 is still being investigated by the Sheriff's Department, Fire Department, and ISD along with the technical leads from the LA-RICS Project Team.
  - The coordination between LACoFD, LASD, MSI, and LA-RICS is critical to ensure that frequencies are available for testing and operating the Digital Trunk Voice Radio System (DTVRS), and Analog Conventional System (ACVRS), particularly.
  - MSI has reported that they are on schedule for the turnover of the first subsystem, NMDN Ph.1.

The LMR Site Map is shown below.





# 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

August 4, 2022

To: LA-RICS Authority Board of Directors

From: Scott Edson

**Executive Director** 

# SPECTRUM AND LICENSING ISSUES IMPACTING LAND MOBILE RADIO DEPLOYMENT

The purpose of this discussion item is to update your Board on the radio spectrum issue for the Land Mobile Radio System (LMR) system, as well as frequency licensing issues impacting the LMR deployment.

TP:mbc



# 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

August 4, 2022

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 Land Mobile Radio (LMR) project. The below meetings occurred since our last report to you:

MUNICIPALITY	MEETING DATE
Weekly Outreach Meeting	07/11/22
Emergency Communications Preparedness Center (ECPC) Advanced Technologies Working Group (ATWG) Monthly Meeting	07/13/22
Weekly Outreach Meeting	07/18/22
International Association of Chiefs of Police Communications (IAPC) Communications and Technology Committee – Monthly Meeting	07/20/22
National Sheriff's Association (NSA) Government Affairs	07/21/22
Weekly Outreach Meeting	07/25/22

The Executive Director attended several association meetings related to technology, communications, and public safety.

Authority Staff conducted LA-RICS system testing with the Los Angeles County Sheriff's Department's (LASD) Aero Bureau. The Authority's efforts were specifically designed to test the viability of a P-25 Phase 2 system for use with airborne Law Enforcement. The system metrics from the testing will be shared with the LASD's Communications and Fleet Management Bureau (CFMB) staff and Aero Bureau Personnel. Overall, the system performed extremely well, and the information obtained from the testing will be useful going forward. Due to the importance of the testing Jacobs Engineering Team, Acting Program

LA-RICS Authority Board of Directors August 4, 2022 Page 2

Manager Steve Page gave a full report to the Technical and Operations Committee regarding the test results.

Authority staff meet weekly to discuss new outreach opportunities and followed up on those in progress.

The Executive Director is a member of the IACP Communications and Technology Committee and attends monthly meetings to stay current on communications technology, and policy and procedures.

Authority staff conducted an outreach to the City of Compton and Compton College Police Department. Both departments are evaluating their communication needs and the possibility of using LA-RICS. Authority staff will work closely with these departments to ensure their needs are met.

Authority staff members have continued close contact with our State and Federal partners to ensure interoperability during major events and to further collaborate on regional public safety communication.

RJW:mbc



# 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

August 4, 2022

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

**Dear Directors:** 

APPROVE AMENDMENT NO. 103 TO AGREEMENT NO. LA-RICS 007 LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM LAND MOBILE RADIO (LMR) SYSTEM

### <u>SUBJECT</u>

Board approval is requested to authorize the Executive Director to execute Amendment No. 103 to Agreement No. LA-RICS 007 (Agreement) which reflects a reduction in certain scope and cost in the amount of \$199,395.

### RECOMMENDED ACTIONS

It is recommended that your Board:

- 1. Approve Amendment No. 103 to Agreement No. LA-RICS 007 for an LMR System with Motorola Solutions, Inc. (MSI) to reflect a reduction in scope and cost to certain tower removal work and a reduction in cost to the ACVRS TRO5 Subsystem work and for a total cost decrease in the amount of \$199,395.
- 2. Authorize a decrease to the Maximum Contract Sum in an amount of \$199,395 from \$215,407,146 to \$215,207,751 when taking the recommended action into consideration.
- 3. Delegate authority to the Executive Director to execute Amendment No. 103, in substantially similar form to the enclosed Amendment (Enclosure).

#### **BACKGROUND**

On May 18, 2021, the Authority issued the first unilateral amendment under the Executive Director's authority delegated by your Board. Amendment No. 60 (Unilateral Amendment No. 1), included among other things, the removal of the existing tower at the MIR site.

LA-RICS Board of Directors August 4, 2022 Page 2

However, despite being issued a unilateral amendment to perform this work, to date MSI has not performed this work and doesn't intend to perform this work. As such the Authority is removing this scope from MSI and looking to another Contractor to perform this work. Further, the Authority may look to MSI for any differences in cost to have another Contractor perform such work.

On June 2, 2022, your Board approved Amendment No. 92, which included among other things, adding the SGH and SPH sites to the ACVRS TRO5 Subsystem, which was needed to ensure the required level of coverage in TRO5 is achieved. While this work will still be performed by MSI, the cost to perform this work reflects a credit owed by MSI to the Authority for this work.

### PURPOSE/JUSTIFICATION OF RECOMMENDED ACTIONS

Approval of the recommended actions will authorize the Executive Director to execute Amendment No. 103 to reconcile the Agreement for a cost decrease to the Maximum Contract Sum in the amount of \$199,395. It is necessary to reconcile the Agreement to remove the tower removal work at the MIR site in the amount of \$10,136 as MSI will not be performing the work. Additionally, while MSI will perform the ACVRS TRO5 Subsystem work to include the SGH and SPH sites in its entirety, the cost to perform such work will be reduced by \$189,259.

## FISCAL IMPACT/FINANCING

The activities contemplated in Amendment No. 103 will result in decrease to the Maximum Contract Sum in the amount of \$199,395 from \$215,407,146 to \$215,207,751.

# 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 will have delegated authority to proceed in a manner described in the recommended actions.

Respectfully submitted,

SCOTT EDSON

**EXECUTIVE DIRECTOR** 

JA

Enclosure

c: Counsel to the Authority

#### AMENDMENT NUMBER ONE HUNDRED THREE

# TO AGREEMENT NO. LA-RICS 007 FOR

# LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM LAND MOBILE RADIO SYSTEM

#### **RECITALS**

This Amendment Number One Hundred Three (together with all exhibits, attachments, and schedules hereto, "Amendment No. 103") is entered into by and between the Los Angeles Regional Interoperable Communications System Authority ("Authority") and Motorola Solutions, Inc. ("Contractor"), effective as of August \_\_\_\_\_\_, 2022, based on the following recitals:

Whereas, the Authority and Contractor have entered into that certain Agreement No. LA-RICS 007 for Los Angeles Regional Interoperable Communications System ("<u>LA-RICS</u>") 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 "<u>Agreement</u>").

Whereas, since the execution of the Agreement, the Agreement has been previously amended both mutually, and in certain instances unilaterally, pursuant to Amendment Nos. 1 through 100.

Whereas, the Authority has previously amended unilaterally in Amendment Number One-Hundred One – Unilateral Amendment No. 29, issued on June 29, 2022 to (a) incorporate an LMR Change Order for access road maintenance work at the Pine Mountain (PMT) site for a cost increase in the amount of \$4,887; (b) increase the Maximum Contract Sum by \$4,887 from \$215,373,672 to \$215,378,559; and (c) make other certain changes as set forth in Unilateral Amendment No. 29.

Whereas, the Agreement has been previously amended in Amendment Number One-Hundred Two to (a) extend certain Bridge Warranty services, in particular, Security Update Services (SUS) and Remote Security Update Services (RSUS) until December 31, 2022, as further described in Amendment No. 102 for a cost increase in the amount of \$28,587; (b) increase the Maximum Contract Sum by \$28,587 from \$215,378,559 to \$215,407,146; and (c) make other certain changes as set forth in Amendment No. 102.

Whereas, the Authority and Contractor desire to further amend the Agreement to make changes necessary to (a) reflect a reduction in the cost for ACVRS TRO5 Subsystem Addition work at the Signal Hill (SGH) site and the San Pedro Hill (SPH) site in the amount of \$189,259; (b) reflect a reduction in the scope and cost related to existing tower removal work at the Mirador (MIR) site in the amount of \$10,136; (c) decrease the Maximum Contract Sum by \$199,395 from \$215,407,146 to \$215,207,751; and (d) make other certain changes as set forth in this Amendment No. 103.

NOW THEREFORE, in consideration of the foregoing recitals, all of which are incorporated as part of this Amendment No. 103, and for other valuable consideration, the receipt and sufficiency of which are acknowledged, Authority and Contractor hereby agree as follows:

- 1. <u>Capitalized Terms; Section References</u>. Capitalized terms used herein without definition (including in the recitals hereto), have the meanings given to such terms in the Agreement. Unless otherwise noted, section references in this Amendment No. 103 refer to sections of the Agreement, as amended by this Amendment No. 103.
- 2. LMR System Reconciliation. The parties agree and acknowledge to reconcile the Agreement to reflect a cost reduction to ACVRS TRO5 Subsystem Addition work to include the SGH and SPH sites that was included in Amendment No. 92 in the amount of \$189,259 to account for a credit owed to the Authority. Additionally, the parties agree and acknowledge to reconcile the Agreement to remove certain work that was contemplated in Amendment No. 60 (Unilateral Amendment No. 1). In particular, the scope of work to be eliminated from further consideration is the removal of the existing tower at the Mirador (MIR) for a cost reduction in the amount of \$10,136 as the Contractor did not perform this work. The parties reserve their rights on whether Contractor was required to perform this work or not, and at the prices set forth in the Agreement. The reductions in scope and cost are reflected in the relevant portions of Exhibit C (Schedule of Payments) contained in and attached to this Amendment No. 103.

	RECONCILIATION OF LMR SYSTEM SITES – AMENDMENT 103											
Item No.	Site ID	Site Name	Reconciled Work	Reconciled Amount								
1.	SGH/SPH	Signal Hill / San Pedro Hill	ACVRS TRO5 Subsystem Addition	(\$189,259)								
2.	MIR	Mirador	Existing Tower Removal	(\$10,136)								
			TOTAL AMOUNT:	(\$199,395)								

#### 3. <u>Amendments to the Agreement.</u>

- 3.1 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 Fifteen Million, Two Hundred Seven Thousand, Seven Hundred Fifty-One Dollars (\$215,207,751) which includes the Contract Sum and all Unilateral Option Sums, as set forth in Exhibit C (Schedule of Payments).
- 3.2 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 One Hundred Fifty-Eight Million, One Hundred Thirty-Five Thousand, Nine Hundred Seventy-Four Dollars (\$158,135,974). 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 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. 103 and incorporated herein by this reference as described in this Amendment No. 103.
- 4.2 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), which is attached to this Amendment No. 103 and incorporated herein by this reference as described in this Amendment No. 103.
- 4.3 Exhibit C.21 (LMR Unilateral Amendments) to Exhibit C (Schedule of Payments) is deleted in its entirety and replaced with Exhibit C.21 (LMR Unilateral Amendments), which is attached to this Amendment No. 103 and incorporated herein by this reference as described in this Amendment No. 103.
- 4.4 Exhibit C.22 (LMR Subsystem Acceptance Payment Schedule) to Exhibit C (Schedule of Payments) is deleted in its entirety and replaced with Exhibit C.22 (LMR Subsystem Acceptance Payment Schedule), which is attached to this Amendment No. 103 and incorporated herein by this reference.
- 5. This Amendment No. 103 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. 103;
  - 5.2 Los Angeles County Counsel has approved this Amendment No. 103 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. 103;
  - The Executive Director of the Authority has executed this Amendment No. 103.
- 6. Except as expressly provided in this Amendment No. 103, all other terms and conditions of the Agreement, as amended, shall remain the same and in full force and effect.

- 7. Contractor and the person executing this Amendment No. 103 on behalf of Contractor represent and warrant that the person executing this Amendment No. 103 for Contractor is an authorized agent who has actual authority to bind Contractor to each and every term and condition of this Amendment No. 103, and that all requirements of Contractor to provide such actual authority have been fulfilled.
- 8. This Amendment No. 103 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 ONE HUNDRED THREE

# 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. 103 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.
Ву:	By:
Scott Edson Executive Director	Arturs A. Vanags Motorola Project Director
APPROVED AS TO FORM FOR THE LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY:	
DAWYN R. HARRISON Acting County Counsel	
Ву:	
Truc L. Moore Principal Deputy County Counsel	

EXHIBIT C.1 - SCHEDULE OF PAYMENTS  LMR SYSTEM PAYMENT SUMMARY										
Summary		Unilateral ption Sum		ontract Sum Full Payable Amount		10% Holdback Amount	N	Payment Iinus 10% Holdback Amount		
Phase 1 <sup>(Note 1)</sup>	\$	-	\$	41,754,828	\$	3,117,312	\$	38,637,516		
Phase 2	\$	-	\$	43,222,351	\$	4,212,845	\$	39,009,506		
Phase 3	\$	-	\$	56,336,725	\$	4,230,075	\$	52,106,650		
Phase 4	\$	-	\$	20,732,004	\$	2,009,828	\$	18,722,174		
SUBTOTAL (Phases 1 to 4):	\$	-	\$	162,045,908	\$	13,570,061	\$	148,475,846		
Phase 5 (15 Years)	\$	55,898,518	\$	-	\$	-	\$	55,898,518		
TOTAL (Phases 1 to 5):	\$	55,898,518	\$	162,045,908	\$	13,570,061	\$	204,374,364		
Bounded Area Coverage Additive Alternate (Note 1)	\$	19,109,375	\$	<u>-</u> -	\$	1,910,937	\$	17,198,437		
Mandatory Building Coverage Additive Alternate	\$	29,828,448	\$	<u>-</u>	\$	2,982,845	\$	26,845,603		
Metrorail Coverage Additive Alternate	\$	4,792,260	\$	<u>-</u>	\$	479,226	\$	4,313,034		
LMR System Maintenance for Additive Alternates	\$	19,620,355	\$	<u>-</u>	\$	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			\$	3,500,042	\$	350,004	\$	3,150,038		
LMR Unilateral Amendments			\$	1,395,361	\$	139,536	\$	1,255,825		
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			\$	1,987,674			\$	1,987,674		
SUBTOTAL	\$	130,552,956	\$	174,844,548	\$	21,745,045	\$	283,652,458		
TOTAL CONTRACT SUM:				\$174,8	44	,548				
LMR Discounts <sup>(Note 2)</sup>	-\$16,839,315									
MAXIMUM CONTRACT SUM(Total Unilateral Option Sum plus Total Contract Sum):	ract \$215,207,751									

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.

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

Change Order Number	Site ID	Item/Category		Contract Sum - 10% I Payable Amount An			Payable Amount Less 10% Holdback Amount
		Amendment No. 28					
MSI 003 Revised	OLI	MSI-003 OLI Tower Mapping (Revised)	\$	-	\$ -		\$ -
		MSI-007 LDWP243 Additional Structural Analysis for Coverage					
MSI-007	LDWP243	Enhancement	\$	2,200	\$ 22	20	\$ 1,980
MSI-008	LMR	MSI-008 Station B Reprogramming of 700 MHz DTVRS Stations	\$	9,912	\$ 99	91	\$ 8,921
MSI-009	AGH	MSI-009 AGH SCE Engineering Fee Reimbursement	\$	5,634	\$ 56	53	\$ 5,071
MSI-012	LMR	MSI-012 Site 3D Models per Authority Request BJM, DPK, TWR	\$	<del>-</del>	\$		\$ -
MSI-015	BUR1	MSI-015 BUR1 SCE Engineering Fee	\$	3,308	\$ 33	_	\$ 2,977
MSI-016	BMT	MSI-016 BMT SCE Engineering Fee	\$	592	<u> </u>	_	\$ 533
MSI-017	MML	MSI-017 MML SCE Engineering Fee	\$	3,308	\$ 33	_	\$ 2,977
		Amendment No. 28 Subtotal	\$	24,953	\$ 2,49	75	\$ 22,458
MGI 020	APC	Amendment No. 29	Ф	2.105	Φ 2.		Φ 2.165
MSI-030	APC	MSI-030 Saturday Labor and Crane Cost	\$	2,405	\$ 24	_	\$ 2,165
MSI-020R MSI-024	BKK BKK	MSI-020R Tower Mapping and Painting MSI-024 Dispersive Wave Testing	\$	26,225	\$ 2,62 \$ 54	_	\$ 23,603 \$ 4,883
MSI-1208	POM	MSI-LMR1208 ACM and LCP Testing Services	\$	5,426 4,400	\$ 32	_	\$ 4,883 \$ 3,960
11101 1200	1 01/1	Amendment No. 29 Subtotal	\$	38,456	\$ 3,84	_	\$ 34,610
		Amendment No. 30	Ψ	30,430	Ψ 3,0-	U	φ 54,010
MSI-1205	MVS	MSI-1205 MVS LCP Testing Services	\$	4,195	\$ 42	20	\$ 3,776
1122 1230	1.1.2	Amendment No. 30 Subtotal	\$	4,195	\$ 42	_	\$ 3,776
		Amendment No. 31	Ψ	1,150	Ψ 12		φ 2,770
MSI-1265	ONK	MSI-1265 Environmental Testing ACM and LPC Services	\$	3,633	\$ 36	53	\$ 3,270
MSI-1206	CCT	MSI-1206 HVAC Condenser Pad Modification	\$	9,745		75	·
MSI-1321	AGH	MSI-1321 Additional Title, Survey, Research	\$	2,100	\$ 21		\$ 1,890
MSI-1267R	LARICSHQ	MSI-1267R Environmental Testing ACM and LPC Services	\$	4,095	\$ 41	0	\$ 3,686
		Amendment No. 31 Subtotal	\$	19,573	\$ 1,95	57	\$ 17,616
		Amendment No. 33					
MSI-1528	MLM	MSI-1528 MLM Tower Light	\$	17,490	\$ 1,74	19	\$ 15,741
		Amendment No. 33 Subtotal	\$	17,490	\$ 1,74	19	\$ 15,741
		Amendment No. 34					
MSI-1447	AGH	MSI-1477 AGH Additional Electrical Work	\$	84,503	\$ 8,45	50	\$ 76,053
MSI-1435	HPK	MSI-1435 HPK Power Conduit Outside Compound	\$	6,241	\$ 62	24	\$ 5,617
		Amendment No. 34 Subtotal	\$	90,744	\$ 9,07	74	\$ 81,670
		Amendment No. 35					
MSI-5002	SDW	MSI-5002 SDW Waveguide Bridge Installation	\$	13,115	\$ 1,31	12	\$ 11,804
		Amendment No. 35 Subtotal	\$	13,115	\$ 1,31	12	\$ 11,804
		Amendment No. 36					
MSI-5003	ВЈМ	MSI-5003 BJM Tower Mapping Services	\$	4,952		_	\$ 4,457
		Amendment No. 36 Subtotal	\$	4,952	\$ 49	95	\$ 4,457
		Amendment No. 37					
MSI-5010	CRN	CRN Lead Paint Abatement and Consulting Services	\$	3,754			\$ 3,379
MSI-5008	CRN	CRN Siren	\$	10,113	\$ 1,01		\$ 9,102
MSI-5015	CRN	CRN Permanent Fence	\$	5,043	\$ 50	-+	\$ 4,539
MSI-1209R	FCCF	FCCF Receptacle Light Installation	\$	12,336	\$ 1,23		\$ 11,102
MSI-5031	HPK	HPK SCE Trenching	\$	12,623	\$ 1,26	)2	\$ 11,361

MSI-5070	Change Order Number	Site ID	Item/Category		ntract Sum - able Amount	10	10% Holdback Amount		yable Amount Less 10% dback Amount
MSI-5017			•	\$	9,765	\$	977	\$	8,789
MSI-5017	MSI-UNI-003	MMC	MMC Electrical Power Conduits	\$	2,703	\$	270	\$	2,433
MSI-5907   PMT   PMT and GeoTechnical Engineering Services   \$ 2,3676   \$ 2,363   \$ 2,1268   MSI-5908   UCLA   UCLA ACM and LCP Testing Services   \$ 4,725   \$ 473   \$ 4,255   MSI-UNL004   FCCF   FCCF Relocated Prine Site Equipment   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$			Amendment No. 37 Subtotal	\$	56,337	\$	5,634	\$	50,703
MSI-UNIO									
MSI-1011-0014   FCCF   FCCF Reforeated Prime Site Squipment				\$	23,626	\$	2,363	\$	21,263
MSI-5038 SGH SGH Barrel Tile Roof				\$	4,725	_	473		4,253
MSI-5021   SGH   SGH NB CX Stand Down Costs   \$ 7,652   \$ 765   \$ 6,887						_	-		_
MSI-5046   DPW38   DPW38 LCP Testing   S 2,361   S 2,361   S 30,092   MSI-5006   VPK   VPK Tower Foundation   S 34,102   S 3,410   S 30,092   MSI-5006   VPK   VPK Tower Foundation   S 50,027   S 5,003   S 45,024   MSI-UNI-005   VPK   VPK Power Run   S 50,027   S 5,003   S 45,024   MSI-UNI-005   VPK   VPK Retaining Wall Credit   S (68,141)									·
MSI-5034								<u> </u>	
MSI-5056			<u> </u>						
MSI-101-005						_			
MSI-1001-000									
MSI-5024   MIR   MIR Additional Topography   S   2,205   S   221   S   1,985   MSI-5061   MDI   MDI 2nd GeoTechnical Engineering Services   S   7,588   S   759   S   6,829   MSI-5028   MDI   MDI 2nd GeoTechnical Engineering Services   S   7,566   S   765   S   6,829   MSI-5029   MDI   MDI Addition Topo Survey   S   2,100   S   210   S   1,890   MSI-5050   WWY   WWY Naive American Monitoring   S   580   S   581   S   522   Manendment No. 38 Subtotal   S   (47,393)   S   (42,654   MSI-5050   WWY   WWY Naive American Monitoring   S   580   S   581   S   522   Manendment No. 38 Subtotal   S   (47,393)   S   (42,654   MSI-5073   AGH   AGH Encroachment Permit Fee   S   4,807   S   481   S   4,326   MSI-5073   AGH   AGH Encroachment Permit Fee   S   4,807   S   481   S   4,326   MSI-5075   LACFDEL New Phase I Work Rev. I   S   43,271   S   4,327   S   8,944   MSI-5076   LACFDEL New Phase I Work Rev. I   S   4,327   S   4,327   S   8,944   MSI-5068   SPH   SPH Lasse Exhibit Option Rev. I   S   1,065   S   107   S   959   MSI-5063   UNIV UNIV Recuperation of Cost for Day Tank for Cancelled Site   S   1,338   S   1,134   S   10,204   MSI-5071   MSI-5071   RIH   Location Change   S   37,705   S   3,771   S   33,935   MSI-5070   UNIV   New Phase I Work   S   51,024   S   5,102   S   45,922   MSI-5069   RPV1   New Phase I Work   S   54,696   S   5,470   S   49,226   MSI-5067   UNIV   Request for Road Repairs   S   14,425   S   1,443   S   12,943   MSI-5067   RHF   ACM-LCP Testing and Monitoring   S   1,2672   S   1,267   S   1,445   S   1,298   MSI-5078   CPK   Addition of Microwave Link from BHS to SPH   S   2,274   S   2,274   S   2,0466   MSI-5078   CPK   Addition of Microwave Link from BHS to SPH   S   2,274   S   2,274   S   2,0466   MSI-5078   CPK   Addition of Microwave Link   S   1,975   S   198   S   1,776   MSI-5061   SPH   Addition of Microwave Link   S   1,975   S   1,							, , ,		
MSI-5061   MDI   MDI 2nd GeoTechnical Engineering Services   \$ 7,588   \$ 759   \$ 6,829			Ü						, ,
MSI-5028   MDI   MDI Underground Utility Locator   \$ 756   \$ 76   \$ 680			1 V 1 V						
MSI-5029   MDI   MDI Addition Topo Survey   \$ 2,100   \$ 210   \$ 1,890								<u> </u>	-
MSI-5050   WWY   WWY Native American Monitoring   \$ 580   \$ 58   \$ 522								+	
MSI-5073   AGH   AGH Encroachment Permit Fee   \$   4,807   \$   481   \$   4,326				_				\$	
MSI-5073   AGH   AGH Encroachment Permit Fee   \$   4,807   \$   481   \$   4,326   MSI-5045   CCB   CCB   Abatement and Remediation Work   \$   13,125   \$   1,313   \$   1,1813   MSI-5076   LACFDEL   LACFDEL   New Phase I Work_Rev.I   \$   43,271   \$   43,271   \$   43,271   \$   38,944   MSI-5068   SPH   SPH Lease Exhibit Option_Rev.I   \$   1,065   \$   107   \$   5959   MSI-5063   UNIV   UNIV Recuperation of Cost for Day Tank for Cancelled Site   \$   1,338   \$   1,134   \$   1,0204   \$   1,040   \$   73,606   \$   7,361   \$   66,245   \$   4,000   \$   7,361   \$   66,245   \$   4,000   \$   7,361   \$   66,245   \$   4,000   \$   7,361   \$   66,245   \$   4,000   \$   7,361   \$   66,245   \$   4,000   \$   7,361   \$   66,245   \$   4,000   \$   4,00			Amendment No. 38 Subtotal			'		\$	
MSI-5073   AGH   AGH Encroachment Permit Fee   \$ 4,807   \$ 481   \$ 4,326				,	( Tryor by		(3,007)		(szyse s)
MSI-5045   CCB   CCB Abatement and Remediation Work   \$   13,125   \$   1,313   \$   11,813   MSI-5076   LACFDEL   LACFDEL New Phase I Work, Rev.1   \$   43,271   \$   43,271   \$   33,944   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   \$   MSI-5071   RIH   Location Change   \$   37,705   \$   3,771   \$   33,935   MSI-5070   UNIV   New Phase I Work   \$   5,1024   \$   5,102   \$   5,4922   MSI-5096   RPV1   New Phase I Work   \$   54,696   \$   5,470   \$   49,226   MSI-5096   RPV1   New Phase I Work   \$   54,696   \$   5,470   \$   49,226   MSI-5066   RPV1   Request for Road Repairs   \$   14,425   \$   1,443   \$   12,983   MSI-5067   RIFF   ACM-E-P-Testing and Monitoring   \$   4,425   \$   1,443   \$   12,983   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-5081   LMR   LARTCS VHF Frequency Changes   \$   4,804   \$   4,323   \$   4,804   \$   4,323   \$   4,804   \$   4,323   \$   4,804   \$   4,8	MSI-5073	AGH		\$	4.807	\$	481	\$	4.326
MSI-5076								<u> </u>	-
MSI-5068   SPH   SPH Lease Exhibit Option_Rev.1   S   1,065   S   107   S   959									
MSI-6017   RIH   Location Change   \$ 73,606   \$ 7,361   \$ 66,245	MSI-5068	SPH				_			
MSI-5071   RIH   Location Change   \$ 37,705   \$ 3,771   \$ 33,935	MSI-5063	UNIV	UNIV Recuperation of Cost for Day Tank for Cancelled Site	\$	11,338	\$	1,134	\$	10,204
MSI-5071   RIH   Location Change   \$ 37,705   \$ 3,771   \$ 33,935     MSI-5070   UNIV   New Phase I Work   \$ 51,024   \$ 5,102   \$ 45,922     MSI-5069   RPV1   New Phase I Work   \$ 54,696   \$ 5,470   \$ 49,226     MSI-5042   INDWT   Request for Road Repairs   \$ 14,425   \$ 1,443   \$ 12,936     MSI-5067   RHT   ACM/LCP Testing and Monitoring   \$			Amendment No. 39 Subtotal	\$	73,606	\$	7,361	\$	66,245
MSI-5070			Amendment No. 41						
MSI-5069   RPV1   New Phase I Work   \$ 54,696 \$ 5,470 \$ 49,226	MSI-5071	RIH	Location Change	\$	37,705	\$	3,771	\$	33,935
MSI-5042   INDWT   Request for Road Repairs   \$ 14,425 \$ 1,443 \$ 12,983	MSI-5070	UNIV	New Phase 1 Work	\$	51,024	\$	5,102	\$	45,922
MSI-5067   RHT   ACM/LCP Testing and Monitoring   \$	MSI-5069	RPV1	New Phase 1 Work	\$	54,696	\$	5,470	\$	49,226
MSI-5066   SPH   RF Engineering Coverage Assessment/Maps   \$ 12,672   \$ 1,267   \$ 11,405			^		14,425		1,443	\$	12,983
MSI-5072			Ţ Ţ	\$	<del>-</del>	\$		\$	
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         \$ 2,200         \$ 220         \$ 1,980           Amendment No. 41 Subtotal         \$ 245,478         \$ 24,548         \$ 220,930           Amendment No. 42 Subtotal         \$ 51,604         \$ 5,160         \$ 46,444           MSI-6017         RIH         Addition of Microwave Link         \$ 61,638         \$ 6,164         \$ 55,474           MSI-6016         SPH         Addition of Microwave Link         \$ 74,711         \$ 7,471         \$ 67,240           MSI-6015         UNIV         Addition of Microwave Link         \$ 187,953         \$ 18,795         \$ 169,158           Amendment No. 43 and Amendment No. 44 Subtotal         \$ 187,953         \$ 18,795         \$ 169,158           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					-				
MSI-5081								\$	
MSI-5087   MTL2   Road Repair Design   \$ 2,200   \$ 220   \$ 1,980								-	
Amendment No. 41 Subtotal   \$ 245,478   \$ 24,548   \$ 220,930			1 , 0	_					-
MSI-6017   RIH   Addition of Microwave Link   \$ 51,604   \$ 5,160   \$ 46,444	MS1-5087	M1L2	, · · · ·						
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           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         \$ 39,050         \$ 35,145           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					245,478	Þ	24,548	Þ	220,930
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         \$ 330,000         \$ 35,145           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	MSI 6017	DILI			51.604	Φ	5 160	Φ.	16 111
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           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         \$ 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					-			<u> </u>	
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. 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	WIST 0013								•
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           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		Amenume		Ψ	101,755	Ψ	10,775	Ψ	107,130
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	MSI-6018	LPC		\$	19.740	\$	1.974	\$	17.766
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			· · · · · · · · · · · · · · · · · · ·		-			<u> </u>	•
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					•	_	,		•
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									
MSI-6030 JPK/RHT/VPK Tower Top Amplifier Upgrade for Early Deployment Site Transition \$ 45,728 \$ 4,573 \$ 41,155	MSI-6043	POM		\$	330,000	\$	33,000	\$	297,000
	MSI-6030	JPK/RHT/VPK	Tower Top Amplifier Upgrade for Early Deployment Site Transition	+ -	-		-	<u> </u>	-
/MIGHUHUM 100. 70 (MIHUM)   1 // 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1			Amendment No. 46 Subtotal	\$	375,728	\$	37,573	\$	338,155

Change Order Number	Site ID	Item/Category		ract Sum - le Amount	10% Holdback Amount		yable Amount Less 10% dback Amount	
		Amendment No. 47						
MSI-6023	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	\$	<del>-</del>	\$	\$	<del>-</del>	
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	\$	710,217	\$ 71,022	\$	639,196	
3.50X 40.44	AGY	Amendment No. 48			1	1		
MSI-6064	AGH	Easement Payment	\$	4,055	\$ 406	\$	3,650	
MSI-6062	TOP	Monopole Painted Neutral Brown	\$	6,104	\$ 610	\$	5,494	
MSI-6050	LARICS	Core and Site Router/Switch Upgrade	\$	-	\$ -	\$	-	
		Amendment No. 48 Subtotal	\$	10,159	\$ 1,016	\$	9,143	
Marcoci		Amendment No. 49	Φ.	110.000	44.000	Φ.		
MSI-6061	Various	New Antenna Models and Powder Coating	\$	110,000	\$ 11,000	\$	99,000	
MSI-6067	MTL2	Removing impediments to road access caused by erosion to the site	Ф		¢.	ф		
MSI-6069	LARICS	road, etc Audio Loopback	\$	-	\$ -	\$	-	
WIS1-0009	LAKICS	1	\$	110,000	\$ -	\$	99,000	
			Φ	110,000	\$ 11,000	\$	99,000	
MSI-6076	PRG/AGH		\$	13 678	¢ 1.368	\$	12,310	
MSI-6077	PRG	-					34,754	
1,151 0077	1110	1	Ψ	30,013	φ 3,802	φ	34,734	
MSI-6086	BJM/TWR	Services	\$	221.211	\$ 22.121	\$	199,090	
MSI-6079	MML	MML Buried Concrete and Rebar Removal	\$		\$ 10,160	\$	91,444	
		Amendment No. 50 Subtotal	\$			\$	337,597	
			Ψ	070,200	ψ 07,011	Ψ	001,051	
MSI-6094/		Amendment No. 51						
MSI-7014	FCCF/PLM	Leased Fiber Link between FCCF and PLM	\$	11 617	\$ 1.162	\$	10,455	
MSI-6096	ССВ		+	11,017	,	+ -	10,433	
WIS1-0090	ССБ			-	·	\$	-	
		Amendment No. 51 Subtotal	\$	11,617	\$ 1,162	\$	10,455	
		Amendment No. 49 Subtotal   \$ 110,000 \$ 11,000						
MSI-7005	CPK	Road Work for Access	\$	23,393	\$ 2,339	\$	21,054	
MSI-7007	СРК	Utility Power Provision to CPK Site	\$	10.966	\$ 1.097	\$	9,869	
		Amendment No. 52 Subtotal	\$	34,359			30,923	
			φ	34,337	φ 3,430	φ	30,923	
		Amendment No. 53						
MSI-7003	Various	VIAMM Multiple Site Implementation	\$	186,594	\$ 18,659	\$	167,935	
MSI-7010	MDI	Utility Power Work	\$	155,866	\$ 15,587	\$	140,279	
		Amendment No. 53 Subtotal	\$	342,460	\$ 34,246	\$	308,214	
MCI FOLL	DDI/	Amendment No. 54						
MSI-7011	RPVT	Utility Power Survey Services	\$	11,000	\$ 1,100	\$	9,900	
MSI-7012	WMP and WTR	Utility Power Work  Subgrade Congrete Structure Evaluation Services	\$	121,895	\$ 12,190	\$	109,706	
MSI-7015	СРК	Subgrade Concrete Structure Evaluation Services	\$	5,812	\$ 581	\$	5,231	
		Amendment No. 54 Subtotal	\$	138,707	\$ 13,871	\$	124,836	
MSI-7013	TOP	Amendment No. 55 Outdoor Power System and Equipment	¢	107 107	¢ 10.610	Φ	177.510	
14191-7013	101	Amendment No. 55 Subtotal	\$   <b>\$</b>	196,126 <b>196,126</b>	\$ 19,613 \$ 10,613		176,513	
			Ф	190,120	\$ 19,613	Ф	176,513	
MSI-7008	TOP	Amendment No. 56 Biota Reports	\$	13,972	\$ 1,397	•	12,575	
17101 7000	101	Diom Hopotu	φ	13,7/2	φ 1,397	Φ	12,373	

Change Order Number	Site ID	Item/Category				% Holdback Amount		able Amount Less 10% back Amount
		Amendment No. 56 Subtotal	\$	13,972	\$	1,397	\$	12,575
		Amendment No. 57						
MSI-7024	CPK	Removal of Subgrade Concrete Structure	\$	8,566	\$	857	\$	7,709
		Amendment No. 57 Subtotal	\$	8,566	\$	857	\$	7,709
		Amendment No. 58						
MSI-7025	UNIV	_	\$	61,668	\$	,	\$	55,501
			\$	61,668	\$	6,167	\$	55,501
MSI-7049		, and the second						4,754
MSI-7044								6,187
MSI-7051								458
MSI-7045	MML	·						3,119
			\$	16,130	\$	1,613	\$	14,517
MSI-7060	W/TD		Δ.	10.700	Ф	1.050	ф	0.700
MS1-7060	WIR	-						9,709
				10,788	\$	1,079	\$	9,709
MSI-7064/		Amendment No. 64 and Amendment N	10.88					
MSI-7090	TWD	Survey for SCE Conveyance	Φ.	12 429	ø	1 242	d.	11 105
WISI-7090								11,185 <b>11,185</b>
	Amenan		Ф	12,428	Ф	1,243	Ф	11,185
MSI-7072	UNIV		¢	8 404	Φ	840	Φ	7,645
MSI-7067		•						6,872
WIST 7007	Tita						_	14,517
			Ψ	10,130	Ψ	1,015	Ψ	14,517
MSI-7077	BUR1		\$	17.412	\$	1.741	\$	15,671
				-				15,671
		Amendment No. 86				,		,
MSI-7080		LMR DTVRS UHF Information Only Coverage Testing	\$	-	\$	-	\$	-
MSI-7085	GRM	Surveying for Power Easement	\$	6,197	\$	620	\$	5,577
MSI-7084	PMT	Road Maintenance	\$	5,241	\$	524	\$	4,717
MSI-7086	WMP	Road Maintenance	\$	2,948	\$	295	\$	2,653
		Amendment No. 86 Subtotal	\$	14,386	\$	1,439	\$	12,947
		Amendment No. 88						
		_						
MSI-7083			\$	15,518	\$	1,552	\$	13,966
MSI-7089	BKK		\$	414	\$	41	\$	373
MSI-7091		*	\$	-	\$	-	\$	-
			\$	15,932	\$	1,593	\$	14,339
) (GI 7002	******							
MSI-7092	UNIV	**						54,645
			\$	60,717	\$	6,072	\$	54,645
MCI 7006	Wasi aaa		φ.		ф		Ф	
MSI-7096				- 14.006	-	1 101		12.225
MSI-7098	ONK/SGH/CC		· ·					13,325
			\$	14,806	\$	1,481	\$	13,325
MSI-7100	SCH SDH		¢.	140.276	Φ	14.020	Ф	122 520
MSI-7100 MSI-7099	·	•						133,538
14101-7077	I TCCI							3,712 <b>137,250</b>
			Φ	152,500	Ф	15,250	Ф	157,250
MSI-7103	Site ID		10,455					
14101-7103	i CCI, i Livi							10,455
			Ψ	11,017	Ψ	1,102	Ψ	10,700

	nge Order umber	Site ID	Item/Category	Contract Sum - Payable Amount		Payable Amount Less 10% Holdback Amount
TOT	AL FOR	ALL LMR CH	ANGE ORDER MODIFICATIONS	\$ 3,500,042	\$ 350,004	\$ 3,150,038

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

# SCHEDULE OF PAYMENTS EXHIBIT C.21 - LMR UNILATERAL AMENDMENTS

Site ID	Previous RFQ No. or MSI Change Order No.	Change Unilateral COR No. Amendment Vinilateral Description Exhibit C.14 Unit Pricing/Section No.			Contract Sum - Payable Amount	10% Holdback Amount	Payable Amount Less 10% Holdback Amount	
				Amendment No. 60 - U	Inilateral Amendment No. 1			
DPK	LMR-COR 7047	DPK COR 002 Unilateral	Amendment No. 60/ Unilateral Amendment No. 1	Utility Power Work	Exhibit C.14 (Contractors Response to Appendix I (Pricing Requirements – Unscored Options), in particular Section 2.7.1.g	\$ 10,676	\$ 1,068	\$ 9,608
FRP	LMR-COR 7039	FRP COR 001 Unilateral	Amendment No. 60/ Unilateral Amendment No. 1	Utility Power Work	Exhibit C.14 (Contractors Response to Appendix I (Pricing Requirements – Unscored Options), in particular Section 2.7.1.g	\$ 10,676	\$ 1,068	\$ 9,608
MIR	RFQ LMR-0046	MIR COR 007- Unilateral-	Amendment No. 60/ Unilateral Amendment- No. 1	Existing Tower Removal	Exhibit C.14 (Contractors Response to Appendix I (Pricing Requirements — Unscored Options), in particular, Section 3.9.c, Section 1.3.5.B, and Section 1.2.a	\$ _	\$ -	\$ -
MTL2	LMR-COR 7040	MTL2 COR 006 Unilateral	Amendment No. 60/ Unilateral Amendment No. 1	Utility Power Work	Exhibit C.14 (Contractors Response to Appendix I (Pricing Requirements – Unscored Options), in particular Section 2.7.1.f	\$ 8,378	\$ 838	Ψ
WIILZ	EMIK-COK 7040	Offilateral	110. 1	<u> </u>	ment No. 60 - Unilateral Amendment No. 1 Subtotal	•	\$ 2,973	
					Unilateral Amendment No. 2	23,100	2,510	20,101
RPVT	LMR-COR 7042/ LMR-COR 7048	RPVT COR 004 Unilateral	Amendment No. 61/ Unilateral Amendment No. 2	Concrete Debris Removal	Attachment B to Amendment No. 61/ Unilateral Amendment No. 2	\$ 257,862	\$ 25,786	\$ 232,076
				Amendn	nent No. 61 - Unilateral Amendment No. 2 Subtotal		\$ 25,786	
				Amendment No. 62 - U	Inilateral Amendment No. 3			
ESR	LMR-COR 7056	ESR COR 005 Unilateral	Amendment No. 62/ Unilateral Amendment No. 3	Access Road Improvement	Amendment No. 62/ Unilateral Amendment No. 3	\$ 14,205	\$ 1,421	\$ 12,785
				Amandmant No. 65. I	Amendment No. 62 - Unilateral Amendment No. 3	\$ 14,205	\$ 1,421	\$ 12,785
SPH	LMR-COR 7053	SPH COR 006 Unilateral	Amendment No. 65/ Unilateral Amendment No. 4	Reconcilation of Phase 2 Work	Attachment B to Amendment No. 4  Attachment B to Amendment No. 65/ Unilateral Amendment No. 4 (\$1,190,563  Contemplated in C.3 - Phase 2, incremental increase of \$945,937 as \$244,626 was already contemplated in the Agreement)	\$ -	\$ -	\$ -
					Amendment No. 65 - Unilateral Amendment No. 4	\$ -	\$ -	\$ -
				Amendment No. 66 - U	Unilateral Amendment No. 5			
			Amendment No. 66/		Exhibit C.14 (Contractors Response to Appendix I (Pricing Requirements – Unscored Options), in particular Section 2.7.4.g	\$ 76,587	\$ 7,659	\$ 68,928
MML	LMR-COR 7065	MML COR 006 Unilateral	Unilateral Amendment No. 5	Utility Power Work	Attachment B to Amendment No. 66/ Unilateral Amendment No. 5	\$ 27,757	\$ 2,776	\$ 24,981
THITE	EMIC COIL 1000	Cimaterar	1,0.5	Cunty 10 wer work	Amendment No. 66 - Unilateral Amendment No. 5	·	·	·
				Amendment No. 67 - U	Unilateral Amendment No. 6			
ВЈМ	LMR-COR 7031	BJM COR 002 Unilateral	Amendment No. 67/ Unilateral Amendment No. 6	Rock Coring for Caisson	Amendment No. 67/ Unilateral Amendment No. 6	\$ 60,220	\$ 6,022	\$ 54,198
					Amendment No. 67 - Unilateral Amendment No. 6	\$ 60,220	\$ 6,022	\$ 54,198
				Amendment No. 68 - U	Unilateral Amendment No. 7			
СРК	LMR-COR 7026	CPK COR 009 Unilateral	Amendment No. 68/ Unilateral Amendment No. 7	Rock Coring for Caisson	Amendment No. 68/ Unilateral Amendment No. 7	\$ 78,061		
				Amondment No. 60 - I	Amendment No. 68 - Unilateral Amendment No. 7 Unilateral Amendment No. 8	\$ 78,061	\$ 7,806	\$ 70,255
DPK	LMR-COR 7032	DPK COR 001 Unilateral	Amendment No. 69/ Unilateral Amendment No. 8	Rock Coring for Caisson	Amendment No. 69/ Unilateral Amendment No. 8	\$ 66,682	\$ 6,668	\$ 60,014
				2	Amendment No. 69 - Unilateral Amendment No. 8	·	\$ 6,668	·
				Amendment No. 70 - U	Unilateral Amendment No. 9			
GRM	LMR-COR 7030	GRM COR 003 Unilateral	Amendment No. 70/ Unilateral Amendment No. 9	Rock Coring for Caisson	Amendment No. 70/ Unilateral Amendment No. 9	\$ 31,320		
				Amondment No. 71 - L	Amendment No. 70 - Unilateral Amendment No. 9 Inilateral Amendment No. 10	\$ 31,320	\$ 3,132	\$ 28,188
A CECES	LMD COD ZOZ	LACF072 COR	Amendment No. 71/ Unilateral Amendment		Amendment No. 71/			
LACF072	LMR-COR 7034	003 Unilateral	No. 10		Unilateral Amendment No. 10  Amendment No. 71 Unilateral Amendment No. 10	\$ 3,367 \$ 3,367	\$ 337	\$ 3,030
					Amendment No. 71 - Unilateral Amendment No. 10 Inilateral Amendment No. 11	\$ 3,367	\$ 337	\$ 3,030
DDV /m	LMD COD ZOCO	RPVT COR 003	Amendment No. 72/ Unilateral Amendment		Amendment No. 72/	0.00		
RPVT	LMR-COR 7029	Unilateral	No. 11	Rock Coring for Caisson	Unilateral Amendment No. 11  Amendment No. 72 - Unilateral Amendment No. 11	\$ 8,044 <b>\$ 8,044</b>	\$ 804 <b>\$ 804</b>	·
						,		,

# SCHEDULE OF PAYMENTS EXHIBIT C.21 - LMR UNILATERAL AMENDMENTS

Site ID	Previous RFQ No. or MSI Change Order No.	ge Unilateral COR No. Amendment Vunlateral Amendment No. Description  Exhibit C.14 Unit Pricing/Section No. (Where Applicable)			Contract Sum - Payable Amount	10% Holdback Amount	Payable Amount Less 10% Holdback Amount	
				Amendment No. 73 - U	nilateral Amendment No. 12			
SPH	LMR-COR 7035	SPH COR 005 Unilateral	Amendment No. 73/ Unilateral Amendment No. 12	<u> </u>	Amendment No. 73/ Unilateral Amendment No. 12	\$ 7,761		·
					Amendment No. 73 - Unilateral Amendment No. 12 nilateral Amendment No. 13	\$ 7,761	\$ 776	\$ 6,985
			Amendment No. 74/	Amendment No. 74 - 0	imaterai Amendment No. 15			
TWR	LMR-COR 7033	TWR COR 001 Unilateral	Unilateral Amendment No. 13	Rock Coring for Caisson	Amendment No. 74/ Unilateral Amendment No. 13	\$ 54,558	\$ 5,456	\$ 49,102
					Amendment No. 74 - Unilateral Amendment No. 13	\$ 54,558	\$ 5,456	\$ 49,102
	ı	1		Amendment No. 75 - U	nilateral Amendment No. 14		<u> </u>	<u> </u>
RPVT	LMR-COR 7068	RPVT COR 006 Unilateral	Amendment No. 75/ Unilateral Amendment No. 14	Utility Power Work	Attachment B to Amendment No. 75/ Unilateral Amendment No. 14	\$ 286,577	\$ 28,658	\$ 257,919
					Amendment No. 75 - Unilateral Amendment No. 14	·	·	
				Amendment No. 76 - U	nilateral Amendment No. 15			
TOD Dalou	LMP COP 7000	Relay COR 001R2	Amendment No. 76/ Unilateral Amendment	Zanina Annliastian	Attachment A to Amendment No. 76/	ф 24.740	0.474	ф 22.2 <i>cc</i>
TOP Relay	LMR-COR 7069	Unilateral	No. 15	Zoning Application	Unilateral Amendment No. 15	\$ 24,740	·	
					Amendment No. 76 - Unilateral Amendment No. 15 nilateral Amendment No. 16	\$ 24,740	\$ 2,474	\$ 22,266
BUR	LMR-COR 7046	BUR1 COR 003- Unilateral-	Amendment No. 78/ Unilateral Amendment No. 16	Utility Power Work	Exhibit C.14 (Contractors Response to Appendix I- (Pricing Requirements – Unscored Options), in- particular Section 2.7.1.c	\$ -	\$ -	\$ -
					Amendment No. 78 - Unilateral Amendment No. 16		\$	\$ -
				Amendment No. 79 - U	nilateral Amendment No. 17			
SPH	LMR-COR 7073	SPH COR 007 Unilateral	Amendment No. 79/ Unilateral Amendment No. 17	Utility Power Work	Exhibit C.14 (Contractors Response to Appendix I (Pricing Requirements – Unscored Options), in particular Section 2.7.4.g	\$ 41,045	\$ 4,105	\$ 36,941
2111	Zivire d'art / d', d	C 333400 2 442	1,0,1,	*	Amendment No. 79 - Unilateral Amendment No. 17		·	
				Amendment No. 80 - U	nilateral Amendment No. 18			
			Amendment No. 80/					
BUR1	LMR-COR 7054	BUR1 COR 004 Unilateral	Unilateral Amendment No. 18	Rock Coring for Caisson	Amendment No. 80/ Unilateral Amendment No. 18	¢ 19.060	¢ 1.90 <i>c</i>	¢ 17.064
DUKI	LWR-COR 7034	Offilateral	110. 16		Amendment No. 80 - Unilateral Amendment No. 18	\$ 18,960 <b>\$ 18,960</b>	·	•
					nilateral Amendment No. 19	10,000	_,_,_	Ţ
VARIOUS	LMR-COR-7074	LMR COR 041R1 Unilateral	Amendment No. 84/ Unilateral Amendment No. 19	USFS Sites Field Implementation of VIAMM	Attachment A to Amendment No. 84/ Unilateral Amendment No. 19	ф 170.000	ф. 16.003	d 152.025
VARIOUS	LWR-COR-7074	Offilateral	110. 19			\$ 168,928	·	
					Amendment No. 84 - Unilateral Amendment No. 19 nilateral Amendment No. 20	\$ 168,928	\$ 16,893	\$ 152,035
			Amendment No. 87/	Amendment No. 87 - U	Exhibit C.14 (Contractors Response to Appendix I			
RHT	LMR-COR-7081	LMR COR 005 Unilateral	Unilateral Amendment No. 20	Ice Bridge	(Pricing Requirements – Unscored Options), in particular Section 2.3A	\$ 5,266	\$ 527	\$ 4,739
					Amendment No. 87 - Unilateral Amendment No. 20	\$ 5,266	\$ 527	\$ 4,739
				Amendment No. 89 - U	nilateral Amendment No. 21			
JPK2, LPC, MML	LMR-COR-7082	LMR COR 044 Unilateral	Amendment No. 89/ Unilateral Amendment No. 21	USFS Sites Field Implementation of VIAMM	Attachment A to Amendment No. 89/ Unilateral Amendment No. 21	\$ 22,297	\$ 2,230	\$ 20,067
					Amendment No. 89 - Unilateral Amendment No. 21	\$ 22,297	\$ 2,230	\$ 20,067
				Amendment No. 93 - U	nilateral Amendment No. 22			
SGH	LMR-COR-7097	LMR COR 006R1 Unilateral	Amendment No. 93/ Unilateral Amendment No. 22	Additional EM Measurements	Amendment No. 93/ Unilateral Amendment No. 22	\$ 7,994	\$ 799	\$ 7,195
5511		- Illianorui	110. 22					
					Amendment No. 93 - Unilateral Amendment No. 22 nilateral Amendment No. 23	φ 7,994	799	\$ 7,195
			Amendment No. 94/	Amendment No. 94 - U	mnateral Amendment No. 25			
BKK	LMR-COR-6021	BKK COR 003R Unilateral	Unilateral Amendment No. 23	Tower Equipment Removal	Attachment A to Amendment No. 94/ Unilateral Amendment No. 23	\$ 4,329	\$ 433	\$ 3,896
					Amendment No. 94 - Unilateral Amendment No. 23	\$ 4,329	\$ 433	\$ 3,896
				Amendment No. 95 - U	nilateral Amendment No. 24			
LACFDEL	LMR-COR-6010	LACFDEL COR 006 Unilateral	Amendment No. 95/ Unilateral Amendment No. 24	Subsurface Investigation Soil Sampling	Attachment A to Amendment No. 95/ Unilateral Amendment No. 24	\$ 13,099	\$ 1,310	\$ 11,789
		1		, ,	Amendment No. 95 - Unilateral Amendment No. 24			
					nilateral Amendment No. 25	13,079	1,510	11,709
				-American Garage	Imacer ar 14 menament 1 (0. 25			

# SCHEDULE OF PAYMENTS EXHIBIT C.21 - LMR UNILATERAL AMENDMENTS

Site ID	Previous RFQ No. or MSI Change Order No.	Unilateral COR No.	Amendment/ Unilateral Amendment No.	Description	Exhibit C.14 Unit Pricing/Section No. (Where Applicable)	Contract Sum - Payable Amount		10% Holdback Amount	Payable Amount Less 10% Holdback Amount	
MIR	LMR-COR-6056	MIR COR 006R Unilateral	Amendment No. 96/ Unilateral Amendment No. 25	New Location Design/Permitting Phase 1 work and Additional Slope Stability	Attachment A to Amendment No. 96/ Unilateral Amendment No. 25	\$	26,197	\$ 2,620	\$ 23,577	
					Amendment No. 96 - Unilateral Amendment No. 25	\$	26,197	\$ 2,620	\$ 23,577	
				Amendment No. 97 - U	nilateral Amendment No. 26					
SGH	LMR-COR-5092	SGH COR 005 Unilateral	Amendment No. 97/ Unilateral Amendment No. 26	Easement Termination Work	Attachment A to Amendment No. 97/ Unilateral Amendment No. 26	\$	3,881	\$ 388	\$ 3,493	
					Amendment No. 97 - Unilateral Amendment No. 26	\$	3,881	\$ 388	\$ 3,493	
				Amendment No. 98 - U	nilateral Amendment No. 27					
ESR	LMR-COR-5009	ESR COR 002 Unilateral	Amendment No. 98/ Unilateral Amendment No. 27	Additional Topography Work	Attachment A to Amendment No. 98/ Unilateral Amendment No. 27	\$	2,100	\$ 210	\$ 1,890	
	Amendment No. 98 - Unilateral Amendment No. 27							\$ 210	\$ 1,890	
				Amendment No. 100 - U	Unilateral Amendment No. 28					
DPK, TWR	LMR-COR-7102	LMR COR 051 Unilateral	Amendment No. 100/ Unilateral Amendment No. 28	Specialty Fencing	Attachment A to Amendment No. 100/ Unilateral Amendment No. 28	\$	48,907	\$ 4,891	\$ 44,016	
				A	mendment No. 100 - Unilateral Amendment No. 28	\$	48,907	\$ 4,891	\$ 44,016	
				Amendment No. 101 - U	Unilateral Amendment No. 29					
PMT	LMR-COR-7105	PMT COR 005 Unilateral	Amendment No. 101/ Unilateral Amendment No. 29	Road Maintenance	Attachment A to Amendment No. 101/ Unilateral Amendment No. 29	\$	4,887	\$ 489	\$ 4,398	
				A	mendment No. 101 - Unilateral Amendment No. 29	\$	4,887	\$ 489	\$ 4,398	
				TOTAL FOR ALL	LMR UNILATERAL AMENDMENTS	\$ 1,3	395,361	\$ 139,536	\$ 1,255,825	

# SCHEDULE OF PAYMENTS EXHIBIT C.22 - LMR SUBSYSTEM ACCEPTANCE PAYMENT SCHEDULE

TOTAL HOLDBACK AS OF AMENDMENT NO. 103	HOLDBACK
Phases 1 to 4 Holdback	\$13,570,061
LMR Change Order Modifications Holdback	\$350,004
LMR Unilateral Amendments Holdback	\$139,536
MPLS Mobile Backhaul Holdback	\$220,000
SUBSYSTEM HOLDBACK TOTAL	\$14,279,601

	COMPLETION ACCEPTANCE			TESTING			HOLDBACK				
Subsystem	Date of Completion	Percentage	Payment of Subsystem Phase 4 Completion Acceptance	Testing Percentage	Subsystem Acceptance Testing	Coverage Acceptance Testing	Release of Holdback of Coverage Testing	Release of Holdback at each Subsystem Acceptance	Release of \$1.5M of Holdback at Final Acceptance	Release of 5% of Holdback One Year After System Acceptance	Total
IMDN (Phase 1)	9/28/2022	10%	\$921,735			\$176,709		\$555,371	\$149,481	\$707,315	\$2,510,611
OTVRS (17 Cells/Sites out of 33 Cells/Sites)	6/6/2022	55%	\$0	50%		\$614,710	\$68,301	\$0	\$0	\$0	\$683,011
OTVRS (16 Cells/Sites out of 33 Cells/Sites)	1/23/2023	3376	\$5,069,545	30 76		\$578,550	\$64,283	\$2,956,932	\$826,817	\$3,945,050	\$13,441,177
ARTCS	6/9/2023	10%	\$921,735	25%		\$596,630	\$66,292	\$489,079	\$149,481	\$707,315	\$2,930,532
ACVRS	6/21/2023	20%	\$1,843,471	25%		\$596,630	\$66,292	\$1,050,075	\$300,000	\$1,426,811	\$5,283,279
MDN (Phase 2) Completion final System Documentation	8/18/2023	5%	\$460,868					\$270,734	\$74,221	\$347,570	\$1,153,392
Functional Test Acceptance 80%	6/6/2022				\$304,662			\$16,926		\$21,157	\$342,745
Functional Test Acceptance 20%					\$76,166			\$4,231			\$80,397
Special Operational Test Acceptance					<del>\$0</del>			<del>\$0</del>		<del>\$0</del>	<del>\$0</del>
Stress Test Acceptance					<del>\$0</del>			<del>\$0</del>		<del>\$0</del>	<del>\$0</del>
oice Aerial Coverage Test Acceptance					<del>\$0</del>			<del>\$0</del>		<del>\$0</del>	<del>\$0</del>
oice Waterway Coverage Test Acceptance					<del>\$0</del>			<del>\$0</del>		<del>\$0</del>	<del>\$0</del>
oice Subscriber Access Test Acceptance					\$95,207			\$5,289		\$5,289	\$105,785
IMDN CAD Baseline System Test Acceptance					\$47,603			\$2,645		\$2,645	\$52,893
inalSystem Acceptance		100%	\$9,217,354	100%	\$523,638	\$2,563,229	\$265,169	\$5,351,281	\$1,500,000	\$7,163,151	\$26,583,822