

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



ITEM: 3.23
(ID # 15421)

MEETING DATE:

Tuesday, June 15, 2021

FROM: RIVERSIDE COUNTY INFORMATION TECHNOLOGY AND SHERIFF-CORONER-PA and PSEC STEERING COMMITTEE:

SUBJECT: RIVERSIDE COUNTY INFORMATION TECHNOLOGY, SHERIFF-CORONER-PA and PSEC STEERING COMMITTEE: Approve the Memorandum of Understanding (MOU) with the City of Murrieta to expand PSEC radio coverage as approved by the PSEC Steering Committee to increase public safety communications. All Districts. [Total Cost \$659,763, which includes contingency of \$39,462; RCIT PSEC Funded - \$92,000, City of Murrieta funded - \$528,301]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the Memorandum of Understanding (MOU) with the City of Murrieta (Attachment A) for Hollingsworth Site Simulcast Cell Installation in an amount not to exceed \$659,763 for the site addition to the PSEC system, and authorize the Chair of the Board to sign three (3) copies of the MOU on behalf of the County;

Continued on Page 2

ACTION: Policy, 4/5 Vote Required

Jim Smith

Jim Smith, Chief Information Officer

5/26/2021

Dennis Vrooman

Dennis Vrooman, Assistant Sheriff

5/26/2021

Chad A. Stoughton

Chad A. Stoughton, Acting Chairman of the PSEC Steering Committee

5/26/2021

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Washington, seconded by Supervisor Jeffries and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Spiegel, Washington, Perez, and Hewitt
Nays: None
Absent: None
Date: June 15, 2021
xc: RCIT, Sheriff, PSEC, Auditor

Kecia R. Harper

Clerk of the Board

By: *[Signature]*
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

RECOMMENDED MOTION: That the Board of Supervisors:

2. Approve Change Order #CA19I270A-03 (Attachment B) for Project "Riverside County Channel Add/Critical Connect" with Motorola Solutions, Inc. (MSI) to enhance PSEC coverage in the critical areas of the City of Murrieta in the amount of \$620,301, and authorize the Chair of the Board to sign three (3) copies of the Change Order on behalf of the County;
3. Authorize the Purchasing Agent, in accordance with Ordinance No. 459, based on the availability of fiscal funding and as approved as to form by County Counsel to: (1) sign amendments that exercise the options of the MOU including modifications of Attachment A of the MOU that stay within the intent of the MOU; and (2) sign amendments to the MOU that increase the compensation amount up to \$39,462 for unforeseen installation labor and equipment costs; and,
4. Approve and direct the Auditor-Controller to make the budget adjustments per attached Schedule A.

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FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$ 659,763	\$ 0	\$ 659,763	\$ 0
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0
SOURCE OF FUNDS: RCIT PSEC Funded - 20%, City of Murrieta Revenue - 80%			Budget Adjustment: Yes	
			For Fiscal Year: 20/21	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

On January of 2014, the County of Riverside Public Safety Enterprise Communications (PSEC) radio system went live, and the Sheriff and Fire departments began operating on the new radio system. Since then, at the recommendation of the Grand Jury and the Board of Supervisors, other cities have joined the PSEC system, realizing the County's vision of making it a truly regional radio system. This has been a great achievement for the County of Riverside and its City partners inside the county.

RCIT, working together with the PSEC user groups, have evaluated the radio coverage performance across the south-western end of the County. Specifically, areas within the City of Murrieta have coverage deficiencies that impact the local police department and County agencies operations including County Fire and Sheriff. RCIT has identified the Hollingsworth location that will provide significant coverage enhancement to the system. The coverage improvements will impact high density areas that include apartment buildings, major shopping centers and large neighborhoods. The removal of these coverage "dead spots" will result in increased operational support for all emergency responders and will result in greater safety of those first responders and the community in general.

RCIT, working in partnership with the City of Murrieta, is requesting to add one remote simulcast site to the Southwest Cell of the PSEC communication system. The additional site will expand the coverage performance of that cell and resulting in greater beneficial use in the area. The project will include the design, staging, shipment, and installation of the site equipment including backup generators, fuel tanks and radio towers. The Memorandum of Understanding (MOU) with the City of Murrieta will provide the reimbursement mechanism and define the roles and responsibilities through which the parties will work together to accomplish the goal of installing and maintaining one additional radio site.

Impact on Residents and Businesses

There is no negative impact on residence and businesses with the approval of this MOU. Public safety agencies in Riverside County rely on the PSEC system to provide communications for first responders and emergency management teams who serve and protect the community. The PSEC system provides critical countywide communication for these agencies. Enhancing coverage in this area will further improve communication for these agencies.

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Additional Fiscal Information

The total purchase cost includes the equipment and services in the amount of \$620,301 and contingency in the amount of \$39,462 for a total project cost not to exceed \$659,763.

ITEM	COST SHARE		
	Murrieta	County	TOTAL
MOTOROLA SERVICES AND EQUIPMENT QUOTE	\$528,301	\$ 92,000	\$620,301
PROJECT CONTIGENCY	\$ 0	\$ 39,462	\$ 39,462
TOTAL COST SHARE W/ CONTIGENCY	\$528,301	\$131,462	\$659,763

Contract History and Price Reasonableness

On December 11, 2018, the Board approved the Communications System and Services Agreement (agenda item 3.33) to replace the MDR 8000 microwave system with the upgraded Motorola Solutions system. The Board of Supervisors approved December 17, 2019 (agenda item 3.32) to amend the existing Communications System and Services Agreement to expand the channel capacity of their existing San Jacinto simulcast cell and to enable Critical Connect service. The increase in capacity added two additional channels at 12 remote sites, increasing the capacity of the San Jacinto simulcast cell to a total of 8 channels. On December 15, 2020 (agenda item 3.26), the Board approved a similar project, change order, and MOU with the City of Corona to expand PSEC radio coverage in the north-western portion of the county.

The subject procurement will be made under the terms and conditions of the current Cooperative Agreement, Contract No. RA05-18 which began May 1, 2018 and was Amended to be extended through July 31, 2021, between Houston-Galveston Area Council of Governments ("HGAC") and Motorola, as well as the Interlocal Cooperation Contract between California Joint Powers Insurance Authority, California and the State of Texas. This arrangement allows local government entities such as the County of Riverside to take advantage of the competitive pricing secured by HGAC, as referenced in the recitals of the Agreement. After a competitively bid process, HGAC's Cooperative Purchasing Program (also known as the H-GACBuy) awarded the contract to Motorola Solutions. Motorola Solutions Inc. can be directly contracted by the County and assured of best available pricing for the microwave equipment and Motorola services by using this Cooperative Agreement. Based on this this information the cost for the equipment is deemed to be "fair and reasonable." Ordinance 459 Section 5f allows the Purchasing Agent to utilize cooperative agreements.

Motorola continues to extend a 13% discount to the County of Riverside based on regional pricing for Los Angeles County.

ATTACHMENTS:

- A. City of Murrieta MOU
- B. City of Murrieta Change Order #CO19I270A-03 Hollingsworth Site and Attachment

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SCHEDULE A

Increase Appropriations:

45520-7400610000-546060	Equipment-Communications	\$ 659,763
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Anticipated Use of Unrestricted Net Assets

45520-7400610000-380100	Unrestricted Net Assets	\$ 659,763
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Tina Grande, Director of Purchasing and Fleet Services 5/28/2021


Venus Brambila, Deputy Director - Administration 6/9/2021


Gregory V. Priantos, Director County Counsel 6/2/2021

**THE COUNTY OF RIVERSIDE
AND THE CITY OF MURRIETA
MEMORANDUM OF UNDERSTANDING
FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION**

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**THE COUNTY OF RIVERSIDE
AND THE CITY OF MURRIETA
MEMORANDUM OF UNDERSTANDING**

FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

1.0 PURPOSE

This Memorandum of Understanding (“MOU”) is entered into by and between the County of Riverside, on behalf of its Riverside County Information Technology (“COUNTY”), and the City of Murrieta (“AGENCY”). This MOU provides the mechanism, and defines the roles and responsibilities, through which these parties will work together to accomplish the goal of installing and maintaining one additional radio site in the PSEC system.

COUNTY and AGENCY agree to the following roles, responsibilities, and accompanying terms and conditions, which will be effective immediately and remain in effect until terminated or modified as defined in Section 5.0 of this MOU.

2.0 SCOPE

COUNTY, in partnership with AGENCY, shall purchase and install one additional simulcast remote site into the Southwest simulcast cell of the COUNTY of Riverside Public Safety Enterprise Communications (“PSEC”) system (“Project”).

This scope of the Project includes installation of Motorola radio equipment and all other associated equipment required to establish an additional simulcast remote site with -six channels, as further described in Attachment B “Detailed Statement of Work and Additional Contributions” (“Radio Equipment”) on certain real property owned by “The Hollingsworth Trust” and is generally located at 26550 Pabesu Road City of Murrieta, County of Riverside (Assessor’s Parcel Number 392-090-007) and generally referred to as Hollingsworth(“Hollingsworth Site”).

The addition of the Hollingsworth Site increases the Southwest simulcast cell site count to quantity 12.

The COUNTY will be responsible for the following equipment and services:

1. COUNTY will provide procurement services for the Motorola equipment and services. The Motorola services will include design changes to the radio system, build, testing and shipment of the radio equipment.
2. The COUNTY will enter into agreement with The Hollingsworth Trust for land lease. The COUNTY will be financially responsible for the lease payment.
3. The COUNTY will provide a 12x26 shelter, 100-foot 3 leg steel tower including antenna mounts, and 50 Kw generator.
4. The COUNTY will serve as the procurement source for the Motorola equipment and services as defined in Attachment A “City of Murrieta and County of Riverside Radio Equipment Procurement”. The COUNTY will bill Murrieta for the cost of Motorola equipment and services.
5. The COUNTY will install, test, and optimize the Motorola equipment.

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FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

- 1 6. The COUNTY will provide services and all necessary resources to integrate the
- 2 Hollingsworth Site into the PSEC system.
- 3 7. The COUNTY will install radio equipment in the provided site shelter.
- 4 8. The COUNTY will install Radio antennas on the provided Tower.
- 5 9. The COUNTY will procure and install the NOKIA microwave backhaul link between the
- 6 Hollingsworth site and the City of Murrieta Police Department.
- 7 10. The COUNTY will assemble, configure, and optimize the NOKIA microwave backhaul
- 8 link.
- 9 11. The COUNTY will provide FCC and SCAQMD licensing services.
- 10 12. The COUNTY will participate with the AGENCY in testing the Radio Equipment for
- 11 functionality and coverage performance.
- 12 13. The COUNTY will update the PSEC system documentation to include the Radio
- 13 Equipment at the Hollingsworth Site.
- 14 14. The COUNTY will provide ongoing maintenance for the Radio Equipment.
- 15 15. The COUNTY will assume financial obligation for ongoing power costs.
- 16 16. The COUNTY will assume financial obligation for ongoing fueling for the generator.
- 17 17. The COUNTY will transport the shelter, generator, and tower to Hollingsworth Site.
- 18 18. The COUNTY will lease the generator propane fuel tank.

19
20 The AGENCY will provide the following equipment and services:

- 21 1. The AGENCY shall pay to COUNTY the amounts set forth in Section 15
- 22 "COMPENSATION" and Attachment A.
- 23 2. The AGENCY will provide 200-amp single phase commercial power to and interface to
- 24 the shelter.
- 25 3. The AGENCY will provide, install, and commission fuel lines between the generator and
- 26 the propane fuel tank. The AGENCY will connect the fuel lines to the generator.
- 27 4. The AGENCY will provide 1" conduit between the fuel tank and the PSEC shelter for
- 28 alarm wiring.
- 29 5. The AGENCY will participate with the COUNTY in testing the Radio Equipment for
- 30 functionality and coverage performance.
- 31 6. The AGENCY will provide all CEQA and planning activities necessary to permit
- 32 construction.
- 33 7. The AGENCY will provide for all construction activities to include grubbing and grading,
- 34 excavation, shelter and tower foundations and all necessary piping between propane fuel
- 35 tank and generator.
- 36 8. The AGENCY will provide all permits, and related inspections sign-off required for the
- 37 site and tower installation, commercial power connectivity and fuel tank installation.
- 38 9. The AGENCY will provide the Certificate of Occupancy prior to the COUNTY installing
- 39 equipment.

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FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

1 10. The AGENCY will provide a ground ring in the leased area that encompasses the tower
2 shelter and fuel tank. The ground ring shall meet the Motorola R56 grounding site
3 requirements including meeting the COUNTY administered 5-ohm inspection test.

4 11. The AGENCY will provide a comprehensive schedule for the project that reflects CEQA
5 and planning phases and all construction activity.
6

7 **3.0 OWNERSHIP AND MAINTENANCE OF RADIO EQUIPMENT.**

8 COUNTY will assume full ownership of the Radio Equipment, including, without limitation,
9 all ancillary support equipment (i.e. generators, fuel tanks etc), which will be integrated
10 into the PSEC system. To this end, upon completion of the installation of the ancillary
11 support equipment to be purchased and installed by AGENCY, COUNTY shall be the sole
12 owner of such equipment. AGENCY shall execute a deed, bill of sale or other document
13 evidencing AGENCY's transfer to COUNTY of ownership of such equipment.
14

15 COUNTY will monitor, maintain and repair the Radio Equipment subsequent to
16 installation and integration into the PSEC system. COUNTY will provide fuel for the PSEC
17 backup generators and COUNTY will assume financial responsibility for the reoccurring
18 monthly electric bill to provide power to the Radio Equipment at the Hollingsworth Site.
19 Once the Radio Equipment becomes operational and is connected to the PSEC system,
20 COUNTY will request the related electric service account be transferred to the COUNTY
21 and AGENCY will provide any authorization necessary to transfer the account to the
22 COUNTY. The Radio Equipment located at the Hollingsworth Site will undergo software
23 upgrades in alignment with the existing PSEC upgrade schedule.
24

25 All land lease agreements through The Hollingsworth Trust will be managed by the
26 COUNTY. The AGENCY will have no financial obligation or responsibility for the land lease
27 agreement.
28

29 **4.0 TERM**

30 This MOU shall be effective upon execution by the signature by the COUNTY and the
31 AGENCY's City Manager or their respective designees. The term of this MOU shall expire
32 upon the completion and commissioning of the site.
33

34 **5.0 AMENDMENT OR TERMINATION OF MOU**

35 This MOU, along with any incorporated attachments, fully expresses all understandings
36 of the parties concerning all matters covered and shall constitute the total MOU. No
37 addition to, or alteration of, the terms of this MOU whether by written or verbal
38 understanding of the parties, their officers, agents or employees, shall be valid unless
39 made in the form of a written amendment to this MOU formally approved and executed
40 by both COUNTY and AGENCY.

**THE COUNTY OF RIVERSIDE
AND THE CITY OF MURRIETA
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FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

1 This MOU may be amended at any time with the written concurrence of all parties. This
2 MOU can be terminated with or without cause by either party upon thirty (30) days
3 written notification to the other party. Termination of the MOU will take effect thirty (30)
4 days following receipt of the written notice of termination or upon effective date of
5 funding expiration. In the event this MOU is terminated by AGENCY prior to the Radio
6 Equipment being operational, AGENCY will be responsible for its portion of the cost and
7 payment of any equipment/services, as specified in Attachments “A” and “B” that were
8 ordered prior to the date AGENCY terminates the MOU. In the event this MOU is
9 terminated by COUNTY prior to the Radio Equipment being operational, COUNTY will be
10 responsible for its portion of the cost and payment of any equipment/services, as
11 specified in Attachments “A” and “B” that were ordered prior to the date COUNTY
12 terminates the MOU.
13

14 **6.0 AGENCY REPRESENTATIVES**

15 The following agency representatives will serve as the primary points of contact to
16 accomplish the terms of this MOU.
17

18 COUNTY: Public Safety Enterprise Communication
19 ATTN: Lieutenant Timothy Brause, PSEC Liaison
20 7195 Alessandro Blvd.
21 Riverside, CA 92596
22 951-955-0572
23

24 AGENCY: City of Murrieta
25 Attn: Police Chief
26 2 Town Square
27 Murrieta, CA 92562
28

29 **7.0 ROLES AND RESPONSIBILITIES**

30 7.1 AGENCY shall:

- 31 ● As defined in Attachment A “City of Murrieta and County of Riverside
32 Radio Equipment Procurement “

33
34 7.2 COUNTY shall:

- 35 ● As defined in Attachment A “City of Murrieta and County of Riverside
36 Radio Equipment Procurement”
37
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39

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AND THE CITY OF MURRIETA
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FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

8.0 RECORDS RETENTION

Each party agrees to retain all records pertaining to the MOU for the period indicated in their respective records retention schedule unless otherwise indicated by the source of funds or program legislation. If, at the end of the retention period, there is ongoing litigation or an audit involving those records, each party shall retain the original records until resolution of such litigation or audit.

9.0 CONFIDENTIALITY

All parties agree to maintain the confidentiality of all client information in accordance with all applicable Federal, State, and local laws and regulations. Both parties will ensure names, addresses, phone numbers, and any other individually identifiable information concerning clients and services received are kept confidential.

10.0 HOLD HARMLESS AND INDEMNIFICATION

Each party (referred to as “indemnitor”) shall indemnify and hold harmless the other party including its officers, employees and agents (referred to as “indemnitaries”) from any liability, damage, claim, or action based on or asserted upon any negligence or willful misconduct of indemnitor, its officers, employees, or agents related to this MOU, including but not limited to property damage, bodily injury or death. Indemnitor shall defend, at its sole expense (including all costs and fees, including but not limited to attorney fees, cost of investigation, defense and settlements or awards) in any claim or action based upon such acts or services.

11.0 ASSIGNMENT

This MOU shall not be assigned by any party hereto, either in whole or part, without prior written consent of the other party. Any assignment or purported assignment of this MOU without the prior written consent will be deemed void and of no force or effect.

12.0 LICENSE AND CERTIFICATIONS

All parties verify upon execution of this MOU, that all work performed pursuant to this MOU will, when applicable, possess a current and valid license/certification in compliance with any local, State, and Federal laws and will be performed by properly trained and licensed/certified staff.

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13.0 INSURANCE

13.1 COUNTY

A. Workers' Compensation:

If the COUNTY has employees as defined by the State of California, the COUNTY shall maintain statutory Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than \$1,000,000 per person per accident. The policy shall be endorsed to waive subrogation against of AGENCY, its directors, officials, officers, employees, agents and volunteers.

B. Commercial General Liability:

Commercial General Liability insurance coverage, including but not limited to, premises liability, unmodified contractual liability, products and completed operations liability, personal and advertising injury, and cross liability coverage, covering claims which may arise from or out of COUNTY'S performance of its obligations hereunder. Policy shall name the AGENCY, its directors, officials, officers, employees, agents and volunteers as Additional Insured. Policy's limit of liability shall not be less than \$2,000,000 per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this MOU or be no less than two (2) times the occurrence limit.

C. Vehicle Liability:

If vehicles or mobile equipment are used in the performance of the obligations under this MOU, then COUNTY shall maintain liability insurance for all owned, non-owned or hired vehicles so used in an amount not less than \$1,000,000 per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this MOU or be no less than two (2) times the occurrence limit. Policy shall name the AGENCY, its directors, officials, officers, employees, agents and volunteers as Additional Insureds.

D. General Insurance Provisions - All Policies:

1) The COUNTY must declare its self-insured retention for each coverage required herein. If any such self-insured retention exceeds \$500,000 per occurrence each such retention shall have the prior written consent of the AGENCY'S Risk Manager before the commencement of operations under this MOU. Upon notification of self-insured retention unacceptable to the AGENCY, and at the election of the County's Risk Manager, COUNTY'S carriers shall either; 1) reduce or eliminate such self-insured retention as respects this MOU, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses.

2) In the event of a material modification, cancellation, expiration, or reduction in coverage, this MOU shall terminate forthwith, unless AGENCY receives another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverage's set forth herein and the insurance required herein is in full force and effect. COUNTY shall not commence operations under this MOU until the AGENCY has been

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1 furnished original Certificate (s) of Insurance and certified original copies of
2 endorsements and if requested, certified original policies of insurance including all
3 endorsements and any and all other attachments as required in this Section. An individual
4 authorized by the insurance carrier to do so on its behalf shall sign the original
5 endorsements for each policy and the Certificate of Insurance.

6 3) It is understood and agreed to by the parties hereto that the COUNTY'S insurance
7 shall be construed as primary insurance, and the AGENCY'S insurance and/or deductibles
8 and/or self-insured retention's or self-insured programs shall not be construed as
9 contributory.

10 4) If, during the term of this MOU or any extension thereof, there is a material change
11 in the scope of services; or, there is a material change in the equipment to be used in the
12 performance of the scope of work; or, the term of this Agreement, including any
13 extensions thereof, exceeds five (5) years; the AGENCY reserves the right to adjust the
14 types of insurance and the monetary limits of liability required under this Agreement, if
15 in the AGENCY'S Risk Manager's reasonable judgment, the amount or type of insurance
16 carried by the COUNTY has become inadequate.

17 5) COUNTY shall pass down the insurance obligations contained herein to all tiers of
18 subcontractor working under this MOU.

19 6) The insurance requirements contained in this MOU may be met with a program(s)
20 of self-insurance acceptable to the AGENCY.

21 7) COUNTY agrees to notify AGENCY of any claim by a third party or any incident or
22 event that may give rise to a claim arising from the performance of this Agreement

23
24 **13.2 AGENCY**

25 **A. Workers' Compensation:**

26 If the AGENCY has employees as defined by the State of California, the AGENCY shall
27 maintain statutory Workers' Compensation Insurance (Coverage A) as prescribed by the
28 laws of the State of California. Policy shall include Employers' Liability (Coverage B)
29 including Occupational Disease with limits not less than \$1,000,000 per person per
30 accident. The policy shall be endorsed to waive subrogation against the COUNTY.

31 **B. Commercial General Liability:**

32 Commercial General Liability insurance coverage, including but not limited to, premises
33 liability, unmodified contractual liability, products and completed operations liability,
34 personal and advertising injury, and cross liability coverage, covering claims which may
35 arise from or out of AGENCY'S performance of its obligations hereunder. Policy shall name
36 the COUNTY as Additional Insured. Policy's limit of liability shall not be less than
37 \$2,000,000 per occurrence combined single limit. If such insurance contains a general
38 aggregate limit, it shall apply separately to this MOU or be no less than two (2) times the
39 occurrence limit.
40

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1 C. Vehicle Liability:

2 If vehicles or mobile equipment are used in the performance of the obligations under this
3 MOU, then AGENCY shall maintain liability insurance for all owned, non-owned or hired
4 vehicles so used in an amount not less than \$1,000,000 per occurrence combined single
5 limit. If such insurance contains a general aggregate limit, it shall apply separately to this
6 MOU or be no less than two (2) times the occurrence limit. Policy shall name COUNTY as
7 Additional Insureds.

8 D. General Insurance Provisions - All Policies:

9 1) The AGENCY must declare its insurance self-insured retention for each coverage
10 required herein. If any such self-insured retention exceeds \$500,000 per occurrence each
11 such retention shall have the prior written consent of the COUNTY Risk Manager before
12 the commencement of operations by AGENCY under this MOU. Upon notification of self-
13 insured retention unacceptable to COUNTY, and at the election of the AGENCY's Risk
14 Manager, AGENCY'S carriers shall either; 1) reduce or eliminate such self-insured
15 retention as respects this Agreement with the AGENCY, or 2) procure a bond which
16 guarantees payment of losses and related investigations, claims administration, and
17 defense costs and expenses.

18 2) In the event of a material modification, cancellation, expiration, or reduction in
19 coverage, this MOU shall terminate forthwith, unless the COUNTY receives another
20 properly executed original Certificate of Insurance and original copies of endorsements
21 or certified original policies, including all endorsements and attachments thereto
22 evidencing coverage's set forth herein and the insurance required herein is in full force
23 and effect. AGENCY shall not commence operations until the COUNTY has been furnished
24 original Certificate (s) of Insurance and certified original copies of endorsements and if
25 requested, certified original policies of insurance including all endorsements and any and
26 all other attachments as required in this Section. An individual authorized by the
27 insurance carrier to do so on its behalf shall sign the original endorsements for each policy
28 and the Certificate of Insurance.

29 3) If, during the term of this MOU or any extension thereof, there is a material change
30 in the scope of services; or, there is a material change in the equipment to be used in the
31 performance of the scope of work; or, the term of this MOU, including any extensions
32 thereof, exceeds five (5) years; the COUNTY reserves the right to adjust the types of
33 insurance and the monetary limits of liability required under this MOU, if in the COUNTY
34 Risk Manager's reasonable judgment, the amount or type of insurance carried by the
35 AGENCY has become inadequate.

36 4) AGENCY shall pass down the insurance obligations contained herein to all tiers of
37 subcontractor working under this MOU.

38 5) The insurance requirements contained in this MOU may be met with a program(s)
39 of self-insurance acceptable to the COUNTY.

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1 6) AGENCY agrees to notify COUNTY of any claim by a third party or any incident or
2 event that may give rise to a claim arising from the performance of this MOU.
3

4 **14.0 SEVERABILITY**

5 If any provision in this MOU is held by a court of competent jurisdiction to be invalid, void
6 or unenforceable, the remaining provisions will nevertheless continue in full force
7 without being impaired or invalidated in any way.
8

9 **15.0 COMPENSATION**

10 15.1 Maximum Amount:

- 11 a) AGENCY and COUNTY shall pay for that portion of the equipment and
12 services procured by the COUNTY from Motorola as set forth in
13 Attachment A; provided that the AGENCY's share shall not exceed Five
14 Hundred Twenty-Eight Thousand, Three Hundred One Dollars (\$528,301)
15 ("AGENCY Equipment Contribution") and COUNTY's share shall not exceed
16 Ninety-Two Thousand Dollars (\$92,000).
17 b) COUNTY shall pay for portion of contingency funding required for the
18 Project as set forth in Attachment A; provided that the COUNTY's share
19 shall not exceed Thirty-Nine Thousand, Four Hundred Sixty-Two Dollars
20 (\$39,462).
21 c) COUNTY shall be directly responsible for the payment of all costs
22 associated with the procurement or provision of the equipment and
23 services described in Attachment B under the column "COUNTY
24 Contribution." AGENCY shall be directly responsible for the payment of all
25 costs associated with the procurement or provision of the equipment and
26 services described in Attachment B under the column "AGENCY
27 Contribution."
28

29 15.2 Method, Time and Schedule/Condition of Payment:

- 30 a) COUNTY will bill the AGENCY for the AGENCY Equipment Contribution once
31 equipment has been shipped and received by the COUNTY.
32 b) COUNTY will bill the AGENCY for the AGENCY Contingency Contribution, if
33 required, at conclusion of the Project.
34 c) AGENCY shall issue payment within 30 days of date of invoice.
35
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**THE COUNTY OF RIVERSIDE
AND THE CITY OF MURRIETA
MEMORANDUM OF UNDERSTANDING**

FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

16.0 NOTICES

All notices, claims, correspondence, reports, and/or statements authorized or required by this MOU shall be addressed for each location as follows:

COUNTY

Riverside County Information Technology (RCIT)

Attn: Chantea Moore

7195 Alessandro Blvd.

Riverside, CA 92596

Office: (951) 955 – 0561

Mobile: (951) 529 – 0096

AGENCY

City of Murrieta

Attn: POLICE CHIEF

2 Town Square

Murrieta, CA 92562

Main number: (951) 461-6320

All notices shall be deemed effective when they are made in writing, addressed, as indicated above, and deposited in the United States mail. Any notices, correspondence, reports, and/or statements authorized or required by this MOU addresses in any other fashion will not be acceptable.

THE COUNTY OF RIVERSIDE

AND THE CITY OF MURRIETA

MEMORANDUM OF UNDERSTANDING

FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

SIGNATURE PAGE

IN WITNESS WHEREOF, this MOU has been executed by and on behalf of COUNTY and AGENCY by the signatures of the duly authorized respective agents, as of the day and year last written below.

COUNTY OF RIVERSIDE

CITY OF MURRIETA

3450 14th Street
Riverside, CA 92501

1 Town Square
Murrieta, CA 92562

COUNTY OF RIVERSIDE,
a political subdivision of the State of California

CITY OF MURRIETA,
a California municipal corporation

By: Karen S. Spiegel
Karen Spiegel, Chair
Board of Supervisors

By: _____
Kim Summers
City Manager

Dated: JUN 15 2021

Dated: _____

ATTEST:
Kecia R. Harper
Clerk of the Board

By: [Signature]
Deputy

APPROVED AS TO FORM:
Gregory P. Priamos
County Counsel

By: [Signature]
Lisa Sanchez
Deputy County Counsel

WHEN DOCUMENT IS FULLY EXECUTED RETURN
CLERK'S COPY
to Riverside County Clerk of the Board, Stop 1010
Post Office Box 1147, Riverside, Ca 92502-1147
Thank you.

**THE COUNTY OF RIVERSIDE
AND THE CITY OF MURRIETA
MEMORANDUM OF UNDERSTANDING
FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION**

ATTACHMENT A

City of Murrieta and County of Riverside Radio Equipment Procurement

Equipment/ Service		Cost	AGENCY Contribution	COUNTY Contribution
Motorola Simulcast Radio Equipment and Services	Motorola channel trunked Simulcast Site (include.es 6 base station, site controllers, combiners and multi-couplers, site switches, site routers, equipment racks RF routing equip, power supplies, SDM 3000 Alarm module Cable Tray Ports, Motorola Coverage design, Network Update to include 2 new sites (TNCT file), Equipment order, equipment shipment, Installation of Racks (includes shipment to site, bolt down, earthquake bracing, inter rack cable runs, grounding of equipment, RF cabling from Combiner/Multi-coupler to Shelter L/A bridge, Grounding of equipment, Power runs from Cabinet's Circuit Breaker Panel to Equipment racks, Power runs from Cabinet's Circuit Breaker Panel to Equipment racks	\$620,301	\$528,301	\$92,000
Project Contingency		\$39,462		\$39,462
Total		\$659,763	\$528,301	\$131,462

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**THE COUNTY OF RIVERSIDE
AND THE CITY OF MURRIETA
MEMORANDUM OF UNDERSTANDING
FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION**

Attachment B

Detailed Statement of Work and Additional Contributions

1
2
3

Equipment/Service	Description	Cost or Value	AGENCY Contribution	COUNTY Contribution
SHELTER	12x26 MSI Shelter	\$50,000.00		X
Tower	100' tower	\$50,000.00		X
Generator	50 KW Propane generator	\$20,000.00		X
Propane tank	Rental of 500 Gallon Above ground Propane tank	\$150.00		X
Microwave Equipment		\$300,000.00		X
	Waveence Microwave radios			X
	Dish			X
	Boxes			X
	Ice Shields			X
Design Documents		\$2,000.00		X
	Space and Heat (BTU) design			X
	floor layout			X
	Rack face drawings.			X
Equipment Transportation	Shelter, Tower, and Generator transportation	\$15,000.00		X
Site Acquisition	Included in Construction Activity Costs		X	
	Project Description		X	
	Site Zoning		X	
	Topographic survey		X	

THE COUNTY OF RIVERSIDE

AND THE CITY OF MURRIETA

MEMORANDUM OF UNDERSTANDING

FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

	Environmental CEQA/NEPA Threshold screening		X	
	GEOTECH		X	
	Air Survey		X	
	2A/1C Letter		X	
	FCC		X	
	Soil resistivity test	\$2,000.00		X
	Obtain Electrical, Building and construction permits		X	
	Obtain AQMD Permit		X	
Frequency (PSEC Staff Provided)		\$4,000.00		X
	FCC Licensing			X
	Frequency Coordination			X
	EME Study			X
Construction Planning/Documents		\$22,000.00		X
	Construction Drawing Package			X
	Shelter Structural			X
	Tower Structural			X
	Rack Mounting and earthquake bracing structural			X
	Tower Erection drawing including pylons			X
	Shelter Pad			X
	Grounding Ring			X
Construction Activity		\$237,000.00	X	
	Perform light clearing of brush, grubbing and disposal of vegetation and shrub growth in		X	
	Construct 1 reinforced concrete foundation		X	

THE COUNTY OF RIVERSIDE

AND THE CITY OF MURRIETA

MEMORANDUM OF UNDERSTANDING

FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

	necessary for a 12-foot x 26 foot shelter			
	Construct 1 concrete slab for 500 gallon above-ground Liquid Propane (LP) fuel tank at Construct 1 concrete slab for 500 gallon above-ground Liquid Propane (LP) fuel tank at 3000 psi with reinforcing steel necessary for foundations.		X	
	Install 1 prefabricated concrete shelter 12-foot x 26-foot.		X	
	Supply and install 1 500-gallon Liquid Propane (LP) fuel tank(s), fill it with fuel and connect it to the generator.		X	
	Supply and install fuel tank monitors on the tanks to monitor low fuel in tanks and run alarm wiring to the building located within 50 feet of the tank.		X	
	Install 1 standby power generator (50kW) located within 20 feet of the ATS, including interconnection wiring between the generator, transfer switch, and site electrical service mains.		X	
	Supply and install 120/240-volt, 200-amp, single-phase meter pedestal and hookup for electrical service by the local utility.		X	

THE COUNTY OF RIVERSIDE

AND THE CITY OF MURRIETA

MEMORANDUM OF UNDERSTANDING

FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

	Supply and install a perimeter grounding system around the compound and shelter. The ground system is to tie to the fence and all new metal structures within the compound to meet current Motorola Solutions' R56 standards.		X	
	Conduct a three-point ground resistance test of the site. Should any improvements to grounding system be necessary after ground testing, the cost of such improvements shall be the responsibility of the COUNTY of Riverside PSEC		X	
	Supply and install 1 freestanding 24-inch-wide cable/ice bridge from the tower to the shelter (up to 20 linear feet).		X	
	Excavate for ground ring		X	
	Install Ground ring conductor		X	
<i>Shelter Installation</i>				
	Crane Shelter onto pad		X	
	Bolt Shelter to pad		X	
	Connect Shelter to ground ring		X	
<i>Tower Installation</i>			X	
	Install tower base/pylons		X	
	Erect Tower		X	

THE COUNTY OF RIVERSIDE

AND THE CITY OF MURRIETA

MEMORANDUM OF UNDERSTANDING

FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION

	Add tower mounts at specified levels		X	
	Ground tower at each leg		X	
	Install Ice bridge between tower face adjacent to shelter and shelter		X	
	Ground Ice bridge		X	
	Supply and install 1 ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.		X	
	Mount 3 RF antennas, GPS Antennas and install 7/8 cable from antenna to cable entry port on shelter	\$11,000.00	X	
	Dress cables and strap down cables.			X
	Sweep antenna lines			X
Microwave Installation		\$135,000.00		X
	Microwave Frequency Acquisition including FCC 601 application			X
	PCN Application			X
	Path surveys			X
	Dish and line installation			X
	DC rack installation			X
	Microwave rack installation and grounding			X
	Microwave alignment, programming and optimization			X
	Provisioning and testing			X
Optimization/Testing		\$40,000.00		X
	Set launch Delays at SW Cell sites			X

**THE COUNTY OF RIVERSIDE
AND THE CITY OF MURRIETA
MEMORANDUM OF UNDERSTANDING
FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION**

	Set power levels at all stations in simulcast cell			X
	Box level test			X
	Simulcast testing			X
	Coverage sampling test			X
Documentation		\$5,000.00		X
	Design documents			X
	Update 20 site drawings			X
	Update infrastructure sheets			X
	Test Plans			X
	Method of Procedures			X
Project Management		\$35,000.00		X
Project Contingency		\$39,462.00		X



CHANGE ORDER

[CA19|270A-03]

Change Order No. 03

Date: 11/17/2020

Project Name: Riverside County Channel Add / Critical Connect

Customer Name: Riverside County on behalf of City of Murrieta

Customer Project Mgr: Delano Anderson

The purpose of this Change Order is to: *(highlight the key reasons for this Change Order)*

Additional equipment and limited services to add one remote simulcast site in the Southwest Cell of the County of Riverside Public Safety Enterprise Communications ("PSEC") system. Reference to the attached proposal (0924 City of Murrieta SW Cell Site Addition) are the details of the scope for the new equipment and services.

Contract # Motorola Contract dated 12/4/2018, Amended on 12/17/2019
(Associated w/ Lease # 24743)

Contract Date: 12/17/2019

In accordance with the terms and conditions of the contract identified above between Riverside County on behalf of City of Corona and Motorola Solutions, Inc., the following changes are approved:

Contract Price Adjustments

Original Contract Value:	\$ 2,443,426.00
Previous Change Order amounts for Change Order numbers <input type="text" value="1"/> through <input type="text" value="2"/>	\$ 770,920.00
This Change Order:	\$ 620,301.00
New Contract Value:	\$ 3,836,647.00

Completion Date Adjustments

Original Completion Date:	March 30, 2021
Current Completion Date prior to this Change Order:	March 30, 2021
New Completion Date:	March 15, 2022

Changes in Equipment: *(additions, deletions or modifications)* Include attachments if needed
Additional equipment per attached proposal 0924 City of Murrieta SW Cell Site Addition

Changes in Services: *(additions, deletions or modifications)* Include attachments if needed
Additional services per attached proposal 0924 City of Murrieta SW Cell Site Addition

Schedule Changes: *(describe change or N/A)*
NONE

Pricing Changes: *(describe change or N/A)*
Per attached proposal 0924 City of Murrieta SW Cell Site Addition

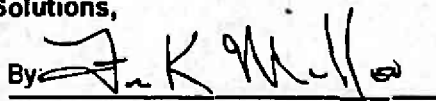
Customer Responsibilities: *(describe change or N/A)*
Per attached proposal 0924 City of Murrieta SW Cell Site Addition

Payment Schedule for this Change Order:
(describe new payment terms applicable to this change order)
Change Order Execution - 20%
Equipment Shipment - 50%
Equipment Installation - 20%
System Acceptance - 5%
Final Acceptance - 5%

Unless amended above, all other terms and conditions of the Contract shall remain in full force. If there are any inconsistencies between the provisions of this Change Order and the provisions of the Contract, the provisions of this Change Order will prevail.

IN WITNESS WHEREOF the parties have executed this Change Order as of the last date signed below.

**Motorola Solutions,
Inc.**

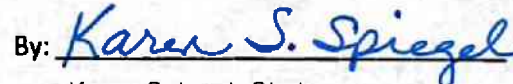
By: 

Printed Name: FRANK MILLER

Title: West SD Director

Date: 06/01/2021


COUNTY OF RIVERSIDE,
a political subdivision of the State of California

By: 

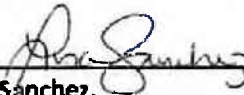
Karen Spiegel, Chair
Board of Supervisors

Dated: JUN 15 2021

ATTEST:
Kecla Harper
Clerk of the Board

By: 
Deputy

APPROVED AS TO FORM:
Gregory P. Priamos
County Counsel

By: 
Lisa Sanchez,
Deputy County Counsel

Reviewed by: Tet Sobingsobing
Motorola Solutions Project Manager

Date: 6/1/2021



CITY OF MURRIETA

CHANGE ORDER ATTACHMENT B-SOUTHWEST SIMULCAST CELL SITE ADDITION

SEPTEMBER 24, 2020

The design, technical, pricing, and other information ("Information") furnished with this submission is proprietary and/or trade secret information of Motorola Solutions, Inc. ("Motorola Solutions") and is submitted with the restriction that it is to be used for evaluation purposes only. To the fullest extent allowed by applicable law, the Information is not to be disclosed publicly or in any manner to anyone other than those required to evaluate the Information without the express written permission of Motorola Solutions.

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REF/Control No. 19-99492

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SECTION 1

SYSTEM DESCRIPTION

1.1 SYSTEM OVERVIEW

Motorola Solutions is pleased to provide the City of Murrieta with a proposal for equipment and limited services to add one remote simulcast site in the Southwest Cell of the County of Riverside Public Safety Enterprise Communications (“PSEC”) system. Because this is an existing regional system, it is anticipated the City of Murrieta may utilize the County of Riverside to complete specific items in this proposal.

This project will include the design, staging, shipment and optimization of the site equipment as specified below.

The existing ASTRO 25 700 MHz Trunked Southwest Simulcast Cell consists of six channels at each of the existing eleven remote simulcast sites. This proposal provides equipment for an additional simulcast remote site at Hollingsworth with six channels for a total of twelve remote simulcast sites for the Southwest Simulcast Cell.

More specifically, this project will include a remote site with six channels and a SDM3000. **Motorola Solutions will provide cold installation of equipment racks, excluding RF distribution systems.** The tower and shelter required to house and mount the equipment will be provided by the City of Murrieta. In addition, the County of Riverside will provide the microwave/MPLS routers for the Ethernet backhaul and additional FDMA/TDMA site license for voice/data. The County of Riverside will manage implementation and **all other make work activities**, after all equipment has been shipped to the field and inventoried. A high level block diagram is shown in Figure 1-1.

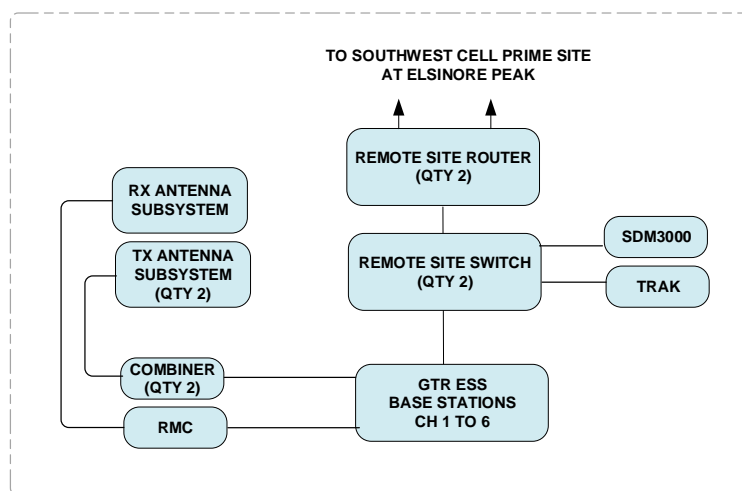


Figure 1-1: Hollingsworth Remote Simulcast Site High Level Block Diagram

The remote simulcast site addition will be deployed as Ethernet. The existing County of Riverside backhaul must be Ethernet prior to the deployment of the site addition.

1.2 TRUNKED SIMULCAST SYSTEM

A simulcast land mobile radio system provides continuous coverage over a large geographic region using a single set of frequencies. Simulcast solutions extend a system's RF coverage, especially in areas where available frequencies are limited, and in areas where physical barriers (e.g., mountains and buildings) can cause reduced signal coverage.

Trunked simulcast was developed by Motorola Solutions to meet the needs of users who were outgrowing their single-site radio systems. Simulcast offers the following advantages:

- **Improved Coverage** - One radio site may not provide the coverage necessary for the application in question. Simulcast expands the coverage area by expanding the number of radio sites without adding additional frequencies.
- **Efficient Use of Frequencies** - Adding sites typically requires more frequencies. In a simulcast system, the same frequencies are used at every site in the system. This makes very efficient use of the available spectrum.
- **Simplified Radio Operations** - Because the simulcast architecture operates like a single-site system, operations are simplified and radios are easy to use.

The ASTRO 25 simulcast infrastructure consists of a central simulcast prime site. The Prime Site acts as a control and digitized audio center for the simulcast subsystem. Audio is routed to the prime site from each simulcast remote site. To ensure that the best audio from the simulcast receivers is processed, a voting comparator selects the best signal.

The prime site contains the prime site simulcast controller, simulcast comparators, and networking equipment to interface to the remote simulcast sites. The simulcast RF transmitters and receivers are located at the simulcast remote sites. These sites simultaneously transmit identical information from each site to the radios. The receivers at these sites receive the audio from the user radios, and pass the audio back to the prime site for voting. Audio and site control comes from the prime and master sites. Equipment at a simulcast remote site includes a simulcast base radios, fault management equipment, and networking equipment to interface to the prime site.

Simulcast Remote Site

The ASTRO 25 Simulcast Remote Site consists of the following components, described in the following System Components section.:

- GTR 8000 Expandable Site Subsystem (ESS).
- GTR 8000 Repeater/Base Radio.
- GGM 800 Site Gateway.
- Radio Frequency Distribution System (RFDS).
- Site LAN Switch.

1.2.1 System Components

GTR 8000 Expandable Site Subsystem

The GTR 8000 Expandable Site Subsystem (ESS) enclosure can contain GTR 8000 base stations, site LAN switches, and GCP 8000 controllers, along with an optional Radio Frequency Distribution System (RFDS), depending on your configuration needs.

Voice traffic is routed from each of the site base stations to the system for distribution to all sites associated with the call. Benefits of the ESS include:

Integrated design provides a smaller footprint at the site.

Front/top access design and minimized cabling reduces install and service labor.

Increased power supply redundancy through common power bus.

GTR 8000 Site Repeater/Base Radio

The GTR 8000 Base Radio consists of a transceiver module, power amplifier module, fan module, and power supply. The transceiver module includes the functionality for the exciter, receiver, and station control. The base radio software, configuration, and network management, as well as inbound/outbound traffic handling, are performed through this transceiver module. On-board serial and Ethernet ports are located on this module for local servicing via Configuration Service Software (CSS). The power amplifier module amplifies the low-level modulated RF signal from the transceiver module and delivers the amplified signal on the path to the transmit antenna. The power supply module supports the transceiver and power amplifier modules, and can also provide auxiliary power to a connected site controller or Receive Multicoupler.

Radio Frequency Distribution System

The Radio Frequency Distribution System (RFDS) provides the interconnection between the base radios and antennas, allowing for a completely contained and more compact installation footprint. For the transmitters, this can include combiners and TX filters.

For the receivers, this can include site preselectors, and multicouplers. Various RFDS options exist for the GTR 8000 Base Radio, GTR 8000 Site Subsystem, and GTR 8000 Expandable Site Subsystem.

Site Gateway

The Site Gateway provides an interface that handles all of the IP Network Management traffic between the Core Site and the RF Site. The Site Gateway provides the following:

- **Media conversion** - the gateway converts Ethernet to the selected transport medium.
- **Traffic prioritization** - the gateway applies a prioritization marking to the packets leaving the site.
- **Fragmentation** - the gateway fragments large IP packets per industry standards.

Site LAN Switch

The site LAN Switch provides a LAN interface for site equipment and a LAN port for the site gateway. Through the switch, the service technicians gain access to service the site, and also access the system's Graphical User Interface (GUI).



SDM3000 Site RTU

The SDM3000 Site Remote Terminal Unit (RTU) is where the RF components and environmental equipment are alarmed and controlled. The SDM3000 interfaces to IP devices via SNMP to monitor alarms. The SDM3000 serially interfaces to remote site devices by emulating the specific device protocol, allowing the SDM unit to collect and control alarms of the device. The SDM3000 collects alarms and initiates controls through the various inputs, outputs, and analog signals via the onboard Input and Output (I/O). A built-in Web Server on the SDM3000 allows Service Technician to use a browser to view alarms from all equipment and devices, while they are on site or remote over the ASTRO network infrastructure. The SDM3000 RTU has 48 digital inputs, 16 digital outputs and 8 analog inputs. There will be no paging or email notifications configured. All contact closures that demark at the type 66 punch block are dry contact closures.

1.3 SYSTEM DESIGN

Motorola Solutions has designed a six channel ASTRO 25 700 MHz trunked simulcast remote site located at Hollingsworth to be part of the Southwest Simulcast Cell.

1.3.1 Master Site

No voice or data site licenses for FDMA and TDMA are included. The County of Riverside has verified a spare license is available and will be provided by the County of Riverside for the new site.

1.3.2 Remote Simulcast Sites

Simulcast base radios at the simulcast sites simultaneously transmit identical information from each site to the user radios. The receivers at these sites receive the audio from the user radios, and pass the audio back to the prime site. Audio and site control comes from the prime site.

The details below depict the items that will be added to the system and their respective site locations.

Hollingsworth Simulcast Remote Site Subsystem

The simulcast remote site subsystem will consist of the following major devices:

- Six GTR8000 Base Radios.
- Two Site Switches.
- Two Site Gateways.
- One SDM 3000.

New antennas and combining/multicoupling equipment have been included at Hollingsworth remote simulcast site. The remote site will contain the following RF equipment:

- Two 6-channel transmit combiners.
- One 6-channel receive multicoupler.
- Three 700 MHz antennas (two antennas for transmit and one antenna for receive).
- Two GPS antennas.
- Cables, connectors and grounding kits.



The City of Murrieta/County of Riverside is responsible for providing a tower and for allocating tower space for the proposed antennas at the specified heights.

The frequencies for the proposed system have been identified by the County of Riverside and are shown in Table 1-1. Additional combiners and antennas may be required for channel spacing considerations if the frequencies are modified.

Table 1-1: Southwest Simulcast Frequencies

SOUTHWEST SIMULCAST CELL		
COMBINER 1		
	TX (MHz)	RX (MHz)
1	771.39375	801.39375
2	771.14375	801.14375
3	769.53125	799.53125
COMBINER 2		
	TX (MHz)	RX (MHz)
1	771.44375	801.44375
2	770.03125	800.03125
3	769.28125	799.28125

1.4 COVERAGE

Motorola Solutions has included coverage maps in this proposal for the Southwest simulcast cell. The coverage maps are for general information only and do not constitute any form of coverage guarantee.

The informational only maps are based upon the following assumptions:

- Delivered Audio Quality (DAQ) Level: 3.4.
- 3.0 Arc Sec Resolution, which is the coverage tile resolution.
- 95% Covered Area Reliability, which is the painted coverage area on the Motorola Solutions maps.
- Coverage is based on the APX 7000 Portable Radio for communication Outdoor On-street only.

The site parameters for the system are shown in Figure 1-2. Motorola Solutions assumes there are no antenna changes at existing sites. The new site added to the existing simulcast cells is in red.

SITE NAME	LATITUDE	LONGITUDE	TX ANT MODEL	TX ANT HEIGHT (FT)	RX ANT MODEL	RX ANT HEIGHT (FT)
Avocado Flats	33.44930556	-117.272575	SE419-SF3PALDF_A=60_	45	SE419-SF3PALDF_A=60	60
Clinton Keith a	33.6115	-117.1755	WPA-700120-8CF-EDIN	87	WPA-700120-8CF-EDIN	100
Elsinore Pk	33.60229444	-117.3435417	WPA-700120-8CF-EDIN	87	WPA-700120-8CF-EDIN	100
Estelle h	33.75957778	-117.4264167	WPA-700120-8CF-EDIN	87	WPA-700120-8CF-EDIN	100
Hollingsworth	33.6002	-117.1962	BPA7496-60-13	50	CC807-08	70
Margarita k	33.4566	-117.1324167	BCD-7509-3-25	162	BCD-7509-3-25	180
Menfee e	33.64941111	-117.2054889	BPS10-O	131	BPS10-O	150
Quail Valley g	33.68974444	-117.2575944	BCD-7509-5-25	42	BCD-7509-3-25	60
Redondo Mesa f	33.49641111	-117.3447861	WPA-700120-8CF-EDIN	87	WPA-700120-8CF-EDIN	100
Ridge Road c	33.66786667	-117.3187083	BCD-7509-3-25	132	BCD-7509-3-25	150
Santiago Pk b	33.71154167	-117.5310583	LPA-70063-4CF	69	WPA-70063-8CF-EDIN	80
Vacquero c	33.48105556	-117.1838083	BCD-7509-3-25	82	BCD-7509-3-25	100

Figure 1-2: SW Cell Coverage Site Parameters

1.5 ETHERNET/MPLS SITE LINKS

No site links are included as part of the solution. The County of Riverside is responsible for providing Ethernet/MPLS site links.

1.6 POWER

No power systems are included as part of the solution. The City of Murrieta is responsible for providing **power termination at a junction box overhead of the equipment on a cable tray** at Hollingsworth.

1.7 INTERFERENCE

Motorola Solutions is not responsible for interference caused or received by the Motorola Solutions provided equipment except for interference that is directly caused by the Motorola Solutions-provided transmitter(s) to the Motorola Solutions-provided receiver(s). Should the County of Riverside system experience interference, Motorola Solutions can be contracted to investigate the source and recommend solutions to mitigate the issue.

1.8 SUBSCRIBER UPGRADES OR REPLACEMENT

This proposal does not include any work effort for the fleet of subscriber radios on the system.

1.9 ASSUMPTIONS

- Sites to be provided by the City of Murrieta meet Motorola Solutions' R56 Site Readiness conditions.
- Grounding meets Motorola Solutions' R56 installation standards.
- Sufficient building and tower space exists at all the site locations. In this case, the County of Riverside is providing a 12-foot x 16-foot shelter and 100-foot self-supported tower.
- The County of Riverside is responsible for provision of a new tower.
- The County of Riverside is responsible for providing a new shelter.

- The County of Riverside will provide Ethernet MPLS microwave backhaul.
- Adequate power is available to support the new equipment.
- The City of Murrieta is responsible for the AC and/or DC power systems.
- The County of Riverside is responsible for any frequency license modifications, frequency acquisition, spectrum fingerprinting and FCC coordination.
- For Ethernet site links, the County of Riverside is responsible for meeting the Motorola Solutions Ethernet requirements. Ethernet site links must meet the bandwidth, latency, jitter, packet loss, and tolerance to backhaul congestion in Motorola Solutions' specifications, in order to provide optimal performance of the system.
- No civil work or site upgrades are included in Motorola Solutions' quotation.
- This proposal does not include optimization of existing sites within the simulcast cell. The City of Murrieta, through the services of the County of Riverside, is responsible for setting all new ERPs and launch delays at all existing remote sites.
- City of Murrieta is responsible for making sure the existing backhaul is Ethernet prior to the implementation of the new site.
- Staging of Motorola Solutions FNE equipment is included.
- System acceptance testing is not included.
- All work will be performed during standard working hours.
- No customer programming software (CPS), flash upgrades, and services to re-program subscribers for encryption have been included in this design.



SECTION 2

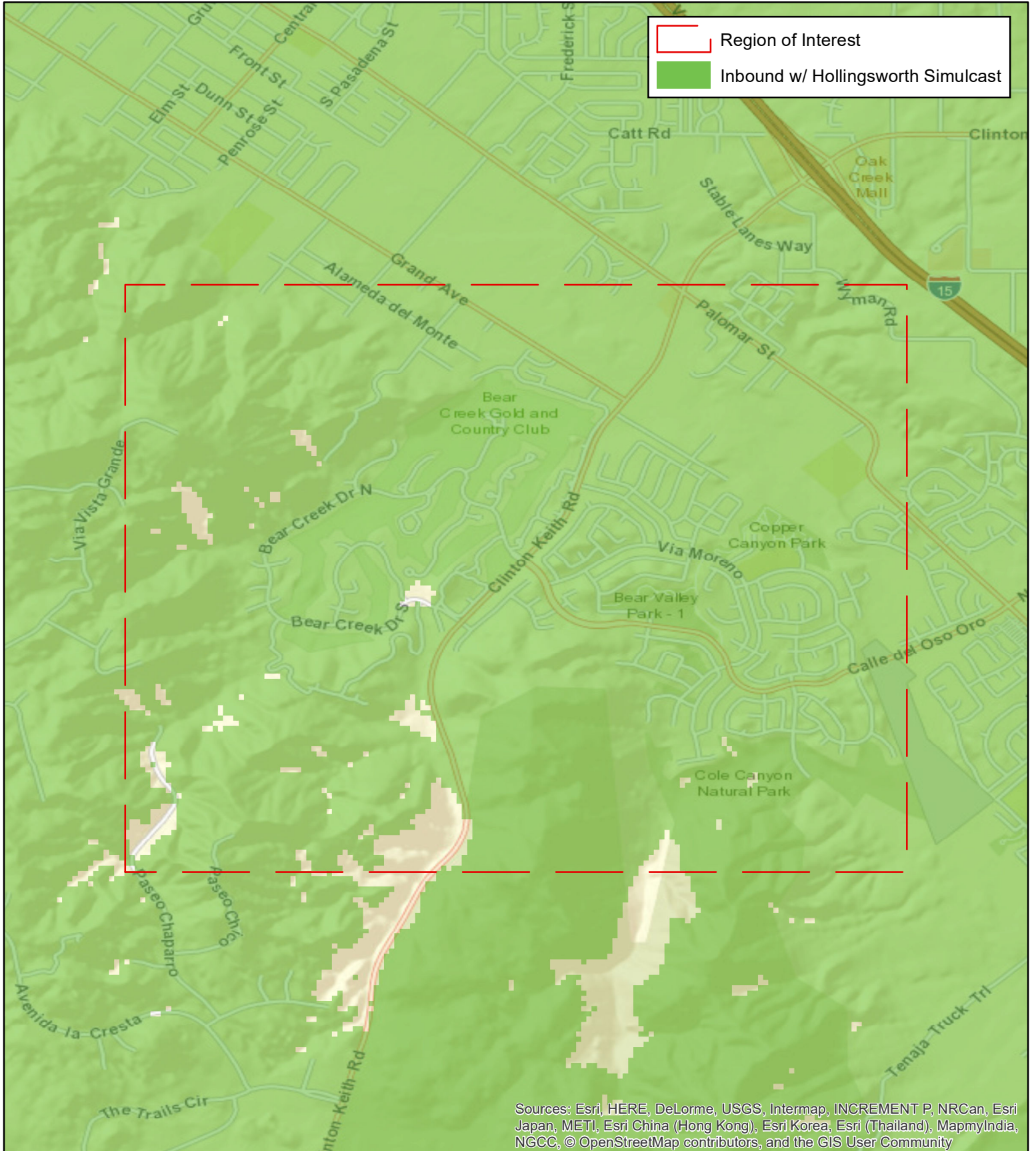
COVERAGE MAPS



The following pages include the coverage maps below for Riverside County. These coverage maps are for general information only and do not constitute any form of coverage guarantee.

- Hollingsworth 70 ft. Inbound.
- Hollingsworth 70 ft. Outbound.



700 MHz ASTRO P25 Simulcast System (12 site Southwest Cell)
Shaded Area Represents 95% Covered Area Reliability at DAQ-3.4



 Region of Interest
 Inbound w/ Hollingsworth Simulcast

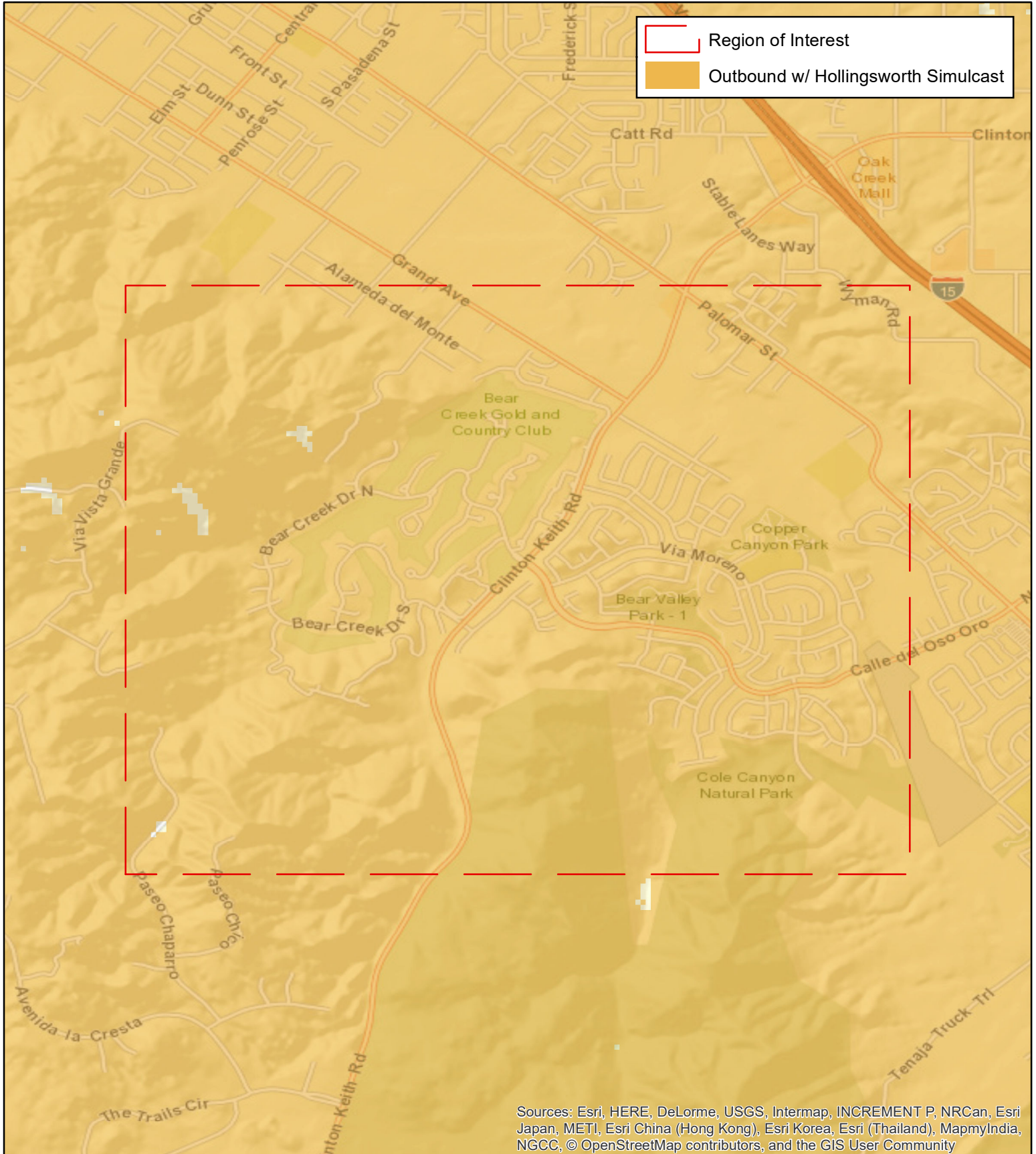
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

0 0.25 0.5 1 Miles
1 in = 0.5 mile

Portable Configuration:
APX 7000, 1/2 wave flex whip antenna,
on Hip with Remote Speaker Mic

RiversideCountyCA
TDMA Simulcast 700MHz
Design 48
DFRJ83

700 MHz ASTRO P25 Simulcast System (12 site Southwest Cell)
Shaded Area Represents 95% Covered Area Reliability at DAQ-3.4



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

0 0.25 0.5 1 Miles
1 in = 0.5 mile

Portable Configuration:
APX 7000, 1/2 wave flex whip antenna,
on Hip with Remote Speaker Mic

RiversideCountyCA
TDMA Simulcast 700MHz
Design 48
DFRJ83

SECTION 3

EQUIPMENT LIST

QTY	NOMENCLATURE	DESCRIPTION
1	SQM01SUM0323	ASTRO MASTER SITE
1	CA03517AB	ADD: CORE EXPANSION
5	UA00161AA	ADD: P25 PHASE 2 TDMA SW BASE RADIO LIC
1	UA00160AA	ADD: PHASE 2 DYNAMIC TG ASGNMT SITE LIC
5	UA00162AA	ADD: PHASE 2 DYNAMIC CH BASE RADIO LIC
2	CA01316AA	ADD: UNC ADDTL DEVICE LIC (QTY 10)
2	CLN1868	2930F 24-PORT SWITCH
1	T8492	SITE ROUTER & FIREWALL- AC
1	CA03445AA	ADD: MISSION CRITICAL HARDENING
1	CA03448AA	ADD: STATEFUL FIREWALL
1	T8492	SITE ROUTER & FIREWALL- AC
1	CA03445AA	ADD: MISSION CRITICAL HARDENING
1	CA03448AA	ADD: STATEFUL FIREWALL
1	F4544	SITE MANAGER ADVANCED
1	VA00873	ADD: SDM SNT FW CURR ASTRO REL
1	V266	ADD: 90VAC TO 260VAC PS TO SM
3	V592	AAD TERM BLCK & CONN WI
1	T8343	GSERIES SOFTWARE LICENSING
6	UA00400AA	ADD: GSERIES BR-P25 TRNK MS IP
2	UA00409AA	ADD: GSERIES RDM
1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM
1	CA00719AA	ADD: ASTRO SYSTEM RELEASE 2019.2
1	CA00855AA	ADD: 700/800 MHZ
1	X306AC	ADD: QTY (6) GTR 8000 BASE RADIOS
6	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE
1	CA02684AA	ADD: AC ONLY POWER DISTRIBUTION
6	CA01953AA	ADD: POWER EFFICIENCY PACKAGE
1	CA03111AA	ADD: CEC COMPLIANCE
5	CA01842AA	ADD: P25 TDMA SOFTWARE
5	CA01902AA	ADD: P25 DYNAMIC CHANNEL SOFTWARE
1	CA00862AA	ADD: SITE & CABINET RMC W/CAPABILITY OF 7-24 BRS
1	CA00879AA	ADD: PRIMARY 6 PORT CAVITY COMBINER
1	CA00882AA	ADD: 700 MHZ TX FILTER W/PMU
2	CA01536AA	ADD: GPB 8000 REFERENCE DISTRIBUTION MODULE

QTY	NOMENCLATURE	DESCRIPTION
2	CA01537AA	ADD: REFERENCE DISTRIBUTION SOFTWARE
1	X882AH	ADD: 7.5 FT OPEN RACK, 48RU
1	DSPCD012V6	6 CHANNEL COMBINER KIT, STANDARD ISOLATION, 762-776 MHZ
2	PMUG1017A	GNSS REMOTE RECEIVER ASSY
2	DSWM4	HEAVY DUTY W STYLE WALL MOUNT WITH 4 INCH STAND-OFF
2	DSP04268	ALUMINUM 6061-T6. PIPE 1 INCH SCHED 40
2	DSIX2L1M1DC48IG	SPD, HPD GPS DATA LINE, 48VDC, HARD WIRE WITH ISOLATED GROUNDING
2	DS30C87465CO1	125FT OUTDOOR UV PROTECTED CABLE 6 PR, 22AWG DB15 CABLE
1	DSPF7982101031N	BANDPASS FILTER, RX, 10 MHZ BW, RANGE 796-824 MHZ
1	TRN7343	SEVEN AND A HALF FOOT RACK
1	DSTSJADP	RACK MOUNT GROUND BAR, 19 IN FOR TSJ AND WPH SERIES DATA SPDS
2	DS1101990	SPD, SHIELDED RJ-45 JACK, SINGLE LINE GBE (1000MBPS) R56 COMPLIANT
4	DSRMP420B	SPD, TYPE 3, 120V RACK MOUNT, 20A STD PLUG-IN INPUT W/ 4 OUTLETS PER
2	DSTXANT	TX ANTENNA
60	DSLDF450ACABLE	CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
4	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
4	TDN9289	221213 CABLE WRAP WEATHERPROOFING
400	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER, 7/8 IN, BLACK PE JACKET
4	DSA5DFD	D-CLASS 7-16 DIN FEMALE FOR AVA5-50 CABLE
10	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE
2	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP
14	MDN6817	42396A-5 7/8" CABLE HANGER STAINLESS, 10 PK
2	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
2	DSGSAKITD	GROUND STRAP KIT - DIN
60	DSLDF450ACABLE	CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
4	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
20	DSLDF450ACABLE	CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
4	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
1	DSAPM7487K2AC	ADVANCED POWER MONITOR, 740-870 MHZ, 90-246V AC (INC SINGLE COUPLER)
1	DSSP74964440DFF 1RU	ANT LINE COUPLER 740-960MHZ 40DB 4-PORTS SUIT APM748 AND APM8796

QTY	NOMENCLATURE	DESCRIPTION
20	DSFSJ150ACABLE	CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT
4	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
20	DSFSJ150ACABLE	CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT
4	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
1	DSRXANT	RX ANTENNA
15	DSLDF450ACABLE	CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
1	DDN1088	L4TNM-PSA TYPE N MALE PS FOR 1/2 IN CABLE
1	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
5	TDN9289	221213 CABLE WRAP WEATHERPROOFING
200	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER, 7/8 IN, BLACK PE JACKET
2	DSA5NFS	N FEMALE FOR AVA5-50 CABLE
5	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE
1	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP
7	MDN6816	***OBSOLETE PART # - USE DS43211A***
7	MDN6817	42396A-5 7/8" CABLE HANGER STAINLESS, 10 PK
1	DS1090501WA	RF SPD, 700-1000MHZ BROADBAND 15 VDC PASS NM ANT, NF EQUIP PIP, ASIG
1	DS1090501WA	RF SPD, 700-1000MHZ BROADBAND 15 VDC PASS NM ANT, NF EQUIP PIP, ASIG
25	DSFSJ450BCABLE	FSJ4-50B 1/2" 50 OHM
2	DDN9682	F4PNMV2-HC 1/2" TYPE N MALE PLATED CONNECTOR

SECTION 4

STATEMENT OF WORK

This Statement of Work (SOW) describes the deliverables to be furnished to the City of Murrieta. The tasks described herein will be performed by Motorola Solutions and the City of Murrieta (utilizing the County of Riverside as the primary contact to Motorola Solutions during project implementation).

Motorola will:

1. Provide equipment to add 1 Remote simulcast site with 6 channels at Hollingsworth, SW Cell.
2. Provide Project Management services up to the point of equipment delivery.
3. Provide services to finalize the detailed design package of the new site addition, including: coverage design (antennas, mounting heights etc) and simulcast parameters (launch delays, power), equipment power requirements, interconnect drawings etc. Limited equipment descriptions will be provided. Motorola engineering work is required (for router/switch/site equipment) to tie into the larger microwave/MPLS network.
4. Provide a documentation update, up to the point of the Design Review.
5. Place equipment order.
6. Manufacture equipment.
7. Provide CCSi staging, including cutting of cables and development of labels.
8. Ship equipment to the City of Murrieta warehouse.
9. Provide cold installation of fixed network equipment racks, excluding RF distribution systems.
10. Provide TNCT network design and equipment configurations.
11. Provide site/box level optimization (Hollingsworth site, only).
12. Perform work during normal working hours M-F.

Note:

1. Simulcast launch delays will be provided based upon already approved maps.
2. No civil work, **no equipment removals or disposal of existing equipment**, no optimization of existing sites, no ATP, no coverage test/guarantee of coverage nor OJT Customer Tech Training are included.
3. No Spares are included in this change order.
4. Tech Support and SUAll are quoted separately.

The City of Murrieta/County of Riverside will:

1. Perform NEPA, FAA, and transport the tower, shelter, generator, and fuel tank to Hollingsworth.
2. Provide all civil work.



3. Provide licensed frequencies.
4. Provide **installation of RF distribution systems**, removal, relocation and disposal of existing equipment, as needed.
5. Provide backhaul.
6. Provide optimization of Remote sites (excluding the new Remote site).
7. Make the subsystem operational.



SECTION 5

PRICING SUMMARY

5.1 SOUTHWEST SIMULCAST CELL SITE ADDITION

Equipment and Services	Pricing
Equipment	\$474,429
LA County Discount	(\$82,419)
LA County Discounted Equipment	\$392,010
Limited PM, Engineering and System Technologist Services	\$285,993
Tax (Equipment Only)	\$34,301
Total Solution	\$712,304
System Incentive if Order is Received by July 15, 2021	(\$92,003)
Grand Total with System Incentive	\$620,301

Lifecycle Services	Year 2	Year 3
Tech Support	\$364	\$382
SUA	\$9,252	\$9,257



**THE COUNTY OF RIVERSIDE
AND THE CITY OF MURRIETA
MEMORANDUM OF UNDERSTANDING
FOR HOLLINGSWORTH SITE SIMULCAST CELL INSTALLATION**

SIGNATURE PAGE

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IN WITNESS WHEREOF, this MOU has been executed by and on behalf of COUNTY and AGENCY by the signatures of the duly authorized respective agents, as of the day and year last written below.

COUNTY OF RIVERSIDE

3450 14th Street
Riverside, CA 92501

COUNTY OF RIVERSIDE,
a political subdivision of the State of California

By: *Karen S. Spiegel*
Karen Spiegel, Chair
Board of Supervisors

Dated: JUN 15 2021

ATTEST:
Kecia R. Harper
Clerk of the Board

By: *Lisa Sanchez*
Deputy

APPROVED AS TO FORM:
Gregory P. Priamos
County Counsel

By: *Lisa Sanchez*
Lisa Sanchez
Deputy County Counsel

CITY OF MURRIETA

1 Town Square
Murrieta, CA 92562

CITY OF MURRIETA,
a California municipal corporation

By: *Kim Summers*
Kim Summers
City Manager

Dated: 7/19/21

**WHEN DOCUMENT IS FULLY EXECUTED RETURN
CLERK'S COPY**
to Riverside County Clerk of the Board, Stop 1010
Post Office Box 1147, Riverside, Ca 92502-1147
Thank you.