

MERA: *WHEN SECONDS SAVE LIVES*

Governing Board Meeting
Wednesday, September 26, 2018



Item B-2 Budget Update

Description	Approved Project Budget	Revised 09/26/2018 Project Budget
Vendor Contract (w/o radios)	21,257,434	21,257,434
Vendor Radios	7,410,216	7,410,216
Site Acquisition/Construction	10,000,000	5,300,000
Project Implementation Staffing (DPW)	2,000,000	2,000,000
FE Construction/Project Management	1,344,000	1,798,603
RGS MERA Staffing	795,000	1,005,000
Marin DPW – Licenses, Permits	25,000	25,000
Other Capital Costs–Dollar Hill (2016/17)	30,000	30,000
MERA Legal	225,000	400,000
Public Outreach	397,000	397,000
Admin Fees – COM, NBS, Audits, etc	560,000	3,200,000
Financing Costs	9,971,000	9,971,000
SUA	8,940,804	8,940,804
Project budget	62,955,454	61,735,057
Budgeted Vendor Contingency	2,200,000	2,200,000
Unappropriated Project Reserve	6,844,546	8,064,943

Item C-1 Change Order Summary

CCO#	Description	Change Order Cost
#5	Add Tiburon and Mill Valley Equipment, Radio Core Upgrade and PA	\$0*
#6	Sonoma Mountain Site and Site Ready	\$501,616
#7	Encryption, Radio Management, WiFi & OTAP	\$631,403
#8	Microwave – MPLS Upgrade	\$1,967,943
#9	UEM and Zone Watch	\$13,274
	Redundant Voice Logging Equipment	\$134,293
	Jail Repeater Battery Backup	\$7,419
	Dispatch Console Speakers	\$17,113
	TDMA for Pagers	\$23,435
	NAS Back Up Server	\$970
	Spare VMS Server	\$17,671
	Total Motorola Payments:	\$3,315,136
	* Additional MERA Costs:	\$400,000-\$700,000

Item C-2 Change Order #5

Description	Status	Why	Cost	Benefit
Add Tiburon and Mill Valley Equipment, Radio Core Upgrade to M3, PA Function for Woodacre	Required	Request for Proposal stipulated coverage requirements that were not met by Motorola's contract, resulting in the need for additional sites. Motorola has offered equipment and services at no cost to MERA.	\$0 Note that while this equipment is at no cost to MERA, These sites are estimated to include \$400-\$700k in non-Motorola costs for Site Construction and staff time for these sites.	Equipment, Installation and System Upgrade included.

Item C-3 Change Order #6

Description	Status	Why	Cost	Benefit
Sonoma Mountain Site	Required	Original Microwave path from Tomales to OTA is blocked by terrain. Motorola contract stipulates that final design is contingent upon the result of physical path surveys.	\$501,616 Combined Cost	Required for Microwave System Connectivity.
Site Ready Services and Equipment	Required	Table 5-25 of the Motorola Contract places "Site-Readiness" (adequate room in a shelter) as a MERA responsibility.		Required such that new equipment can be installed in shelters alongside T-Band equipment for transition to NextGen System.

Item C-4 Change Order #7

Description	Status	Why	Cost	Benefit
<p>Addition of 200 AES/DES Encryption Modules</p>	<p>Recommended</p>	<p>Encryption Modules for 200 dual band radios.</p>	<p>\$631,403 Combined Cost</p>	<p>AES/DES Encryption ensures encrypted communications during cutover.</p>
<p>Radio Management</p>		<p>Radio Management Software with</p>		<p>Radio Management, Wi-Fi and OTAP</p>
<p>Wi-Fi</p>		<p>Wi-Fi and Over The Air</p>		<p>ease radio programming and significantly</p>
<p>OTAP Over the Air Programming</p>		<p>Programming “wireless” programming functionality not provide in Motorola Contract.</p>		<p>reduce technician and first responder downtime.</p>

Item C-5 Change Order #8

Description	Status	Why	Cost	Benefit
Change from Layer 2 to Multi-Protocol Label Switching (MPLS) Radio Network Architecture	Recommended And Required (If non-Voice traffic across Microwave System.	Request for Proposal specified Layer 2 architecture for the existing MERA System as acceptable for voice radio traffic only. Non-Voice traffic (e.g, FBI & CHP Circuits, Cameras) on the existing MERA microwave system was not clear during development of the NextGen System.	\$1,967,943	This item is required if MERA is to continue to convey non-Voice traffic across the microwave network. It is recommended for the added security and redundancy it provides to the radio network. It includes SUA costs for 15 years.

Item C-6 Change Order #9

Description	Status	Why	Cost	Benefit
UEM and Zone Watch Licenses	Recommended	Only one UEM and Zone Watch License included in the Motorola Contract.	\$13,274	Additional license allows for two instances of system monitoring software to run simultaneously facilitating maintenance.
Redundant Voice Recording Equipment	Recommended	Only one Voice Logger for Radio Traffic was included in the Motorola Contract.	\$134,293	Redundant Voice Logging ensures the capture of voice communications is preserved to support emergency personnel in operations and reduces downtime due to system maintenance

Item C-6 Change Order #9

Description	Status	Why	Cost	Benefit
Jail Repeater Battery Backup	Recommended	No Jail Repeater battery backup was included in the Motorola Contract.	\$7,419	The Jail Repeater relies on hard-wired power and has a generator backup. Battery backup would ensure radio communications in the Jail during generator failure.
Dispatch Console Speakers	Recommended	Two speakers for dispatch positions are included in the Motorola Contract.	\$17,113	Allows flexibility for dispatch positions to monitor more than two audio feeds. Provides up to 46 added speakers.

Item C-6 Change Order #9

Description	Status	Why	Cost	Benefit
Time Division Multiple Access (TDMA) for Pagers	Recommended	Frequency Division Multiple Access (FDMA) was originally proposed because TDMA for specific pagers did not exist at the time of proposal. FDMA occupies two channels during comms.	\$23,435	The two-channel use concern/traffic loading is remedied if TDMA is used.

Item C-6 Change Order #9

Description	Status	Why	Cost	Benefit
NAS Backup Server	Recommended	No back up server for the radio core settings was included in the Motorola Contract.	\$970	This backup server provides a copy of the radio network core settings such that they may be promptly restored during core malfunction.
Spare VMS Server	Recommended	No spare VMS server was included in the Motorola Contract. The VMS system in the contract has two units – a primary server and a backup.	\$17,671	This 3 rd spare is preconfigured to quickly replace a failed unit, as replacements may take several days to manufacture.



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See

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for more information