

MARIN EMERGENCY RADIO AUTHORITY

c/o Town of Corte Madera
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DATE: January 22, 2020
TO: MERA Governing Board
FROM: Ernest Klock, Operations Officer
SUBJECT: AGENDA ITEM C-2: Request for Input on Project Oversight Committee and Governing Board Customer Design Review (CDR) Approval Process

Recommended Action: Receive the report and provide guidance to staff on next steps regarding the Customer Design Review approval process for the Next Gen Project.

Customer Design Review (CDR) is the process by which MERA approves detailed project submittals from Motorola that formalize the NextGen System’s overall design, technical components and implementation process. The attached Customer Design Review Documents list describes the required submittals for the project as outlined in the 2016 MERA Request for Proposals and the 2017 Radio Communications System Agreement. Of the sixty-two CDR documents, Staff has highlighted five documents that merit specific attention by the Governing Board. These five documents are critical to the design and delivery of the NextGen Project, and in some cases require commitments from MERA and its partner Agencies for participation:

- Item 2 – Project Schedule
- Item 3 – Radio System Description
- Item 4 – Microwave System Description
- Item 19 – Shelter Floor Plan Drawings
- Item 47 – Implementation Plan – Mobile Subscribers

Per the Motorola payment milestones outlined below, Motorola is entitled to a payment of \$1,715,362.21 at the completion of the Customer Design Review process. This payment milestone summary for the base project is from the original 2017 Radio Communications System Agreement with Motorola and does not reflect subsequently approved change orders as those each have separate milestone payments based on the delivery date(s) of those items.

PAYMENT MILESTONES - TAXES NOT INCLUDED ON THIS DOCUMENT			
Services & Infrastructure - \$17,153,622.12			
Pay Milestone	Description	% of \$17,153,622.12	Dollars
1	Completion of Kick off Meeting	10%	\$1,715,362.21
2	Completion of Customer Design Review	10%	\$1,715,362.21
3	Shipment of FNE from Staging	45%	\$7,719,129.95
4	Completion of Installations (16 sites @ \$268,025.35 each)	25%	\$4,288,405.53
5	System Acceptance or Beneficial Use	5%	\$857,681.11
6	Final Acceptance	5%	\$857,681.11
TOTAL WITHOUT CHANGE ORDERS			\$17,153,622.12

The sum total of all of the design documents is over 1,400 pages of highly technical material. Therefore, Staff is preparing a summary of the CDR documents, including in-depth descriptions of all critical submittals and what impact they will have on the NextGen Project. Due to the technical nature of the documentation, Staff proposes to first present its summary report to the NextGen Project Oversight Committee (NGPOC), so the NGPOC can provide the Governing Board with its recommendation for approval or rejection of the CDR documents. Final drafts of all the CDR documents are expected from Motorola at the end of February 2020.

Staff is requesting feedback from the Governing Board on whether it agrees with this approach, as well as what additional specific information, if any, the Governing Board would like included in the summary report.

Attachment

CDR Document List

MARIN EMERGENCY RADIO AUTHORITY - NEXT GENERATION RADIO SYSTEM

Customer Design Review Submittals

Updated 26 November 2019

Item	Source	Description	Revision	Approved
02 01	RFP 2.5 A	CDR - Updated Project Management Plan	1	
02 02	Prop 5.14.14.1	CDR - Project Schedule	1	
02 03	Prop 5.14.14.1	CDR - Radio system description	1	8/31/2018
02 04	Prop 5.14.14.1	CDR - Microwave system description	1	
02 05	Prop 5.14.4	CDR - Paging system description	1	8/31/2018
02 06	Prop 5.14.4	CDR - Dispatch consoles system description	3	11/19/2019
02 07	Prop 5.14.14.1	CDR - System block diagrams	1	10/5/2018
02 08	RFP 2.8 A	CDR - Radio and microwave channel plans	1	8/31/2018
02 09	Prop 5.14.14.1	CDR - Microwave network maps	1	10/2/2018
02 10	Prop 5.14.14.1	CDR - Microwave path analysis for each hop	2	10/24/2019
02 11	Prop 5.14.4.1	CDR - Backhaul provisioning plan / network requirements	0	
02 12	Prop 5.14.4.1	CDR - Backhaul programming templates	0	
02 13	Prop 5.14.4.1	CDR - Microwave antenna specifications and mounting heights	1	10/5/2018
02 14	Prop 5.14.4	CDR - Detailed lists of equipment for each site	1	
02 15	RFP 4.9 A	CDR - Specification sheets for all proposed equipment	1	
02 16	RFP 10.4 H	CDR - Mean Time Between Failure (MTBF) of equipment and parts		Waived
02 17	RFP 10.4 G	CDR - Ability to replace failed units; repair, replace, return process	1	
02 18	Prop 5.14.4	CDR - Site layout drawings	0	
02 19	Prop 5.14.4	CDR - Shelter floor plan drawings	2	11/19/2019
02 20	Prop 5.14.4	CDR - Tower elevation / equipment placement diagrams	0	On hold
02 21	Prop 5.14.4	CDR - Antenna system diag., incl. combiners, TTAs, multicouplers	2	11/19/2019
02 22	Prop 5.14.4	CDR - Rack elevation drawings	0	
02 23	RFP 2.8 B	CDR - Termination details	1	
02 24	Prop 5.14.4	CDR - Power consumption data	2	10/1/2019
02 25	Prop 5.14.4	CDR - Site alarm definition	2	10/26/2018
02 26	RFP 4.8.1 C	CDR - Coverage - Mobile subscribers	0	10/24/2019
02 27	RFP 4.8.1 C	CDR - Coverage - Portable subscribers on street	0	10/24/2019
02 28	RFP 4.8.1 C	CDR - Coverage - Portable subscribers in building	0	10/24/2019
02 29	RFP 4.8.2 A	CDR - Link budgets	0	
02 30	RFP 4.9.4 C	CDR - Intermodulation analysis		Delayed
02 31	RFP 4.9.4 C	CDR - Maximum Permissible Exposure (MPE) study		Credit
02 32	RFP 4.9.4 C	CDR - NTIA Study Regarding Receiver Front End Overload		Waived
02 33	RFP 4.3 D	CDR - Detailed description of failure modes and impact incl. GPS	1	9/18/2018
02 34	Prop 5.14.4	CDR - System programming parameters	1	On hold
02 35	Prop 5.14.14.1	CDR - Radio system IP plan	1	On hold
02 36	Prop 5.14.14.1	CDR - Microwave system IP plan	1	
02 37	Prop 5.14.14.1	CDR - Site heat output data	2	10/1/2019
02 38	Prop 5.14.4	CDR - LMR system site inspection and test plan	1	
02 39	Prop 5.14.4	CDR - Microwave system site inspection and test plan	1	
02 40	Prop 5.14.6	CDR - Proposed site installation check sheets	1	10/26/2018
02 41	Prop 5.14.4	CDR - Preliminary LMR Staging Acceptance Test Procedure	2	10/24/2019
02 42	Prop 5.14.4	CDR - Preliminary microwave Staging Acceptance Test Procedure	1	
02 43	Prop 5.14.4.6	CDR - Implementation Plan - Master Site FNE	1	
02 44	Prop 5.14.4.6	CDR - Implementation Plan - Dispatch FNE	1	
02 45	Prop 5.14.4.6	CDR - Implementation Plan - RF Site FNE	1	
02 46	Prop 5.14.4.6	CDR - Implementation Plan - Microwave FNE	1	

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02 47	Prop 5.14.4.6	CDR - Implementation Plan - Mobile Subscribers	1	
02 48	Prop 5.14.4.6	CDR - Implementation Plan - Portable Subscribers	1	
02 49	Prop 5.14.4.6	CDR - Implementation Plan - Volunteer Fire Paging	1	
02 50	Prop 5.14.4.6	CDR - Implementation Plan - Jail DAS	2	
02 51	Prop 5.14.4.7	CDR - Preliminary LMR system Functional Acceptance Test Procedure	2	10/24/2019
02 52	Prop 5.14.4.7	CDR - Preliminary microwave Functional Acceptance Test Procedure	1	
02 53	RFP 9.7 A	CDR - Coverage Acceptance Test Procedure	1	10/24/2019
02 54	Prop 5.14.10	CDR - Preliminary Agency Migration/Cutover Plan	2	11/15/2019
02 55	Prop 5.14.10	CDR - Preliminary microwave system cutover plan		Merged
02 56	Prop 5.14.10	CDR - Preliminary mobiles cutover plan		Merged
02 57	Prop 5.14.10	CDR - Preliminary control stations cutover plan		Merged
02 58	Prop 5.14.10	CDR - Preliminary paging cutover plan		Merged
02 59	Prop 5.14.10	CDR - Preliminary dispatch console cutover plan	2	11/15/2019
02 60	Prop 5.14.10	CDR - Preliminary recording system cutover plan		Merged
02 61	Prop 5.14.4	CDR - 30-Day Operational Test plan	2	10/1/2019
02 62	Prop 5.14.4.8	CDR - Preliminary training schedule	1	