Request For Proposal No. 3016
Public Safety Radio System
ADDENDUM NO. 2 (Amended 2/2/23)
Bid Closing is March 15, 2023 @ 3p.m.
THE DATE TODAY IS: Wednesday February 1, 2023

Please note the following changes, additions and/or deletions to this procurement named above.

I would like to thank you for your questions and request for clarifications to RFP # 3016 submit this addendum in response to those questions. The responses are as outlined below:

- Response to RFP Questions
- Appendix D – Lompoc Frequencies and Repeater Sites
- Appendix E – Site Photos
  - Fire Station #1
  - Fire Station #2
  - Landfill
  - Gravel Peak

This addendum may be returned separately from **RFP 3016 Public Safety Radio System** Addendum may be emailed to t_hernandez@ci.lompoc.ca.us or faxed to (805) 735-7628.

Thank you,

Theresa Hernandez
Senior Buyer

Purchasing Division
1300 West Laurel Avenue Bldg. 4A, Lompoc CA 93436 • 100 Civic Center Plaza Lompoc, CA 93436 Phone: (805) 875-8020 • FAX: (805) 735-7628
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"Registered Bidder Information Sheet"

Request for Proposal No. 3016
Land Mobile Radio System
ADDENDUM No.2

Bid Closing Date: March 15, 2023

To stay informed of any changes or modifications to this solicitation you must:

1. **Complete this form (print or type your information).**

2. **Fax the completed sheet to (805) 735-7628 or email to t_hernandez@ci.lompoc.ca.us**

(Please type or print)

Company Name	Signature Of Authorized Representative
Address	Name And Title (Please Print)
City, State And Zip Code	Email Address
Phone Number	Fax Number
Date	Web Site Address

Purchasing Division
1300 West Laurel Avenue Bldg. 4A, Lompoc CA 93436 • 100 Civic Center Plaza
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No.	File Name	Section #	RFP Requirement	Question	Response
1	*(not specified in question)*	*3.1*	*(not specified in question)*	Can the City provide the link details on the existing fiber, MW, and RF links, including bandwidth, latency, jitter etc.?	Water Treatment Plant to Gravel Peak is the only MW link currently in-use. Vendor to provide all new MW links.
2	*(not specified in question)*	*3.1*	*(not specified in question)*	Can the City provide an existing network map/topology of the Fiber and MW networks?	There is no existing MW fiber network. Water Treatment Plant to Gravel Peak is the only MW link currently in-use.
3	*(not specified in question)*	*3.1*	*(not specified in question)*	Does the City intend to use any spare network capacity on the Fiber or MW networks to transport non-LMR traffic?	No.
4	*RFP3016_Attachment B Lomp.pdf*	*2.1.N*	The programming of encryption and authentication keys into subscriber radios shall be accomplished via a key management tool ("key fill device") that complies with TIA-102.AACD.	Section 2.1 N indicates that the programming of encryption and authentication keys shall be accomplished via a key fill device. Please confirm P25 Radio Authentication and AES Encryption are OPTIONAL for the portable and mobile radios?	AES Encryption is mandatory; P25 Radio Authentication is OPTIONAL.
5	*(not specified in question)*	*1.2.4.B*	*(not specified in question)*	What is the name and frequency of the repeater located at the Allan College maintenance building?	Allan Hancock College is not an existing City repeater site; City identifies it as a potential / candidate site.
6	*RFP3016_Attachment B Lomp.pdf*	*1.1.1*	Current System	Per Section 1.1.1, the current system is 11 UHF and two VHF channels. Please confirm what UHF frequencies are licensed today and at what sites they are licensed. Confirm the VHF channels for the Fire department system as well.	Please see attached Appendix D - Lompoc Frequencies and Repeater Sites.
7	*(not specified in question)*	*2.2.1.C*	*(not specified in question)*	Do Optional Fire Subscribers only need to be VHF Analog conventional?	OPTIONAL Fire Portable requirements are listed in 2.2.1.C and Fire Mobile requirements are listed in 2.3.1.E. Fire subscribers must be capable of operating on the City's new UHF P25 Phase 1 Trunked LMR System.
8	*RFP3016_Attachment B Lomp.pdf*	*2.1.F*	At the time of proposals, subscriber units shall have been developed and successfully tested through the P25 CAP process.	Section 2.1.F. Will SDOC and STR documentation be required as part of the RFP submittal to show that the proposed subscribers have been developed and successfully tested through the P25 CAP process?	Compliant vendors should supply SDOC and STR documentation for P25 CAP verification. Reference the following link: https://www.dhs.gov/science-and-technology/sdoc-str-submissions
9	*RFP3016_Attachment B Lomp.pdf*	*4.2 / 4.3*	4.2 Direct Current (DC) Power Requirements 4.3 Uninterruptible Power Supply Requirements	Section 4.2 specifies Contractors are to assume new DC power systems are required for all sites, however, Section 4.3 specifies Contractors are to supply a new UPS for all sites? Please clarify which type of power should be proposed for all sites.	Vendors may forego the requirements in Section 4.3 in lieu of supplying a new DC power system for all sites in accordance with Section 4.2 of the Functional Specifications.
10	*RFP3016_Attachment B Lomp.pdf*	*2.2.5.B*	The "Fire Service" configuration of the High-Tier portable radio shall include environmental specifications beyond those listed here.	Section 2.2.5.B, can the City elaborate on what the extended environmental requirements are?	Operating temperature of -22° to 140°F and heat rating of 500°F for 5 minutes.
11	*RFP3016_Attachment B Lomp.pdf*	*2.2.1.C*	Contractor shall offer OPTIONAL **VHF** High-Tier portable radios in a "Fire Service" configuration	Section 2.2.1.C, is VHF the only band required for the Fire Service portable configuration?	Per RFP 2.2.1.a, these OPTIONAL Fire Portable subscribers are High-Tier portable radios which shall provide multi-band capabilities to operate in the following frequency bands: 1. 700/800 MHz: 769 – 870 MHz 2. UHF: 380 – 520 MHz 3. VHF: 136 – 174 MHz

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12	*RFP3016_Attachment B Lomp.pdf*	*2.3.1*	Mobile Radio - High-Tier Model	Section 2.3.1, is VHF the only band required for the Fire Service mobile configuration?	Per RFP 2.3.1.A, these OPTIONAL Fire Mobile subscribers are High-Tier mobile radios which shall provide multi-band capabilities to operate in the following frequency bands: 1. 700/800 MHz: 769 – 870 MHz 2. UHF: 380 – 520 MHz 3. VHF: 136 – 174 MHz on the City's new UHF LMR System.
13	*RFP3016_Attachment B Lomp.pdf*	*2.3.1.E*	Contractor shall offer OPTIONAL VHF High-Tier mobile radios in a "Fire Service" configuration that is the same as above but shall contain: 4. The ability to interface to a City-provided headset via a 6-wire connection	Section 2.3.1.E, can the City provide additional details on the headset the City intends to use with the high tier mobile?	City Fire uses Sigtronics Corporation headset system in its vehicles.
14	*RFP3016_Attachment B Lomp.pdf*	*1.1.2.L*	As an OPTION, Contractor shall replace the existing analog VHF radio system equipment at existing sites on a 1-for-1 basis.	Section 1.1.2.L specifies that Contractor shall replace the existing analog VHF radio system equipment at existing sites on a 1-for-1 basis. Please provide the locations/addresses of the current Fire Department VHF sites requiring this 1-to-1 replacement and the number of stations to be replaced at each of these sites.	Please see attached Appendix D - Lompoc Frequencies and Repeater Sites.
15	*(not specified in question)*		*(not specified in question)*	How many conventional ANALOG channels must the new or upgraded logging recorder be able to record?	Two (2) existing channels Duplex (Fire Dispatch and Fire Command) & one (1) Simplex (Fire Tactical) please refer to the attached Appendix D - Lompoc Frequencies and Repeater Sites.xlsx.
16	*(not specified in question)*		*(not specified in question)*	How many P25 Talkgroup channels must the new or upgraded logging recorder be able to record ?	50
17	*(not specified in question)*		*(not specified in question)*	How many SIP/ VOIP admin channels or SIP/VOIP office channels must the new or upgraded logging recorder be able to record?	16
18	*(not specified in question)*		*(not specified in question)*	How many Dispatch 911 CPE POSITIONS must the new logging recorder be able to record (Viper? Vesta? ..i3 CPE? Etc)	5 positions and 1 mobile option.
19	*(not specified in question)*		*(not specified in question)*	Does the City have any City-owned and controlled Fiber in place? Or is all Fiber only available via Carrier service?	Fiber is only available via Carrier services for this project. No existing fiber use is planned.
20	*(not specified in question)*		*(not specified in question)*	Can a Fiber topology be provided for the dark fiber? What are the termination points and connection points?	Please refer to the Appendix B - Dark fiber Availability file, for site termination information, and the contact provided in the file.
21	*RFP3016_Attachment B Lomp.pdf*	*6.4.I*	OPTIONAL - Contractor shall offer these post-warranty services in annual increments for a 10-year period following warranty expiration	Section 6.4 Lifecycle Support Section I. Will the post warranty services be evaluated separately from the base pricing?	Yes
22	*(not specified in question)*		*(not specified in question)*	Can site details be provided for the Gravel Peak site (ie tower type, tower height, type of shelter, space available in the shelter, etc). Can photos of the site be provided?	Site photos are provided via the link labeled Gravel Peak Site photos below. https://3.basecamp.com/4123878/buckets/29139132/vaults/5710680565

No.	File Name	Section #	RFP Requirement	Question	Response
23	*RFP3016_Attachment B Lomp.pdf*	*2.1.C*	Where possible, Contractor shall re-use existing City P25 capable radios. Contractor shall provide program these units to operate on the new System.	In order for the City to have an apples to apples comparison of the proposed subscribers for the quantities specified in Appendix C, we respectfully request that the Section 2.1.C requirement be removed. Section 2.1.C specifies that existing City P25 capable radios be reused and that Contractor program these subscribers on the new System. Appendix C does not provide details on which radios are currently P25 capable. Furthermore, it is unknown as to whether they meet the Subscriber requirements outlined in this RFP. For example, the specification calls for High Tier portables to be multi-band radios and Mid-Tier radios to be dual band capable. Do the existing subscribers meet these specifications?	"RFP requirement 2.1.C will remain." Tiered requirements apply for new radios and are not applicable to existing radios.
24	*(not specified in question)*		*(not specified in question)*	It is our understanding that the City's existing logging solution is unable to be upgraded to P25 and public safety standards. We recommend that the City require all vendors provide a new logging solution.	RFP Section 1.4.B.3 has requirement to replace the existing logging recorder with new logging recorders if existing logging recorder will not record the System digital talkgroups, and cannot be upgraded. This is subject to each Proposer's evaluation of existing logging recorder.
25	*(not specified in question)*		*(not specified in question)*	What type of site connectivity exists today between the consoles to the backroom at Corporate Yard? Is there conduit between the buildings at the Corporate Yard?	None. Vendor to assume new connectivity between the sites.
26	*RFP3016_Attachment B Lomp.pdf*	*1.1.4.H*	The System backhaul links shall support payload encryption. 1. At a minimum, payload encryption shall be fully compatible with AES and comply with FIPS-197. 2. The AES algorithm shall support 128-bit or 256-bit symmetric keys, via a randomly generated encryption combination.	Per Section 1.1.4.H and 3.4.B.6, there appears to be conflicting information on whether the system needs backhaul AES encryption upon deployment. Is AES encryption required for backhaul links upon deployment?	Yes, AES encryption required for backhaul links upon deployment. However, in the initial system deployment, the new network shall not be configured to encrypt traffic. Encryption, if any, will be done by end-user devices, from RFP Section 3.4.1.B.6.
		3.4.1.B.6	All microwave radios shall: Be capable of encrypting network traffic, using Advanced Encryption Standard (AES), using a 256-bit cryptographic key; however, in the initial system deployment the new network shall not be configured to encrypt traffic. Encryption, if any, will be done by end-user devices.		

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27	*(not specified in question)*		*(not specified in question)*	Motorola noted 13 qty paging resources on the dispatcher's screens - can the City please confirm that the paging format for these resources are standard two-tone sequential format or provide details if the paging and fire station alerting is that of a different format and being updated as part of this system upgrade/replacement?	Please refer to Section 1.3.2.A 26 for tone alert requirements. Fire station 51 and 52 are using Westnet First-In Alerting system that is connected directly to the radios. There are no other active paging systems in the city at this time.
28	*(not specified in question)*		*(not specified in question)*	Are the 31 qty alarm indicates and controls dry contact, normally closed contact closure input/outputs?	Vendor's solution shall be configurable for either normally open or close dry contacts.
29	*RFP3016_Attachment B Lomp.pdf*	*2.1.M*	Contractor shall include all software and hardware necessary to support the creation of programming files to be stored on the centralized database as well as for the centralized database itself.	Can the City confirm the preference for vendors to provide subscriber programming equipment as Section 2.1.M states that "Contractor shall include all software and hardware necessary to support the creation of programming files to be stored on the centralized database as well as for the centralized database itself.", while Section 2.5.B states "Computers on which programming software is to operate shall not be included with the System but the Contractor shall state specifications for the computers to be procured separately by the City, on which such software is to operate at the time of detailed design."	City preference is as stated in Section 2.1.M, and City removes Section 2.5.B.
		2.5.B	Computers on which programming software is to operate shall not be included with the System but the Contractor shall state specifications for the computers to be procured separately by the City, on which such software is to operate at the time of detailed design.		
30	*RFP3016_Attachment B Lomp.pdf*	*5.13.1.F*	Contractor shall: 1. Conduct all training at a location where duplication of system operation will not impact daily operations 2. Coordinate with the City regarding number of attendees, schedule, and training location 3. Schedule classes as close to system cutover as possible 4. Train the City employees or designated individuals	5.13.1.F) Can the City provide details on the number of people attending training on the LMR system and the Dispatch system? Is there a preference for Virtual or Onsite training ?	The number of staff for such training, including supervisors, is 20. The training shall be conducted onsite for the dispatch personnel. For non-dispatch training, the City is open to having classes either virtually or at vendor facilities.
31	*(not specified in question)*	*3.3.A*	*(not specified in question)*	Please clarify if 150 Mbps capacity requires 99.999% two-way availability?	Yes, 150 Mbps requires two-way end-to-end annual availability of 99.999%.
32	*(not specified in question)*		*(not specified in question)*	Can the City provide building drawings for the Lompoc Valley Medical Center and the Landfill? Alternatively, please provide the number of floors and the square footage of each of the floors for each of these buildings.	The building drawings are not available. Lompoc Valley Medical Center is a Single Floor, 160,000 Sq. Ft. facility. For the Landfill, site photos are provided via the link below. https://3.basecamp.com/4123878/buckets/29139132/vaults/5783769072

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33	*RFP3016_Attachment B Lomp.pdf*	*1.3.1.E.7*	The dispatch system shall be configured with each console position to provide control of: 7. Text 911 application to the dispatch consoles	Section 1.3.1.E.7, What is the desired functionality the city is requesting for text to 911 and fire alerting on the console ?	Fire Tones need to be on the Radio Screen, Text to 911 on the Dispatch screen.
34	*RFP3016_Attachment B Lomp.pdf*	*1.3.1.E.7*	The dispatch system shall be configured with each console position to provide control of: 7. Text 911 application to the dispatch consoles	Section 1.3.1.E.7, Can the City elaborate on the existing fire station alerting system in place?	Fire uses Westnet's Alert Tone System FIRST-IN MASTER CONTROL UNIT together with the FIRST-IN POWER MODULE.
35	*(not specified in question)*		*(not specified in question)*	In order to ensure strict comparison between vendors, can the City provide an anticipated noise floor value to model the VHF coverage?	Vendor to provide their proposed noised floor values based on the public safety standards.
36	*(not specified in question)*		*(not specified in question)*	If Fire Station 1 and 2 are sites that will require a one for one replacement of Fire Department VHF equipment, can site details be provided for the Fire Station 1 and 2 sites (ie antenna structure/tower type, antenna structure/tower height, type of shelter/equipment room, space available in the shelter/equipment room, etc.). Can photos of the sites be provided?	The fire stations only have base stations with antennas located inside the building.
37	*(not specified in question)*		*(not specified in question)*	Does the City require new Microwave links be provided for the sites associated with the Optional VHF radio system replacement for the Fire Department?	Yes.
38	*(not specified in question)*	*1.1.2.B.3*	Dispatch consoles, with backup control stations, and integration with or upgrades to the City's existing logging recorder, and interface to the City's existing computer aided dispatch (CAD) system	Can the City please provide the Vendor and model for the existing CAD System?	Cyrun ALLIANCE Version 7
39	*(not specified in question)*	*1.3.1.R*	The City's computer aided dispatch (CAD) server is currently being replaced. The new dispatch system shall provide an OPTIONAL application programming interface (API) for integration with the radio system	Can the City please provide the Vendor and model of the new CAD server that will be replacing the existing CAD system?	Correction: The City is not replacing the existing CAD system, rather upgrading it with a new Windows Server 2022.

No.	File Name	Section #	RFP Requirement	Question	Response
40	*(not specified in question)*	*1.2.3.1 E*	The UHF radio system shall provide in-building coverage at DAQ of 3.4 to a portable radio worn at hip level in a belt case. In-building coverage must be guaranteed and provided by Contractor for the following buildings: 1. Lompoc Valley Medical Center –1515 E Ocean Ave, Lompoc, CA 93436 2. Lompoc City Landfill – 700 Avalon St, Lompoc, CA 93436	Can City provide floor plans for the buildings that the Vendor must provide guaranteed in-building coverage and specify if we need to provide indoor coverage throughout the entire building inside of the hospital or just inside of the Emergency Room.	The building drawings are not available. Lompoc Valley Medical Center is a Single Floor, 160,000 Sq. Ft. facility. For the Landfill, site photos are provided via the link below. https://3.basecamp.com/4123878/buckets/29139132/vaults/5783769072
41	*(not specified in question)*	*1.2.7.1 A.2*	Mobile Command Post Antenna system equipment consisting of new TX/RX antenna(s), transmission line, and mounting hardware suitable for installation on the City's Mobile Command Post vehicle.	Can the City provide vendor and model of the existing antenna system and feedline at the Command Post? What is the vendor and model of the duplexer being used at the Mobile Command Post	Vendor is to provide per the specifications 1.2.7.1 A.2 Mobile Command Post.
42	*(not specified in question)*	*1.2.8 A*	The radio system shall include interop / conventional channel gateways for interfacing and patching between P25 trunked talkgroups and analog/conventional Mutual Aid channels.	Can the City specify the number of P25 talkgroups and Mutual Aid Channels that will be required to interfaced and patched to the proposed System? Could the county also specify the location of the Mutual Aid resources?	Talkgroups: 50 Mutual Aid Channels: 1 Tactical and Mutual Channel Mutual Aid Channels Locations: At PD and the secondary in the mobile command.
43	*(not specified in question)*	*1.1.2.C*	The UHF Radio System shall be equipped and licensed for low-speed data capability to integrate existing supervisory control and data acquisition (SCADA) systems	Could the City provide data speed requirements and other details regarding the existing SCADA system? Specifically we would like to know if the City expects native support of the over-the-air scheme the are currently using. We would like to know what the system is and what are the end points and the relevant standards of their link type.	City removes this requirement in Section 1.1.2.C.
44	*(not specified in question)*	*1.1.2.K*	As an OPTION, a new radio system shall replace the existing analog very high frequency (VHF) radio system used by the Fire Department.	Could the City specify which sites are a part of the VHF Fire Analog systems cited in 1.1.2 (L) as well as coordinates, the antenna models, heights, feedline type and length being used at these sites? Does the Analog system currently operate in Simulcast mode?	Please see attached Appendix D - Lompoc Frequencies and Repeater Sites. The Current system is not simulcasted.
45	*(not specified in question)*	*1.1.2.L*	As an OPTION, Contractor shall replace the existing analog VHF radio system. equipment at existing sites on a 1-for-1 basis.	Could the City specify which sites are a part of the Analog system mentioned in 1.1.2 (L), and the antennas, feedline type and length being used at these sites. Can assume the Analog system mentioned in 1.1.2 L is Simulcasted.	Please see attached Appendix D - Lompoc Frequencies and Repeater Sites. The Current system is not simulcasted.

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46	*(not specified in question)*	*1.2.8.B*	The radio system shall provide the City of Lompoc with interoperability capability to talk to Santa Barbara County Sheriff's Office, City of Santa Maria Police Department, Santa Barbara Regional Fire Dispatch, Vandenberg Space Force Base, United States Penitentiary Lompoc (USP Lompoc), EMS/Hospital, and California Highway Patrol.	Could the City provide the Frequency Band of all of entities listed in requirement 1.2.8 (B)?	Santa Barbara County Sheriff's Office - UHF (460MHz) City of Santa Maria Police Department - UHF (460MHz) Santa Barbara Regional Fire Dispatch - VHF (150-155MHz) Vandenberg Space Force Base - Aeronautical Mobile (117.975-136MHz) United States Penitentiary Lompoc (USP Lompoc) - UHF (406MHz) EMS/Hospital - UHF (463MHz) California Highway Patrol - VHF Low Band (39-45MHz)
47	*(not specified in question)*	*3.1.C*	clause 3.1.C: "Contractor shall evaluate and leverage existing microwave equipment to the extent possible."	Should all new MW equipment be proposed for the whole system? If existing equipment re-use is allowed, can the details of existing equipment specifications be provided?	Yes.
48	*(not specified in question)*	*3.4.1.B.4*	clause 3.4.1.B.4: "Support the transport of TDM signals via pseudowire without external equipment	Is standalone Layer3/MPLS router considered as "exte	Section 3.2.G.3 states Contractor shall provide MPLS routers needed to support their proposed System design. City removes "without external equipment" from Section 3.4.1.B.4.
49	*(not specified in question)*	*1.2.3.2*	B. Contractor shall complete coverage testing of the System with witnesses from the City and/or City's representative, utilizing Bit Error Rate (BER) testing. Contractor shall submit appropriate documentation confirming lab testing of the Bit Error level for the portable radio, which will yield the equivalent of a DAQ 3.4 audio quality. Likewise, the Contractor shall test the System to that level. D. Contractor shall complete coverage testing of the System with witnesses from the City and/or City's representative, utilizing non-automated, subjective DAQ testing.	We understand Requirement B as the testing requirement for the UHF P25 Radio System and Requirement D as the testing requirement for the optional VHF Radio system. Is this correct?	Yes, RFP 1.2.3.2.B applies to UHF P25 testing, and RFP 1.2.3.2.D applies to the OPTIONAL VHF system testing.

No.	File Name	Section #	RFP Requirement	Question	Response
50	*(not specified in question)*	*1.2.3.4*	Contractor shall submit talk-in and talk-out coverage prediction maps for the System. Coverage maps shall be provided for each of the following transmission paths, using antenna configurations described in Section 1.2.3.1: 1. Mobile Radio Talk-in (composite and individual sites) 2. Mobile Radio Talk-out (composite and individual sites) 3. Portable Radio Talk-in, on-street (composite and individual sites) 4. Portable Radio Talk-out, on-street (composite and individual sites) 5. Portable Radio Talk-in, in-building (composite with 15 dB building loss) 6. Portable Radio Talk-out, in-building (composite with 15 dB building loss)	We understand the requirement is for on-street portable and mobile coverage. We assume that the maps for 15 dB in-building coverage are to be provided as "Information Only". Is this correct?	Composite 15 dB in-building coverage maps are for Information Only purposes. Proposer shall provide coverage maps for the in-building requirements at Lompoc Valley Medical Center and Lompoc City Landfill.
51	*(not specified in question)*	*1.2.3.1*	G. Portable radio coverage requirements for the UHF radio system shall be met by assessing a portable radio worn at the hip (i.e., approximately 3 feet above ground level), inside a belt case, with a remote speaker mic (RSM) accessory. The ½ wave antenna shall be simulated as being at hip-level for both talk-in and talk-out communications. Body loss factors for portable radio performance shall comply with the current version of TSB.88-1 Table D 5.	The current version of TSB-88.1 is version "F". With this revision the portable antenna loss table is now Table D4 and it lists a Helical Antenna Loss at 17.2 dB and a 1/4 Whip Antenna Loss at 13.2 dB. Is this the table to use and if so which loss value (dB) should be used?	Please use 17.2 dB per TIA TSB-88.1 Revision F Table D 4 Median Portable Antenna Loss Outside & Inside Vehicle
52	*(not specified in question)*	*1.2.3.1*	F. Using the constellation of existing VHF Fire sites, the Contractor shall describe the guaranteed talk-in and talk-out coverage that the OPTIONAL new system will provide to a mobile and portable on-street worn in turnout gear, with 95% reliability and a DAQ of 3.4 or better within the City service area.	Can the City provide a list of existing VHF Fire sites along with their addresses or coordinates, and antenna heights?	There are two VHF Fire sites. Please see attached Appendix D - Lompoc Frequencies and Repeater Sites.

No.	File Name	Section #	RFP Requirement	Question	Response
53	*(not specified in question)*	*1.3.1*	A. Contractor shall provide the following quantities of new dispatch consoles that support all current P25 mandatory features. 1. Police Department – 5 consoles 2. Water – 1 console 3. Transit – 2 consoles 4. Solid Waste – 1 console 5. Spare – 1 console E. The dispatch system shall be configured with each console position to provide control of: 1. Radio system talkgroups 2. Paging 3. Fire station alerting 4. Emergency alarms and calls 5. Patching between talkgroups and conventional stations 6. Retaining any existing functionality 7. Text 911 application to the dispatch consoles	Can the City explain the desired functionality of the dispatch consoles for the Water, Transit, Solid Waste, and for the Spare? Do they actually require the specified configuration and control as those typically assigned to a PD Dispatch? Or do they actually just need a desktop RF Control Station to control their own radio system talkgroups? Can the City provide the physical address for all dispatch console locations with the exception of the Police Department's Dispatch Center?	The requirements for the Dispatch Console System are specified in section 1.3 in RFP3016 Attachment B - Functional Specifications. These requirements apply to all consoles.
54	*(not specified in question)*	*1.2.4 A 1*	The City prefers the reuse of existing sites where possible. The City prefers the following priority for site selection. Gravel Peak	Can the City provide the following information about the Gravel Peak remote site that was not accessible during the site visits? Can the City provide coordinates (LAT/LONG); existing available antenna or rooftop antenna height, shelter space (how many new racks can be placed there); existing power source information for AC and DC, and generator - can it support additional equipment power requirements or do we need to add more? If new tower is required, are there any known tower height restrictions?	No known tower height restrictions. Vendor to conduct due diligence as part of their proposed solution.
55	*(not specified in question)*	*1.2.4 A 1*	The City prefers the reuse of existing sites where possible. The City prefers the following priority for site selection. Flag Pole Hill	Would the City be responsible for extending existing AC power from its current point on the hill to where a new potential tower may be placed a few feet away near the existing Microwave Monopole?	Yes.
56	*(not specified in question)*		(not specified in question)	Please provide a description of existing patch capabilities to be maintained through migration.	No patching capability exist today.
57	*(not specified in question)*	*1.2.7*	Section 1.2.7 indicates a new base radio/repeater shall be supplied for the Mobile Command Post Vehicle to be used as a UHF P25 Conventional Channel.	Has the City identified what City frequency will be used for this base radio/repeater or will a new frequency be required for this base station/repeater?	A new frequency may be required based on Vendor's spectrum research, proposed sites, and frequency plan.
58	*(not specified in question)*			Request to visit Gravel Peak site at earliest availability.	Due to rain damage, the site is not available for a site visit. Vendors to use City provided pictures via the Gravel Peak Site link provided in this addendum.

No.	File Name	Section #	RFP Requirement	Question	Response
59	*(not specified in question)*	*1.1.2*	Section 1.1.2 C makes reference to an existing SCADA system.	How many SCADA devices does the City currently use?	City removes this requirement in Section 1.1.2.C.

Lompoc Maintained Channels

UHF | VHF | MONITORED FREQ.

Display	Description	RX -MHz	TX-MHz	CTSS RX	CTSS TX	Current Platform	Fixed Sites	Duplex/Simplex	Encrypted	PWR TX
GREEN-RPT	PD Dispatch- Repeater	460.125	465.125	97.4	97.4	Analog	Beattie	Duplex	No	High
GREEN-DIR	PD Dispatch - Direct	460.125	460.125	97.4	97.4	Analog		Simplex	No	Low
TAC -RPT	PD Tactical-Repeater	460.425	465.425	88.5	88.5	Analog	WTP	Duplex	No	High
TAC-DIR	PD Tactical-Direct	460.425	460.425	88.5	88.5	Analog		Simplex	No	Low
RED	Reg. P. Mutual Aid	460.05	460.05	82.5	82.5	Analog	PD	Duplex	No	RX only
CLEMARS	UHF CLEMARS	460.025	460.025	156.7	156.7	Analog	PD	Duplex	No	RX only
OPS 1	SB County Sheriff (Orange)	460.275	465.275	110.9	82.5	Analog	PD	Duplex	No	Rx only
OPS 2	SB County Sheriff (Yellow)	460.325	465.325	110.9	82.5	Analog	PD	Duplex	No	RX only
COM SERV	Community Services	453.475	458.475	100	100	Analog	Beattie	Duplex	No	High
S WASTE	Solid Waste	453.975	458.975	146.2	146.2	Analog	Beattie	Duplex	No	High
LANDFILL	Landfill/Dewees Rec./Anderson Rec./Rec. Comm	453.775	453.775	173.8 /179.9 /203.5 /225.7	173.8 /179.9 /203.5 /225.7	Analog		Simplex	No	Low
WTP F1 MAIN	Water Repeater	453.825	458.825	74.4	156.7	Analog	WTP/GP/MCR	Duplex	No	High
WTP F2 B/U	Water Treatment Plant-Back Up	453.825	458.825	74.4	74.4	Analog	Beattie	Duplex	No	High
WTP F3 DIR	Water Treatment Plant -Direct	453.15	453.15	131.8	131.8	Analog		Simplex	No	Low
WTP F4 AUX	Water Treatment Plant-Alarm	453.925	458.925	167.9	167.9	Analog	WTP	Duplex	No	High
WWTP	Waste Water Plant	458.15	458.15	141.3	141.3	Analog		Simplex	No	Low
TRANSIT	Transit	453.575	458.575	110.9	110.9	Analog	Beattie	Duplex	No	High
ELECTRIC	Electric Admin	453.375	458.375	151.4	151.4	Analog	Beattie	Duplex	No	High
ELECTRIC DIR	Electric Direct	453.375	453.375	151.4	151.4	Analog		Simplex	No	Low
DISTRIBUTION	Distribution-Repeater	453.275	458.275	103.5	103.5	Analog	Corp. Yard	Duplex	No	High
DISTRIB-DIR	Distribution-Direct	453.275	453.275	103.5	103.5	Analog		Simplex	No	Low
OPERATIONS	Operation- Repeater	453.925	458.925	118.8	118.8	Analog	WTP	Duplex	No	High
OPERATION- DIR	Operation- Direct	453.925	453.925	118.8	118.8	Analog		Simplex	No	Low
TAC 1	Tactical 1 (Test Frequency)	453.05	453.05	123	123	Analog		Simplex	No	Low
TAC 2	Tactical 2 (Test Frequency)	458.05	458.05	165.5	165.5	Analog		Simplex	No	Low

VHF

LMP DISP	Lompoc Dispatch	154.43	158.955	127.3	127.3	Analog	WTP	Duplex	No	High
LMP CMD	Lompoc Command	154.07	158.91	85.4	85.4	Analog	Beattie	Duplex	No	High
LMP TAC	Lompoc Tactical	155.88	155.88	91.5	91.5	Analog		Simplex	No	Low
SBC DISP	Santa Barbara County Fire Dispatch	153.77	154.25	110.9	136.5	Analog	PD	Duplex	No	RX only
AIRPORT -UNICOM	Airport Unicom	122.77	122.77			Analog			No	Low
AIRPORT -AWOS	Airport AWOS	133.875	133.875			Analog	AP		No	RX only
CHP-Blue	CHP- BLUE	42.34	42.18	167.9	167.9	Analog	PD	Duplex	No	RX only

Site #1 Beattie Park Site:
- PD-GREEN (Dispatch)
- PD-TAC
- FIRE COMMAND
- COMM SERVICE
- SOLID WASTE
- TRANSIT
- ELECTRIC-Admin
- WATER- F2 B/U

Site # 5 PD Site
- GREEN-Control Station
- PD TAC- Control Station
- RED-Base Station-RX
- CLEMARS-Base Station-RX
- OPS 1-Base Station-RX
- OPS 2-Base Station-RX
- COMM SERVICES-Control Station
- ELECTRIC-Control Station
- FIRE DISPATCH-Control Station
- FD COMMAND-Control Station
- SBC FIRE DISPATCH-RX
- FIRE TACTICAL-Base Station
- CHP Low Band (Mobile) RX

Site #5 PD/EOC
- GREEN
- PD TAC
- MULTIBAND SCANNER
- LMP DISPATCH (VHF)
- CITY UHF
- FM

Site #6 Fire Station 1 (51)
- FIRE DISP-Paging System

Site #3 Corporate Yard
- Electric-DISTRIBUTION

Site #2 Water Treatment Plant
- PD-TAC
- FIRE DISP
- Electric-OPERATION/WATER F4 AUX
- WATER- F1 MAIN (VOTED)

Site #7 Fire Station 2 (52)
- FIRE DISP-Paging System

Site #4 Gravel Peak
- Water- F1 MAIN (Voted) (TX)

Site #8 Miguelito Canyon Reservoir
- Water F1 (RX)

Potential Sites #9 (North Site)
- **Flag Pole Hill**
- **Allan Hancock College**
- **Ken Adams Park**

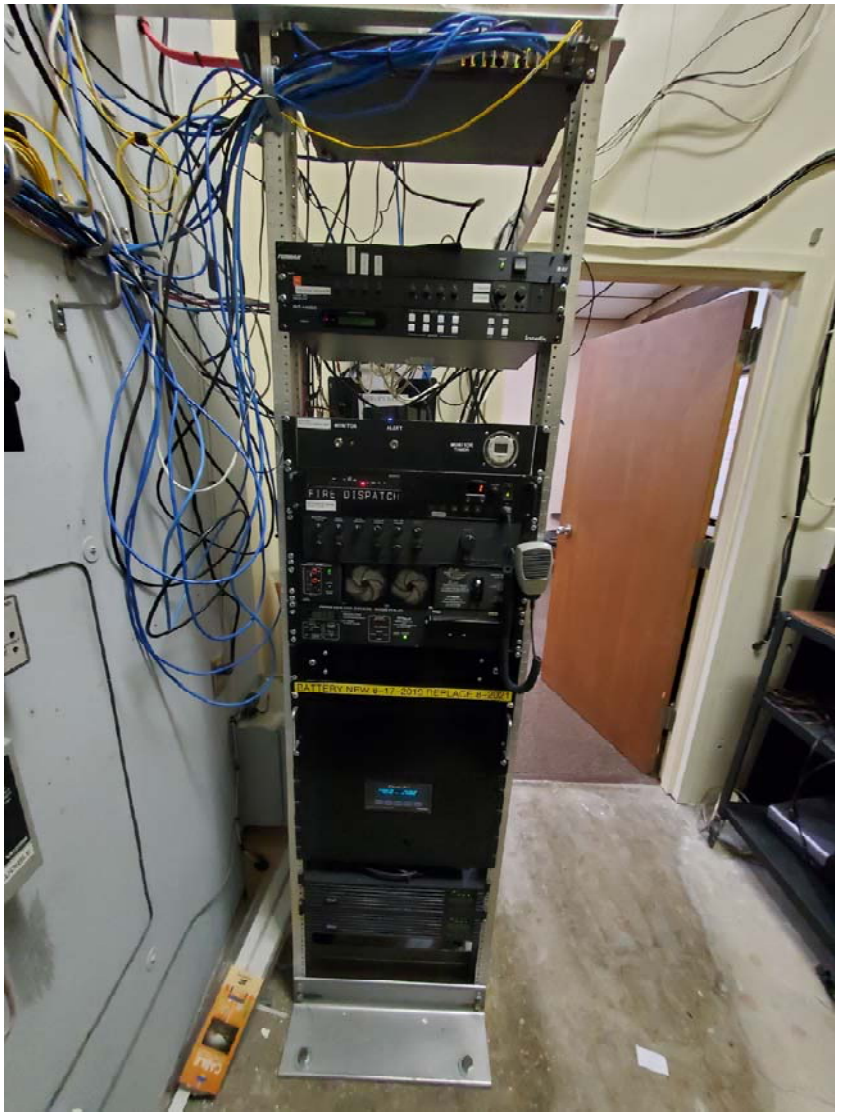
Potential (Receive only) East Site #10
- **River Park**

Appendix D - Lompoc Frequencies and Repeater

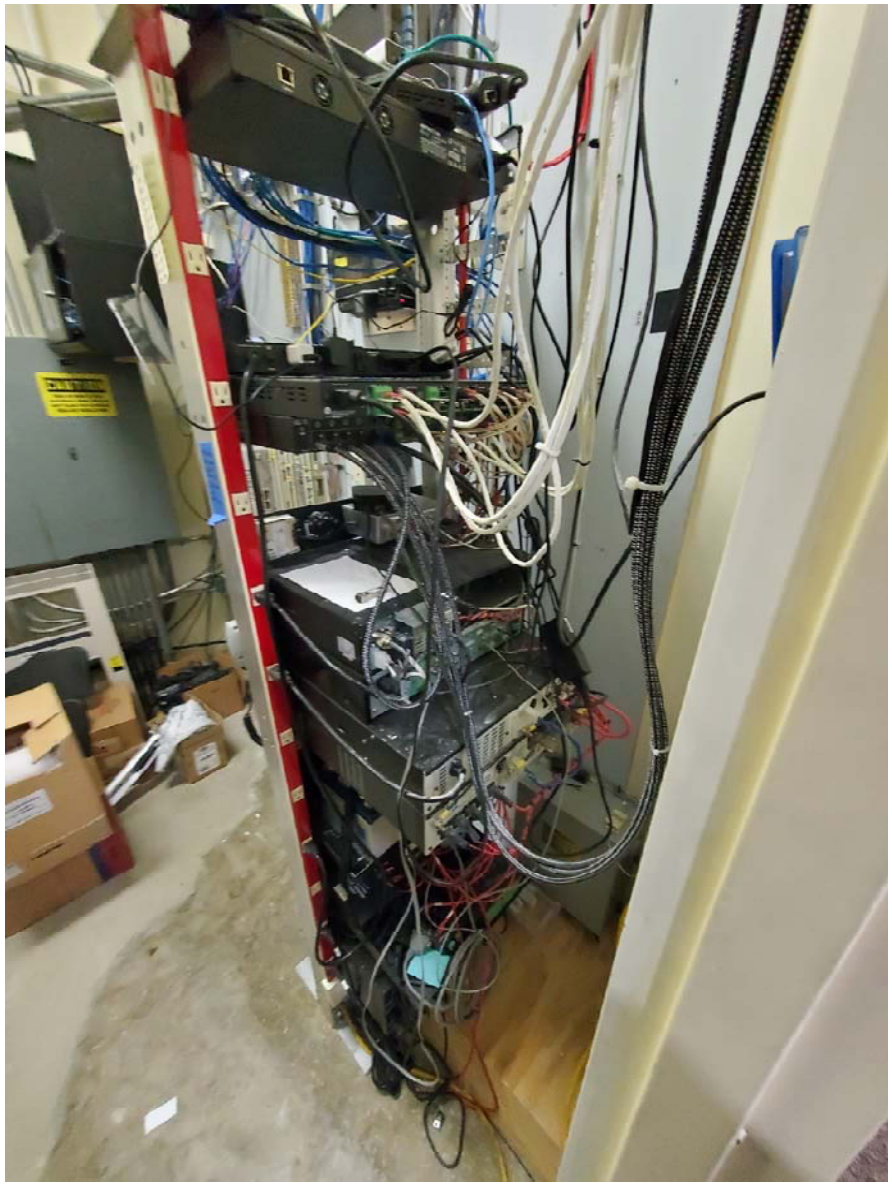
Appendix E: Site Photos

Fire Station #1

Notes:
TKR-750

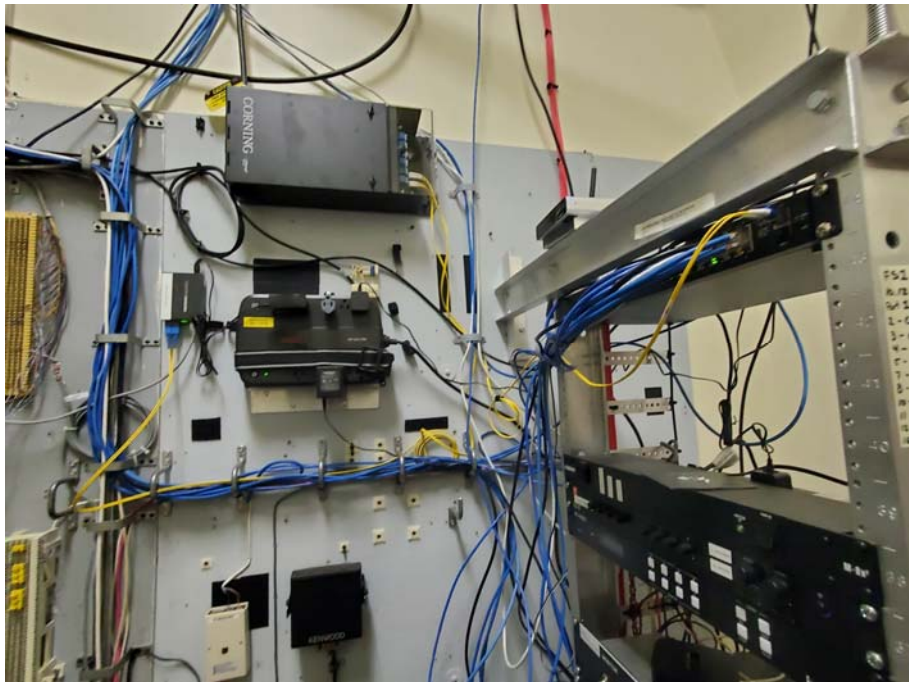


Notes:
Communication Rack



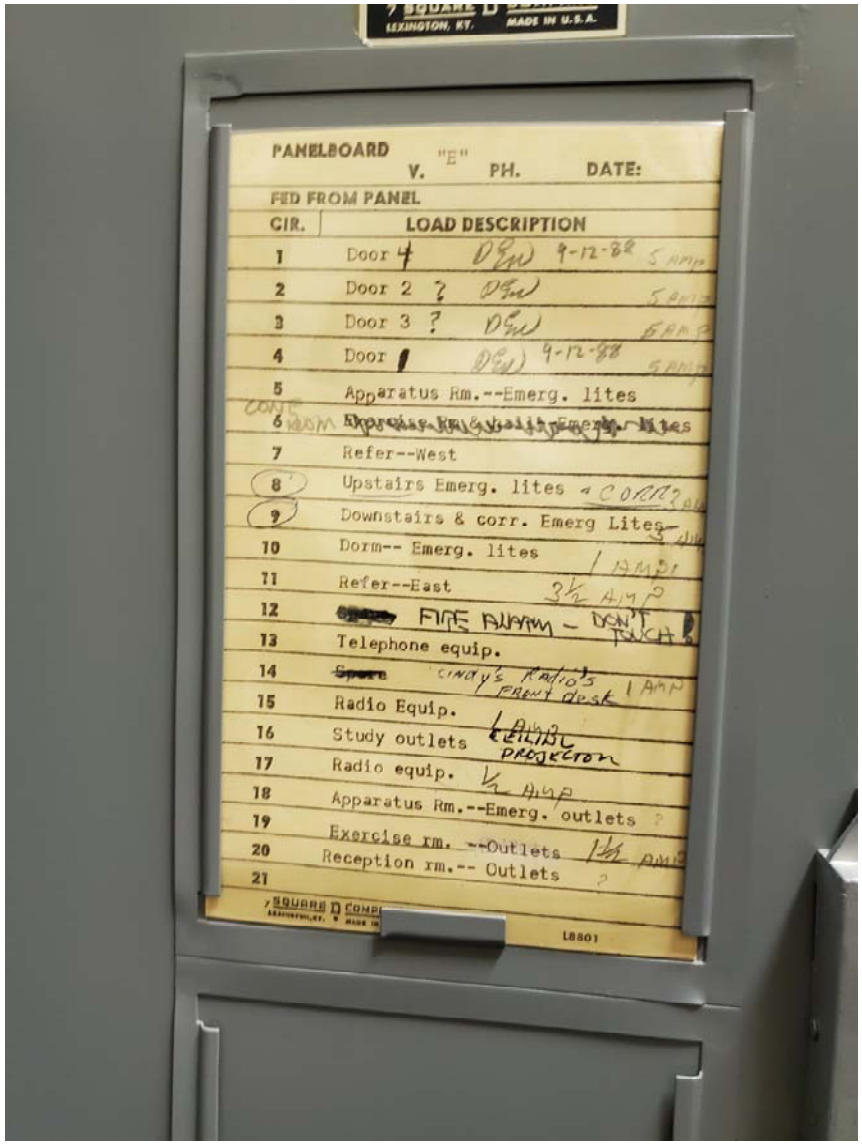
Notes:
Westnet First-In MCU

Notes:
Main power panel to the build



Notes:
Communication room wall adjacent to the Comm. rack.

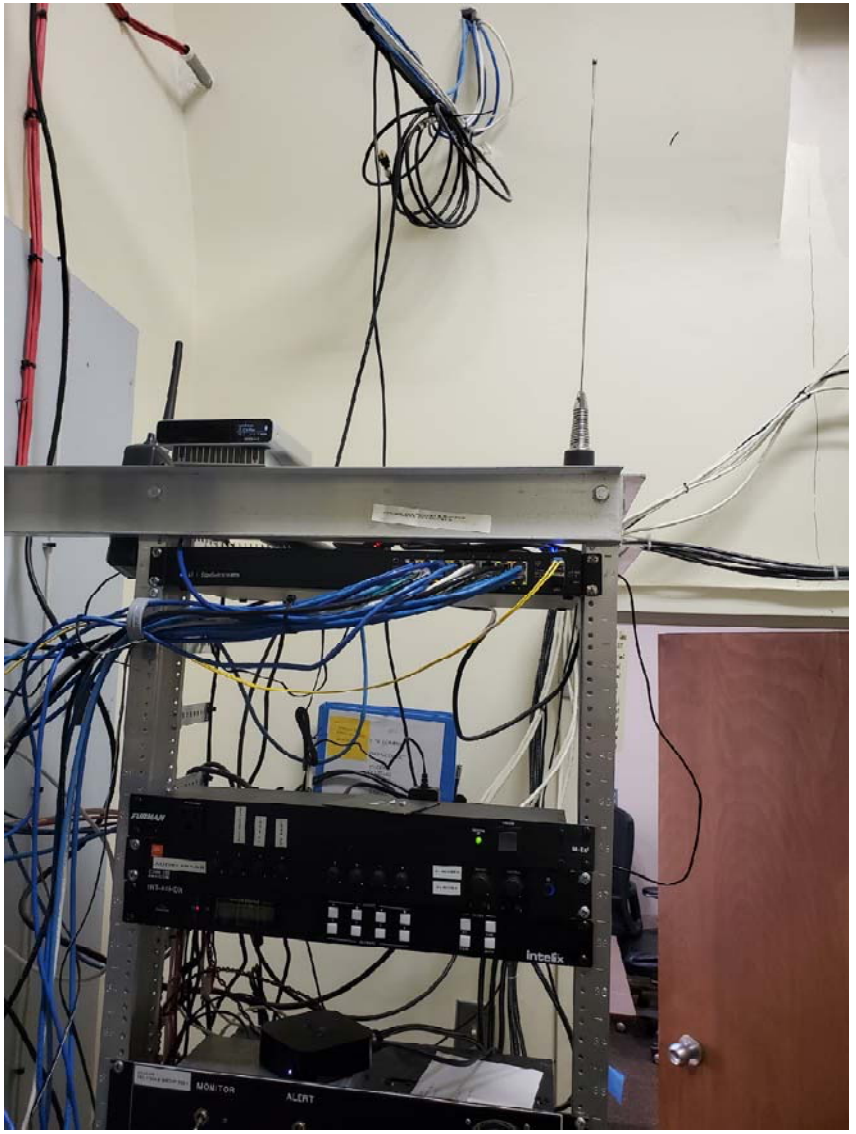
Notes:
Panel "E"



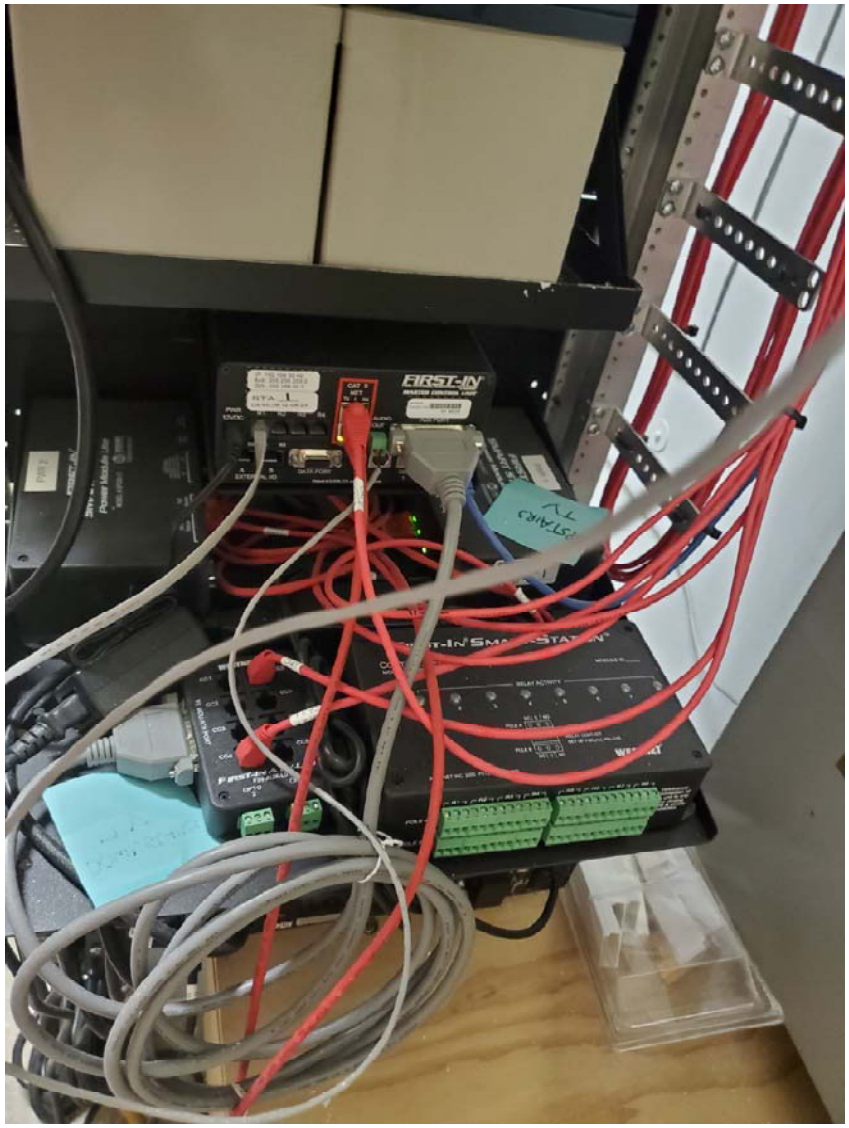
Notes:
Panel "E" legend

Notes:
Tone Alert System- Westnet First-In Alert System: Master Control Unit: FIN-Eth-T10.

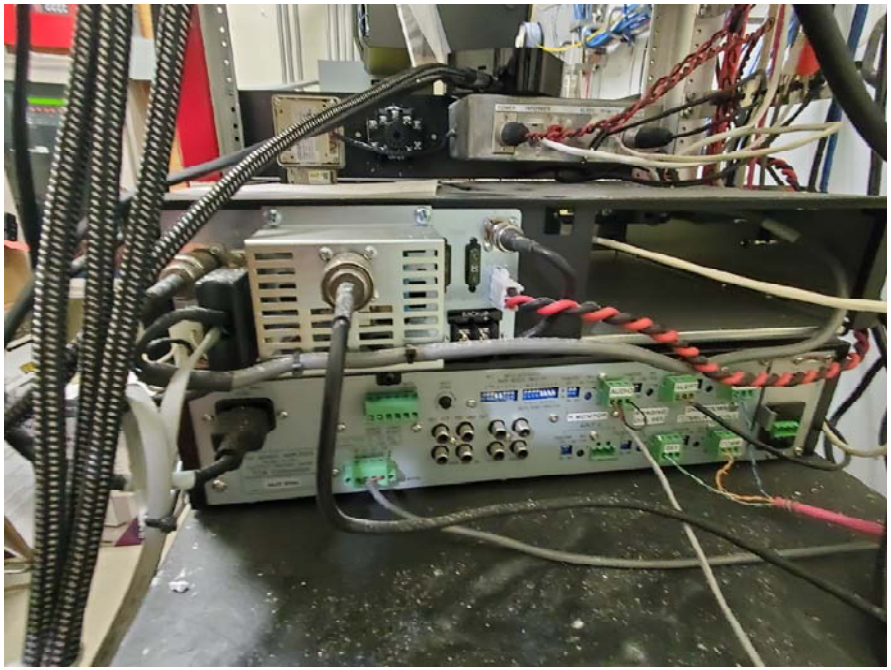
Notes:
Radio: Kenwood TKR-750, Power Function Manager: Newmar PFM-400, UPS: Newmar 12-70. Backup Batteries 2-12VDC



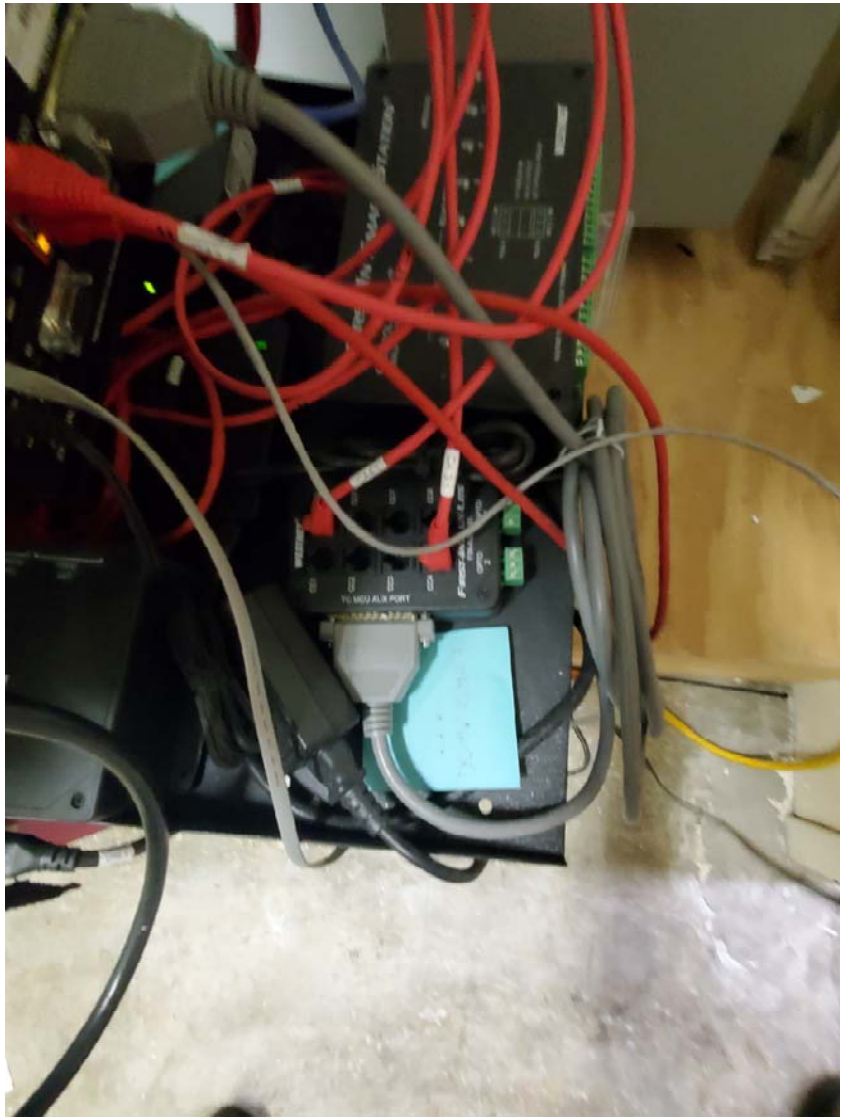
Notes:
Indoor Radio Antenna: Laird VHF 132-525 B132S



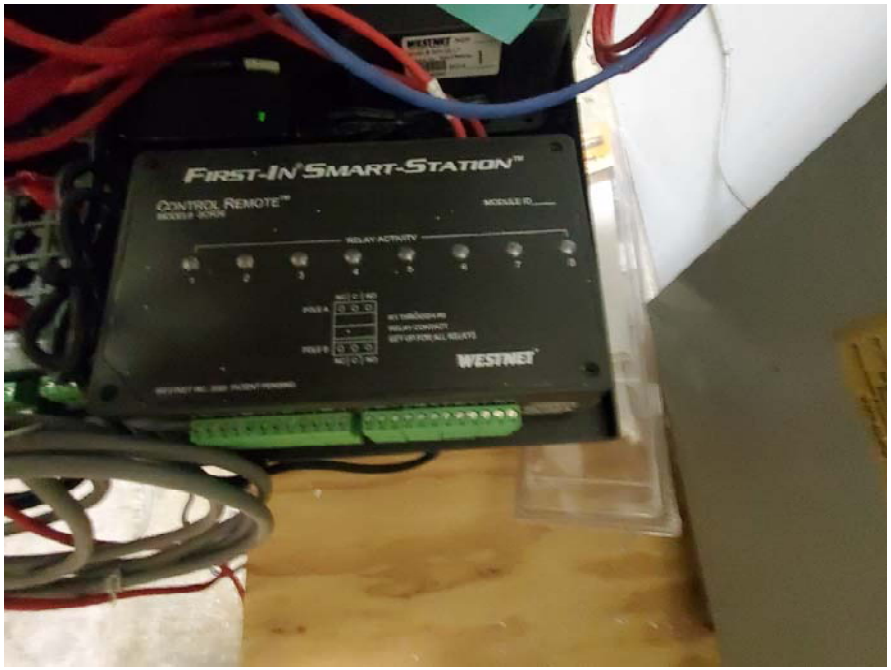
Notes:
Westnet- Equipment



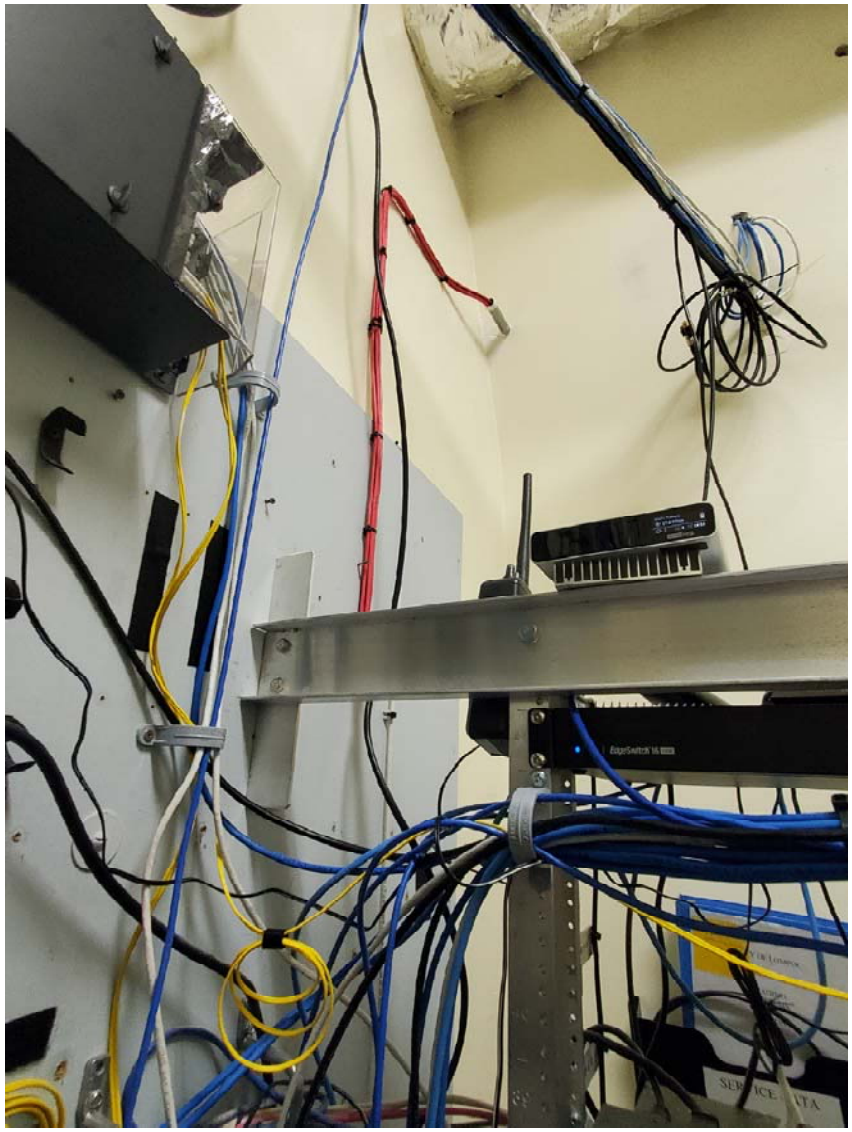
Notes:
Rear panel of TKR-750-
Tone alerting connection:
From TKR-750 25 Pin Accessory Port- Gray Satin RJ45 (Audio Receive) to Westnet MCU R1 port



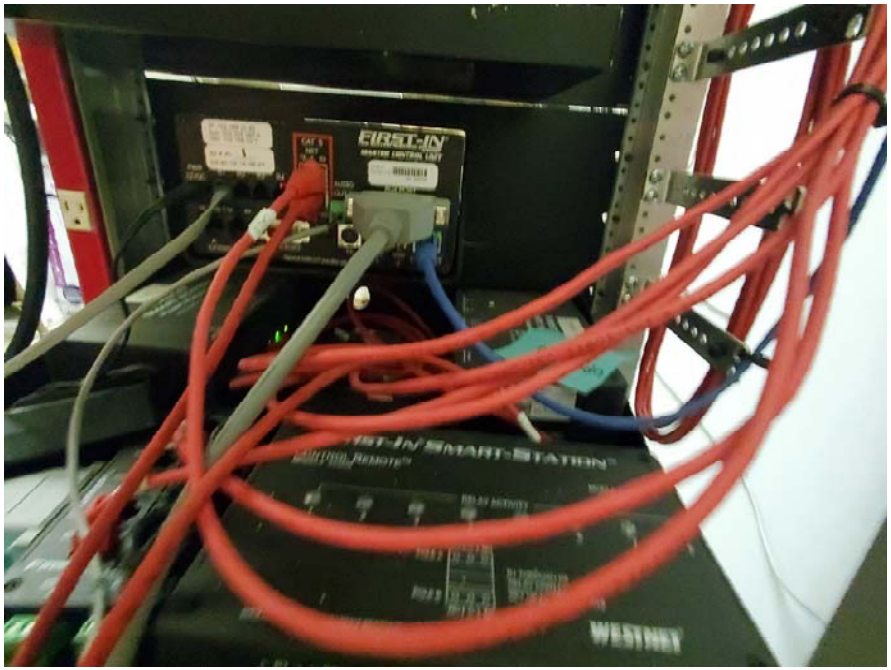
Notes:
Westnet equipment



Notes:
Westnet Control Remote

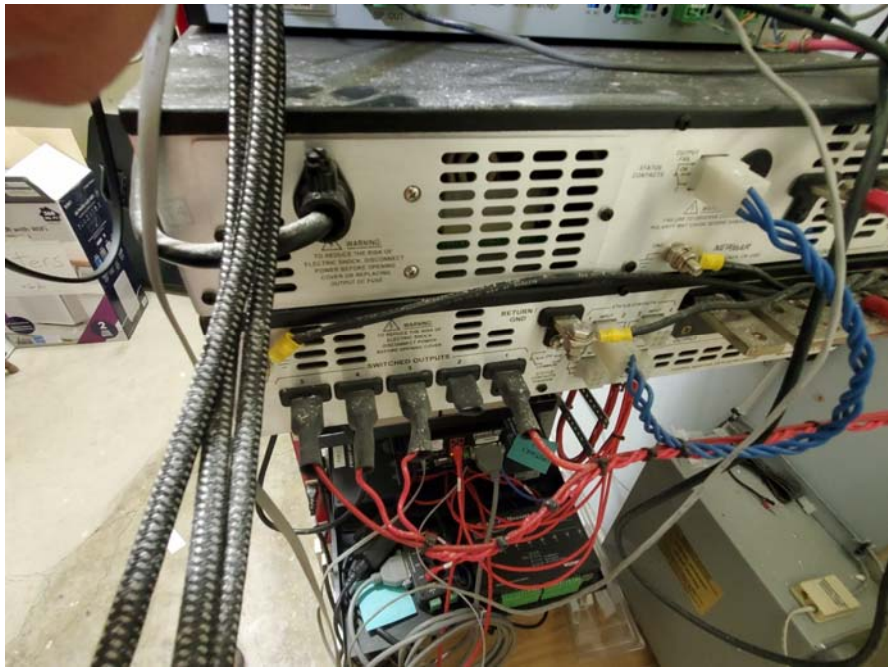


Notes:
Westnet cabling out to the rest of the station.

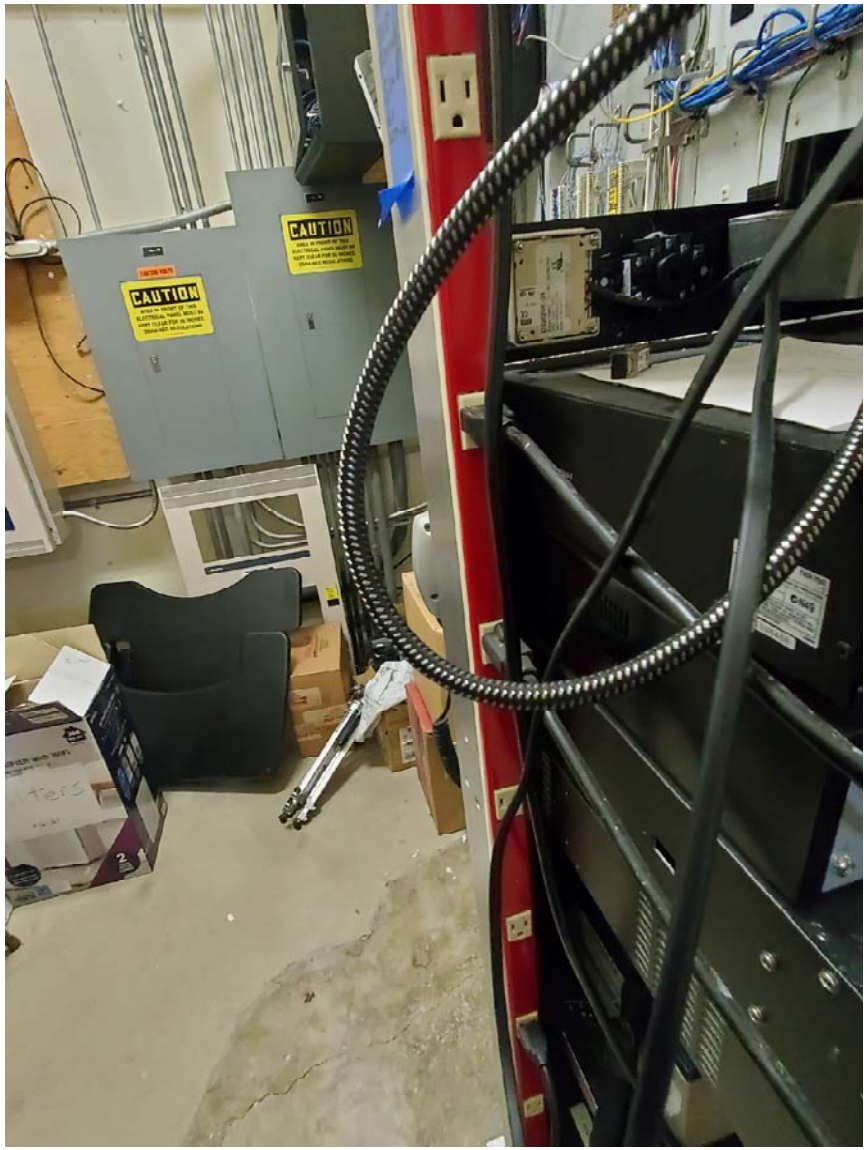


Notes:
Rear I/O Panel-
R1- RJ45-Radio Receive Audio

Notes:
Power modules- PFM 400 and PM-12-70



Notes:
Rear I/O panels



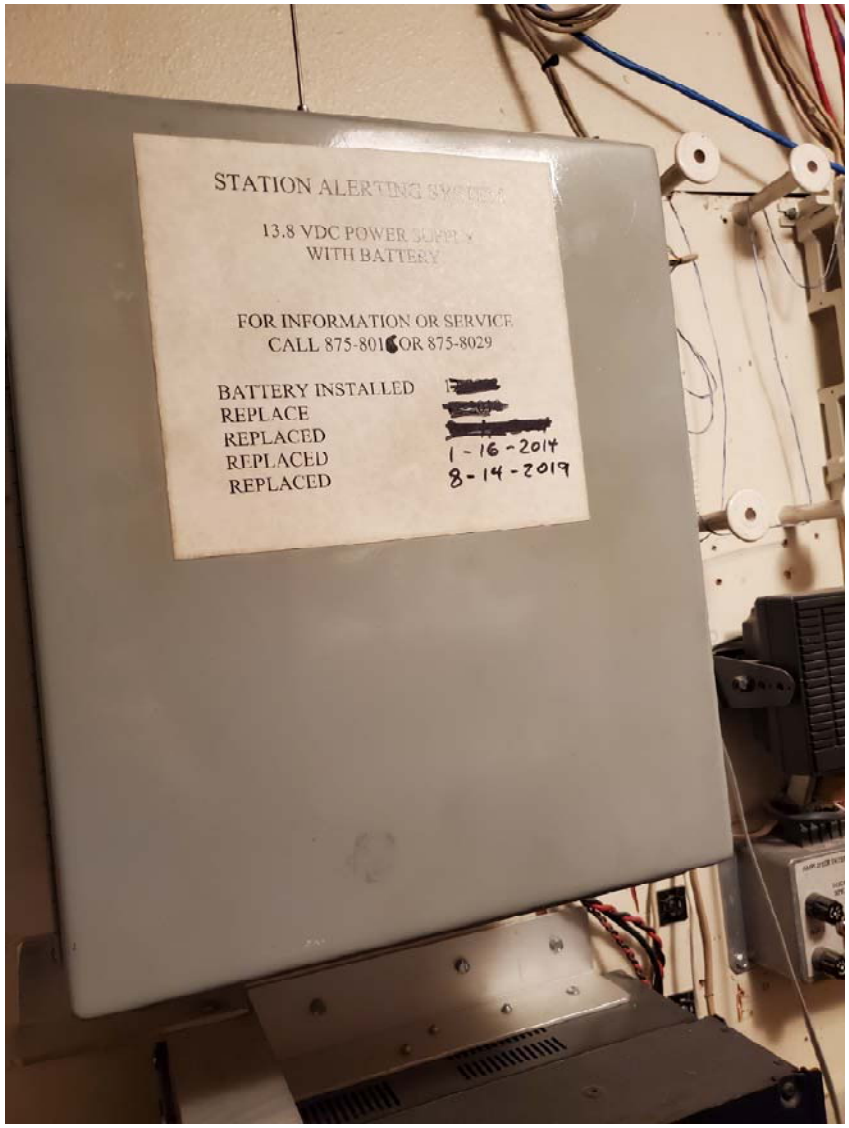
Notes:
PFM is connected to 120VAC power strip.

Notes:
Outlet's Power Panel "E" Breaker 17 20amp breaker

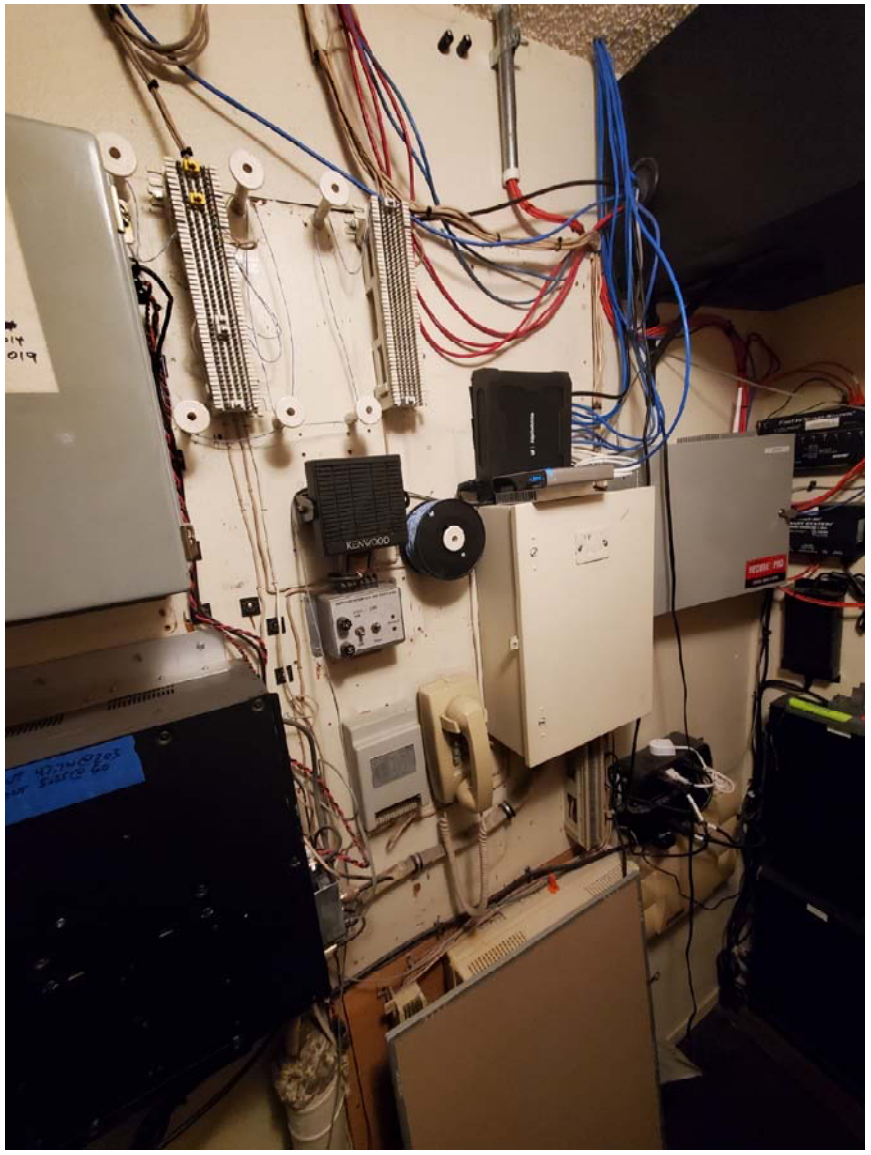
Notes:
Strip is connected to this outlet

Fire Station #2

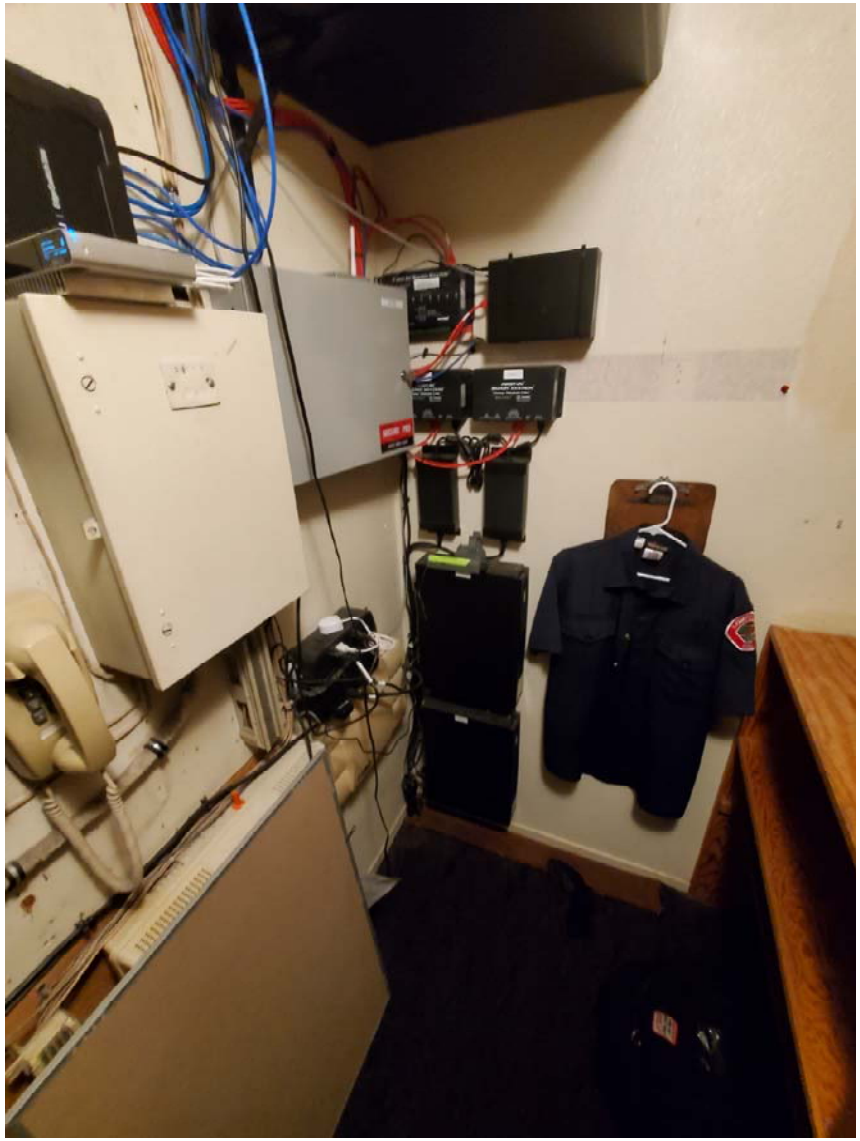
Notes:
TKR-750



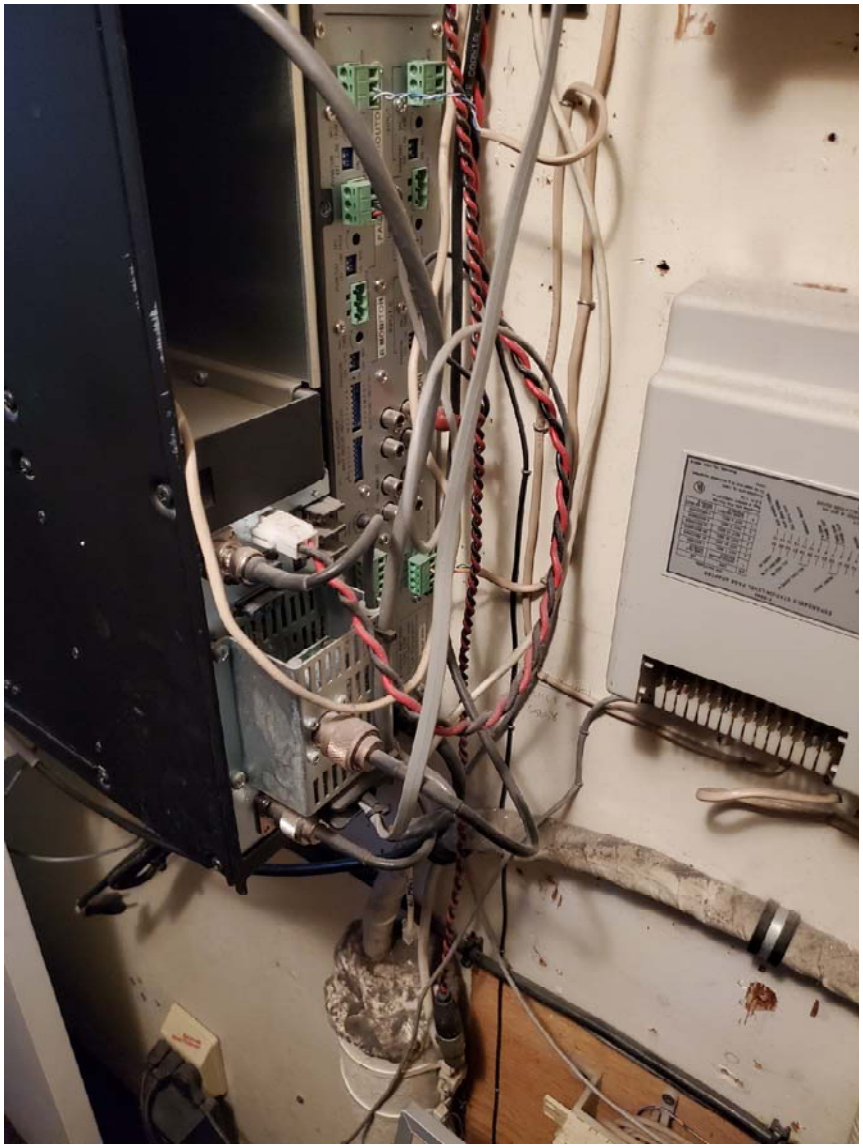
Notes:
UPS, backup batteries, and antenna (Laird VHF 132-525MHz B132S) mounted on case



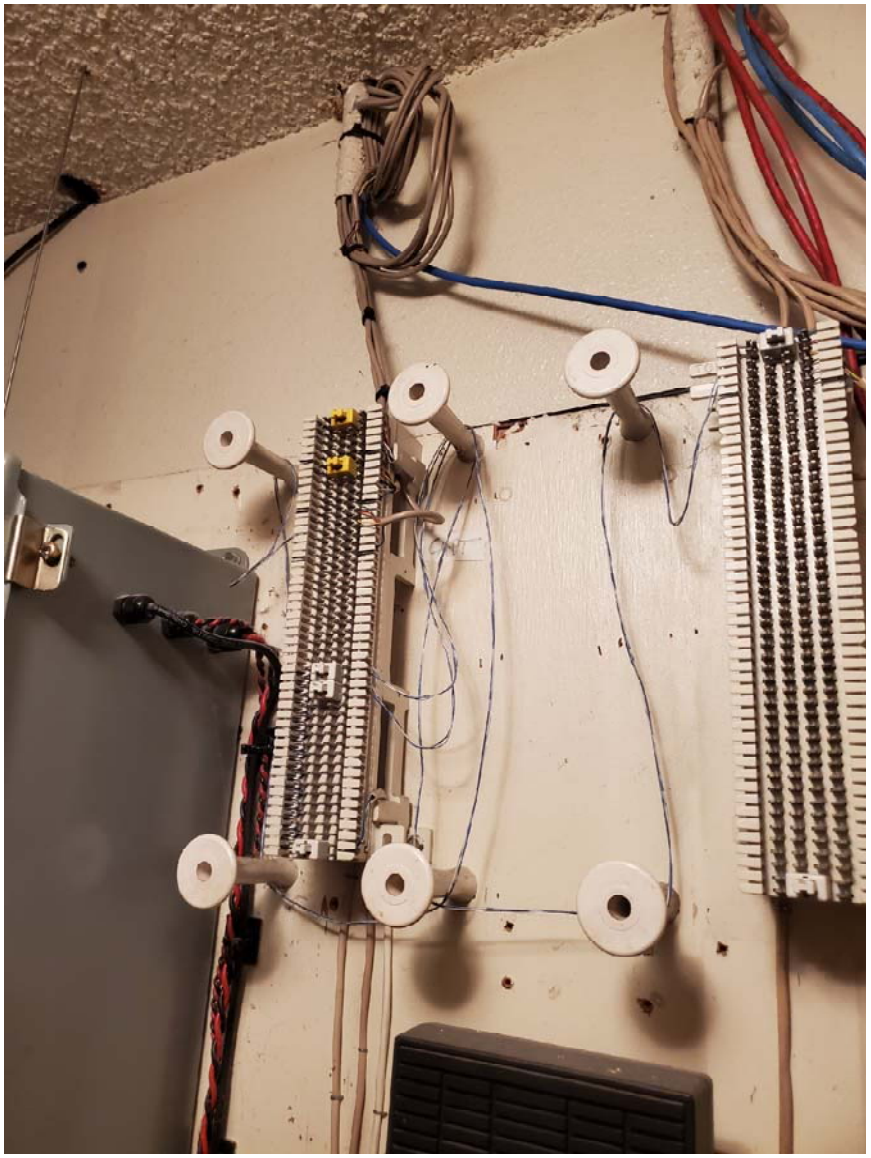
Notes:
Communication Closet



Notes:
Westnet First-In Equipment



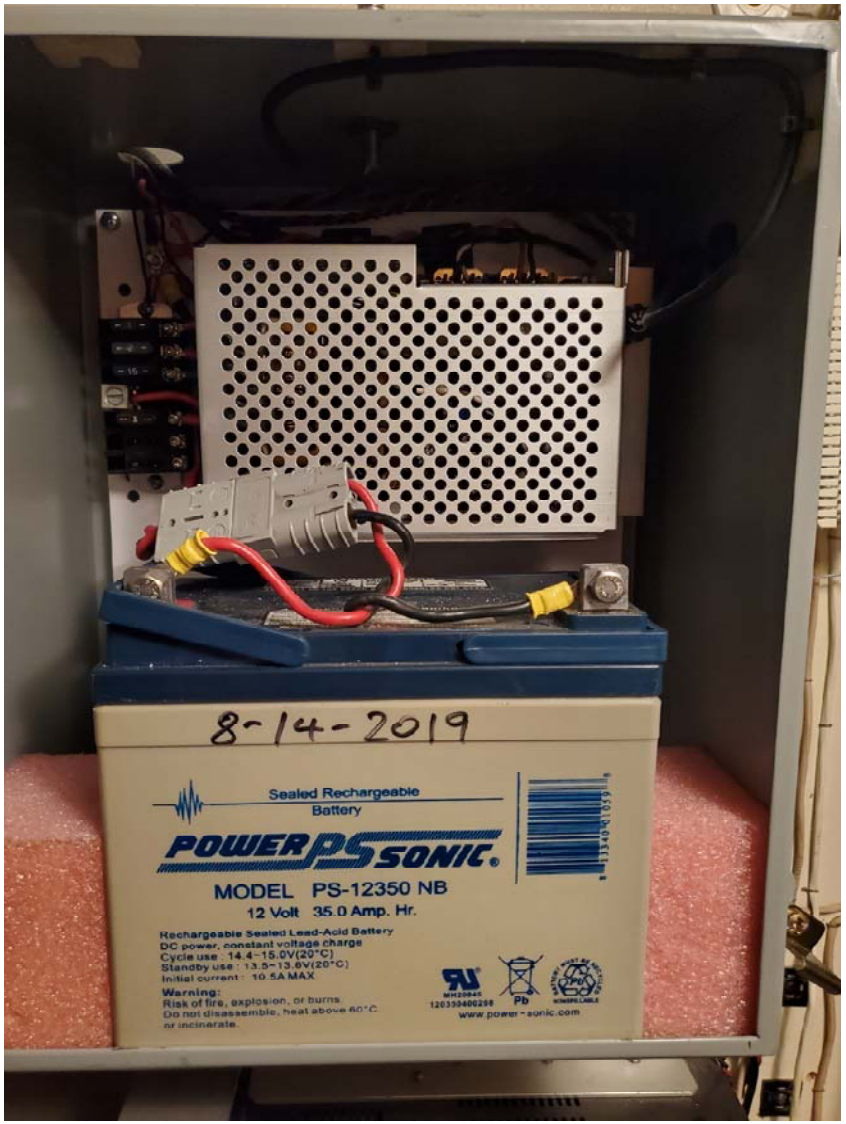
Notes:
Rear I/O Panel-TKR 750



Notes:
RJ45 to Telephone punch block to Westnet MC

Notes:
Westnet First-In MCU

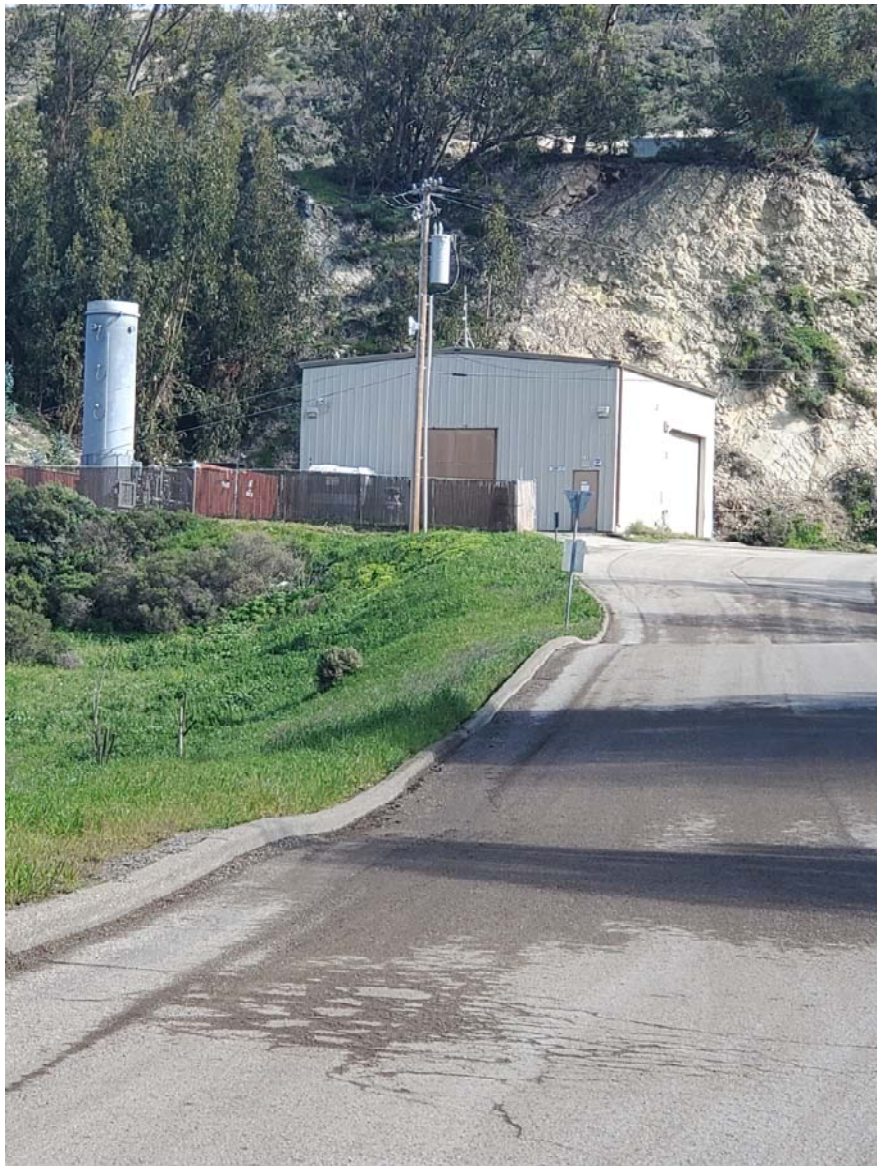
Notes:
Wire run to Westnet MCU



Notes:
Inside case: UPS and 1 12VDC battery

Lompoc Landfill

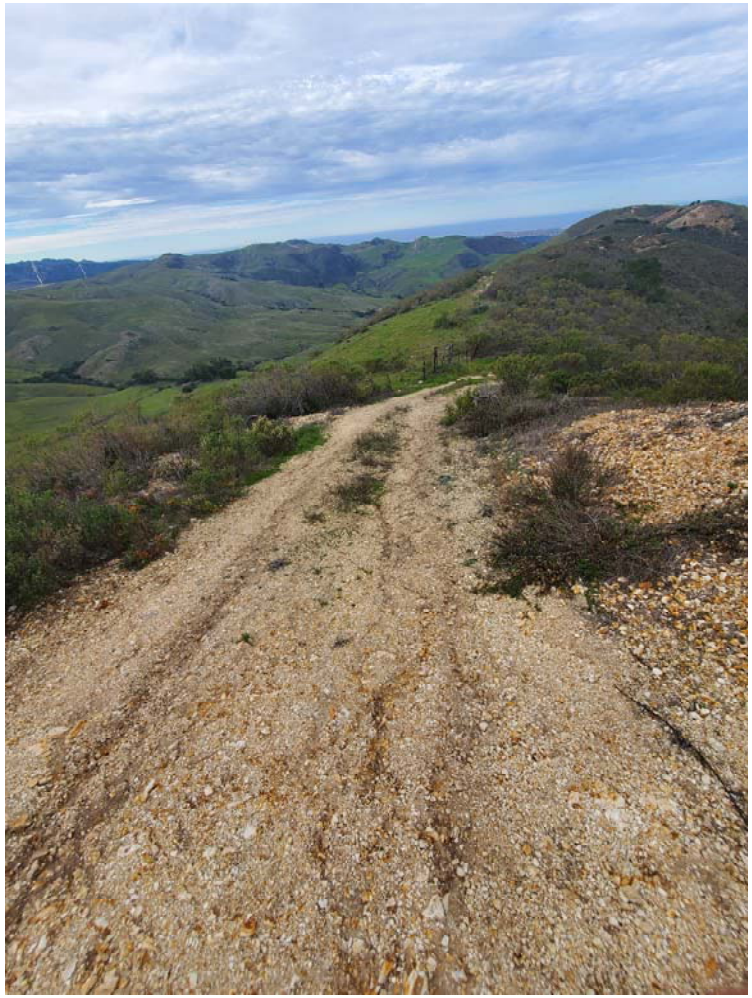
Notes:
Entrance road



Notes:
Building 1

Notes:
Building 2

Gravel Peak



Notes: Road coming up to site.

Notes:

Ham radio solar panels and dish.

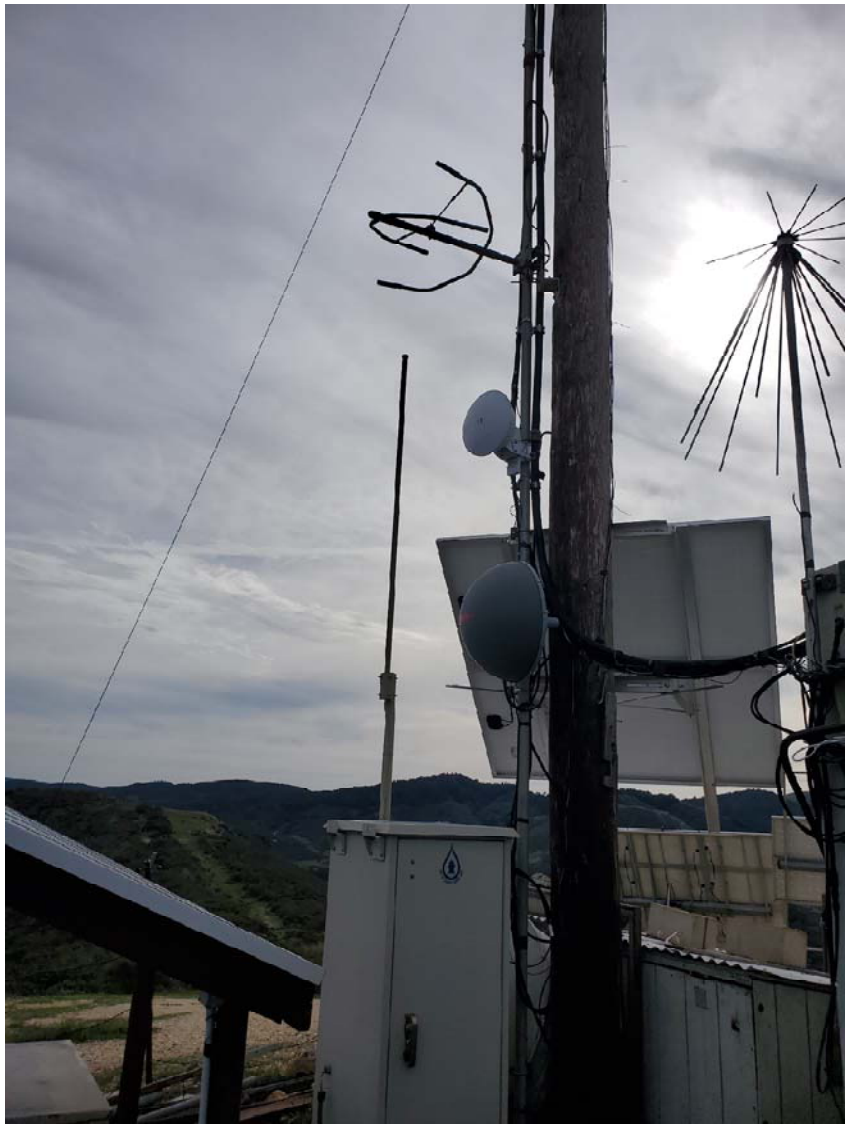
Notes:
South to North view of the site

Notes:
South to north view of the site

Notes:
Telephone pole mast. Water F1 antenna is the top and the Ubiquiti 5GHz bottom of picture.

Microwave link antenna:(From Chris Hill)
The WTP Point to Point Microwave Link to Gravel Peak uses unlicensed Ubiquiti 5GHz radios.
Specific radios are AirFiber 5XHD on 5165 MHz with a 10MHz wide channel.
Antennas are AF-5G23-S45 with 23 dBi gain.
Capacity is about 50/50 Mbps.

Repeater antenna:
Comprod 774-70 4-Dipoles , ¼ wave spaced, w/8dBd gain.
AGL, HAAT, ASML Data is on www.gravelpeak.com also on Sites and Frequencies spreadsheet.
AGL: 39.6 meters
AMSL:470 meters
HAAT: 304 meters
Power Pole Height w/o antenna: 16.15 meters



Notes:
Ubiquiti second antenna from the top Scada/ LMR on the link.

Notes:
Ham radio antennas, shelter, and equipment.

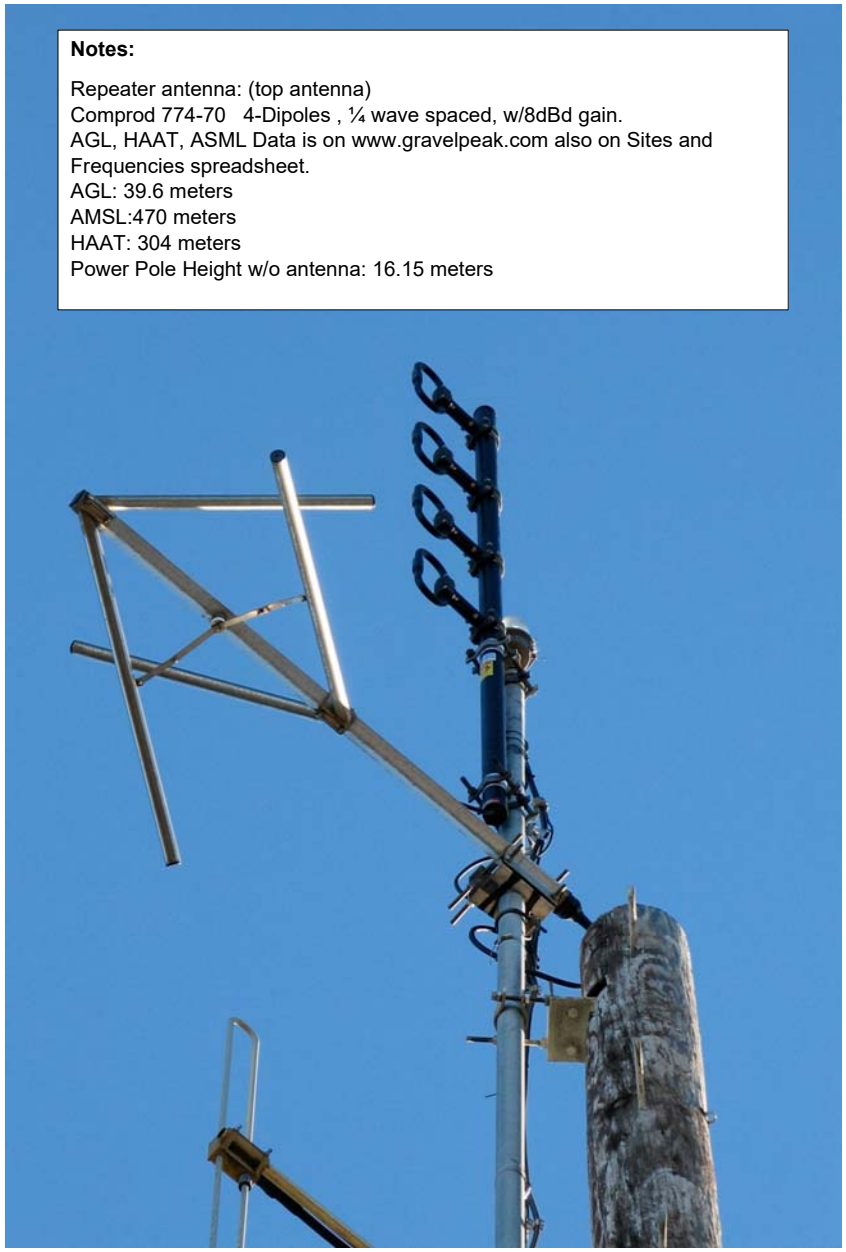
Notes:
Ham radio antenna. UHF/VHF

Notes:
Ham radio equipment shelter and antennas.

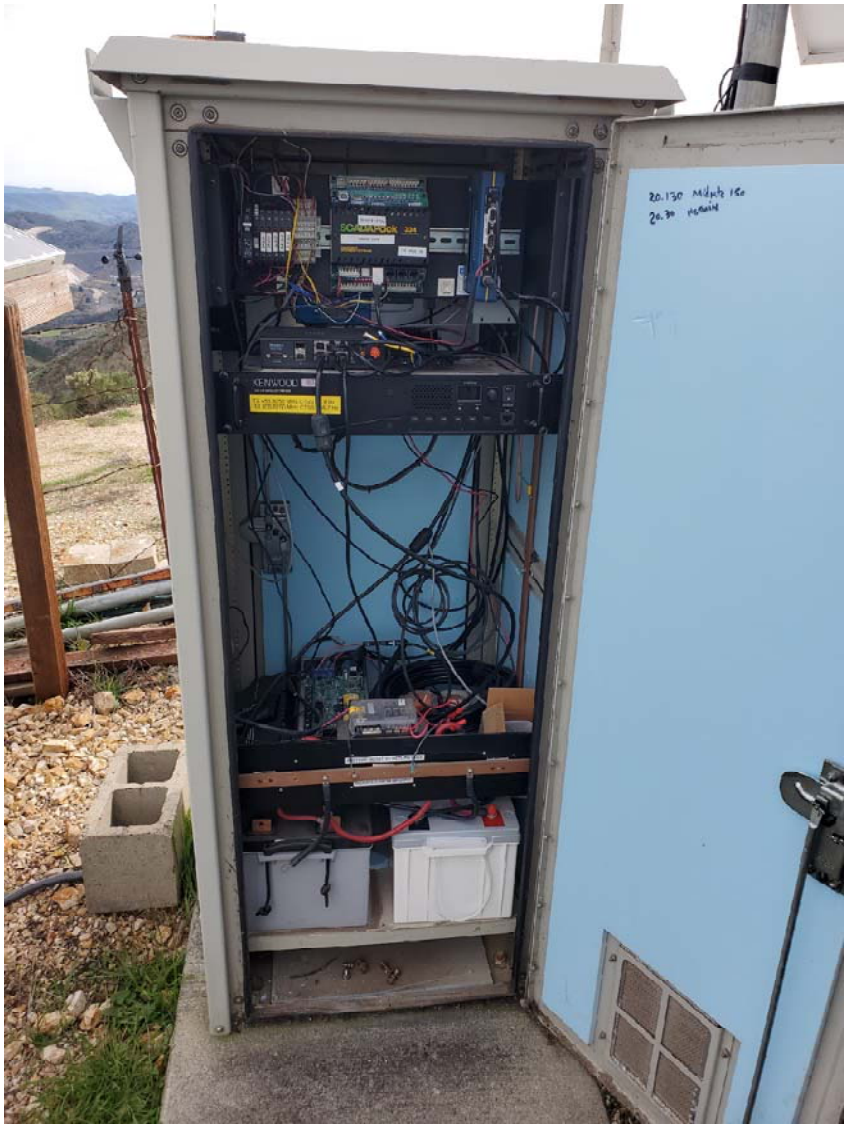
Notes:
North to south view of site.

Notes:

Repeater antenna: (top antenna)
Comprod 774-70 4-Dipoles , ¼ wave spaced, w/8dBd gain.
AGL, HAAT, ASML Data is on www.gravelpeak.com also on Sites and Frequencies spreadsheet.
AGL: 39.6 meters
AMSL:470 meters
HAAT: 304 meters
Power Pole Height w/o antenna: 16.15 meters



Notes:
Housing Shelter for City LMR/SCADA equipment



Notes:
City's LMR/SCADA Shelter, Rack and 12VDC Battey Bank.

Notes:
City's Solar Panel and Generator