



M E M O R A N D U M

Date: June 11, 2019

To: Lorina Pisi, Real Property Analyst A-45
Technical Services, Lands Unit
Department of Forestry and Fire Protection
1300 U Street
Sacramento, CA 95814

From: Yolanda Villasenor, Telecommunications Systems Manager I (Supervisor) *YV*
Public Safety Communications

Subject: CDF Radio Vault Space Application (TD-312) – Amendment
County of Monterey – L-0058
Calandra Lookout, Monterey County
CDF-VLT 001904

A technical analysis of the attached TD-312, California Department of Forestry and Fire Protection (CDF), Radio Vault Space Application for the County of Monterey has been completed.

The County of Monterey is requesting to make the following changes to their equipment at the Calandra Lookout CDF Radio Facility on Williams Hill in Monterey County:

1. Remove existing Rain Data repeater (166.075 TX/171.025 RX) and replace it with a new Rain Data repeater with a new transmit frequency (170.2625). The new repeater will use the previous repeater's existing RX multicoupler port and separate TX Yagi antenna, so no multicoupler or combiner re-tuning is required.
2. Remove Fire Paging and F4B repeaters.
3. Add Parks and NGEN UHF links.
4. Add three UHF Yagi antennas for the above links.
5. Add one GPS antenna to the cable bridge.

Technical changes required:

The new 170.2625 MHz Rain Data transmitter must have the following installed:

- One bandpass cavity having 30 dB insertion loss +/- 2 MHz from the center frequency.
- One isolator with harmonic filter, having 25 dB reverse isolation.

Lorina Pisi
June 11, 2019
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The County of Monterey will use the following frequencies:

<u>Transmit:</u>	<u>Receive</u>
770.11875 MHz	800.11875 MHz
771.13125 MHz	801.13125 MHz
771.83125 MHz	801.83125 MHz
773.68125 MHz	803.68125 MHz
859.9625 MHz	814.9625 MHz
857.5125 MHz	812.5125 MHz
453.100 MHz	458.100 MHz
154.025 MHz	159.090 MHz
155.625 MHz	158.850 MHz
150.995 MHz	155.295 MHz
463.100 MHz	468.100 MHz
6625 MHz	6725 MHz
453.2375 MHz	458.2375 MHz
453.6375 MHz	458.6375 MHz
170.2625 MHz	171.025 MHz

The County of Monterey will continue to occupy Vault Space 11, 12, 13, ½ of 14 and 21. See attached Vault Layout Floor Plan drawing 427050-003.

The County of Monterey will continue to occupy floor space AK (50”Hx24”Wx28.4”) for UPS. See attached Vault Layout Floor Plan drawing 427050-003.

The County of Monterey will occupy Antenna Space positions 8, 12, 13, 14, 21, 41, 42, 43, 44, 46, 47, 48 and GPS antenna 49. See attached Antenna Space Assignment drawing 427050-009.

The County of Monterey will continue to occupy five transmit ports and seven receive ports on CDF combining system. See attached Block Diagram drawing 427050-203.

The County of Monterey will continue to use commercial and emergency power.

The Public Safety Communications Special Projects Unit has reviewed the information provided and finds no technical reason to deny this application. Interference and intermodulation calculations do not indicate any potential for interference to existing state equipment.

Based on information shown on the application the Public Safety Communications (PSC) technically approves this application. However, if at any time interference becomes a problem, it will be the responsibility of the County of Monterey to resolve.

Please contact Robert Bjorklund, Senior Telecommunications Engineer at (916) 657-9766 or by email at robert.bjorklund@caloes.ca.gov if you have any questions.

Attachments

cc: Wally Roberts, Senior Telecommunications Engineer, Natural Resources Agency Unit

CDF-VLT 001904

STATE OF CALIFORNIA

PUBLIC SAFETY COMMUNICATIONS OFFICE



RADIO VAULT SPACE APPLICATION

Non-State Users

TD 312 (Rev. 10/13)

TD-312: GENERAL INFORMATION & INSTRUCTIONS

The State of California owns and or operates telecommunications facilities at numerous locations throughout the State for use by State agencies requiring radio communications. Space at these facilities is made available to other than State of California users when it is surplus to the State's requirements

The State must review, manage and engineer any proposed installations. Once a new, renewal or modification TD-312 application has been received by CAL FIRE and is reviewed administratively, it is forwarded to the Public Safety Communications Office (PSCO) for technical analysis. A study will be performed to determine the impact of the application on the existing users at the site. Based on the study, the technical analysis will include specific recommendations to CAL FIRE. If serious technical difficulties are found and cannot be remedied, -PSCO will recommend to CAL FIRE to cancel the TD-312 application. Should this occur, CAL FIRE will compare the amount of work performed by the state to the application fee paid. If warranted, state will issue a partial refund.

In cooperation with the applicant, the State will attempt to meet all users' operational requirements.

Any subsequent labor time or material costs required for site engineering, antenna or combining system upgrades, or technician labor will be borne by the applicant at the PSCO current rates. Applicants will be notified by CAL FIRE of the amount due prior to work being performed. No further processing of the application will take place until a written approval of these expenses, and payment, is received from the applicant.

NOTE: Modification of site-master antenna or combining systems may NOT be done by a tenant. Such modifications must be designed by -PSCO engineering and installed by PSCO-approved technician resources.

PRIOR TO ADDITION OR DELETION of any transmitting or receiving frequencies, antennas or equipment, submittal of this application and all related fees is required for ALL non-State users (including new, pending, previous and current tenancy/occupancy). Approval is required by CAL FIRE prior to the proposed changes taking place in the facility

After filling out the attached application, sign the form on Page 6, and include the appropriate application fee. The following checklist will assist you in submitting all required items:

COMPLETE AND SIGNED APPLICATION

- Applicant SIGNATURE on Page 7
(page 8 is the first page of the technical application, pages 1-5 contain instructions and restrictions)
- Pages 6 – 7, Request and Contact Info
- Pages 8 – 10, Technical Data sheets
- Attach additional information sheets as needed

REQUIRED FEES technical analysis fee is required with TD-312 submittal.

- CATEGORY: 2-way RF, Telemetry \$2,500 Technical Analysis
- CATEGORY: Commercial Cellular, Wireless Internet, Broadcasters, Microwave \$5,000 Technical Analysis

LEASE SERVICES REQUIRED

- New Lease
- Renewal
- Amendment

LEASE DOCUMENT REQUESTED

- Tower and Vault
- Tower
- Vault
- Ground Lease
- Other _____

Application Sheets are used to gather the appropriate administrative information to process the TD-312. These sheets must be completed, signed and accompanied with the Technical Data Sheets.

Applicant: County of Monterey
 (organization name)
1590 Moffett Street
 (address)
Salinas, CA, 93905
 (city, state, zip)
831-796-1463
 (telephone number)
PaxtonS@co.monterey.ca.us
 (email address)

In accordance with the attached Technical Data Sheet(s), application is hereby made to:

- Establish New Lease
- Modify/Amend Lease (describe specific changes):
 (attach additional sheet if more space is required)

Replace Rain Data repeater and change frequency. Replace Fire Paging and Fire4B repeaters/frequencies (both never commissioned approved in prev. TD312) with Parks and NGEN UHF links / 1 yagi duplexed for ea. system (2total)

- Renew lease with modification as stated:
 (attach additional sheet if more space is required)

- Renew lease (no changes, technical sheets must be completed)
- Lease _____ square feet

For vault space and related antenna space at Calandra Lookout Monterey County (Williams) *L-0058*

_____ (site name)

Power requirements for operations of communications equipment are:

- Commercial and emergency power
- Commercial power only
- No power required.

NOTE: Some radio vault facilities provide commercial and emergency power to each rack space without exception, and the tenant will be charged accordingly.

Person responsible for lease negotiations and submission of this application:

Steve Paxton

(name)

1590 Moffett Street

(address)

Salinas, CA., 93905

(city, state, zip)

831-796-1463

(telephone number)

PaxtonS@co.monterey.ca.us

(email address)

Billing Information:

Applicant: **Kathy Wells, ITD Finance Manager**

(name)

1590 Moffett Street

(address)

Salinas, CA., 93905

(city, state, zip)

831-796-1490

(telephone number)

wellska@co.monterey.ca.us

(email address)

It is understood that if any subsequent on-site testing is required, it will be charged to the lessee at the current rate determined by the State. In addition, any required engineering or technician labor charges or parts procurement expenses, plus a program management fee, will be re-billed to the lessee at the current rates being charged by the State. Prior to these charges being incurred, a written estimate and acceptance document will be forwarded to the applicant for review and signature.

Applicant:



By:

Steve R. Paxton

Title:

Monterey County Radio Manager

Date:

12 March 2018

Receipt of a non-refundable application fee in the amount of \$250⁰⁰ is hereby acknowledged.

STATE OF CALIFORNIA

By:



Date:

3-11-19

NOTE: A fee will be required when this agreement is renewed for a new term or when changes are made to an existing agreement and the preparation of a new lease agreement is required.

TECHNICAL DATA SHEETS

Data submitted on the Technical Data Sheets is used by the PSCO engineers to perform a study to determine the impact of the application on the existing users at the site. Please complete these sheets in its entirety and provide required information. Existing tenants must reflect the tenants installed equipment and equipment changes (new installations, removals, etc.).

Site Name: Calandra LookoutDate: December 7, 2018County: Monterey

The following technical data is submitted in conjunction with a request for vault space.

If this is a land lease application for Cellular, applicant must provide plot plans, construction drawings and a written description of proposed land use.

Person responsible for technical operation of this station (person who can provide technical details):

Chuck Brooks

(name)

855 E. Laurel Drive Building D

(address)

Salinas, CA, 93905

(city, state, zip)

(831) 796-1364

(telephone number)

Date equipment desired to be in operation: March 15, 2019

(It should be noted that, due to engineering priorities, this application may require up to one (1) full year to process.)

Equipment is to operate in the Part 90 Radio Service.FCC callsign of this installation: WQGL621 (RainData), WQTS557 (Pinball pending/NGEN UHF).
(Include a copy of the FCC license)

Type of operation: Base Station Mobile Relay Microwave Station
 Other

Amount of rack space required to house equipment (in inches): None beyond existing

(NOTE: Unless otherwise authorized, all electronic equipment is to be mounted in 7'6" aluminum open-frame relay racks and fastened to the site's earthquake bracing and cable ladder system. One rack occupies 2' by 2' of floor space.)

Additional space desired to mount cavities, duplexers, batteries, etc.:

Wall Space Floor Space _____ (HxWxD, inches)
 Rack Space Additional space not required

Space for battery facilities required, if any, including charger:

Wall Space Floor Space _____ (HxWxD, inches)
 Radio Rack Not required

Maximum power consumption: TRANSMIT: 133 Watts RECEIVE: 20 Watts at

Voltage: 110 Volts AC 12 volts DC 48 volts DC
 Other Power usage shown for (3) links modified

EQUIPMENT DATA

New Tenant: Provide data for each piece of equipment to be installed in each vault space and identify as New (N).

Existing Tenant: Provide data for each piece of equipment currently installed and identify as Existing (E). If adding or removing equipment; identify the appropriate action New (N), Removing (R).

FREQUENCY INFORMATION: CELLULAR APPLICANTS MUST PROVIDE SPECIFIC CHANNELS TO BE USED (NOT THE BAND). IF SPECIFIC FREQUENCIES HAVE NOT BEEN PROVIDED THE APPLICATION WILL BE RETURNED.

Be sure to include a system block diagram on the page furnished for that purpose. Duplicate this page as required to show all equipment desired to be installed:

TRANSMITTER #1**Power output 500 W**

Frequency(s) 770.11875	Existing (E) Removing (R) New (N)
Make and Model: Harris Master V Chan 1 700MHz system	(E)

RECEIVER #1

Frequency(s) 800.11875	Existing (E) Removing (R) New (N)
Make and Model: Harris Master V Chan 1 700MHz system	(E)

TRANSMITTER #2**Power output 500 W**

Frequency(s) 771.13125	Existing (E) Removing (R) New (N)
Make and Model: Harris Master V Chan 2 700MHz system	(E)

RECEIVER #2

Frequency(s) 801.13125	Existing (E) Removing (R) New (N)
Make and Model: Harris Master V Chan 2 700MHz system	(E)

TRANSMITTER #3**Power output 500 W**

Frequency(s) 771.83125	Existing (E) Removing (R) New (N)
Make and Model: Harris Master V Chan 3 700MHz system	(E)

RECEIVER #3

Frequency(s) 801.83125	Existing (E) Removing (R) New (N)
Make and Model: Harris Master V Chan 3 700MHz system	(E)

TRANSMITTER #4**Power output 500 W**

Frequency(s) 773.68125	Existing (E) Removing (R) New (N)
Make and Model: Harris Master V Chan 4 700MHz system	(E)

RECEIVER #4

Frequency(s) 803.68125	Existing (E) Removing (R) New (N)
Make and Model: Harris Master V Chan 4 700MHz system	(E)

TRANSMITTER #5 **Power output 50 W**

Frequency(s) 859.9625	Existing (E) Removing (R) New (N)
Make and Model: Tait TB8100 Data Channel 800MHz system	(E)

RECEIVER #5

Frequency(s) 814.9625	Existing (E) Removing (R) New (N)
Make and Model: Tait TB8100 Data Channel 800MHz system	(E)

TRANSMITTER #6 **Power output 50 W**

Frequency(s) 857.5125	Existing (E) Removing (R) New (N)
Make and Model: Motorola Quantar Voice Channel 800 MHz system	(E)

RECEIVER #6

Frequency(s) 812.5125	Existing (E) Removing (R) New (N)
Make and Model: Motorola Quantar Voice Channel 800 MHz system	(E)

TRANSMITTER #7 **Power output 100 W**

Frequency(s) 155.0400	Existing (E) Removing (R) New (N)
Make and Model: Harris Master III Additional VHF Fire Analog Channel	(R)

RECEIVER #7

Frequency(s) 156.1050	Existing (E) Removing (R) New (N)
Make and Model: Harris Master III Additional VHF Fire Analog Channel	(R)

TRANSMITTER #8 **Power output 10 W**

Frequency(s) 453.100	Existing (E) Removing (R) New (N)
Make and Model: Harris Master III UHF Link Anderson	(E)

RECEIVER #8

Frequency(s) 458.100	Existing (E) Removing (R) New (N)
Make and Model: Harris Master III UHF Link Anderson	(E)

TRANSMITTER #9 **Power output 100 W**

Frequency(s) 154.025	Existing (E) Removing (R) New (N)
Make and Model: Harris Master III Analog Law Overlay	(E)

RECEIVER #9

Frequency(s) 159.090	Existing (E) Removing (R) New (N)
Make and Model: Harris Master III Analog Law Overlay	(E)

TRANSMITTER #10 **Power output 100 W**

Frequency(s) 155.625	Existing (E) Removing (R)
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	New (N)
Make and Model: Harris Master III Analog Fire Overlay	(E)

RECEIVER #10

Frequency(s) 158.850	Existing (E) Removing (R) New (N)
Make and Model: Harris Master III Analog Fire Overlay	(E)

TRANSMITTER #11 **Power output 100 W**

Frequency(s) 152.240 (Transmit Only)	Existing (E) Removing (R) New (N)
Make and Model: Harris Master III Analog Fire Paging Overlay	(R)

RECEIVER #11

Frequency(s) N/A	Existing (E) Removing (R) New (N)
Make and Model: Harris Master III Analog Fire Paging Overlay	(R)

TRANSMITTER #12 **Power output 100 W**

Frequency(s) 150.995	Existing (E) Removing (R) New (N)
Make and Model: Motorola Quantar Public Works	(E)

RECEIVER #12

Frequency(s) 155.295	Existing (E) Removing (R) New (N)
Make and Model: Motorola Quantar Public Works	(E)

TRANSMITTER #13 **Power output 100 W**

Frequency(s) 463.100	Existing (E) Removing (R) New (N)
Make and Model: Motorola Quantar Med-5 Channel	(E)

RECEIVER #13

Frequency(s) 468.100	Existing (E) Removing (R) New (N)
Make and Model: Motorola Quantar Med-5 Channel	(E)

TRANSMITTER #14 **Power output 100 W**

Frequency(s) 166.075	Existing (E) Removing (R) New (N)
Make and Model: High Sierra MCWRA Rain Data	(R)

RECEIVER #14

Frequency(s) 171.025	Existing (E) Removing (R) New (N)
Make and Model: High Sierra MCWRA Rain Data	(R)

TRANSMITTER #15 **Power output 10mW**

Frequency(s) 6625MHz	Existing (E) Removing (R) New (N)
Make and Model: Aviat IRU600 Microwave to King City	(E)

RECEIVER #15

Frequency(s) 6725MHz	Existing (E) Removing (R) New (N)
Make and Model: Aviat IRU600 Microwave to King City	(E)

TRANSMITTER #16 **Power output 10 W**

Frequency(s) 453.2375 MHz	Existing (E) Removing (R) New (N)
Make and Model: Harris Mast III UHF	(E)
RF Link to Table Mountain	

RECEIVER #16

Frequency(s) 458.2375 MHz	Existing (E) Removing (R) New (N)
Make and Model: Harris Mast III UHF	(E)
RF Link to Table Mountain	

TRANSMITTER #17 **Power output 10 W**

Frequency(s) 458.6375MHz	Existing (E) Removing (R) New (N)
Make and Model: Motorola MTR3000	(N)
RF Link to Pinball (Between Lake Nacimiento and Lake San Antonio)	

RECEIVER #17

Frequency(s) 458.6375 MHz	Existing (E) Removing (R) New (N)
Make and Model: Motorola MTR3000	(N)
RF Link to Pinball (Between Lake Nacimiento and Lake San Antonio)	

TRANSMITTER #18 **Power output 113 W**

Frequency(s) 170.2625	Existing (E) Removing (R) New (N)
Make and Model: High Sierra 330x Series ALERT2 Concentrator (MCWRA Rain Data WITH GPS)	(N)

RECEIVER #18

Frequency(s) 170.2625	Existing (E) Removing (R) New (N)
Make and Model: High Sierra 330x Series ALERT2 Concentrator (MCWRA Rain Data WITH GPS)	(N)

ANTENNA DATA

New Tenant: Provide data for each antenna to be installed at this vault facility and identify as **New (N)**.

Existing Tenant: Provide data for each antenna currently installed and identify as **Existing (E)**. If adding or removing an antenna; identify the appropriate action **New (N)**, **Removing (R)**.

Antenna #	Make and Model	Length or H/W dish size	Gain (dBd) (dBi for M/W)	Azimuth (relative to true north)	*Height desired (feet)	Existing (E) Removing (R) New (N)	Description
42	Andrew UHP6-59WB (Position 65-1)	6'	39.3dBi	339.163	65.0'	2011 (E)	MICROWAVE TO KC
41	Andrew PAR6-65B (Position 30-1)	6'	38.8dBi	339.163	30.0'	2011 (E)	MICROWAVE TO KC
43	Sinclair SD235-HP2PALDF (DC2) (Position 40-3.5)	17'	5.5dBd	360	40.0'	2012 (E)	OVERLAY Tx
14	Sinclair SRL310C8 (Position 100-4)	10'	11dBd	330	100.0'	2001 (E)	MED-CHNL
8	DBSpectra DS7E12F36U-D (Position 80-4)	24'	12dBd	360	80'	2015 (E)	Rx Only 700MHz NGEN
44	Andrew DB810E-PS (Position 19-4)	14.7'	12dBd	360	19'	2015 (E)	Tx Only 700MHz NGEN
13	Telewave ANT850F6 (Position 100-3)	4.7'	6dBd	360	100'	2015 (E)	Rx Only 800MHz MST
12	Telewave ANT850F6 (Position 20-3)	4.7"	6dBd	360	20'	2015 (E)	Tx Only 800MHz MST
N1	Laird Y4503 Directional Yagi (Position 20-1.5)	1.2'	7.1dBd	92	20'	(N)	PROPOSED UHF LINK TBL
N2	Laird Y4503 Directional Yagi (Position 20-2.5)	1.2'	7.1dBd	158	20'	(N)	PROPOSED UHF LINK PNBL
N3	Laird Y4503 Directional Yagi (Position 20-4.5)	1.2'	7.1dBd	294	20'	(N)	PROPOSED UHF LINK ANDN
N4	SC-476-HL PIM (Position ICE-BRIDGE)	2.1'	7.1dBd	360	ICE-BRIDGE	(N)	PROPOSED GPS ALERT2

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* For VHF antennas, show desired height to base of antenna support. For microwave dishes, show desired height to center of radiating element.

AUXILIARY EQUIPMENT DATA

For each transmitter, receiver, or combination, supply the following:

Make and model of cavity(s), filter(s), isolator(s), duplexer(s), etc., desired to be installed at this site. Please indicate the desired location where these items are to be mounted in the vault. Be sure to include these elements on the system block diagram on the page provided for that purpose.

RACK #11 (NO CHANGE)	
EXISTING - SINCLAIR MDL# TJ4234 Tx COMBINER with High Q bandpass cavity filters with dual low-loss isolators	MST 800 MHz Rack mount transmit combining proposed to be mounted in Rack #11. See Proposed Rack Elevations.
EXISTING - EMR CORP Rx Multicoupler MDL# 26108-1/P-5C	MST 800 MHz Rack mount receiver distribution proposed to be mounted in Rack #11. See Proposed Rack Elevations.

RACK #12 (NO CHANGE)	
EXISTING - dbSPECTRA MDL# DSCC75-07D Ceramic Tx Combiner	NGEN 700 MHz rack mount transmit combining proposed to be mounted in Rack #12. See Proposed Rack Elevations
EXISTING - dbSPECTRA MDL# DBSMCP Rx Multicoupler (Works with Tower Top Amp (TTA) dbSPECTRA ATS7TMD30-R	NGEN 700 MHz rack mount receive distribution proposed to be mounted in Rack #12. See Proposed Rack Elevations.

RACK #13 SEE PROPOSALS	
Existing - RFS MDL#663-6A-1 UHF Duplexer	UHF Link Radio to Anderson Peak
Proposed New - RFS MDL#663-6A-1 UHF Duplexer	UHF Link Radio to Table Mountain for Law Overlay proposed to be rack mounted in Rack #13. See Proposed Rack Elevations
Proposed New - RFS MDL#663-6A-1 UHF Duplexer	UHF Link Radio to Pinball for Parks Dept proposed to be rack mounted in Rack #13. See Proposed Rack Elevations
Existing - EMR CORP Rx Multicoupler MDL# 24108-1/P-5	Multicoupler is fed off of a port from the State Rx Distribution system. This is the Rx system for NGEN Analog Overlay systems

RACK #14 (1/2 Half Rack) NO CHANGES	
Existing - Sinclair MDL# TJ2214 Tx Combiner. Cavity-ferrite type. Dual Isolators.	NGEN Analog Overlay rack mounted transmit combining occupies half of Rack #14.

RACK #21 NO CHANGES	
Existing - AVIAT MICROWAVE	No Change
Existing - ADTRAN TSU 600	T1 mux to DS0s
Existing - AVIAT POWER SUPPLY & BATTERY BANK	No Change



INFORMATION TECHNOLOGY
CONSULTING
1440 LOFFERT STREET
SALINAS, CALIFORNIA
P (831) 998-4937
F (831) 706-8676

OWNER: ORPHEUM (2017) 2017-18
DRAWN BY: I. MORIYAMA
CHECKED BY: S. PAXTON
TYPE: TOWER DOCS
SCALE: 8 1/2" = 1' NO SCALE

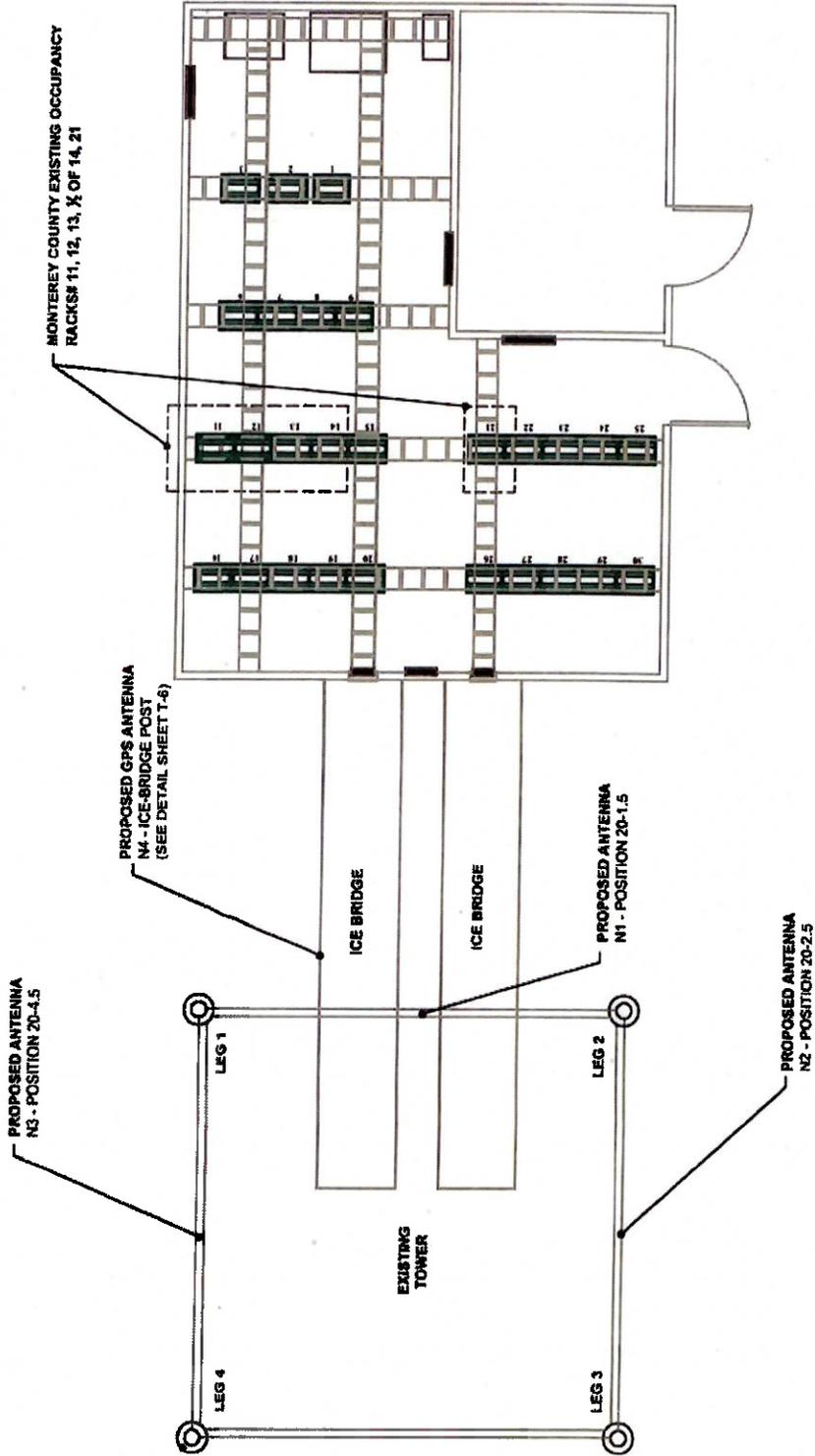
REV	DATE	DESCRIPTION
1	12/21/17	ISSUE FOR SUBMITTAL
2	01/22/18	ADDED FREQ. TO DIGITAL
3	01/22/18	ADDED FREQ. TO DIGITAL
4	01/22/18	ADDED FREQ. TO DIGITAL
5	01/22/18	ADDED FREQ. TO DIGITAL
6	01/22/18	ADDED FREQ. TO DIGITAL
7	01/22/18	ADDED FREQ. TO DIGITAL
8	01/22/18	ADDED FREQ. TO DIGITAL
9	01/22/18	ADDED FREQ. TO DIGITAL

PROJECT TITLE
**WRA ALERT2 RAIN DATA
AND
COUNTY UHF LINKS
UPGRADES
AT WILLIAMS HILL**

PROJECT SITE
**WILLIAMS HILL
(CALANDRA)
20 MILE SOUTH-EAST
OF KING CITY, CA
MONTEREY COUNTY**

SHEET TITLE
**SITE PLAN
&
PROPOSED GPS
ANTENNA PLACEMENT**

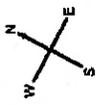
SHEET NUMBER
T-1



DRAWINGS INDEX

- SHEET T-1 EXISTING SITE PLAN & PROPOSED ANTENNA PLACEMENT
- SHEET T-2 PROPOSED FLOOR PLAN
- SHEET T-3 EXISTING COUNTY RACK ELEVATIONS
- SHEET T-4 EXISTING COUNTY RACK ELEVATIONS
- SHEET T-5 PROPOSED COUNTY RACK ELEVATIONS DETAILS
- SHEET T-6 PROPOSED TOWER ELEVATIONS
- SHEET T-7 EXISTING CABLING SCHEMATIC FOR 700MHz & 800MHz
- SHEET T-8 ANALOG OVERLAY SYSTEM MODIFICATIONS (REMOVE FIBER PAGING AND 4B)
- SHEET T-9 EXISTING EQUIPMENT - PUBLIC WORKS
- SHEET T-10 EXISTING EQUIPMENT - MED-5
- SHEET T-11 PROPOSED FREQUENCY & REPEATER CHANGE - RAIN DATA
- SHEET T-12 EXISTING UHF LINK TO ANDERSON
- SHEET T-13 PROPOSED UHF LINK TO PINBALL
- SHEET T-14 PROPOSED UHF LINK TO TABLE MOUNTAIN
- SHEET T-15 EXISTING AVAT MICROWAVE DETAIL

**PROPOSED ANTENNA MODIFICATIONS:
ONLY MODIFICATIONS TO COUNTY ANTENNAS
ARE SHOWN ON THIS SITE PLAN**



**FOR INTERNAL
USE ONLY**

THIS DRAWING IS NOT FOR CONSTRUCTION. IT IS INTENDED FOR CONCEPTUAL SCHEMATIC DESIGN PURPOSES ONLY



INFORMATION TECHNOLOGY
COMMUNICATIONS ENGINEERING
1580 MONTECITO AVENUE
SALINAS, CA 93905
P. (831) 796-5483
F. (831) 796-8990

DWG No.: 2017-01-01-12-148
DRAWN BY: T. MONTOYA
CHECKED BY: S. PANTON
TYPE: T0312 DOCS
SCALE: 8x 11 NO SCALE

REV	DATE	DESCRIPTION
1	02/21/17	ISSUE FOR SUBMITTAL
2	03/15/17	CHANGED MULTICOPLER TO 4801100 (DPL 043) TO 4801100 (DPL 043)
3	03/15/17	WRA ALERT2 RAIN DATA LINK INSTALL TO LAWES & ANDERSON

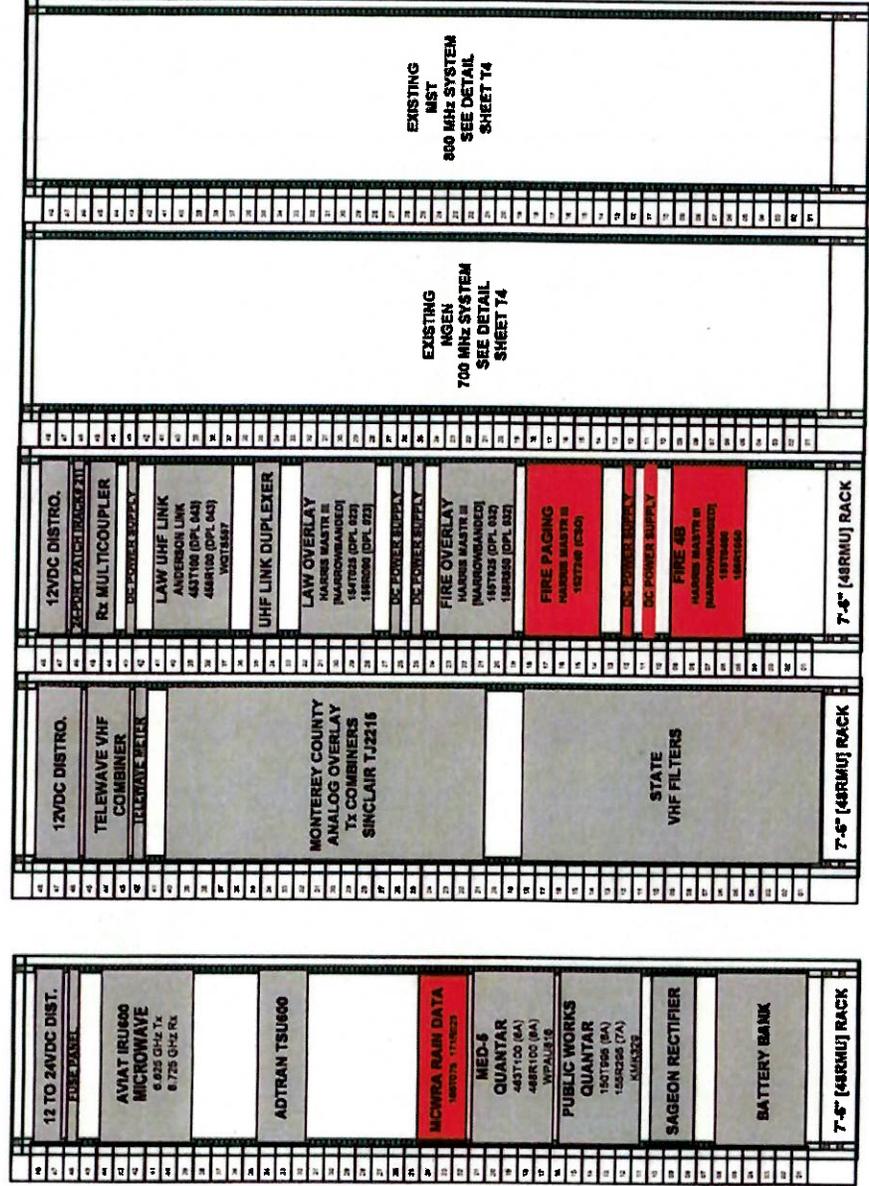
PROJECT TITLE
WRA ALERT2 RAIN DATA AND COUNTY UHF LINKS UPGRADES AT WILLIAMS HILL

PROJECT SITE
WILLIAMS HILL (GALANDRA) 20 MILE SOUTH-EAST OF KING CITY, CA MONTEREY COUNTY

SHEET TITLE
EXISTING COUNTY RACK ELEVATIONS

SHEET NUMBER
T-3

EXISTING MONTEREY COUNTY RACK ELEVATIONS AT WILLIAMS HILL



EXISTING UPS SEE DETAIL SHEET T4
 47" H x 24" W x 28.4" D
 EXISTING UPS EXISTING EQUIPMENT [NO WORK]

LEGEND:
 [Red Box] EXISTING EQUIPMENT TO BE DECOMMISSIONED
 [Grey Box] EXISTING EQUIPMENT [NO WORK]

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INFORMATION TECHNOLOGY
COMMUNICATIONS ENGINEERING
1000 MARIN AVENUE
SALINAS, CA 93905
P (831) 756-6483
F (831) 756-6976

DWG No.: 00-RW-LMD-1001_03 10-4-18
DRAWN BY: J. MONTOYA
CHECKED BY: S. PANTON
TYPE: TDS12 DOCS
SCALE: 8x11, NO SCALE

REV	DATE	DESCRIPTION
1	02/21/12	ISSUE FOR SUBMITTAL
2	03/27/12	ADDED PRED TO DIGITAL
3	04/19/12	CHANGED FROM 1000 WATT SYSTEM FROM LINK TO FROM MULTICAST
4	07/19/12	LINK CHANGE AND UPS LINK INSTALL TO LINKS & ADDITION

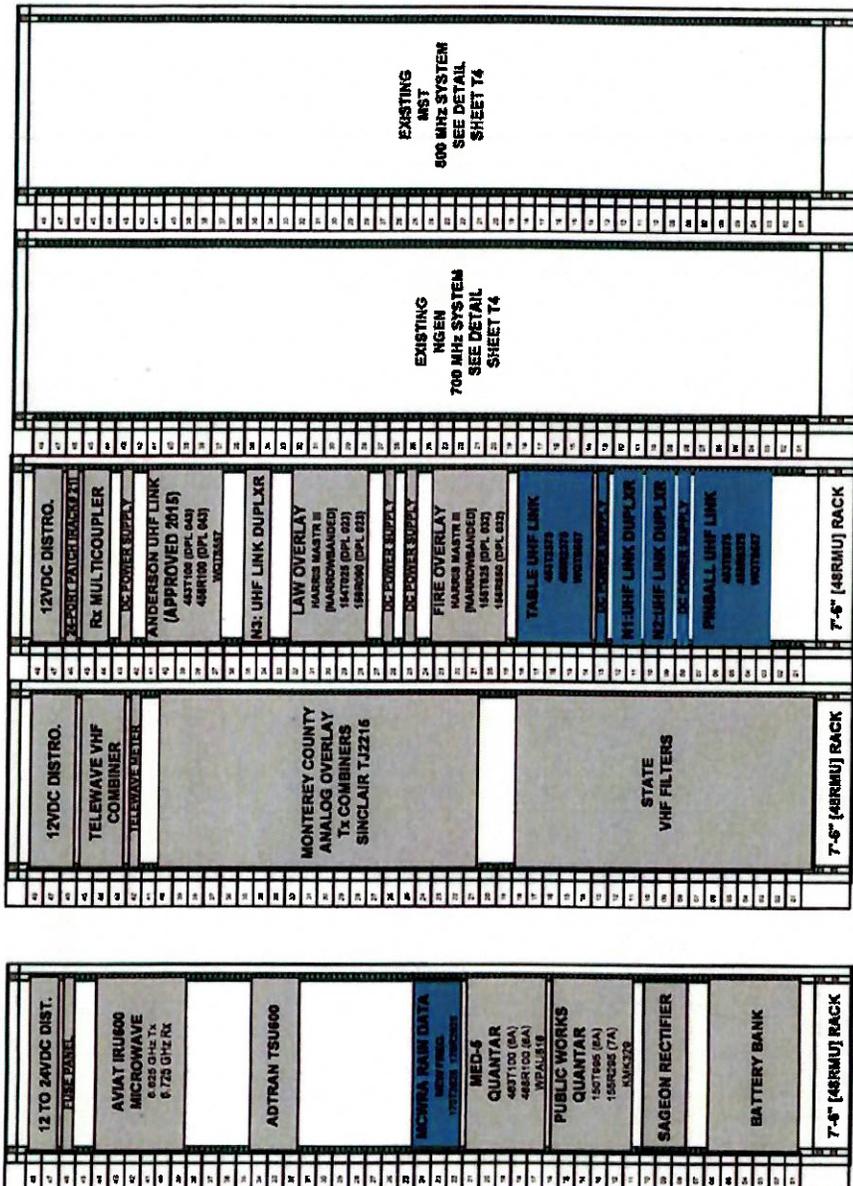
PROJECT TITLE
WRA ALERT2 RAIN DATA AND COUNTY UHF LINKS UPGRADES AT WILLIAMS HILL

PROJECT SITE
WILLIAMS HILL (CALANDRA)
20 MILE SOUTH-EAST OF KING CITY, CA
MONTEREY COUNTY

SHEET TITLE
PROPOSED COUNTY RACK ELEVATIONS

SHEET NUMBER
T-5

PROPOSED MONTEREY COUNTY RACK ELEVATIONS AT WILLIAMS HILL



Rack # 11
EXISTING EQUIPMENT
(NO WORK)

Rack # 12
EXISTING EQUIPMENT
(NO WORK)

Rack # 13
EXISTING EQUIPMENT
(NO WORK)

Rack # 14
EXISTING EQUIPMENT
(NO WORK)

Rack # 21
EXISTING EQUIPMENT
(NO WORK)

EXISTING UPS
SEE DETAIL SHEET T4
47'H x 24' W x 28.4' D

LEGEND:
 PROPOSED EQUIPMENT / UPGRADES / FREQUENCY CHANGE AS NOTED
 EXISTING EQUIPMENT (NO WORK)

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INFORMATION TECHNOLOGY
COMMUNICATIONS DIVISION
1500 WASHINGTON STREET
SALINAS, CA 93905
P (831) 756-5453
F (831) 756-4670

DWG No. 00-44446-TD12 RB13A-13
DRAWN BY: J. MONTOYA
CHECKED BY: S. PAXTON
TYPE: TDS32 DOCS
SCALE: 8x-11 NO SCALE

REV.	DATE	DESCRIPTION
1	02/23	ISSUE FOR SUBMITTAL
2	03/15	REVISED TO ADD FREQ. TO DIGITAL
3	03/15	REVISED TO ADD FREQ. TO DIGITAL
4	03/15	REVISED TO ADD FREQ. TO DIGITAL
5	03/15	REVISED TO ADD FREQ. TO DIGITAL
6	03/15	REVISED TO ADD FREQ. TO DIGITAL
7	03/15	REVISED TO ADD FREQ. TO DIGITAL
8	03/15	REVISED TO ADD FREQ. TO DIGITAL
9	03/15	REVISED TO ADD FREQ. TO DIGITAL

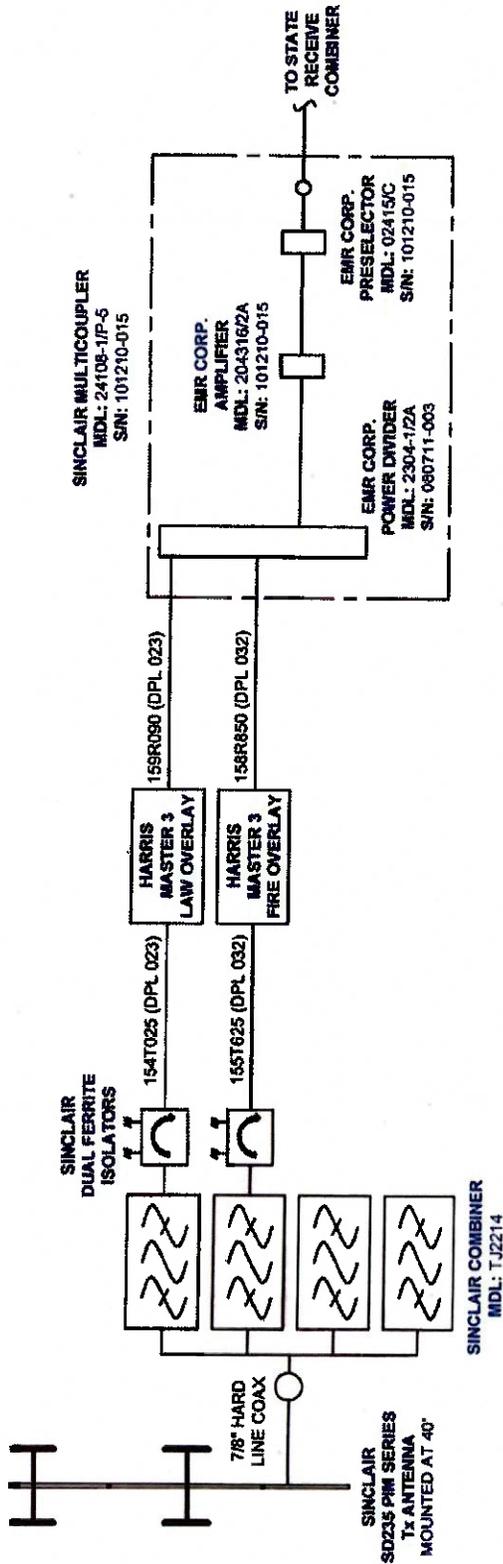
PROJECT TITLE
**WRA ALERT2 RAIN DATA
AND
COUNTY UHF LINKS
UPGRADES
AT WILLIAMS HILL**

PROJECT SITE
**WILLIAMS HILL
(CALANDRA)
20 MILE SOUTH-EAST
OF KING CITY, CA
MONTEREY COUNTY**

SHEET TITLE
**ANALOG OVERLAY
SYSTEM
MODIFICATIONS**

SHEET NUMBER
T-8

**FOR INTERNAL
USE ONLY**



**REMOVED FIRE PAGING & FIRE 4B
(APPROVED IN 2015 NEVER COMMISSIONED)**
**ALL EQUIPMENT SHOWN HERE STILL
OPERATIONAL AND EXISTING IN RACK #13**

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INFORMATION TECHNOLOGY
 COMMUNICATIONS DIVISION
 1800 MONTECITO AVENUE, 1ST FLOOR
 SALINAS, CA 93905
 P: (831) 796-6483
 F: (831) 756-6940

DATE: 08/04/2010 10:10:10 AM
 DRAWN BY: T. HOSKINS
 CHECKED BY: S. PANTON
 TYPE: TDR12 DOCS
 SCALE: 1/8" = 1'-0" NO SCALE

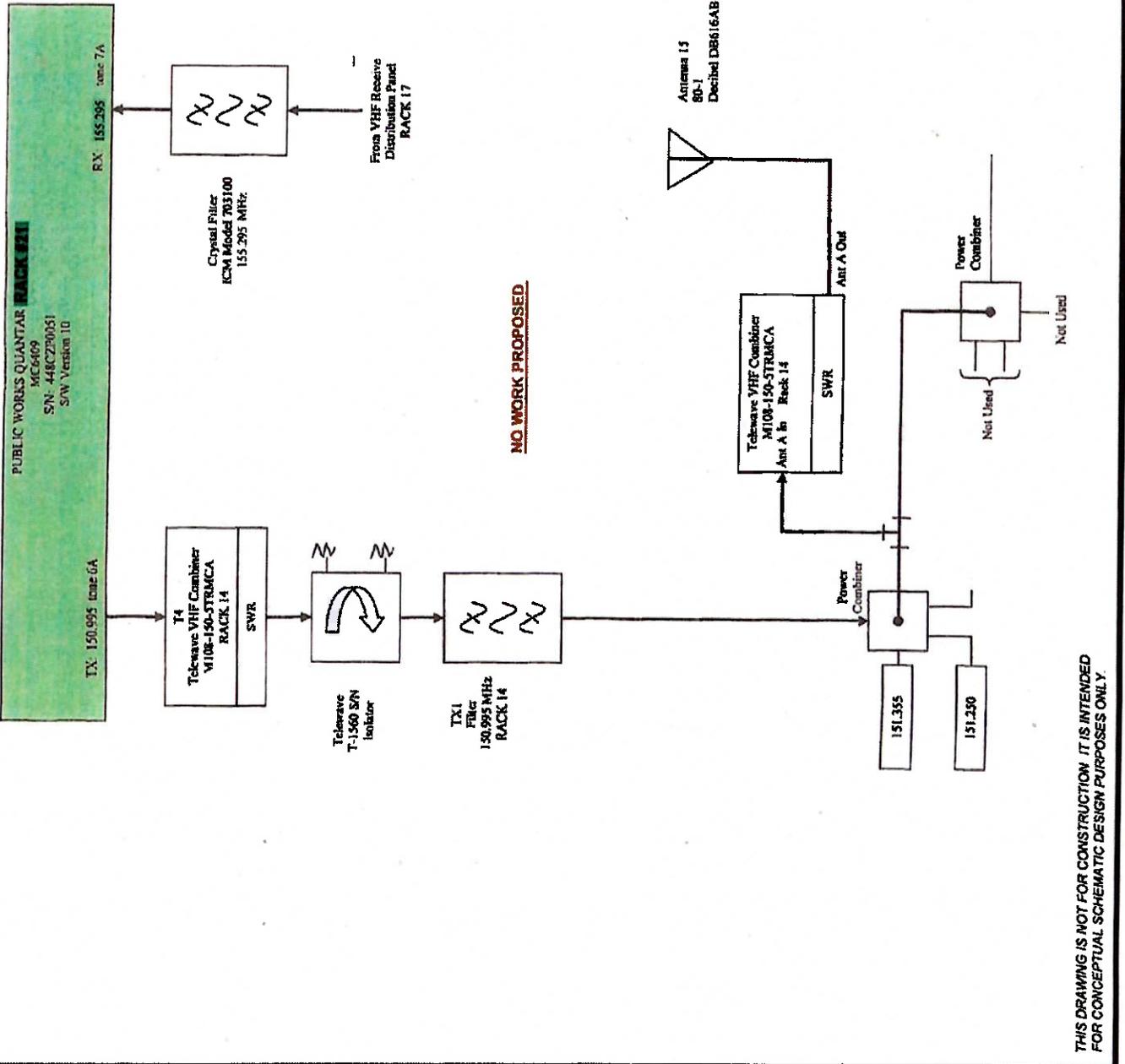
REV	DATE	DESCRIPTION
1	08/04/2010	ISSUE FOR SUBMITTAL
2	08/04/2010	ADDED PAGES TO DIGITAL DRAWING TO ACCOMMODATE SYSTEM PROGRAM LOG TO TDR12 MULTICAST
3	08/04/2010	AREA REPRESENTATIVE WANTED FREQ CHANGE AND UHF LINK INSTALL TO LAMES & ANDERSON

PROJECT TITLE
 WIRA ALERT2 RAIN DATA AND COUNTY UHF LINKS UPGRADES AT WILLIAMS HILL

PROJECT SITE
 WILLIAMS HILL (CALANDRA) 20 MILE SOUTH-EAST OF KING CITY, CA MONTEREY COUNTY

SHEET TITLE
 EXISTING EQUIPMENT PUBLIC WORKS

SHEET NUMBER
 T-9



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INFORMATION TECHNOLOGY
COMMUNICATIONS DIVISION
1500 MOFFETT STREET
SALINAS, CA 95060
P (831) 435-2222
F (831) 435-2922

DWG NO.: 00-00-00-10012_0012-10
DRAWN BY: J. MONTOYA
CHECKED BY: S. PAXTON
TYPE: 10012.DWG
SCALE: 8x11 NO. SCALE

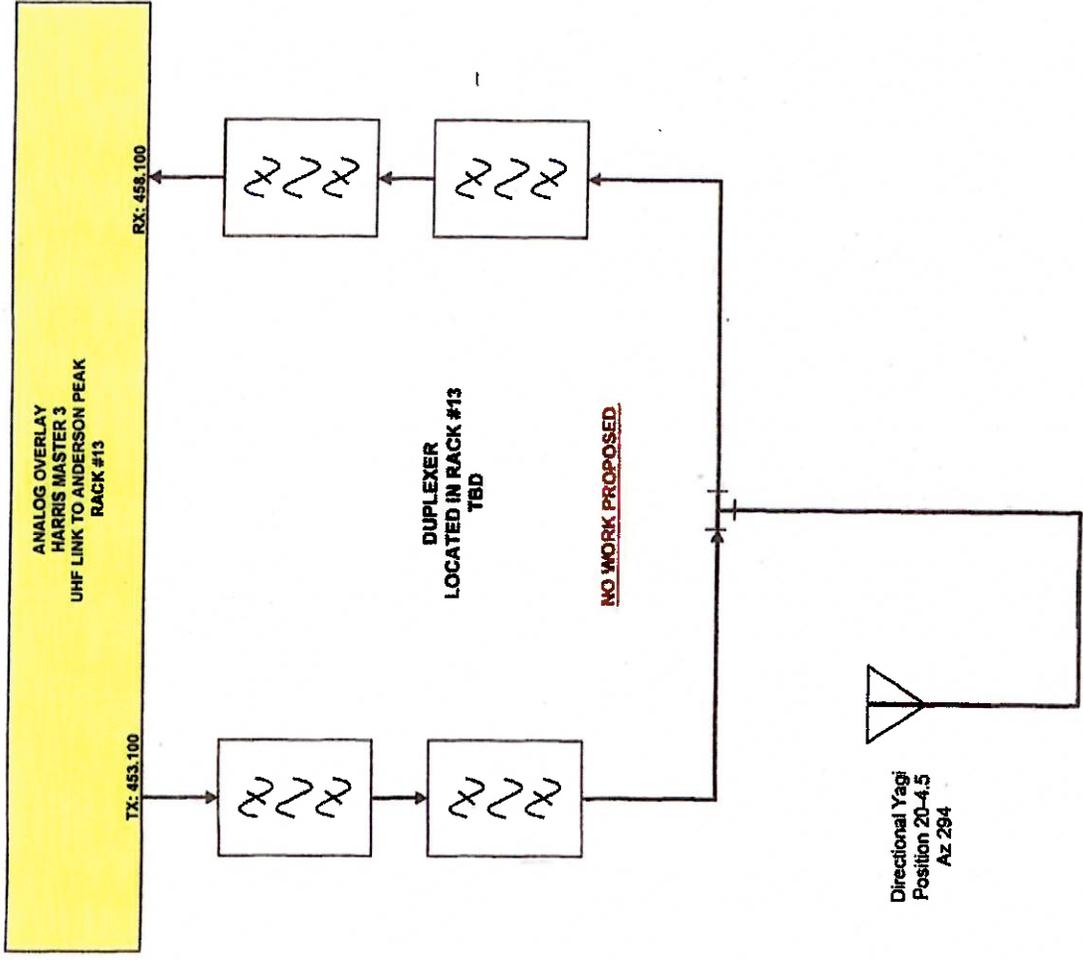
REV.	DATE	DESCRIPTION
1	4/24/12	SCALE FOR SUBMITTAL
2	5/22/12	ADDED FIELD TO DIGITAL SYSTEM FROM UHF TO TDM/4.5M/10KHZ
3	12/7/18	WRA REPEATER SWAP/ FIELD CHANGE AND UHF LINK INSTALL TO LINES 4 AND 5

PROJECT TITLE
WRA ALERT2 RAIN DATA AND COUNTY UHF LINKS UPGRADES AT WILLIAMS HILL

PROJECT SITE
WILLIAMS HILL (CALANDRA) 20 MILE SOUTH-EAST OF KING CITY, CA MONTEREY COUNTY

SHEET TITLE
EXISTING UHF LINK TO ANDERSON

SHEET NUMBER
T-12



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INFORMATION TECHNOLOGY
COMMUNICATIONS ENGINEERING
1880 MURPHY STREET
SAN GABRIEL, CA 94533
P (925) 726-4433
F (925) 726-6939

DRAWING NO. COM-IMP-10312_03-13-18
DRAWN BY: J. MONTOYA
CHECKED BY: S. PAXTON
TYPE: 10312 DOCS
SCALE: 8" = 1' NO SCALE

REV.	DATE	DESCRIPTION
1	03/13/18	ISSUE FOR SUBMITTAL
2	03/21/18	ADDED FREQ. TO DIGITAL SYSTEM FROM LWT TO MONTELLI TICKET
3	12/17/18	WRA READER SWASH FREQ. CHANGE AND UHF ANTENNA SWAP FROM MONTELLI TO LUKEN & ANDERSON

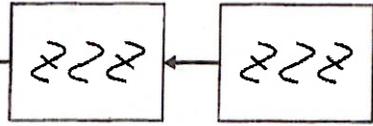
PROJECT TITLE
WRA ALERT2 RAIN DATA AND COUNTY UHF LINKS UPGRADES AT WILLIAMS HILL

PROJECT SITE
WILLIAMS HILL (CALABRA) 20 MILE SOUTH-EAST OF KING CITY, CA MONTEREY COUNTY

SHEET TITLE
PROPOSED UHF LINK TO TABLE MOUNTAIN

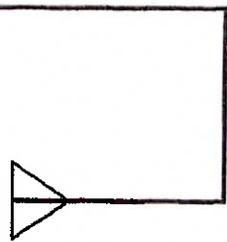
SHEET NUMBER
T-14

TX: 453.2375
ANALOG OVERLAY HARRIS MASTER 3 UHF LINK TO TABLE MOUNTAIN RACK #13
RX: 458.2375



DUPLEXER LOCATED IN RACK #13 TBD

PROPOSED LINK



Directional Yagi
Position 20-1.5
Az. 92 DEG.

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INFORMATION TECHNOLOGY COMMUNICATIONS ENGINEERING
 1500 MADRIFT STREET
 SALINAS, CA 93906
 P (831) 752-6970

DWG NO. 00-04-01-01-02-01-18
 DRAWN BY: J. MONTOYA
 CHECKED BY: E. PAXTON
 TYPE: T0112.DWG
 SCALE: Bx 11 NO SCALE

REV.	DATE	DESCRIPTION
1	02/07/12	ISSUE FOR SUBMITTAL
2	01/07/13	ADDED FREQ. TO DIGITAL SYSTEM FROM 1W6 TO 100MHz MULTICAST
3	12/17/15	1W6 REPEATER SWAP/ FREQ. CHANGE AND 1W6 CHANNEL TO 126.516 AND 126.516

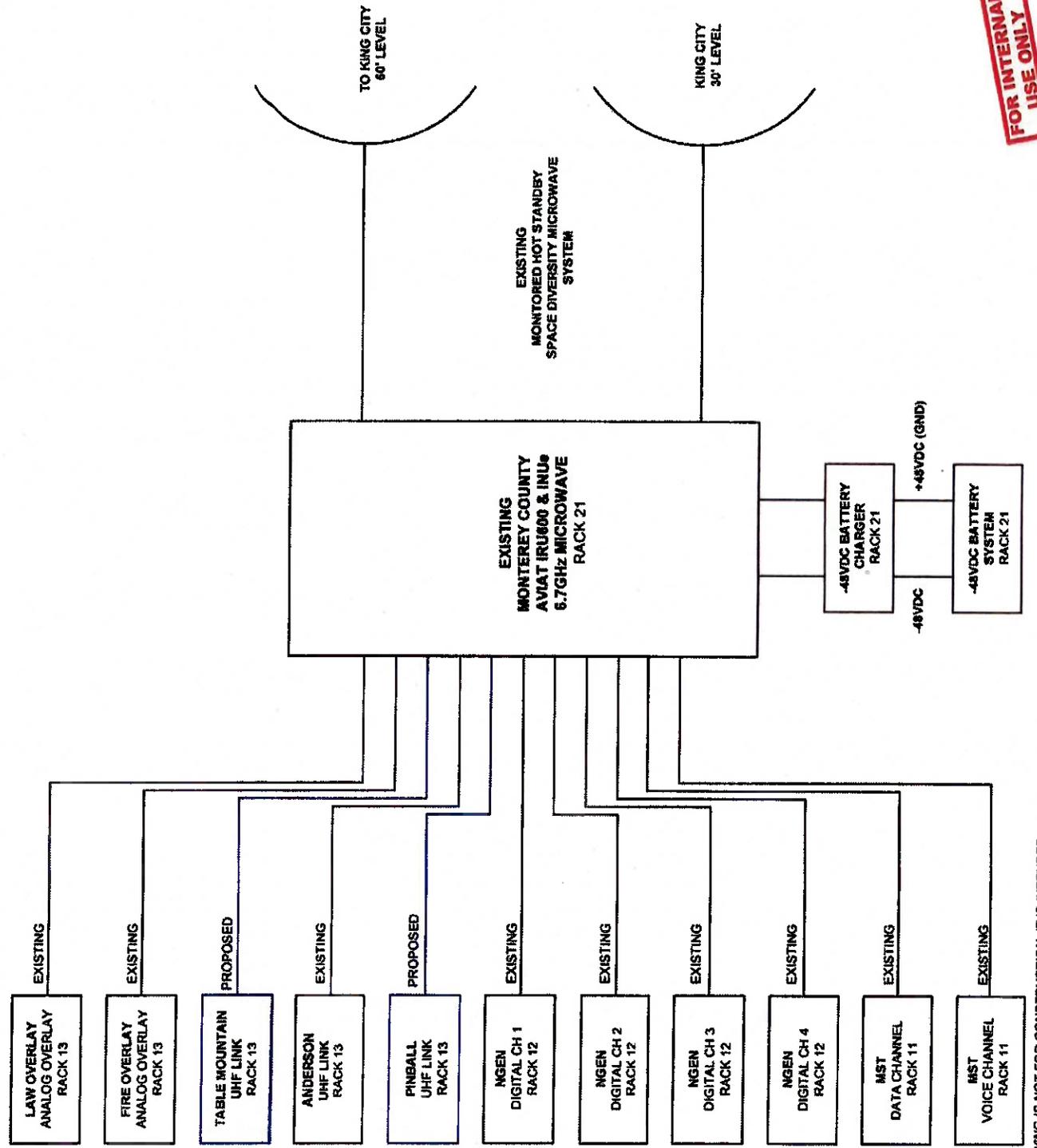
PROJECT TITLE
 WIRA ALERT2 RAIN DATA AND COUNTY UHF LINKS UPGRADES AT WILLIAMS HILL

PROJECT SITE
 WILLIAMS HILL (CALANDRA) 20 MILE SOUTH-EAST OF KING CITY, CA MONTEREY COUNTY

SHEET TITLE
 EXISTING AVIAT MICROWAVE DETAIL

SHEET NUMBER
T-15

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Federal Communications Commission
Public Safety and Homeland Security Bureau

RADIO STATION AUTHORIZATION

LICENSEE: MONTEREY COUNTY WATER RESOURCES
 AGENCY

ATTN: GERMAN CRIOLLO
 MONTEREY COUNTY WATER RESOURCES AGENCY
 1441 SCHILLING PLACE, NORTH BUILDING
 PO BOX 930
 SALINAS, CA 93901

Call Sign WQGL621	File Number 0008129837
Radio Service PW - Public Safety Pool, Conventional	
Regulatory Status PMRS	
Frequency Coordination Number	

FCC Registration Number (FRN): 0014642250

Grant Date 01-26-2017	Effective Date 07-05-2018	Expiration Date 02-23-2027	Print Date 07-06-2018
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STATION TECHNICAL SPECIFICATIONS**Fixed Location Address or Mobile Area of Operation**

- Loc. 1** Address: Fremont Peak
 City: San Juan Bautista County: MONTEREY State: CA
 Lat (NAD83): 36-45-36.7 N Long (NAD83): 121-29-28.1 W ASR No.: Ground Elev: 922.0
- Loc. 2** Address: Williams Hill Repeater
 City: Lockwood County: MONTEREY State: CA
 Lat (NAD83): 35-57-07.0 N Long (NAD83): 121-00-06.2 W ASR No.: Ground Elev: 855.0

Antennas

Loc No.	Ant No.	Frequencies (MHz)	Sta. Cls.	No. Units	No. Pagers	Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp meters	Ant. AAT meters	Construct Deadline Date
1	1	000170.26250000	FX	1		11K0F2D	5.000	10.000	4.3		02-23-2008
2	1	000170.26250000	FX	1		11K0F2D	25.000	113.000	6.0		02-23-2008

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: MONTEREY COUNTY WATER RESOURCES

Call Sign: WQGL621

File Number: 0008129837

Print Date: 07-06-2018

Control Points

Control Pt. No. 1

Address: 1441 Schilling Place, North Building

City: Salinas **County:** MONTEREY **State:** CA **Telephone Number:** (831)755-4860

Associated Call Signs

<NA>

Waivers/Conditions:

NONE

Monterey County
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Federal Communications Commission
Public Safety and Homeland Security Bureau

RADIO STATION AUTHORIZATION

LICENSEE: COUNTY OF MONTEREY

ATTN: STEVE PAXTON
COUNTY OF MONTEREY
1590 MOFFETT ST
SALINAS, CA 93905

Call Sign WQTS557	File Number
Radio Service PW - Public Safety Pool, Conventional	
Regulatory Status PMRS	
Frequency Coordination Number	

FCC Registration Number (FRN): 0004120390

Grant Date 04-03-2014	Effective Date 11-28-2016	Expiration Date 04-03-2024	Print Date
--------------------------	------------------------------	-------------------------------	------------

STATION TECHNICAL SPECIFICATIONS

Fixed Location Address or Mobile Area of Operation

- Loc. 1** Address: 9 KM WEST OF
City: SAN ARDO County: MONTEREY State: CA
Lat (NAD83): 35-57-07.1 N Long (NAD83): 121-00-06.3 W ASR No.: Ground Elev: 847.6
- Loc. 2** Address: TURKEY FLAT ROAD, SOUTH SIDE OF TABLE MTN (TABLE MOUNTAIN #1021)
City: SAN ARDO County: MONTEREY State: CA
Lat (NAD83): 35-55-39.5 N Long (NAD83): 120-22-50.9 W ASR No.: Ground Elev: 1002.3
- Loc. 3** Address: FAA SITE
City: BIG SUR County: MONTEREY State: CA
Lat (NAD83): 36-10-52.0 N Long (NAD83): 121-38-39.0 W ASR No.: 1013242 Ground Elev: 1249.4

Antennas

Loc No.	Ant No.	Frequencies (MHz)	Sta. Cls.	No. Units	No. Pagers	Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp meters	Ant. AAT meters	Construct Deadline Date
1	1	000453.23750000	FXO	1		11K2F3E	10.000	10.000	15.0	515.5	04-03-2015
1	2	000453.10000000	FXO	1		11K2F3E	10.000	10.000	15.0	515.5	11-28-2017
2	1	000458.23750000	FXO	1		11K2F3E	10.000	10.000	20.0	374.1	04-03-2015

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: COUNTY OF MONTEREY**Call Sign:** WQTS557**File Number:****Print Date:****Antennas**

Loc No.	Ant No.	Frequencies (MHz)	Sta. Cls.	No. Units	No. Pagers	Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp meters	Ant. AAT meters	Construct Deadline Date
3	1	000458.10000000	FXO	1		11K2F3E	10.000	10.000	15.0	689.0	11-28-2017

Control Points**Control Pt. No. 1****Address:** 1322 NATIVADAD ROAD**City:** SALINAS **County:** MONTEREY **State:** CA **Telephone Number:** (831)769-8888**Associated Call Signs**

WQSD536, WQSD535

<NA>

Waivers/Conditions:

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

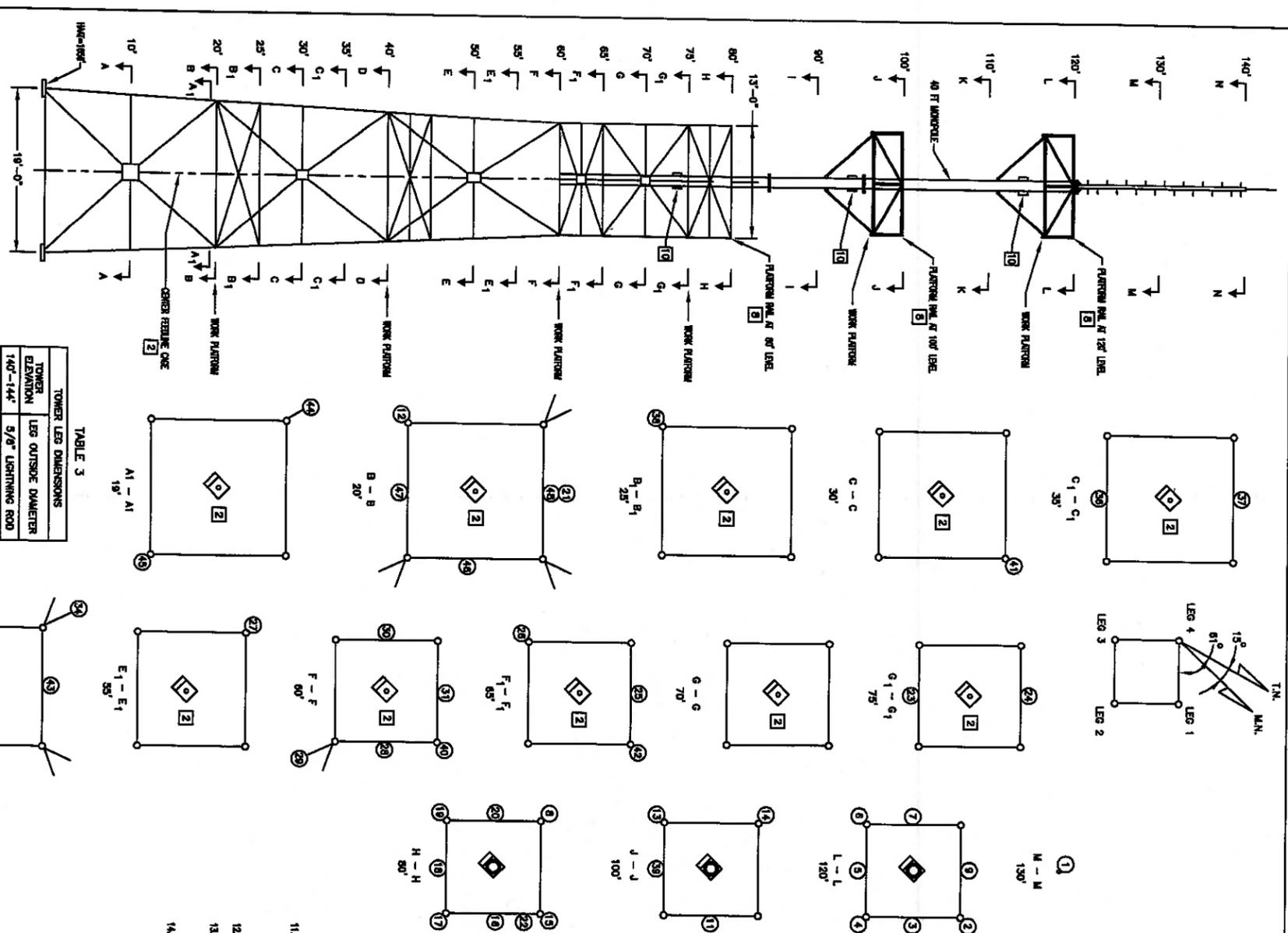


TABLE 3
TOWER LEG DIMENSIONS

TOWER ELEVATION	LEG OUTSIDE DIAMETER	5/8" LIGHTNING ROD
140'-144'	5/8"	4 1/2"
120'-140'	4 1/2"	10"
95'-120'	4 1/2"	4 1/2"
80'-85'	4 1/2"	4 1/2"
60'-80'	3 9/16"	3 9/16"
40'-60'	3 9/16"	3 9/16"
0'-20'	3 9/16"	3 9/16"

TOWER MAKE: CUSTOM 90' 180 LARGO WITH
CUSTOM 40' NESTED MONOPOLE
TOWER WFR: MICROFLEET

NOTE [7]

TABLE 1 NOTE

ITEM NUMBER	ANTENNA POSITION	AGENCY	TX (MHz)	RX (MHz)	TYPE	MANUFACTURER	MODEL	VERTICAL DIMENSION (FEET)	SHOULDER DIMENSION (FEET)	BELOW SURFACE (FEET)	AZIMUTH (DEGREES)	YEAR INST.	FTP PORT (ANDREW)	FEEDLINE (ANDREW)	DESCRIPTION AND NOTES	
1	130-C1	RECEIVE COMBNER		42.18-47.18	OMNI	SINCLAIR	SRL-110A	19/1.5/1.8	19'	8'	0	2001	1-1A	LPF-50A		
2	120-1	RECEIVE COMBNER		150-164	OMNI	DECEBEL	DB816AB	18/2.75	18'	0	2015	1-1B	LPF-50A		MONTEBAY 800 TX	
3	120-1.5	RECEIVE COMBNER		160-174	OMNI	DECEBEL	DB816BC	18/2.75	18'	0	2015	1-2A	LPF-50A		MONTEBAY 800 RX	
4	120-2	RECEIVE COMBNER		445-470	OMNI	HUSTLER	HXT0-44070	18/7.5	18'	0	2011	1-2B	LPF-50A		ANDERSON PEAK	
5	120-2.5	FUTURE														
6	120-3	RECEIVE COMBNER		808-888	OMNI	DECEBEL	DB809K-XIT	12.2/7.5	10'	0	2013	1-2B	LPF-50A		LINK FOR KCT RE3, RR4	
7	120-3.5	FUTURE														
8	80-4	MONTEBAY COUNTY		184.845	OMNI	DB SPECIMA	DS10R-30U-0	21'	21'	0	2013	1-4A	LPF-50A		MULTI-COUPLED RX	
9	120-4.5	FUTURE														
10	100-1.5	TRANSMIT COMBNER		824-888	OMNI	DECEBEL	DB809K-XC	12.2/7.5	10'	0	2001	1-6B	LPF-50A			
11	20-3	COUNTY OF MONTEBAY		808-888	OMNI	TELEWAVE	ANT809F5	4.7	4.7	0	2015	1-6B	LPF-50A			
12	100-3	COUNTY OF MONTEBAY		808-888	OMNI	TELEWAVE	ANT809F5	4.7	4.7	0	2015	1-6B	LPF-50A			
13	100-3	COUNTY OF MONTEBAY		808-888	OMNI	TELEWAVE	ANT809F5	4.7	4.7	0	2015	1-6B	LPF-50A			
14	100-4	MONTEBAY COUNTY EMS		483.100	EXP-DIP	SINCLAIR	SRL3100S	10/2.375	10'	0	2001	1-7	LPF-50A		EXPRESSED DIPOLE	
15	80-1	TRANSMIT COMBNER		150-164	OMNI	DECEBEL	DB816-AB	18/2.75	18'	0	2001	1-8A	LPF-50A			
16	80-1.5	DOT		458.5825	YAGI	TELEWAVE	ANT450T10-NR	1.4/7.5	18'	0	2014	1-8B	LPF-50A		LINK FOR KCT RE3, RR4	
17	80-2	VP/ANTENNA		150-164	OMNI	DECEBEL	DB816-AB	18/2.75	18'	0	2001	1-8A	LPF-50A			
18	80-2.5	TRANSMIT COMBNER		146.730	OMNI	DECEBEL	DB816-0	18/2.75	18'	0	2001	1-8B	LPF-50A			
19	80-3	TRANSMIT COMBNER		160-174	OMNI	DECEBEL	DB816-BC	18/2.75	18'	0	2001	1-10A	LPF-50A			
20	80-3.5	FUTURE														
21	80-4.5	COUNTY OF MONTEBAY		170.2825	YAGI	LAND	LS1505	3'	1.5'	1.5'	2017	1-10B	LPF-50A		RAIN DATA	
22	80-1.25	COF-4A		155.130	OMNI	RS CELWAVE	BA1010-1	4.7/3	3.7'	3.7'	2017	1-11B	LPF-50A			
23	74-2.5	DCM		6258.34	RS	RS	PA0X10-987	10/4.5	5'	5'	152.5	2-18B	EM3		MT. LONE MAN	
24	74-4.5	DCM (ANALOG)		6855.00 (H)	PARA	COMSCOPE	UH10-598B	10/4.5	5'	5'	330.4	2-14A	EM3		EASTSIDE MAIN (ANALOG)	
25	64-4.5	DCM		6345.48 (V)	PARA	COMSCOPE	UH10-598B	10/4.5	5'	5'	330.4	2-17A	EM3		EASTSIDE MAIN (DIGITAL)	
26	64-3	DCM		6595.0	PARA	ANDREW	P4-105	4/4.5	2'	2'	337.6	2-13A	EM3		KING CITY	
27	55-4	DCM		957.15	PARA	ANDREW	P10F-8	10/4.5	4'	4'	253.9	2-12A	EM3		ROCKY BUTTE MAIN	
28	60-1.5	FUTURE														
29	60-2	F6B		151.43	OMNI	TELEWAVE	ANT150F-3	20/2.75	20'	20'		1-12A	LPF-50A		ANDERSON PEAK	
30	60-3.5	FUTURE														
31	60-4.5	FUTURE														
32	48-2A	DOT		47.18	OMNI	KRECO	CO41A	10/2	10'	10'		1-13B	LPF-50A			
33	48-2B	COF (BLK & BLU)		42.48/44.92	OMNI	SINCLAIR	S0110	4/2	7'	7'		1-14B	LPF-50A			
34	40-1A	US-D04/NS		413.825	GRD	SCOLA	PR-430U	6/2	3'	3'	333	2001	1-15A	LPF-50A		VERTICALLY POLARIZED
35	40-3A	US-D04/NS		188.875	YAGI	SCOLA	CA5-150	4/2	2'	2'	192	2001	1-15B	LPF-50A		MT. LONE DIVERSITY
36	34-2.5	DCM		6004.50	PARA	RS	PA0X10-987	10/4.5	5'	5'	152.5	2-18A	EM3		EASTSIDE DIV RX (ANALOG)	
37	34-4.5	DCM (ANALOG)		6665.00 (H)	PARA	COMSCOPE	UH10-598B	10/4.5	5'	5'	330.4	2-14B	EM3		EASTSIDE DIV RX (DIGITAL)	
38	24-3	DCM		6735.00	PARA	ANDREW	P4-6-85	4/4.5	2'	2'	188.7	2001	2-13B	EM3	ROCKY BUTTE DIVERSITY	
39	100-2.5	TRANSMIT COMBNER		440-470	OMNI	HUSTLER	HXT0-44070	18/7.5	18'	18'	2011	1-16A	LPF-50A			
40	80-1	DOT		453.2750	YAGI	TELEWAVE	ANT450T10-NR	1.4/7.5	0.8'	0.8'	8.4	2011	1-17B	LPF-50A		LINK FOR KCT RRI,RR2,RR4
41	80-1	COUNTY OF MONTEBAY		6785	DISH	ANDREW	UHPE-598	6' DA	3'	3'	339.1	2011	1-18	LPF-50A		OVERLAY TX
42	80-1	COUNTY OF MONTEBAY		6825	DISH	ANDREW	UHPE-598	6' DA	3'	3'	339.1	2011	1-19	LPF-50A		
43	40-3.5	COUNTY OF MONTEBAY		154.0250	OMNI	SINCLAIR	S0235	14'	14'	0	2011					
44	19-4	COUNTY OF MONTEBAY		155.43,158.31, 159.81	OMNI	ANDREW	DB810E-F5	14.7'	14.7'	0	2015				COMBINED TX	
45	19-2	COF		453.0625	YAGI	MANPAD	EM0V4403	19'	19'	0	2015	1-4A	LPF-50A		SAN ARBO	
46	20-1.5	COUNTY OF MONTEBAY		453.2375	YAGI	LAND	Y4603	1.5'	0.75'	0.75'	92.14	2015	1-4A	LPF-50A		
47	20-2.5	COUNTY OF MONTEBAY		453.6375	YAGI	LAND	Y4603	1.5'	0.75'	0.75'	139	2018				
48	20-4.5	COUNTY OF MONTEBAY		453.1000	YAGI	LAND	Y4603	1.5'	0.75'	0.75'	284	2019				
49	ICE BRIDGE	COUNTY OF MONTEBAY			UNKNOWN	SC-475-4L-PW		2.1'	2.1'	0	2019				GPS ALERTS	

- MONTEBAY DISKS LABELLED TOWER ARE REQUIRED FOR ANY FUTURE TOWERS. DISK POSITIONS LABELLED TOWER NUMBER ARE RESERVED FOR STATE MONTEBAY SYSTEM USE. IF A NON-STATE TOWER REQUESTS TOWER SPACE AT A TOWER NUMBER POSITION, DISK USE, BUT IS NOT REQUIRED, TO REMAIN IN THE SPACE RESERVED.
- FOR COMBINED ANTENNA SYSTEM, REFER TO DWG: 42760-0A1.
- THE ACTUAL 65-DBIT TOWER HAS A WFR-Y-MOUNT INSTALLED AT THIS LOCATION. SHEET 2 OF THIS DRAWING SHOWS A DISH LOCATED IN THIS POSITION FOR TOWER DESIGN LOAD PURPOSES.
- TABLE 4 IS A COMBINATION TABLE SHOWING DISH RESOLUTION WARNINGS FROM THE TOWER DESIGN LOAD WARNINGS MAY BE IN ELEVATION, AZIMUTH, OR DISH SIZE.

- SECTOR TOWER ASSIGNMENT IS AS FOLLOWS: THIS MONTEBAY TOWER, MODEL NUMBER 154, IS A 65-DBIT TOWER. THE CENTER OF THE DISH AND TOWER IS 13' WIDE SECTION (0' TO 80') HAS BEEN PLACED IN THE CENTER OF THE TOWER. THE 13' WIDE SECTION (0' TO 80') HAS BEEN PLACED IN THE CENTER OF THE TOWER. THE 13' WIDE SECTION (0' TO 80') HAS BEEN PLACED IN THE CENTER OF THE TOWER. THE 13' WIDE SECTION (0' TO 80') HAS BEEN PLACED IN THE CENTER OF THE TOWER.
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- THE WORK PLATFORMS ARE EQUIPPED WITH PROTECTOR RAILS WITH 18 EACH 2 3/8" O.D. PIPE ANTENNA MOUNTS, 5 PER FACE INCLUDING CORNERS.
- THE ANTENNA POSITIONS HAVE BEEN IDENTIFIED WITH POSITION NUMBERS BASED UPON TOWER ELEVATION. ANTENNA POSITION 90-2 FOR EXAMPLE, IS AT AN ELEVATION OF 90', REFER TO SHEET 3.

- FEEDLINE ROUTE UP THE MONOPOLE PIPE IN ONE OF TWO WAYS, UP THE OUTSIDE OR UP THE INSIDE. IT IS RECOMMENDED THAT ROUTING BE DONE UP THE INSIDE OF THE MONOPOLE PIPE. THE FEEDLINE SHOULD BE PROTECTED FROM THE OUTSIDE BY THE MONOPOLE PIPE. THE FEEDLINE SHOULD BE PROTECTED FROM THE OUTSIDE BY THE MONOPOLE PIPE. THE FEEDLINE SHOULD BE PROTECTED FROM THE OUTSIDE BY THE MONOPOLE PIPE.
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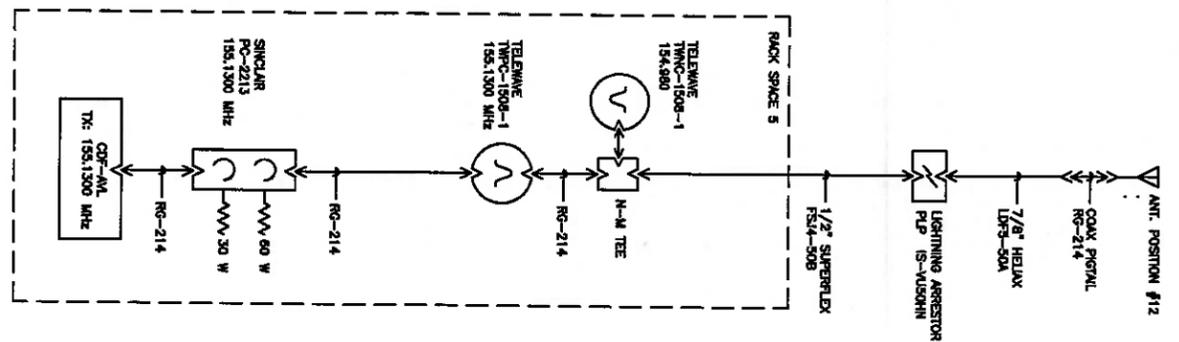
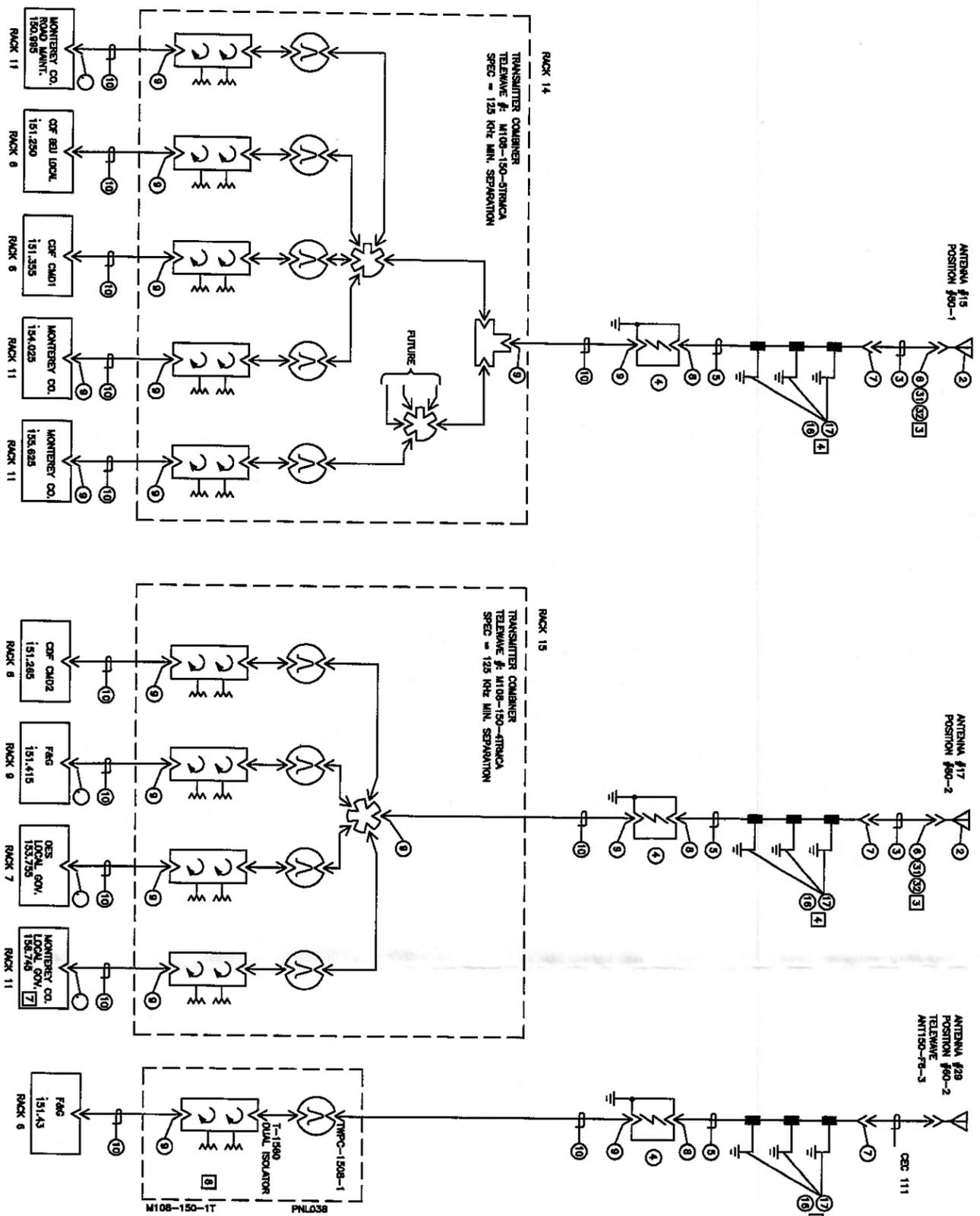
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QTY	DESCRIPTION	ITEM
2	OMNI ANTENNA, 100-174 MHz P/N DB810-95	1
3	OMNI ANTENNA, 150-184 MHz P/N DB810-48	2
13	N/M MALE PIGTAIL (47) P/N 444SP	3
9	LIGHTNING SUPPRESSOR, N-TYPE, 300W, 1.5-400 MHz, S-8500N-CO P/N 444SP	4
7/8"	HELIX CABLE LFR-50A	5
6	CONNECTOR, UHF MALE FOR RG-214, P/N 83-888-2050	6
10	CONNECTOR, N-FEMALE FOR 7/8" HELIX, P/N LFRM	7
10	CONNECTOR, N-MALE FOR 7/8" HELIX, P/N LFRM	8
36	CONNECTOR, N-MALE FOR 1/2" SUPERFLEX, P/N FANM	9
36	CABLE 1/2" SUPERFLEX COAX, P/N FS4-508	10
36	CABLE 1/4" SUPERFLEX COAX, P/N FS1-50A	11
18	CONNECTOR, N-MALE FOR 1/4" SUPERFLEX, P/N F1PM-H	12
13	CONNECTOR, UHF-MALE FOR 1/2" SUPERFLEX, P/N 444SP	13
11	CONNECTOR, UHF-MALE FOR 1/4" SUPERFLEX, P/N 41SP	14
2	CONNECTOR, BNC-MALE FOR 1/4" SUPERFLEX, P/N FTBWM	15
39	COAXIAL GROUND KIT, P/N LUK-15	16
39	SEALING KIT, P/N SR-23	17
39	CABLE 1/2" HELIX, LFR-50A, P/N 444SP	18
4	LIGHTNING SUPPRESSOR, N-TYPE (128-110) MHz, P/N S-8500N-CO	19
1	DISCIPLE ANTENNA (CENTER FREQUENCY = 44.880) MHz, P/N 444SP	20
1	CONNECTOR, N-FEMALE FOR RG-214, P/N 82-4550	21
2	OMNI ANTENNA, TUNED TO FREQUENCY, P/N CO-11A	22
1	OMNI ANTENNA, 808-898 MHz, P/N DB808-AT	23
1	OMNI ANTENNA, 824-898 MHz, P/N DB808-AG	24
3	CONNECTOR, N-MALE FOR 1/2" HELIX, P/N LFRM-H	25
3	CONNECTOR, N-FEMALE FOR 1/2" HELIX, P/N LFRF	26
7	HOSING GRP FOR 7/8" COAX, P/N 024-01-017	27
1	HOSING GRP FOR 1/2" COAX, P/N 024-01-014	28
2	ANTENNA (OMNI UHF), 440-470 MHz HUSLER P/N HX10-44070	29
1	ANTENNA (OMNI VHF), 142-150 MHz P/N DB810D	30
12	COLD SHRINK TUBING P/N 241474-4	31
M/R	RTV SEALANT (NON CONDUCTIVE) P/N 81724	32
1	ANTENNA, SINGULAR, S0110	33
34	CABLE, RG214	34
35	CABLE, RG142	35
36	TELEPHONE BANDPASS CHNTY THRC-4504-1	36

- NOTES:
1. FOR RACK ELEVATION DIAGRAM SEE DRAWING 427050-008
 2. FOR ANTENNA SPACE ASSIGNMENTS SEE DRAWING 427050-009.
 3. ANTENNA SIDE OF CEC-111 IS CUT OFF AND REPLACED WITH SPECIFIED CONNECTOR.
 4. GROUND NITS SHALL BE PLACED AT ANTENNA BASE OF TOWER, AND AT WALK DOWN.
 5. HOSING GRP IS USED TO SUPPORT (HANG) THE VERTICAL WIRE OF THE FEEDLINE INSIDE OF THE MONOPOLE HOSING GRP.
 6. FOR CDF RF CONNECTION, REFER TO DWG. 427050-702.
 7. 158.745 TX AND NOTCH FILTER TO BE REMOVED IN 2013.

TABLE OF CHANGES

REV	DATE	BY	DESCRIPTION
1	8-28-10	UZ	CEC-111 COAXIAL AND CDF 3A102 SHEET 1 & 3
2	8-28-10	UZ	CEC-111 COAXIAL AND CDF 3A102 SHEET 2 & 4
3	7-21-14	BE	ADDED ANTENNA #16 TO RACK 20 TO CORRECT SHEET 2
4	8-20-13	BE	RF-COMMUNICATIONS AND ANTENNA SHEET 4

CALANDRA L.O. (CDF) BLOCK DIAGRAM ANTENNA SYSTEM PROFILE

DATE	BY	REV	DESCRIPTION
02/26/2011	UZ	1	INITIAL DESIGN
05-10-01	UZ	2	REVISED
05-10-01	UZ	3	REVISED
05-10-01	UZ	4	REVISED

427050-203 R

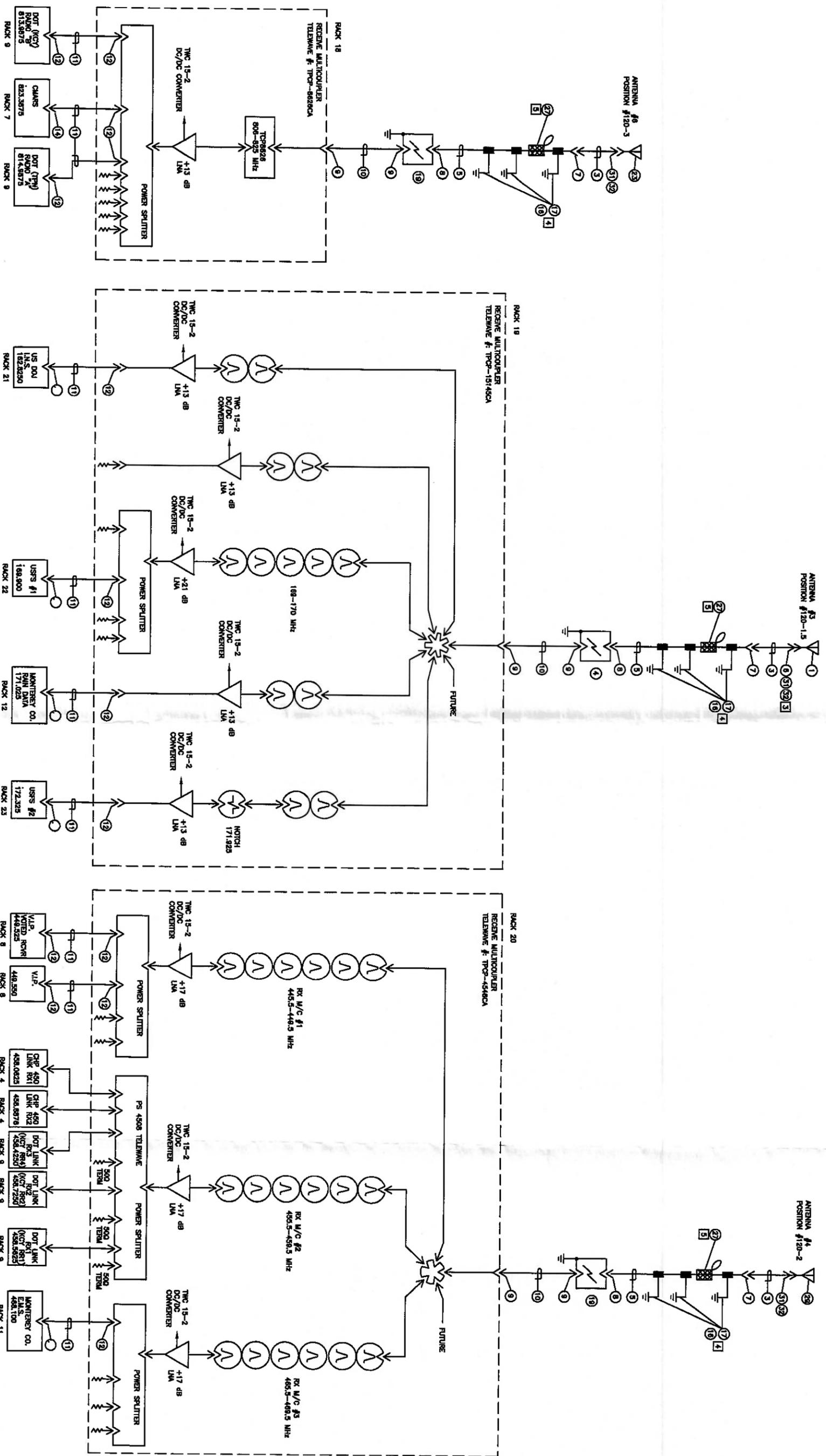


TABLE OF CHANGES

NO.	DATE	BY	DESCRIPTION
1			

CALANDRA L.O. (CDF)
 BLOCK DIAGRAM
 ANTENNA SYSTEM PROFILE

DATE	02/06/87
BY	DC
REV	5-10-91
REASON	NONE
APPROVED	

CALANDRA L.O. (CDF)
 481 SHERBORN STREET, WEST CONCORD, MASSACHUSETTS 01080-1001
 TEL: 617-338-1000

D 427050-203