**POST ACTION MEETING AGENDA**

# REGULAR MEETING NOTICE

# OF THE

# PLANNING AND ZONING COMMISSION

***Commission Members:***
***Chairman Mike Archambault, Vice-Chairman Eugene Mikolajczyk***
***Commissioners: Amberleigh Dabrowski, Susan Dempster, Erik Hansen, Howie Jones, and Roger Owers***

Pursuant to A.R.S. 38-431.02, notice is hereby given to the members of the Fountain Hills Planning and Zoning Commission and to the general public that the Fountain Hills Planning and Zoning Commission will hold a regular meeting, which is open to the general public, on **December 8, 2016**, at **6:30 p.m.** in the Town Hall Council Chambers at 16705 E. Avenue of the Fountains, Fountain Hills, Arizona.

Commissioners of the Town of Fountain Hills will attend either in person or by telephone conference call; a quorum of the Town's Councilmembers or various Commissions or Boards may be in attendance at the Commission meeting.

**TIME:** **6:30 P.M. – REGULAR SESSION**

**WHEN:** **THURSDAY, December 8, 2016**

**WHERE:** **TOWN HALL COUNCIL CHAMBERS**
**16705 EAST AVENUE OF THE FOUNTAINS**

## PROCEDURE FOR ADDRESSING THE PLANNING & ZONING COMMISSION

Anyone wishing to speak before the Commission must fill out a speaker's card and submit it to the Commission Recorder prior to the Commission's discussion of that Agenda item. Speaker Cards are located in the Council Chamber Lobby and near the Recorder's position on the dais.

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**If there is a Public Hearing, please submit the speaker card to speak to that issue prior to the beginning of the Public Hearing and the Consideration of said issue.**

Individual speakers will be allowed **three** contiguous minutes to address the Commission. Time limits may be waived by *(i) discretion of the Chairman upon request by the speaker not less than 24 hours prior to a Meeting, (ii) consensus of the Commission at Meeting or (iii) the Chairman either prior to or during a Meeting.* **If you do not comply with these rules, you will be asked to leave.**

* **CALL TO ORDER AND PLEDGE OF ALLEGIANCE – Chairman Mike Archambault** **6:30 PM**

* **MOMENT OF REFLECTION – Chairman Mike Archambault**

* **ROLL CALL – Chairman Mike Archambault**

**CALL TO THE PUBLIC**

Pursuant to A.R.S. §38-431-01(G), public comment is permitted (not required) on matters not listed on the agenda. Any such comment (i) must be within the jurisdiction of the Commission and (ii) is subject to reasonable time, place, and manner restrictions. The Commission will not discuss or take legal action on matters raised during "Call to the Public" unless the matters are property noticed for discussion and legal action. **At the conclusion of the call to the public, individual Commission members may (i) respond to criticism, (ii) ask staff to review a matter or (iii) ask that the matter be placed on a future Commission agenda.**

**AGENDA ITEM(S)**

1. **CONSIDERATION of APPROVING** the Planning and Zoning Commission Regular Meeting Minutes from October 13, 2016. **APPROVED**

2. **PUBLIC HEARING** to receive comments on a proposed **SPECIAL USE PERMIT** to allow EPCOR Water to install a 50' tall radio antenna at the Adero Canyon Booster Pump Station and Reservoir Site. Case # SU2016-04 **OPENED 6:32 PM CLSOED 6:34 PM**

3. **CONSIDERATION** of a proposed **SPECIAL USE PERMIT** to allow EPCOR Water to install a 50' tall radio antenna at the Adero Canyon Booster Pump Station and Reservoir Site. Case # SU2016-04 **APPROVED**

4. **COMMISSION DISCUSSION/REQUEST FOR RESEARCH** to staff.
*Item listed below are related only to the propriety of (i) placing such items on a future agenda for action or (ii) directing staff to conduct further research and report back to the Commission.* **NONE**

5. **SUMMARY OF COMMISSION REQUESTS** from Development Services Director. **NO ACTION TAKEN**

6. **REPORT** from Development Services Director. **NO ACTION TAKEN**

7. **ADJOURNMENT** **6:43 PM**

*Supporting documentation and staff reports furnished to the Commission with this agenda are available for review in the Planning & Zoning Division of the Development Services Department.*

**DATED** this 30th day of November 2016

By: _____
Robert Rodgers, Development Services Manager
Town of Fountain Hills

The Town of Fountain Hills endeavors to make all public meetings accessible to persons with disabilities. Please call 837-2003 (voice) or 1-800-367-8939 (TDD) 48 hours prior to the meeting to request reasonable accommodations to participate in this meeting. **A majority of the Council Members may be in attendance. No official action will be taken.**

**Notice is hereby given that pursuant to A.R.S. §1-602.A.9** , subject to certain specified statutory exceptions, parents have a right to consent before the State or any of its political subdivisions make a video or audio recording of a minor child. Meetings of the Planning and Zoning Commission are audio and/or video recorded, and, as a result, proceedings in which children are present may be subject to such recording. Parents in order to exercise their rights may either file written consent with the Town Clerk to such recording, or take personal action to ensure that their child or children are not present when a recording may be made. If a child is present at the time a recording is made, the Town will assume that the rights afforded parents pursuant to A.R.S. §1-602.A.9 have been waived."

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6. **REPORT** from Development Services Director.

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*Supporting documentation and staff reports furnished to the Commission with this agenda are available for review in the Planning & Zoning Division of the Development Services Department.*

**DATED** this 30th day of November 2016 By: _____

Robert Rodgers, Development Services Manager
Town of Fountain Hills

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# TOWN OF FOUNTAIN HILLS

☒ Planning and Zoning
☐ Board of Adjustment

# AGENDA ACTION FORM

**Meeting Date: December 8, 2016**

**Meeting Type:** Regular

**Agenda Type:** Regular

**Submitting Division: Development Services**

**Staff Contact Information: N/A**

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**REQUEST TO PLANNING & ZONING COMMISSION: CONSIDERATION for approving the PLANNING & ZONING COMMISSION REGULAR MEETING MINUTES from October 13, 2016.**

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**Applicant: N/A**

**Applicant Contact Information: N/A**

**Property Location: N/A**

**Related Ordinance, Policy or Guiding Principle: Policy or Guiding Principle: A.R.S. §38-431.01**

**Staff Summary** (background): The intent of approving previous meeting minutes is to ensure an accurate account of the discussion and action that took place at that meeting for archival purposes. Approved minutes are placed on the Town's website in compliance with state law.

**Risk Analysis** (options or alternatives with implications): **N/A**

**Fiscal Impact** (initial and ongoing costs; budget status): **N/A**

**Recommendation(s): Approval**

**Staff Recommendation(s): Approval**

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**SUGGESTED MOTION:** Move to Approve the Planning & Zoning Commission Regular Meeting Minutes dated October 13, 2016, as presented.

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**Attachment(s): N/A**

**Submitted by:**

Paula Woodward 11/30/2016
Paula Woodward, Executive Assistant Date

**Approved by:**

11/30/2016
Robert Rodgers, Development Services Director Date

# TOWN OF FOUNTAIN HILLS

☒ **Planning and Zoning**
☐ **Board of Adjustment**

# AGENDA ACTION FORM

**Meeting Date:** December 8, 2016 **Agenda Type**: Regular

**Meeting Type:** Regular **Submitting Department:** Development Services

**Staff Contact Information:** Bob Rodgers, Director, 480-816-5138, rrodgers@fh.az.gov

## REQUESTS TO PLANNING & ZONING COMMISSION:

PUBLIC HEARING to receive comments on a proposed SPECIAL USE PERMIT to allow EPCOR Water to install a 50' tall radio antenna at the Adero Canyon Booster Pump Station and Reservoir Site.
Case # SU2016-04

CONSIDERATION of a proposed SPECIAL USE PERMIT to allow EPCOR Water to install a 50' tall radio antenna at the Adero Canyon Booster Pump Station and Reservoir Site. Case # SU2016-04

**Applicant:** Francisco J. Lopez, MCO Properties

**Applicant Contact Information:** 13620 N. Saguaro Blvd
Fountain Hills, AZ 85268
(480) 204-6407

**Owner:** Brad Finke, EPCOR Water Arizona Inc.

**Owner Contact Information:** 2355 W. Pinnacle Peak Road, Ste 300
Phoenix, AZ 85027
(623) 445-2402

**Property Location:** 14401 N. Eagle Ridge Drive
Fountain Hills, AZ 85268
APN 217-19-862

**Related Ordinance, Policy or Guiding Principle:**
Fountain Hills Zoning Ordinance Chapter 2, Section 2.02 Special Use Permits
Fountain Hills Zoning Ordinance Chapter 17 Wireless Telecommunications Towers and Antennas

**Staff Summary** (background):
The EPCOR water tank site is located on the border between Parcels7 and 8 in Adero Canyon. The site is enclosed within a fence which contains the tank, associated ground equipment, and also the proposed radio tower.

The tower is being designed as a 50' tall monopole similar to their other water tank towers in town.
FACTORS CONSIDERED IN GRANTING SPECIAL USE PERMITS FOR TOWERS:

In addition to any standards for consideration of special use permit applications pursuant to Chapter 2 of the Zoning Ordinance, the Town Council will consider the following factors in determining whether to issue a Special Use Permit. The Planning & Zoning Commission may make specific recommendations regarding any of these items. The Town Council may waive or reduce one or more of these criteria if they conclude that the goals of the Town are better served by doing so.

Section 17.06.B.3 of the Zoning Ordinance specifically outlines the factors to be considered when reviewing applications for towers.

> **Factors Considered in Granting Special Use Permits for Towers.** In addition to any standards for consideration of special use permit applications pursuant to Chapter 2, Section 2.02 of this Zoning Ordinance, the Town Council shall consider the following factors in determining whether to issue a special use permit, although the Town Council may waive or reduce the burden on the applicant of one or more of these criteria if the Town Council concludes that the goals of this ordinance are better served thereby:

a. **Height of the proposed tower;**
The proposed antenna is 50' tall. This exceeds the 30' height limit of the R1-43 zoning district by 20'. This requirement may be waived for communication towers as part of the Special Use Permit by the Town Council when deemed appropriate.

*Staff: Staff believes that the height of the tower will not create undue physical or aesthetic affects on the town or nearby properties.*

The zoning ordinance requires that any tower be constructed so that its "fall down" distance (equal to the height of the tower) is entirely contained within the boundaries of the property it is located on. This is a precaution against the tower damaging adjoining properties or structures should it fall. This requirement may be waived as part of the Special Use Permit by the Town Council when deemed appropriate.

*Staff: The fall down distance will be achieved. Staff's opinion is that this criterion will be met.*

b. **Proximity of the tower to residential structures and residentially zoned district boundaries;**
The zoning ordinance requires that any tower within 300' of residentially zoned property receive Special Use Permit approval from the Town Council.

*Staff: The tower is in a residentially zoned property (R1-43). Therefore, staff's opinion is that the residential setback requirements have not been met and the Special Use Permit is required.*

c. **Nature of uses on adjacent and nearby properties;**
The properties immediately adjacent to the water tank site are Parcel 7 to the north which is zoned SF-PAD and is being developed as single-family homes, and Parcel 8 to the south which is zoned TH-PAD and is being developed as duplex townhouses. The closest residences will be the townhouses across Campsite Court, in Parcel 8, approximately 120' away from the proposed tower. The nearest adjacent right-of-way is about 70' from the proposed antenna location.

*Staff: Staff's opinion is that the requirement that the proposal not be potentially detrimental to surrounding properties has been met.*

d. **Surrounding topography;**
The surrounding topography will not present any problems with the placement or use of the radio tower.

*Staff: Staff's opinion is that the topography will not affect the tower placement.*

e. **Surrounding tree coverage and foliage;**
There is currently no existing tree coverage or foliage within the enclosure.

*Staff: Staff's opinion is that additional landscaping within the enclosed area will serve no purpose.*

f. **Design of the tower, with particular reference to design characteristics that have the effect of reducing or eliminating visual obtrusiveness;**
The proposed Monopole is not a stealth design. It is similar to other poles located within other water tank sites.

*Staff: Staff believes that this typical monopole design will not create additional negative visual impacts.*

g. **Proposed ingress and egress;**
The proposed tower is located within an existing fenced enclosure and is easily accessed by maintenance vehicles.

*Staff: The proposal has good access and egress.*

h. **Availability of suitable existing towers, other structures, or alternative technologies not requiring the use of towers or structures, as discussed in Section 17.06(B)(4);**
Section 17.06.B.4 specifically relates to the construction of new towers where none previously existed. In such cases the town should require proof that other less-obtrusive options are not available.

*Staff: The applicant states that there are no alternative towers in the vicinity. The applicant also states that there are no alternative technologies available.*

**Risk Analysis** (options or alternatives with implications)**:** NA

**Fiscal Impact** (initial and ongoing costs; budget status)**:** NA

**Staff Recommendation(s):**
Staff recommends that the Commission forward a recommendation to Town Council to approve the Special Use Permit and allow the 50' tall radio antenna to be installed as presented.

**SUGGESTED MOTION:**
Move to forward recommendations to the Town Council to approve the Special Use Permit and allow EPCOR to install a 50' tall Monopole Wireless Radio Communication Antenna at 14401 N. Eagle Ridge Drive as presented.

**Attachment(s):**
Application
Applicant's Narrative
Plans (4 pgs)

**Submitted by:**

*Robert Rodgers* 11/30/2016
Development Services Director Date

**DO Not write in this space –official use only**
Filing Date 9/27/16
Accepted By Palvia Woodward
Fee Accepted 575.00 CK#87764
Case Manager Bob Lodgers

# The Town of Fountain Hills

09-27-16A11:00 RCVD

## PLANNING & ZONING DEPARTMENT - APPLICATION

- [ ] Abandonment (Plat or Condominium)
- [ ] Area Specific Plan & Amendments
- [ ] Condominium Plat
- [ ] Development Agreement
- [ ] General Plan Amendment
- [ ] Planned Unit Development
- [ ] Replat (Lot joins, lot splits, lot line adjustments)
- [ ] Rezoning (Map)
- [ ] Site Plan Review (vehicles sales)
- [ ] Variance
- [ ] Appeal of Administrator's Interpretation
- [ ] Concept Plan
- [ ] Cut/Fill Waiver
- [ ] HPE Change or Abandonment
- [ ] Ordinance (Text Amendment)
- [ ] Preliminary / Final Plat
- [x] Special Use Permit & Amendments
- [ ] Temporary Use Permit (Median Fee, if applicable)
- [ ] Other

**PROJECT NAME / NATURE OF PROJECT:**

**LEGAL DESCRIPTION:** Plat Name Parcel # 8 Booster Pump Station Block _____ Lot _____
**PROPERTY ADDRESS:** Adero Canyon 14401 N. Eagle Ridge Dr.
**PARCEL SIZE (Acres)** _____ **ASSESSOR PARCEL NUMBER** 217-19-862
**NUMBER OF UNITS PROPOSED** _____ **TRACTS** _____
**EXISTING ZONING** _____ **PROPOSED ZONING** _____

**Applicant**
- [ ] Mrs.
- [x] Mr.
- [ ] Ms.

Francisco J Lopez Day Phone 480 204 6407
Address: 13620 N Saguaro Blvd. City: Fountain Hills State: AZ Zip: 85268
Email: flopez@mcoproperties.com

**Owner**
- [ ] Mrs.
- [x] Mr.
- [ ] Ms.

BRAD FINKE, EPCOR Water Arizona Inc. Day Phone 623-445-2402
Address: 2355 W. Pinnacle Peak Rd, Suite 300 City: PHX State: AZ Zip: 85027

***If application is being submitted by someone other than the owner of the property under consideration, the section below must be completed.***

**SIGNATURE OF OWNER** Brad Finke **DATE** 8/12/2016

I HEREBY AUTHORIZE Francisco J. Lopez / MCO Properties TO FILE THIS APPLICATION.
Please Print

Subscribed and sworn before me this 12 day of August, 20 16.
MaryAnn Erisman My Commission Expires October 14, 2019
Notary Public

MARYANN ERISMAN
Notary Public - State of Arizona
MARICOPA COUNTY
My Commission Expires
October 14, 2019

MUNIS 7178
APPLICATION # SW2016-04

2355 West Pinnacle Peak Road, Suite 300
Phoenix, AZ 85027 USA
epcor.com

September 20, 2016

Town of Fountain Hills
Attn: Robert Rodgers, Development Services Director
16705 E. Avenue of the Fountains
Fountain Hills, Arizona 85268

Subject: **Special Use Permit Application**
**Adero Canyon – Radio Antenna**

Dear Mr. Rodgers:

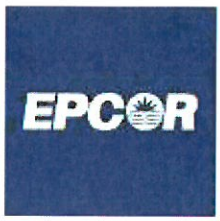
EPCOR Water Arizona Inc. ("EPCOR") requires a radio antenna to be located at the Adero Canyon Booster Pump Station and Reservoir Site. The antenna will provide remote monitoring of water levels in the reservoir, and will provide remote control and monitoring of pump operations including immediate communications of pump failures. In August 2016, EPCOR conducted a radio path survey (a copy is enclosed) to determine the minimum height requirement of the antenna. The survey concluded that the lowest height of acceptable data transmissions to overcome elevation differences and the irregular topography of the area to ensure efficient and reliable radio communications is 50 feet. The antenna is proposed to be mounted on a galvanized steel pole with a diameter of 10-3/4 inches at the base that tapers to a diameter of 3-7/8 inches at the top of the pole. The pole is proposed to be located near the center of the site and less than 10 feet from the 24-foot tall reservoir.

Enclosed with this letter is an application for a Special Use Permit for the antenna, along with a check for $575.00 ($500 for the Special Use Permit application, $60 for newspaper posting, $15 for mailing labels). Mr. Francisco Lopez of MCO Properties is authorized to submit this application on behalf of EPCOR. If you have any questions or need further information, please contact me at 623-445-2402 or at bfinke@epcor.com.

Sincerely,

Brad Finke

Brad W. Finke, P.E.
Engineering Manager

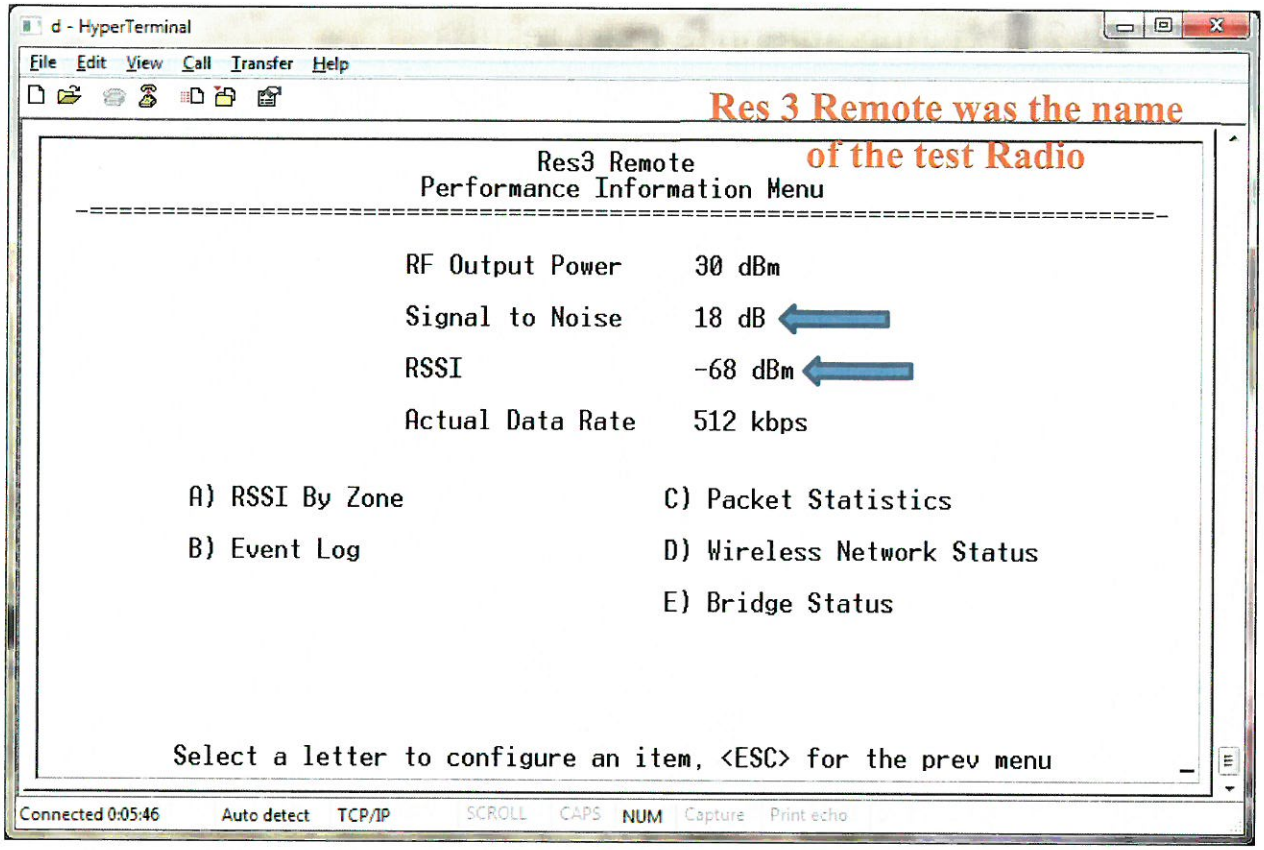



# EPCOR Water

# Fountain Hills Adero Canyon Radio Path Study

Rev. 1.1

25 August 2016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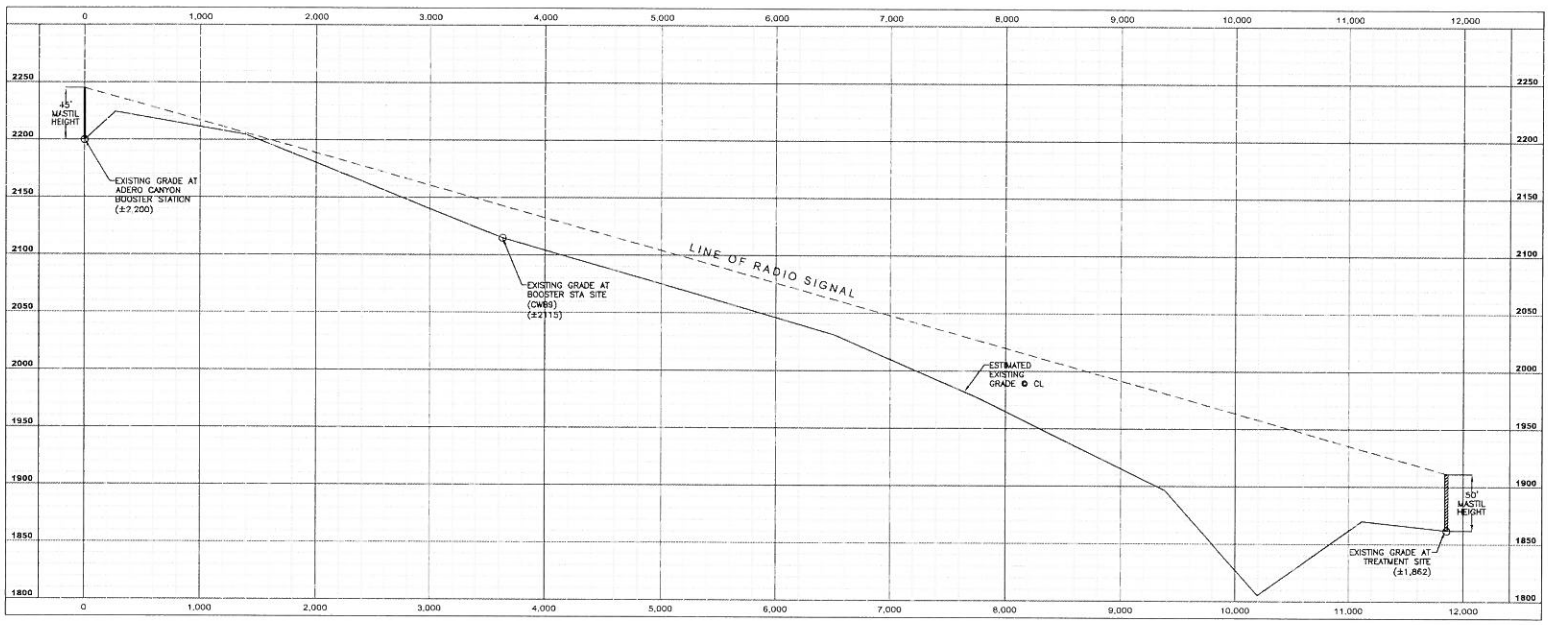
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HEIGHT
EXISTING GRADE AT
ADERO CANYON
BOOSTER STATION
(±7,200)
EXISTING GRADE AT
BOOSTER STA SITE
(GWB9)
(±2115)
LINE OF RADIO SIGNAL
ESTIMATED
EXISTING
GRADE ℄ CL
50'
MASTIL
HEIGHT
EXISTING GRADE AT
TREATMENT SITE
(±1,862)

## PLAN LEGEND

- HOMERUN ((1) HOT, (1) NEUTRAL) (#12 MIN)
- EXPOSED CONDUIT
- UNDERGROUND CONDUIT DUCTBANK
- CONDUIT STUBUP
- CONDUIT TURNED DOWN
- UTILITY CONDUIT DUCTBANK
- CONDUIT RUN CONCEALED IN CEILING, FLOOR, OR IN WALLS
- EXISTING CONDUIT
- GROUNDING ELECTRODE CONDUCTOR
- EXISTING OVERHEAD ELECTRIC (— OHE —)
- EXISTING UNDERGROUND ELECTRIC (— E —)
- FENCE
- 240V SIMPLEX RECEPTACLE (NUMBER DENOTES CIRCUIT AMPS)
- 480V SIMPLEX RECEPTACLE (NUMBER DENOTES CIRCUIT AMPS)
- 120V, 20A SIMPLEX RECEPTACLE
- 120V, 20A DUPLEX RECEPTACLE
- 120V, 20A SPST SWITCH
- MANUAL MOTOR STARTER
- TELEPHONE/ETHERNET JACK
- ETHERNET (DATA) JACK ONLY FOR SCADA
- (J) OR [J] JUNCTION BOX
- UNDERGROUND JUNCTION BOX
- ALARM BEACON
- NON-FUSED DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- CIRCUIT BREAKER STYLE DISCONNECT SWITCH
- COMBINATION MOTOR STARTER
- SOLENOID VALVE (ENERGIZE TO CLOSE)
- SOLENOID VALVE (ENERGIZE TO OPEN)
- BUTTERFLY VALVE
- PLUG VALVE
- GATE VALVE
- ALARM BEACON
- WALL MOUNTED LIGHT
- CONDUIT DESIGNATION (CXXXX)
- GROUND ROD AND WELL
- PANELBOARD
- EXHAUST FAN
- LEVEL TRANSMITTER
- PHOTOCELL
- PRESSURE GAUGE
- PRESSURE SWITCH
- PRESSURE TRANSMITTER
- THERMOSTAT
- INTRUSION ALARM SWITCH
- LEVEL ELEMENT (ULTRASONIC LEVEL TRANSDUCER)
- SIREN/HORN
- PUSHBUTTON

## VICINITY MAP

## SCHEMATIC & SINGLE LINE DIAGRAM LEGEND

- INTERNAL WIRING / FIELD WIRING / TERMINAL BLOCK
- TERMINAL BLOCK
- PILOT LIGHT (LETTER DENOTES COLOR)
- PUSH-TO-TEST PILOT LIGHT (LETTER DENOTES COLOR)
- CONTROL RELAY
- MOTOR (20 DENOTES MOTOR HORSEPOWER)
- PRESSURE SWITCH CLOSES ON RISING PRESSURE
- PRESSURE SWITCH OPENS ON RISING PRESSURE
- NORMALLY OPEN CONTACT TIME TO CLOSE (ON DELAY)
- NORMALLY CLOSED CONTACT TIME TO OPEN (ON DELAY)
- NORMALLY OPEN CONTACT TIME TO OPEN (OFF DELAY)
- NORMALLY CLOSED CONTACT TIME TO CLOSE (OFF DELAY)
- FLOW SWITCH CLOSES ON RISING FLOW
- FLOW SWITCH OPENS ON RISING FLOW
- FLOAT SWITCH OPENS ON RISING LEVEL
- FLOAT SWITCH CLOSES ON RISING LEVEL
- LIMIT SWITCH (N.C.)
- LIMIT SWITCH (N.O.)
- LIMIT SWITCH (N.C.)
- LIMIT SWITCH (N.O.)
- TEMPERATURE SWITCH OPENS ON RISING TEMPERATURE
- TEMPERATURE SWITCH CLOSES ON RISING TEMPERATURE
- ETM ELAPSED TIME METER
- NEUTRAL BUS
- GROUND BUS
- FUSE
- FUSED TERMINAL BLOCK
- OVERLOAD (ELECTRONIC TYPE)
- THERMAL OVERLOAD (BI-METALLIC)
- DIODE
- DISCONNECT SWITCH (N.O.)
- DISCONNECT SWITCH (N.C.)
- TERMINAL BLOCK
- TERMINAL BLOCK IN FIELD DEVICE OR EXTERNAL EQUIPMENT
- MLO MAIN LUG ONLY
- POWER DISTRIBUTION BLOCK
- CURRENT TRANSFORMER
- POWER TRANSFORMER
- CIRCUIT BREAKER WITH DOOR OPERATED HANDLE
- CIRCUIT BREAKER
- NORMALLY OPEN CONTACTS
- NORMALLY CLOSED CONTACTS
- CONTROL RELAY CONTACTS CONTROLLED BY PLC DISCRETE OUTPUT (N.O.)
- CONTROL RELAY CONTACTS CONTROLLED BY PLC DISCRETE OUTPUT (N.C.)
- LIGHTING CONTACTOR OR MOTOR STARTER (NUMBER INDICATES NEMA RATING)
- NORMALLY OPEN MOMENTARY-CONTACT PUSHBUTTON
- NORMALLY CLOSED MOMENTARY-CONTACT PUSHBUTTON
- 3-POSITION SELECTOR SWITCH
- 2-POSITION SELECTOR SWITCH
- LO STOP LOCKOUT STOP PUSHBUTTON
- EARTH GROUND CONNECTION
- LEVEL PROBE
- WATER OR GAS BOND
- FLOODLIGHTS
- EXHAUST FAN
- LINE REACTOR

## GENERAL ELECTRICAL REQUIREMENTS

A. THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODE ORDINANCES AND REGULATIONS. CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES. ALL WORK SHALL BE DONE IN A NEAT, WORKMANLIKE, FINISHED AND SAFE MANNER, ACCORDING TO THE LATEST PUBLISHED N.E.C.A. STANDARDS OF INSTALLATION, UNDER COMPETENT SUPERVISION. INSTALL GROUNDING AS REQUIRED BY THE NATIONAL ELECTRIC CODE (2011).

B. VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND ALL OTHER FACTORS WHICH MAY AFFECT THE EXECUTION OF THIS WORK. INCLUDE ALL RELATED COSTS IN THE INITIAL BID PROPOSAL.

C. ALL MATERIALS SHALL BE NEW AND OF THE BEST QUALITY, MANUFACTURED IN ACCORDANCE WITH NEMA, ANSI, U.L. OR OTHER APPLICABLE STANDARDS. THE USE OF BRAND NAMES IS FOR THE PURPOSE OF DESCRIBING THE STANDARD OF QUALITY, PERFORMANCE AND CHARACTERISTICS DESIRED AND IS NOT INTENDED TO LIMIT OR RESTRICT COMPETITION. IN ALL CASES, WHERE PLANS OR SPECIFICATIONS REFERENCE A BRAND NAME OR MODEL NUMBER, AN "ENGINEER APPROVED EQUAL" MAYBE ACCEPTABLE. FOR DETAILED INFORMATION ON "ENGINEER APPROVED EQUAL" PROCEDURES, REFER TO STS 01 33 00.

D. PROTECT ALL ELECTRICAL MATERIAL AND EQUIPMENT INSTALLED UNDER THIS CONTRACT AGAINST DAMAGE BY OTHER TRADES, WEATHER CONDITIONS OR ANY OTHER CAUSES. EQUIPMENT FOUND DAMAGED OR IN OTHER THAN NEW CONDITION WILL BE REJECTED AS DEFECTIVE.

E. LEAVE THE SITE CLEAN, REMOVE ALL DEBRIS, EMPTY CARTONS, TOOLS, CONDUIT, WIRE SCRAPS AND ALL MISCELLANEOUS SPARE EQUIPMENT AND MATERIALS USED IN THE WORK DURING CONSTRUCTION. ALL COMPONENTS SHALL BE FREE OF DUST, GRIT AND FOREIGN MATERIALS, LEFT AS NEW BEFORE FINAL ACCEPTANCE OF WORK.

F. REFER TO OTHER PLANS FOR EXACT LOCATION OF EQUIPMENT AND ARCHITECTURAL FEATURES.

G. REFER TO SPECIFICATIONS FOR ADDITIONAL PROJECT REQUIREMENTS.

H. TYPICAL DETAILS APPLY IN ALL CASES WHETHER SPECIFICALLY REFERRED TO OR NOT.

I. THESE CONTRACT DOCUMENTS ARE SUBJECT TO THE INTERPRETATION OF THE ENGINEER. ALL QUESTIONS REGARDING THESE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ENGINEER. ANYONE WHO TAKES UPON THEMSELF THE INTERPRETATION OF THESE CONTRACT DOCUMENTS OR MAKES REVISIONS TO THE SAME WITHOUT CONFERRING WITH THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE CONSEQUENCES THEREOF.

J. LOCATION OF ELECTRICAL EQUIPMENT SHALL BE SCALED FROM THE SITE PLAN. UPON COMPLETION OF WORK, FURNISH A SET OF RED-LINED "AS-BUILT" DRAWINGS, THAT ACCURATELY REFLECTS FINAL LOCATION OF UNDERGROUND CONDUIT AND OTHER ELECTRICAL EQUIPMENT.

## ABBREVIATIONS

| | | | | | |
|---|---|---|---|---|---|
| A/C | AIR CONDITIONING | FLA | FULL LOAD AMPS | REC | RECLAIM |
| AI | ANALOG INPUT | FS | FUSE | REQ'TS | REQUIREMENTS |
| AFF | ABOVE FINISHED FLOOR | GASK | GASKETED | RIO | REMOTE INPUT(S)/OUTPUT(S) |
| AFG | ABOVE FINISHED GRADE | GEC | GROUNDING ELECTRODE CONDUCTOR | RMC | RIGID METAL CONDUIT (GRS) |
| AHF | ACTIVE HARMONICS FILTER | GFCI | GROUND FAULT CIRCUIT INTERRUPTER | RO | REVERSE OSMOSIS |
| AO | ANALOG OUTPUT | GND | GROUND | ROW | RIGHT OF WAY |
| BFP | BELT FILTER PRESS | GRS | GALVANIZED RIGID STEEL (RMC) | RTU | REMOTE TERMINAL UNIT |
| BLDG | BUILDING | I/O | INPUT(S)/OUTPUT(S) | RVSS | REDUCED VOLTAGE SOFT STARTER |
| BOC | BACK OF CURB | INST | INSTRUMENT | S/W | SIDE WALK |
| BPS | BOOSTER PUMP STATION | IMC | INTERMEDIATE METAL CONDUIT | S/S | START/STOP |
| C | CONDUIT | J-BOX | JUNCTION BOX | SES | SERVICE ENTRANCE SECTION |
| CB | CIRCUIT BREAKER | LCC | LIGHTING CONTROL CABINET | SPC | SPARE CONDUIT |
| CHEM | CHEMICAL | LFMC | LIQUIDTIGHT FLEXIBLE METAL CONDUIT | SPD | SURGE PROTECTIVE DEVICE |
| CKT | CIRCUIT | LIT | LEVEL INDICATING TRANSMITTER | SRP | SALT RIVER PROJECT |
| CL2 | CHLORINE | MBJ | MAIN BONDING JUMPER | SS | STAINLESS STEEL |
| CMU | CONCRETE MASONRY UNIT | MCB | MAIN CIRCUIT BREAKER | STT | SHIELDED TWISTED TRIAD |
| CNTRL | CONTROL | MECH | MECHANICAL | SW | SWITCH |
| CNTR | CONTROLLER | MFR | MANUFACTURER | TEL | TELEPHONE CONDUIT |
| COM | COMMON | MIN | MINIMUM | TSP | TWISTED SHIELDED PAIR |
| CPT | CONTROL POWER TRANSFORMER | MLO | MAIN LUG ONLY | TST | TWISTED SHIELDED TRIAD |
| CU | COPPER | MOV | MOTOR OPERATED VALVE | TTB | TELEPHONE TERMINAL BLOCK |
| DI | DISCRETE INPUT | MPC | MINI POWER CENTER | TYP | TYPICAL |
| DISC | DISCONNECT | MTS | MANUAL TRANSFER SWITCH | UE | UNDERGROUND ELECTRIC |
| DIST | DISTRIBUTION | NTS | NOT TO SCALE | UV | ULTRAVIOLET |
| DO | DISCRETE OUTPUT | PCP | PUMP CONTROL PANEL | VLV | VALVE |
| DPDT | DOUBLE-POLE DOUBLE-THROW | PIT | PRESSURE INDICATING TRANSMITTER | VFD | VARIABLE FREQUENCY DRIVE |
| DWG | DRAWING | PKG'D | PACKAGED | WDT | WASTE DURATION TIMER |
| (E) | EXISTING | PLC | PROGRAMMABLE LOGIC CONTROLLER | W-I-U | WHILE-IN-USE |
| ELEC | ELECTRICAL | PNL | PANEL | WP | WEATHERPROOF |
| EMT | ELECTRICAL METALLIC TUBING | PQM | POWER QUALITY METER | WRF | WATER RECLAMATION FACILITY |
| ENCL | ENCLOSURE | PR | PAIR | WTR | WATER |
| EX | EXHAUST | PRESS | PRESSURE | XFMR | TRANSFORMER |
| FIT | FLOW INDICATING TRANSMITTER | PWR | POWER | XMTR | TRANSMITTER |
| | | RCP | REINFORCED CONCRETE PIPE | | |

## UTILITY CONTACT

SRP CONTACT: BRETT GRUENDLER (602-236-0827)

DATE RECEIVED 11/1/16

| Dept. | Init. | App. | Not App. | Notes |
|---|---|---|---|---|
| Building | | | | |
| P&Z | | | | |
| Eng. | | | | |
| Sewer | | | | |
| Flood | | | | |
| Fire | | | | |

## LUMINAIRE SCHEDULE

| SYMBOL | VOLTS | LAMP(S) | FIXTURE | DESCRIPTION | MANUFACTURER |
|---|---|---|---|---|---|
| (A) | 120V | (2) 32W FL | | 2-TUBE, 8"x4' SURFACE MOUNTED VAPORTIGHT LUMINAIRE WITH STAINLESS STEEL LATCHES. UL LISTED FOR WET LOCATIONS. BALLAST SHALL BE OF THE PROGRAMMED START TYPE. | METALUX (VT2-2-32-DR-UNIV-ER82-WL-SSL) LITHONIA (DMW-2-32-ARDP-MVOLT-GEB10PS-STSL) COLUMBIA (LUN4-232-EP-U-SSL) |
| B | 120V | 56W-LED 4000K | | POLE MOUNTED LED LUMINAIRE WITH A FULLY GASKETED EXTRUDED ALUMINUM HOUSING FINISHED WITH A BRONZE THERMOSET POLYESTER POWDER COAT. LUMINAIRE SHALL INCLUDE PHOTOCELL, TYPE V IES DISTRIBUTION PATTERN AND SHALL BE UL LISTED FOR WET LOCATIONS. REFER TO TYPICAL DETAIL "PL" FOR ADDITIONAL INFORMATION ON POLE & FOUNDATION REQUIREMENTS. | VISIONAIRE LIGHTING (EL2-1-T5-48LC-3-4K-UNV-MAF-BZ-PCR120) PHILLIPS/GARDCO (P21-A1-1-5W-55LA-NW-UNV-BRP-SPA-1-2-PC) SPAULDING (CL1S-A-32L-U-4K-5W-053-DB-PR(U)) |

Saved: March 18, 2016 File: 15023-E1.dwg Drafter: Drafter

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REVISIONS
1 TOWN SPECIAL USE PERMIT COMMENTS 10/2016

ADERO CANYON
FOUNTAIN HILLS, ARIZONA

BOOSTER STATION
ELECTRICAL LEGEND, NOTES & ABBREVIATIONS

SU2016-04 M#7178
Radio Antenna
Adero Canyon Parcel 8
14401 North Eagle Ridge Drive
Town Copy 11/01/2106
3rd sub.

SEALED: Registered Professional Engineer 53839 JORGE GERARDO 10/19/16 ARIZONA U.S.A. Expires 6/30/18

REVIEWED: DAR
DESIGNED: JLG
DRAWN: DRG
JOB NO:
SCALE: (HORIZONTAL) (VERTICAL)
DATE: MAR/2016

SHEET 10 OF 22

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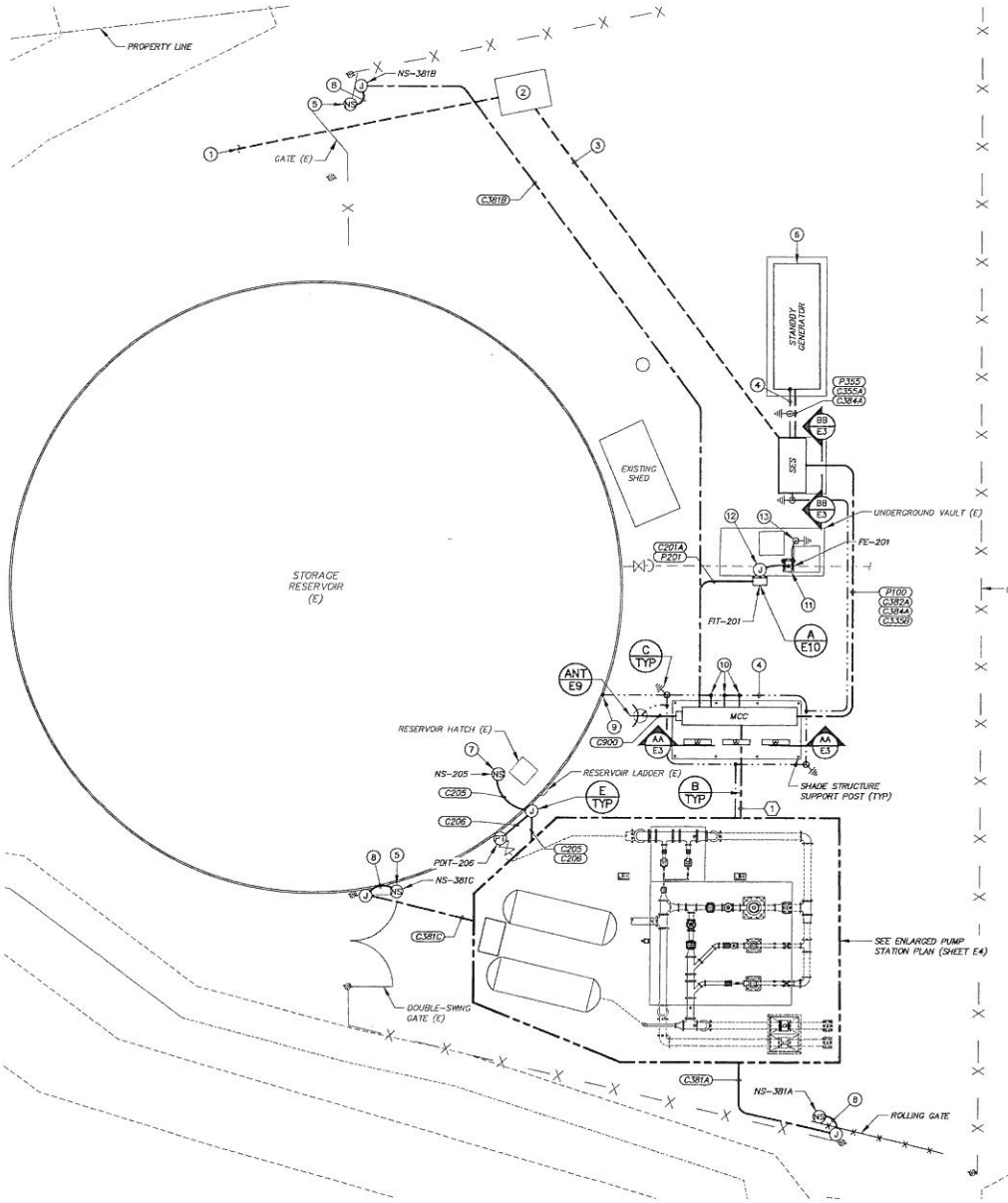
E1




## GENERAL NOTES

A. REFER TO SINGLE LINE DIAGRAM ON SHEET E3 AND CONDUIT BLOCK DIAGRAM ON SHEET E5 FOR CONDUIT AND CONDUCTOR REQUIREMENTS.

B. REFER TO SHEETS E9 AND E10 FOR ELECTRICAL DETAILS.

## KEY NOTES

1. INSTALL (1) 4" PRIMARY CONDUIT, TRENCH AND BACKFILL APPROXIMATELY 160' TOWARDS TERRITORY TRAIL INTERSECTION PER SRP REQUIREMENTS. COORDINATE CONTINUATION AND EXACT ROUTING WITH SRP.
2. INSTALL SRP TRANSFORMER PAD PER SRP REQUIREMENTS.
3. INSTALL (3) 4" SECONDARY CONDUITS, TRENCH AND BACKFILL PER SRP REQUIREMENTS. COORDINATE EXACT ROUTING WITH SRP.
4. #1/0 BARE COPPER GROUNDING ELECTRODE CONDUCTOR BURIED 30" MIN BELOW GRADE.
5. INSTALL INTRUSION ALARM SWITCH FOR EACH ENTRANCE GATE TO ACTIVATE WHEN GATE IS OPENED. CONNECT INTRUSION SWITCHES IN SERIES SUCH THAT WHEN ANY GATE IS OPENED, THE CIRCUIT WILL BE OPENED TO ACTIVATE AN ALARM.
6. ⚠ INSTALL INTRUSION ALARM SWITCH ON EACH EXTERIOR DOOR OF THE STANDBY GENERATOR ENCLOSURE. INSTALL 2/C-#14 CABLE BETWEEN SWITCHES AND CONNECT IN SERIES SUCH THAT WHEN ANY DOOR IS OPENED, THE CIRCUIT WILL BE OPENED TO ACTIVATE AN ALARM. IN ADDITION, INSTALL DIESEL FUEL HAZARDOUS MATERIAL PLACARD AS SPECIFIED.
7. INSTALL INTRUSION ALARM SWITCH ON STORAGE TANK HATCH PER DETAIL "D" ON SHEET E10.
8. EXTEND 2-#14, #14 GND, 3/4" LFMC FROM 4"x4"x4" NEMA 3R JUNCTION BOX ALONG ENTRANCE GATE AND TERMINATE TO "C" CONDULET. SPLICE INTRUSION ALARM SWITCH CONDUCTORS TO ARMORED CABLE CONDUCTORS IN "C" CONDULET.
9. BOND GROUNDING ELECTRODE CONDUCTOR TO EXISTING STORAGE RESERVOIR USING UL LISTED LUG.
10. REFER TO SHEET E3 FOR GROUNDING REQUIREMENTS.
11. DISCONNECT AND REMOVE EXISTING RESERVOIR SUPPLY FLOWMETER, CABLES AND FLOW TRANSMITTER. INSTALL NEW MAGNETIC FLOWMETER IN EXISTING UNDERGROUND VAULT.
12. CORE DRILL VAULT WALL AND TERMINATE CONDUIT C201B IN A 1" "T" CONDULET WITH DRAIN PLUG ON ONE END OF "T". INSTALL 1" LFMC FROM OTHER END OF CONDULET TO FLOW METER. SUPPORT LFMC PER NEC REQUIREMENTS. GROUT VAULT WALL PENETRATION AROUND CONDUIT AFTER INSTALLATION.
13. INSTALL 3/4" X 10' Cu-CLAD GROUND ROD IN EXISTING VAULT BY CORE DRILLING VAULT IF NECESSARY. INSTALL #6 COPPER GROUNDING CONDUCTOR FROM FLOWMETER GROUNDING RINGS AND EXOTHERMICALLY WELD TO GROUND ROD.

## CONDUIT DUCT BANK NOTES

1. X051, X052, X053, X054, P080, C205, C206, C210, P210, C220, P220, P230, C235, P240, C240, P250, C250, C310, P320, C322, C330, C331, C340, C381A, C381C.

| | |
|---|---|
| DISTANCE FROM ANTENNA MAST TO NORTH PROPERTY LINE | ±110 FEET |
| DISTANCE FROM ANTENNA MAST TO SOUTH PROPERTY LINE | ±81 FEET |
| DISTANCE FROM ANTENNA MAST TO EAST PROPERTY LINE | ±128 FEET |
| DISTANCE FROM ANTENNA MAST TO WEST PROPERTY LINE | ±169 FEET |

⚠

0 8 16 24
SCALE IN FEET

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E2

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REVISIONS
⚠ TOWN SPECIAL USE PERMIT COMMENTS 10/2016

ADERO CANYON
FOUNTAIN HILLS, ARIZONA

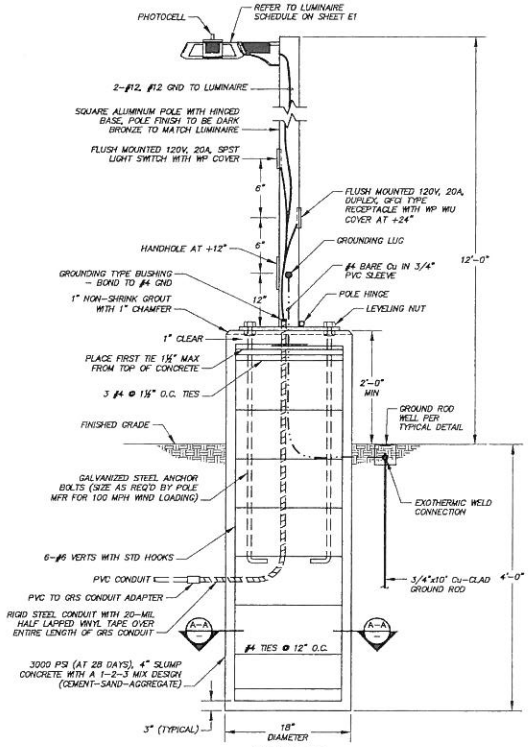
BOOSTER STATION
ELECTRICAL SITE PLAN

SEALED:
33839
JAMES E. GERARDO
10/19/16
REGISTERED PROFESSIONAL ENGINEER
ARIZONA U.S.A.

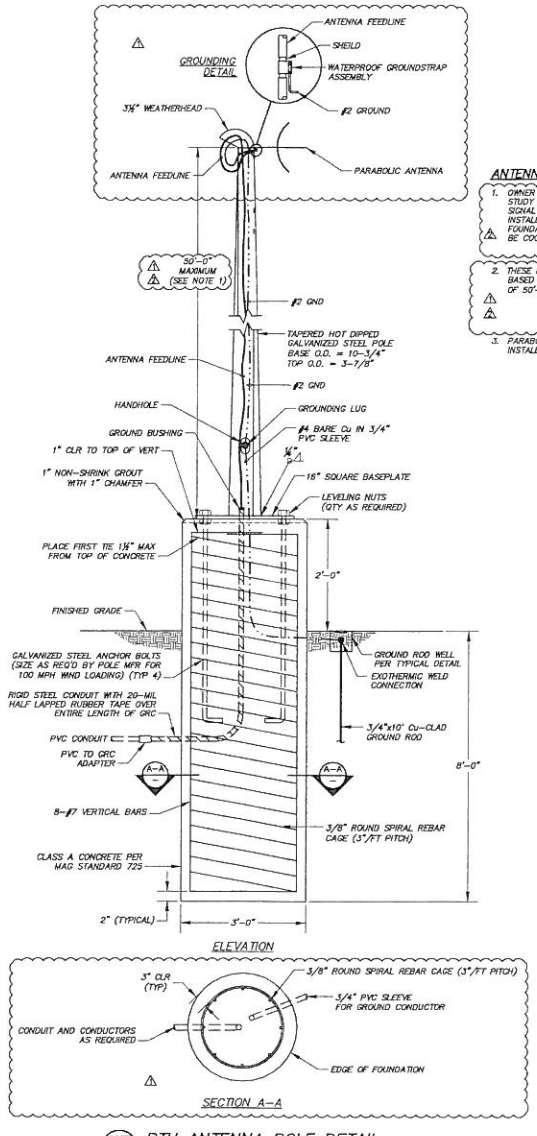
REVIEWED: DAR
DESIGNED: JLG
DRAWN: DRG
JOB NO:
SCALE: (HORIZONTAL)
(VERTICAL)
DATE: MAR/2016

SHEET 11 OF 22

Saved: October 19, 2016 File:15023-E2.dwg Drafter: Dgriffin



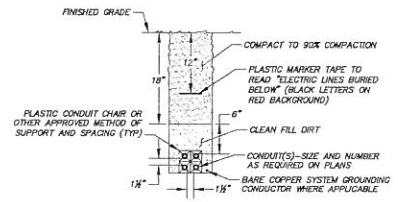

PL / E4 AREA LIGHT DETAIL
NTS




ANT / E4 RTU ANTENNA POLE DETAIL
NTS

**ANTENNA NOTES:**

1. OWNER WILL PERFORM A RADIO PATH STUDY TO VERIFY PROPER COMMUNICATION SIGNAL STRENGTH AT THIS HEIGHT BEFORE INSTALLATION OF ANTENNA MAST OR MAST FOUNDATION. THE RADIO PATH STUDY SHALL BE COORDINATED WITH THE OWNER.
2. THESE DIMENSIONS AND REBAR SIZES ARE BASED ON THE ANTENNA MOUNTING HEIGHT OF 50'-0".
3. PARABOLIC ANTENNA FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.




**NOTES:**

1. ALL DIMENSIONS INDICATED ABOVE ARE MINIMUM.
2. SPARE CONDUITS MUST BE LOCATED ON TOP OF DUCTBANKS.
3. THIS DETAIL APPLIES IN ALL CASES WHETHER SPECIFICALLY REFERRED TO OR NOT.
4. THIS DETAIL DOES NOT APPLY TO UTILITY DUCTBANKS.

B / TYP TYPICAL UNDERGROUND CONDUIT DUCTBANK DETAIL
NTS

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E9

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REVISIONS
1 TOWN SPECIAL USE PERMIT COMMENTS 10/2016
2 ADDITIONAL TOWN SPECIAL USE PERMIT COMMENTS 10/28/2016

ADERO CANYON
FOUNTAIN HILLS, ARIZONA

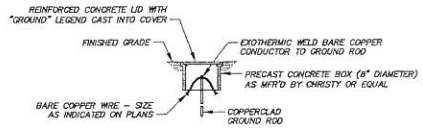
BOOSTER STATION
ELECTRICAL DETAILS - 1

SEALED: JUSTIN JORGE DORADO 10/28/16 ARIZONA U.S.A. Expires 9/30/17

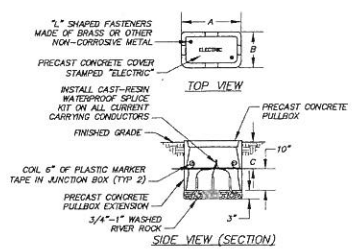
REVIEWED: DAR
DESIGNED: JLG
DRAWN: DRG
JOB NO:
SCALE: (HORIZONTAL)
(VERTICAL)
DATE: MAR/2016

SHEET 18 OF 22

Saved: October 28, 2016 File: 15023-E9.dwg Drafter: jdorado

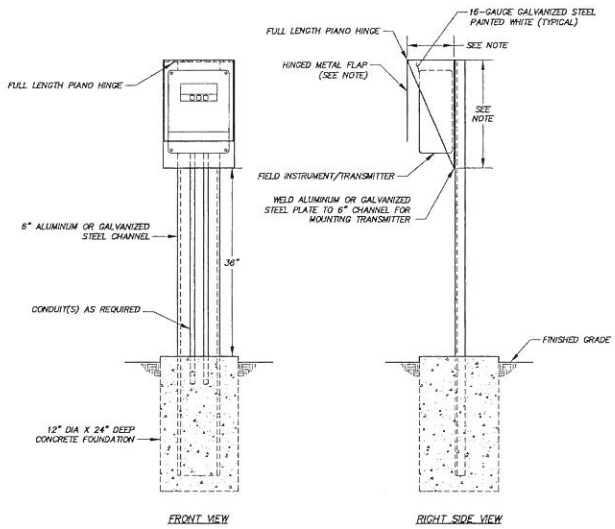



GRW TYP TYPICAL GROUND ROD AND WELL DETAIL
NTS



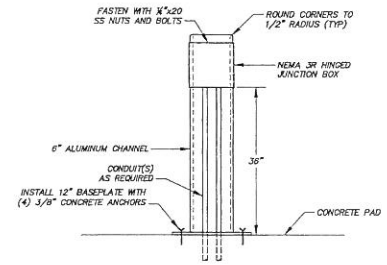

| TYPE | DIM. A | DIM. B | DIM. C |
|---|---|---|---|
| #5 | 25" | 15-1/2" | 12" |

UJB TYP TYPICAL UNDERGROUND JUNCTION BOX DETAIL
NTS

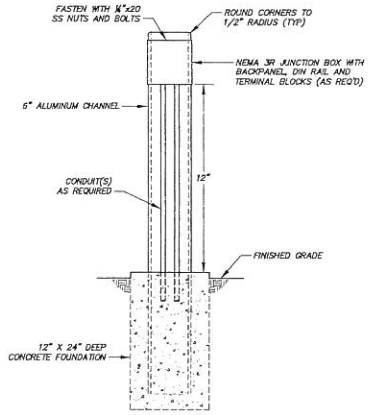



NOTE: SIZE AS REQUIRED TO PROTECT EQUIPMENT FROM SUN.

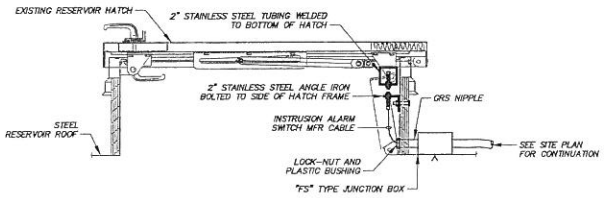
A TYP FIELD INSTRUMENT/TRANSMITTER MOUNTING DETAIL
NTS




AB3 TYP TYPICAL ABOVE GROUND JUNCTION BOX DETAIL




E TYP ABOVE GROUND JUNCTION BOX WITH FOUNDATION MOUNTING DETAIL
NTS




D E2 RESERVOIR ROOF HATCH DETAIL
NTS

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REVISIONS
1 TOWN SPECIAL USE PERMIT COMMENTS 10/2016

ADERO CANYON
FOUNTAIN HILLS, ARIZONA

BOOSTER STATION
ELECTRICAL DETAILS - II

SEALED:
53839
JORGE GERARDO
10/19/16
ARIZONA U.S.A.
Expires 9/30/16

REVIEWED: DAR
DESIGNED: JLG
DRAWN: DRG
JOB NO:
SCALE: (HORIZONTAL)
(VERTICAL)
DATE: MAR/2016

SHEET 19 OF 22

Saved: October 19, 2016 File:15023-E10.dwg Drafter:Dgriffin