



County of Riverside

TLMA

Building & Safety

4080 Lemon St.

Riverside CA, 92501

(951) 955-1800

Electric to Well for Agriculture (100A max) For an over the counter (OTC) permit

General Information

Permits may be obtained through one of the following:

- The Property Owner or his/her Insured California State Licensed Contractor:
 - A "C-10 or B" licensed contractor
- Project is subject to Land Use approval, for ordinance and setback requirements
- Formal plan review may be required if design exceeds limitations set forth in this packet

Submittal Requirements

The following documents are required at time of permit submittal:

- Permit Application completed and signed
- Letter of Authorization if agent of Owner/Licensed Contractor
- If located in Anza Utility jurisdiction, their approval letter is required
- Well Permit must be in process with Environmental Health, contact them at (951) 955-8980.
- BFE and BMP shall be applied for (*check fee schedule for current fees*).

SITE PLAN REQUIREMENTS

1. Site Plan (see site plan requirements below and example on page "6")
2. Show location of the well, pump, pump disconnect, and main service panel location.
3. Show location of the proposed crops.
4. Specify the make/model of the new equipment (to match spec sheets).

ELECTRIC LINE DIAGRAM REQUIREMENTS

1. Complete the line diagram with the applicable table given.
2. Manufacturer's installation guide/instructions for the proposed Pump
3. All new equipment shall be listed for its use, any modifications made to new or existing equipment shall require a 3rd party evaluation report to certify the equipment, this report shall be provided to the building inspector.

INSPECTIONS

Only 1 Required Inspections for Residential Electric to Well:

- **Inspection** – Conduit, grounding/bonding, ground electrode, rough electric, service panel:
 - *All irrigation in place at the location of the crops.*
 - *All electrical ready, ground, grounding/bonding complete, conduit from service to pump disconnect ready (potholes at 50ft intervals acceptable for depth verification), 100A max busbar rating, equipment rated for outdoor use, **ONLY breakers allowed are main breaker and pump disconnect.***



COUNTY OF RIVERSIDE DEPARTMENT OF BUILDING AND SAFETY

ELECTRIC SERVICE TO WELL AGREEMENT

PERMIT LIMITATION: This permit is only for a single inspection for the installation of electrical service to a water supply well for a legal use in compliance with State law and/or Riverside County ordinances. The maximum service size allowed for an agricultural well is 100 amp. A larger size may be allowed if the property is permitted or justified as appropriate by the Building Official.

PERMIT APPLICATION: First, the owner of the property (no other signature will be accepted) must complete and sign "Electric Service to Well Agreement" (Form No. 284-163-B). Second, the owner or contractor must complete and sign "Application to Construct Worksheet" (Form No. 284-199) if applying in person, no mail-in is accepted. Third, the applicant must submit in person the completed forms to the Department of Environmental Health and obtain written approval for proposed water supply well. Finally, the applicant must submit either in person or by mail all forms including a copy of the release form from the Department of Environmental Health along with the permit fee to the Department of Building and Safety. **NOTE:** Plot Plan must include electrical single line diagram, showing service panel size, over current protection, wire type, length of run, and pump hp/ampage.

PLOT PLAN: Submit three (3) plot plans with the following information: identify and locate the type of crop, legal description, lot size, north direction arrow, location of all structures and private disposal sewage systems, location of water supply well and setback distances from property boundaries, irrigation valves, water lines and timers. Plot plan must be legibly to scale and drawn on substantial paper that is a minimum size of 8-1/2" x 11".

PERMIT REQUIREMENTS:

For crop planting, the use must be allowed per the zone and an agricultural grading exemption must be approved prior to the time of application of the electric to well. Form 284-163B is not required for box plants in nurseries. **NOTE:** The electric service to the well cannot be used for any purpose that is not in compliance with State law and/or Riverside County ordinances, such as illegal marijuana cultivation in violation of Riverside County Ordinance No. 925.

PROHIBITED USES: Once energized, the electrical service to the well cannot be used to supply electrical power to any residence, mobile home, travel trailer, structure, or other equipment without prior approval from the Department of Building and Safety. **NOTE:** The electric service to the well cannot be used for any purpose that is not in compliance with State law and/or Riverside County ordinances, such as illegal marijuana cultivation in violation of Riverside County Ordinance No. 925.

PERMIT FEE: Current cost for this permit is \$ _____.

INSPECTION REQUIREMENTS: The following requirements listed below, but not limited to, will be verified at inspection:

1. Access to the property shall be provided on the date of requested inspection, and property address shall be conspicuously posted.
2. Job card and plot plan shall be posted on the main electrical service panel.
3. All associated irrigation apparatus must be in place at the time of inspection before an inspection can be approved and release of meter.
4. The installation of all electrical equipment supplying electricity to the water supply well shall be complete at the time of inspection.

NOTE: Failure to provide the above listed requirements at inspection may necessitate the applicant obtain a reinspection permit.

If additional information is desired regarding this permit, please contact our Regional Office.



**COUNTY OF RIVERSIDE
DEPARTMENT OF BUILDING AND SAFETY**

ELECTRIC SERVICE TO WELL AGREEMENT

Please Print Property Owner's Name
(First Name, Last Name)

the property owner(s) hereby request electrical service to well at the following address:

for the following reason: _____

**PROTECTION FOR THE SERVICE AND DISCONNECTING MEANS SHALL BE BY THE
FOLLOWING:**

Fenced Area (Yes or No): _____ or other / Describe: _____

PLEASE READ BEFORE SIGNING

I declare under penalty of perjury under the laws of the State of California that the information furnished as part of this agreement is true and correct. I understand the electrical service to well shall be subject to disconnection by the utility company if any illegal and/or unauthorized connections, hookups or splices are made to the electrical service without first obtaining proper permits, approvals, or inspections. I also understand that I am legally obligated to obey all requirements of State law and Riverside County ordinances in connection with my responsibilities under this agreement.

Property Owner's Signature: _____ Date: _____

SCAN WITH OFFICE COPY

ELECTRIC TO WELL WORKSHEET

SINGLE-PHASE 120/240 SERVICE ONLY

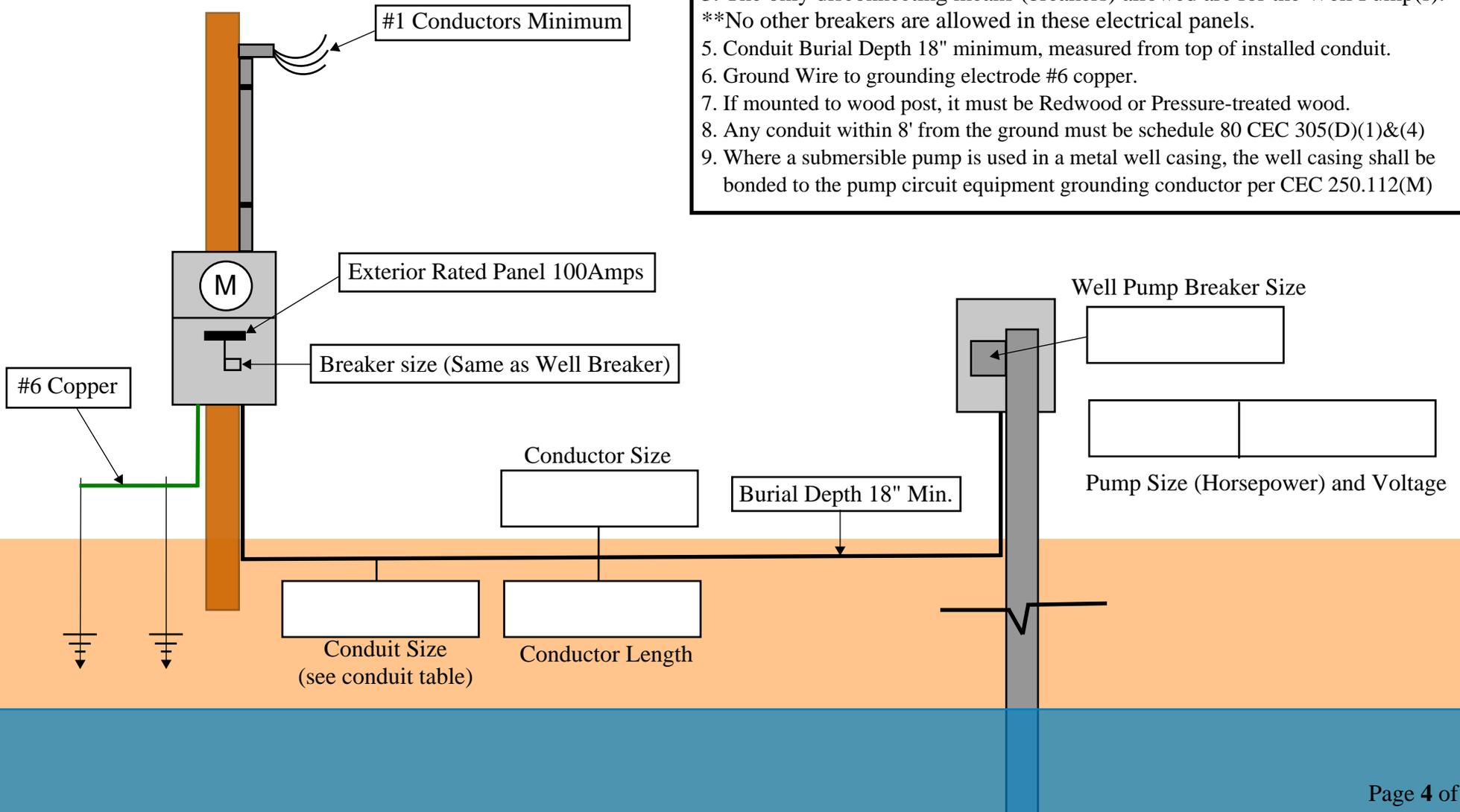
CONDUIT TABLE	
Schedule 40 - Conduit Size (CEC Annex C)	
Wire Size	Conduit Size
14, 12, 10, 8	3/4"
6, 4, 3	1"
2, 1	1-1/4"

Instructions:

Enter the information from page #5

Notes:

1. Work to comply with 2022 CRC, CBC, CEC, CMC, CPC.
2. (2)- 5/8 by 8ft ground rods are required at Main Service Panel.
- Must comply with CEC 250.53(2) and (3)(B)
3. The only disconnecting means (breakers) allowed are for the Well Pump(s).
**No other breakers are allowed in these electrical panels.
5. Conduit Burial Depth 18" minimum, measured from top of installed conduit.
6. Ground Wire to grounding electrode #6 copper.
7. If mounted to wood post, it must be Redwood or Pressure-treated wood.
8. Any conduit within 8' from the ground must be schedule 80 CEC 305(D)(1)&(4)
9. Where a submersible pump is used in a metal well casing, the well casing shall be bonded to the pump circuit equipment grounding conductor per CEC 250.112(M)





SAM SHAHROURI
DEPUTY DIRECTOR OF TLMA
BUILDING OFFICIAL

COUNTY OF RIVERSIDE BUILDING AND SAFETY DEPARTMENT

ELECTRIC TO WELL HANDOUT (Single Phase – Residential)

If the HP, Voltage, or Phase identified in this handout is exceeded, a **Commercial Electrical** permit is required.

Step 1: Find Horsepower and Voltage type on table #1 to get Amps.

Step 2: Multiply Amps x 1.25 to get max breaker size (Max breaker cannot exceed 100A).

- If the breaker is not listed, use the next size up (example: 35A → 40).

Step 3: On table #2, find breaker size and wire size to be used, for maximum wire length (copper only).

- If the wire size exceeds table 2, use table, use table the applicable table 3 for voltage drop sizing.

Step 4: Plug in all information obtained into the line diagram provided on page #4.

[Table 1] Single Motor Circuit (FLC) T-430.248		
Horsepower	115 Volts	230 Volts
1/6	4.4	2.2
1/4	5.8	2.9
1/3	7.2	3.6
1/2	9.8	4.9
3/4	13.8	6.9
1	16	8
1-1/2	20	10
2	24	12
3	34	17
5	56	28
7-1/2	80	40
10	-	50

[Table 2] Wire size based on breaker size	
Wire Size	Max Breaker Size
12	20
10	30
8	40
6	60
4	70
3	90
2	100
1	125
1/0	125
2/0	175
3/0	200

Wire length exceeding 100 Linear ft. require upsizing the wire size.

[Table 3] (115V) Maximum Wire Length (FLC x 1.25) T-310.15(B)(16) @ 60°C									
Wire Size	14	12	10	8	6	4	3	2	1
Amps (Breaker)									
15A	50'	55'	90'	140'	230'	370'	465'	590'	745'
20A	-	50'	65'	110'	175'	275'	350'	440'	555'
30A	-	-	-	70'	115'	185'	230'	295'	370'
50A	-	-	-	-	70'	110'	140'	175'	220'
70A	-	-	-	-	-	-	100'	125'	155'
100A	-	-	-	-	-	-	-	-	110'

[Table 3] (230V) Maximum Wire Length (FLC x 1.25) T-310.15(B)(16) @ 60°C									
Wire Size	14	12	10	8	6	4	3	2	1
Amps (Breaker)									
15A	50'	115'	185'	295'	465'	740'	935'	1180'	1490'
30A	-	-	-	145'	230'	370'	465'	590'	745'
40A	-	-	-	-	175'	275'	350'	440'	555'
50A	-	-	-	-	140'	220'	280'	350'	445'
70A	-	-	-	-	-	-	200'	250'	315'

<http://wiresizecalculator.net/>

DISCLAIMER:

An alternative design may be possible when provided with an engineer analysis. The use of this handout design is at the user's risk and carries no implied or inferred guarantee against failure or defects.



Sam Shahrouri
Deputy Director of TLMA
Building Official

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY
BUILDING AND SAFETY DEPARTMENT

Reference Certificate No. _____

Assessors Parcel Number _____

AGRICULTURAL GRADING/CLEARING CERTIFICATE EXEMPTION FORM

NOTICE: This agricultural grading/clearing exemption form is for grading/clearing performed exclusively for agricultural purposes in connection with the raising of crops or animals as provided in Riverside County Ordinance No. 457, Section 4.J.2.14. Prior to a building permit being issued on the area subject to this form, a grading permit, compaction report and letter of certification as well as a site investigation will be required. This form, when completed, shall not be construed as a grading permit or legalization of a lot or any other entitlement for use. If it is determined during the life of any exception actually obtained, that the planned or actual grading or clearing is not for agricultural purposes, a grading permit shall be required.

The filing of this Agricultural Grading/Clearing Certificate exemption form with the County of Riverside shall not be construed to authorize the commencement or continuance of any activity prohibited by Riverside County Ordinance No. 457, any other County ordinance, or any State or Federal law or regulation including but not limited to the Federal Endangered Species Act of 1973 and any amendments thereto (16 U.S.C. Section 1531, et seq.).

PROJECT ADDRESS: _____

FILING PARTY NAME: _____

Mailing Address: _____

Telephone: _____ Fax: _____ E-Mail _____

Cell Phone: _____

PROPERTY OWNER: _____

Mailing Address: _____

Telephone: _____ Fax: _____ E-Mail _____

Cell Phone: _____

FARMING CONTRACTOR NAME: _____

Mailing Address: _____

Telephone: _____ Fax: _____ E-Mail _____

Cell Phone: _____

NOTE: AN AGRICULTURAL GRADING/CLEARING VERIFICATION IS REQUIRED WITHIN ONE (1) YEAR OF FILING THIS EXEMPTION

1. History of Farming: If applicable, briefly describe when and how the property to be graded or cleared has been farmed in the past (use attachment if needed).

- If this land has been farmed within the preceding five (5) years, agricultural grading/clearing is exempt under the ordinance, and the Agricultural Grading/Clearing Certificate (Certificate) is optional. In such case, if you do not want a Certificate, you are not required to file this form, and no fees will be required.

If you want the optional Certificate for land farmed within the preceding five (5) years, please check the indicated box and skip Item Nos. 2 through 7, sign this form, and a Certificate will be issued at a reduced fee.

2. Description of Property: Briefly describe the property on which the grading or clearing will occur, describe any plans for development, and a map detailing the following where applicable (use attachment if needed).

Please check all boxes that apply:

- | | |
|---|---|
| <input type="checkbox"/> Property location | <input type="checkbox"/> All existing dwellings or buildings |
| <input type="checkbox"/> Existing or proposed agricultural activities | <input type="checkbox"/> Erosion control method(s) utilized |
| <input type="checkbox"/> All access roads | <input type="checkbox"/> Drainage system layout |
| <input type="checkbox"/> All areas to be graded or cleared | <input type="checkbox"/> Existing or proposed animal facilities |
| <input type="checkbox"/> Irrigation system layout | |

3. Attach a minimum of three (3) ground-level panoramic photographs (color prints) clearly showing the whole project site. Include a locational map identifying the position from which the photo was taken and the approximate area of coverage of each photograph.

4. Attach approved erosion control plan from United States Department of Agriculture Natural Resources Conservation Service or licensed soil engineer where any grading or clearing performed under this exemption involves a slope angle of 10% or greater.

5. Type of Agricultural Operation. Check all that apply:

- | | | |
|------------------------------------|--|----------------------------------|
| <input type="checkbox"/> Field Row | <input type="checkbox"/> Livestock | <input type="checkbox"/> Orchard |
| <input type="checkbox"/> Vineyard | <input type="checkbox"/> Nursery Operation | <input type="checkbox"/> Dryland |

Total Acres: _____ Acres utilized: _____

6. Water Source: _____ Potable: _____ Reclaimed: _____

7. Type of Irrigation system: _____

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

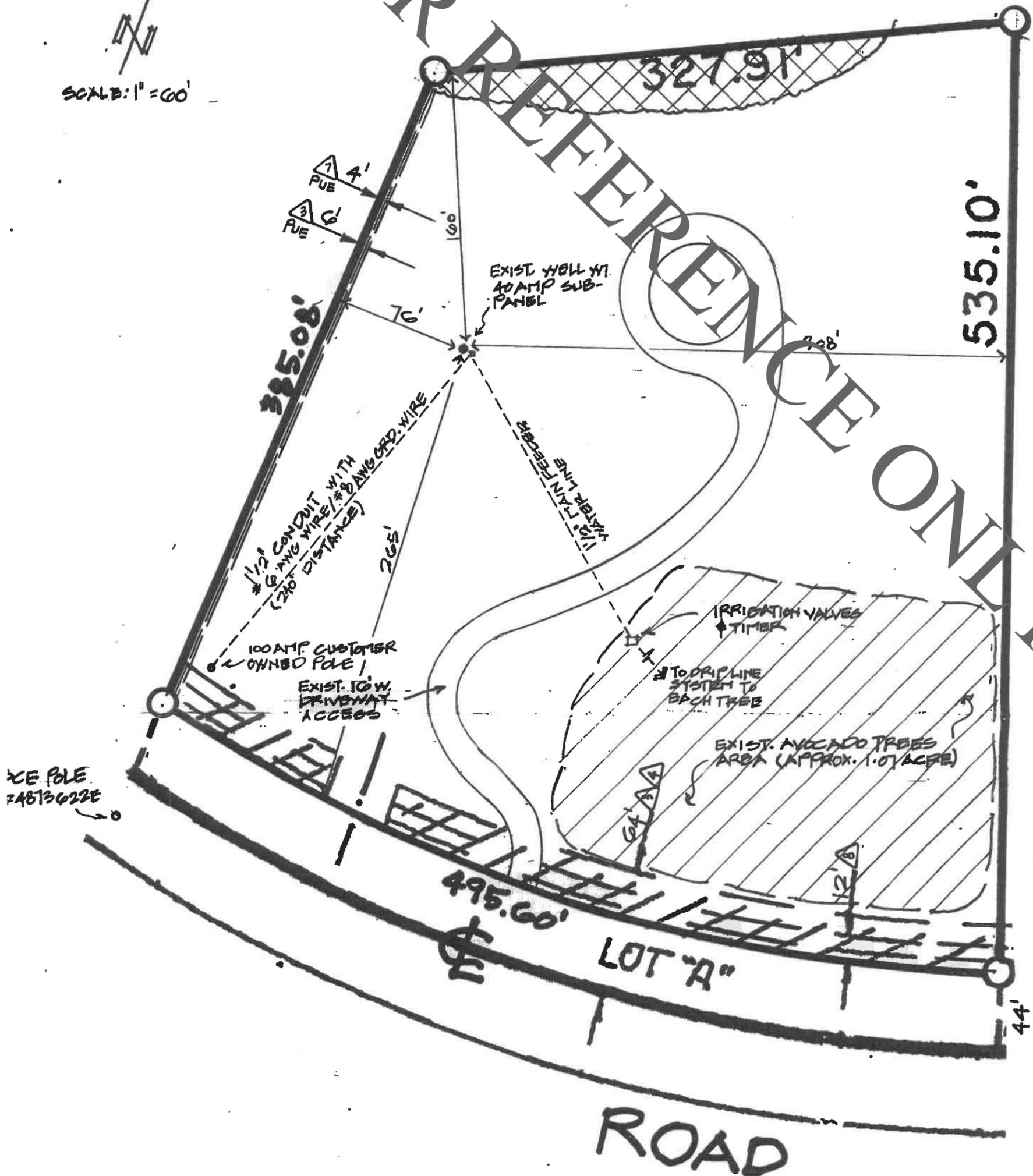
Date: _____ Filing Party: _____

SITE PLAN

FOR REFERENCE ONLY



SCALE: 1" = 60'



NOTES / INFORMATION:

- A.P.N.:
- LEGAL DESCRIPTION: LOT 7 OF TRACT NO. 21360, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 200, PAGES 22 THROUGH 25 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAND COUNTY
- LOT SIZE: 5.00 ACRES GROSS / 4.48 ACRES NET
- CROP TYPE: EXIST. AVOCADO TREES
- NO GRADING/CLEARING: PROPERTY HAS EXISTING AVOCADO TREES PLANTED ON NATURAL TERRAIN IN APPROX. 2013. NO GRADING/CLEARING TO OCCUR ON THIS PROJECT.