



SAN LUIS OBISPO COUNTY
DEPARTMENT OF PUBLIC WORKS

Paavo Ogren, Director

County Government Center, Room 207 • San Luis Obispo CA 93408 • (805) 781-5252

Fax (805) 781-1229

email address: pwd@co.slo.ca.us

December 13, 2012

**FAX AND EMAIL &
ATTACH TO CONTRACT**

**ADDENDUM NO. 1 TO
OAK WOODLAND HABITAT MITIGATION
FOR THE WILLOW ROAD EXTENSION
AND HWY 101 INTERCHANGE PROJECT
NIPOMO, CA
CONTRACT NO. 300129.09.04**

**The final day, time and location for submittal of bid proposal remain unchanged:
Date / Time: Thursday, December 20, 2012 at 3:00 p.m.**

At: Office of the County Clerk
1055 Monterey Street, Room D-120
San Luis Obispo, California 93408

Certain revisions are hereby incorporated into the Contract Documents for the subject project. These revisions are as follows:

The “Table of Contents” is hereby amended as follows:

- 1) On page iii, add the following:
SECTION 13. DWR ENCROACHMENT PERMIT.....13-1
-

The section titled “Notice and Instructions to Bidders” is hereby amended as follows:

- 1) On Sheet A-6, Special Instructions to Bidders, add the following paragraph:
A copy of a draft Water Pollution Control Plan (WPCP) for the Oak Woodland Habitat Mitigation for the Willow Road Extension and Hwy 101 Interchange Project is available for review at the front counter of the San Luis Obispo County Department of Public Works, Room 207, County Government Center, San Luis Obispo, CA, and may be downloaded from the Design Division website at the following address:

http://www.slocounty.ca.gov/PW/Design_Division/Projects_Out_To_Bid/OTB_-_300129_09_04_-_OAK_TREE_MIT.htm

The draft WPCP is provided for informational purposes only.

The section titled “Bid Proposal and Forms” is hereby amended as follows:

- 1) Insert the following after the second paragraph at the top of page A-9:

Proposals in which the prices are mathematically or materially unbalanced may be rejected. A bid is mathematically unbalanced if the bid is structured on the basis of nominal prices for some work and inflated prices for other work; that is, each element of the bid must carry its proportionate share of the total cost of the work plus profits. A bid is materially unbalanced if there is reasonable doubt that award to the bidder submitting the mathematically unbalanced bid will result in the lowest ultimate cost to the County.

The section titled “Special Provisions” is hereby amended as follows:

- 2) Replace Section 10-1.03, “Water Pollution Control,” with the new Section 10-1.03, “Water Pollution Control,” attached to this Addendum No. 1.
- 3) Section 10-1.07, “Cooperation”, replace the third paragraph at the top of page 10-24 with the following:

The Contractor shall comply with the Department of Water Resources (DWR) Encroachment Permit No. 1568 (attached to the Contract as Section 13) and shall comply with the following DWR requirements:

- 4) Section 10-1.07, “Cooperation”, replace the second paragraph at the top of page 10-24 with the following:
 1. The Contractor shall provide notice at least seven (7) days prior to starting work within Department of Water Resources right of way by telephone to:

Angelica Aguilar, Senior Land Agent
Real Estate Branch, DWR
(800) 600-4397

San Joaquin Field Division
Jeff Said, Chief
(661) 858-5513

Central Coast Water Authority
Drew Dudley, Chief
(805) 680-2056

- 5) Section 10-1.07, “Cooperation”, add the following paragraph at the end of the section on page 10-24:

4. The Contractor is advised that Control Cables connected with the operation of the State Water Project are buried within the construction area. A minimum of forty-eight (48) hours prior to starting any excavation, the Contractor shall contact Underground Service Alert (USA) and MCI Telecommunications Corporation at (800) 624-9675 for information regarding the cables. Any excavation within three feet of the cable(s) shall be done by using hand-held tools. Prior to any excavation, the cable(s) shall be located within the construction

area using only hand-held tools, and visibly identified in the presence of a DWR Field Division inspector. The Contractor shall contact the DWR Field Division Inspector by telephone.

- 6) Section 10-2.05, "Plant Establishment Work", add the following after the first paragraph of the section on page 10-41:

Progress payments for "PLANT ESTABLISHMENT" shall be prorated through the plant establishment period and shall be made on a quarterly basis, contingent on the Engineer's acceptance of the work performed during the quarter, including preparation of quarterly and annual assessment reports. During the plant establishment period, the Contractor shall schedule quarterly site review inspections with the Engineer. These inspections shall be coordinated with the Contractor's preparation and submittal of the Contractor's quarterly and/or annual assessment reports. The quarterly reports must be accepted by the Engineer as being complete before the Contractor shall be entitled to the "PLANT ESTABLISHMENT" progress payment. The quarterly and/or annual reports shall not be deemed complete unless accompanied by (1) a "punch list" of the items the Engineer has indicated needed to be remedied based on the Engineer's site review inspection with the Contractor for that quarter; and (2) a schedule for completing the "punch list" work. Unless directed otherwise by the Engineer, the Contractor shall not be entitled to the "PLANT ESTABLISHMENT" progress payment unless and until the "punch list" work is completed to the Engineer's satisfaction.

- 7) Section 10-2.06, "Qualitative Assessments and Quarterly Reporting", add the following to the end of the third paragraph of the section on page 10-46:

The Contractor shall be required to track the health of, and assign a vigor rating to, each of the individual seedlings on an annual basis. Quarterly reports shall include a qualitative assessment of the overall site and do not need to report vigor ratings of individual seedlings.

- 8) Section 10-2.07, "Quantitative Assessments and Annual Reporting", add the following to the end of the second paragraph of the section on page 10-47:

The Contractor shall be required to track the health of, and assign a vigor rating to, each of the individual seedlings on an annual basis. Vigor ratings of individual seedlings shall be included in the annual assessment report.

The Drawings are hereby amended as follows:

- 1) Sheet No. 1 of 9, replace the descriptions for sheets 1 and 2 in the Index of Sheets with the following:
SHEET NO. 1 TITLE SHEET
SHEET NO. 2 C-1 IRRIGATION PUMP SYSTEM SITE PLAN & DETAIL
- 2) Sheet No. 2 of 9, the Drawing No. is incorrectly labeled as C-2 and should be C-1.
- 3) Sheet No. 3 of 9, Drawing No. L-1: Note 12 of the Legend incorrectly shows the length of existing barbed wire fence to be removed as being approximately 675'. The correct quantity should be approximately 181'.

- 4) Sheet No. 4 of 9, Drawing No. L-2: On the Irrigation Schedule, the quantity of Irrigation Lateral Line is incorrectly shown as being 29,871 LF. The correct quantity should be 33,604 LF.

The following attachments are included in this addendum:

- 1) Section 10-1.03, "Water Pollution Control"
- 2) "DWR Encroachment Permit No. 1568" attached as Section 13 of the Contract Documents

All bidders shall acknowledge acceptance of this correction notice. **PLEASE FAX TO US, TODAY, A SIGNED COPY OF THIS SHEET INDICATING CONFIRMATION OF RECEIPT OF THIS ADDENDUM (FAX (805) 781-1229).** If you are unable to read the fax, please call Jeff Werst in the Public Works Department at (805) 781-5252.

Dec


PAAVO OGREN
Director of Public Works

File: Contract No. 300129.09.04

ACKNOWLEDGMENT

Company Name

Printed Name

Signature

Date

L:\DESIGN\DEC12\300129.09.04 Addendum No. 1.doc.JWerst.taw

10-1.03 WATER POLLUTION CONTROL

GENERAL

Summary

This work includes developing and implementing a Water Pollution Control Plan (WPCP).

Information on forms, reports, and other documents can be found in the following Caltrans manuals:

1. Field Guide for Construction Site Dewatering
2. Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual
3. Construction Site Best Management Practices (BMP) Manual

For the above-referenced manuals, go to Caltrans Web site for the Division of Construction, Storm Water and Water Pollution Control Information or the Department's Publication Distribution Unit.

Do not start job site activities until:

1. The WPCP is approved.

Definitions

construction phase: Includes (1) highway construction phase for building roads and structures, (2) plant establishment and maintenance phase for placing vegetation for final stabilization, and (3) suspension phase for suspension of work activities or winter shutdown. The construction phase continues from the start of work activities to contract acceptance.

inactive area: Area where soil-disturbing work activities have not occurred within 15 days.

qualifying rain event: Storm that produces at least 0.5 inch of precipitation with a 48-hour or greater period between rain events.

storm event: Storm that produces or is forecasted to produce at least 0.10 inch of precipitation within a 24-hour period.

Submittals

Within 10 days of receipt of the fully executed contract:

1. Submit 1 electronic and 2 printed copies (double-sided) of your WPCP for review. Allow 10 days for the Engineer's review. The Engineer provides comments and specifies the date when the review stopped if revisions are required.
2. Resubmit a revised WPCP within 7 days of receiving the Engineer's comments. The Department's review resumes when the complete WPCP has been resubmitted.
3. When the Engineer accepts the WPCP, submit an electronic copy and 2 printed copies (double-sided) of the approved WPCP.

A qualified SWPPP practitioner (QSP) or qualified SWPPP developer (QSD) must prepare the WPCP.

The WPCP must comply with the Department's Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Plan (WPCP) Preparation Manual and must:

1. Show the location of disturbed soil areas, water bodies, and water conveyances
2. Describe the work involved in the installation, maintenance, repair, and removal of temporary water pollution control practices
3. Show the locations and types of water pollution control practices that will be used for:
 - 3.1. Stormwater and nonstormwater in areas outside the job site but related to work activities, including:
 - 3.1.1. Staging areas
 - 3.1.2. Storage yards
 - 3.1.3. Access roads
 - 3.2. Activities or mobile activities related to all NPDES permits
 - 3.3. Contractor-support facilities
4. Show the locations and types of temporary water pollution control practices that will be used in the work for each construction phase
5. Show the locations and types of water pollution control practices that will be installed permanently under the contract
6. Include a schedule showing when:
 - 6.1. Work activities will be performed that could cause the discharge of pollutants into stormwater
 - 6.2. Water pollution control practices associated with each construction phase will be implemented
 - 6.3. Soil stabilization and sediment control practices for disturbed soil areas will be implemented

Amend the WPCP whenever:

1. Changes in work activities could affect the discharge of pollutants
2. Water pollution control practices are added by Contract Change Order
3. Water pollution control practices are added at your discretion
4. Changes in the quantity of disturbed soil are substantial
5. Objectives for reducing or eliminating pollutants in stormwater discharges have not been achieved
6. Project receives a written notice or order from the RWQCB or any other regulatory agency

Allow the same review time for amendments to the WPCP as for the original WPCP.

Information After Storm Event

Within 48 hours after the conclusion of a storm event resulting in a discharge, after a nonstormwater discharge, or after receiving a written notice or an order from the

RWQCB or another regulatory agency, the WPC manager must submit the following information:

1. Date, time, location, and nature of the activity and the cause of the notice or order
2. Type and quantity of discharge
3. Water pollution control practices in use before the discharge or before receiving the notice or order
4. Description of water pollution control practices and corrective actions taken to manage the discharge or cause of the notice

Training Records

Submit water pollution control training records for all employees and subcontractors who will be working at the job site. Include the training subjects, training dates, ongoing training, and tailgate meetings with your submittal. Submit records for:

1. Existing employees within 5 business days of obtaining WPCP approval
2. New employees within 5 business days of receiving the training
3. A subcontractor's employees at least 5 business days before the subcontractor starts work

Quality Control and Assurance

Employees must receive initial water pollution control training before starting work at the job site.

For your project managers, supervisory personnel, subcontractors, and employees involved in water pollution control work:

1. Provide stormwater training in the following subjects:
 - 1.1. Water pollution control rules and regulations
 - 1.2. Implementation and maintenance for:
 - 1.2.1. Temporary soil stabilization
 - 1.2.2. Temporary sediment control
 - 1.2.3. Tracking control
 - 1.2.4. Wind erosion control
 - 1.2.5. Material pollution prevention and control
 - 1.2.6. Waste management
 - 1.2.7. Nonstormwater management
2. Conduct weekly training meetings covering:
 - 2.1. Deficiencies and corrective actions for water pollution control practices
 - 2.2. Water pollution control practices required for work activities during the week
 - 2.3. Spill prevention and control
 - 2.4. Material delivery, storage, usage, and disposal
 - 2.5. Waste management
 - 2.6. Nonstormwater management procedures

Water Pollution Control Manager

The water pollution control (WPC) manager must be a QSP or QSD. Assign 1 WPC manager to implement the WPCP. You may assign a QSD other than the WPC manager to develop the WPCP.

The WPC manager must:

1. Be responsible for water pollution control work
2. Be the primary contact for water pollution control work
3. Oversee:
 - 3.1. Maintenance of water pollution control practices
 - 3.2. Inspections of water pollution control practices identified in the WPCP
 - 3.3. Inspections and reports for visual monitoring
 - 3.4. BMP status reports
4. Oversee and enforce hazardous waste management practices including spill prevention and control measures
5. Have authority to mobilize crews to make immediate repairs to water pollution control practices
6. Ensure that all employees have current water pollution control training
7. Implement the approved WPCP
8. Amend the WPCP if required
9. Be at the job site within 2 hours of being contacted
10. Have the authority to stop construction activities damaging water pollution control practices or causing water pollution

CONSTRUCTION

General

Manage work activities in a way that reduces the discharge of pollutants to surface waters, groundwater, and separate municipal storm sewer systems.

Continue WPCP implementation during any suspension of work activities.

Install facilities and devices used for water pollution control practices before performing work activities. Install soil stabilization materials for water pollution control practices in all inactive areas or before storm events.

Repair or replace water pollution control practices within 24 hours of discovering any damage, unless a longer period is authorized.

The County does not pay for the cleanup, repair, removal, disposal, or replacement of water pollution control practices due to improper installation or your negligence. You may request changes to the water pollution control work or the Engineer may order changes to water pollution control work. Changes may include additional or new water pollution control practices. Additional water pollution control work is paid for as extra work under Section 4-1.03D, "Extra Work," of the Standard Specifications.

Retain a printed copy of the approved WPCP at the job site.

Monitoring

Monitor and inspect water pollution control practices at the job site.

Notify the Engineer within 6 hours whenever any of the following occurs:

1. You identify discharges into receiving waters or drainage systems that are causing or could cause water pollution
2. You receive a written notice or order for the project from the RWQCB or any other regulatory agency

Monitor the National Weather Service's forecast on a daily basis. For the National Weather Service's forecast, go to the Web site for the National Weather Service.

Inspections

Use the Stormwater Site Inspection Report form for documenting site inspections.

The WPC manager must oversee:

1. Inspections of water pollution control practices identified in WPCP when crews are actively working:
 - 1.1. Before a forecasted storm event
 - 1.2. Within 48 hours after a rain event with a cumulative total 0.5-inches
 - 1.3. Daily during extended storm events
 - 1.4. On a predetermined schedule of at least once a week
2. Inspections of water pollution control practices identified in WPCP during the plant establishment period:
 - 1.1. Before a forecasted storm event
 - 1.2. Within 48 hours after a rain event with a cumulative total 0.5-inches
 - 1.3. Daily during extended storm events
 - 1.4. On a predetermined schedule of at least once a month
2. Daily inspections of:
 - 2.1. Storage areas for hazardous materials and waste
 - 2.2. Hazardous waste disposal and transporting activities
 - 2.3. Hazardous material delivery and storage activities
3. Inspections of:
 - 3.1. Vehicle and equipment cleaning facilities:
 - 3.1.1. Daily if vehicle and equipment cleaning occurs daily
 - 3.1.2. Weekly if vehicle and equipment cleaning does not occur daily
 - 3.2. Vehicle and equipment maintenance and fueling areas:
 - 3.2.1. Daily if vehicle and equipment maintenance and fueling occurs daily
 - 3.2.2. Weekly if vehicle and equipment maintenance and fueling does not occur daily
 - 3.3. Vehicles and equipment at the job site for leaks and spills on a daily schedule. Verify that operators are inspecting vehicles and equipment each day of use.
 - 3.4. Demolition sites within 50 feet of storm drain systems and receiving waters daily.
 - 3.7. Paved roads at job site access points for street sweeping:

- 3.7.1. Daily if earthwork and other sediment or debris-generating activities occur daily
- 3.7.2. Weekly if earthwork and other sediment or debris-generating activities do not occur daily
- 3.7.3. Within 24 hours of precipitation forecasted by the National Weather Service

Deficiencies

Whenever you or the Engineer identify a deficiency in the implementation of the approved WPCP, correct the deficiency:

1. Immediately, unless a later date is authorized
2. Before precipitation occurs

The County may correct the deficiency and deduct the cost of correcting the deficiency from payment if you fail to correct the deficiency by the agreed date or before the onset of precipitation.

MEASUREMENT AND PAYMENT

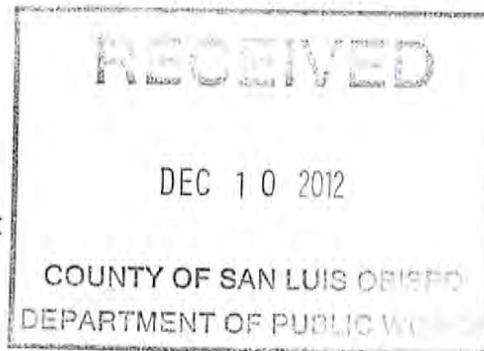
The contract lump sum price paid for “WATER POLLUTION CONTROL” includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in developing and implementing a WPCP, including providing a WPC manager, conducting water pollution control training, and monitoring, inspecting and correcting water pollution control practices, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

**DEC 6 2012**

Mr. Dale Ramey
San Luis Obispo County Public Works Department
County Government Center
1055 Monterey Street, Room 207
San Luis Obispo, California 93408-1003



Dear Mr. Ramey

Enclosed is your copy of the fully executed Department of Water Resources' (DWR) Plan Review Notice for Encroachment Permit No. 1568 and approved construction plans. This permit allows San Luis Obispo County Public Works Department to install a power pole, a new overhead power line, and a 16-foot wide gate with 3.5-foot deep concrete footings at approximately Station 4460+00 and 4464+50, over DWRs' State Water Project (SWP) Coastal Aqueduct Pipeline's 50-foot-wide easement. This project is located near Thompson Road, in the city of Nipomo, San Luis Obispo County.

The terms of the permit require that you give seven days' notice prior to starting work within DWR's right of way. Referencing the "Notice Prior to Starting Work" clause in the permit, please contact Ms. Angelica Aguilar, Senior Land Agent, directly by telephone at (800) 600-4397.

Additionally, the "Submit As-Built Plans" clause in the permit requires the submission of three (3) sets of your as-built plans within 60 days of completion of construction. This provision reads in full:

"Upon completion of all work within Permittor's right of way, the Permittee shall furnish reproducible as-built drawings to the Permittor's representative showing location and details of construction. Failure to submit as-built plans within sixty (60) days of completion may result in written notice of revocation as provided under section "Revocation of Permit" of this permit."

If you have any questions or need further clarification on any of the items required to issue the permit, please contact me via e-mail at gshumway@water.ca.gov by telephone directly at (916) 653-8358 or toll free at (800) 600-4397.

Sincerely,

A handwritten signature in blue ink that reads "Geoff Shumway".

Geoff Shumway
Associate Land Agent

Enclosures

Certified Mail Receipt No. 7011 2970 0003 9047 5296

PLAN REVIEW NOTICE

TO: San Luis Obispo County Dept. of Public Works
 County Government Center, Room 207
 San Luis Obispo, California 93408

ATTN: Dale Ramey, Project Manager

PHONE: (805) 781-5252

PLAN REVIEW NO.: 1568	
DIVISION: Coastal	MILE: 98.8
COUNTY: San Luis Obispo	R/W MAP NO.: N/A
FIELD DIVISION: San Joaquin	
PARCEL(S): N/A	

The attached plans for your proposed construction within the right of way of the State Water Resources Development System have been reviewed by the Department of Water Resources. Comments on the proposed construction are noted below.

Proposed encroachment description:

Installation of a power pole, a new overhead power line, and a 16-foot wide gate with 3.5-foot deep concrete footings at approximately Station 4460+00 and 4464+50, over DWRs' State Water Project (SWP) Coastal Aqueduct Pipeline's 50-foot-wide easement. This project is located near Thompson Road, in the city of Nipomo, San Luis Obispo County.

Construction plan sheet(s) identification:

- Plans for the Oak Woodland Habitat Mitigation for the Willow Road Extension and Highway 101 Interchange, dated August 10, 2012. (9 sheets)

Comments:

1. Please provide notice at least 7 days prior to starting work within Department of Water Resources' right of way by telephone to:

Angelica Aguilar, Senior Land Agent
 Real Estate Branch, DWR
 (800) 600-4397

and

San Joaquin Field Division
 Jeff Said, Chief
 (661) 858-5513

and Central Coast Water Authority
 Drew Dudley, Chief
 (805) 680-2056

2. Control Cables connected with the operation of the State Water Project are buried within the construction area. Forty-eight (48) hours prior to starting any excavation contact Underground Service Alert (USA) at (800) 227-2600 and MCI Telecommunications Corporation at (800) 624-9675 for information regarding the cables. Any excavation within three feet of the cable (s) shall be done by using hand-held tools. Prior to any excavation the cable(s) shall be located within the construction area using only hand-held tools, and visibly identified in the presence of a DWR Field Division inspector. Contact the DWR Field Division Inspector by telephone.

3. Submit as-built plans within 60 days of completion of construction to:

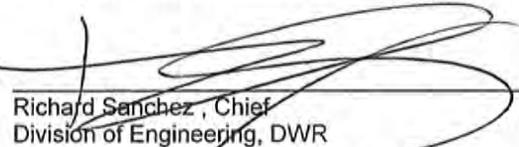
Department of Water Resources
 Division of Engineering
 Encroachment Section
 1416 Ninth Street, Room 425
 Sacramento, California 95814

4. Additional comments are attached.

Nothing herein contained shall be construed as a release or wavier of any claim for compensation or damages which you or Department of Water Resources may now have or may hereafter acquire resulting from the construction of additional facilities or the alteration of existing facilities by either party in such a manner as to cause an unreasonable interference with the use of the right of way by the other party.

Notice dated: _____

State of California
 Department of Water Resources

By: 
 Richard Sanchez, Chief
 Division of Engineering, DWR

Date: 12/6/12

COUNTY OF SAN LUIS OBISPO, CALIFORNIA
PUBLIC WORKS DEPARTMENT

Oak Woodland Habitat Mitigation for the Willow Road
Extension and Hwy 101 Interchange Project
NIPOMO, CA.
CONTRACT No. 300129.09

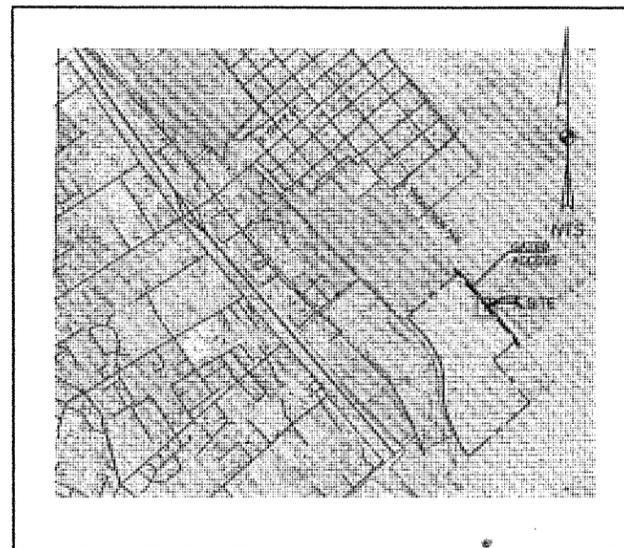
ROAD NO.	JOB NO.	SHEET NO.	TOTAL SHEETS
		1	10

APPROVED: _____, 20____

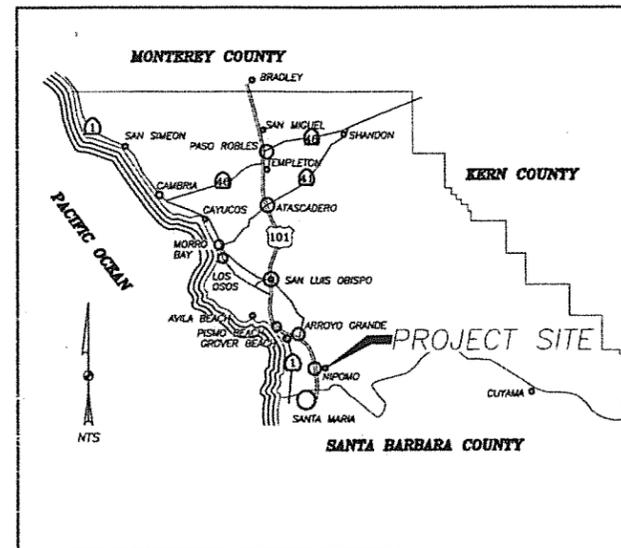
DEPUTY DIRECTOR OF PUBLIC WORKS
R.C.E. 43933 (Exp. 6/30/11)



To Be Supplemented By State Standard Plans Dated May, 2006



LOCATION MAP
NO SCALE



VICINITY MAP
NO SCALE

INDEX OF SHEETS

SHEET NO. 1	C-1 IRRIGATION PUMP SYSTEM TITLE SHEET
SHEET NO. 2	C-2 IRRIGATION PUMP SYSTEM SITE PLAN & DETAIL
SHEET NO. 3	L-1 OAK PLANTING PLAN
SHEET NO. 4	L-2 IRRIGATION PLAN
SHEET NO. 5	L-3 IRRIGATION DETAILS
SHEET NO. 6	E-1 ELECTRICAL PLANS
SHEET NO. 7	E-2 ELECTRICAL PLANS
SHEET NO. 8	E-3 ELECTRICAL PLANS
SHEET NO. 9	E-4 ELECTRICAL PLANS

LEGEND

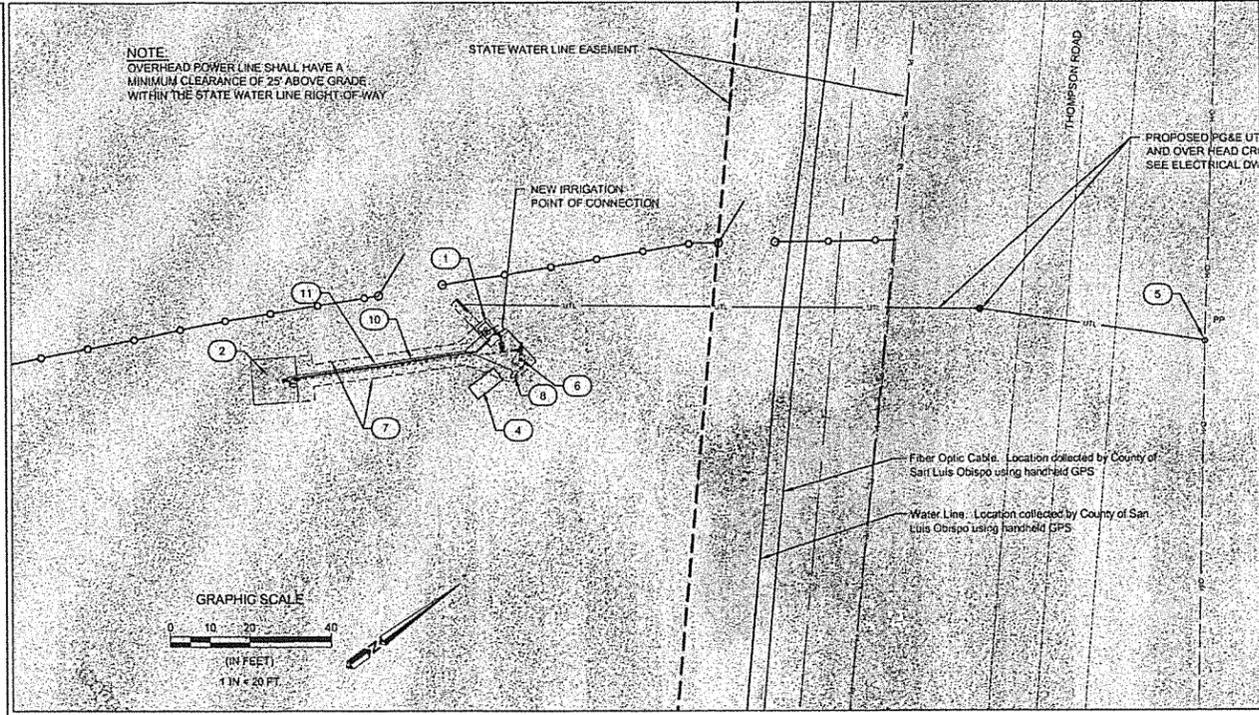
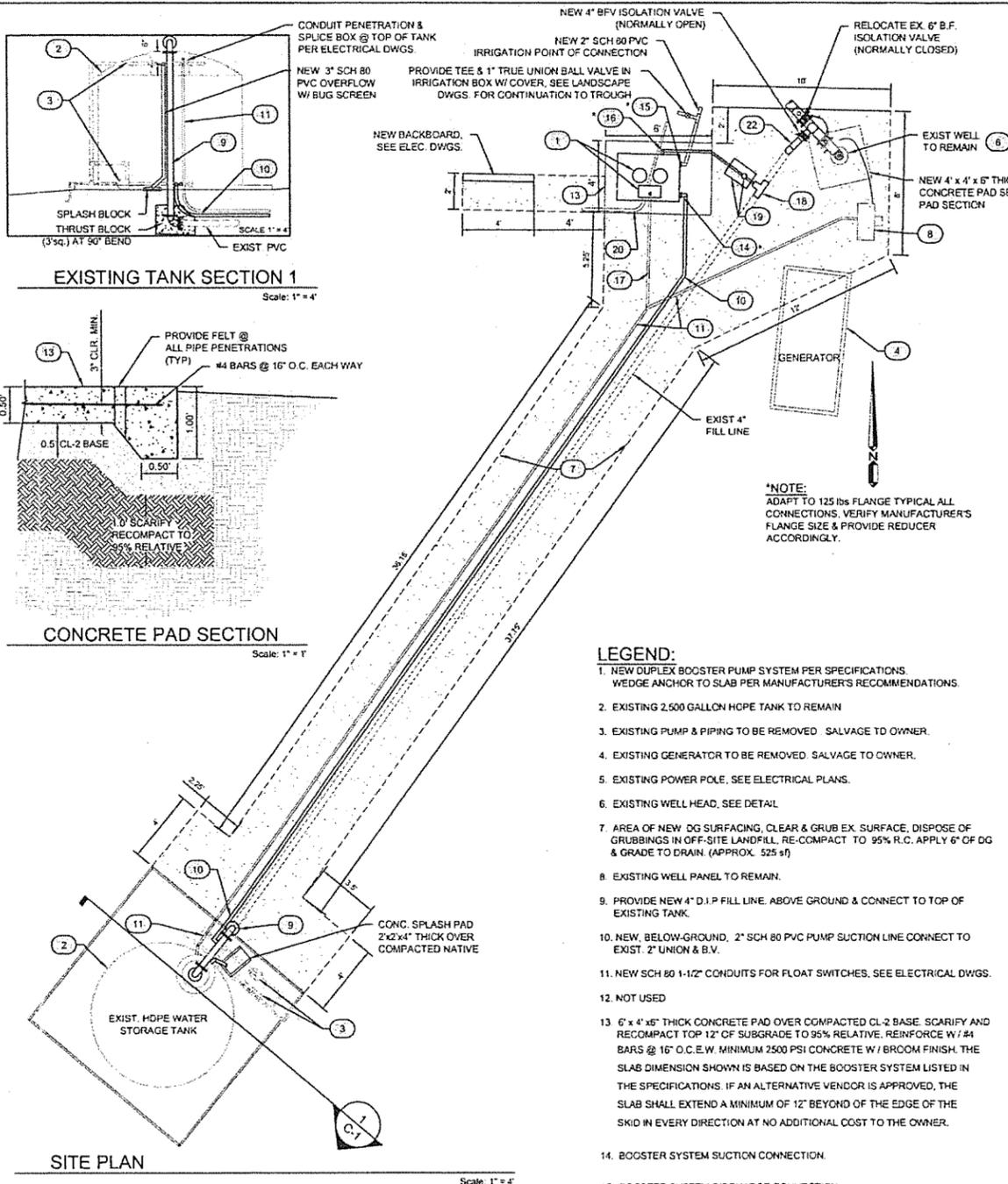
EXISTING	PROPOSED	DESCRIPTION
101.50 FS	101.50 FS	SPOT ELEVATIONS
⊙	⊙	SEWER MANHOLE
⊙	⊙	SEWER CLEANOUT
—	—	SERVICE LATERAL (W-WATER, G-GAS, U-UTILITIES)
⊙	⊙	SERVICE METER (W-WATER)
⊙	⊙	DOUBLE SERVICE METER (W-WATER)
—	—	SEWER LATERAL
⊙	⊙	FIRE HYDRANT
⊙	⊙	STORM DRAIN MANHOLE
⊙	⊙	STORM DRAIN CATCH BASIN
⊙	⊙	GATE VALVE
⊙	⊙	CAP
⊙	⊙	SURVEY MONUMENT
⊙	⊙	BENCH MARK
—	—	SLOPE PERCENTAGE
	⊙	PARKING LOT LIGHTS
—	—	ABANDON UTILITY
—	—	EDGE OF PAVEMENT
—	—	REDUCER/INCREASER
—	—	WATER LINE
—	—	SEWER FORCE MAIN
—	—	GRAVITY SEWER LINE
—	—	STORM DRAIN
—	—	UNDERGROUND GAS LINE
—	—	UNDERGROUND UTILITY LINE LOCATION
—	—	UNDERGROUND ELECTRICAL LINE
—	—	UNDERGROUND CABLE TELEVISION LINE
—	—	UNDERGROUND TELEPHONE LINE
—	—	RIGHT OF WAY
—	—	EASEMENT
—	—	CENTERLINE
—	—	BARBED WIRE FENCE
—	—	CHAIN LINK FENCE
—	—	RETAINING WALL
—	—	FLOWLINE



Know what's below.
Call before you dig.

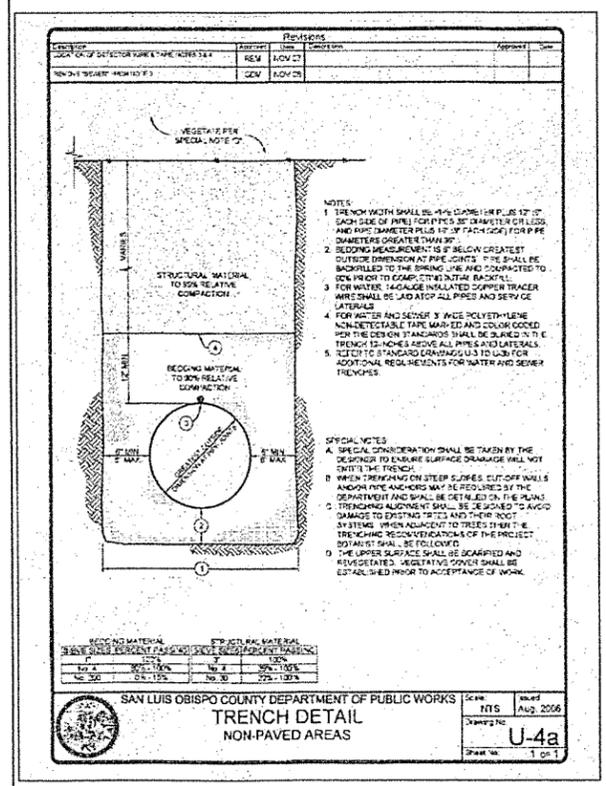
TITLE SHEET

Designer	Date	Drawn By	Date	Design Engineer	Date
RM-CD	8/10/12	CD	8/10/12	RM	8/10/12



WELL AND PUMP SITE PLAN

Scale: 1" = 20'



SAN LUIS OBISPO COUNTY DEPARTMENT OF PUBLIC WORKS
TRENCH DETAIL
NON-PAVED AREAS

DEPARTMENT OF WATER RESOURCES NOTES:

1. A SEVEN (7) DAY ADVANCE NOTIFICATION IS REQUIRED PRIOR TO STARTING WORK WITHIN DEPARTMENT OF WATER RESOURCES RIGHT OF WAY. CONTACT THE DEPARTMENT OF WATER RESOURCES, DIVISION ON ENGINEERING, ENCROACHMENT PERMIT SECTION, SACRAMENTO, CALIFORNIA AT (800) 600-4267 AND DWR SAN JOAQUIN FIELD DIVISION AT (800) 658-5513 AND CENTRAL COAST AUTHORITY AT (805) 687-5235 SIMULTANEOUSLY.
2. EXCEPT AS OTHERWISE PROVIDED HEREIN, MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT IN PLACE ALL SWP FACILITIES AND APPURTENANCES, INCLUDING BUT NOT LIMITED TO COMMUNICATION AND CONTROL CABLES AND CATHODIC PROTECTION TEST STATIONS. THE PERMITTEE AND CONTRACTOR WILL BE LIABLE FOR ALL DAMAGES TO SWP FACILITIES AND APPURTENANCES AS A RESULT OF THE CONSTRUCTION AND FOR ANY OTHER DAMAGES OR LOSSES SUFFERED BY DWR OR ITS WATER CONTRACTORS, INCLUDING POWER, IRRIGATION, MUNICIPAL AND INDUSTRIAL WATER SUPPLY, AND COMMUNICATION LOSSES.
3. SAN LUIS OBISPO CO. PUBLIC WORKS SHALL PROVIDE DWR WITH A KEY TO THE LOCK ON THE GATES WITHIN THEIR RIGHT OF WAY.

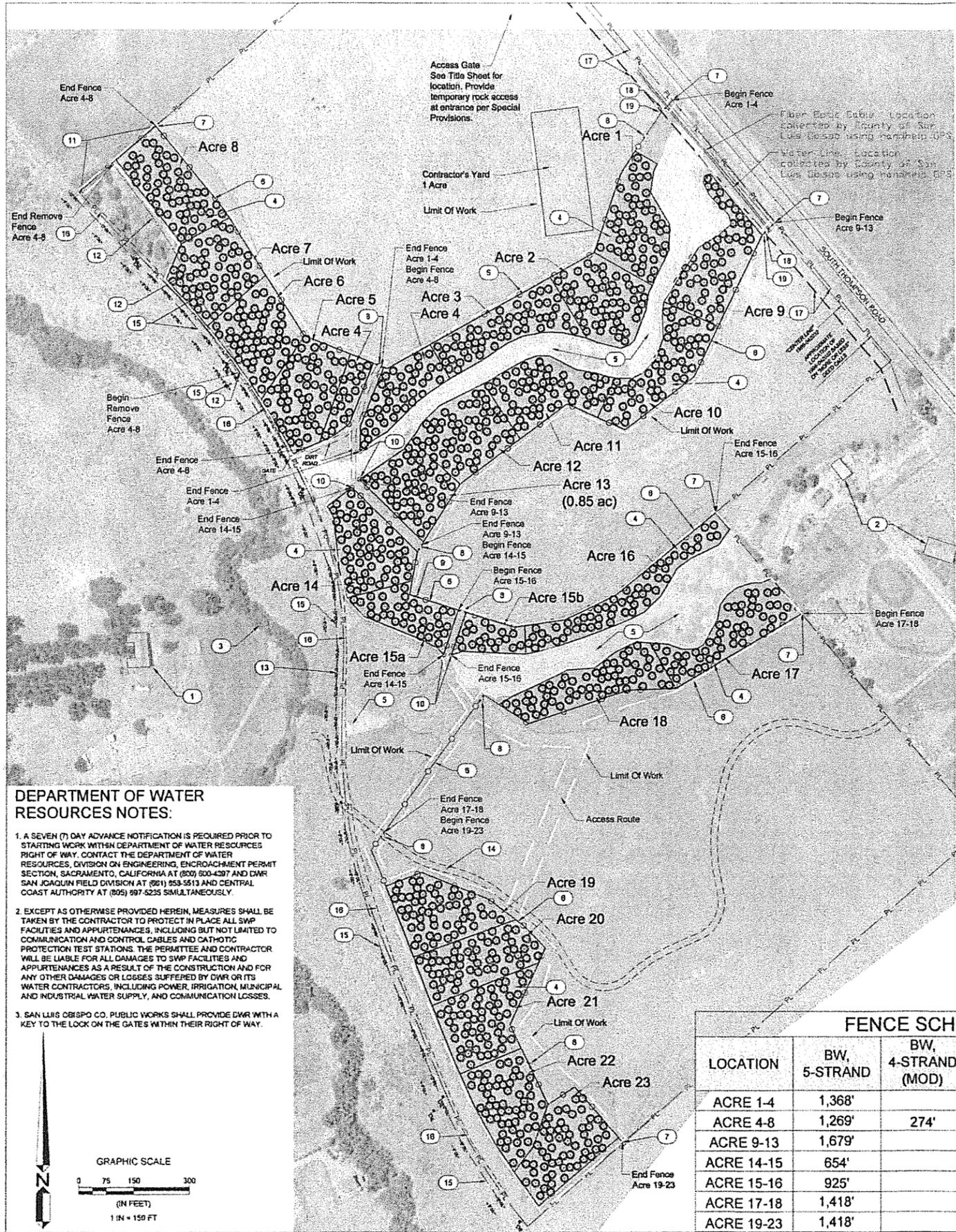


WALLACE GROUP
CIVIL ENGINEERING
CONSTRUCTION MANAGEMENT
LANDSCAPE ARCHITECTURE
MECHANICAL ENGINEERING
PLANNING
PUBLIC WORKS ADMINISTRATION
SURVEYING / GIS SOLUTIONS
WATER RESOURCES
WALLACE SWANSON INTERNATIONAL
612 CLARION COURT
SAN LUIS OBISPO, CA 93401
T 805 544-4011 F 805 544-4294
www.wallacegroup.us

REGISTERED PROFESSIONAL ENGINEER
ROBERT S. MILLER
No. 57474
Exp. 12-31-18
CIVIL
STATE OF CALIFORNIA
SIGNATURE
R. S. Miller
DATE SIGNED
8-24-2012
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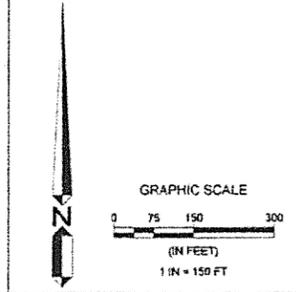
Oak Woodland Habitat Creation for the Willow Road
Extension and Hwy 101 Interchange Project
South Thompson Road, Dana Adobe Property

JOB # 750-04
DESIGNER: RM/CD
DRAWN BY: CD/AS
DATE: 8-10-2012
DRAWING NO.
C-2
2 OF 9



DEPARTMENT OF WATER RESOURCES NOTES:

- A SEVEN (7) DAY ADVANCE NOTIFICATION IS REQUIRED PRIOR TO STARTING WORK WITHIN DEPARTMENT OF WATER RESOURCES RIGHT OF WAY. CONTACT THE DEPARTMENT OF WATER RESOURCES, DIVISION ON ENGINEERING, ENCROACHMENT PERMIT SECTION, SACRAMENTO, CALIFORNIA AT (916) 900-4397 AND DWR SAN JOAQUIN FIELD DIVISION AT (925) 958-5513 AND CENTRAL COAST AUTHORITY AT (805) 997-5235 SIMULTANEOUSLY.
- EXCEPT AS OTHERWISE PROVIDED HEREIN, MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT IN PLACE ALL SWP FACILITIES AND APPURTENANCES, INCLUDING BUT NOT LIMITED TO COMMUNICATION AND CONTROL CABLES AND CATHODIC PROTECTION TEST STATIONS. THE PERMITTEE AND CONTRACTOR WILL BE LIABLE FOR ALL DAMAGES TO SWP FACILITIES AND APPURTENANCES AS A RESULT OF THE CONSTRUCTION AND FOR ANY OTHER DAMAGES OR LOSSES SUFFERED BY DWR OR ITS WATER CONTRACTORS, INCLUDING POWER, IRRIGATION, MUNICIPAL AND INDUSTRIAL WATER SUPPLY, AND COMMUNICATION LOSSES.
- SAN LUIS OBISPO CO. PUBLIC WORKS SHALL PROVIDE DWR WITH A KEY TO THE LOCK ON THE GATES WITHIN THEIR RIGHT OF WAY.

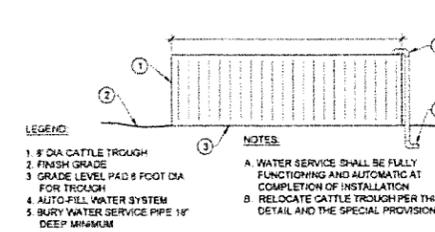


LEGEND

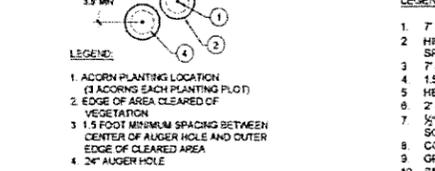
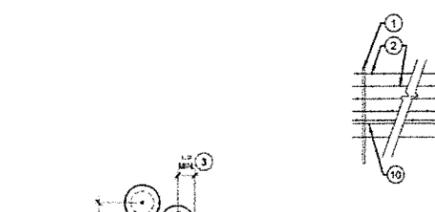
1	EXISTING DANA ADOBE
2	EXISTING PRIVATE RESIDENCE
3	EXISTING NIPOMO CREEK
4	OAK MITIGATION AREAS
5	RIPARIAN RESTORATION BY LAND CONSERVANCY- NO CONSTRUCTION DISTURBANCE
6	BARBED WIRE FENCE. SEE DETAILS 3 & 4, THIS SHEET
7	ATTACH NEW FENCE TO EXISTING FENCE
8	14' WIDE GATE - SEE DETAIL 3, THIS SHEET
9	10' WIDE GATE - SIMILAR TO DETAIL 3, THIS SHEET
10	END FENCE
11	ADD T-POSTS (10' O.C.) TO EXISTING FENCE (TYPE BW - 4-STRAND (MOD)) AND THE EXISTING WIPRES TO NEW POSTS, APPROXIMATELY 274'
12	REMOVE EXISTING BARBED WIRE FENCE, APPROXIMATELY 975'
13	EXISTING GATE - MAINTAIN ACCESS TO GATE
14	PROPOSED FUTURE DANA ADOBE ROAD LOCATION - N.I.C.
15	EXISTING GAS COMPANY EQUIPMENT - PROTECT IN PLACE
16	25' SETBACK LINE FROM EXISTING GAS COMPANY PIPELINE
17	STATE WATERLINE EASEMENT
18	16' WIDE GATE AT DWR RIGHT OF WAY EASEMENT
19	TRAFFIC WARNING SIGN - LOCATE OUTSIDE OF DWR RIGHT OF WAY AND FACE TOWARD ONCOMING TRAFFIC

PLANT SCHEDULE

TREES	BOTANICAL NAME / COMMON NAME	CONT.	QTY
	Quercus agrifolia / Coast Live Oak Symbol represents one acorn plot with three individually planted acorns	Acorn	3,824



1 CATTLE TROUGH
N.T.S.



2 ACORN PLANTING
N.T.S.

PLANTING NOTES

- REFER TO PLANTING PLANS, PLANT NOTES, PLANT SCHEDULE, AND PLANTING SPECIFICATION FOR ADDITIONAL PLANTING INFORMATION. REFER TO IRRIGATION PLANS, NOTES AND DETAILS FOR RELATED LANDSCAPE WORK.
- NOTIFY OWNER'S REPRESENTATIVE (REP.) 48 HOURS MINIMUM PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULE.
- VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE WORK. IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE OF FIELD CONDITIONS THAT VARY FROM THOSE SHOWN ON DRAWINGS AND SEEK CORRECTIONS AND DIRECTIONS BEFORE PROCEEDING WITH WORK. ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY CORRECTIONS DUE TO FAILURE TO REPORT KNOWN DISCREPANCIES.
- LOCATE AND MARK ALL EXISTING IRRIGATION LINES AND OTHER UTILITIES WHETHER SHOWN HEREON OR NOT. PROTECT FROM DAMAGE ALL UTILITIES, AREAS AND STRUCTURES IN AND AROUND LANDSCAPE WORK AREAS. ASSUME FULL RESPONSIBILITY AND EXPENSE FOR REPAIR AND REPLACEMENT OF DAMAGES CAUSED BY CONTRACTOR.
- LOCATION OF EXISTING ELEMENTS SUCH AS GENERATOR, PUMP, TANKS, AND OTHER STRUCTURES OR ELEMENTS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY FIELD CONDITIONS WHETHER SHOWN HEREON OR NOT. WHEN SHOWN ITEMS DO NOT CORRESPOND TO FIELD CONDITIONS, REPORT DISCREPANCIES TO OWNER'S REP. FOR CLARIFICATIONS AND INSTRUCTIONS PRIOR TO PROCEEDING WITH WORK.

8. PLANTING ACCESSORIES & MATERIAL

- TREE TUBE: 3" DIAMETER, 17" HEIGHT, BLUE-X OR EQUAL, SECURE TO 1" X 1" X 30" WOOD STAKE WITH MINIMUM TWO (2) HEAVY DUTY STEEL STAPLES.
- ROOT PROTECTORS: PREFABRICATED ROOT PROTECTORS - CONFORM TO SPECIAL PROVISIONS.
- MULCH: SHREDDED BARK MULCH. SUBMIT SAMPLE FOR APPROVAL.

7. PRE-PLANTING PREPARATION

- PREPARE PLANTING HOLE BY REMOVING ALL VEGETATION WITHIN A THREE FOOT DIAMETER OF THE PLANTING HOLE USING A McLOUD OR EQUAL POWER TILLER.
- AN APPROXIMATELY 24" DEEP PLANTING HOLE MUST BE AUGURED IN THE CENTER OF THE 3" DIAMETER PLANTING PLOT. INSTALL THE ROOT CAGE AND RETURN AUGURED SOIL TO HOLE. PLACE ACORNS 2" BELOW FINISHED GRADE.
- MINIMIZE DISTURBANCE OF SURROUNDING EXISTING SOIL.

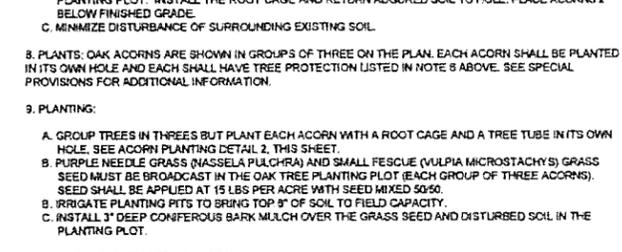
8. PLANTS: OAK ACORNS ARE SHOWN IN GROUPS OF THREE ON THE PLAN. EACH ACORN SHALL BE PLANTED IN ITS OWN HOLE AND EACH SHALL HAVE TREE PROTECTION LISTED IN NOTE 8 ABOVE. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

9. PLANTING:

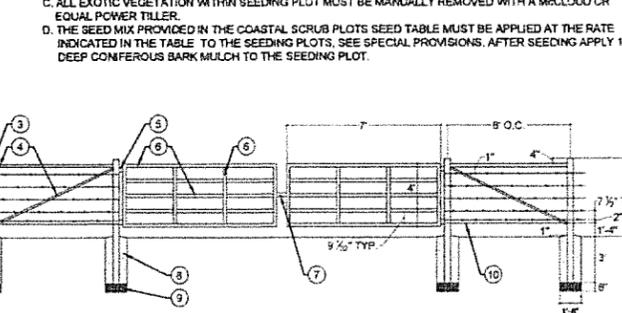
- GROUP TREES IN THREES BUT PLANT EACH ACORN WITH A ROOT CAGE AND A TREE TUBE IN ITS OWN HOLE. SEE ACORN PLANTING DETAIL 2, THIS SHEET.
- PURPLE NEEDLE GRASS (NAUSELA PULCHRA) AND SMALL FESCUE (VULPIA MICROSTACHYS) GRASS SEED MUST BE BROADCAST IN THE OAK TREE PLANTING PLOT (EACH GROUP OF THREE ACORNS). SEED SHALL BE APPLIED AT 15 LBS PER ACRE WITH SEED MIXED 50/50.
- IRRIGATE PLANTING PITS TO BRING TOP 3" OF SOIL TO FIELD CAPACITY.
- INSTALL 3" DEEP CONIFEROUS BARK MULCH OVER THE GRASS SEED AND DISTURBED SOIL IN THE PLANTING PLOT.

10. COASTAL SCRUB SEEDING NOTES:

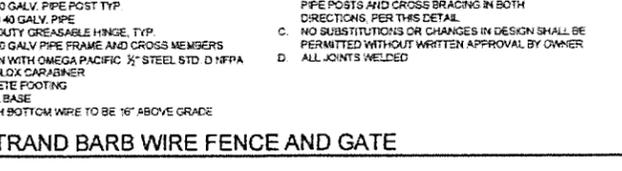
- 650 RANDOMLY DISTRIBUTED COASTAL SCRUB SEEDING PLOTS MUST BE INSTALLED. LOCATIONS WILL BE FLAGGED OR STAKED IN THE FIELD BY THE COUNTY ENGINEER.
- EACH SEEDING PLOT MUST BE A MINIMUM OF 3' IN DIAMETER.
- ALL EXOTIC VEGETATION WITHIN SEEDING PLOT MUST BE MANUALLY REMOVED WITH A McLOUD OR EQUAL POWER TILLER.
- THE SEED MIX PROVIDED IN THE COASTAL SCRUB PLOTS SEED TABLE MUST BE APPLIED AT THE RATE INDICATED IN THE TABLE TO THE SEEDING PLOTS. SEE SPECIAL PROVISIONS. AFTER SEEDING APPLY 1" DEEP CONIFEROUS BARK MULCH TO THE SEEDING PLOT.



3 5-STRAND BARB WIRE FENCE AND GATE
N.T.S.

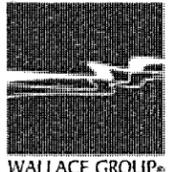


4 FENCE CORNER AND END TREATMENT
N.T.S.



FENCE SCHEDULE

LOCATION	BW, 5-STRAND	BW, 4-STRAND (MOD)	GATE 14'	GATE 10'	BW, REMOVED
ACRE 1-4	1,368'		2		
ACRE 4-8	1,269'	274'	1		675'
ACRE 9-13	1,679'		1		
ACRE 14-15	654'		1	1	
ACRE 15-16	925'		1		
ACRE 17-18	1,418'		1		
ACRE 19-23	1,418'		2		



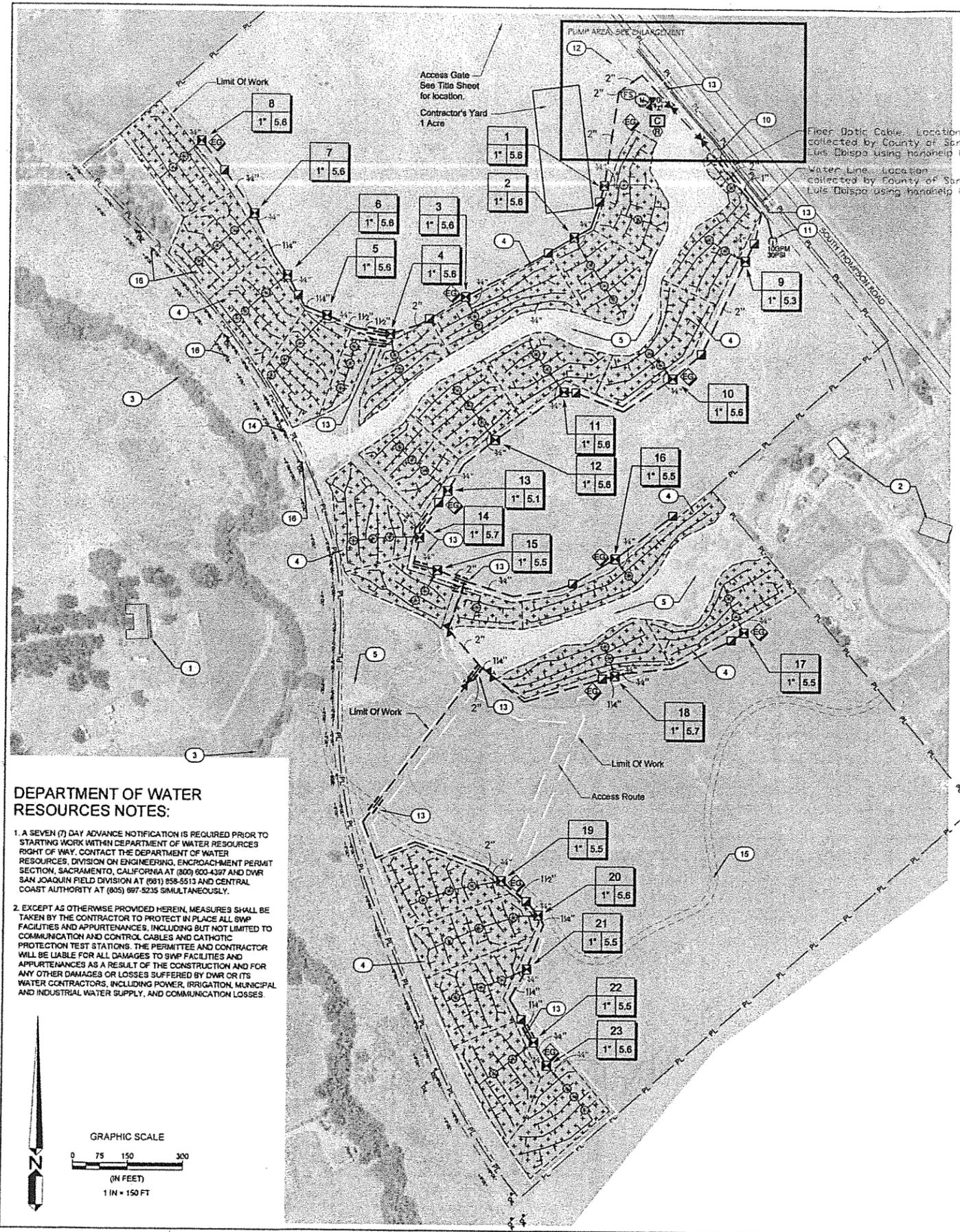
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SWCA
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 Signature: [Signature]
 Date: 8/15/2012

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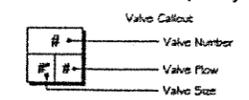
Willow Road Off-Site Oak Mitigation
 Oak Planting Plan
 South Thompson Road, Dana Adobe Property

JOB #: 750-03
 DESIGNER: EAS
 DRAWN BY: EAS
 DATE: 8/15/2012
 DRAWING NO.
 L-1
 3 OF 9 SHEETS



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
[Symbol]	Rain Bird XIC-100-PRS-COM, or approved equal Drip Control Kit, 1" PEBS valve, 1" Basket Filter, KD-100 1 Station Decoder for ACC, and 40psi Pressure Regulator, 1" Ball Valve.	23
[Symbol]	Area to Receive Drip Emitters Rain Bird Ken-Bug XB, or approved equal Single outlet pressure compensating drip emitter, barbed inlet, Red=2.0gph. Emitter Notes: Acorn plant to receive 1 20PC emitter.	305,999 a.i.
[Symbol]	Rain Bird 44LRC, or approved equal 1" Quick Coupler Valve, two piece body, locking cover	15
[Symbol]	KB1 WLT-5, or approved equal PVC Schedule 40 Ball Valve, Slip X Slip At creek crossings provide one union on upstream side of pipe for winterizing, see specifications.	6
[Symbol]	Grassland 2160 2", or approved equal Master Valve - Normally open	1
[Symbol]	KB1 KC, or approved equal PVC spring check valve, same size as pipe, KC-0750 for 3/4", KC-1000 for 1", KC-1250 for 1-1/4", KC-1500 for 1-1/2", KC-2000 for 2".	61
[Symbol]	Hunter ACC-99B-C or approved equal 2-Wire Decoder Controller with 99 station capacity, metal cabinet, Wall Mount	1
[Symbol]	Hunter MINI-CLK or approved equal Rain Sensor, mount on electrical backboard	1
[Symbol]	Hunter FLOW-CLK-200, or approved equal Flow Sensor SOV with Interface Panel, 2" Schedule 40 Sensor Body, 24 VAC, 2 amp, metal Interface Panel as required.	1
[Symbol]	Cattle Trough - 6" diameter galv steel, see specifications relocate existing cattle trough	1
[Symbol]	Earth Grounding Location Connect to valve decoder	10
[Symbol]	Irrigation Lateral Line: UVR PVC Schedule 40 Only lateral transition pipe sizes 1" and above are indicated on the plan, with all others being 3/4" in size.	30,750 l.f.
[Symbol]	Irrigation Mainline: UVR PVC Schedule 40	5,054 l.f.
[Symbol]	Pipe Sleeve: PVC Schedule 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeve material. Extend sleeves 30 inches beyond edges of travelled way.	371 l.f.

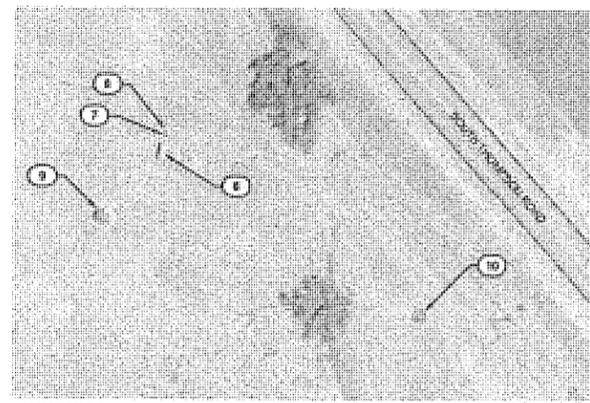


IRRIGATION NOTES:

- THE SYSTEM DESIGN SHOWN IS BASED UPON A MINIMUM PRESSURE OF 70 PSI AT A MAXIMUM DISCHARGE OF 30 GPM. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION WORK AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE. THIS PROJECT'S POINT OF CONNECTION IS THE NEW 2" PVC PIPE AT THE NEW IRRIGATION PUMP. SEE CIVIL PLANS - SHEET C-2.
- ALL WORK SHALL CONFORM TO LOCAL AND STATE CODES AND ORDINANCES AND THE PLANS, DETAILS AND NOTES FOR THIS PROJECT. READ THOROUGHLY AND BECOME FAMILIAR WITH THE INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, INCLUDING, BUT NOT LIMITED TO, UNDERGROUND UTILITIES AND STRUCTURES. THE WORK INCLUDES THE RESPONSIBILITY FOR THE INSTALLATION OF IRRIGATION SLEEVING.
- LAYOUT SHOWN IS DIAGRAMMATIC. IRRIGATION PIPING AND COMPONENTS MAY BE SHOWN OUTSIDE ACOORN PLANTING AREAS FOR CLARITY. INSTALL IRRIGATION PIPING AND WIRING ON GRADE IN PLANTING AREAS AND ON NON-CATTLE SIDE OF NEW FENCE WHENEVER POSSIBLE. ALL IRRIGATION PIPES AND IRRIGATION WIRE SLEEVES WITHIN THE CATTLE GRAZING AREAS SHALL BE BURIED 18" DEEP. INSTALL IRRIGATION VALVES ON THE UP HILL SIDE OF THE PLANTING AREA. INSTALL CONTROLLER IN LOCATION NOTED PER DETAIL 3. SHEET L-3. CATTLE TROUGH IS TO BE LOCATED WITHIN THE CATTLE GRAZING AREA. THE WATER PIPE SUPPLYING WATER TO THE TROUGH SHALL BE BURIED 18" DEEP.
- THE WATER LINE FOR THE RELOCATED TROUGH SHALL BE EXTENDED FROM THE EXISTING LOCATION TO THE NEW LOCATION, APPROXIMATELY 250 FEET. SEE CIVIL SHEET C-2 FOR TIE IN DETAIL.
- CONTRACTOR TO PROVIDE IN-LINE SPRING VALVES AS SHOWN AND WHEREVER A MINIMUM OF EVERY 10 FEET OF ELEVATION DROP OCCURS FROM THE VALVE.
- DO NOT PROCEED WITH THE INSTALLATION OF THE SYSTEM WHEN IT IS EVIDENT THAT FIELD CONDITIONS OR DIFFERENCES EXIST THAT COULD NOT HAVE BEEN CONSIDERED IN ENGINEERING OR IF DISCREPANCIES IN CONSTRUCTION DRAWINGS, DETAILS, AND NOTES ARE DISCOVERED. BRING ALL SUCH DIFFERING FIELD CONDITIONS AND DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- SEE IRRIGATION SCHEDULE FOR PIPING MATERIAL. SEE DRAWING AND SCHEDULE FOR PIPE SIZES. SIZE CALLOUTS ON DRAWINGS INDICATE NOMINAL PIPE SIZE. UNLABELED SECTIONS ARE THE NOMINAL SIZE OF THE PRECEDING CALLOUT. SUBSEQUENT CALLOUTS INDICATE CHANGE IN PIPE SIZE.
- UNLESS OTHERWISE NOTED, TRENCHING DEPTHS FOR SLEEVES SHALL BE 30". DEPTH SHALL BE MEASURED FROM THE TOP OF PIPE TO FINISHED SOIL LEVEL. SLEEVES SHALL EXTEND 30" BEYOND EDGE OF TRAVELED WAY AND SHALL HAVE ENDS CLEARLY MARKED ABOVE GRADE DURING CONSTRUCTION. BACKFILL WITH CLEAN MATERIAL FROM EXCAVATION. REMOVE ROCKS AND DEBRIS LARGER THAN 1" DIAMETER. SLEEVES SHALL BE TWICE THE PIPE DIAMETER OR 3" MINIMUM. 3/4" MINIMUM FOR WIRING. ALL TRENCHING SHALL BE MINIMIZED. IT IS THE INTENT OF THESE DRAWINGS TO PLACE ALL PIPE ON GRADE EXCEPT WHERE TRENCHING IS REQUIRED TO PROTECT THE PIPE FROM VEHICULAR TRAFFIC, CATTLE, OR AT VALVE AND GROUNDING LOCATIONS.
- PRIOR TO BACKFILLING, FLUSH AND TEST MAINS AND LATERALS. FLUSH MAINS BEFORE INSTALLING VALVES. FLUSH LATERALS BEFORE INSTALLING EMITTERS. SELECT MAINS TO HYDROSTATIC PRESSURE OF 1.5 TIMES THE ANTICIPATED OPERATING PRESSURE (MIN. 105 PSI) FOR TWO HOURS.
- THE FINAL LOCATION OF THE IRRIGATION CONTROLLER SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. IT SHALL BE LOCATED ON THE NEW PUMP PANEL TO ACCESS POWER. THE CONTROLLER SHALL BE IN A WEATHERPROOF ENCLOSURE.
- ALL ON-GRADE LOW VOLTAGE CONTROLLER WIRES SHALL BE PLACED IN UV STABILIZED CLASS 200 PVC PIPES TO PROTECT THEM FROM RODENTS. LOCATE WIRE SLEEVES ADJACENT TO THE IRRIGATION MAINLINE.
- THE TWO WIRE SYSTEM REQUIRES EARTH GROUNDING. CONTRACTOR SHALL GROUND THE FINAL DECODER IN EVERY YEAR'S RUN, SEE DETAIL 9, SHEET L-3 FOR GROUNDING INSTRUCTIONS. ADDITIONALLY EVERY 12TH DECODER, OR 1000 FT OF WIRE RUN SHALL HAVE A GROUNDING ROD. SEE PLANS FOR GROUNDING LOCATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE AND UNIFORM IRRIGATION OF ALL PLANTED ACOORN. ADJUST REMOTE CONTROL VALVE PRESSURE REGULATOR AND FLOW CONTROL TO BALANCE EACH LATERAL SYSTEM AND TO ENSURE PROPER VALVE CLOSURE TIME.
- A COMPLETED IRRIGATION SYSTEM MUST BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
- THE IRRIGATION SYSTEM SHALL BE MAINTAINED IN PROPER OPERATING CONDITION FOR THREE YEARS PER THE SPECIAL PROVISIONS.

LEGEND

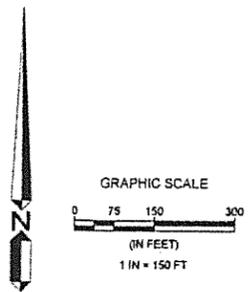
1	EXISTING DANA ADOBE
2	EXISTING PRIVATE RESIDENCE
3	EXISTING INPOMO CREEK
4	OAK MITIGATION AREAS
5	RIPARIAN RESTORATION BY LAND CONSERVANCY-NO CONSTRUCTION DISTURBANCE
6	EXISTING GENERATOR, SALVAGE TO OWNER
7	EXISTING WELL PUMP - SEE SHEET C-2
8	EXISTING WELL - PROTECT IN PLACE
9	EXISTING WATER TANK - PROTECT IN PLACE
10	EXISTING CATTLE TROUGH - TO BE RELOCATED
11	RELOCATE EXISTING CATTLE TROUGH, INSTALL ON LEVEL GRADED PAD AND EXTEND 1" WATER LINE FROM CURRENT LOCATION TO NEW LOCATION
12	NOT USED
13	GATE & PIPE SLEEVE IN BARS WIRE FENCE, SEE SHEET L-1
14	EXISTING GATE - MAINTAIN ACCESS TO GATE
15	PROPOSED FUTURE DANA ADOBE ROAD LOCATION - N.I.C.
16	EXISTING GAS COMPANY EQUIPMENT - PROTECT IN PLACE



EXISTING PUMP AREA ENLARGEMENT NOT TO SCALE

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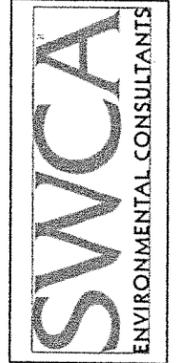


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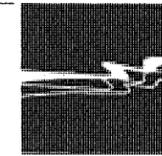
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8/15/2012
DATE SIGNED

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Willow Road Off-Site Oak Mitigation
Irrigation Plan
South Thompson Road, Dana Adobe Property

JOB #: 750-03
DESIGNER: SAS
DRAWN BY: SAS
DATE: 3/13/2012
DRAWING NO.
L-2
4 OF 9 SHEETS



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CONSTRUCTION MANAGEMENT
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SWCA
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Willow Road Off-Site Oak Mitigation
 Irrigation Details
 South Thompson Road, Dana Adobe Property

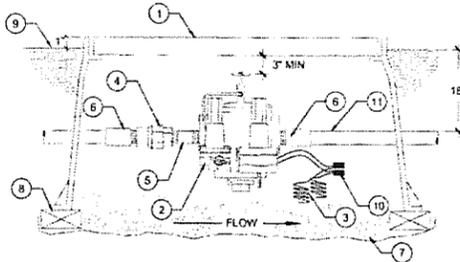
JOB # 750-73
 DESIGNER EAS
 DRAWN BY EAS
 DATE 8/12/2012
 DRAWING NO.

L-3
 5 OF 9 SHEETS

- CARSON MODEL 1324-15 VALVE BOX WITH MODEL 1324-3B COVER (OR APPROVED EQUAL) ADD BOX EXTENSION AS REQUIRED
- GRISWOLD MASTER CONTROL VALVE (OR APPROVED EQUAL) (NORMALLY OPEN)
- 1 1/2" WIRE, COILED
- SCH 80 PVC UNION
- SCH 80 PVC NIPPLE
- PVC THREADED MALE ADAPTER
- 6" DEPTH OF CLEAN 3/4" GRAVEL WITH GOPHER WIRE BELOW, WRAP EDGES
- BRICK (1 OF 4)
- FINISH GRADE
- WATERPROOF CONNECTION (1 OF 2)
- PVC MAIN LINE, UV STABILIZED

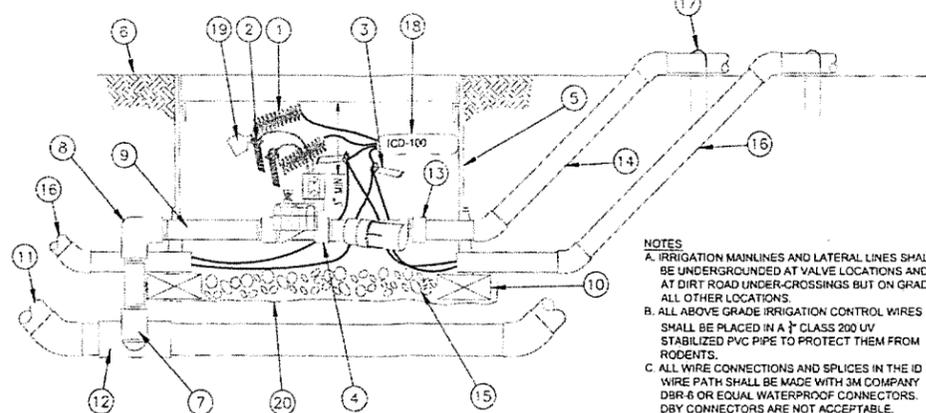
NOTES

- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
- BRING PIPES TO FINISH GRADE AS SHOWN IN DETAIL 2, THIS SHEET

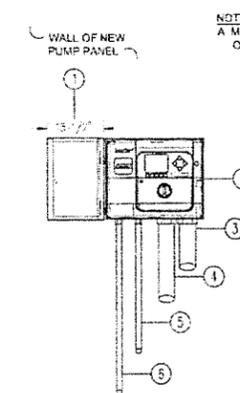


LEGEND

- 30' LINEAR LENGTH OF WIRE, COILED
- DBY-6 CONNECTOR (1 OF 2), OR APPROVED EQUAL
- DBY-6 CONNECTOR (1 OF 2), OR APPROVED EQUAL
- CONTROL ZONE KIT: RAINBIRD XZZ-100-PRF, OR APPROVED EQUAL
- CARSON MODEL 1324-15 VALVE BOX WITH MODEL 1324-3B COVER, OR APPROVED EQUAL
- FINISH GRADE
- SCH 80 NIPPLE (2" LENGTH, HIDDEN) AND SCH 40 ELL
- PVC SCH 80 NIPPLE, LENGTH AS REQUIRED (1 OF 2)
- BRICK (1 OF 4)
- PVC MAINLINE PIPE - UV STABILIZED
- PVC SCH 40 TEE OR ELL
- PVC SCH 40 FEMALE ADAPTER
- PVC LATERAL PIPE - UV STABILIZED
- 4" MINIMUM DEPTH OF CLEAN 3/4" GRAVEL
- PVC CLASS 200 1/2" WIRE SLEEVE - UV STABILIZED
- PVC PIPE STAKE, TYP. STAKE PIPES 10' O.C.
- HUNTER ICD-100, OR APPROVED EQUAL
- ID TAG
- GOPHER WIRE AT BASE OF GRAVEL, WRAP EDGES



- NOTES
- IRRIGATION MAINLINES AND LATERAL LINES SHALL BE UNDERGROUND AT VALVE LOCATIONS AND AT DIRT ROAD UNDER-CROSSINGS BUT ON GRADE ALL OTHER LOCATIONS
 - ALL ABOVE GRADE IRRIGATION CONTROL WIRES SHALL BE PLACED IN A 1/2" CLASS 200 UV STABILIZED PVC PIPE TO PROTECT THEM FROM RODENTS
 - ALL WIRE CONNECTIONS AND SPLICES IN THE ID WIRE PATH SHALL BE MADE WITH 3M COMPANY DBY-6 OR EQUAL WATERPROOF CONNECTORS. DBY CONNECTORS ARE NOT ACCEPTABLE.



NOTES

A. MOUNT CONTROLLER ON EXTERIOR WALL OF NEW PUMP PANEL.

LEGEND

- MINIMUM CLEARANCE FOR DOOR OPENING
- CONTROLLER - HUNTER ACC-590
- ADDITIONAL WIRE CONDUIT, UP TO 2" SIZE
- DECODER WIRE CONDUIT, UP TO 2-1/2" SIZE
- SUPPLEMENTAL GROUND WIRE INSTALL PER ASIC GUIDELINES
- 3/4" POWER SUPPLY CONDUIT J BOX INSIDE CONTROLLER CONNECT PER LOCAL CODE

1 MASTER CONTROL VALVE

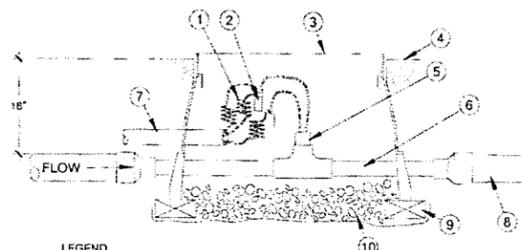
N.T.S.

2 REMOTE CONTROL VALVE

N.T.S.

3 AUTOMATIC CONTROLLER

N.T.S.



LEGEND

- 18-INCH WIRE, COILED
- WATER PROOF CONNECTION (1 OF 2)
- VALVE BOX WITH COVER, 12" SIZE W/ BOLT DOWN COVER, LABEL TOP
- FINISH GRADE
- FLOW SENSOR
- PVC MAIN LINE
- PVC CONDUIT FOR CONTROLLER WIRES
- PVC MAIN LINE, UV STABILIZED
- BRICK (1 OF 4)
- 4 INCH 3/4 WASHED GRAVEL WITH GOPHER WIRE BELOW, WRAP EDGES

NOTES

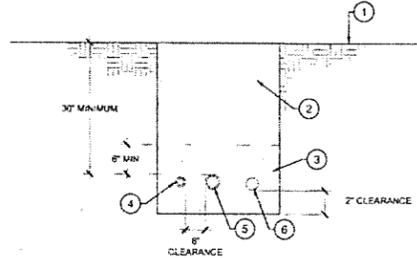
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
- BRING PIPES TO FINISH GRADE AS SHOWN IN DETAIL 2, THIS SHEET
- SET BOX 1" ABOVE FINISH GRADE

LEGEND

- EARTHEN ACCESS ROAD
- NATIVE SOIL BACKFILL
- CLEAN SAND
- UV STABILIZED LATERAL LINE (NON-PRESSURE) W/SLEEVE
- UV STABILIZED MAIN LINE (PRESSURE) W/SLEEVE
- LOW VOLTAGE CONTROL WIRES, UV STABILIZED SLEEVE, SIZE AS REQUIRED

NOTES

- PVC IRRIGATION SLEEVES TO BE SCH 40
- JOINTS TO BE SOLVENT WELDED AND WATERTIGHT
- SLEEVES TO BE SIZED TWICE DIAMETER OF PIPE
- SLEEVES TO EXTEND MIN. 30" BEYOND TRAVELED WAY
- BRING PIPES TO FINISH GRADE AS SHOWN IN DETAIL 2, THIS SHEET
- SLEEVES NEED NOT BE UV STABILIZED

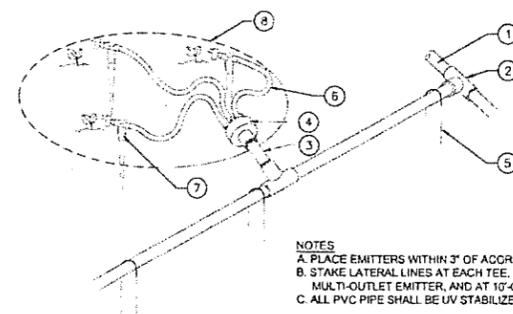


LEGEND

- 3/4" SCH 40 PVC LATERAL LINE, TYP.
- SCH 80 PVC TEE FITTING, TYP.
- SCH 80 PVC THREADED NIPPLE, LENGTH AS NEEDED
- MULTI-OUTLET EMITTER
- PVC PIPE STAKE, TYP.
- DISTRIBUTION TUBING, 48" MAX. LENGTH
- TUBE STAKE WITH EMITTER OR CAP
- THREE ACORN GROUP

NOTES

- PLACE EMITTERS WITHIN 3" OF ACORN
- STAKE LATERAL LINES AT EACH TEE, ELL, MULTI-OUTLET EMITTER, AND AT 10'-0" MAX O.C.
- ALL PVC PIPE SHALL BE UV STABILIZED



4 FLOW SENSOR

N.T.S.

5 PIPE SLEEVING

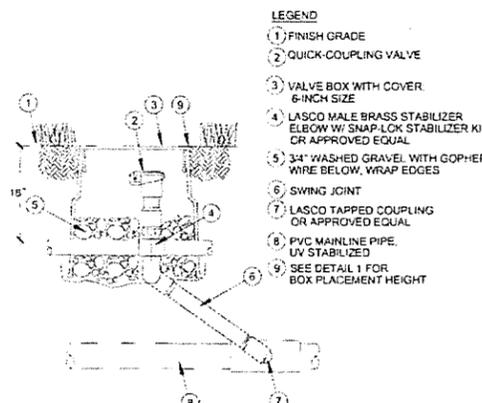
N.T.S.

6 DRIP EMITTER LAYOUT

N.T.S.

7 SPRING CHECK VALVE

N.T.S.

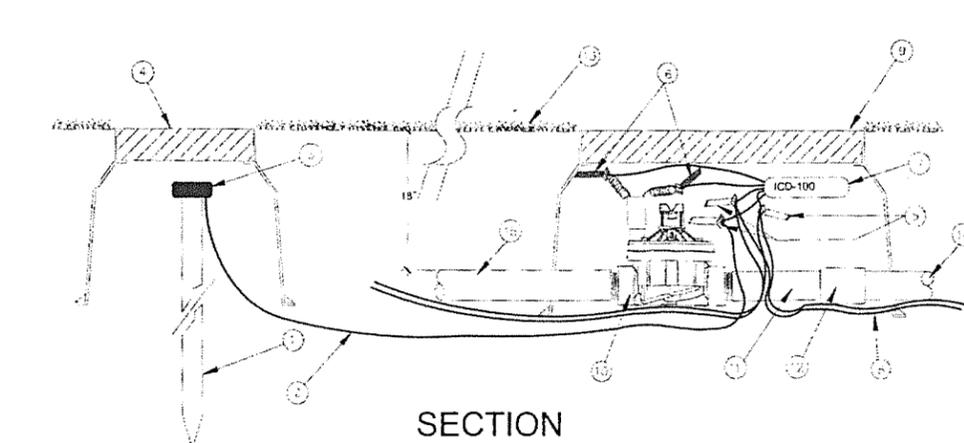


LEGEND

- FINISH GRADE
- QUICK-COUPLING VALVE
- VALVE BOX WITH COVER 6-INCH SIZE
- LASCO MALE BRASS STABILIZER ELBOW W/ SNAP-LOK STABILIZER KIT OR APPROVED EQUAL
- 3/4" WASHED GRAVEL WITH GOPHER WIRE BELOW, WRAP EDGES
- SWING JOINT
- LASCO TAPPED COUPLING OR APPROVED EQUAL
- PVC MAINLINE PIPE, UV STABILIZED
- SEE DETAIL 1 FOR BOX PLACEMENT HEIGHT

NOTE

A. BRING PIPES TO FINISH GRADE AS SHOWN IN DETAIL 2, THIS SHEET.



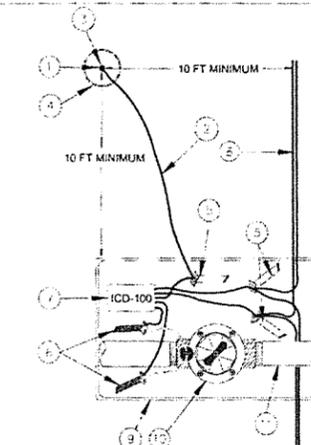
SECTION

LEGEND

- 8' X 5/8" UL COPPER CLAD GROUND ROD
- 10' #6 SOLID COPPER GROUND WIRE - PLACE IN PVC CONDUIT BETWEEN BOXES SIMILAR TO DETAIL 2, THIS SHEET
- CAD WELD CONNECTOR
- 10" ROUND PLASTIC VALVE BOX
- DBY-6 CONNECTOR
- DBY-6 CONNECTOR
- HUNTER ICD-100
- ID WIRE 1, 2 WIRE PATH - PLACE IN PVC CONDUIT BETWEEN BOXES, SEE DETAIL 2, THIS SHEET
- PLASTIC VALVE BOX WITH COVER
- IDV, SIZE PER PLAN
- SCH 80 PVC NIPPLE
- SCH 40 PVC COUPLING
- FINISH GRADE
- UV STABILIZED MAIN LINE
- UV STABILIZED LATERAL LINE

NOTES

- ALL T-SPLICES IN THE WIRE PATH SHALL BE MADE IN VALVE BOXES WITH DBY-6 OR EQUAL CONNECTORS
- LEAVE 5 FEET SLACK IN ALL WIRE SPLICES FOR SERVICE OR INSPECTION
- BRING PIPES TO FINISH GRADE AS SHOWN IN DETAIL 2, THIS SHEET



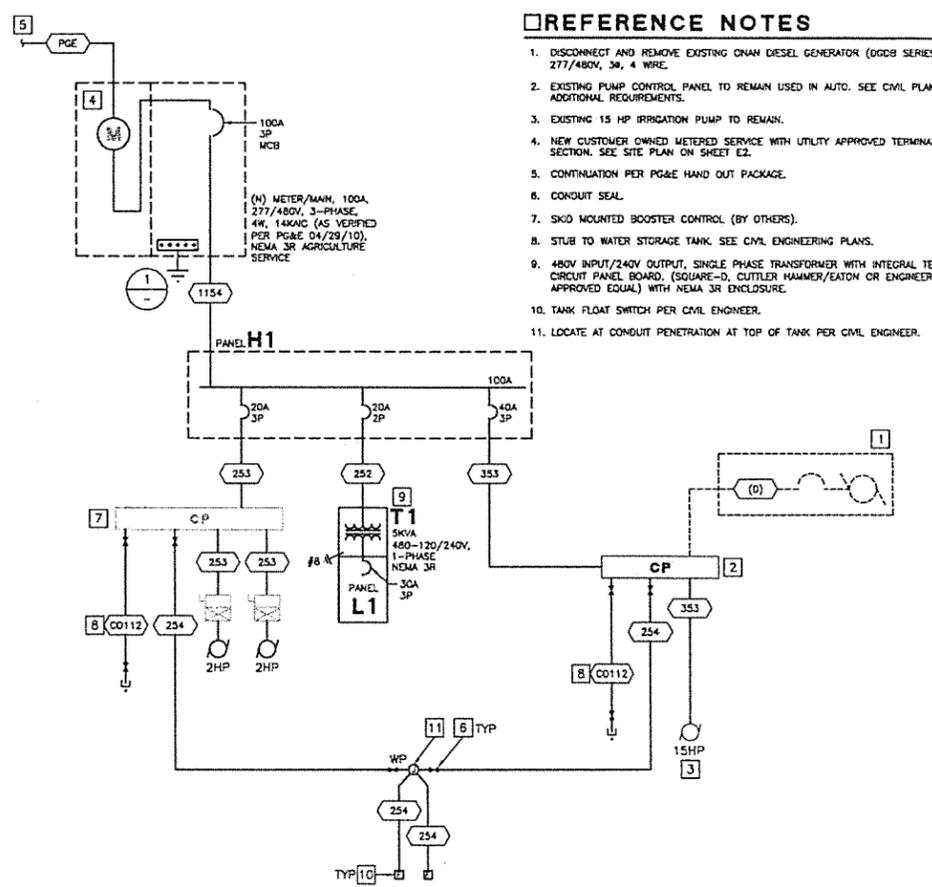
PLAN VIEW

8 QUICK COUPLING VALVE

N.T.S.

9 DECODER WIRE GROUNDING

N.T.S.



REFERENCE NOTES

- DISCONNECT AND REMOVE EXISTING CHAN DIESEL GENERATOR (GGDB SERIES), 277/480V, 3Ø, 4 WIRE.
- EXISTING PUMP CONTROL PANEL TO REMAIN USED IN AUTO. SEE CIVIL PLANS FOR ADDITIONAL REQUIREMENTS.
- EXISTING 15 HP IRRIGATION PUMP TO REMAIN.
- NEW CUSTOMER OWNED METERED SERVICE WITH UTILITY APPROVED TERMINAL SECTION. SEE SITE PLAN ON SHEET E2.
- CONTINUATION PER PG&E HAND OUT PACKAGE.
- CONDUIT SEAL.
- SKID MOUNTED BOOSTER CONTROL (BY OTHERS).
- STUB TO WATER STORAGE TANK. SEE CIVIL ENGINEERING PLANS.
- 480V INPUT/240V OUTPUT, SINGLE PHASE TRANSFORMER WITH INTEGRAL TEN CIRCUIT PANEL BOARD, (SQUARE-D, CUTLER HAMMER/EATON OR ENGINEER APPROVED EQUAL) WITH NEMA 3R ENCLOSURE.
- TANK FLOAT SWITCH PER CIVIL ENGINEER.
- LOCATE AT CONDUIT PENETRATION AT TOP OF TANK PER CIVIL ENGINEER.

LEGEND

- NOTE: INTERPRET IN CONTEXT
- LIGHT FIXTURES**
 □ WALL SURFACEMOUNT
- POWER/COMM.**
 ○ SINGLE RECEPT.
 ⊕ DUPLEX RECEPT.
 ⊕ DUPLEX - HALF SWITCHED
 ⊕ DOUBLE DUPLEX
 ⊕ SPECIAL CONFIGURATION
 ⊕ DUPLEX - FLOOR OUTLET
 ⊕ JUNCTION BOX
 ▽ TELEPHONE OUTLET
 ▽ DATA OUTLET
 ▽ PHONE/DATA COMBO OUTLET
 ▽ SAFETY DISCONNECT
 ▽ COMBINATION MOTOR DISCONNECT/STARTER
- MISCELLANEOUS**
 □ MOTOR
 ⊕ THERMOSTAT
 ⊕ CIRCUIT BREAKER
 ⊕ FUSIBLE SWITCH
 ⊕ PHASE SWITCH
 ⊕ GROUND
- CONDUIT/WIRE**
 --- NEW
 --- UNDERGROUND
 --- NEW POWER HOMERUN (3 HOTS & NEUT SHOWN)
 --- ISOLATED GROUND
 --- EXISTING TO REMAIN
 --- (E) POWER HOMERUN
 --- CONDUIT STUB (W/MARKER)
 --- VERTICAL CONDUIT RUN
 --- CONDUIT SEAL
 --- FLEXIBLE CONNECTION
 --- LOW VOLTAGE
 --- SURFACEMOUNT RACEWAY
- SWITCHES**
 \$ SPST
 \$ DPST
 \$ 3-WAY
 \$ 4-WAY
 \$ DIMMER
 \$ TIMER SWITCH
 \$ W/THERMAL OVERLOAD
 \$ W/PILOT LIGHT
 \$ KEY OPERATED
 \$ DUAL LEVEL SWITCHING
 (a) SWITCHLEG DESIGNATION
 (b) OCCUPANCY SENSOR

GENERAL NOTES

- CODE COMPLIANCE: ALL WORK SHALL CONFORM TO AND BE PERFORMED IN ACCORDANCE WITH CODES, STANDARDS, AND ORDINANCES AS SET FORTH BY THE AUTHORITIES HAVING JURISDICTION AND THEIR LATEST ADOPTED EDITIONS (IN EFFECT AT TIME OF BUILDING PERMIT APPLICATION) OF THE FOLLOWING PUBLICATIONS:
 - CALIFORNIA CODE OF REGULATIONS TITLE 24; INCLUDES 2005 NATIONAL ELECTRICAL CODE AND 2005 INTERNATIONAL FIRE CODE, INTERNATIONAL BUILDING CODE, ETC. WITH CALIFORNIA AND OTHER LOCAL AMENDMENTS AS APPLICABLE.
 - AMERICANS WITH DISABILITIES ACT (ADA).
- SAFETY: THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORKPERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED FOR SAFETY. THE CONTRACTOR SHALL HOLD ALL PARTIES HARMLESS OF NEGLIGENT SAFETY PRACTICES, WHICH MAY CAUSE INJURY TO OTHERS ON OR NEAR THE JOB SITE.
- MOUNTING HEIGHTS IN INCHES ABOVE FINISH FLOOR SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
 - +18" AFF TO BOTTOM OF OUTLET BOX; RECEPTACLES,
 - +48" AFF TO TOP OF OUTLET BOX; LIGHT SWITCHES.
 BEFORE ROUGH-IN, VERIFY ALL MOUNTING HEIGHTS AND EXACT LOCATIONS FOR ALL EQUIPMENT ELECTRICAL CONNECTIONS.
- LABEL PANELS, CABINETS, BACKBOARDS, MAIN DEVICES, SAFETY SWITCHES, CONTACTORS AND OTHER SPECIFICALLY DESIGNATED EQUIPMENT SHOWN ON PLANS. USE ENGRAVED LAMINATED PLASTIC NAMEPLATES ATTACHED BY SCREWS OR RIVETS. FOR FEEDERS, NEATLY AND INDELIBLY LABEL CONDUIT DESTINATIONS ON BOTH VISIBLE ENDS OF CONDUIT RUNS WHERE CONDUITS TERMINATE AT DESIGNATED ENCLOSURES, STRUCTURES OR EQUIPMENT (INCLUDING PULL AND SPLICE BOXES).

SINGLE LINE DIAGRAM NOTES

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT AND COORDINATE WITH THE SERVING UTILITY TO ENSURE ALL SERVING UTILITY REQUIREMENTS ARE MET.
- SERVICE ENTRANCE EQUIPMENT SHALL BE IN ACCORDANCE WITH THE SERVING ELECTRIC UTILITY COMPANY'S REQUIREMENTS.
- ALL CONDUCTORS SHALL BE COPPER WITH TYPE [THHN/THWN] INSULATION UNLESS OTHERWISE NOTED.
- ALL SWITCHES, CIRCUIT BREAKERS AND OTHER EQUIPMENT, AS SPECIFIED, SHALL HAVE TERMINATION PROVISIONS LISTED AND IDENTIFIED FOR USE WITH 75 DEG. CONDUCTORS, AND ALL FEEDER CONDUCTORS, AND CONDUITS, ARE SIZE BASED ON USE OF 75 DEG. COPPER WIRES TYPE THWN/THHN.
- ALL EQUIPMENT SHALL HAVE AN APPROVED TESTING LABORATORY LABEL ATTACHED [UL, CSA, ETC.] (CEC 110-2).

SINGLE LINE DIAGRAM

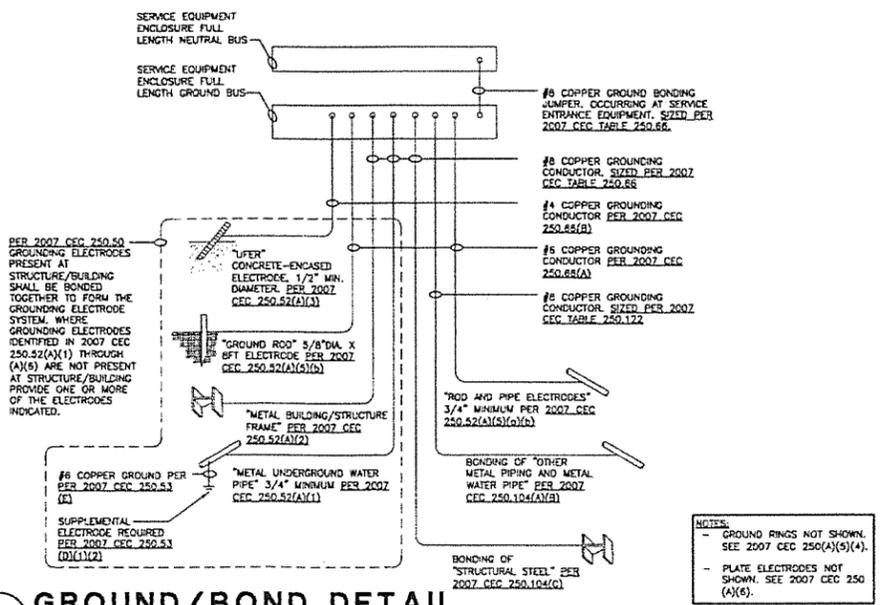
COPPER FEEDER SCHEDULE		
FEEDER NO.	RACEWAY QUANTITY/SIZE	CONDUCTORS
(0)	DEMOLISH	FIELD LOCATE, DISCONNECT, AND REMOVE.
(1)	EXISTING	EXISTING TO REMAIN.
(CO112)	(1) 1-1/2"	CONDUIT ONLY WITH PULL ROPE.
(PGE)	N/A	PGE OVERHEAD SECONDARY CONDUCTORS PER UTILITY COMPANY HANDOUT PACKAGE.
(252)	(1) 3/4"	(2) #12 THWN & (1) #12 GND.
(253)	(1) 3/4"	(2) #12 THWN & (1) #12 GND.
(254)	(1) 1-1/4"	(4) #12 THWN & (1) #12 GND.
(353)	(1) 3/4"	(2) #10 THWN & (1) #12 GND.
(1154)	(1) 1-1/2"	(4) #2 THWN & (1) #6 GND.

WARNING
 POTENTIAL ARC FLASH HAZARD
 Appropriate PPE and Tools Required
 when working on this equipment
 *PPE REFERS TO "PERSONAL PROTECTIVE EQUIPMENT".

NOTE:
 IN ACCORDANCE WITH CEC 110.16, PROVIDE ARC FLASH PROTECTION WARNING LABELS ON EACH SWITCHBOARD, PANELBOARD, AND TRANSFORMER. LABELS SHALL BE PER ANSI Z535.4 GUIDELINES.

2 ARC FLASH SIGNAGE

1 GROUND/BOND DETAIL



NOTES:
 - GROUND RINGS NOT SHOWN. SEE 2007 CEC 250(A)(5)(4).
 - PLATE ELECTRODES NOT SHOWN. SEE 2007 CEC 250(A)(4).

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REGISTERED PROFESSIONAL ENGINEER
 IN ALL I AM & TRADES
 ELECTRICAL
 STATE OF CALIFORNIA
 EXPIRES: 06/30/13
 THOMA #10-8105

Oak Woodland Habitat Creation
 for the
 Willow Road Extension and HWY 101 Interchange
 Project

JOB # 10-8105
 DESIGNER: HG
 DRAWN BY: DM
 DATE: 06-18-12
 DRAWING NO.
 E1
 6 OF 9

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DEPARTMENT OF WATER RESOURCES NOTES:

- A SEVEN (7) DAY ADVANCE NOTIFICATION IS REQUIRED PRIOR TO STARTING WORK WITHIN DEPARTMENT OF WATER RESOURCES RIGHT OF WAY. CONTACT THE DEPARTMENT OF WATER RESOURCES, DIVISION ON ENGINEERING, ENCROACHMENT PERMIT SECTION, SACRAMENTO, CALIFORNIA AT (800) 600-4397 AND DWR SAN JOAQUIN FIELD DIVISION AT (561) 858-5513 AND CENTRAL COAST AUTHORITY AT (805) 697-5235 SIMULTANEOUSLY.
- EXCEPT AS OTHERWISE PROVIDED HEREIN, MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT IN PLACE ALL SWP FACILITIES AND APPURTENANCES, INCLUDING BUT NOT LIMITED TO COMMUNICATION AND CONTROL CABLES AND CATHODIC PROTECTION TEST STATIONS. THE PERMITEE AND CONTRACTOR WILL BE LIABLE FOR ALL DAMAGES TO SWP FACILITIES AND APPURTENANCES AS A RESULT OF THE CONSTRUCTION AND FOR ANY OTHER DAMAGES OR LOSSES SUFFERED BY DWR OR ITS WATER CONTRACTORS, INCLUDING POWER, IRRIGATION, MUNICIPAL AND INDUSTRIAL WATER SUPPLY, AND COMMUNICATION LOSSES.

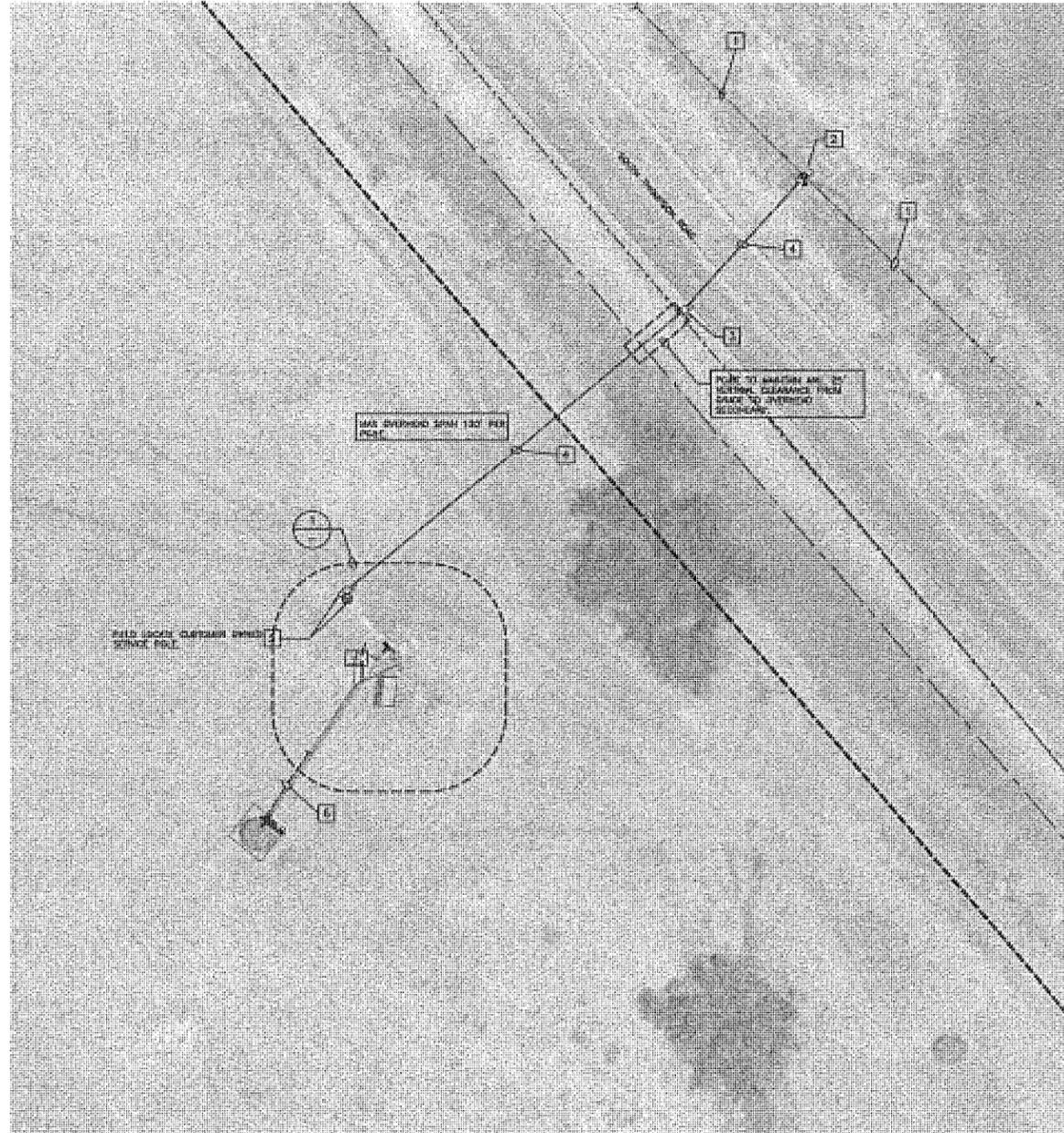
GENERAL SITE PLAN NOTES

- UTILITY COMPANY CONTACTS: BEFORE CONSTRUCTION, COORDINATE & VERIFY ALL UTILITY COMPANY REQUIREMENTS:
PG&E: MIKE ORBAN MLO7@PGE.COM
- TRENCHING AND BACKFILLING FOR ALL CONDUIT SYSTEMS SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL CONDUITS SHALL HAVE MINIMUM COVER REQUIREMENTS AS SPECIFIED IN CEC 300-5. MORE STRINGENT DEPTH REQUIREMENTS MAY BE IMPOSED BY UTILITY COMPANY AND / OR THIS SPECIFICATION. JOINT TRENCHING MAY BE UTILIZED WHERE PRACTICABLE AND WERE PERMITTED BY THIS SPECIFICATION.
- LOCATIONS OF EXISTING UNDERGROUND (UG) UTILITY SYSTEMS SHALL BE DETERMINED BY CALLING UNDERGROUND SERVICE ALERT (USA), WHEN PLANNING UNDERGROUND WORK, AND BEFORE YOU DIG, CONTACT UNDERGROUND SERVICE ALERT (USA) AT LEAST 48 HOURS PRIOR TO EXCAVATION (WEEKENDS EXCLUDED) FOR THE LOCATION OF UNDERGROUND GAS AND ELECTRIC LINES OR EQUIPMENT.
- MAINTAIN REQUIRED CLEARANCES FROM ALL SANITARY SEWER, WATER AND STORM DRAIN PIPING. REFER TO CIVIL PLANS FOR EXACT LOCATIONS AND DEPTHS OF PIPING.
- ALL SITE UTILITY WORK SHALL BE INSTALLED PER THE UTILITY COMPANY ISSUED CONSTRUCTION DRAWINGS AND SPECIFICATIONS SPECIFIC TO THIS PROJECT. ANY UTILITY WORK PERFORMED WITHOUT PRIOR UTILITY COMPANY APPROVAL SHALL BE DONE AT THE CONTRACTOR'S RISK.
- THOMA HAS CONTACTED THE ABOVE UTILITY IN AN EFFORT TO REFLECT THE UTILITY WORK THAT WILL BE REQUIRED AS PART OF THIS PROJECT. WHERE A UTILITY PLAN HAS BEEN MARKED UP AND SENT BACK TO OUR OFFICE WITH A UTILITY REQUIREMENT, IT HAS BEEN REFLECTED ON THE PLANS. IF PLANS WERE NOT RECEIVED BACK FROM A UTILITY, WE HAVE INDICATED OUR BEST ESTIMATION OF THEIR REQUIREMENTS. THE UTILITY WORK SHOWN ON THE CONSTRUCTION DOCUMENT IS:

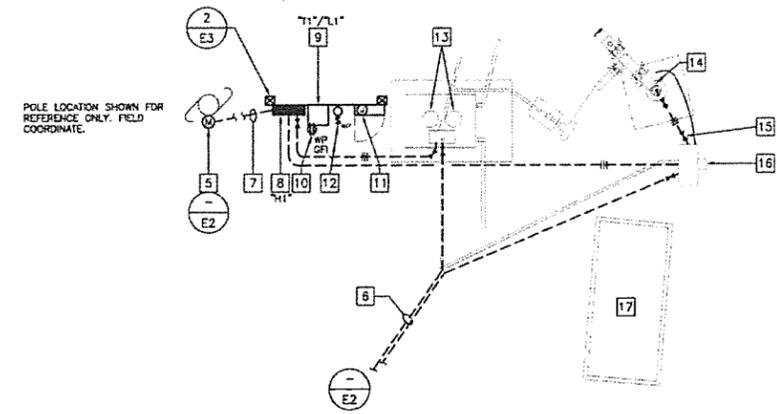
ELECTRIC UTILITY (PG&E)
 AN ESTIMATE ONLY
 BASED ON PLAN RECEIVED ON 05/22/11

REFERENCE NOTES

- EXISTING PG&E OVERHEAD PRIMARY TO REMAIN.
- EXISTING PG&E POWER POLE WITH NEW 277/480V, 3ø POLE MOUNT TRANSFORMER. SEE UTILITY COMPANY HAND OUT PACKAGE.
- MID-SPAN PG&E POLE. SEE UTILITY COMPANY HANDOUT PACKAGE. LOCATE POLE BETWEEN EDGE OF PAVEMENT (SOUTH THOMPSON ROAD) AND EXISTING STATE WATER LINE EASEMENT. REFER TO CIVIL PLANS FOR EASEMENT LOCATION.
- NEW PG&E OVERHEAD SECONDARY. SEE UTILITY COMPANY HANDOUT PACKAGE.
- CUSTOMER OWNED SERVICE POLE AND METER/MAIN. SEE SINGLE LINE DIAGRAM.
- CONDUIT TO WELL TANK FOR CONTROLS. COORDINATE WITH CIVIL PLANS. SEE SINGLE LINE DIAGRAM.
- PANEL "H1" FEEDER FROM METER/MAIN. SEE SINGLE LINE DIAGRAM.
- BRANCH CIRCUIT PANELBOARD (NEMA 3R). SEE PANEL SCHEDULE ON SHEET E3.
- COMBINATION TRANSFORMER AND BRANCH CIRCUIT PANELBOARD. SEE SINGLE LINE DIAGRAM FOR SPECIFICATION. SEE PANEL SCHEDULE ON SHEET E3.
- WP/GFI DUPLEX CONVENIENCE OUTLET. SEE PANEL SCHEDULE FOR BRANCH CIRCUIT CONNECTION.
- PROVIDE 120V, DEDICATED BRANCH CIRCUIT TO SITE IRRIGATION CONTROLLER. COORDINATE CONTROLLER LOCATION WITH CIVIL PLANS. SEE PANEL SCHEDULE FOR BRANCH CIRCUIT CONNECTION.
- UTILITY LIGHT (OUT OFF) AND 20 MINUTE (MAX) TIMER SWITCH (PHOTOCELL ENABLED). SEE PANEL SCHEDULE FOR BRANCH CIRCUIT CONNECTION. SEE DETAIL 2, SHEET E3 FOR FIXTURE SPECIFICATION.
- BOOSTER PUMPS. SEE CIVIL PLANS.
- EXISTING IRRIGATION PUMP. SEE CIVIL PLANS.
- PROVIDE CONDUIT SEAL AT EACH END OF CONDUIT, TYPICAL.
- EXISTING IRRIGATION PUMP CONTROL PANEL. SEE CIVIL PLANS.
- EXISTING GENERATOR. DISCONNECT, REMOVE, AND SALVAGE PER OWNER REQUIREMENTS. SEE SINGLE LINE DIAGRAM AND DIVISION 16 SPECIFICATIONS.



ELECTRICAL SITE PLAN
 SCALE: 1"=20'-0"
 NORTH

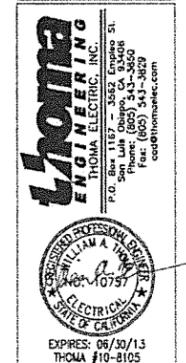


1 ENLARGED PLAN
 SCALE: 1/4"=1'-0"



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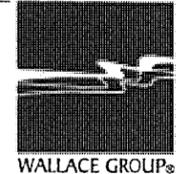
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EXPRES: 06/30/13
 THOMA #10-8105
Oak Woodland Habitat Creation for the Willow Road Extension and HWY 101 Interchange Project

JOB # 10-8105
 DESIGNER: MG
 DRAWN BY: DM
 DATE: 08-10-12
 DRAWING NO. E2
 7 OF 9

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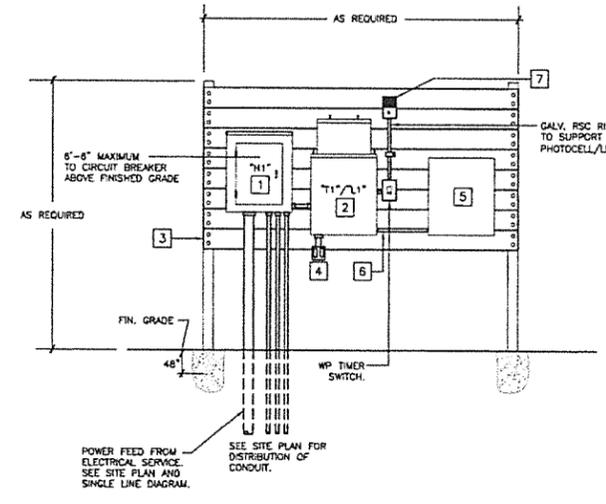
SIGNATURE _____
 DATE SIGNED _____
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Oak Woodland Habitat Creation
 for the
 Willow Road Extension and HWY 101 Interchange
 Project

JCS # 10-5105
 DESIGNER: MG
 DRAWN BY: DM
 DATE: 09-18-12
 DRAWING NO. E3
 8 OF 9



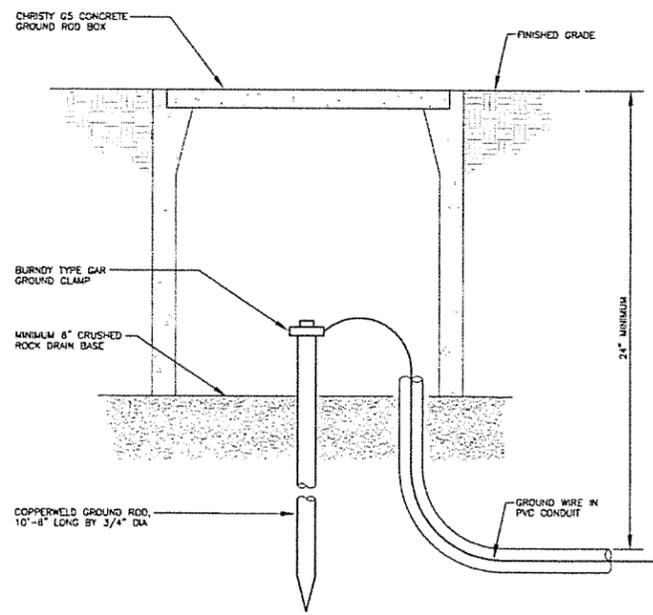
REFERENCE NOTES

1. NEW PANEL "H1" (SEE SCHEDULE).
2. NEW TRANSFORMER/PANEL (SEE SCHEDULE).
3. 2"x12" WEATHER TREATED WOODEN POST. BOLTED TO POST WITH GALV. HARDWARE, COUNTER SINK BOLTS. VERIFY WITH CIVIL.
4. DOUBLE DUPLEX RECEPTACLE. MOUNT IN WEATHERPROOF BOX WITH WEATHERPROOF COVER.
5. IRRIGATION CONTROLLER. SEE CIVIL PLANS. MAINTAIN 15-1" CLEARANCE FOR DOOR OPENING PER MANUFACTURER.
6. BRANCH CIRCUIT POWER FEED TO IRRIGATION CONTROLLER. SEE SCHEDULE.
7. CUTOFF UTILITY LIGHT WITH INTEGRAL PHOTOCELL RUUD #E4226-UL-J-V-P-ESB-7-(g)P. PROVIDE WITH (1) 25W CFL LAMP (25W TOTAL SYSTEM).

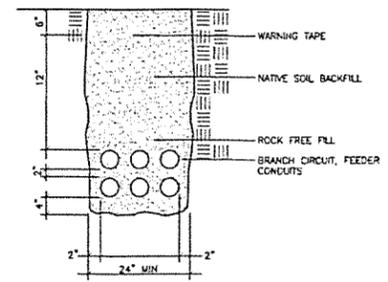
SEE NOTE	30A, 120/240V, 1Ø, 3W	(N) PANEL	SURFACE MOUNT, NEMA 3R	SEE NOTE				
	10 FULL SIZE PLUG IN CB SPACES	L1	LOCATION: EQUIPMENT BACKBOARD					
	1ØK AIC PANEL & BRANCH CB'S		WITH EQUIPT GND BUS					
	3ØA, 2-POLE MCB		SEE NOTE #4					
CKT #	DESCRIPTION	AMP CB / POLE	WIRE SIZE	PHASE	PHASE	AMP CB / POLE	DESCRIPTION	CKT #
1	IRRIGATION CONTROLLER	20	12	A	B		SPACE	2
1.2	3	UTILITY LIGHT	20	1	2		SPACE	4
	5	CONVENIENCE RECEPT.	20	1	2		SPACE	6
	7	SPARE	20	1	2		SPACE	8
	9	SPARE	20	1	2		SPACE	10
CONNECTED LOAD (VA) =				380	28			
25% OF CONTINUOUS LOAD =				0	7			
TOTAL (VA) =				380	35			
TOTAL - 120 VOLT =				3 A	0 A			

SEE NOTE	100A, 277/480V, 3Ø, 4W	(N) PANEL	SURFACE MOUNT, NEMA 3R	SEE NOTE					
	42 FULL SIZE BOLT ON CB SPACES	H1	LOCATION: EQUIPMENT BACKBOARD						
	14K AIC PANEL & BRANCH CB'S		WITH EQUIPT GND BUS						
	MLO		FEED FROM 100A CB AT METER/MAN						
CKT #	DESCRIPTION	AMP CB / POLE	WIRE SIZE	PHASE	PHASE	PHASE	WIRE SIZE	DESCRIPTION	CKT #
3	1	IRRIGATION PUMP	40	-	A	B	20	BOOSTER PUMP(S) CONTROL PANEL	2
3	3								4
3	5								6
3	7	"11"/"1"	20	-	A	B	20	SPACE	8
3	9								10
	11	SPACE							12
	13	SPACE							14
	15	SPACE							16
	17	SPACE							18
	19	SPACE							20
	21	SPACE							22
	23	SPACE							24
	25	SPACE							26
	27	SPACE							28
	29	SPACE							30
	31	SPACE							32
	33	SPACE							34
	35	SPACE							36
	37	SPACE							38
	39	SPACE							40
	41	SPACE							42
CONNECTED LOAD (VA) =				8081	7736	7701			
25% OF CONTINUOUS LOAD =				0	0	0			
TOTAL (VA) =				8081	7736	7701			
TOTAL - 277 VOLT =				28 A	28 A	28 A			

2 FRONT ELEVATION AT EQUIPMENT BACKBOARD
 NTS



3 TYPICAL GROUND ROD IN GROUND WELL
 NTS



1 TYPICAL FEEDER/BRANCH CIRCUIT CONDUIT TRENCH DETAIL
 NTS

PANEL SCHEDULE NOTES

1. LONG CONTINUOUS LOAD (LCL). ADDITIONAL 25% ADDED AT BOTTOM OF PANEL. FEEDER CALCULATED AT 125% OF TOTAL CONNECTED LOAD.
2. BRANCH CIRCUIT IS PHOTOCELL ENABLED.
3. SEE SINGLE LINE DIAGRAM FOR CIRCUIT BREAKER AND CONDUCTOR SIZE.
4. PANEL INTEGRAL TO "T1". SEE SINGLE LINE DIAGRAM.

100% Submittal

