



COUNTY OF SAN JOAQUIN

DEPARTMENT OF PUBLIC WORKS
P.O. BOX 1810-1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
(209) 468-3000
FAX # (209) 468-9324

Permit No: PS-1600352
Date Issued: 02/18/2016
Start Date: 05/02/2016
Exp. Date: 07/01/2016
Project No: PWP730052
Quad: NW

UE/CR/PM NO:PM:31179016

ENCROACHMENT PERMIT

To: PACIFIC GAS & ELECTRIC - SAN RAMON
6121 BOLLINGER CANYON ROAD
SAN RAMON, CA 94583

Encroachment Type:

Bore (up to 12 inch Dia)	Bell Hole	Trench	
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Location:

BOTH SIDES OF LOWER SACRAMENTO RD. 2,835' N/O WOODBRIDGE RD.

In compliance with your request of 02/18/2016, permission is hereby granted to do work in County right-of-way as shown on attached application and subject to all the terms, conditions and restrictions written below or printed as general or special provisions on any part of this form. See reverse side and attached sheet, if any.

Trench excavations for service connections will not be permitted within ten feet (10') of pavement centerline unless otherwise approved by the Director. Surface of trench patches shall match in kind and be smooth and even with that of abutting surface. Special attention shall be given to depth of utilities through roadside area in anticipation of future drainage facilities, road profile and/or frontage development. All underground utility facilities are to be established and accurately dimensioned on sketches from surveyed centerline of road right of way, or from right of way (border) lines.

Permittee shall call the Department of Public Works, Field Engineering Division (Permit Inspections) at (209)953-7421 at least forty-eight hours prior to beginning any work within the County right of way. All work performed under this permit shall conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety and Cal-OSHA.

The jobsite shall be kept in a safe condition at all times by the daily removal of any excess dirt or debris which might be a hazard to either pedestrian or automobile traffic. All necessary traffic convenience and warning devices and personnel shall be provided, placed and maintained by and at the sole expense of the Permittee in accordance with the latest edition of the CALTRANS Manual of Traffic Control.

After completion of the work permitted herein, all debris, lumber, barricades, or any excess material shall be removed and the jobsite left in a neat workmanlike manner. Immediately following completion of construction permitted herein, Permittee shall fill out and mail notice of completion (see attached post card) provided by Grantor.

Special Comments:

Traffic Control Per MUTCD


FORMS:

SS/WW, R-29	SPECIAL	CONDITIONS
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Est. Permit Fee: \$847.40

WHITE -Permittee
GOLDENROD -PWD Central File
YELLOW -Field Inspection
PINK -Permit Section

KRIS BALAJI, Director
Department of Public Works

By: 
Permit Section

ENCROACHMENT PERMIT GENERAL PROVISIONS

13-1

1. This permit is issued under and subject to all laws and ordinances of agencies governing the encroachment herein permitted. See the following references:

STREETS AND HIGHWAYS CODE

1. Division 1, Chapter 3
2. Division 2, Chapter 2, Section 942
3. Division 2, Chapter 4, Section 1126
4. Division 2, Chapter 5.5 and Chapter 6

SAN JOAQUIN COUNTY ORDINANCES NUMBERED: 324, 441, 648, 662, 672, 695, 700, 860, 892, 3359, and 3675.

2. It is understood and agreed by the Permittee that the performance of any work under this permit shall constitute an acceptance of all the provisions contained herein and failure on the Permittee's part to comply with any provision will be cause for revocation of this permit. Except as otherwise provided for public agencies and franchise holders, this permit is revocable on five days notice.
3. All work shall be done subject to the supervision of and the satisfaction of the grantor. The Permittee shall at all times during the progress of the work keep the County Highway in as neat and clean condition as is possible and upon completion of the work authorized herein, shall leave the County Highway in a thoroughly neat, clean and usable condition.
4. The Permittee also agrees by the acceptance of this permit to properly maintain any encroachment structure placed by the Permittee on any part of the County Highway and to immediately repair any damage to any portion of the highway, which occurs as a result of the maintenance of the said encroachment structure, until such time as the Permittee may be relieved of the responsibility for such maintenance by the County of San Joaquin.
5. The Permittee also agrees by the acceptance of this permit to make, at its own expense, such repairs as may be deemed necessary by the County Department of Public Works.
6. It is further agreed by the Permittee that whenever construction, reconstruction or maintenance work upon the highway is necessary, the installation provided for herein shall, upon request of the County Department of Public Works, be immediately moved or removed by and at the sole expense of the Permittee.
7. No material used for fill or backfill in the construction of the encroachment shall be borrowed or taken from within the County right of way.
8. All work shall be planned and carried out with as little inconvenience as possible to the traveling public. No material shall be stacked within eight feet (8') of the edge of the pavement or traveled way unless otherwise provided herein. Adequate provision shall be made for the protection of the traveling public. Traffic control standards shall be utilized including barricades; approved signs and lights; and flagmen, as required by the particular work in progress.
9. The Permittee, by the acceptance of this permit, shall assume full responsibility for all liability for personal injury or damage to property which may arise out of the work herein permitted or which may arise out of the failure of the part of the Permittee to properly perform the work provided under this permit. In the event any claim of such liability is made against the County of San Joaquin or any department, official or employee thereof, the Permittee shall defend, indemnify, and hold each of them harmless for such claim.
10. All backfill material is to be moistened as necessary and thoroughly compacted with mechanical means. If required by the County Director of Public Works, such backfill shall consist of gravel or crushed rock. The Permittee shall maintain the surface over structures placed hereunder as may be necessary to insure the return of the roadway to a completely stable condition and until relieved of such responsibility by the County Department of Public Works. Wherever a gravel, crushed rock or asphalt surface is removed or damaged in the course of work related to the permitted encroachment, such material shall either be separately stored and replaced in the roadway as nearly as possible in its original state or shall be replaced in kind, and the roadway shall be left in at least as good a condition as it was before the commencement of operations of placing the encroachment structure.
11. Whenever it becomes necessary to secure permission from abutting property owners for the proposed work, such authority must be secured by the Permittee prior to starting work.
12. The current and future safety and convenience of the traveling public shall be given every consideration in the location and methods of construction utilized.
13. The Permittee is responsible for the preservation of survey monuments located within the area of work herein permitted. Prior to the start of construction, survey monuments that potentially may be disturbed shall be located and referenced by a Licensed Land Surveyor, and a Corner Record filed with the County Surveyor. Any Survey Monuments disturbed during the course of construction shall be reestablished by a Licensed Land Surveyor and another Corner Record filed with the County Surveyor. (Land Surveyors' Act Section 8771)
14. Prior to any excavation, the Permittee shall notify USA North (Underground Service Alert of Northern California and Nevada) at 811 or 800-227-2600 forty-eight (48) hours in advance.

APPLICATION FOR ENCROACHMENT PERMIT

PLEASE PRINT:

Date 1/21/15

To: San Joaquin County
Department of Public Works

PG + E / Matt Goodwin
(Applicant Name)

6121 Bollinger Canyon Rd Rm 3330
(Mailing Address)

San Ramon, CA 94583
(City, State, Zip Code)

209-471-3698
(Area Code - Telephone Number)

OFFICE USE ONLY

JOB # PWP-730052-16 REF # _____
APN 6-1-2016 CR # _____
EXP. DATE _____
VALID 5-1-2016 TO 6-1-2016 DRIVEWAYS: _____
STREET Lowrey Sacramento * _____
AREA Woodbridge QUAD NW * _____
TYPE Bore, Trench Bellhole * _____
FORMS SSWA, R29, Trench cut Policy * _____
NOTES _____

Sketch (Detailed plans may be submitted)

See Attached

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the West side of N. Lower Sacramento Rd approximately 2835 feet/mile North of Woodbridge Rd, by performing the following work (description of work):

Install new Deep well Anode.

Work will commence on or about March 2016 for approximately 3 weeks days.

I, the undersigned, certify that I am the owner of the respective property, or am qualified to represent the owner and agree to do the work described above in accordance with the rules and regulations of San Joaquin County and subject to inspection and approval.

Matt Goodwin
Signature of Applicant - Title

1/21/15
Date

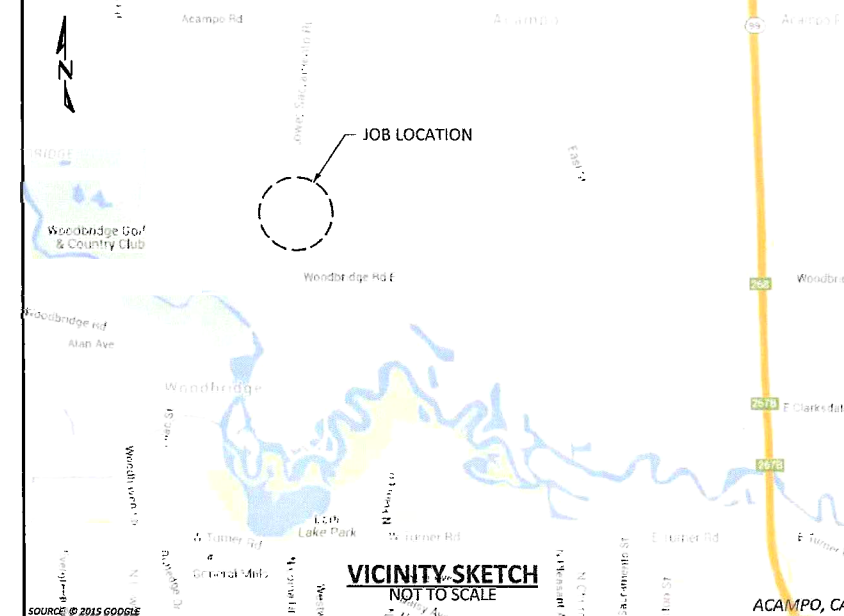
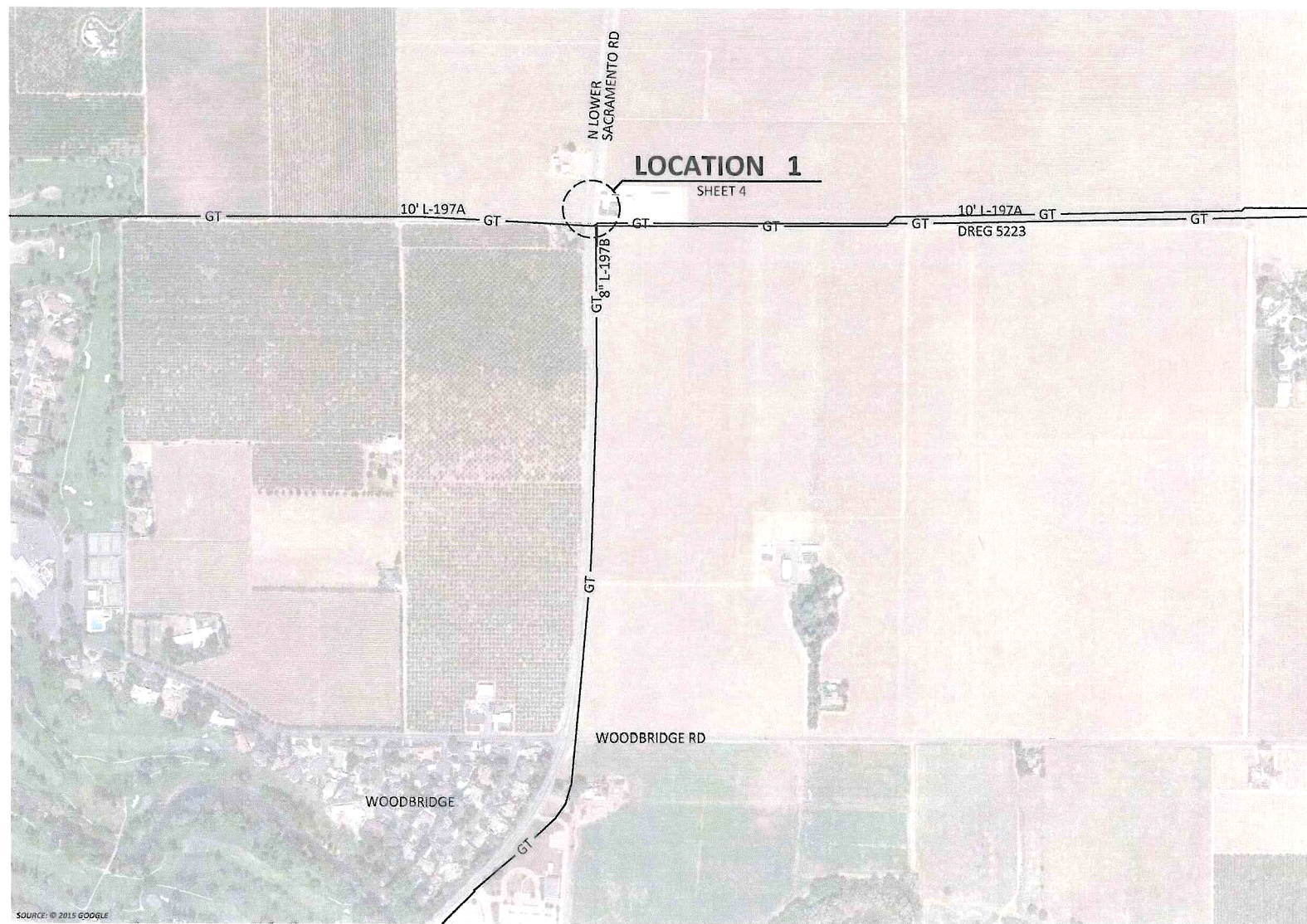
**SPECIAL CONDITIONS FOR PG&E LOWER SACRAMENTO ROAD
ENCROACHMENT PERMIT**

1. Maintain traffic controls for all roads. Traffic control delays shall not exceed 15 minutes. Two-way traffic shall be maintained during non-working hours with excavated areas backfilled or plated. During working hours, two-way traffic control shall be maintained with one lane open and appropriate flaggers. The contractor shall submit traffic control plans for all signing, detours, and any lane closure impacting County right-of-way. Traffic control plans shall be submitted two weeks prior to the closure date.
2. Access to all properties shall be maintained at all times except when work is occurring at the access point. Minimal delays will be allowed to provide access within the work zone area. Driveway access shall be fully restored at the end of each workday. Driveways disturbed by the contractor shall be replaced with in-kind or better materials.
3. Residents and businesses shall be notified in writing, as approved by the County, 48 hours in advance of any impacts to their access.
4. Any areas where parking is to be restricted shall have signs noting the restrictions in place at least 48 hours in advance.
5. Existing fences shall not be removed without written consent of the property owner. Such consent shall be submitted to the County prior to the removal. Fences removed shall be restored with in-kind or better materials. Restored fences shall not encroach into County right-of-way.
6. The area of work is located within the dirt shoulder, of the County right-of-way. If the paved portion of the roadway is damaged in anyway the Permittee shall be responsible for repairing the paved roadway to the County's satisfaction.
7. The Permittee is responsible for the preservation of survey monuments located within the area of work herein permitted. Prior to the start of construction, survey monuments that potentially may be disturbed shall be located and referenced by a Licensed Land Surveyor, and a Corner Record filed with the County Surveyor. Any Survey Monuments disturbed during the course of construction shall be reestablished by a Licensed Land Surveyor and another Corner Record filed with the County Surveyor. (Land Surveyors' Act Section 8771)
8. All pipe and pipeline related facilities including, but not limited to, valves, utility boxes and vaults, and frames and covers shall be maintained by PG&E, including any facilities that are abandoned in place. PG&E shall be responsible for any and all costs associated with the removal, relocation and/or adjustment of these facilities as determined by the County at PG&E's expense. (Streets and Highways Code Section 1463)
9. All future maintenance of the pipeline and related facilities within the County right-of-way will require a San Joaquin County Encroachment Permit.
10. Trenches/bell holes shall be maintained in a smooth and even condition to the satisfaction of the County throughout the project limits at all times.

11. All trenches/bell holes shall be completely backfilled or shored and plated at the end of each workday, and the roadway restored to two-way traffic. If plating is to be used, a trench shoring and plating plan suitable for traffic loadings shall be prepared by a registered civil engineer and submitted for prior approval by the County.
12. The contractor shall use San Joaquin County Standard R-29 when backfilling trenches within the County right-of-way.
13. Class II Aggregate Base shoulder backing is required from the edge of pavement, a minimum of 4-inches thick by 4-feet wide.
14. Above ground vaults, panels and/or other similar facilities will be allowed within the right-of-way if located as far to the outside edge as possible. Utility vaults shall be located a minimum of 4'-0" from edge of pavement.
15. County roads shall be kept clean from mud and debris at all times along the access points and work zone areas during entire project. All standard roadway striping and signage shall be clearly visible, maintained and restored throughout the construction zone during and after the project.
16. In addition to standard dust control measures, streets shall be maintained in a clean condition, free of dirt, mud and debris during construction activities. The contractor shall provide daily, or as needed, street sweeping using a modern mechanical or vacuum-assisted street sweeper.
17. The contractor shall not conduct construction operations in rain or heavy fog conditions.

CP AREA # T-197-A
WALL MAP 2869
PLAT A-8
SAN JOAQUIN COUNTY

LINE 197A, MP 5.18 INSTALL DEEP WELL ANODE ACAMPO, CALIFORNIA



SCHEDULE OF SHEETS

- SHEET 1 -- TITLE & INDEX
- SHEET 2 -- CONSTRUCTION NOTES
- SHEET 3 -- LEGEND & STAMPS
- SHEET 4 -- DETAILS
- SHEET 5 -- BILL OF MATERIALS

PLAN VIEW

SCALE: 1" = 400'

WARNING:
THIS DOCUMENT CONTAINS
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INFORMATION THAT IS THE SOLE
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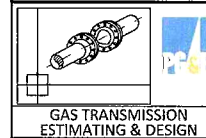


NO.	DATE	DESCRIPTION	PM/SPEC	DWN	CHKD	SUPV	APVD BY
0		ISSUED FOR CONSTRUCTION	31179016	MDGR	RAMA	K1F7	
REVISIONS							

APPROVED BY	PSRS 40360
SUPV	K1F7
DSGN	MDGR
DWN	MDGR
CHKD	RAMA
OK	
DATE	4/10/2016
SCALE	AS SHOWN

PIPELINE - TITLE & INDEX
L- 197A MP 5.18
INSTALL DEEP WELL ANODE
ACAMPO, CALIFORNIA
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

BILL OF MATL	SHEET 5
DWG LIST	SHEET 1
TRACKING NUMBER	C-720
SHEET NO.	1 OF 5 SHEETS
31179016	0



SUMMARY OF PROPOSED WORK:

- 1. INSTALL 150' DEEP WELL ANODE.
- 2. RETIRE EXISTING WELL PER COUNTY REQUIREMENTS.
- 3. BORE 2.5" CONDUIT ACCROSS N LOWER SACRAMENTO RD.
- 4. REPLACE EXISTING RECTIFIER.
- 5. INSTALL CTS STATION.
- 6. INSTALL PVC CONDUIT.
- 7. TRENCH AND BACKFILL.
- 8. RETURN SITE TO ORIGINAL CONDITION.

SEQUENCE OF OPERATIONS:

- 1. FOLLOW ALL CLEARANCE PROCEDURES
- 2. INSTALL DEEP WELL ANODE
- 3. INSTALL WIRES FROM PIPELINE TO RECIFIER
- 4. INSTALL JUNCTION BOX AND NEW RECTIFIER
- 5. INSTALL WIRES FROM ANODE TO AJB
- 6. CONTACT CORROSION MECHANIC PRIOR TO PUTTING IN SERVICE
- 7. INSTALL CTS
- 8. RESTORE SITE TO ORIGINAL CONDITION

CONSTRUCTION NOTES:

GENERAL REQUIREMENTS:

- 1. UNDERGROUND SERVICE ALERT : CALL 811 (1-800-227-2600) A MINIMUM OF 2 BUSINESS DAYS (NOT INCLUDING INITIAL DAY OF CONTACT) IN ADVANCE FOR THE MARKING OF UNDERGROUND UTILITIES, INCLUDING ALL NON-UTILITIES BEFORE YOU DIG, GRADE, OR EXCAVATE.
- 2. UTILITY NOTES:
 - A. DIMENSIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM SEVERAL SOURCES, AND SHALL BE VERIFIED IN THE FIELD BY CONSTRUCTION PERSONNEL PRIOR TO FABRICATION.
 - B. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES, PROPERTY LINES, AND OTHER SUBSTRUCTURES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE, UNLESS OTHERWISE NOTED. CONSTRUCTION PERSONNEL ARE RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AND OTHER SUBSTRUCTURES AS NECESSARY TO AVOID DAMAGE OR ENCROACHMENTS.
 - C. PROSPECTING IS REQUIRED AHEAD OF WORK. ALL OFFSETS OR ROPING WILL NEED TO BE APPROVED BY THE PG&E PROJECT ENGINEER (PED), AND REDLINED DETAILS SHOWN ON PROFILE AND CONSTRUCTION DETAIL SHEETS OF EACH ADDITIONAL SUBSTRUCTURE.
 - D. ALL EXCAVATIONS WITHIN EXISTING STATIONS SHALL BE HAND DUG OR EXCAVATED USING SOFT DIG METHODS (e.g. VACUUM EXCAVATIONS OR SIMILAR).
- 3. ELBOWS AND FIELD BENDS:
 - A. ALL BENDS ARE SMOOTH FIELD BENDS, EXCEPT WHERE ELBOWS ARE SHOWN. FIELD BENDS SHALL BE MADE IN ACCORDANCE WITH A-36, SECTION 4D. FIELD BENDS MAY BE USED IN LIEU OF ELBOWS WHEN PREAPPROVED BY THE PG&E PROJECT ENGINEER (PED).
 - B. IN ORDER TO AVOID EXCESSIVE STRAIN ON THE PIPELINE, THERE SHALL BE A MINIMUM SEPARATION OF 5 FEET BETWEEN A ROPED SECTION OF PIPELINE AND ANY ELBOWS OR FIELD BENDS.
 - C. ALL ANGLES SHOWN IN THE PLAN AND PROFILE ARE APPROXIMATE AND SHALL BE CUT TO SUIT FIELD CONDITIONS.
- 4. SEPARATION FROM OTHER STRUCTURES:
 - A. CROSSING UNDERGROUND FACILITIES: PG&E PIPELINE MUST BE INSTALLED WITH AT LEAST 24 INCHES OF CLEARANCE FROM ANY OTHER SUBSTRUCTURE/UTILITY NOT ASSOCIATED WITH THE PIPELINE UNLESS NOTED ON THE DRAWINGS.
 - B. PARALLELING UNDERGROUND FACILITIES: THIS PIPELINE MUST BE INSTALLED WITH AT LEAST 5 FEET OF CLEARANCE FROM ANY OTHER UNDERGROUND STRUCTURE/UTILITY NOT ASSOCIATED WITH THE PIPELINE UNLESS NOTED ON THE DRAWINGS.
- 5. RESTORATION AND CLEAN UP:
 - A. RESTORATION OF PUBLIC STREETS, SIDEWALKS, CURBS, ETC. ABOVE PIPE BEDDING SHALL BE IN ACCORDANCE WITH THE LATEST CITY, COUNTY, OR AGENCY STANDARDS.
 - B. WHERE EVER THERE ARE ROW CROPS, THE TOPSOIL SHALL BE REMOVED TO A DEPTH OF 12" AND STORED ON SITE. UPON COMPLETION OF CONSTRUCTION, THE TOPSOIL SHALL BE RESTORED. TAKE CARE TO PREVENT MIXING OF TOPSOIL AND SUBSOIL.
- 6. EXISTING GIRTH WELDS, AT TIE-IN LOCATIONS, SHALL BE IDENTIFIED AND REMOVED IF PRACTICAL.
- 7. WELDING REQUIREMENTS:
 - A. ALL ARC WELDING IS TO BE PERFORMED IN ACCORDANCE WITH THE GAS WELDING CONTROL MANUAL TD-4160M. ALL CANS OR SPOOLS SHALL BE A MINIMUM LENGTH OF ONE PIPE DIAMETER, WHENEVER POSSIBLE.
 - B. INSTALL TEST STATIONS WITH THERMITE WELD CONNECTION IN ACCORDANCE WITH GAS T & D CORROSION CONTROL MANUAL O-10, O-10.1 AND O-10.2.
- 8. WELDING:
 - WHEN INTERNAL MISALIGNMENT EXCEEDS 0.094", BACKWELD ANY GIRTH WELD WHERE THERE IS ACCESS TO THE INSIDE OF THE WELD. WHERE THERE IS NO ACCESS TO THE INSIDE OF THE WELD, MACHINE BORING OR GRINDING IS REQUIRED. BACKWELDING, GRINDING, OR BORING MUST BE DONE IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROCEDURE IN THE GAS WELDING CONTROL MANUAL TD-4160M.
- 9. STRENGTH TEST REQUIREMENTS
 - A. STRENGTH TESTING SHALL MEET PRESSURE AND DURATION REQUIREMENTS OF GAS STANDARD A-34 AND SHALL BE CONDUCTED IN ACCORDANCE WITH UTILITY PROCEDURE TD-4137S.
 - B. ALL WELDS THAT HAVE NOT BEEN STRENGTH TESTED AND ALL FITTINGS SHALL BE SOAP TESTED AT 100 PSI AND AT OPERATING PRESSURE BEFORE COATING CAN OCCUR.
- 10. PAINTING AND COATING REQUIREMENTS:
 - A. ALL EXPOSED PIPE AND FITTINGS ARE TO BE PAINTED IN ACCORDANCE WITH GAS STANDARD E-30. ALL COATING ON BURIED PIPE AND FITTINGS ARE TO BE APPLIED IN ACCORDANCE WITH GAS STANDARD E-35.
 - B. FOR COATING SELECTIONS ON BURIED PIPE, SEE DIRECT BURIAL COATING SELECTIONS TABLE.
- 11. DOCUMENTATION OF INSPECTION OF EXISTING PIPELINE:
 - WHENEVER EXISTING BURIED GAS FACILITIES ARE EXCAVATED DURING ENGINEERING OR DURING CONSTRUCTION, AN A-FORM (TD-4110P-03-F01) SHALL BE COMPLETED FOR THE GENERAL INSPECTION. THIS ALSO APPLIES TO GAS FACILITIES BEING DEACTIVATED. THE COMPLETED A-FORM SHALL BE SUBMITTED WITH THE AS-BUILT PACKAGE.
- 12. TIE-IN AND CLEARANCE PROCEDURE TO BE PREPARED AND PERFORMED IN ACCORDANCE WITH THE FOLLOWING WORK PROCEDURES:
 - A. WP 4100-01, HOT AND COLD WORK METHODS FOR NATURAL GAS TRANSMISSION PIPELINE SHUTDOWN AND TIE-IN.
 - B. WP 4100-10, GAS CLEARANCE PROCEDURES FOR FACILITIES OPERATING OVER 60 PSIG.

13. COATING REMOVAL:

- A. PERFORM THE FOLLOWING STEPS, IN ACCORDANCE WITH TD-4711P-01, BEFORE REMOVING ASPHALTIC PIPE WRAP ON PIPELINES INSTALLED PRIOR TO 1972 (BASED ON PG&E ANALYSIS, PIPE INSTALLED IN 1972 OR LATER DOES NOT HAVE PIPE WRAP THAT CONTAINS ASBESTOS):
 - 1. REFER TO THE "EXISTING PIPE SPECS (PRE-1972)" STAMP TO DETERMINE IF A SAMPLE HAS BEEN COLLECTED OR IF A SAMPLE IS REQUIRED:
 - a. "YES" REPRESENTS HISTORICAL RESULTS ARE AVAILABLE SHOWING THAT PIPE WRAP CONTAINS ASBESTOS. NO SAMPLE IS REQUIRED.
 - b. "NO" REPRESENTS HISTORICAL RESULTS ARE AVAILABLE AND THE PIPE WRAP DOES NOT CONTAIN ASBESTOS (CONTENT WAS NON DETECT). NO SAMPLE IS REQUIRED.
 - c. "UNKNOWN" REPRESENTS NO HISTORICAL RESULTS ARE AVAILABLE. A SAMPLE IS REQUIRED IF THE PIPE INSTALLATION DATE IS PRIOR TO 1972.
 - 2. WHEN A PIPE WRAP SAMPLE IS REQUIRED TO BE ANALYZED FOR ASBESTOS:
 - a. COLLECT SAMPLE PER TD-4711P-01 AND COMPLETE CHAIN OF CUSTODY FORM TD-4711P-01-F01.
 - b. FILE PINK COPY OF THE CHAIN OF CUSTODY FORM AND FINAL LABORATORY RESULTS WITH THE AS-BUILTS.
 - 3. WHEN REMOVING PIPE WRAP THAT CONTAINS ASBESTOS, OR FOR EMERGENCY WORK, FOLLOW TD-4711P-01 "PIPE WRAP REMOVAL, HANDLING AND DISPOSAL".

CATHODIC PROTECTION NOTES:

- 1. THE PERSON FILLING OUT THE A-FORM (TD-4110P-03-F01) IS RESPONSIBLE FOR BOTH THE INTERNAL CORROSION AND EXTERNAL CORROSION INSPECTION OF THE PIPELINE.
- 2. UPON COMPLETION OF BORINGS, CONTACT THE CORROSION SUPERVISOR FOR THE LOCAL AREA/DIVISION TO PERFORM CURRENT DRAIN TESTS ON THE PIPELINE SEGMENT THAT WAS INSTALLED IN THE BORE. THE CURRENT DRAIN TEST MUST BE PERFORMED PRIOR TO WELDING PIPE ON EITHER SIDE OF THE BORE.
- 3. FOR THE INSTALLATION OF THE OMNIMETRIX RECTIFIER REMOTE MONITOR, CONTACT THE CORROSION SUPERVISOR FOR THE LOCAL AREA/DIVISION.
- 4. BONDING CABLES TO BE INSTALLED ACROSS PIPELINE CUT-OUTS AT ALL LOCATIONS THE PIPELINE IS SEVERED PRIOR TO REMOVAL. CHAIN CLAMPS, MAGNETIC CLAMPS, OR OTHER CONSTRUCTION MANAGEMENT APPROVED CLAMPS AND #6 (MIN) STRANDED CABLE SHALL BE UTILIZED. CLAMPS TO REMAIN IN PLACE UNTIL PIPELINE IS TIED IN.

RETIREMENT PROCEDURE FOR EXISTING PIPE:

- 1. GT&D UTILITY WORK PROCEDURE TD 9500P-16, "DEACTIVATION AND/OR RETIREMENT OF UNDERGROUND GAS FACILITIES," SHALL BE FOLLOWED.
- 2. THE EXISTING PIPE SECTIONS SHALL HAVE FREE LIQUIDS REMOVED AND BE 100% PURGED PER GAS DESIGN STANDARD A-38, "PROCEDURES FOR PURGING GAS FACILITIES."
- 3. THE PIPE SHALL BE SECTIONALIZED AT INTERVALS AS SPECIFIED IN THE RETIREMENT PLAN. THE LOCATIONS CALLED OUT ARE APPROXIMATE AND ARE SUBJECT TO FIELD VERIFICATION TO IDENTIFY THE MOST OPTIMUM LOCATION IN THAT VICINITY. ACCURATE SURVEY DATA MAY NOT BE AVAILABLE FOR THESE LOCATIONS SO USE CAUTION DURING EXCAVATION AND WHEN IDENTIFYING THE PIPELINE TO BE RETIRED. OTHER ACTIVE PIPELINES MAY BE IN THE AREA.
- 4. AT EACH SUCH LOCATION NOTED ABOVE, A PIECE OF PIPE AT LEAST 24" LONG SHALL BE REMOVED. INSTALL A 1" HIGH PRESSURE SAVE-A-VALVE (H-17491, M022287) TO CHECK FOR PRODUCT AND PRESSURE PRIOR TO CUTTING INTO THE PIPELINE. THE OPEN ENDS OF THE RETIRED PIPE SHALL BE SEALED BY THE MOST APPROPRIATE METHOD OUTLINED IN GT&D UTILITY WORK PROCEDURE TD-9500P-16. BACKFILL MUST BE THOROUGHLY COMPACTED IN PLACE OF THE REMOVED SECTION OF PIPE.

DESIGN CHANGE PROCEDURE

MAINTENANCE AND CONSTRUCTION PERSONNEL MUST OBTAIN APPROVAL FROM THE RESPONSIBLE ENGINEER (RE) BEFORE MAKING ANY DESIGN CHANGE TO GAS FACILITIES PER WP-4900.

JOB SPECIFIC NOTES

ALL FIELD CHANGES REQUIRE APPROVAL BY PROJECT ENGINEER (PED). SEE CONTACT INFORMATION.

CONTACT INFORMATION:

PROJECT MANAGER	----	JOSE GARCIA	925-206-9247
PROJECT ENGINEER (PED)	----	STEPHANIE GUZMAN	415-349-9026
PIPELINE ENGINEER (PLE)	----	WAYNE GILBERT	925-551-1849
ESTIMATOR / DESIGNER	----	MATT GOODWIN	209-471-3698
FIELD ENGINEER/CM	----	CAROLINA FURNAGUERA	415-722-0842
LAND PLANNER	----	KAYLA PASCHAL	925-324-1574
CORROSION MECHANIC	----	WILLIAM BELASKI	209-406-7844

REFERENCE DRAWINGS:

OPERATING MAPS	----	385163 LAS VINAS STATION TO CALAVERAS CEMENT IONE - JACKSON & VICINITY(REV 55)
OPERATING DIAGRAMS	----	N/A
PLAT SHEETS	----	2869 A8

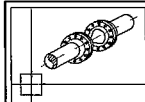
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NO.	DATE	DESCRIPTION	31179016	PM/SPEC	DWN	CHKD	SUPV	APVD BY
0		ISSUED FOR CONSTRUCTION						
REVISIONS								

APPROVED BY	PSRS 40360
	SUPV K1F7
	DSGN MDGR
	DWN MDGR
	CHKD RAMA
	OK
DATE	4/30/2016
SCALES	AS SHOWN

PIPELINE - CONSTRUCTION NOTES
L- 197A MP 5.18
INSTALL DEEP WELL ANODE
ACAMPO, CALIFORNIA
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA



GAS TRANSMISSION
ESTIMATING & DESIGN

BILL OF MATL	SHEET 5
DWG LIST	SHEET 1
TRACKING NUMBER	C-720
SHEET NO.	2 OF 5 SHEETS
31179016	0

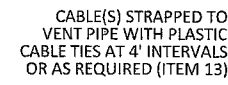
{SCALE: 1" = 40'}



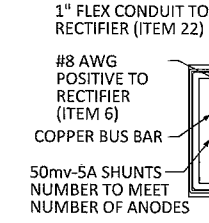
ALL TOOLS AND MACHINERY SHALL BE KEPT FAR ENOUGH FROM EDGE OF PAVEMENT AS NOT TO CAUSE ANY DAMAGE TO THE ROADWAY PAVEMENT.



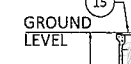
DETAIL **1**
SCALE: 1" = 40'



DETAIL A TYP NORMAL DEEP ANODE INSTALL GUIDE
SCALE: $\frac{3}{8}"=1'$

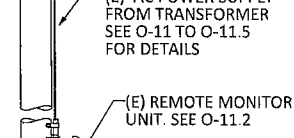


AJB DETAIL **D**
SCALE: NO SCALE ~

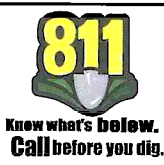


DETAIL **B** TYP VENT,
FRAME & COVER
SCALE: 1/2"=1'

DETAIL C POLE MOUNTED
ANODE JUNCTION
BOX INSTALLATION
SCALE: 1/2"=1'



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AND ITS AGENTS.

[illegible]

APPROVED BY	PSRS 40360
	SUPV K1F7
	DSGN MDGR
	DWN MDGR
	CHKD RAMA
	OK
	DATE 4/10/2016
	SCALES

PIPELINE - DETAILS
L- 197A MP 5.18
INSTALL DEEP WELL ANODE
ACAMPO, CALIFORNIA

GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

BILL OF MATL		SHEET 5	
DWG LIST		SHEET 1	
TRACKING NUMBER		C-720	
SHEET NO.		4	OF 5 SHEETS
31179016		0	

1

2

3

4

5

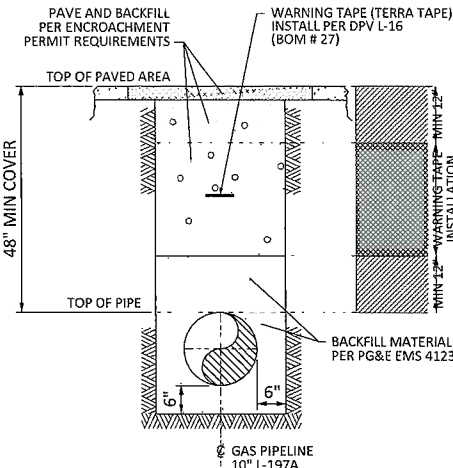
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7

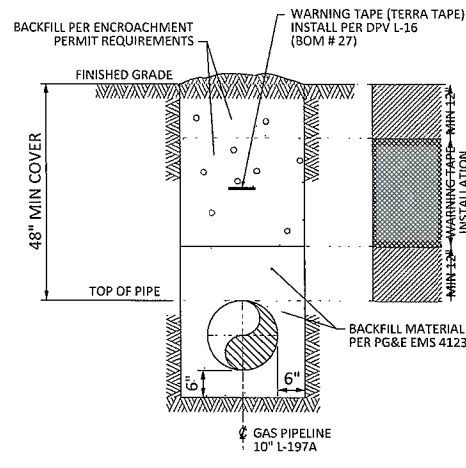
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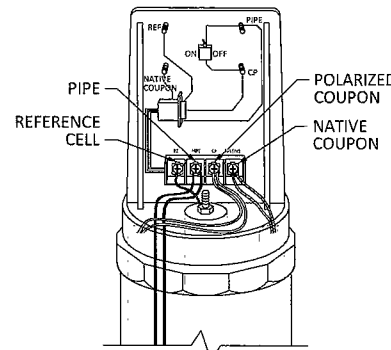
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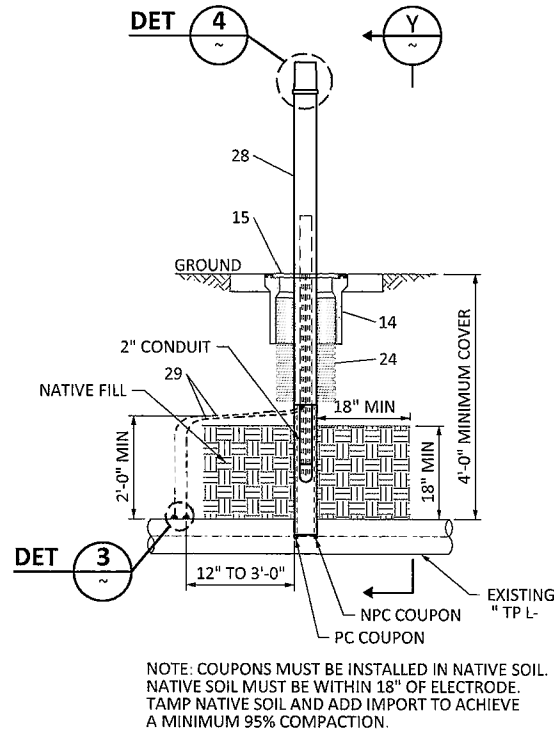
TYPICAL "T" TRENCH PAVED AREA
SCALE: NO SCALE IMPORT BACKFILL



TYPICAL TRENCH NON-PAVED AREA
SCALE: NO SCALE NATIVE BACKFILL

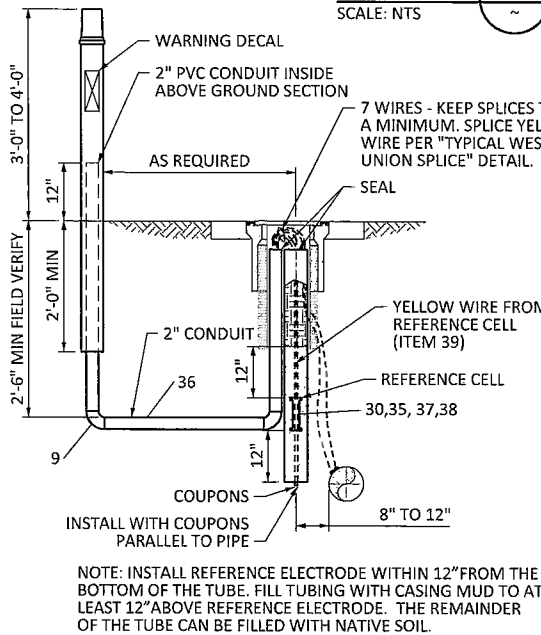


DETAIL 4 COUPON TEST STATION HEAD
SCALE: NTS

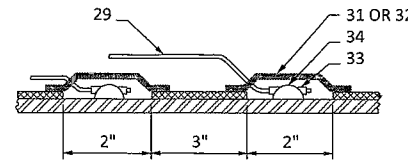


NOTE: COUPONS MUST BE INSTALLED IN NATIVE SOIL. NATIVE SOIL MUST BE WITHIN 18" OF ELECTRODE. TAMP NATIVE SOIL AND ADD IMPORT TO ACHIEVE A MINIMUM 95% COMPACTION.

DETAIL 2 COUPON TEST STATION ABOVE GROUND W/ OFFSET
SCALE: NTS



SECTION Y
SCALE: NTS



DETAIL 3 ATTACHING THE WIRES TO THE GAS MAIN
SCALE: NTS

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NO.		DATE	DESCRIPTION	PM/SPEC	DWN	CHKD	SUPV	APVD BY
0			ISSUED FOR CONSTRUCTION	31179016	MDGR	RAMA	K1F7	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

APPROVED BY	PSRS 40360
SUPV	K1F7
DSGN	MDGR
DWN	MDGR
CHKD	RAMA
OK	
DATE	4/10/2016
SCALE	AS SHOWN

PIPELINE - BILL OF MATERIALS
L- 197A MP 5.18
INSTALL DEEP WELL ANODE
ACAMPO, CALIFORNIA
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

BILL OF MATL SHEET 5	
DWG LIST SHEET 1	
TRACKING NUMBER C-720	
SHEET NO. 5 OF 5 SHEETS	
31179016 0	

BILL OF MATERIALS (CAPITAL ORDER # 31179016)

BOM #	MATERIAL DESCRIPTION	MATERIAL CODE #	UNIT	QTY	STANDARD	NOTES
1	ANODES 2" x 84", HSCI MODEL 2284Z OR TA 2 WITH 200' CABLE ANODE #8 HALAR/HMWPE	M561505	EA	11	CCV O-13.2	
2	ANODES 2" x 84", HSCI MODEL 2284Z OR TA 2 WITH 100' CABLE ANODE #8 HALAR/HMWPE	M561503		3	CCV O-13.2	
3						
4						
5	CALCINED PETROLEUM COKE BREEZE (50 LB BAGS) (ASBURY 218L)	M561470	EA	40	CCV O-13.2	
6	# 8 AWG HMWPE CABLE BLACK	M290401	FT	5	CCV O-13.2	
7	# 6 AWG HMWPE CABLE BLACK	M290396	FT	250	CCV O-13.2	
8	ANODE CENTRALIZER (1 PER ANODE)	M561509	EA	14	CCV O-13.2	
9	2" PVC CONDUIT 90° BEND, SCHEDULE 40 (GLUED TOGETHER TO MAKE 180° BEND)	M360166	EA	2	CCV O-13.2	
10	VENT PIPE 2" PVC PLASTIC WELL SCREEN, PERFORATED VENT PIPE	M561516	FT	100	CCV O-13.2	
11	VENT PIPE 2" PVC PLASTIC WELL SCREEN, NON-PERFORATED VENT PIPE	M561517	FT	50	CCV O-13.2	
12	CAP, 2" PLASTIC	M561511	EA	1	CCV O-13.2	
13	TIE, CABLE, PANDUIT # PLT35-MO, TYTON # T501-0, 11-1/2" X 3/8"	M399093	EA	100	CCV O-13.2	
14	BODY, CONCRETE, VALVE FRAME, CHRISTY # G05, W/O COVER, 10-3/8" DIA X 12" HIGH	M043271	EA	2	GS&S K-40	
15	COVER, VALVE, CAST IRON, YELLOW, CHRISTY # G05CY, FULL TRAFFIC, 11-1/8", TRAFFIC YELLOW WITH EXPOXY CLEAR COAT, MARKED "PG&E GAS"	M446213	EA	2	GS&S K-40	
16	AJB-HOFFMAN NEMA 4X FIBERGLASS ENCLOSURE WITH 15 ANODE SHUNTS/ 1 CATHODE SHUNT	M301519	EA	1	CCV O-13.2	
17	NEAT CEMENT	CEMENT	EA	1	CCV O-13.2	AS REQUIRED
18	1" PVC CONDUIT 90° BEND, SCHEDULE 40	M360163	EA	2	CCV O-13.2	
19	2.5" PVC CONDUIT, SCHEDULE 40, 20' LENGTH	M360168	EA	2	CCV O-13.2	
20	2.5" PVC CONDUIT 90° BEND, SCHEDULE 40	M360167	EA	2	CCV O-13.2	
21	CONDUIT, 1", PVC, TYPE 2, SCHEDULE 80 - 10' LENGTH	M360305	EA	3	CCV O-11.1	
22	TUBING FLEX (1" X 3')	M362638	FT	3	CCV O-13.2	
23	TAPE, SEALANT, INSULATING, AQUASEAL # 104742 OR EQUAL, ELECTRO SEAL # 10, WITHOUT VINYL BACK	M507030	EA	1	CCV O-12	
24	VALVE BOX, EXTENSION, PLASTIC, 8" IPS, BRANDON SUPPLY # 851, BLACK ABS, CORRUGATED,	M016063	EA	2	GS&S K-40	
25	PADLOCK, CORBIN # 0906SCA, WILSON BOHANNAN # 621, 1-1/4" SHACKLE, STAMPED PG&E, KEYED 3A90909, WITHOUT KEY OR CHAIN	M016583	EA	2	GS&S L-51	
26	RECTIFIER, ASAI 40-20 AACFHRPON Q-6" EXTRA TALL CASE, Q-24 TAPS, , 3 DOOR Q CASE WITH PINS, Q-PLASTIC COVER SHIELD,	RECTIFIER	EA	1	FARWEST CORROSION	CONTACT CORROSION ENGINEERING
27	TAPE, WARNING, PIPELINE, GAS UNDERGROUND, REEF INDUSTRIES # 42-0084, YELLOW WITH BLACK WRITING, "CAUTION GAS LINE BURIED BELOW", 8 MILS THICK, 6" WIDE X 1000' LONG	M379947	EA	1	GS&S L-16	
28	STATION, TEST COUPON, CC TECHNOLOGIES # CS3100, SMALL PLASTIC CONDUIT AND TERMINAL TEST HEAD CONSTRUCTION, 3" OD X 10' LONG	M560691	EA	1	CCV O-10.2	
29	WIRE, ELECTRICAL, INSULATED, COPPER, 10 AWG, 600 V, 47 MIL PVC, SOLID 1 CONDUCTOR, BLACK	M294991	FT	250	CCV O-16	TEST STATION STRUCTURE LEADS
30	ELECTRODE, REFERENCE, GELATIN, BACKFILL, BORIN MANUFACTURING # EMB-001-CUS, ELECTRIC MUD, GELATIN BACKFILL, CUCUSO4, SINGLE UNIT, FOR ONE INSTALLATION	M041192	EA	1	CCV O-71	
31	TAPE, HANDY CAP, 4" X 4", ROYSTON	M562324	EA	2	GS&S E-27	
32	PRIMER, ROYBOND, ROYSTON # 747, 16 OZ CAN	M130850	EA	2	GS&S E-27	
33	SLEEVE, COPPER SPLICING, #14 TO #10, CADWELD # CAB-133-1H, THERMOWELD # A-200	M303755	EA	2	CCV O-10	
34	CARTRIDGE, BRAZING, CADWELD # CA-15, THERMOWELD # 15P	M159260	EA	2	CCV O-10	
35	ELECTRODE, REFERENCE, STEALTH 2, COPPER-COPPER SULFATE, BORIN MANUFACTURING # SRE-007-CUY, WITH 120' OF WIRE	M241423	EA	1	CCV O-71	
36	2" PVC CONDUIT, SCHEDULE 40, 20' LENGTHS	M360380	EA	5		
37	# 16 AWG TFFN INSULATION BLACK	WIRE 1	FT	250		FOR CP COUPON
38	# 16 AWG TFFN INSULATION WHITE	WIRE 2	FT	250		FOR NATIVE COUPON
39	#14 AWG THHW STRANDED YELLOW WIRE	WIRE 3	FT	250		FOR REFERENCE CELL

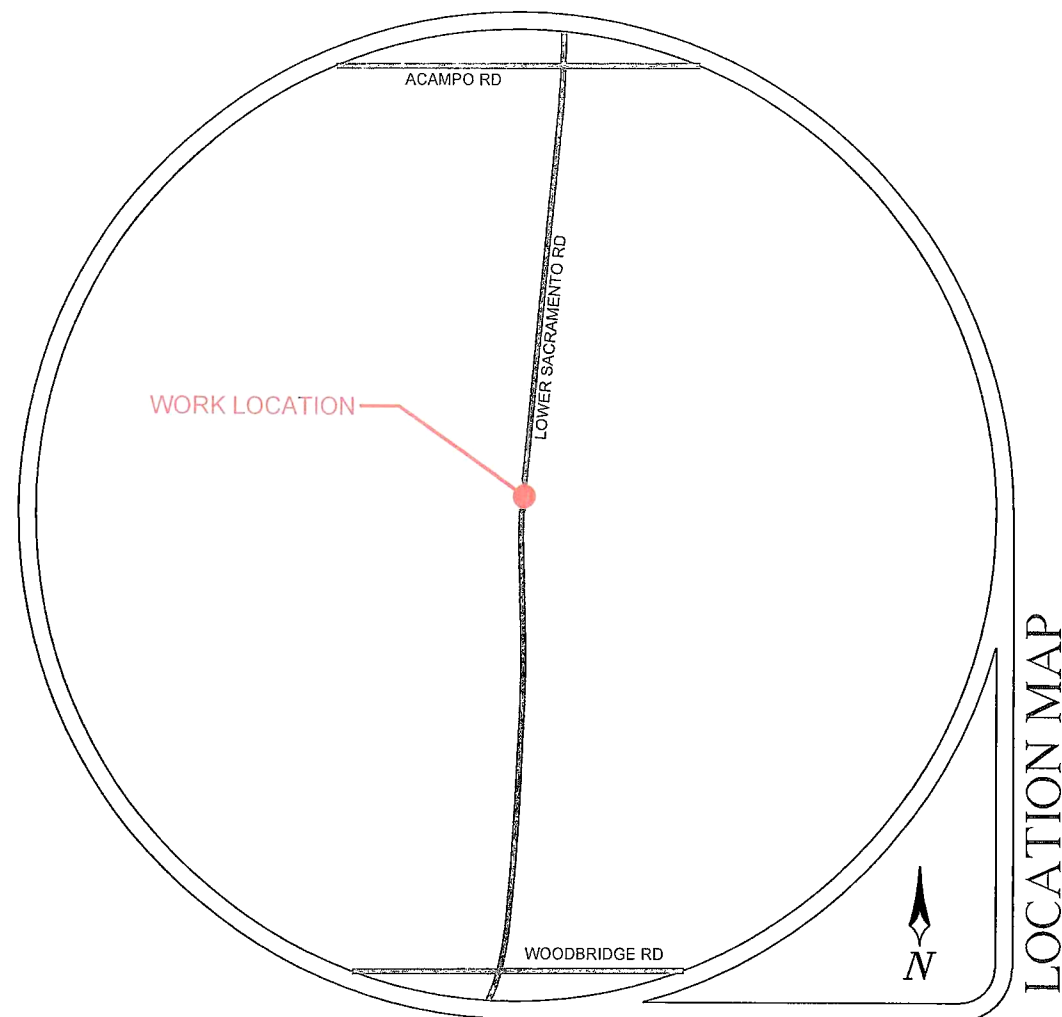
TRAFFIC CONTROL PLANS

LOWER SACRAMENTO RD

WOODBIDGE, CALIFORNIA

SAN JOAQUIN COUNTY

PM31179016



LOCATION MAP

CONTRACTOR



CONTACT MATT GOODWIN

PHONE# (925) 244-3239

CONSULTANT



ALMENDARIZ CONSULTING, INC.
1136 SUNCAST LN STE 9
EL DORADO HILLS, CA 95762
(888) 306-1211 OFFICE
(888) 768-7022 FAX
CA C31 LIC #979806

REVISIONS				PROJECT NO. <u>151144</u>	SHEET NO. 1 OF 4
REV	DESCRIPTION	REV DONE BY	DATE		
DATE NOVEMBER 4, 2015				DRAWN DESIGNED CHECKED	

GENERAL NOTES

1. NOTHING ALLOWED IN THE BUFFER AND TRANSITION AREAS AT ALL TIMES.
2. SIGNS ARE ONLY SHOWING TO THE PUBLIC WHEN IN USE.
3. SIGNS AND CHANNELIZING DEVICES MUST BE RETROREFLECTIVE OR ILLUMINATED DURING NIGHT OPERATIONS.
4. SIGN PANEL SIZES: 36"X36" MIN. ON ROADS <50mph, 48"x48" ON ROADS ≥ 50mph.
5. SIGNS ARE SPACED PER THE CA 2014 MUTCD.
6. CHANNELIZING DEVICES SPACING AND TAPER LENGTHS ARE BASED ON THEIR RESPECTIVE CHARTS. (SEE CHARTS THIS PAGE)
7. NOTIFY THE LOCAL LAW ENFORCEMENT, FIRE, AND AMBULANCE COMPANIES WITHIN 72 HOURS BEFORE CONSTRUCTION BEGINS.
8. CONTRACTOR TO MAKE SURE ALL TRAFFIC CONTROL EQUIPMENT MEETS ALL AGENCY REQUIREMENTS.
9. REMOVE ALL CONFLICTING MARKINGS FOR LONG TERM OPERATIONS (3 DAYS OR LONGER).
10. THE LOCATION OF THE SIGNS AS SHOWN ON THE ILLUSTRATIONS ARE GUIDELINES AND ACTUAL LOCATIONS WILL DEPEND UPON ALIGNMENT, GRADE, LOCATION OF STREET INTERSECTIONS AND 85% TILE/POSTED SPEED LIMITS/OR PRIMA FACIE.
11. WHILE CROSSING INTERSECTIONS DURING MOBILE WORK, WORK MUST FOLLOW THE FLOW OF TRAFFIC AND PROCEED ON A GREEN LIGHT.
12. FULL COMPLIANCE IS REQUIRED WITH THE COUNTY AGENCY.(AFFECTS NOTES #20 THRU 22, BELOW)
13. PEDESTRIAN ACCESS MUST BE MAINTAINED AS PER THE CA 2014 MUTCD STANDARDS AND ADA REQUIREMENTS.
14. C30 SIGNS ARE PERMITTED IN BUFFER AREAS.
15. SIGN SPACING IS PROVIDED IN THE CA 2014 MUTCD EDITION, PART 6. TRAFFIC SPEEDS ARE BASED UPON RADAR MEASUREMENTS OF MOTORISTS. THE MUTCD ALLOWS FOR A "RANGE" IN SIGN PLACEMENT AND WILL BE PROVIDED BY DOT. THE 85% TILE IS USED WHEN AVAILABLE TO PROVIDE A MORE ACCURATE REPRESENTATION OF MOTORISTS SPEEDS.
16. ANY WORK WITHIN 200 FT OF A SIGNALIZED INTERSECTION WILL REQUIRE CONTACT AND COORDINATION WITH COUNTY AGENCY PRIOR TO ANY WORK.
17. QUALITY STANDARD TO MEET REQUIREMENTS OF SECTION 1A-2 OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
18. ALL TRAFFIC CONTROL DEVICES INCLUDING: SIGNS, BARRICADES, VERTICAL PANELS, DRUMS, WARNING LIGHTS, ARROWBOARDS, CHANGEABLE MESSAGE SIGNS, CONES AND TUBULAR MARKERS THAT MEET THE REQUIREMENTS OF AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA). "CA 2014 MUTCD" SHALL BE USED ON THIS PROJECT/THIS WORK.
19. THE NCHRP REPORT 476 PROVIDES GUIDELINES FOR DESIGN AND OPERATION OF NIGHTTIME TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE AND CONSTRUCTION. SEE TYPICAL APPLICATIONS NWT A-1 THROUGH NWT A-7. COMPLY WITH ANSI 107-2004 FOR APPAREL. HIGHWAY CONSTRUCTION WORK LIGHTING SHALL BE PER CONSTRUCTION SAFETY ORDER 1523 (CALIFORNIA CODE OF REGULATIONS TITLE 8, DIVISION1, CHAPTER 4, SUBCHAPTER 4, ARTICLE 3, SECTION 1523 - ILLUMINATIONS).
20. SIDEWALKS AT THE CONSTRUCTION LOCATION MAY BE CLOSED WITH ADEQUATE DETOURS. SIDEWALKS MAY ONLY BE CLOSED TO THROUGH TRAFFIC AND SHALL NOT PREVENT LOCAL PEDESTRIANS ACCESS. DETOURS SHALL NOT INCREASE THE PATH OF TRAVEL BY MORE THAN 500 FT. DETOUR ROUTES SHALL BE LIMITED TO EXISTING SIDEWALKS, PRIVATE PROPERTIES (SEE BELOW REQUIREMENTS) AND CROSSINGS AT ROADWAY INTERSECTIONS. TO THE MAXIMUM EXTENT FEASIBLE, THE ALTERNATE CIRCULATION PATH SHALL BE PROVIDED ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE. WHERE IT IS FEASIBLE TO PROVIDE A SAME-SIDE ALTERNATE CIRCULATION PATH AND PEDESTRIANS WILL BE DETOURED, SECTION 6D.02 OF THE CA 2014 MUTCD SPECIFIES THAT THE ALTERNATE PATH PROVIDE A SIMILAR LEVEL OF ACCESSIBILITY TO THAT OF THE EXISTING DISRUPTED ROUTE . THIS MAY INCLUDE THE INCORPORATION OF ACCESSIBLE PEDESTRIAN SIGNALS (APS), CURB RAMPS, OR OTHER ACCESSIBILITY FEATURES.
21. PEDESTRIANS MAY BE DETOURED ONTO PRIVATE PROPERTY ONLY IF WRITTEN PERMISSION FROM THE PROPERTY OWNER IS OBTAINED ALONG WITH DOCUMENTATION INDICATING THAT THE COUNTY WOULD NOT BE LIABLE (HOLD HARMLESS) IN THE EVENT OF AN ACCIDENT.
22. DURING WORK HOURS, AT LEAST ONE WORKER SHALL BE ASSIGNED WITH THE RESPONSIBILITY TO ESCORT ELDERLY, DISABLED OR ANY OTHER PEDESTRIANS IN NEED OF ASSISTANCE THROUGH THE CONSTRUCTION SITE. A WORKER ASSIGNED WITH THIS RESPONSIBILITY MAY ALSO PARTICIPATE IN OTHER CONSTRUCTION ACTIVITIES; HOWEVER, THE ASSIGNED WORKER SHALL BE AWARE OF HIS OR HER RESPONSIBILITIES FOR PROVIDING THIS ASSISTANCE. MEASURES THAT SIMPLY CLOSE THE SIDEWALK, WITH THE EXCEPTION THAT PEDESTRIANS WILL CROSS SOMEWHERE ELSE DOES NOT ADEQUATELY SATISFY PEDESTRIAN ACCESS. PEDESTRIANS SHOULD NEVER BE DIRECTED/ EXPECTED TO CROSS A MULTI-LANE ROADWAY AT ANY LOCATION OTHER THAN AT A SIGNAL (OR ALL-WAY STOP). ACCOMMODATIONS SHOULD BE MADE ON THE SAME SIDE OF ROADWAY AS WORK.

TABLES CHART - 2014 MUTCD

Posted Speed	Taper (L) Formula	Buffer Space	Minimum Taper Lengths									Maximum *Cone Spacing			Sign Spacing <div>per section 6C.04</div>
			10' Offset			11' Offset			12' Offset						
			L	1/2 L	1/3 L	L	1/2 L	1/3 L	L	1/2 L	1/3 L	@	@	@	
			Merge	Shift	Shoulder	Merge	Shift	Shoulder	Merge	Shift	Shoulder				
25	L = WS ² 60	155'	104'	52'	35'	115'	57'	38'	125'	63'	42'	25'	50'	12'	100' - 200'
30		200'	150'	75'	50'	165'	83'	55'	180'	90'	60'	30'	60'	15'	120' - 240'
35		250'	204'	102'	68'	225'	112'	75'	245'	123'	82'	35'	70'	17'	140' - 280'
40		305'	267'	133'	89'	293'	147'	98'	320'	160'	107'	40'	80'	20'	160' - 320'
45		360'	450'	225'	150'	495'	248'	165'	540'	270'	180'	45'	90'	22'	360' - 540'
50	L = WS	425'	500'	250'	167'	550'	275'	183'	600'	300'	200'	50'	100'	25'	400' - 600'
55		495'	550'	275'	183'	605'	303'	202'	660'	330'	220'	55'	110'	27'	440' - 660'
60		570'	600'	300'	200'	660'	330'	220'	720'	360'	240'	60'	120'	30'	480' - 720'
65		645'	650'	325'	217'	715'	358'	238'	780'	390'	260'	65'	130'	32'	520' - 780'
70		730'	700'	350'	233'	770'	385'	257'	840'	420'	280'	70'	140'	35'	560' - 840'

Both are based on.

1.) 85th % Tile or if not available, then use Posted Speed Limit (PSL)

L = Taper Length

S = Speed

W = Width (Offset from path of travel)

*Cones shown on the templates are illustration purposes only. Exact number of cones required shall be based on cone spacing, taper lengths, actual field conditions, etc..

CA MUTCD 2014 TABLE 6C-1


MEANING OF LETTER CODES ON TYPICAL APPLICATION DIAGRAMS


ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED) - 25 MPH OR LESS	100 FEET	100 FEET	100 FEET
URBAN (LOW SPEED) - MORE THAN 25 MPH TO 40 MPH	250 FEET	250 FEET	250 FEET
URBAN (HIGH SPEED) - MORE THAN 40 MPH	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY / FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET


REVISIONS				PROJECT NO. <u>151144</u> DRAWN <u>-</u> DESIGNED <u>SM</u> CHECKED <u>CAA</u> DATE NOVEMBER 4, 2015	SHEET NO. 2 OF 4
REV	DESCRIPTION	REV DONE BY	DATE		


SHOULDER CLOSURE


SYMBOL LEGEND


 CONSTRUCTION SIGN


 FLAGGER

 28" CONE

 TYPE I BARRICADE

 TYPE III BARRICADE

 NO PARKING SIGN ON TYPE I BARRICADE TO BE PLACED 48 HOURS IN ADVANCE

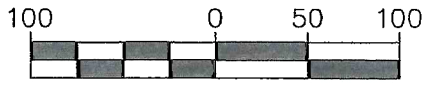
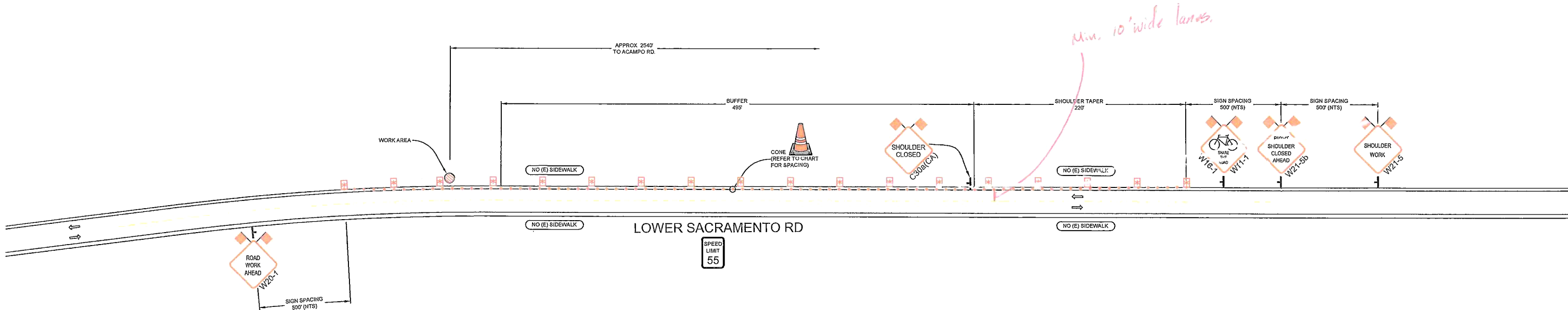
 FLASHING ARROW BOARD
FAS

NOTES

- CONTRACTOR SHALL MAINTAIN/PROVIDE ACCESS TO ALL DRIVEWAYS AFFECTED BY THE WORK AREA.
- CONTRACTOR SHALL ASSIGN A WORKER TO ASSIST PEDESTRIANS AROUND WORK AREA.
- CONTRACTOR SHALL MAINTAIN A MINIMUM 4' PATH OF TRAVEL FOR PEDESTRIANS
- MAXIMUM CHANNELIZING DEVICE SPACING FOR ALL SPEEDS ON DOWNSTREAM TAPERS IS 20'
- W20-1 (ROAD WORK AHEAD) SIGNS SHALL BE PLACED ON ALL SIDE STREETS BETWEEN THE WORK AREA AND THE FIRST SIGN ENCOUNTERED BY TRAFFIC ON THE HWY

• Lanes must be a minimum of 10' wide.
• All signs must meet MUTCD standards.


2/19/16 RB




CONST. HOURS: 8:00AM-4:00PM MON-FRI


REVISIONS			
REV	DESCRIPTION	REV DONE BY	DATE

PM31179016

 ROADS < 50 MPH:
MINIMUM 36" SIGN PANELS
(48" SIGNS MAY BE USED)


 ROADS ≥ 50 MPH:
MINIMUM 48" SIGN PANELS

ALMENDARIZ CONSULTING ACKNOWLEDGES NO RESPONSIBILITY IN THE CASE OF ANY ACCIDENT, INJURY, OR DEATH OCCURRING DURING THE USE OF THESE PLANS. PLANS ARE NOT TO BE DUPLICATED FOR USE BY ANY PERSONS NOT INCLUDED IN THIS CONTRACT WITHOUT THE CONSENT OF ACI OR OWNER.

**ALMENDARIZ CONSULTING**

1136 SUNCAST LN STE 9
EL DORADO HILLS, CA 95762
(888) 306-1211 OFFICE (888) 768-7022 FAX
CA C31 LIC #979806


LOCATION LOWER SACRAMENTO RD, WOODBRIDGE, CA

**Pacific Gas and Electric Company**

CONTACT MATT GOODWIN
PHONE# (925) 244-3239

PROJECT NO. 151144
DRAWN SM
DESIGNED CAA
CHECKED CAA


DATE
NOVEMBER 4, 2015





SHEET NO. 3 OF 4


FLAGGER OPERATION


SYMBOL LEGEND


 CONSTRUCTION SIGN


 FLAGGER

 28" CONE

 TYPE I BARRICADE

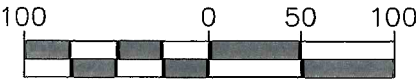
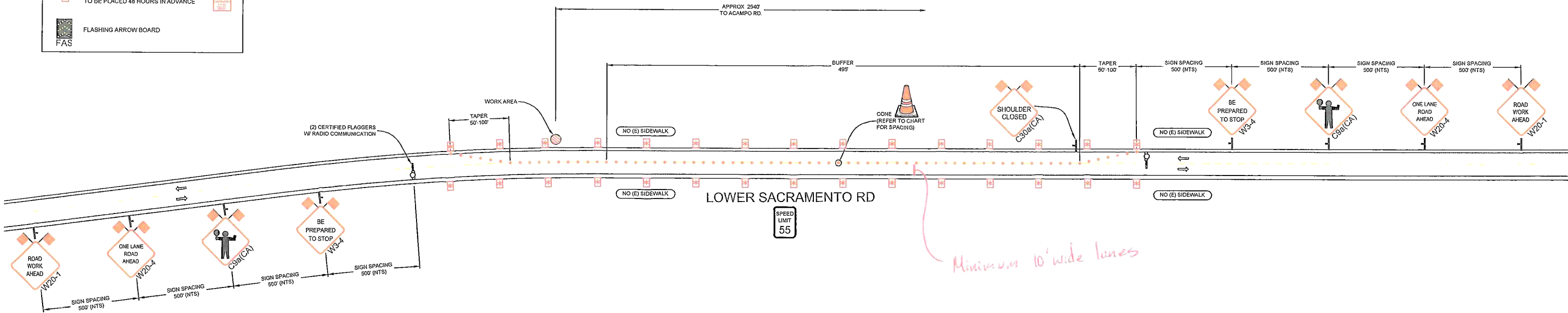
 TYPE III BARRICADE

 NO PARKING SIGN ON TYPE I BARRICADE TO BE PLACED 48 HOURS IN ADVANCE

 FLASHING ARROW BOARD
FAS

NOTES


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- CONTRACTOR SHALL ASSIGN A WORKER TO ASSIST PEDESTRIANS AROUND WORK AREA.
- CONTRACTOR SHALL MAINTAIN A MINIMUM 4' PATH OF TRAVEL FOR PEDESTRIANS
- MAXIMUM CHANNELIZING DEVICE SPACING FOR ALL SPEEDS ON ONE-LANE/TWO-WAY TAPERS IS 20'
- W20-1 (ROAD WORK AHEAD) SIGNS SHALL BE PLACED ON ALL SIDE STREETS BETWEEN THE WORK AREA AND THE FIRST SIGN ENCOUNTERED BY TRAFFIC ON THE HWY




CONST. HOURS: 8:00AM-4:00PM MON-FRI

REVISIONS			
REV	DESCRIPTION	REV DONE BY	DATE

PM31179016

 ROADS < 50 MPH:
MINIMUM 36" SIGN PANELS
(48" SIGNS MAY BE USED)


 ROADS ≥ 50 MPH:
MINIMUM 48" SIGN PANELS

ALMENDARIZ CONSULTING ACKNOWLEDGES NO RESPONSIBILITY IN THE CASE OF ANY ACCIDENT, INJURY, OR DEATH OCCURRING DURING THE USE OF THESE PLANS. PLANS ARE NOT TO BE DUPLICATED FOR USE BY ANY PERSONS NOT INCLUDED IN THIS CONTRACT WITHOUT THE CONSENT OF ACI OR OWNER

**ALMENDARIZ
CONSULTING**

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EL DORADO HILLS, CA 95762
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LOCATION LOWER SACRAMENTO RD, WOODBRIDGE, CA

 **Pacific Gas and
Electric Company**

CONTACT MATT GOODWIN
PHONE* (925) 244-3239


PROJECT NO. 151144

DRAWN -

DESIGNED SM

CHECKED CAA

DATE
NOVEMBER 4, 2015



SHEET NO. 4 OF 4