



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-1801052**
Date Issued: 04/03/2018
Start Date: 04/03/2018
Exp. Date: 07/15/2018
Project No: PWP730052
Quad: SW

UE/CR/PM NO:31082615

ENCROACHMENT PERMIT

To: PACIFIC GAS & ELECTRIC - STOCKTON
PO BOX 930
STOCKTON, CA 95201

Encroachment Type:

Potholing Only	(5)-Locations		
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Location:

W/S OF LAMMERS RD. 2800' S/O VALPICO RD.

In compliance with your request of **04/03/2018**, 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

Est. Permit Fee: \$678.00

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 3/29/2018

To: San Joaquin County
Department of Public Works

PG&E PM 31082615

(Applicant Name)

4040 West Lane

(Mailing Address)

Stockton, CA 95204

(City, State, Zip Code)

(209) 470 - 2300

(Area Code - Telephone Number)

s6pz@pge.com

(Email Address)

OFFICE USE ONLY

JOB #	<u>730052-6</u>	REF #	
APN		CR #	
EXP. DATE	<u>7/15/18</u>		
VALID	<u>4/2/18</u> TO <u>7/15/18</u>	DRIVEWAYS:	
STREET	<u>LAMMERS RD.</u>	*	
AREA	<u>TRACY</u> QUAD <u>SW</u>	*	
TYPE	<u>- POTHOLES ONLY -</u>	*	
FORMS	<u>SS/WW, R-29</u>		
NOTES			

Sketch (Detailed plans may be submitted)

See attached sketch,

Crew to call SJ County Inspector at (209) 953-7421 **48 to 72 hours before** work starts.

When calling, crew shall request "rain clearance" for any work during winter months

November through March

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the WEST side of Lammers Road, approximately 2800' SOUTH of Valpico & Lammers Road by performing the following work (description of work):

Potholing only - along Lammers Rd.

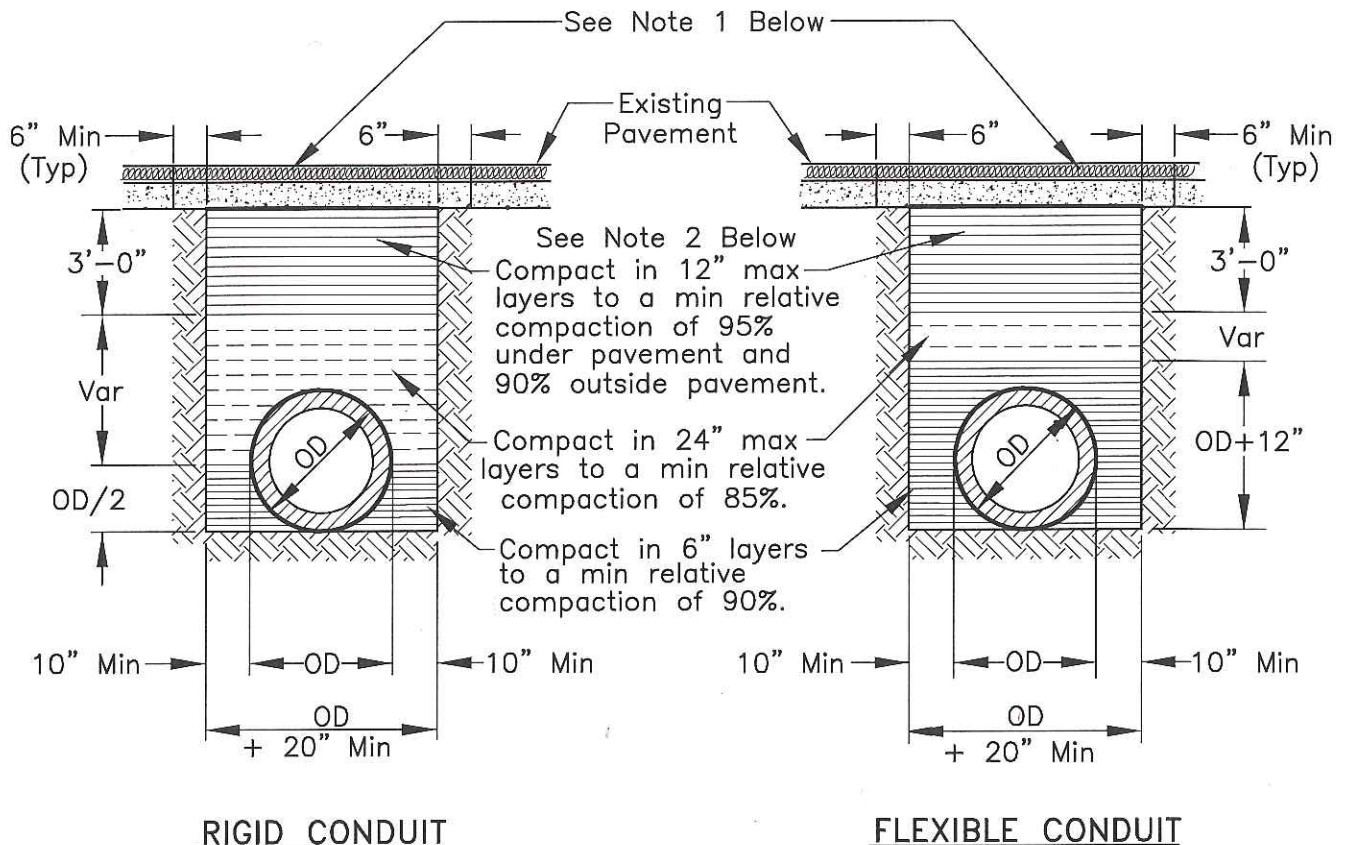
Work will commence on or after 4/1/2018 for approximately 90 days.

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.

Signature of Applicant - Title

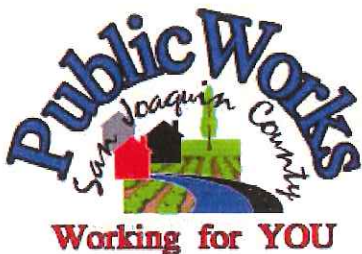
3/29/2018

Date



NOTES:

1. New pavement shall be 1" thicker than existing pavement, minimum of 0.25 Ft. New base shall be 1" thicker than existing base, min of 0.50 Ft.
2. Select native material or imported granular material as approved by the Director of Public Works. Backfill with materials equal to or better than the existing pavement and base in quality.
3. Relative compaction of materials shall be tested in accordance with the State of California, Dept. of Transportation Testing Manuals, test method No. California 216 or 231.
4. All existing pavement shall be neatly cut to line prior to trench excavation.
5. Jetting or ponding will be permitted within the street right-of-way with a 3 year bond, when approved by the Director of Public Works.
6. When shown by soil composition and compactability, ninety percent (90%) compaction may be used, when approved by the Director of Public Works.
7. Special bedding and backfill requirements may be shown on the plans or specified in the special provisions.



TYPICAL TRENCH BACKFILL

COUNTY OF SAN JOAQUIN
DEPARTMENT OF PUBLIC WORKS

Date: DEC 2014

Approved by:

Thomas M. Gull

No.	Revision	Description	Date

Std. Dwg. No.

R-29

GENERAL PROVISIONS

GOVERNING INSTALLATION OF SUBSURFACE STRUCTURES AND PIPELINES WITHIN COUNTY ROAD RIGHTS-OF-WAY

PUBLIC CONVENIENCE AND SAFETY:

- A. Before obstructing any private driveway entrance or County road traveled way with a trench, spoil bank, equipment or other barrier permitted for any prolonged period of time, the Permittee shall notify the known users of the respective thoroughfare(s) involved, and shall provide access for vehicular and pedestrian traffic to and from the road.
 - 1. Unless otherwise permitted, all work shall be conducted in such a manner that no less than one lane of the existing County road traveled way will be maintained open to public traffic during working hours in a smooth and safe riding condition(s). Two lanes shall be open after working hours.
 - 2. In cases where road closure is permitted, the permission to close the road will be granted under the condition that the Permittee notify the following persons and/or agencies of the time, the period of closure, and the detour route at least twenty-four (24) hours prior to said road closure.
 - a. The County of San Joaquin Public Works Department
 - b. The County of San Joaquin Sheriff's Office
 - c. The local postal service
 - d. The local fire district
 - e. The local school district
 - f. The local residents involved
- B. Should hazardous conditions relative to the installation operations warrant flagmen, as many capable flagmen as may be necessary shall be provided by the Permittee and stationed in advance of work to warn and direct traffic.
- C. Lights, signs and barricades shall be furnished, erected and maintained by the Permittee for the adequate warning and convenience of the public, with particular attention to be taken in this regard after dark.
- D. Any excess dirt and/or debris which might be a hazard to either automobile or pedestrian traffic, uncontrollable by lights, signs and barricades, shall be removed from the jobsite daily.

STRUCTURES:

- A. Walls of structures shall be such quality and strength that they will resist all pressures and will not crack or be deformed in such a way as to create a hazard or maintenance problem at any time. Therefore, the minimum structural requirements for concrete pipe placed under county road rights-of-way shall conform to the following American Association of State Highway and Transportation Officials (AASHTO) designations.
 - 1. For concrete pipe up to and including thirty-three inches (33") inside diameter, extra strength concrete conforming to AASHTO Designation M 170M.
 - 2. For concrete pipe thirty-six inches (36") inside diameter and larger, reinforced concrete pipe conforming to AASHTO Designation M 170M Class III.
 - 3. Plastic pipe conforming to AASHTO Designation M294.
- B. All concrete pipe joints with County road rights-of-way shall be sealed against leakage and/or infiltration with rubber gasket in conformance with Section 65-1:06 of the California Standard Specifications, or with other methods as may be permitted under the Special Provisions.
- C. Cast-in-place concrete pipe, vitrified clay pipe, spiral welded steel pipe, or corrugated aluminum alloy pipe shall not be installed within the County road rights-of-way unless specifically so stated in the Special Provisions, and only under the conditions as provided.
- D. All structures to be buried within the County rights-of-way shall be set at such elevations as to allow minimum coverage of thirty inches (30") to the centerline of the roadways and twelve inches (12") at the bottoms of borrow ditches each side of the roadways. The depths of structures shall be established below a flat plane extending across the rights-of-way, no part of which shall extend above the elevations stated above; manholes, lampholes, valves, etc. not included. Future surface elevations shall be anticipated as nearly as possible and structure elevations shall be established for future adjustments accordingly.
- E. The County hereby reserves the right to specify in the Special Provisions the gage and surface treatment of any galvanized corrugated metal pipe that is to be installed.
- F. All longitudinal utility facilities are to be established (and dimensioned on sketches) from surveyed centerline of road right-of-way, not from right-of-way (border) lines.

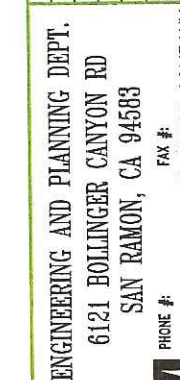
REPAIRS OF THE COUNTY RIGHT-OF-WAY:

- A. All excavations shall be backfilled and compacted immediately after work therein has been completed.
- B. Trenched shall not be left open farther than 300 feet in advance of pipe laying operations, or 200 feet to the rear thereof, unless otherwise permitted by the Engineer.
- C. Unless otherwise permitted under the Special Provisions, backfill shall be placed and mechanically compacted in such a manner that the relative compaction throughout the entire fill within the County road right-of-way shall conform to the percentages of compaction as shown on the Trench detail.
- D. Backfill material shall be placed in horizontal uniform layers not to exceed in thickness, before compaction, 0.67 foot in the bedding region, one foot where 90% compaction is required, and two feet where 80% compaction is required.
- E. No portion of the excavation(s) shall be compacted by ponding or jetting unless a maintenance bond is provided.
- F. Gravel backfill material shall be utilized only where specifically so stated on the face of the permit. It shall be compacted by means of a high-frequency internal vibrator, the compactor to be a size and type approved by the Engineer. Points of compaction shall not be greater than 18" centers and to the full depth of the lift.
- G. All pavements, curbs, gutters, sidewalks, borrow ditches, pipes, head walls, road signs, trees, shrubbery, and/or other permanent road facilities impaired by or as a result of construction operations at the construction site(s) occupied by materials and/or equipment, shall be restored immediately upon backfilling of the excavation to the original grades and cross sections, and to a condition as good as, or better than existing prior to construction.
- H. All surfacing materials of roadways and driveway approaches cut or damaged by or as a result of construction operations, shall be replaced within ONE WEEK following the backfilling of excavation, weather permitting, with compacted layers of surfacing materials at least as thick as the existing, and no less than two inches (2") of asphalt concrete over six inches (6") of aggregate base, both as specified below.
 - 1. Asphalt Concrete: Combined mineral aggregate shall conform to the quality and gradation requirements for Type "B" one-half inch (1/2) maximum aggregate, coarse or medium gradation as specified in Section 39 of the California Standard Specifications. The bituminous binder to be mixed with mineral aggregate shall be paving asphalt having (Grade PG 64-10), unless otherwise directed by the Engineer. Placement of asphalt concrete surfacing shall conform to the applicable provisions of Section 39 of the California Standard Specifications.
 - 2. Aggregate Base: Combined mineral aggregates shall conform to the quality and the grading for three-quarter inch (3/4") maximum size aggregate Class 2 Aggregate Base specified in Section 26 of the California Standard Specifications.
- I. Before acceptance of repairs to the County road rights-of-way, all unsightly and detrimental dirt, dust and/or debris shall be removed and the construction areas left in a neat and presentable condition(s).
 - 1. If necessary, County road traveled way and driveway pavements shall be washed with water to remove dirt and dust.
 - 2. Driveway approaches and field entrance pavements damaged by equipment or spoil banks shall be repaired as directed by the Engineer.
- J. Upon request by the County, any settlement, sagging of surface, or cracking of pavement shall be repaired immediately by and at the sole expense of the Permittee for a period of one year following acceptance of the work.

SPECIAL PROVISIONS

Winter Weather Utility Work

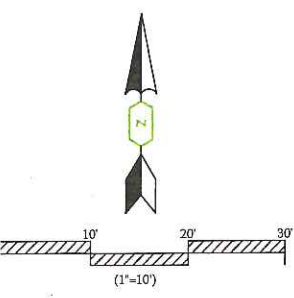
1. **SUPERVISION:** The utility company (**permittee**) shall furnish full-time supervision of all work to insure compliance with the permit provision.
2. **START OF WORK:** No work within the County right-of-way shall be started until the utility company representative has made an evaluation of weather conditions and has determined the work can be accomplished under the provisions of the permit.
3. **CLEAN PAVEMENT:** Dirt and mud shall not be deposited on the pavement outside the area of work, and if inadvertently tracked onto the road travel way shall be removed immediately.
4. **DAILY RESTORATION:** Private driveways and road intersections shall be restored daily.
5. **WEATHER-TIGHT CONDITIONS:** All trenches shall be filled and compacted, ditches and other drainage facilities regarded and opened, and the entire work area restored to weather-tight condition prior to any rain.



EST:	GUY MENDENHALL
ADE:	RUSS MARTINO/SCOTT HART
SUPV:	GERALD GABRIEL
REP:	SARAH MORGAN
PLNR:	DAVE RYMERS
CONF:	DATE:



CATE REG STATION TYPH-34
 OSPECTING PERMIT SKETCH
 LAMMERS RD & VALPICO RD
 TRACY, CA



PLAN VIEW

NEED THIS LOCATION PROSPECTED

NEED THIS LOCATION PROSPECTED

NEED THIS LOCATION PROSPECTED

NEED THIS LOCATION PROSPECTED

NEED THIS LOCATION PROSPECTED

-REMOVE ALL EXISTING PROTECTION POSTS

S. LAMMERS RD (50')

LEGEND

EXISTING

GAS MAIN (SIZE & PRESSURE AS NOTED)

GAS MAIN TO BE C/O (SIZE & PRES AS NOTED)

GAS SERVICE (SIZE & TYPE AS NOTED)

PROPERTY LINE

EDGE OF PAVEMENT

ELECTRIC (OVERHEAD)

POWER POLE

REGULATOR VAULT

MONITOR VAULT

VAULT VENT

ETS STATION

FIRE VALVE

PRESSURE CONTROL FITTING

INSULATING JOINT

TRANSITION FITTING (EXISTING)

REDUCER (EXISTING)

PROTECTION POST (EXISTING)

INSTALL

GAS MAIN (TP)

GAS MAIN (HP)

GAS SERVICE

PG&E ELECTRIC (SCADA)

TRENCH IDENTIFIER

FIRE VALVE

SCADA RTU CABINET (PAD)

PRESSURE CONTROL FITTING

REGULATOR VAULT

MONITOR VAULT

VAULT VENT

INSULATING JOINT

ETS STATION

TRANSITION FITTING

REDUCER

MAIN CAP

ELECTRONIC MARKER BALL

(SECTION A)

(SECTION B)

(SECTION C)

(SECTION D)

PIPE WARNING TAPE

TRENCH NOTES:
- INSTALL A 6" WIDE WARNING TAPE WITH THE WORDS "CAUTION: GAS LINE BURIED BELOW" (CODE 37-9947) IN ALL OPEN TRENCHES PER L-16. DO NOT INSTALL IN PG&E ELECTRIC-ONLY TRENCH.
- INSTALL A 3" WIDE MARKING TAPE WITH THE WORDS "GAS LINE IN CONDUIT" (CODE 37-3371) BY SPIRAL-WRAPPING AROUND EACH SCADA CONDUIT FOR ITS ENTIRE LENGTH WHERE HORIZONTAL DISTANCE BETWEEN SPIRALS DOES NOT EXCEED 36". DO NOT INSTALL AROUND PG&E ELECTRIC CONDUIT.
- MAINTAIN 6" SEPARATION WHERE POSSIBLE BETWEEN SCADA SENSE LINE CONDUIT AND SCADA SIGNAL CONDUIT.
- BACKFILL SAND PER EHS-4123
- RESTORE GRADE PER CITY REQUIREMENTS (AS REQUIRED)

TRENCH DETAILS

(SITE SPECIFIC)
(N.T.S.)

CO: SD: NO: 108196061
OFFER: SH: 2 OF 2 SHEETS
REV: 0

ENGINEERING AND PLANNING DEPT.
6121 BOLLINGER CANYON RD
SAN RAMON, CA 94583
PHONE: # FAX: #
DATE: 03-29-18
SCALE: 1" = 10'

EST: GUY MENDENHALL
ADD: RUSS MARTINO/SCOTT HART
SUPV: GERALD GABRIEL
REF: SARAH MORGAN
PLNR: DAVE RYMERS
31082615 GSHD
ORDER # DWM CHGO SUPV
NO. DATE DESCRIPTION
0 03-19-18 ISSUED FOR PERMIT
1 03-29-18

OCATE REG STATION TYPH-34
PROSPECTING PERMIT SKETCH
LAMMERS RD & VALPICO RD
TRACY, CA

REV. 0
31082615
PACIFIC GAS AND ELECTRIC COMPANY

TRAFFIC CONTROL PLANS

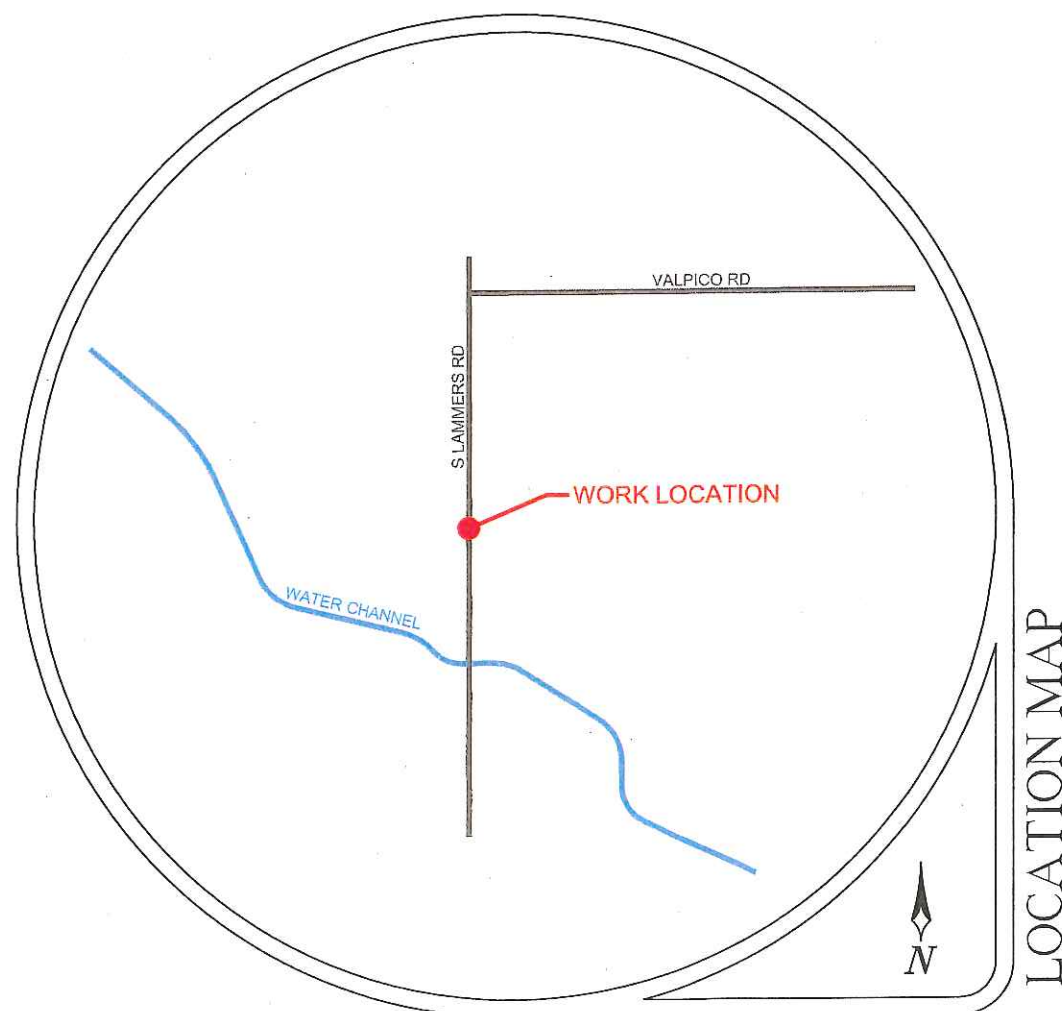
VAULT & RTU CABINET INSTALLATION

S LAMMERS RD

TRACY, CALIFORNIA

SAN JOAQUIN COUNTY

PM31082615



CONTRACTOR



CONTACT: GUY MENDENHALL
PHONE# (925) 328-6257

CONSULTANT



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

REVISIONS				PROJECT NO. 171049	
REV.	DESCRIPTION	REV DONE BY	DATE	DRAWN	BWD
				DESIGNED	BWD
				CHECKED	CAA
				DATE	
				OCTOBER 25, 2017	
				SHEET NO. 1 OF 3	

COUNTY 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 (REVISION 2).
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 (REVISION 2) STANDARDS AND ADA REQUIREMENTS.
14. C30 SIGNS ARE PERMITTED IN BUFFER AREAS.
15. SIGN SPACING IS PROVIDED IN THE CA 2014 MUTCD (REVISION 2), 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 (REVISION 2) 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 NWTa-1 THROUGH NWTa-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 (REVISION 2) 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 [per section 6C.04]
			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..

The conflict spacing shall be used on intermediate and short-term
projects for taper and tangent sections where there are no
pavement markings or where there is a conflict between existing
pavement markings and channelizers.

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. 171049 DRAWN BWD DESIGNED BWD CHECKED CAA DATE OCTOBER 25, 2017	SHEET NO. 2 OF 3
REV.	DESCRIPTION	REV. DONE BY	DATE		


2-WAY FLAGGER OPERATION


SYMBOL LEGEND


 CONSTRUCTION SIGN


 TYPE I BARRICADE

 TYPE III BARRICADE

 28" CONE

 FLAGGER


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


 FLASHING ARROW BOARD SIGN (FAS)

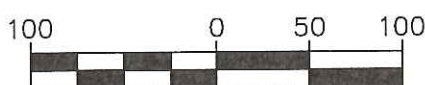
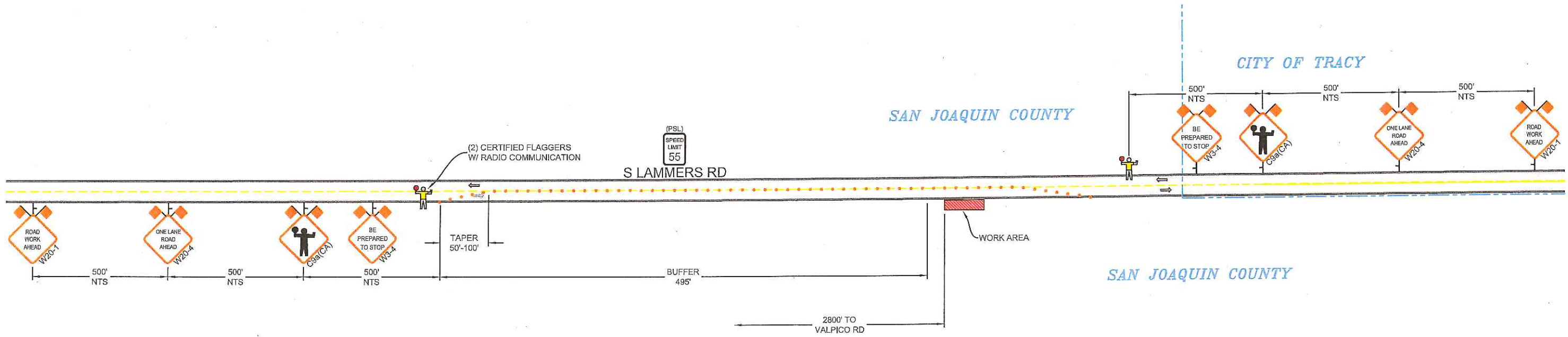
NOTES

- 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.
- 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.
- MAXIMUM CHANNELIZING DEVICE SPACING FOR ALL SPEEDS ON ONE-LANE/TWO-WAY TAPERS IS 20'.

FOR NIGHT WORK:

 NOTE: LIGHT PLANT TO BE USED TO ILLUMINATE WORK AREA AND FLAGGERS.

 NOTE: FLASHING BEACONS TO BE USED AT NIGHT ON ROAD WORK AHEAD SIGNS ONLY.



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

REVISIONS			
REV.	DESCRIPTION	REV DONE BY	DATE

PM31082615

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

 ROADS ≥ 50 MPH:
MINIMUM 48" SIGN PANELS

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PHONE# (925) 328-6257

LOCATION: S LAMMERS RD, TRACY, CALIFORNIA

PROJECT NO. 171049
DRAWN BWD
DESIGNED BWD
CHECKED CAA
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SHIELD  SHEET NO. 3 OF 3