



# 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-1701476  
Date Issued: 05/23/2017  
Start Date: 05/23/2017  
Exp. Date: 12/01/2017  
Project No: PWP730052  
Quad: NE

UE/CR/PM NO:31233247

## ENCROACHMENT PERMIT

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

### Encroachment Type:

Trench			
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### Location:

N/S ARATA RD 530' W/O BALDWIN LN

In compliance with your request of 05/23/2017, 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\*\*NO BOLLARDS ALLOWED\*\*

FORMS: SS/WW, R-29

Est. Permit Fee: \$500.45

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.



Gas

## APPLICATION FOR ENCROACHMENT PERMIT

## PLEASE PRINT:

Date 04 / 25 / 2017To: San Joaquin County  
Department of Public WorksPG&E PM 31233247  
(Applicant Name)4040 West Lane  
(Mailing Address)Stockton, CA 95204  
(City, State, Zip Code)(209) 373 - 9432 rxd2@pge.com  
(Area Code - Telephone Number)

## OFFICE USE ONLY

JOB # 730052 REF #

APN CR #

EXP. DATE 12-1-17VALID 8-23-17 TO 12-1-17STREET Arata RdAREA Stockton QUAD NETYPE TrenchFORMS SSW W R29

NOTES

DRIVEWAYS:

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Sketch (Detailed plans may be submitted)

See 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. NO Bollards will be installed.

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the N/W side of Arata Rd approximately 530 (feet) mile S/W of Baldwin Lane, Stockton, by performing the following work (description of work):  
CIA Ground Vault would damage sensitive Electronics  
Install RTU cabinet on Shoulder - Above  
Ground Cabinet.

NO Bollards to be installed at cabinet location.

Work will commence on or about 5-22-17 for approximately 2 days.  
End 11-30-17

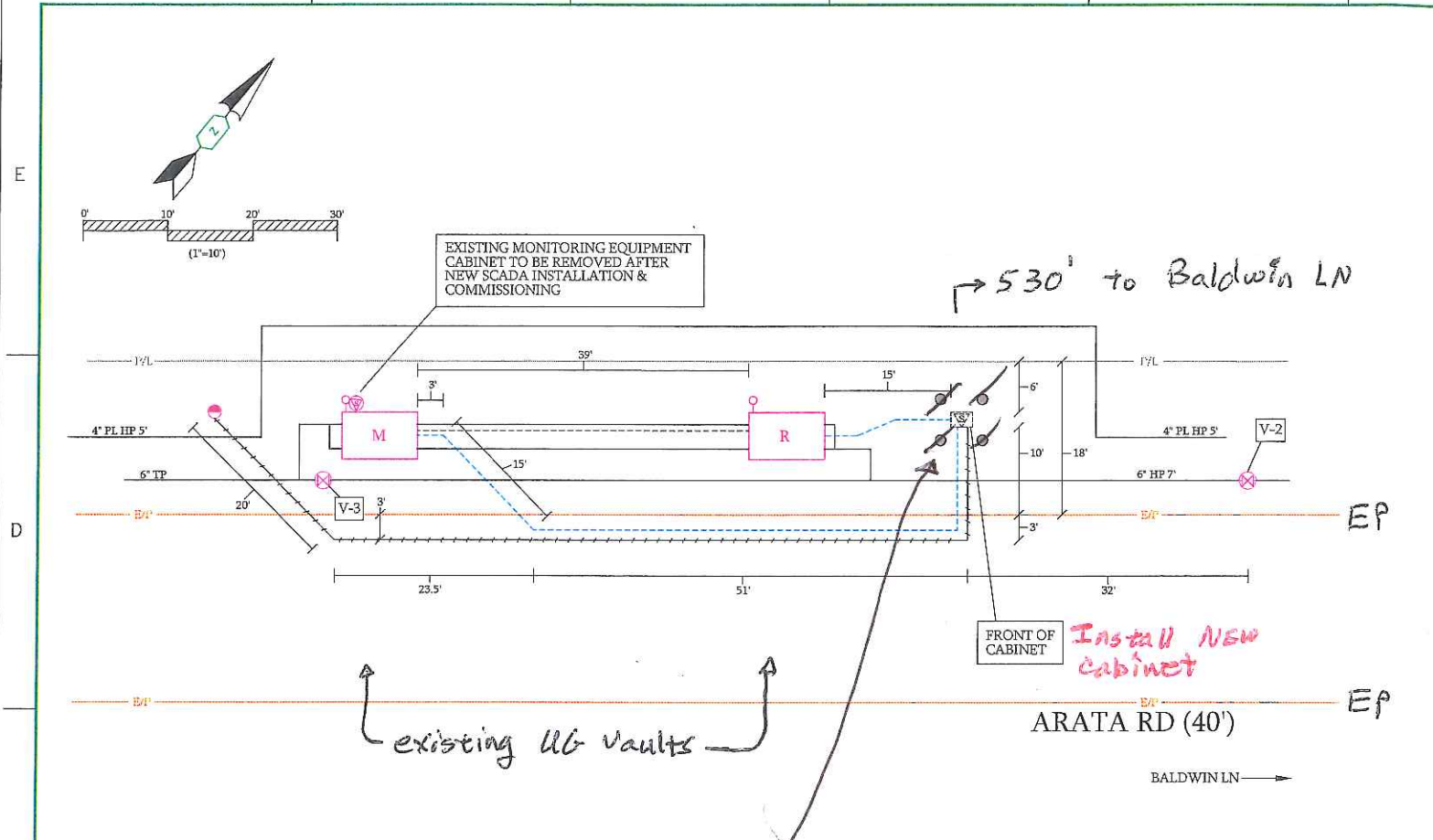
I, the undersigned, certify that I am the owner of the respective property, or am qualified to represent the owner and agree to do the work described above in accordance with the rules and regulations of San Joaquin County and subject to inspection and approval.

Roland Davis Flt Engr  
Signature of Applicant - Title

04/25/2017  
Date

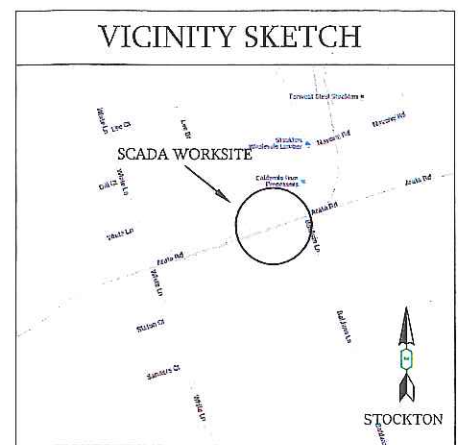






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SHEET 8 - CABINET LAYOUT  
SHEET 9 - POWER SOURCE & ANTENNA DETAIL



**CONTACT LIST**

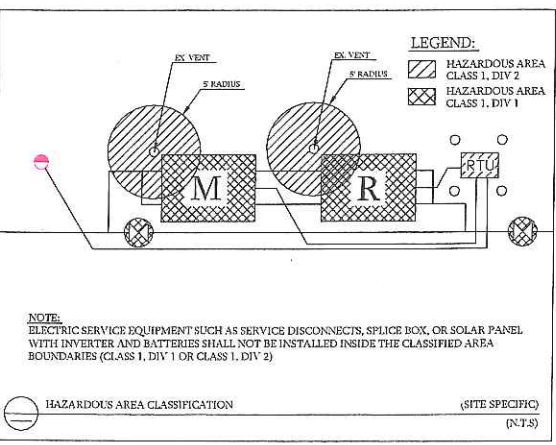
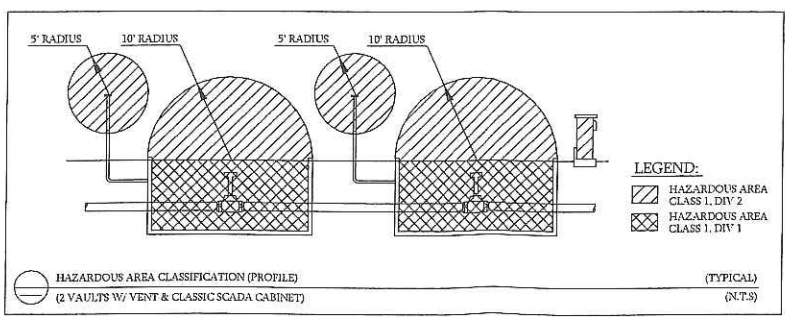
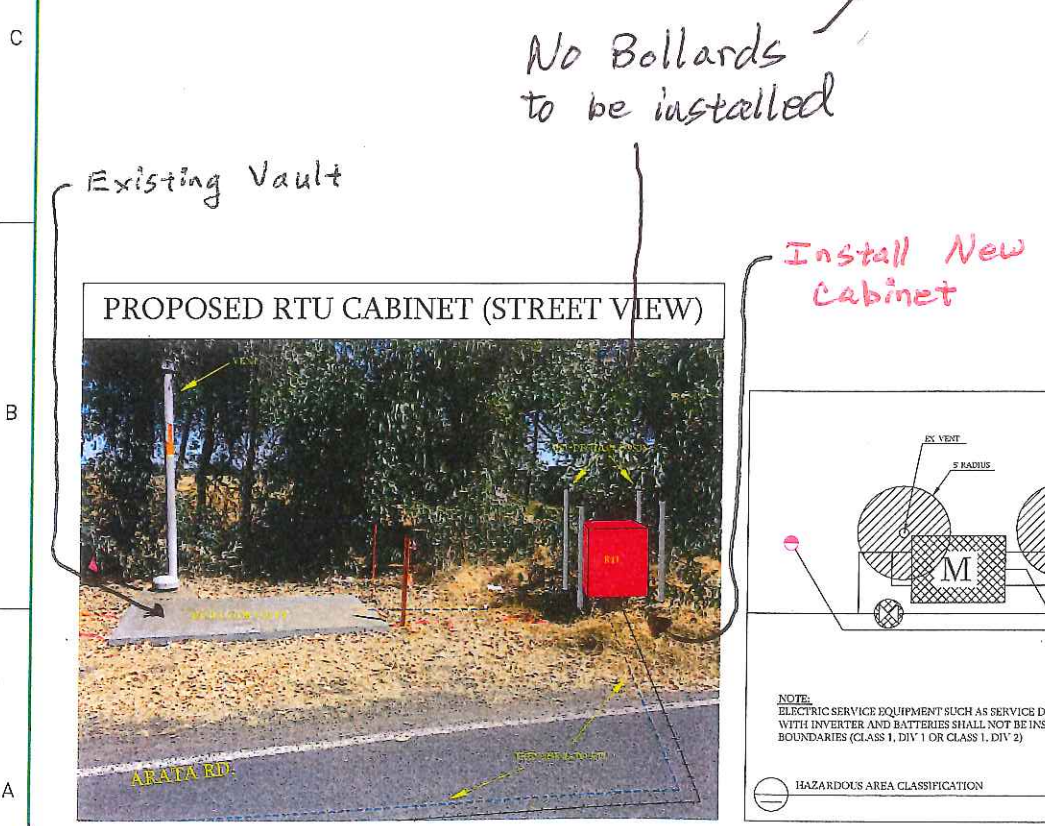
TITLE	NAME	PHONE
GAS ESTIMATOR	KYLE FOX	(925) 244-3923 O
GAS A.D.E.	SCOTT HART	(925) 244-3110 O
ESTIMATING SUPERVISOR	GERALD GABRIEL	(925) 244-3254 - O (510) 385-6311 - C
PROJECT MGR	JACK PRICE	(559) 263-5548 O
GDE&D DISTR ENGINEER	AARON YU	(209) 932-6461 O
GDE&D SR. ENGINEER	KIRAN BAINS	(209) 932-6443 C
GSP PLANNING ENGINEER	DAVE RYMERS	(209) 942-1626 O (209) 406-7782 C
SR. SCADA PROJ. ENGINEER	JAMES FLORANCE	(925) 328-6226 O
I&R SUPERVISOR	RICK MUOK	(209) 832-6555 O
GC FIELD ENGINEER	SCOTT WRAY	(510) 407-5519 - O
GC M&C SUPERVISOR	JOSE ARVIZU	(209) 401-4073 - C
GC DIST SUPERVISOR	LUIS PLANCARTE	(415) 559-9982 - C
CORROSION SUPERVISOR	MIKE LUMM	(209) 576-6338 C
ELEC. CONNECT COORDINATOR	KELLY LYNCH	(559) 250-5059 - C

**LEGEND**

—	GAS MAIN (SIZE AS NOTED) (EXISTING)
— P/L —	PROPERTY LINE
— E/P —	EDGE OF CURB, FACE OF CURB
— / / / —	PG&E ELECTRIC (SCADA) (INSTALL)
— — — —	SCADA SENSE LINE (INSTALL)
— — — —	SCADA 3/4" SENSE LINE (WELDED) (INSTALL)
⊗	FIRE VALVE (EXISTING)
⊗	SCADA RTU CABINET (PAD) (INSTALL)
⊗	ERK (EXISTING)
⊗	POWER POLE (EXISTING)
⊗	REGULATOR VAULT (EXISTING)
⊗	MONITOR VAULT (EXISTING)
⊗	VENT STACK (EXISTING)
⊗	PROTECTION POST (INSTALL)

**OPERATING DATA**

WM: 3006
CPA: 300601
HIS: Stockton HP
TBA: X-02
SCADA RTU NAME: ST STK RS62
MAOP INLET: 720 PSIG
MAOP-S INLET: 720 PSIG
MAOP OUTLET: 60 PSIG



CATHODIC PROTECTION IN WORK AREA  
ATTENTION FOREMAN:  
NOTIFY THE CORROSION DEPT.  
AT (209) 576-6538, 24 HOURS  
PRIOR TO START OF WORK.



- Permit Sketch GAS NOTES**
- PG&E WILL TRENCH AND BACKFILL.
  - PG&E WILL INSTALL ALL FACILITIES.
  - GC GAS TO COORDINATE WORK WITH DIVISION I&R DEPT. CONTACT RICK MUOK @ (209) 832-6555
  - GC GAS TO OBTAIN AS-BUILT DRAWINGS OF REGULATOR STATION TO IDENTIFY LOCATION OF EXISTING CONTROL SENSE LINES. CONTACT LOCATE AND MARK PERSONNEL TO ASSIST
  - FOLLOW EXCAVATION REQUIREMENTS IN TD-4412P-05 WHEN WORKING NEAR TRANSMISSION AND FOREIGN FACILITIES
  - GC M&C TO NOTIFY CORROSION DEPT. 24 HOURS BEFORE INSTALLING TUBING AND INSULATING FITTINGS
  - CONTACT GAS PLANNER DAVE RYMERS @ (209) 942-1626 TO REVIEW ANY TEMPORARY OPERATING CHANGE THAT EXISTS BEYOND ONE DAY
  - INSTALL A 6" WIDE WARNING TAPE WITH THE WORDS "CAUTION: GAS LINE BURIED BELOW" (CODE 379947) 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 373371) 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.
  - INSTALL A CLOSED-LOOP OF LOCATING WIRE WITH ETS FOR ALL SCADA CONDUIT. SEE SHEET 3 FOR DETAIL.
  - INSTALL RTU PAD AT 6" ABOVE GRADE. SEE SHEET 3 FOR DETAIL.
  - INSTALL SCADA CONDUIT STUB-UPS AT RTU PAD PER RECOMMENDED LAYOUT. SEE SHEET 3 FOR DETAIL.
  - FOLLOW DOCUMENT 072248, FIGURE 8 & 9 (IN JOB PACKAGE) FOR INSTALLATION DETAILS OF CONNECTING ELECTRIC SOURCE TO SCADA
  - REFER TO HAZARDOUS AREA CLASSIFICATION DETAIL ON SHEET 1
  - COAT ALL EXPOSED STEEL PIPE AND FITTINGS (EXCEPT STAINLESS STEEL) PER E-31
  - CONTACT KELLY LYNCH @ (559) 250-5059 FOR ANY ELECTRIC CONNECTION OR RADIO QUESTIONS
  - OBTAIN APPROVED PLANNED WORK CLEARANCE BEFORE COMMISSIONING SCADA EQUIPMENT PER TD-4441P-01
  - OBTAIN APPROVED GAS CLEARANCE PRIOR TO SHUTTING IN STATION (IF NEEDED)
  - REMOVE EXISTING PRESSURE MONITORING EQUIPMENT AFTER COMMISSIONING NEW SCADA EQUIPMENT

- WORK RECAP**
- PG&E TO INSTALL PROPOSED RTU CABINET, PAD, AND (4) PROTECTION POSTS
  - PG&E TO INSTALL SCADA SENSE LINES, SCADA CONDUITS, AND PG&E ELECTRIC CONDUIT
  - PG&E TO INSTALL 1" CONDUIT (VARIOUS MATERIAL), FOR SCADA POWER (C1) FROM ORIGINAL SOURCE TO RTU CABINET
  - PG&E TO INSTALL 2" CONDUIT (VARIOUS MATERIAL), FOR SCADA COMM (C2) FROM ORIGINAL SOURCE TO RTU CABINET
  - PG&E TO INSTALL (1) 1" RIGID STEEL CONDUIT, PVC-COATED, FOR FUTURE SCADA SIGNAL (C6) FROM REGULATOR VAULT TO RTU CABINET
  - PG&E TO INSTALL (1) 1" RIGID STEEL CONDUIT, PVC-COATED, FOR FUTURE SCADA SIGNAL (C4) FROM MONITOR VAULT TO RTU CABINET
  - PG&E TO INSTALL 3" GREY PVC CONDUIT, SCHED 40, FOR SCADA SENSE LINES (S1, S2, S3) FROM REGULATOR VAULT TO RTU CABINET
  - PG&E TO INSTALL (1) 3/4" SCH 80 WRAPPED STL PIPE, WELDED, FOR SCADA SENSE LINES (S1) FROM MONITOR VAULT TO REG VAULT
  - PG&E TO UTILIZE (3) EXISTING STEEL TAPS FOR SENSING LINES (S1, S2, S3)

ENGINEERING AND PLANNING DEPT.  
6121 BOLLINGER CANYON RD.  
SAN RAMON, CA 94583  
PHONE # 925-244-3303  
FAX # 925-244-3923  
PG&E PACIFIC GAS AND ELECTRIC COMPANY

CO: SD: NOTIF.: 11136908  
Offert: SHIT: 1 OF 9 SHEETS  
REV. PM: 31233247

EST: KYLE FOX  
ADE: SCOTT HART  
SUPV: GERALD GABRIEL  
REP: JACK PRICE  
PLNR: JAMES FLORANCE  
SCALE: 1"=10'  
DATE: 7/21/16  
ORDER # DWN CHGO SUPP  
APRD BY  
DESCRIPTION  
REVISIONS

CONSTRUCTION SKETCH  
SCADA TYPE 1A/13  
ARATA RD. & BALDWIN LN  
STOCKTON, CA





# **SIGNS BEING USED**



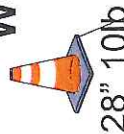
**WORK ZONE**  
G20-5aP & R2-1  
Barricade Mounted,  
placed 400' from  
Work Area

**SPEED LIMIT 25**

mph	feet	CONES SPACING - feet
SPEED	TAPER	SIGN SPACING TAPER TANGENT
25	125'	100'
30	180'	250'
35	245'	500'
40	320'	
45	540'	
55	660'	
Shifting (1/2 taper)	Shoulder (1/3 taper)	

**ELEC**

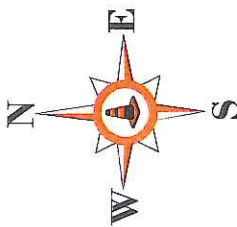
**WORK AREA**



28" 10lb

All flaggers will communicate through hand signals and walkie talkies with one another

R30 24X24" Barricade mounted, placed on both sides of the street 20' apart 72hrs prior to the start of work.



ADDITIONAL FLAGGER TO MAINTAIN CLOSURE AND ASSIST BICYCLE, PEDESTRIAN AND DRIVE WAY TRAFFIC SHOULD NEED ARISE

For TCP questions call  
Robert at 209-200-3351

**PM# 31233247**

Owner	COUNTY OF SAN JOAQUIN
Project Location	Arata Rd
Prime Contractor	PG&E
Subcontractor	City Rise Services, Inc.
Phone	209-333-0807
Sheet Number	PS-1
Date	6/3/2016
Prepared by	CITY RISE SERVICES, INC

Traffic control persons shall not allow traffic to stop nor allow traffic to backup within 50' of any railroad crossing, strictest precautions will be made and executed as per the 2014 MUTCD Railroad Crossing Near A Work Zone Specifications. If any work is to be done under or atop any railroad has been properly notified and the railroad has properly diverted all rail cars and trains onto tracks that have a zero chance of negative effect on workers, railway personnel or the traveling public.

SEE SPEC SHEET 2 FOR ADDITIONAL TRAFFIC CONTROL STIPULATIONS

Pedestrian and Bicycle Access to remain open at all times.

Minimum 12ft clearance for traffic

Work shall not exceed 12 hours

**NOT TO SCALE**

**HOURS OF WORK SHALL BE DETERMINED BY THE COUNTY OF SAN JOAQUIN**



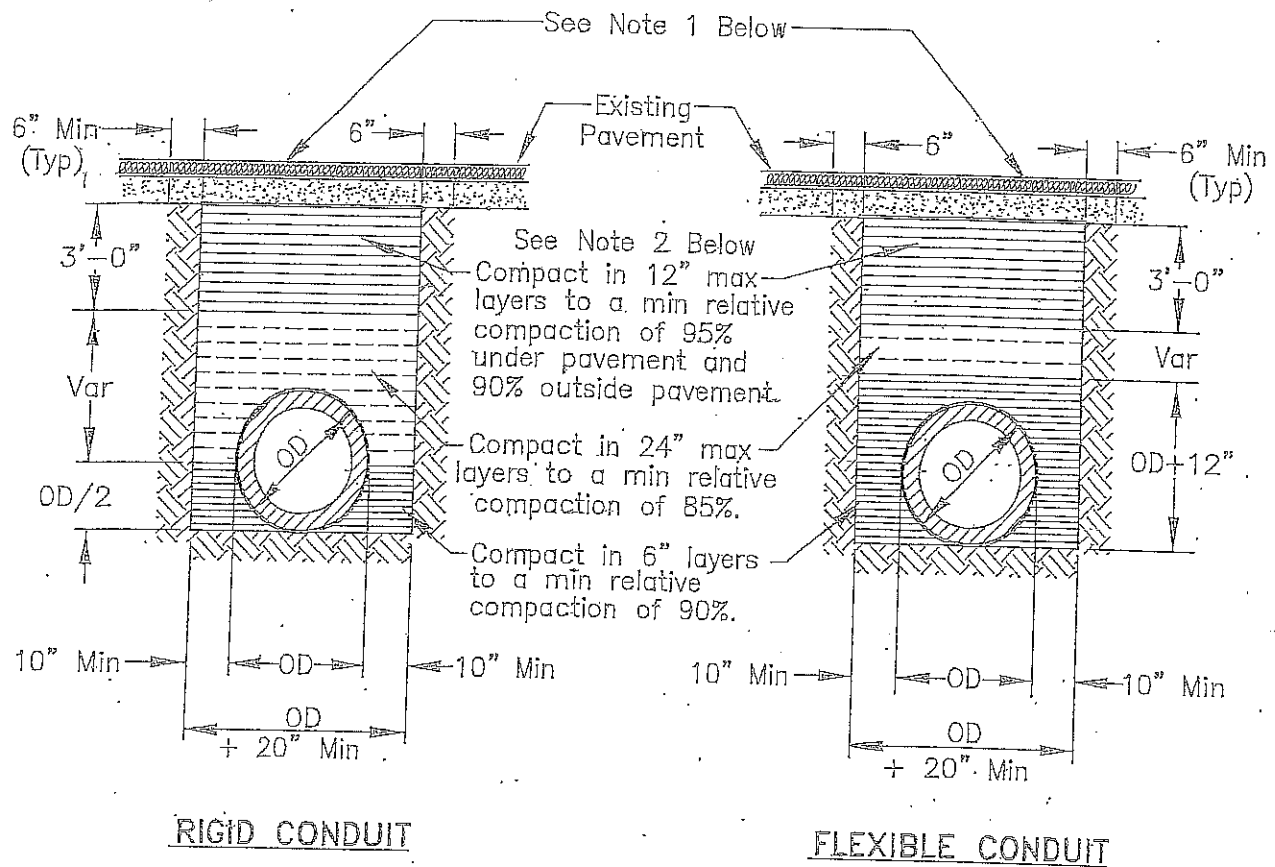


## **CLOSURE STIPULATIONS AND REQUIREMENTS THAT MUST BE FOLLOWED AT ALL TIMES DRIVEWAY ACCESS SHALL REMAIN OPEN OR ACCESSIBLE AT ALL TIMES**

- All lane closures shall meet or exceed CA MUTCD 2014 specifications as well as conform to hours of work set forth by the County.
- All areas of work when encroaching upon sidewalk access OR pedestrian safety shall have the latest CA MUTCD 2014 Edition, Temporary Traffic Control, sidewalk closure detail in place to ensure pedestrian and public safety.
- Pedestrian traffic shall at all time have a minimum 4 feet wide area of travel.
- All open excavation areas shall be backfilled or trench plated prior to public usage.
- All closures set forth in this TCP are the minimum allowed on project, field conditions may change requiring further traffic safety devices or traffic control person to ensure safety of traveling public, pedestrians as well as work forces.
- All changes to ensure safety will be made immediately to ensure a safe environment for all parties.
- All traffic control devices, vehicles and personnel must be suited for the purpose intended as well as meet or exceed latest CA MUTCD 2014 Edition, Temporary Traffic Control requirements as well as County requirements.
- All Devices shall be removed when no longer required.
- All flaggers shall be certified and all intersections shall be flagged when required as shown on plans.
- If work is done at night or encroaches on the hours of darkness all road work ahead signs shall have a flashing beacon, light towers will be used for flaggers and work areas and all other latest CA MUTCD 2014 Edition, Temporary Traffic Control requirements shall be met or exceeded as well.
- NOT TO SCALE—SPACING OF SIGNS, TAPER AND TANGENTS WILL BE SPACED AS PER TABLE HAS SET FORTH AS GOVERNED BY TRAVEL SPEEDS.
- All traffic devices shall meet or exceed latest CA MUTCD 2014 Edition, Temporary Traffic Control. All signs shall be high intensity night time reflective, 48"x48" roll up signs. All signs shall have a minimum of 2, 18" day time flags attached to sign stands during day time hours and if applicable flashing 12", 12v beacons for night time work.
- Sign stands shall meet latest CA MUTCD 2014 Edition, Temporary Traffic Control, as well as allowing for 18" to 7' height for signs and spring equipped for windy conditions.
- All hours of work shall be dictated by the County specified lane closure charts or as directed by the County Inspector.
- Vehicle path of travel shall never be less than 12' in width. Closures and excavation not to exceed what forces expect to excavate per the daily shift.
- Roadway shall not be opened until safe for public use. All open trenches must be plated or backfilled prior to public usage.
- All areas of excavation must have a valid USA dig tag with corresponding dig ticket number. Proof must be carried with the excavating forces at all times.

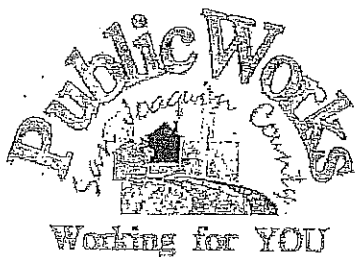






#### NOTES:

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

Approved by:

*Thomas M. Gull*

No.	Revision	Description	Date

Std. Dwg. No.

R-29

Date: DEC 2014





## 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

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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.