



# 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-1800167  
Date Issued: 01/19/2018  
Start Date: 01/19/2018  
Exp. Date: 03/01/2018  
Project No: PWP7110005  
Quad: SE

## ENCROACHMENT PERMIT

To: GEO-LOGIC ASSOCIATES  
11415 W BERNARDO CT #200  
SAN DIEGO CA 92127

### Encroachment Type:

Bore (up to 12 inch Dia)			
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### Location:

E/S SANTA ANA WY 1,900' S/O E MARIPOSA RD

In compliance with your request of 01/19/2018, 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\*\*24 HOUR LANE CLOSURES FROM 01-22-2017 TO 02-09-2017\*\*Work shall not be permitted within the San Joaquin County right-of-way between November 1 and March 31 without prior authorization from the San Joaquin County Field Engineering Division, contact them at (209) 953-7421\*\*DRILLING OPERATIONS FROM 7:00 AM TO 5:00 PM\*\*

FORMS: SS/WW, R-29

Est. Permit Fee: \$915.00

KRIS BALAJI, Director  
Department of Public Works

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

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, 3339, 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 December 4, 2017

To: San Joaquin County  
Department of Public Works

William B. Lopez (Geo-Logic Associates)  
**(Applicant Name)**

11415 West Bernardo Court, Suite 200  
**(Mailing Address)**

San Diego, CA, 92127  
**(City, State, Zip Code)**

(858) 451-1136  
**(Area Code - Telephone Number)**

wlopez@geo-logic.com  
**(Email Address)**

OFFICE USE ONLY			
JOB #	<u>110005</u>	REF #	
APN		CR #	
EXP. DATE	<u>3-1-18</u>		
VALID	<u>1-19-18</u> TO <u>3-1-18</u>		DRIVEWAYS:
STREET	<u>Santa Ana Wy</u>		*
AREA	<u>Stockton</u> QUAD <u>SE</u>		*
TYPE	<u>Bore</u>		*
FORMS	<u>SSWW R29</u>		
NOTES			

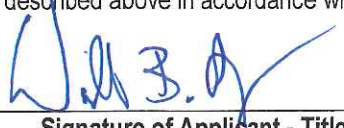
Sketch (Detailed plans may be submitted)

The flaggers and lane closure will be in place 24 hours a day. The lane closure will begin the day the drilling equipment is set up and will end the day that the drilling equipment is removed.

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the East side of Santa Ana Way approximately 1900 feet feet/mile South of E. Mariposa Road, Stockton, CA, by performing the following work (description of work):  
Drill and construct 2 (two groundwater monitoring wells AMW-35S and AMW-35)

Work will commence on or after January 8, 2018 for approximately 21 days.

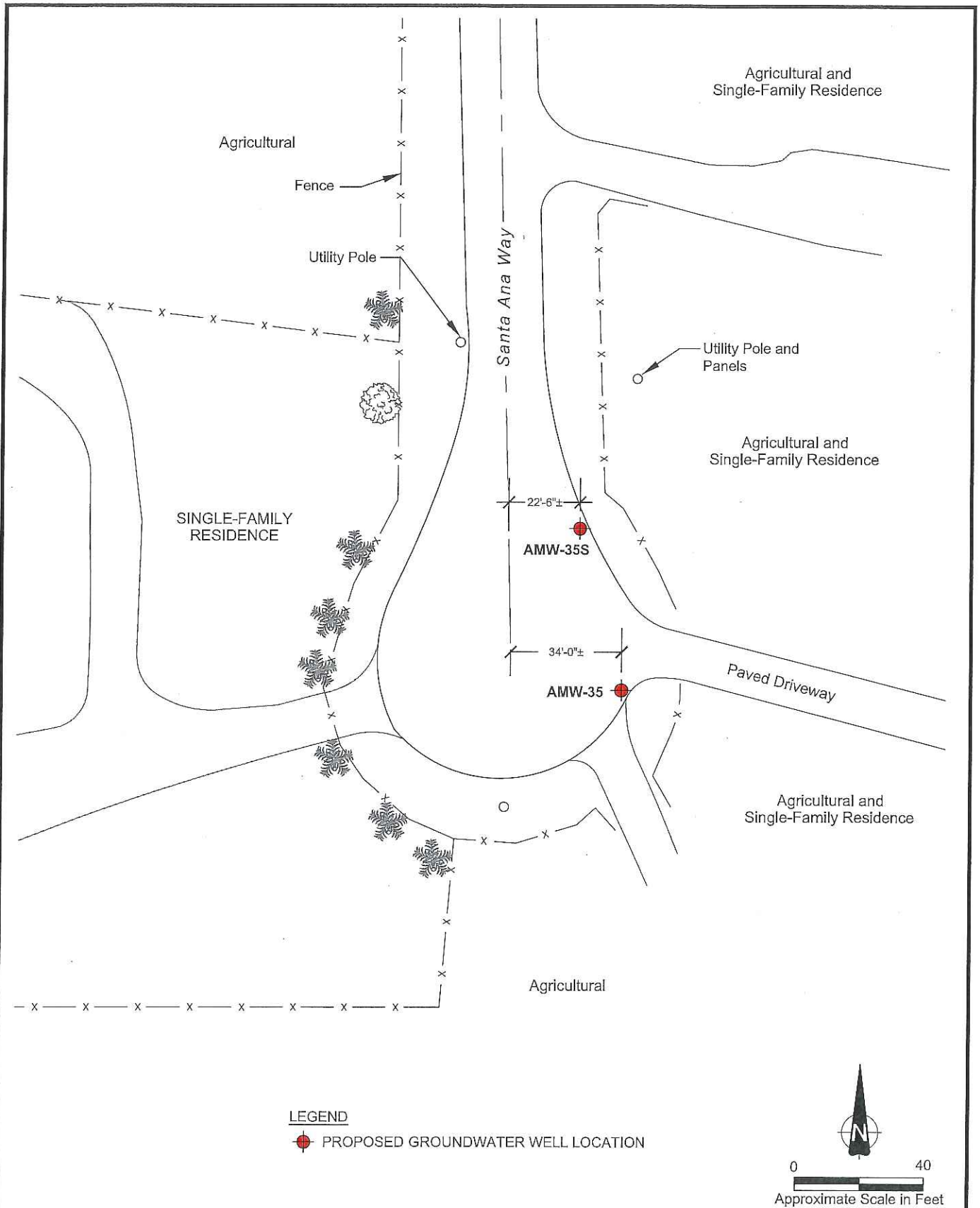
I, the undersigned, certify that I am the owner of the respective property, or am qualified to represent the owner and agree to do the work described above in accordance with the rules and regulations of San Joaquin County and subject to inspection and approval.



**Signature of Applicant - Title**

December 4, 2017

**Date**



# **PROPOSED WELL LOCATION AMW-35/35S**

EMP INVESTIGATION WEST WORKPLAN  
FORWARD LANDFILL  
SAN JOAQUIN COUNTY, CALIFORNIA

PROJECT NUMBER: Z054000140

DATE: 10/19/17

FIGURE

REVIEW BY: G. MARTIN

DRAWN BY: DAW

**2**



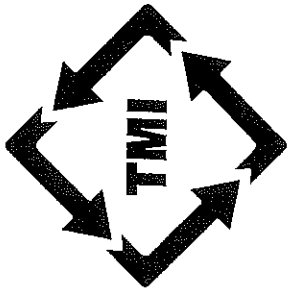
1117 Lone Palm Ave., Suite 201  
Modesto, California 95351

Ph: (209) 579-2221 \*\*\* Fax: (209) 579-2225

SPECIAL CONDITIONS FOR  
ENCROACHMENT PERMIT

1. Maintain traffic controls for all roads. Traffic control delays shall not exceed 15 minutes. Two-way traffic control shall be maintained with one lane open and appropriate flaggers. Flaggers shall remain onsite 24 hours for the duration of the project.
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. Work shall not be permitted within the San Joaquin County right-of-way between November 1 and March 31 without prior authorization from the San Joaquin County Department of Public Works Field Engineering Division, contact them at 209-953-7421.
7. All destroyed or obliterated pavement markings must be replaced in kind by the permittee. Typical pavement markings include but not limited to lane lines, centerlines, stop and stop ahead legends, limit lines, raised pavement markers and miscellaneous delineators.
8. 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)
9. All groundwater monitoring wells and groundwater monitoring wells related facilities including, but not limited to, valves, utility boxes and vaults, and frames and covers shall be maintained by GEO-LOGIC ASSOCIATES, including any facilities that are abandoned in place. GEO-LOGIC ASSOCIATES 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 GEO-LOGIC ASSOCIATES's expense. (Streets and Highways Code Section 1463)
10. The contractor shall use San Joaquin County Improvement Standard R-29 when backfilling bores within the County right-of-way. Where the existing road structural section is below standard, a minimum section of 3 inches of asphalt concrete over 8 inches of aggregate base shall be required.

11. Final paving for trench repair or road resurfacing shall be per Caltrans' specifications and shall not occur between November 1 and March 31, without prior authorization from the San Joaquin County Department of Public Works Field Engineering Division, contact them at 209-953-7421.
12. 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.
13. 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.
14. The contractor shall not conduct construction operations in rain or heavy fog conditions.



# TRAFFIC MANAGEMENT INCORPORATED

# GEOLOGIC ASSOCIATES INC

## GENERAL NOTES

- 1) THIS PLAN SUPPLEMENTED WITH 2014 CA MUTCD.
- 2) THE LOCATION OF THE SIGNS SHOWN ON THE PLAN ARE GUIDELINES AND ACTUAL LOCATION WILL DEPEND UPON ALIGNMENT, GRADE, LOCATION OF THE STREET INTERSECTIONS, AND 85TH PERCENTILE.
- 3) VEHICLES, LAW ENFORCEMENT, FIRE, AND AMBULANCE COMPANIES WITHIN 72 HOURS BEFORE CONSTRUCTION BEGINS. KEEP OPEN ACCESS FOR EMERGENCY ACCESS.
- 4) CONTINUAL MONITORING AND MAINTENANCE OF THE TRAFFIC CONTROL ZONE WILL BE IMPLEMENTED FOR THE PURPOSE OF MAINTAINING EMERGENCY ACCESS.
- 5) ACCOMMODATION FOR PEDESTRIANS, BICYCLE TRAFFIC AND THE DISABLED.
- 6) PROPER TRAINING OF TRAFFIC CONTROLLERS, PROPER DEVICES & PROPER USE OF THE DEVICES, REQUIRED AT ALL TIMES.
- 7) ALL SIGNS IMPLEMENTED WILL ONLY BE VIEWABLE WHEN IN USE, OTHERWISE ALL WARNING DEVICES ARE TO BE TAKEN DOWN OR COVERED.
- 8) NOTHING ALLOWED IN BUFFER/TRANSITION AREA AT ANY TIME.
- 9) ALL CONFLICTING MARKINGS ARE TO BE REMOVED FOR PROJECTS THAT LAST A TERM OF 3 DAYS OR LONGER.
- 10) SIGNS AND CHANNELIZING DEVICES MUST BE RETRO REFLECTIVE OR ILLUMINATE DURING THE NIGHT, MINIMUM VISIBILITY 1000' (FEET).
- 11) ONLY ONE SIDEWALK WILL BE CLOSED AT A TIME. PEDESTRIAN AND DISABLED ACCESS TO BE MAINTAINED PER 2014 CA MUTCD STANDARDS.
- 12) CONTACT UNDERGROUND SERVICE ALERT (UGA) 48 HOURS PRIOR TO ANY EXCAVATION FOR POTENTIAL UTILITY CONFLICTS.

## RECOMMENDED ADVANCE WARNING SIGN SPACING TABLE

(CA MUTCD 2014 EDITION TABLE 600-1, SEE TABLE FOR ADDITIONAL DETAILS)

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)-25MPH OR LESS	100	100	100
URBAN (LOW SPEED)-MORE THAN 25MPH TO 40MPH	250	250	250
URBAN (HIGH SPEED)-MORE THAN 40MPH	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1500	2500

## LEGEND

- WORK AREA
- HIGH LEVEL WARNING DEVICE
- FLASHING ARROW SIGN (FAS)
- FLAGGER
- EXISTING SIGN
- TYPE-III BARRICADE W/ SIGN
- TYPE-II BARRICADE W/ SIGN
- ADA BARRICADE W/ SIGN
- CHANNELIZATION DEVICE
- SIGN

## DEVICE SPACING TABLE

SPEED (MPH)	FORMULA	BUFFER SPACE	MINIMUM TAPER LENGTHS												MAXIMUM CONE SPACING		SIGN SPACING
			10' OFFSET			11' OFFSET			12' OFFSET			LONG TAPER	SPACING				
			L	1/4 L	1/2 L	L	1/4 L	1/2 L	L	1/4 L	1/2 L			SHOULDER			
25		155'	104'	52'	35'	115'	57'	38'	125'	63'	42'	25'	13'	100'-200'			
30		200'	150'	75'	50'	165'	83'	55'	180'	90'	60'	30'	15'	120'-250'			
35	WS <sup>2</sup> L= 60	250'	204'	102'	66'	225'	112'	75'	245'	123'	82'	35'	18'	140'-280'			
40		305'	257'	133'	89'	293'	147'	98'	320'	160'	107'	40'	20'	160'-320'			
45		360'	450'	225'	150'	495'	248'	165'	540'	270'	180'	45'	23'	360'-540'			
50		425'	500'	250'	167'	550'	275'	183'	600'	300'	200'	50'	25'	480'-720'			
55	L=WS	495'	550'	275'	183'	605'	303'	202'	660'	330'	220'	50'	28'	440'-660'			
60		570'	600'	300'	200'	660'	330'	220'	720'	360'	240'	50'	30'	580'-720'			
65		645'	650'	325'	217'	715'	358'	238'	780'	390'	260'	50'	33'	520'-700'			
70		730'	700'	350'	233'	770'	385'	257'	840'	420'	280'	50'	35'	560'-820'			

LOW SPEED IS 40 MPH & LESS  
HIGH SPEED IS 45 MPH & ABOVE

HIGH ARE BASED ON:  
1.) 85TH % TILE OR IF NOT AVAILABLE, THEN USE  
2.) POSTED SPEED LIMIT (PSL)  
3.) ANTICIPATED SPEED

S = SPEED  
W = WIDTH (OFFSET FROM PATH OF TRAVEL)  
L = TAPER LENGTH

LOW SPEED IS 40 MPH & LESS  
HIGH SPEED IS 45 MPH & ABOVE  
BOTH ARE BASED ON:  
1) 85TH % TLE OR IF NOT AVAILABLE, THEN USE  
2) POSTED SPEED LIMIT (PSL)  
3) ANTICIPATED SPEED.

S = SPEED  
W = WIDTH (OFFSET FROM PATH OF TRAVEL)  
L = TAPER LENGTH

SANTA ANA WAY & MARIPOSA RD, SAN JOAQUIN COUNTY

WORK AREA TRAFFIC CONTROL: SANTA ANA WAY & MARIPOSA RD

CONTACT: WILLIAM LOPEZ

CONTACT: 858-451-1136

JOB NUMBER: 123700

PERMIT NUMBER:

COVER SHEET

DATE: 11/6/17

SIZE: B

SCALE: N.T.S.

PREPARED BY: UK

TRAFFIC MANAGEMENT, INC.

California - Great Lakes - New York

800.763.3999

www.trafficmanagement.com

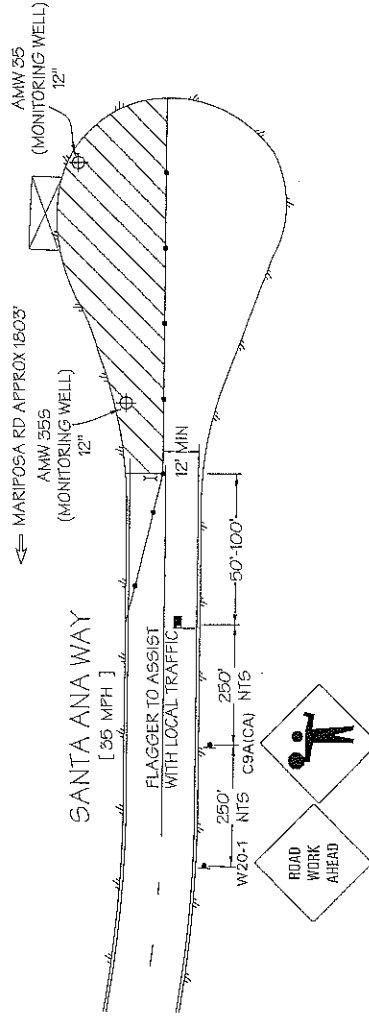
Traffic Control Services - Signs & Signals

Permits & Bidding - Engineering - Training



C31 # 785804

ALL DRIVEWAYS TO REMAIN OPEN UNLESS OTHERWISE INDICATED.  
 FLAGGER TO ASSIST WITH PEDESTRIAN TRAFFIC.  
 POST TEMPORARY "NO PARKING" IN ALL AREAS AFFECTED BY  
 WORK ZONE 72 HRS PRIOR TO WORK. NOTIFY ALL AFFECTED  
 BUSINESSES/RESIDENTS.



LEGEND		ADDRESS		WORK AREA TRAFFIC CONTROL: SANTA ANA WAY & MARIPOSA RD	
	- WORK AREA	SANTA ANA WAY & MARIPOSA		CONTACT: WILLIAM LOPEZ	TRAFFIC MANAGEMENT, INC.
	- HIGH LEVEL WARNING DEVICE	RD.		CONTACT: 858-451-1136	California • Great Lakes • New York
	- FLASHING ARROW SIGN (FAS)	SAN JOAQUIN COUNTY		JOB NUMBER: 123700	800.763.3999
	- FLAGGER			PERMIT NUMBER:	www.trafficmanagement.com
	- EXISTING SIGN			SHEET 1 OF 1	Traffic Control Services • Sales & Rentals
				DATE: 11/6/17	Permits & Consulting • Engineering • Training
				SCALE: 1"=40'	C31 # 785804
				SIZE: B	PREPARED BY: UK







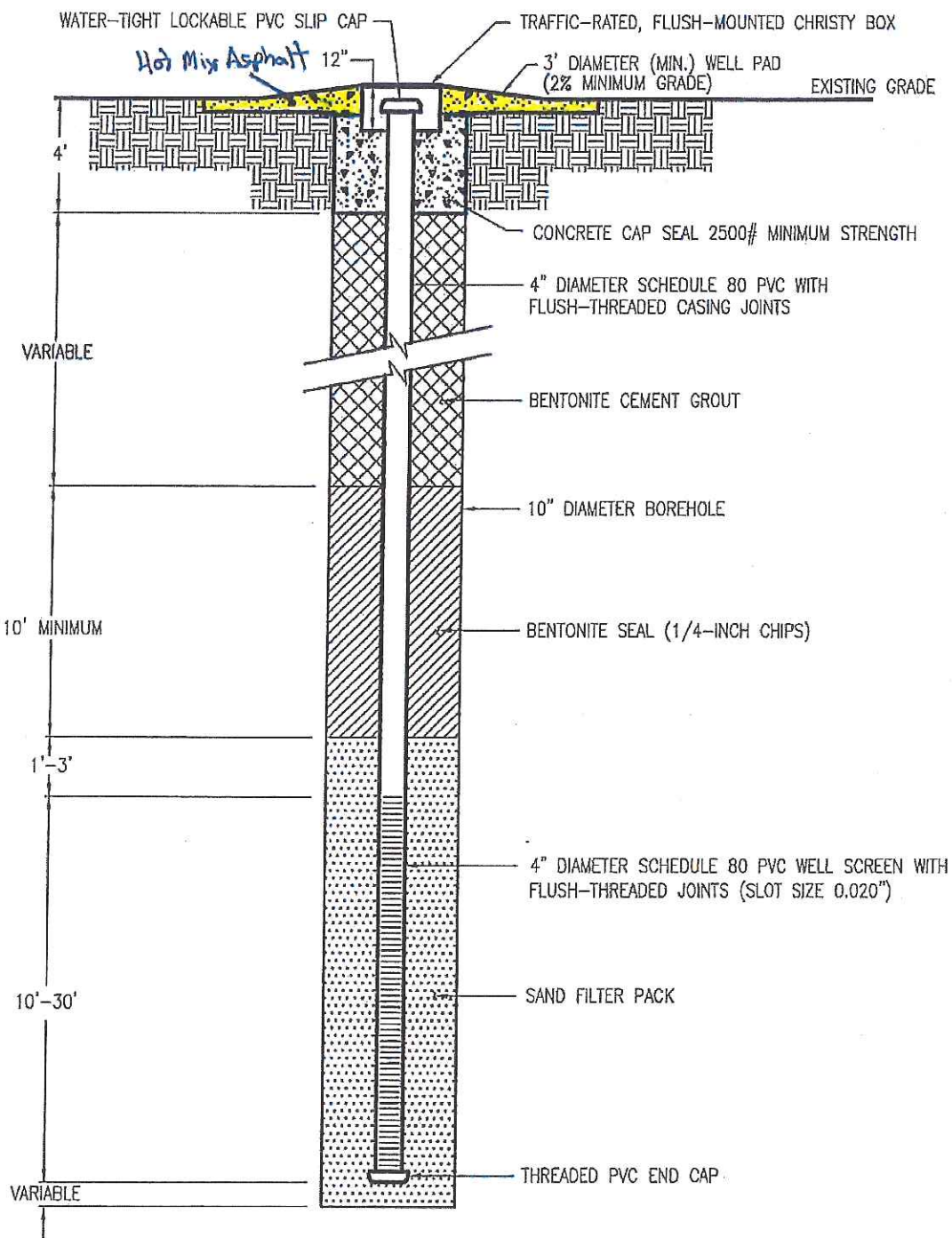
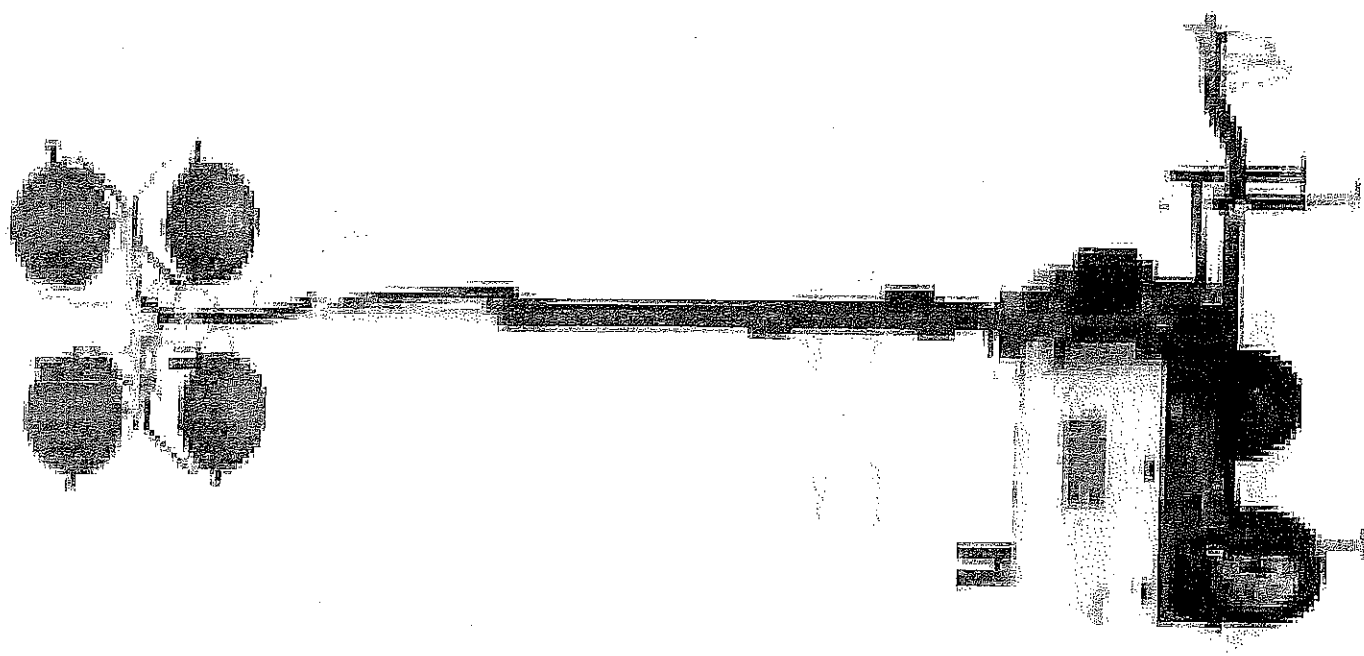


FIGURE 1

TYPICAL WELL CONSTRUCTION DETAIL  
EVALUATION MONITORING AND CAP WORKPLAN  
FORWARD LANDFILL  
STOCKTON, CALIFORNIA

**Geo-Logic**  
ASSOCIATES

DRAWN BY: VL DATE: JULY 2017 JOB NO. S017.1030





## 616.5.2 High-Visibility Safety Apparel (MUTCD 6E.02)

**Standard.** For daytime activities, flaggers shall wear a high visibility hard hat, safety glasses, a Performance Class 3 top OR a Performance Class 2 top, and safety footwear. Hard hats other than high visibility orange or green shall be covered with a high visibility covering. For nighttime activities (nighttime work is defined as beginning one-half hour before sunset to one-half hour after sunrise) flaggers shall wear a high visibility/reflective hard hat, safety glasses, a Performance Class 3 top AND Class E bottoms, OR Performance Class 2 top AND Class E bottoms, and safety footwear. Hard hats shall be reflective or covered with a high visibility covering. All high visibility and retroreflective safety apparel shall be designed to clearly identify the wearer as a person. Contract and permit flaggers shall be in accordance with Standard Specifications Section 107.4.

MoDOT employees shall wear personal protective equipment (PPE) appropriate for each hazard. The department will provide required protective equipment for use by the employees. Supervisors shall control the issuance and replacement of this equipment. When PPE is furnished to the employee, it is the responsibility of the employee to use and maintain it as specified by MoDOT and the manufacturer.

A graphical representation of personal protective equipment for MoDOT, contract and permit employees is available.

**Guidance.** For nighttime activity, high-visibility safety apparel that meets the Performance Class 3 requirements of the ANSI/ISEA 107-2004 publication entitled *American National Standard for High-Visibility Apparel and Headwear* (see EPG 900.1.11 Relation to Other Publications ) and labeled as meeting the ANSI 107-2004 standard performance for Class 3 risk exposure should be considered for flagger wear.

**Standard.** When uniformed law enforcement officers are used to direct traffic within a TTC zone, they shall wear high-visibility safety apparel as described in this article.

**Option.** In lieu of ANSI/ISEA 107-2004 apparel, law enforcement personnel within the TTC zone may wear high-visibility safety apparel that meets the performance requirements of the ANSI/ISEA 207-2006 publication entitled *American National Standard for High-Visibility Public Safety Vests* (see EPG 900.1.11) and labeled as ANSI 207-2006.





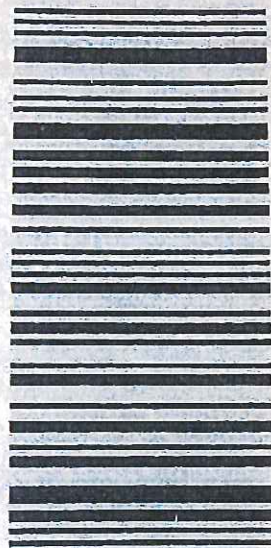
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CLASS E



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ANSI/ISEA  
107-2015



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MADE IN CHINA

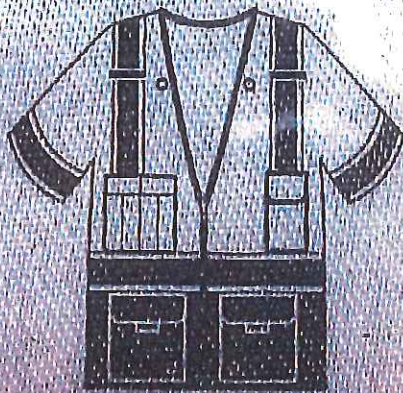
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5XL T9 8

Not  
FR



R

3

ANSI/ISEA  
107-2015

This garment is not flame resistant  
as defined by ANSI/ISEA 107-2015  
Section 10.5.

[WWW.MLKISHIGO.COM](http://WWW.MLKISHIGO.COM)



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 d. The local fire district
    - b. The County of San Joaquin Sheriff's Office e. The local school district
    - c. The local postal service 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.