

STATE OF CALIFORNIA DEPARTMENT OF GENERAL SERVICES



REAL ESTATE SERVICES DIVISION
PROJECT MANAGEMENT AND DEVELOPMENT BRANCH

PROJECT MANUAL – Book 2 of 2

APPENDICES

FOR:

OES SECURITY UPGRADES

GOVERNOR'S OFFICE OF EMERGENCY SERVICES

MATHER, SACRAMENTO COUNTY, CALIFORNIA

Jenny Li, Project Director
West Sacramento, California

Designed By: State of California

October 1, 2025

000000000009324

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July 20, 2022

Subject: Subsurface Utility Management: Utility Location Report

OES Site – 3650 Schriever
Mather, CA

This report is intended to serve as a preliminary assessment of the underground utilities detected on the given and agreed upon site. The findings documented within are intended for the specific client and purpose listed. All assets listed are Quality Level B at best, in accordance with the American Society of Civil Engineers' Standard for Subsurface Utility Engineering ([link here](#)). As such, this report may not be entirely conclusive as the complete condition of the site. Various forms of geophysical interference as well as material type may lead to certain utilities (HDPE, PVC/ABS, Vitrified Clay Pipe, Non-Reinforced Concrete, et cetera) not being able to be detected via approved methods. It is the recommendation of Psomas that those responsible for excavation conduct necessary Quality Level A assessments of the site before critical excavation. As always, any methods of excavation used after delivery of this report should be done with extreme caution. This report is not a replacement for 811, or any other One-Call service.

Respectfully,



Tom Pilarski, PLS
Vice President

A: TOOLS

A.1: Ground Penetrating Radar (GPR) – A Sensors and Software Noggin system with a 400 MHz antenna was used to search for and detect utilities and subsurface anomalies. GPR works by emitting a low amplitude (energy) pulse of electromagnetic radiation across a narrow distribution in the radio wave area of the light spectrum. The waves are reflected back or transmitted through depending on the change in dielectric of the soils and underground utilities. The returning signal is then interpreted by the technician and potential features are tagged.

A.2: Line Locator – A Radio Detection RD 8100 unit was used in various modes (e.g.: passive, and induction via clamp, leads, or transmitter). All methods rely on the same principles. Wherever there is flow, whether it be water, electricity, oil, or nearly any other substance, there will be electromagnetic flux. This flux bleeds off in a known and uniform pattern and can be measured by the receiver of the line locator. If naturally occurring flux is not sufficient, a line will be induced at a specific frequency and the resultant flux can be traced.

A.3: Metal Detector – A Schonstedt Maggie was used to detect metallic objects that may or may not have been detectable to previously listed methods. The metal detector works by emitting a specific alternating magnetic field. When metallic objects encounter this field, they distort and bend the field. These distortions are then displayed to the technician.

B: METHODS

B.1: Visual Inspection – All visible or marked utilities were first identified and followed for their duration above ground. Line size, service type, material, trend, and other factors are noted for further tracing. Trenches may also be visible, as an indication of where utilities may be buried.

B.2: Line Locating – All previously identified lines from previous steps were traced using passive and/or active methods. Lines were marked according to state standards, being careful to use appropriate colors and delineating symbols.

B.3: GPR – The agreed upon site was scanned along both relative cardinal axes across critical areas. Any anomalies were marked and confirmed with other methods.

C: SCOPE

C.1: Scope is to detect utilities within the Office of Emergency Services facility, located in Mather CA, and show below outlined in blue, cyan and red hatched areas in Figures A, B and C.

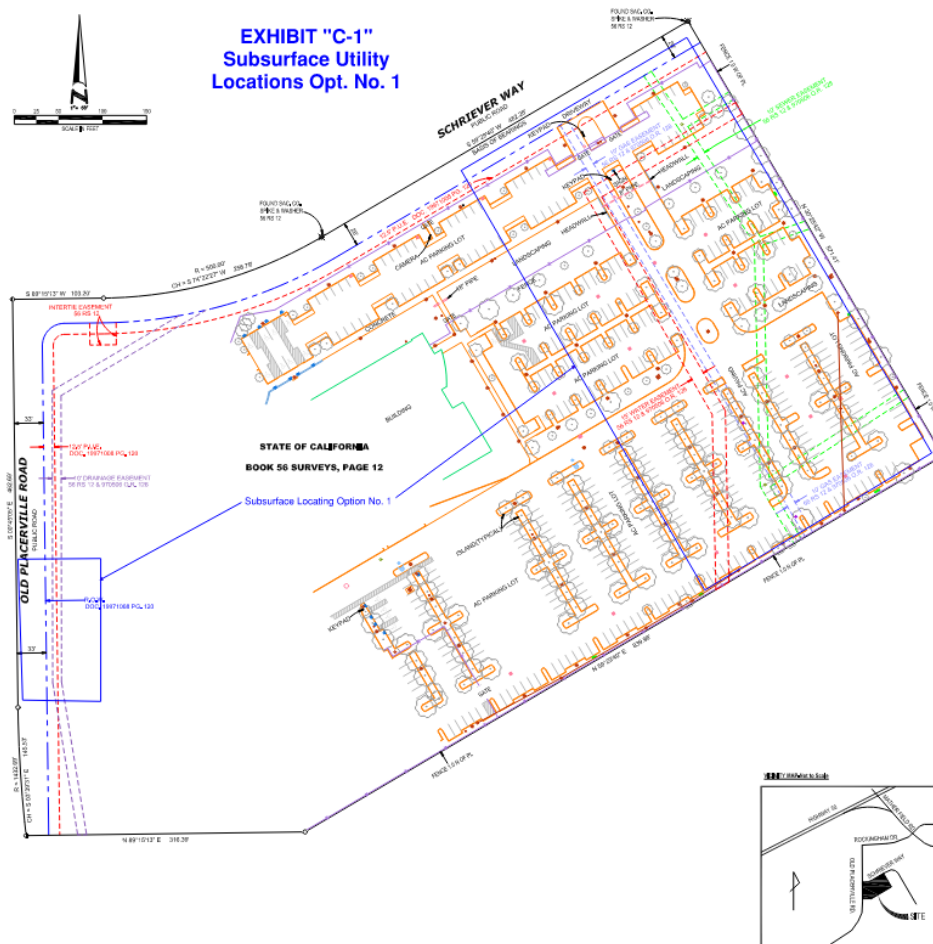


Figure A

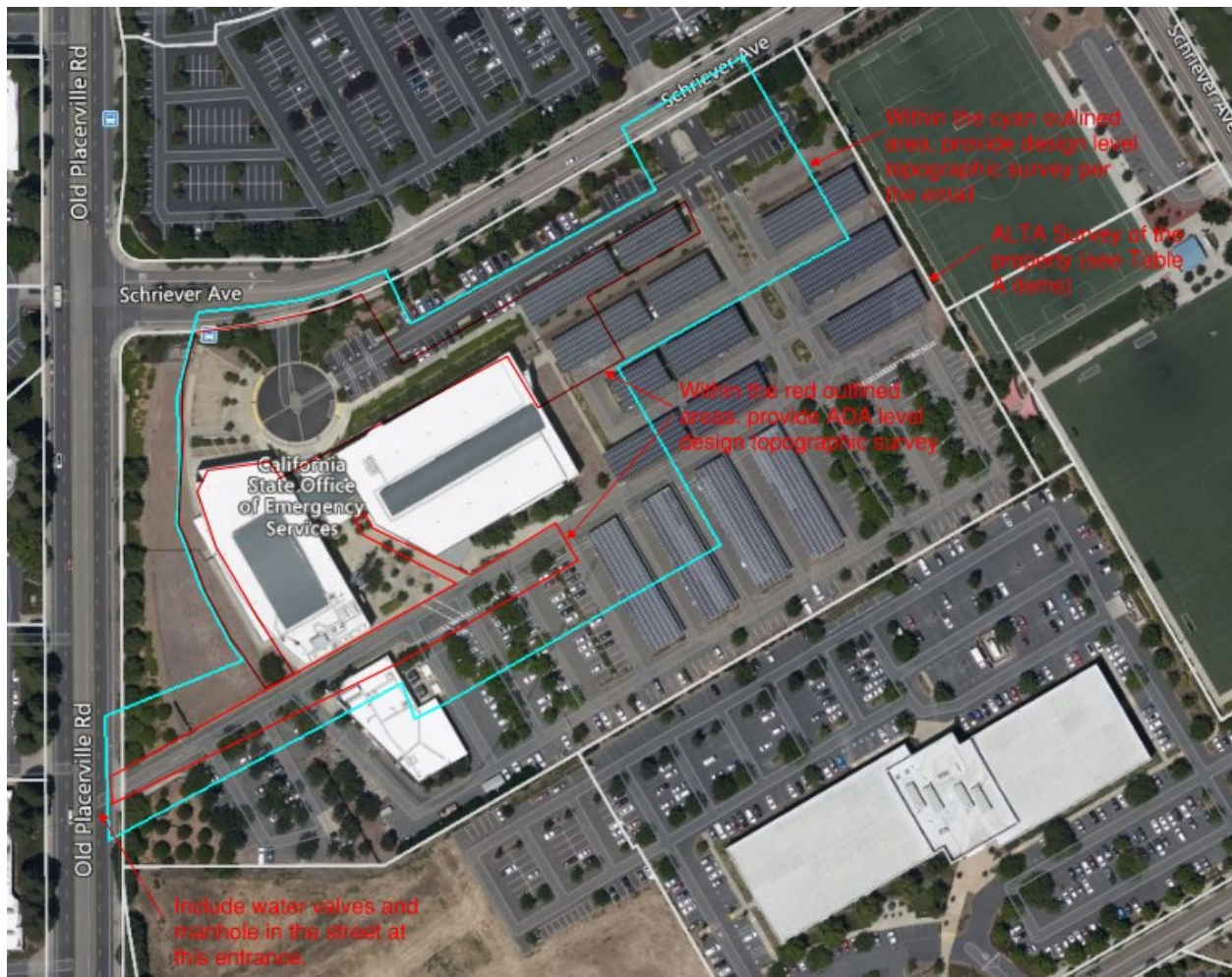


Figure B



Figure C

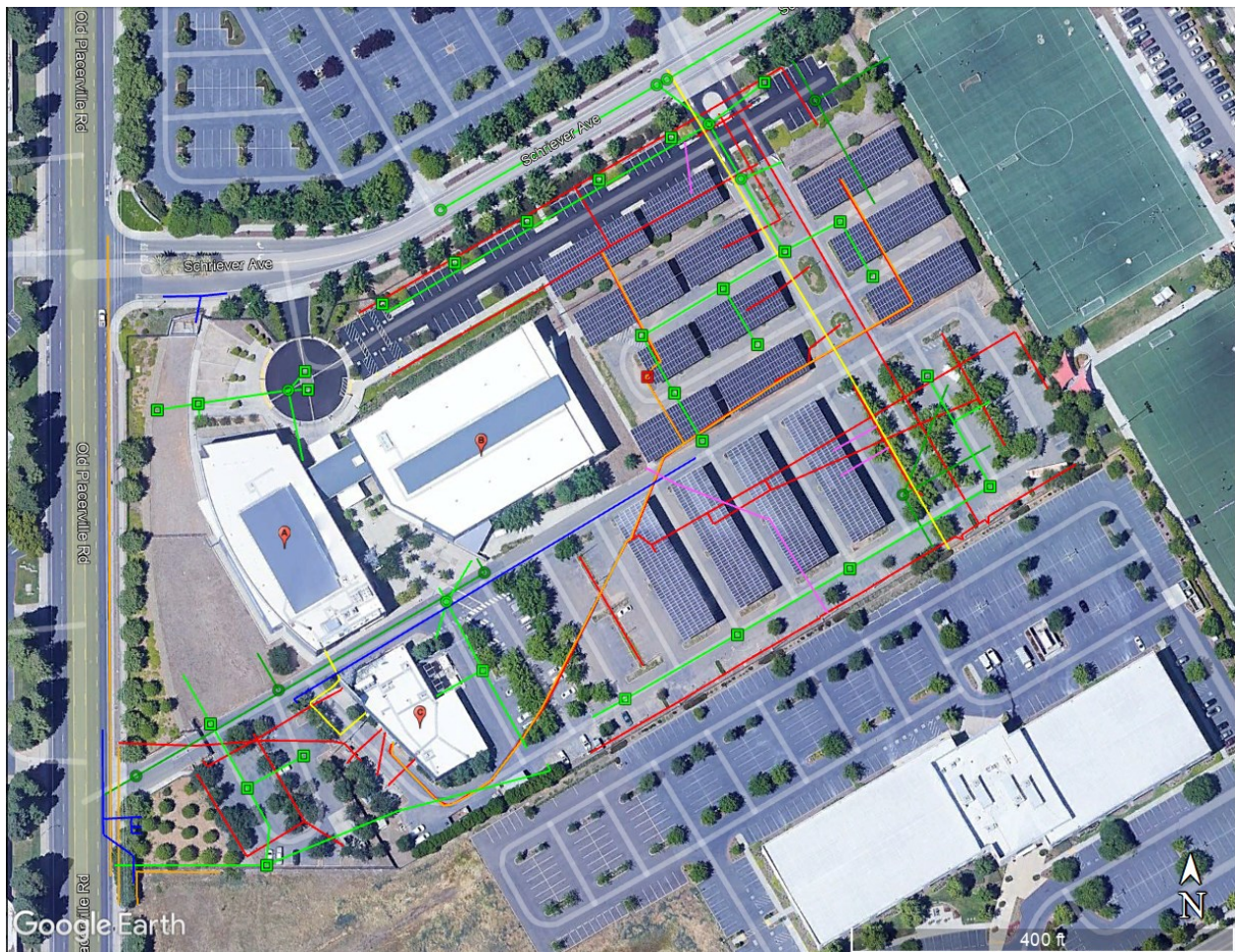
D: FINDINGS – COLOR CODE USED IS ESTABLISHED BY THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA)

D.1: Electrical Lines –	Red
D.2: Telecommunication Lines –	Orange
D.3: Gas/Oil/Steam/HC Lines –	Yellow
D.4: Water Lines –	Cyan/Blue
D.5: Storm Drain and Sewer Lines -	Green
D.6: Unknown/Undefined Utilities and Features –	Pink

E: Sites and Utilities Detected

E.1 Location 1

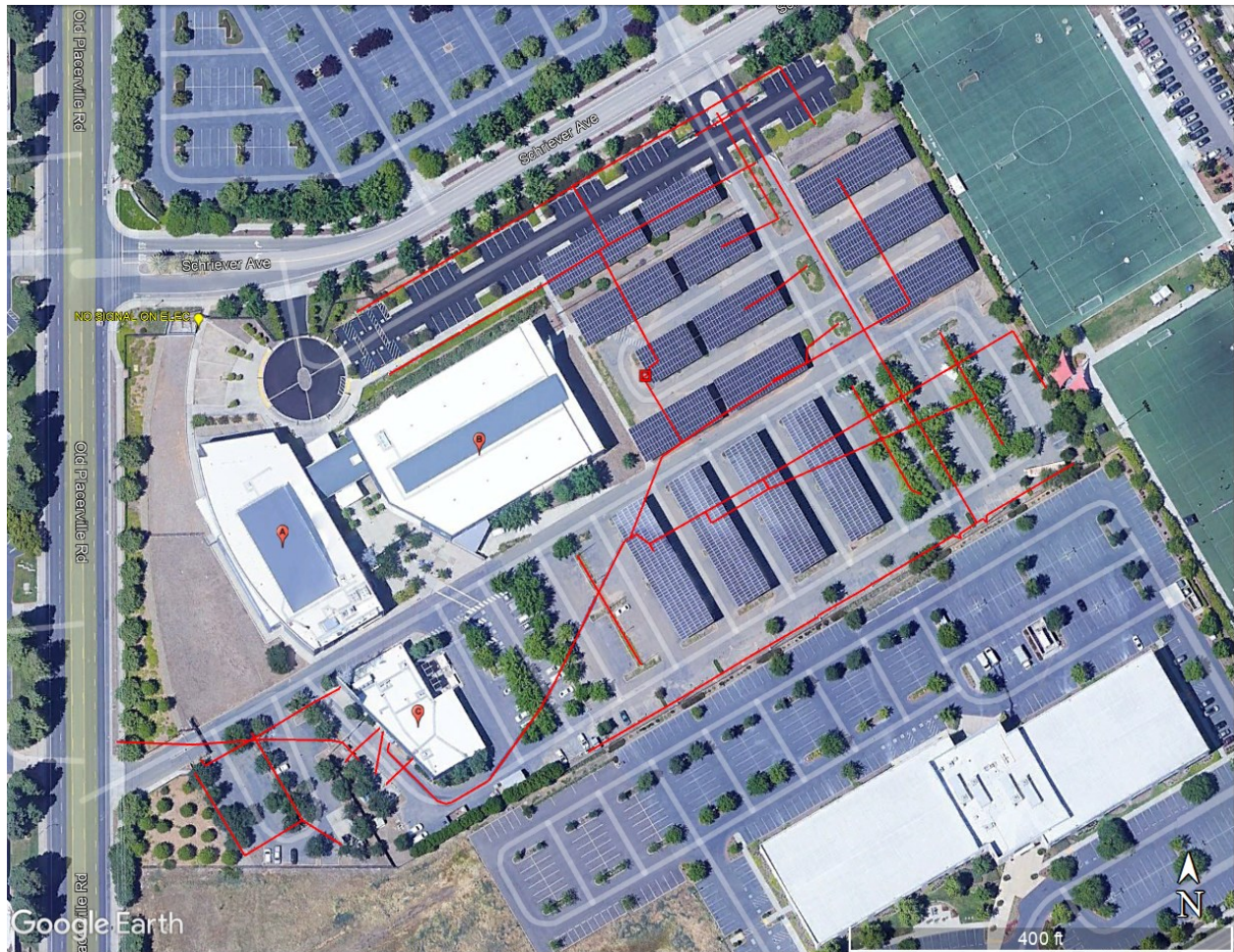
The below exhibit captures all utilities detected within the location area(s) for detection activities performed on May 31 through June 3, and June 9 through June 10, 2022. Refer to the following sections for a description of each utility type. To facilitate reference to individual lines, lines have been labeled and numbered as described in this report in the associated KMZ file.



Location 1 - All Utilities Detected

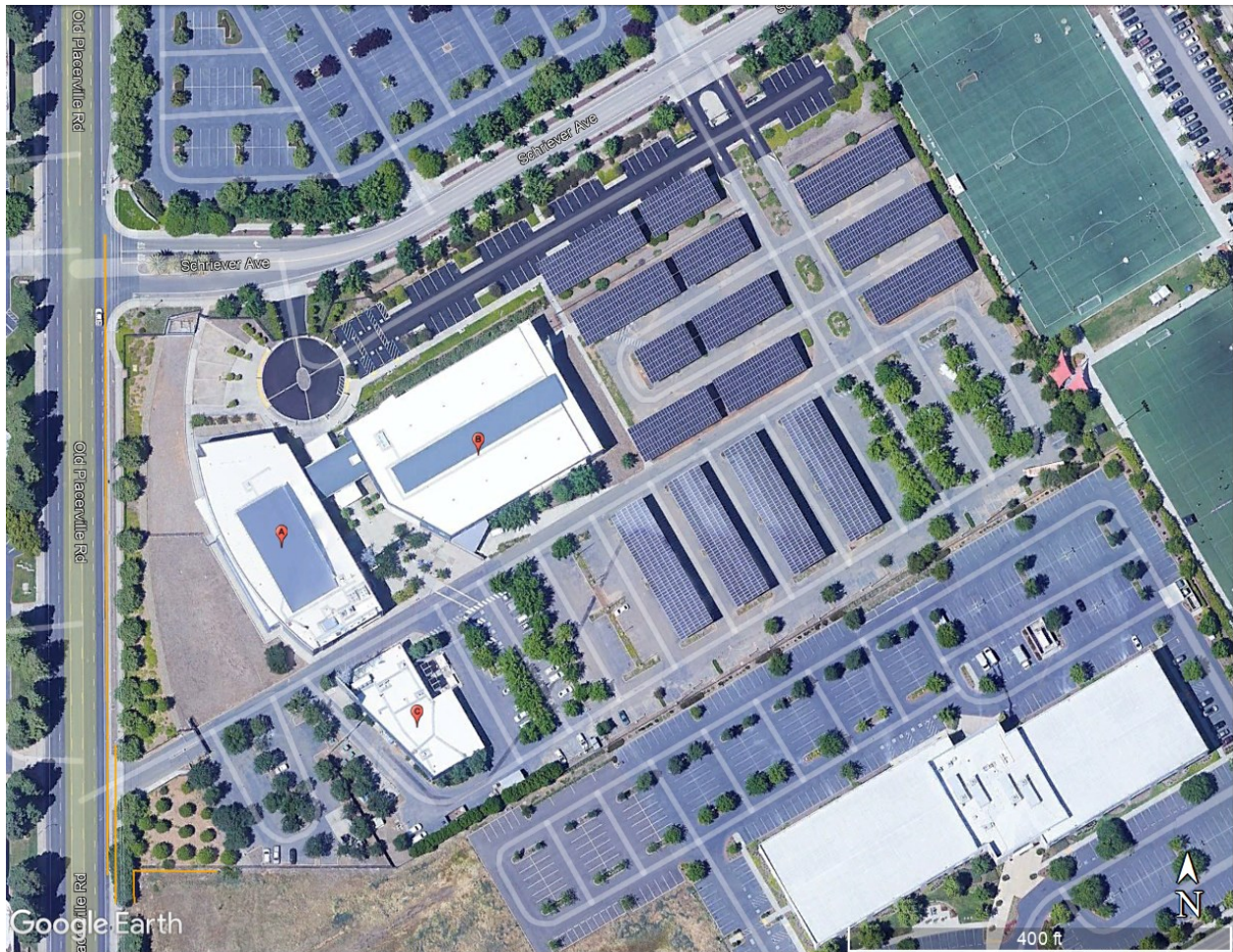
E.1.1 Electrical: At this location fourteen electrical lines were detected. The first line begins at a utility pole on the east side of Old Placerville Road, north of the southwesterly driveway. This line travels easterly across the main drive aisle and southwesterly parking lot to what appears to be a transformer southwest of Building C, at an approximate depth between 48” and 60”. The second line begins at a light pole on the south side of the main drive aisle, near the southwesterly driveway. This line travels southerly then northeasterly to the northwest corner of Building C, at an approximate depth of 30”. The third line begins at a light pole at the northwest corner of the southwesterly-most driveway. This line travels southeasterly to a light pole at the southwest corner of the parking lot, travels northeasterly to a light pole at the south side of the central landscaped median of the parking lot, then travels northwesterly to a light pole at the north side of this landscaped median. At the pole that is at the south side of the medial, this line wyes and travels southeasterly to a light pole at the southeast corner of this parking lot. This line travels at an approximate depth of 30”. The fourth line begins at what appears to be a transformer southwest of Building C. This line travels northeasterly to Building C, at an approximate depth of 48”. The fifth line begins in the median between Building C and the southwesterly-most parking lot, south of electrical line four (described above). This line travels northerly to Building C. The sixth line begins at what appears to be a cabinet in the median between Building C and the southwesterly-most parking lot, south of electrical line five (described above). This line travels northeasterly to Building C, at an approximate depth of 31”. The seventh line begins at the west side of Building C. This line travels southeasterly then easterly along the drive aisle around the south side of Building C, then travels northeasterly across the parking lots east of Building C to the solar panel arrays that are southeast of Building B, then wyes. The first wye segment travels southeasterly then northeasterly through the solar panel arrays south of the main drive aisle and continues northeasterly across the southeasterly most parking lot to the easterly-most planter, then travels southeasterly along the planter. At the second solar panel from the west, this segment tees, travels southeasterly then northeasterly through the remaining solar panels, and continues northeasterly to the east-most landscaped median in the southeasterly parking lot, then travels northwesterly/southeasterly along this median connecting a series of light poles. The second wye segment travels northeasterly across the main drive aisle to the solar arrays east of Building B, travels northeasterly along the south side of these solar arrays to the northeasterly most solar arrays, then travels northwesterly through the northeasterly most solar arrays. At the southwesterly-most solar panel in the arrays east of Building B, this line tees and travels northwesterly to an electrical box in the landscaped median on the west side of the shorter

section of solar arrays, travels northeasterly then northwesterly to the northwest-most solar panel, then tees and travels northeasterly to a light pole in the landscaped median south of the northeasterly driveway, and travels southwesterly through a series of light poles along the back of sidewalk on the north side of Building B. At the northwest-most solar panel, this tee segment tees and travels northwesterly across the northerly parking lot, then tees and travels southwesterly through a series of light poles along the north side of the north parking lot, and northeasterly across the northeasterly driveway to a light pole north of the northeasterly-most parking lot, then southeasterly to a light pole on the south side of the northeasterly-most parking lot. This line travels at an approximate depth of 48" between Building C and the solar arrays, and an approximate depth between 30" and 40" in and around the solar arrays and parking lots. The eighth line begins at a light pole in the southerly most landscaped planter, approximately 100' east of the southeast corner of Building C. This line travels northeasterly, through a series of light poles, along the south landscaped planter and south-most row of parking stalls, to a light pole at the southeast corner of the facility. Approximately 115' southwest of the southeast corner of the facility, this line tees and travels northwesterly through the central landscaped median of the southeasterly-most parking lot and continues northwesterly along the drive aisle to a point near the northeasterly driveway, where our locator lost signal on this line. This line travels at an approximate depth between 30" and 40". The ninth line begins at the landscaped median in the parking lot that is southeast of Building B and travels northwesterly/southeasterly along this median. The tenth line begins at the west-most landscaped median at the southeasterly-most parking lot and travels northwesterly/southeasterly along this median. The eleventh line begins at the southeast solar panel of the arrays directly northeast of Building B. This line travels northeasterly to a light pole in the southeasterly-most round landscaped median between the two drive aisles that travel to the northeasterly driveway. The twelfth line begins at the solar panel north of the panel where electrical line eleven (described above) begins. This line travels northeasterly to a light pole in the central round landscaped median between the two drive aisles that travel to the northeasterly driveway. The thirteenth line begins at the solar panel that is north of the panel where electrical line twelve (described above) begins. This line travels northeasterly to the northerly landscaped median between the two drive aisles that travel to the northeasterly driveway, then travels northwesterly to the concrete median at the northeasterly driveway. The fourteenth line begins at the concrete median at the northeasterly driveway. This line travels northeasterly and southwesterly across the east and west driveway drive aisles.



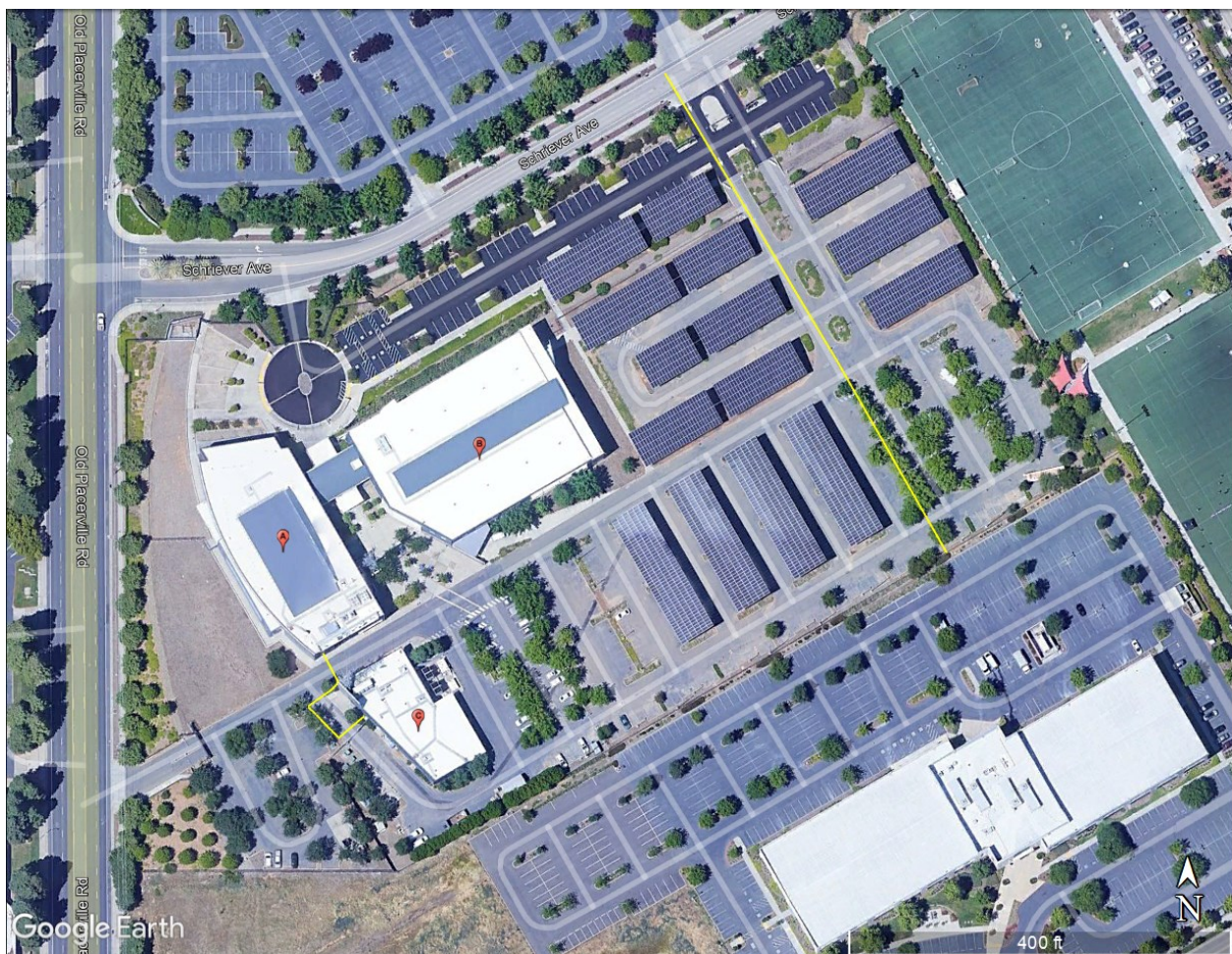
Location 1 – Electrical

E.1.2 Telecommunication: At this location four communication lines were detected. The first line begins in the east side of Old Placerville Road, north of Schriever Avenue. This line travels southerly along the east shoulder of Old Placerville Road to the southerly limits of the utility detection area, at an approximate depth of 48". The second line begins at a utility pole that is north of the southwesterly driveway. This line travels southerly along the sidewalk to the southerly limits of the utility detection area. The third line begins in the field south of the OES facility, east of Old Placerville Road, at the southerly limits of the utility detection area. This line travels northerly to the south side of the southerly fence line, then travels easterly for approximately 85' feet where our locator lost signal on this line. The third line begins at the west side of Building C. This line travels southeasterly to the drive aisle, then travels easterly then northeasterly, across the parking lots east of Building C, to the north side of the central drive aisle, travels northeasterly to the south side of the northeasterly-most solar panel arrays, then travels northwesterly to the north side of this solar panel array. At the southwest side of the solar panel array that is east of Building B, this line tees and travels northwesterly to the northwest side of this solar panel array. This line travels at an approximate depth between 31" and 48".



Location 1 – Communication

E.1.3 Gas/Oil/Steam/HC: At this location two gas lines were detected. The first line begins on the west side of Building C. This line travels southwesterly across the drive aisle, travels northwesterly then northeasterly to the north side of Building C, then travels northwesterly to the south side of Building A, at an approximate depth of 36". The second line begins in Schriever Avenue. This line travels southeasterly along the westerly drive aisle at the northeasterly driveway and continues southeasterly across the facility to the southerly limits of the utility detection area, at an approximate depth between 40" and 48".



Location 1 – Gas

E.1.4 Water: At this location three water lines were detected. The first line begins in the northbound lanes of Old Placerville Road, north of the southwesterly driveway. This line travels southerly along Old Placerville Road, travels southeasterly to the dirt behind the sidewalk, then travels southerly to the southerly limits of the utility detection area. South of the southwesterly driveway, this line tees and travels easterly to the landscaped area south of the southwesterly driveway, then splits into three segments. Our locator noted they lost signal on these three segments near the westerly side of the landscaped area. The second line begins in the eastbound bike lane of Schriever Avenue. This line travels easterly/westerly along Schriever Avenue. Approximately 100' east of Old Placerville Road, this line tees and travels southerly to a valve assembly in the northwest corner of the OES facility property. The third line begins in the central northeasterly/southwesterly drive aisle, at a planter west of Building C. This line travels northerly then northeasterly along the drive aisle to a point approximately 90' east of the southeast corner of Building B. Our locator noted they lost signal on this line at the southwest and northeast ends of the line.



Location 1 – Water

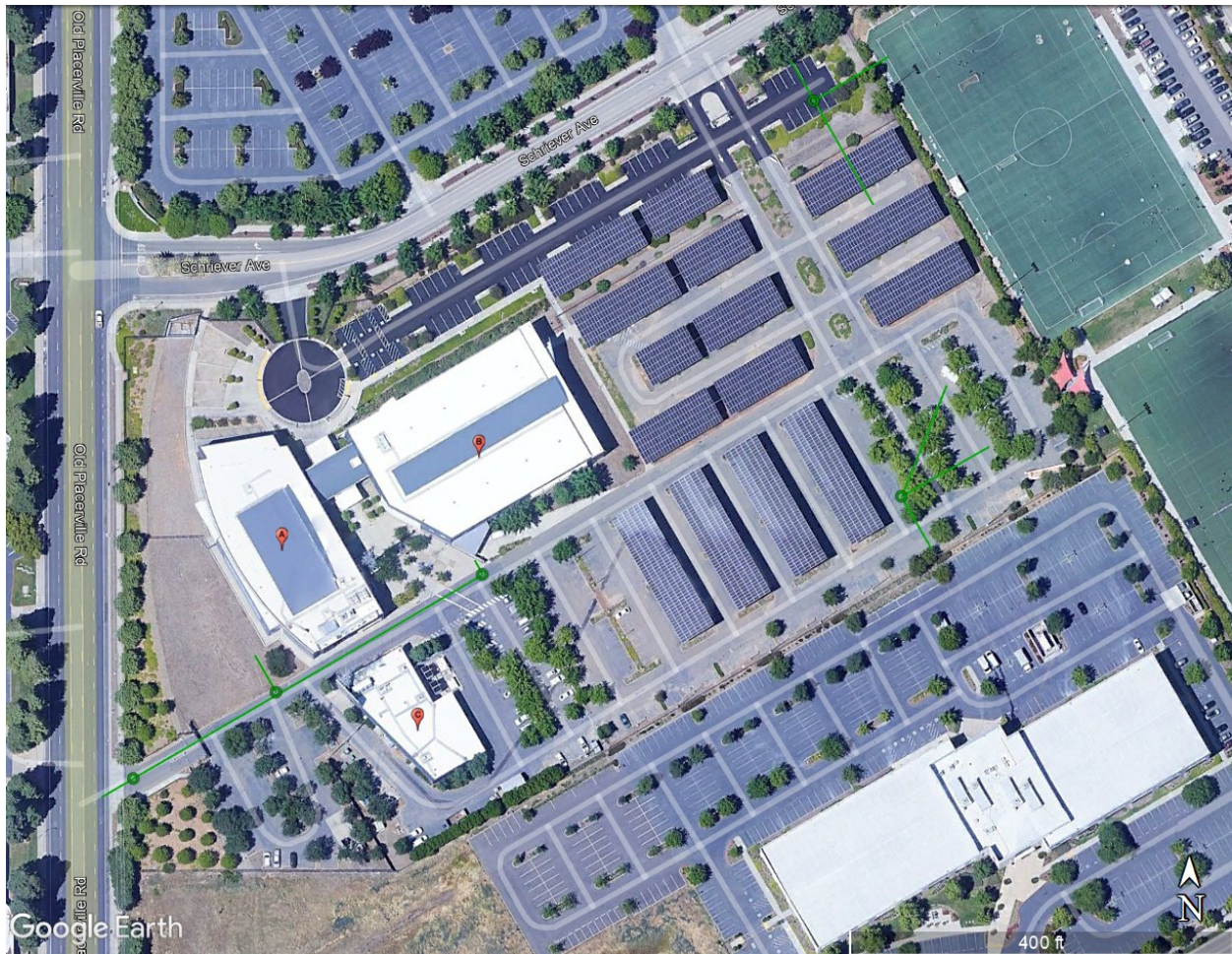
E.1.5 Storm Drain / Sewer: At this location five storm drain lines were detected. The first line begins at the east side of Old Placerville Road, south of the southwesterly driveway. This line travels easterly along the southerly fence line to a catch basin at the south side of the southwesterly parking lot, then travels northeasterly to a landscaped median southeast of Building C. At the catch basin, this line wyes and travels northerly then northwesterly to a catch basin in the westerly drive aisle of the southwesterly parking lot, then tees. One segment travels northwesterly to a catch basin in the curb on the north side of the central drive aisle, and continues northwesterly. The other segment travels northeasterly to a catch basin in the easterly drive aisle of the southwesterly parking lot. The second line begins at a manhole in the central drive aisle between Building A, B and C. This line exits the manhole to the northeast to Building B, to the southwest to Building A, to the northwest between Buildings A and B, and to the southeast, traveling along the drive aisle on the east side of Building C, passing through a catch basin, and continuing southeast to the north side of the drive aisle that is south of Building C. At the catch basin, this line tees and travels southwesterly to Building C. The third line begins in the drive aisle that is south of Building C, approximately 115' east of the southeast corner of Building C. This line travels northeasterly along the drive aisle, passing through a series of catch basins, and continues to a catch basin south of the middle drive aisle at the southeasterly most parking lot, then travels northwesterly along this drive aisle to another catch basin. In the middle of this drive aisle, this line tees and travels northeasterly to the landscaped median between the parking stalls. The fourth line begins at a manhole in the traffic circle at the northwest side of the facility. This line exits the manhole to the northeast and to the east, traveling to catch basins in the median of the traffic circle; to the south traveling to Building A, and to the west, traveling through a catch basin north of Building A and continuing to a catch basin northwest of Building A. At the basin that is north of Building A, this line tees and travels southerly to the landscaped planter north of Building A. The fifth line begins at a manhole in Schriever Avenue, between the northwesterly and northeasterly driveways. This line travels northeasterly along Schriever Avenue, passes through two manholes near the northeasterly driveway, and continues northeasterly. At the westerly of the two manholes near the northeasterly driveway, this line wyes, travels southeasterly to a manhole in the westerly drive aisle of the northeasterly parking lot, continues southeasterly, passes through a manhole and continues southeasterly to a catch basin, then tees, connecting a series of catch basins throughout the solar panel arrays that are northeast of Building B. At the manhole that is in the northeasterly driveway, this line tees and

travels northeasterly and southwesterly along the northmost row of parking stalls, connecting a series of catch basins.



Location 1 – Storm Drain

Three sewer lines were detected at this location. The first line begins in Old Placerville Road near the southwesterly driveway. This line travels northeasterly along the main drive aisle, passes through a clean out at the southwesterly driveway, passes through a manhole south of Building A, and continues northeasterly to a manhole south of Building B, then travels northwesterly to Building B. At the manhole south of Building A, this line travels northwesterly into the dirt west of Building A. The second line begins at a manhole in the northeasterly-most parking lot. This line exits the manhole to the northwest toward Schriever Avenue; to the northeast toward the tennis courts, and to the southeast to northeasterly-most solar panel arrays, where our locator lost signal on this line. Our locator noted that there appeared to be no flow in this manhole. The third line begins at a manhole in the southeasterly-most parking lot. This line exits the manhole to the northeast, to the east, and to the southeast. Our locator notes this line appears to be abandoned.



Location 1 – Sewer

E.1.6 Unknown/Undefined Utilities and Features: At this location four unknown lines were detected. The first line begins in the landscaped planter on the west side of the northeasterly driveway. This line travels southerly across the drive aisle to the adjacent solar panel array, at an approximate depth of 35". The second line begins in the landscaped area on the southeast side of Building B. This line travels east southeasterly to the solar panel arrays, then southeasterly to the southerly fence line. The third and fourth lines begin in the westerly drive aisle of the southeasterly-most parking lot. These lines travel northeasterly/southwesterly across this drive aisle.



Location 1 – Unknown

E.1.7 Additional Notes: Our locator observed two boxes in the dirt west of Building A but were unable to obtain a signal on any lines in these boxes. Our locator also observed an electrical box in the concrete pathway east of the water valve assembly at the northwest corner of the facility but was unable to obtain a signal on any lines in this box.



Location 1 – Additional Notes

COMMENTS

PURPOSE OF SURVEY THE PURPOSE OF THIS SURVEY IS TO MAP EXISTING UTILITIES FOR THE PROPERTY SHOWN AND LOCATED AT 3650 SCHRIEVER AVE, MATHER, CA.

HORIZONTAL DATUM THE HORIZONTAL DATUM FOR THIS PROJECT IS BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 2, (2017.5 EPOCH) IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE, SECTIONS 8801-8819; SAID DATUM IS BASED LOCALLY UPON FIELD-OBSERVED TIES TO THE CALIFORNIA SPATIAL REFERENCE NETWORK STATIONS P146, P230, P270, AND CMBB.

COORDINATES COORDINATE VALUES SHOWN HEREON ARE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83) ZONE 2 (2017.5 EPOCH) GRID COORDINATES.

VERTICAL DATUM THE VERTICAL DATUM OF THIS MAPPING IS THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NAVD 88) BASED ON THE COUNTY OF SACRAMENTO BENCHMARK 1B-102.

TOPOGRAPHY THE TOPOGRAPHY SHOWN HEREON IS BASED ON DATA FROM A GROUND SURVEY COMPLETED NOVEMBER 07, 2022.

UTILITIES UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON FIELD LOCATED ABOVE GROUND EVIDENCE AND SURFACE MARKINGS REPRESENTING DETECTED UNDERGROUND UTILITIES. RECORD UTILITIES SHOWN ARE APPROXIMATE AND ARE BASED ON CLIENT SUPPLIED AS-BUILTS. UTILITIES SHOWN HEREON MUST BE VERIFIED PRIOR TO CONSTRUCTION.

TREES THIS DOES NOT CONSTITUTE A TREE SURVEY. TREES AND DRIPLINES SHOWN HEREON HAVE BEEN LOCATED BASED ON VISIBLE SURFACE EVIDENCE ONLY. TREE SPECIES AND SIZES HAVE NOT BEEN VERIFIED BY A CERTIFIED ARBORIST.

LEGEND

- ▲

SURVEY CONTROL POINT

○

BUILDING COLUMN

E

ELECTRIC CABINET

ET

ELECTRIC TRANSFORMER

PB

POWER PULL BOX

GP

GATE POST

H

HOSE BIB

M

MONUMENT

SC

SEWER CLEANOUT

S

SIGN

SP

SIGN POST

TP

TELEPHONE PULL BOX

TV

TELEPHONE VAULT

T

TREE SYMBOL

UP

UTILITY POLE

WV

WATER VALVE

WM

WATER METER

SI

STORM INLET

SM

STORM MANHOLE

SS

SANITARY SEWER MANHOLE

B

BOLLARD

UV

UNKNOWN VAULT

SG

STORM MANHOLE GRATE

LL

LANDSCAPE LIGHT

L

LIGHT

FH

FIRE HYDRANT

BFP

BACKFLOW PREVENTER

FDC

FIRE DEPARTMENT CONNECTION

EDGE OF BUILDING

UNDERGROUND COMMUNICATIONS LINE

UNDERGROUND WATER LINE

AS-BUILT UNDERGROUND WATER LINE

UNDERGROUND SEWER LINE

AS-BUILT UNDERGROUND SEWER LINE

UNDERGROUND STORM DRAIN LINE

AS-BUILT UNDERGROUND STORM DRAIN LINE

UNDERGROUND ELECTRIC LINE

UNDERGROUND CABLE TV LINE

UNDERGROUND UNKNOWN UTILITY LINE

UNDERGROUND GAS LINE

AS-BUILT UNDERGROUND GAS LINE

ABBREVIATIONS

ACFC ASPHALT CURB FACE
BW BACK OF WALK
CE CEDAR TREE
CLF CHAIN LINK FENCE
DEC DECIDUOUS TREE
EYG EVERGREEN TREE
FF FINISHED FLOOR
FL FLOW LINE
GB GRADE BREAK
PVC PLASTIC PIPE
SYC SYCAMORE TREE
TBC TOP BACK OF CURB
TYP TYPICAL
T.O.P. TOP OF PIPE

CONTROL TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1001	1970407.28	6760268.66	86.10	MAG & NAIL
1002	1970256.86	6760066.08	87.87	MAG & NAIL
1006	1969874.51	6759954.17	86.70	MAG & NAIL
1007	1970065.42	6760215.20	89.25	MAG & NAIL
1100	1970650.43	6760509.43	85.35	SCRIBED X
1101	1969861.09	6759819.61	85.48	SCRIBED X
1102	1970438.90	6760090.30	86.58	SCRIBED X
1103	1970255.39	6759819.17	85.93	SCRIBED X

DESIGNED				
DRAWN	KRC			
CHECKED	JAL			
REV	DATE	DESCRIPTION	BY	APPD

BENCHMARK	COUNTY OF SACRAMENTO, BM 1B-102		
	2" BRASS DISC STAMPED "SAC. CO. DEPT OF PUBLIC WORKS" NEAR SOUTHWEST CORNER OF THE CONCRETE BASE FOR SIGNAL STANDARD NORTH SIDE OF INTERNATIONAL DR AT INTERSECTION OF INTERNATIONAL DR AND MATHER FIELD RD.		
ELEV.	90.28'	ADJUSTMENT	NAVD 88

PSOMAS

1075 Creekside Ridge Drive, Suite 200
Roseville, CA 95678
(916) 788-8122 (916) 788-0600 (FAX)

UTILITY EXHIBIT MAP FOR:

**DEPARTMENT OF GENERAL SERVICES
CALIFORNIA OFFICE OF EMERGENCY SERVICES
3650 SCHRIEVER AVENUE**

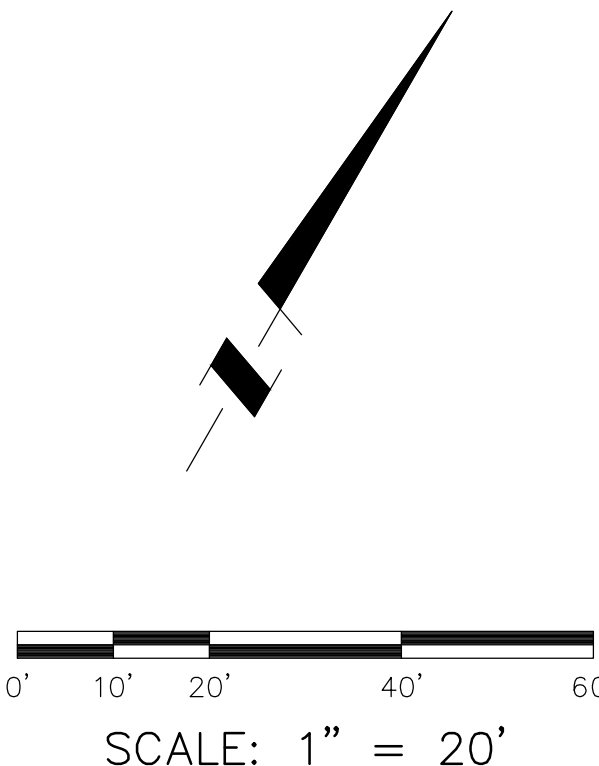
MATHER

SACRAMENTO COUNTY

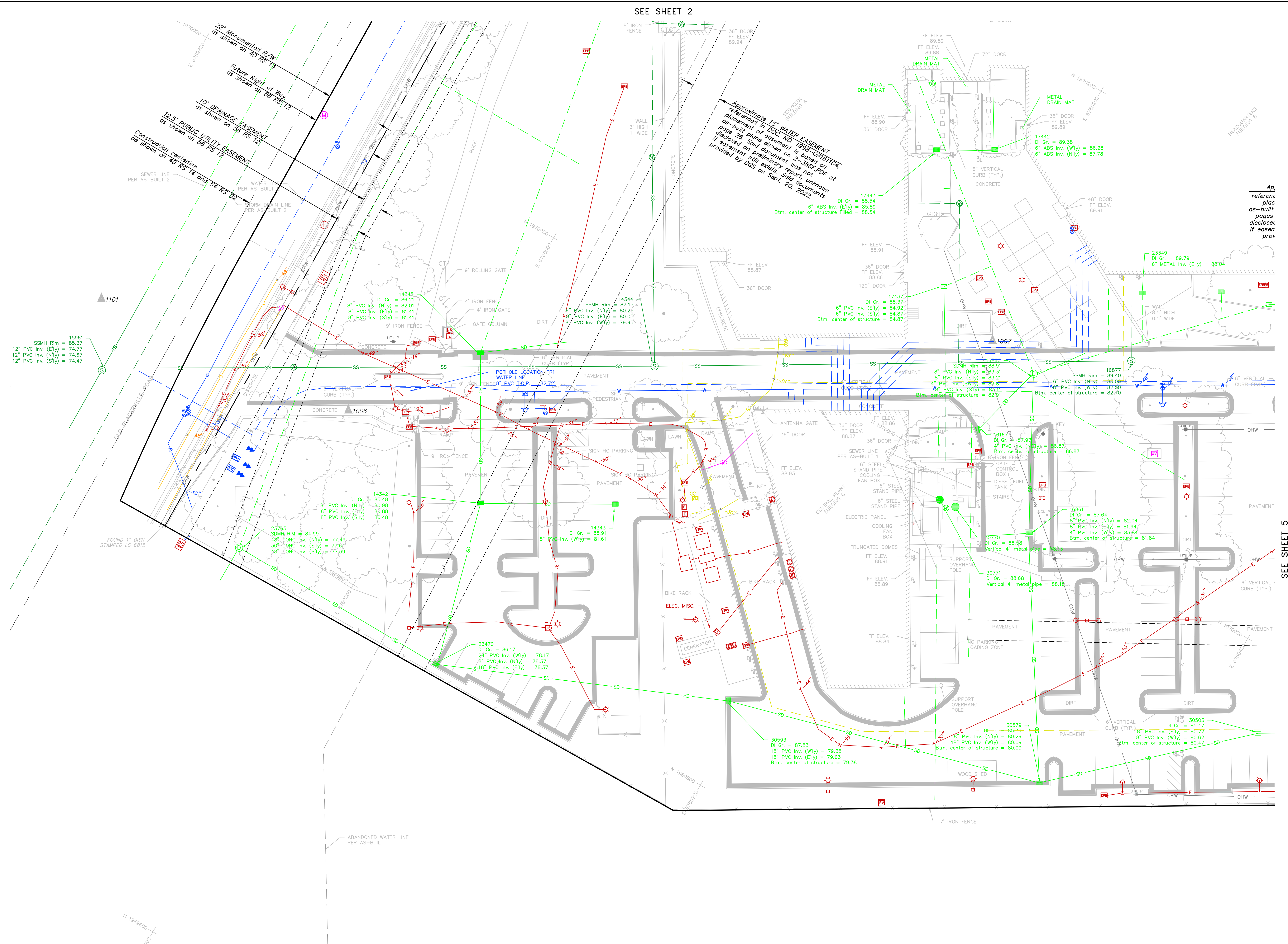
CALIFORNIA

DATE: 11/15/2022
SCALE: 1" = 40'
PROJECT NUMBER: 6CAL212503

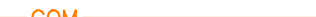
SHEET
1
5



- | | |
|--------|-------------------|
| ACFC | ASPHALT CURB FACE |
| BW | BACK OF WALK |
| CE | CEDAR TREE |
| CLF | CHAIN LINK FENCE |
| DEC | DECIDUOUS TREE |
| EVG | EVERGREEN TREE |
| FF | FINISHED FLOOR |
| FL | FLOW LINE |
| GB | GRADE BREAK |
| PVC | PLASTIC PIPE |
| SYC | SYCAMORE TREE |
| TBC | TOP BACK OF CURB |
| TYP | TYPICAL |
| T.O.P. | TOP OF PIPE |



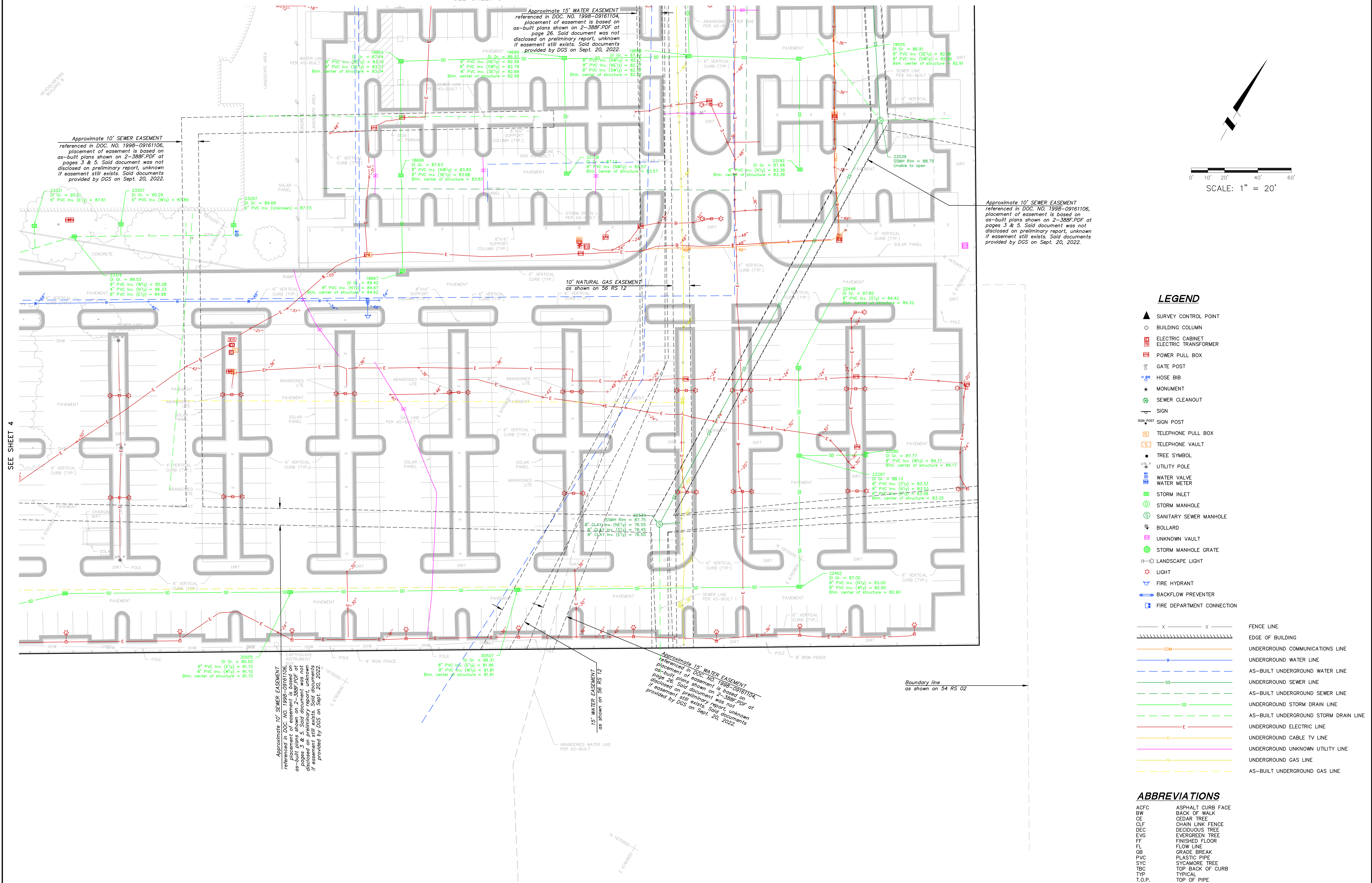
- SURVEY CONTROL POINT
- BUILDING COLUMN
- ELECTRIC CABINET
ELECTRIC TRANSFORMER
- POWER PULL BOX
- GATE POST
- HOSE BIB
- MONUMENT
- SEWER CLEANOUT
- SIGN
- SIGN POST
- TELEPHONE PULL BOX
- TELEPHONE VAULT
- TREE SYMBOL
- UTILITY POLE
- WATER VALVE
WATER METER
- STORM INLET
- STORM MANHOLE
- SANITARY SEWER MANHOLE
- BOLLARD
- UNKNOWN VAULT
- STORM MANHOLE GRATE
- LANDSCAPE LIGHT
- LIGHT
- FIRE HYDRANT
- BACKFLOW PREVENTER
- FIRE DEPARTMENT CONNECTION

	FENCE LINE
	EDGE OF BUILDING
	UNDERGROUND COMMUNICATIONS LINE
	UNDERGROUND WATER LINE
	AS-BUILT UNDERGROUND WATER LINE
	UNDERGROUND SEWER LINE
	AS-BUILT UNDERGROUND SEWER LINE
	UNDERGROUND STORM DRAIN LINE
	AS-BUILT UNDERGROUND STORM DRAIN LINE
	UNDERGROUND ELECTRIC LINE
	UNDERGROUND CABLE TV LINE
	UNDERGROUND UNKNOWN UTILITY LINE
	UNDERGROUND GAS LINE
	AS-BUILT UNDERGROUND GAS LINE

ACFC	ASPHALT CURB FACE
BW	BACK OF WALK
CE	CEDAR TREE
CLF	CHAIN LINK FENCE
DEC	DECIDUOUS TREE
EVG	EVERGREEN TREE
FF	FINISHED FLOOR
FL	FLOW LINE
GB	GRADE BREAK
PVC	PLASTIC PIPE
SYC	SYCAMORE TREE
TBC	TOP BACK OF CURB
TYP	TYPICAL
T.O.P.	TOP OF PIPE

	DESIGNED					BENCHMARK	P S O M A S 1075 Creekside Ridge Drive, Suite 200 Roseville, CA 95678 (916) 788-8122 (916) 788-0600 (FAX)	UTILITY EXHIBIT MAP FOR: DEPARTMENT OF GENERAL SERVICES CALIFORNIA OFFICE OF EMERGENCY SERVICES 3650 SCHRIEVER AVENUE	DATE: 11/15/2022	SHEET
	DRAWN	KRC				See Sheet 1		MATHER	SCALE: 1" = 20'	4
	CHECKED	JAL				ELEV.	ADJUSTMENT	SACRAMENTO COUNTY	PROJECT NUMBER: 6CAL212503	OF 5
REV	DATE	DESCRIPTION	BY	APPD	ELEV.	ADJUSTMENT				

Plotted: Mar/21/2023 7:49 AM | By: Justin Lambert
 Path: P:\5641\212503\SURFEX\CON\303\Vol1DE - Mother.doc



TEST HOLE DATA REPORT

TEST HOLE NO: TR1
 TEST HOLE DATE: 10/26/2022



CLIENT TEST HOLE NO: TR1
 SUE CREW/TRUCK NO: LC/JWII/550603

PROJECT NO: CA16700125
 CLIENT: PSOMAS
 PROJECT: DGS CAL OES SITE

5622 Research Drive Suite A
 Huntington Beach, California 92649
 TEL: 714.487.5780
 www.T2ue.com

CITY/COUNTY: MATHER, SACRAMENTO, CA

LOCATION/INTERSECTION:
 SW GATED ENTRANCE

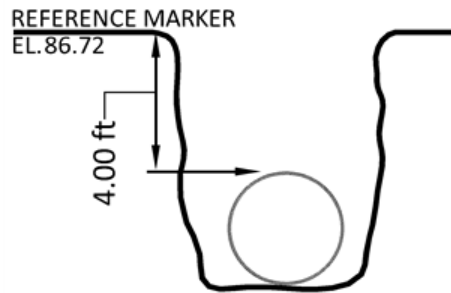
MAP



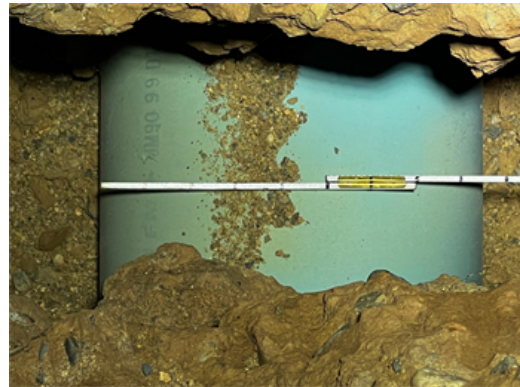
SITE PHOTO - FACING NW



CROSS SECTION - NOT TO SCALE



TEST HOLE - UTILITY - FACING SW



DISCLAIMER: ADDITIONAL MATERIAL AND/OR UTILITIES MAY EXIST BELOW APPARENT BOTTOM

UTILITY DESCRIPTION

UTILITY TYPE UNKNOWN
 UTILITY MATERIAL PLASTIC (PVC, PE, HDPE)
 UTILITY DIRECTION NORTHEAST - SOUTHWEST
 UTILITY WIDTH (FIELD) 8.00"
 UTILITY WIDTH (RECORD)
 APPARENT UTILITY OWNER UNK

DEPTH FROM REFERENCE MARKER

TOP OF UTILITY 4.00'
 BOTTOM OF UTILITY -

ELEVATION OF UTILITY

TOP OF UTILITY 82.72'
 APPARENT BOTTOM OF UTILITY -

SURFACE

TYPE ASPHALT
 THICKNESS 4.00"

REFERENCE MARKER

NORTHING 1969898.80'
 EASTING 6759977.05'
 ELEVATION 86.72'
 LOCATION CENTER OF UTILITY
 MARKED BY NAIL & DISK
 STATION
 OFFSET -
 OFFSET FROM

REMARKS:
 OPENED TRENCH BETWEEN CLIENT MARKS. FOUND AN 8-IN PVC WATERLINE AT -4.00FT.

NO OTHER UTILITIES FOUND TO REFUSAL AT -5.0FT.

REVISION NOTES:

REVIEWED DATE:

CHECKED DATE:

REVISION DATE:

REVIEWED BY:

CHECKED BY:

TEST HOLE DATA REPORT

TEST HOLE NO: TR2
TEST HOLE DATE: 10/25/2022



CLIENT TEST HOLE NO: TR2
SUE CREW/TRUCK NO: LC/JWII/550603

PROJECT NO: CA16700125
CLIENT: PSOMAS
PROJECT: DGS CAL OES SITE

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Huntington Beach, California 92649
TEL: 714.487.5780
www.T2ue.com

CITY, COUNTY: MATHER, SACRAMENTO, CA

LOCATION/INTERSECTION:

MAIN ENTRANCE

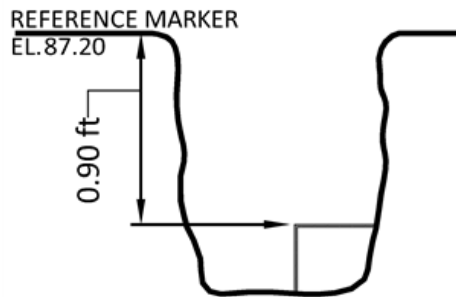
MAP



SITE PHOTO - FACING SW



CROSS SECTION - NOT TO SCALE



TEST HOLE - UTILITY - FACING NW



DISCLAIMER: ADDITIONAL MATERIAL AND/OR UTILITIES MAY EXIST BELOW APPARENT BOTTOM

UTILITY DESCRIPTION		REFERENCE MARKER	
UTILITY TYPE	ELECTRIC	NORTHING	1970472.73'
UTILITY MATERIAL	CONCRETE	EASTING	6760534.59'
UTILITY DIRECTION	NORTHEAST - SOUTHWEST	ELEVATION	87.20'
UTILITY WIDTH (FIELD)	15.00"	LOCATION	WEST EDGE
UTILITY WIDTH (RECORD)		MARKED BY	ROD & CAP
APPARENT UTILITY OWNER	UNK	STATION	
DEPTH FROM REFERENCE MARKER		OFFSET	-
TOP OF UTILITY	0.90'	OFFSET FROM	
BOTTOM OF UTILITY	1.70'		
ELEVATION OF UTILITY			
TOP OF UTILITY	86.30'		
APPARENT BOTTOM OF UTILITY	85.50'		
SURFACE			
TYPE	NATURAL GROUND		
THICKNESS	-		

REMARKS:
OPENED TRENCH BETWEEN CLIENT MARKS. FOUND A 15-IN WIDE RED CONCRETE ELECTRICAL DUCT BANK TOP AT -0.90FT AND BOTTOM AT -1.70FT.

REVISION NOTES:

REVIEWED DATE:

CHECKED DATE:

REVISION DATE:

REVIEWED BY:

CHECKED BY:

TEST HOLE DATA REPORT

TEST HOLE NO: TR2.1
TEST HOLE DATE: 10/25/2022



CLIENT TEST HOLE NO: TR2.1
SUE CREW/TRUCK NO: LC/JWII/550603

PROJECT NO: CA16700125
CLIENT: PSOMAS
PROJECT: DGS CAL OES SITE

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Huntington Beach, California 92649
TEL: 714.487.5780
www.T2ue.com

CITY/COUNTY: MATHER, SACRAMENTO, CA
LOCATION/INTERSECTION: MAIN ENTRANCE

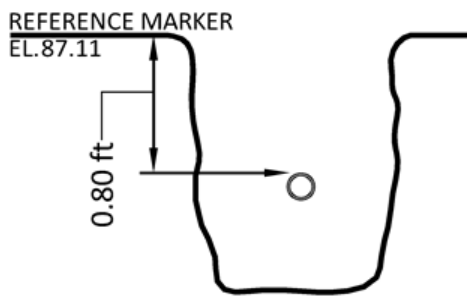
MAP



SITE PHOTO - FACING SW



CROSS SECTION - NOT TO SCALE



TEST HOLE - UTILITY - FACING NW



DISCLAIMER: ADDITIONAL MATERIAL AND/OR UTILITIES MAY EXIST BELOW APPARENT BOTTOM

UTILITY DESCRIPTION

UTILITY TYPE: IRRIGATION
UTILITY MATERIAL: PLASTIC (PVC, PE, HDPE)
UTILITY DIRECTION: NORTHEAST - SOUTHWEST
UTILITY WIDTH (FIELD): 1.50"
UTILITY WIDTH (RECORD):
APPARENT UTILITY OWNER: UNK

DEPTH FROM REFERENCE MARKER

TOP OF UTILITY: 0.80'
BOTTOM OF UTILITY: -

ELEVATION OF UTILITY

TOP OF UTILITY: 86.31'
APPARENT BOTTOM OF UTILITY: -

SURFACE

TYPE: NATURAL GROUND
THICKNESS: -

REFERENCE MARKER

NORTHING: 1970473.84'
EASTING: 6760535.27'
ELEVATION: 87.11'
LOCATION: CENTER OF UTILITY
MARKED BY: ROD & CAP
STATION:
OFFSET: -
OFFSET FROM:

REMARKS:
OPENED TRENCH BETWEEN CLIENT MARKS. FOUND AN 1.5-IN PVC IRRIGATION PIPE AT -0.80FT.

REVISION NOTES:

REVIEWED DATE:

CHECKED DATE:

REVISION DATE:

REVIEWED BY:

CHECKED BY:

TEST HOLE DATA REPORT

TEST HOLE NO: TR2.2
TEST HOLE DATE: 10/25/2022



CLIENT TEST HOLE NO: TR2.2
SUE CREW/TRUCK NO: LC/JWII/550603

PROJECT NO: CA16700125
CLIENT: PSOMAS
PROJECT: DGS CAL OES SITE

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Huntington Beach, California 92649
TEL: 714.487.5780
www.T2ue.com

CITY/COUNTY: MATHER, SACRAMENTO, CA
LOCATION/INTERSECTION: MAIN ENTRANCE GATE

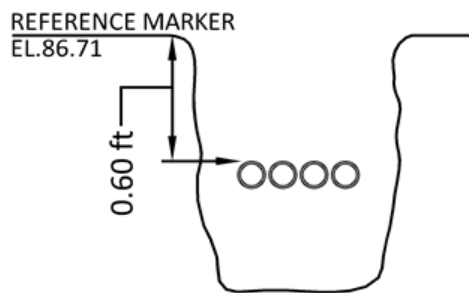
MAP



SITE PHOTO - FACING SW



CROSS SECTION - NOT TO SCALE



TEST HOLE - UTILITY - FACING NW



DISCLAIMER: ADDITIONAL MATERIAL AND/OR UTILITIES MAY EXIST BELOW APPARENT BOTTOM

UTILITY DESCRIPTION

UTILITY TYPE: IRRIGATION
UTILITY MATERIAL: PLASTIC (PVC, PE, HDPE)
UTILITY DIRECTION: SOUTHEAST - NORTHWEST
UTILITY WIDTH (FIELD): 10.00"
UTILITY WIDTH (RECORD):
APPARENT UTILITY OWNER: UNK

DEPTH FROM REFERENCE MARKER

TOP OF UTILITY: 0.60'
BOTTOM OF UTILITY: -

ELEVATION OF UTILITY

TOP OF UTILITY: 86.11'
APPARENT BOTTOM OF UTILITY: -

SURFACE

TYPE: NATURAL GROUND
THICKNESS: -

REFERENCE MARKER

NORTHING: 1970477.09'
EASTING: 6760540.09'
ELEVATION: 86.71'
LOCATION: CENTER OF UTILITY
MARKED BY: ROD & CAP
STATION:
OFFSET: -
OFFSET FROM:

REMARKS:
OPENED TRENCH BETWEEN CLIENT MARKS. FOUND FOUR PVC IRRIGATION PIPES AT -0.60FT. (1) 1-IN AND (3) 2-IN PIPES RUNNING TOGETHER.

REVISION NOTES:

REVIEWED DATE:

CHECKED DATE:

REVISION DATE:

REVIEWED BY:

CHECKED BY:

TEST HOLE DATA REPORT

TEST HOLE NO: TR3
TEST HOLE DATE: 10/26/2022



CLIENT TEST HOLE NO: TR3
SUE CREW/TRUCK NO: LC/JWII/550603

PROJECT NO: CA16700125
CLIENT: PSOMAS
PROJECT: DGS CAL OES SITE

5622 Research Drive Suite A
Huntington Beach, California 92649
TEL: 714.487.5780
www.T2ue.com

CITY, COUNTY: MATHER, SACRAMENTO, CA
LOCATION/INTERSECTION: MAIN ENTRANCE GATE

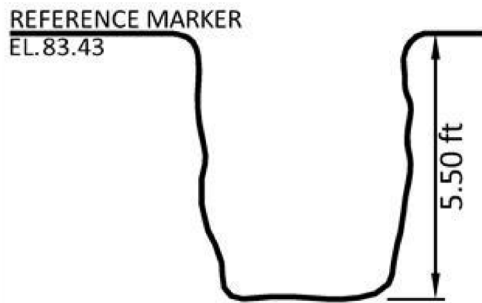
MAP



SITE PHOTO - FACING SOUTH



CROSS SECTION - NOT TO SCALE



TEST HOLE - UTILITY - FACING SW



DISCLAIMER: ADDITIONAL MATERIAL AND/OR UTILITIES MAY EXIST BELOW APPARENT BOTTOM

UTILITY DESCRIPTION

UTILITY TYPE: EXPLORATORY
UTILITY MATERIAL:
UTILITY DIRECTION:
UTILITY WIDTH (FIELD): -
UTILITY WIDTH (RECORD):
APPARENT UTILITY OWNER: NONE

DEPTH FROM REFERENCE MARKER

TOP OF UTILITY: -
BOTTOM OF UTILITY: -

ELEVATION OF UTILITY

TOP OF UTILITY: -
APPARENT BOTTOM OF UTILITY: -

SURFACE

TYPE: NATURAL GROUND
THICKNESS: -

REFERENCE MARKER

NORTHING: 1970491.63'
EASTING: 6760529.87'
ELEVATION: 83.43'
LOCATION: CENTER OF TRENCH
MARKED BY: LATHE
STATION:
OFFSET: -
OFFSET FROM:

REMARKS:
OPENED TRENCH BETWEEN CLIENT MARKS. FOUND NO UTILITIES DOWN TO -5.50FT WERE WE ENCOUNTERED WET SOIL THAT COULD NOT BE REMOVED WITH THE AIR-VACUUM. NAIL SET AT CENTER OF TR3.

REVISION NOTES:

REVIEWED DATE:

CHECKED DATE:

REVISION DATE:

REVIEWED BY:

CHECKED BY:



APPENDIX D

3801 Charter Park Ct. Ste. A, San Jose, CA 95136
Tel: 408.266.700 • Fax: 408.266-7050 • www.safe2core.com

CCTV PIPELINE INSPECTION
CONCRETE SCANNING
CONCRETE CUTTING
UTILITY LOCATING

Arizona – California – Florida – Texas

Client: BKF Engineers
Jobsite: 3650 Schriever Ave,
Mather, CA 95655

Push Camera & Utility Locating Services

1. Project Overview

Our team was engaged by **BKF Engineers** to perform push camera inspection and utility locating services at **3650 Schriever Ave, Mather, CA 95655**. The work involved inspecting the interior of two existing 4" conduits running from an exterior utility box to a utility room in Building B, and marking the conduit route and depths above ground.

2. Scope of Work

1. Conduit Inspection

- Video camera inspection of two 4" conduits to assess their condition and determine reuse feasibility.
- Conduits run from an exterior utility box into Building B's utility room.

2. Utility Locating

- Used a sonde attached to the camera head for real-time location tracking.
- Marked the routing and approximate depths of the conduits on the ground surface.

3. Methodology

1. Camera Inspection

- Initiated the push camera from the exterior utility box.
- Advanced the camera 255 feet toward Building B until the camera could not negotiate the interior bend leading into the building.
- Conducted a second inspection from inside the utility room of Building B, pushing the camera 100 feet toward the exterior utility box.
- These two segments ensured the entire conduit length was recorded and inspected.

2. Locating & Depth Measurement

- A sonde on the camera head transmitted signals to our surface receiver.
- Depth readings were taken at regular intervals and marked on the surface.
- Average conduit depth was **3 feet**, with some points measuring up to **3 feet 4 inches**.



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CCTV PIPELINE INSPECTION
CONCRETE SCANNING
CONCRETE CUTTING
UTILITY LOCATING
Arizona – California – Florida – Texas

4. Findings

1. Conduit Condition

- Both conduits appear to be in generally good condition.
- Portions of each conduit contained standing water, which would need to be cleared prior to reuse.

2. Conduit Routing & Depth

- The conduit routes were successfully traced and marked from the exterior box to the building interior.
- The average depth was **3 feet**, varying up to **3 feet 4 inches** in certain sections.

3. Reuse Feasibility

- No major obstructions, cracks, or significant damage were observed.
- Minor debris and water accumulation should be addressed to ensure smooth cable or equipment pulls in the future.

6. Deliverables

- **Video Footage:** Push camera videos documenting interior conditions of both conduits below:

Conduit 1 From Utility Box to Building B

<https://dgscloud.box.com/s/zdlk025q8tki7cpechdn82x07jmv21s6>

Conduit 1 from Building B Towards Utility Box

<https://dgscloud.box.com/s/2noraplnmbbhvfnduf1e5umh8adq73x>

Conduit 2 from Utility Box to Building B

<https://dgscloud.box.com/s/g8dvgt9j1p3vws8zn6qxebwbfscs60c>

Conduit 2 from Building B towards Utility Box

<https://dgscloud.box.com/s/46ab8sw2mt3a3bj1twek4yft82u9hs3x>

Use links above to download video footage mp4 files.



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CCTV PIPELINE INSPECTION
CONCRETE SCANNING
CONCRETE CUTTING
UTILITY LOCATING

Arizona – California – Florida – Texas

- **Marked Routing:** Visible surface markings indicating conduit paths.



Arizona (480) 591-0800 – California (408) 266-7000 – Florida (786) 254-5451 – Texas (512) 548-7855

UTILITY LOCATE SKETCH

LEGEND

- Gas, Oil, Steam
- Electric Power Lines, Conduits, and Lighting Cables
- Potable Water
- Communication, TV
- Sewer and Drain lines
- Reclaimed water, Irrigation and Slurry Lines
- Unknown Lines (GPR)
- Gas Meter
- Utility Box, Vault
- Water Meter, Valve
- Manhole
- NS No Signal, Signal Lost
- NA No Access to Locate

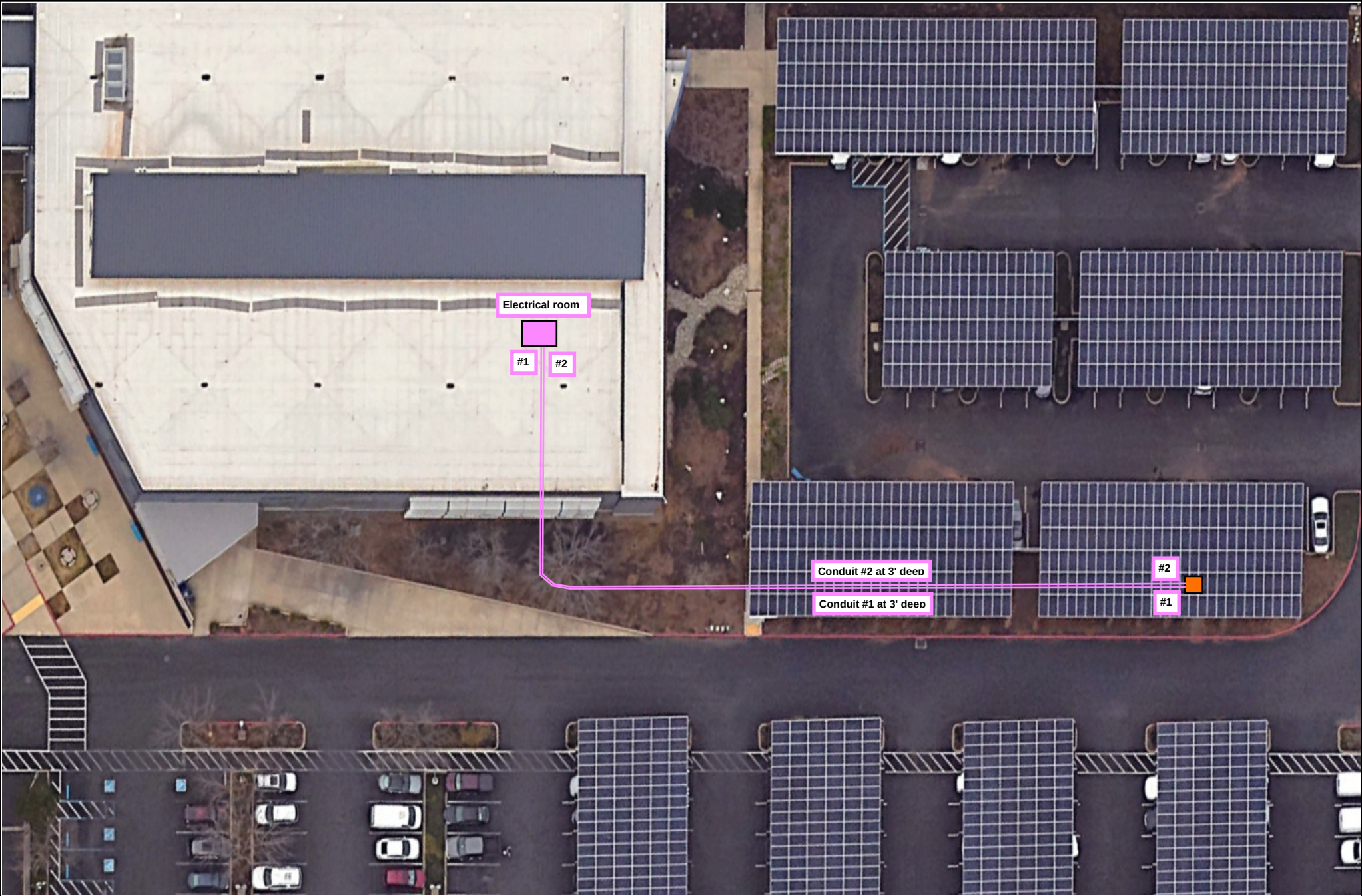


SKETCH FOR INFORMATIONAL PURPOSES ONLY,
NOT TO BE USED FOR DESING PURPOSES.

PREPARED FOR: BKF Engineers.

PREPARED BY: Adrian Novoa

DATE: 01/23/2025





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Tel: 408.266.700 • Fax: 408.266-7050 • www.safe2core.com

CCTV PIPELINE INSPECTION

CONCRETE SCANNING

CONCRETE CUTTING

UTILITY LOCATING

Arizona – California – Florida – Texas

- **This Report:** Summarizing the methods, findings, and recommendations for conduit reuse.
-

Prepared by:

Antonio Guzman

Safe2core, Inc



Project No. S2120-05-08
October 11, 2023

VIA ELECTRONIC MAIL

Lorenz A. Quinley
Associate Architect
Department of General Services
707 3rd Street,
West Sacramento, California 95605
Lorenz.quinley@dgs.ca.gov

Subject: LIMITED GEOTECHNICAL INVESTIGATION
CALIFORNIA OFFICE OF EMERGENCY SERVICES
3650 SCHRIEVER AVENUE
MATHER, CALIFORNIA

Mr. Quinley:

In accordance with Agreement No. 17496-B, Task Order No. 5 dated July 6, 2022 and our proposal dated June 1, 2022, we have prepared this limited geotechnical investigation report for the proposed security improvements to the existing facility entrance and exit drives at the California Office of Emergency Services (OES) facility located at 3650 Schriever Avenue in Mather, California. The approximate project location is shown on the Vicinity Map, Figure 1.

PURPOSE AND SCOPE

The purpose of our limited geotechnical investigation was to evaluate the subsurface conditions at the site and provide geotechnical recommendations for the proposed security improvements. We performed the following scope of services:

- Performed a site reconnaissance to observe current site conditions.
- Notified subscribing utility companies via Underground Service Alert (USA) a minimum of two working days (as required by law) prior to performing exploratory excavations at the site.
- Performed two pavement cores (C1 and C2), one at each proposed improvement location, and measured the existing pavement section thickness. Approximate core locations are shown on the Site Plan, Figure 2.
- Performed two dynamic cone penetrometer (DCP) soundings (DCP1 and DCP2), one at each core location, to measure in-situ soil consistency and relative density to refusal depths of approximately two to three feet.
- Obtained representative soil samples from the pavement cores using a hand-auger.
- Logged the borings in accordance with the Unified Soil Classification System (USCS).
- Upon completion, backfilled and patched the pavement cores with rapid-set concrete dyed black.
- Performed laboratory test on the shallow soil samples to evaluate pertinent geotechnical parameters.
- Prepared this summary letter report with our findings, conclusions, and recommendations.

SITE AND PROJECT DESCRIPTION

The project site consists of the California Office of Emergency Services (OES) facility located at 3650 Schriever Avenue in Mather, California. The site includes three buildings with paved parking lots occupying much of the remaining land at the site. The existing security at the vehicular entrances to the site consists of barrier arms and a guard kiosk at one of the entrances. The site is relatively flat with elevations ranging between approximately 78 to 83 feet, as per the WGS84 EGM96 Geoid datum used by Google Earth.

The project consists of installing new security gates and guard kiosks at the two entrance and exits drives. The new security gates will likely consist of barrier arms secured to shallow foundations. The new guard kiosks will likely consist of a small ballistic rated structures supported on shallow concrete footings. The current site configuration, with proposed improvement areas outlined, is shown on the Site Plan, Figure 2.

SUBSURFACE CONDITIONS

Based on geologic mapping by the California Geological Survey (*Preliminary Geologic Map of the Sacramento 30'x60' Quadrangle, California*, Gutierrez, 2011.), the site is underlain by Riverbank Formation materials (map symbol Qr).

The subsurface conditions encountered in our explorations consisted of the following:

Existing Pavement Section

Pavement sections composing of hot-mix asphalt (HMA) constructed over aggregate base (AB) were observed at both proposed improvement locations. Pavement sections were measured to be 4¼-inches HMA over 11¾-inches AB and 3½-inches HMA over 11½-inches AB at locations C1/DCP1 and C2/DCP2 respectively.

Riverbank Formation

Below the structural pavement sections at both core locations (C1/DCP1 and C2/DCP2) we encountered Riverbank Formation consisting of very stiff to hard, moist, reddish brown sandy lean clay with gravel (CL) to the maximum depth explored of approximately three feet. Each DCP and hand-auger boring attempt was met with shallow refusal.

The soil conditions described herein are generalized. The attached Key to Logs and Boring Logs HA1 through HA2 (Figures 3 through 5) detail soil type, color, moisture, consistency, and classification of the soil encountered at specific locations and elevations. The attached DCP logs (Figures 6 and 7) detail relative soil in-situ soil consistency and relative density.

Groundwater

We did not encounter static groundwater in our explorations advanced to a maximum depth of approximately three feet on July 26, 2022.

We reviewed available depth-to-groundwater data on the California Department of Water Resources (DWR) Sustainable Groundwater Management Act (SGMA) Application (<https://sgma.water.ca.gov/webgis/>).

The SGMA website indicates that the average depth to groundwater in the site vicinity is approximately 80 feet (Spring & Fall 2021).

It should be noted that fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors. Depth to groundwater can also vary significantly due to localized pumping, irrigation practices, and seasonal fluctuations. Therefore, it is possible that groundwater may be higher or lower than the level observed during our investigation.

Laboratory Test Results

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. Selected soil samples were tested for their plasticity characteristics, corrosion potential, and resistance values.

We performed pH, resistivity, chloride, and sulfate tests on a representative near-surface sample to generally evaluate the corrosion potential of the soil with respect to proposed subsurface structures. These tests were performed in accordance with California Test Method (CTM) Nos. 643, 422, and 417. The results are presented in Table 1 and should be considered for design of underground structures.

TABLE 1
SOIL CORROSION PARAMETER TEST RESULTS
(CALIFORNIA TEST METHODS 643, 417, AND 422)

Sample No.	Sample Depth (ft.)	pH	Minimum Resistivity (ohm-cm)	Chloride (ppm)	Sulfate (ppm)
Combo Bulk	1.25-3	6.37	5,090	2.2	22.3

Soil with a low pH (higher acidity) is considered corrosive as it can react with lime in cement to leach out soluble reaction products and result in a more porous and weaker concrete. Per Caltrans *Corrosion Guidelines* (Caltrans 2021), soil with a pH of 5.5 or lower may be corrosive to concrete or steel in contact with the ground.

Soil resistivity is the measure of the soil's ability to transmit electric current. Corrosion of buried ferrous metal is proportional to the resistivity of the soil. A lower resistivity indicates a higher propensity for transmitting electric currents that can cause corrosion of buried ferrous metal items. In general, the higher the resistivity, the lower the rate for corrosion. Per Caltrans *Corrosion Guidelines* (Caltrans 2021), resistivity serves as an indicator parameter for the possible presence of soluble salts and it is not included as a parameter to define a corrosive area for structures. A minimum resistivity value for soil less than 1,500 ohm-cm may indicate the presence of high quantities of soluble salts and a higher propensity for corrosion.

Table 2 presents a summary of concrete requirements set forth by the California Builders Code (CBC) Section 1904 (CBC 2016 Vol 1 & 2) and American Concrete Institute (ACI) 318 for possible chloride exposure. Chlorides can break down the protective oxide layer on steel surfaces resulting in corrosion. Sources of chloride include, but are not limited to, deicing chemicals, salt, brackish water, seawater, or spray from these sources.

TABLE 2
REQUIREMENTS FOR CONCRETE EXPOSED TO
CHLORIDE-CONTAINING SOLUTIONS
(AFTER ACI 318 TABLES 19.3.1.1 and 19.3.2.1)

Chloride Severity	Exposure Class	Condition	Maximum Water to Cement Ratio by Weight	Minimum Compressive Strength (psi)
Not Applicable	C0	Concrete dry or protected from moisture	N/A	2,500
Moderate	C1	Concrete exposed to moisture but not to external sources of chlorides	N/A	2,500
Severe	C2	Concrete exposed to moisture and an external source of chlorides	0.40	5,000

The appropriate Chloride Severity/Exposure Class should be determined by the project designer based on the specific conditions at the location of the proposed structure. Further guidance is provided in ACI 318. Per Caltrans *Corrosion Guidelines*, soil with a chloride concentration of 500 ppm or higher may be corrosive to steel structures or steel reinforcement in concrete. Based on Caltrans criteria, soil at the locations tested is not corrosive with respect to chloride content.

Table 3 presents a summary of concrete requirements set forth by CBC Section 1904 and ACI 318 for sulfate exposure. Similar to chlorides, sulfates can break down the protective oxide layer on steel leading to corrosion. Sulfates can also react with lime in cement to soften and crack concrete.

TABLE 3
REQUIREMENTS FOR CONCRETE EXPOSED TO
SULFATE-CONTAINING SOLUTIONS
(AFTER ACI 318 TABLES 19.3.1.1 and 19.3.2.1)

Sulfate Severity	Exposure Class	Water-Soluble Sulfate (SO ₄) Content		Cement Type (ASTM C 150)	Maximum Water to Cement Ratio by Weight ¹	Minimum Compressive Strength (psi)
		Percent By Mass	Parts Per Million (ppm)			
Not Applicable	S0	SO ₄ < 0.10	SO ₄ < 1,000	No Type Restriction	N/A	2,500
Moderate	S1	0.10 < SO ₄ < 0.20	1,000 < SO ₄ < 2,000	II	0.50	4,000
Severe	S2	0.20 < SO ₄ < 2.00	2,000 < SO ₄ < 20,000	V	0.45	4,500
Very Severe	S3	SO ₄ > 2.00	SO ₄ > 20,000	V+Pozzolan or Slag	0.45	4,500
Notes: ¹ Maximum water to cement ratio limits are different for lightweight concrete, see ACI 318 for details.						

Based on the laboratory test results, the Sulfate Severity is classified as “Not Applicable”, and the Exposure Class is S0. The concrete mix design(s) should be developed accordingly. The presence of water-soluble sulfates is not a visually discernible characteristic; therefore, other soil samples from the site could yield different concentrations. Additionally, over time landscaping activities (i.e., addition of fertilizers and other soil nutrients) may affect the concentration.

Geocon does not practice in the field of corrosion engineering and the above information is provided as screening criteria only. If corrosion sensitive improvements are planned, we recommend that further evaluations by a corrosion engineer be performed to incorporate the necessary precautions to avoid premature corrosion on buried metal pipes and metal or concrete structures in direct contact with the soils.

We performed a laboratory R-Value test on a representative near-surface sample. The R-Value test results are summarized in Table 4

**TABLE 4
R-VALUE TEST RESULTS
ASTM D2844**

Sample Number	Depth (feet)	Average Dry Density (pcf)	Average Moisture Content (%)	R-Value
Combo Bulk	1.25-3	132.8	8.9	12

We performed a laboratory Plasticity Index test on a representative near-surface sample which indicate medium plasticity. Plasticity Index test results are attached as Figure 8.

Geologic Hazards

Based on the subsurface conditions encountered during this investigation, geologically-mapped subgrade materials, and our experience in the project area, the site is not subject to significant geologic hazards including active faulting, liquefaction, lateral spreading/dynamic stability, or expansive soil.

CONCLUSIONS AND RECOMMENDATIONS

General

No soil or geologic conditions have been identified that would preclude the proposed security improvement construction as presently planned, provided the recommendations contained in this limited geotechnical report are incorporated into design and construction of the project.

Seismic Site Class / Seismic Design Criteria

We understand that seismic design of the proposed new foundation will be performed in accordance with the provisions of the 2019 CBC, the seismic provisions of which are based on the American Society of Civil Engineers (ASCE)/Structural Engineering Institute (SEI) publication: *ASCE/SEI 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures* (ASCE/SEI, 2017). We used the Structural Engineers Association of California (SEAOC) and Office of Statewide Health Planning and Development (OSHPD) web application *Seismic Design Maps* (<https://seismicmaps.org/>) to evaluate code-based seismic design parameters in accordance with ASCE 7-16.

For seismic design purposes, sites are classified as Site Class “A” through “F” as follows:

- Site Class A – Hard Rock;
- Site Class B – Rock;
- Site Class C – Very Dense Soil and Soft Rock;
- Site Class D – Stiff Soil;
- Site Class E – Soft Clay Soil; and
- Site Class F – Soils Requiring Site Response Analysis.

Based on the subsurface conditions at the site, the conservative Site Classification is a Site Class “D” per Table 20.3-1 of ASCE/SEI 7-16. For the purposes of evaluating code-based seismic parameters for design, we assume a seismic Risk Category II (per the CBC) for the project. Results are summarized in Table 5.

TABLE 5
ASCE 7-16 (CODE-BASED) SEISMIC DESIGN PARAMETERS
SITE CLASS “D” – STIFF SOIL

Parameter	Value	ASCE 7-16 Reference
MCE_R Ground Motion Spectral Response Acceleration – Class B (short), S_s	0.464g	Figure 22-1
MCE_R Ground Motion Spectral Response Acceleration – Class B (1 sec), S_1	0.226g	Figure 22-2
Site Coefficient, F_A	1.429	Table 11.4-1
Site Coefficient, F_V	2.148*	Table 11.4-2
Site Class Modified MCE_R Spectral Response Acceleration (short), S_{MS}	0.663g	Eq. 11.4-1
Site Class Modified MCE_R Spectral Response Acceleration (1 sec), S_{M1}	0.728g*	Eq. 11.4-2
5% Damped Design Spectral Response Acceleration (short), S_{DS}	0.442g	Eq. 11.4-3
5% Damped Design Spectral Response Acceleration (1 sec), S_{D1}	0.485g*	Eq. 11.4-4
* Per Supplement 3 of ASCE7-16 (effective November 5, 2021), a ground motion hazard analysis (GMHA) shall be performed for projects on Site Class “D” sites with 1-second spectral acceleration (S_1) greater than or equal to 0.2g, which is true for this site. However, Supplement 3 of ASCE 7-16 provides an exception stating that that the GMHA may be waived provided that the parameter SM_1 is increased by 50% for all applications of SM_1 . The values for parameters SM_1 and SD_1 presented above have been increased in accordance with Supplement 3 of ASCE 7-16.		

Table 6 presents the mapped maximum considered geometric mean (MCE_G) seismic design parameters for projects located in Seismic Design Categories of D through F, in accordance with ASCE 7-16.

TABLE 6
ASCE 7-16 PEAK GROUND ACCELERATION PARAMETERS

Parameter	Value	ASCE 7-16 Reference
Mapped MCE_G Peak Ground Acceleration, PGA	0.195g	Figure 22-7
Site Coefficient, F_{PGA}	1.409	Table 11.8-1
Site Class Modified MCE_G Peak Ground Acceleration, PGA_M	0.275g	Section 11.8.3 (Eq. 11.8-1)

Conformance to the criteria presented in Tables 5 and 6 for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a maximum level earthquake occurs. The primary goal of seismic design is to protect life and not to avoid structural damage, as such design may be economically prohibitive.

Soil Excavation Characteristics

Grading and excavations at the site may be accomplished with standard effort using heavy-duty grading/excavation equipment. Project excavations may generate some oversized rock material (greater than 6 inches in max dimension) or boulders.

Temporary excavations must meet Cal/OSHA requirements as appropriate. Excavation sloping, benching, the use of trench shields, and the placement of trench spoils should conform to the latest applicable Cal/OSHA standards. The contractor should have a Cal/OSHA-approved “competent person” onsite during excavation to evaluate trench conditions and to make appropriate recommendations where necessary. It is the contractor’s responsibility to provide sufficient and safe excavation support, as well as to protect nearby utilities, structures, and other improvements that may be damaged by earth movements.

The excavation support recommendations provided by Cal/OSHA are generally geared toward protecting human life and not necessarily toward preventing damage to nearby structures or surface improvements. The contractor should be responsible for using the proper active shoring systems or sloping to prevent damage to any structure or improvements near underground excavations.

If grading occurs during or after the wet season (typically winter and spring), or in periods of precipitation, in-place and excavated soils will likely be wet. In addition, landscape irrigation practices at the site may cause wet soil conditions any time of the year. Earthwork contractors should be aware of moisture sensitivity of clayey and fine-grained soils and potential compaction/workability difficulties.

Earthwork and pad preparation operations in these conditions will likely be difficult with low productivity. Often, a period of at least one month of warm and dry weather is necessary to allow the site to dry sufficiently so that heavy grading equipment can operate effectively. Conversely, during dry summer and fall months, dry clay soils may require additional grading effort (discing, mixing, or other means) to attain proper moisture conditioning.

Due to the fine-grained nature of the soils, additional drying efforts to attain moisture contents suitable for compaction should be anticipated regardless of the time of year. Mitigation alternatives may include aerating/drying the exposed soils (assuming favorable weather conditions), or chemical treatment (e.g., lime treatment). Unstable excavation bottoms may require over-excavating 12 to 18 inches and placing geotextile fabric/geogrid covered with aggregate, for stabilization. We can provide specific recommendations during construction, based on conditions encountered.

Materials for Fill

Excavated soils generated from cut operations at the site are suitable for use as fill in structural areas, provided they do not contain deleterious matter, organic material, or cementations larger than 6 inches in maximum dimension. Native soils reused as engineered fill may require aerating/drying to attain suitable moisture content for compaction, regardless of the time of year.

Import fill material should be primarily granular with a “low” expansion potential (Expansion Index less than 50), a Plasticity Index less than 15, be free of organic material and construction debris, and not contain rock/cementations larger than 6 inches in greatest dimension.

Environmental characteristics and corrosion potential of import soil materials should also be considered. Proposed import materials should be sampled, tested, and approved by Geocon prior to its transportation to the site.

Grading

All earthwork operations should be observed and all fills tested for recommended compaction and moisture content by a representative of Geocon.

All references to relative compaction and optimum moisture content in this report are based on the latest ASTM D1557 Test Procedure. Structural areas should be considered the areas extending a minimum of 5 feet beyond the outside dimensions of structures, including footings or overhangs carrying structural loads.

Within areas to be developed, any existing structures, underground utilities, debris, organic matter and organic rich topsoil should be removed. Roots larger than 1 inch in diameter should be completely removed. Smaller roots may be left in place as conditions warrant and at the discretion of our field representative.

After site preparation, the entire footprints of the proposed new barrier arms and guard kiosks (structure footprints plus a 5-foot overbuild) should be excavated to firm native soil, anticipated to be approximately 1½ to 2 feet below existing pavement surface.

The bottom of the excavation should be scarified 12 inches, uniformly moisture-conditioned at or above optimum moisture content, and compacted to at least 90% relative compaction. Scarification and recompaction operations should be performed in the presence of a Geocon representative to evaluate performance of the subgrade under compaction equipment loading and to identify any loose or unstable soil conditions that could require additional excavation.

Engineered fill should be placed and compacted in horizontal lifts not exceeding 8 inches (loose thickness) and brought to final subgrade elevations. Each lift should be moisture-conditioned at or above optimum and compacted to at least 90% relative compaction.

Underground utility trenches within structural areas should be backfilled with properly compacted material. Pipe bedding, shading, and trench backfill should conform to the requirements of the appropriate utility authority. Material excavated from trenches should be adequate for use as general backfill above shading, provided it does not contain deleterious matter, vegetation, or cementations larger than 6 inches in maximum dimension. Trench backfill should be placed in loose lifts not exceeding 8 inches, moisture-conditioned at or above optimum, and compacted to at least 90% relative compaction. Compaction should be performed by mechanical means only; jetting of trench backfill is not recommended.

Foundation Design Criteria

The new foundations for the barrier arms and guard kiosks may consist of conventional shallow foundations bearing on undisturbed native soil.

Foundations may consist of strip footings, isolated spread footings, or combinations thereof. Strip footings should be at least 12 inches wide, and spread footings should be at least 18 inches square. All footings should extend a minimum of 12 inches below lowest adjacent grade and bear within undisturbed native soil. Any soft or disturbed native soil should be removed and replaced with engineered fill.

Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area within 18 inches (laterally) of the footing, beneath the footing, and within a 1:1 plane extending out and down from the bottom of the footing.

Shallow foundations proportioned as recommended above may be designed for an allowable soil bearing capacity of 2,000 pounds per square foot (psf) for dead plus live loads. A one-third increase in allowable bearing capacity is permitted for use with the alternative load combinations given in Section 1605.3.2 of the CBC.

The allowable passive pressure used to resist lateral movement of the footings may be assumed to be equal to a fluid weighing 350 pounds per cubic foot (pcf). The allowable coefficient of friction to resist sliding is 0.35 for concrete against soil. Combined passive resistance and friction may be utilized for design provided that the passive resistance is reduced by 50%.

Continuous footings should be reinforced with at least two No. 4 reinforcing bars, one placed near the top and one placed near the bottom to provide structural continuity and span local soil irregularities. The project structural engineer should determine the need for additional reinforcement based on structural requirements. Reinforcement for spread footings should be determined by the project structural engineer.

A Geocon representative should observe foundation excavations prior to placing reinforcing steel or concrete to observe that the exposed soil conditions are consistent with those anticipated. If unanticipated soil conditions are encountered, foundation modifications may be required.

Pavement – Hot Mix Asphalt

We performed Resistance-Value (R-Value) testing on one representative composite bulk soil sample. Our testing resulted in an R-Value of 12. To account for subgrade soil variability and based on our experience in the area, we recommend using an R-Value of 10 for the purpose of pavement design.

We recommend the following alternative hot mix asphalt (HMA) pavement sections for design. The project civil engineer should determine the appropriate Traffic Index (TI) based on anticipated traffic conditions. Table 5 provides alternative pavement sections based on assumed TIs. We can provide additional sections based on other TIs if necessary.

TABLE 5
FLEXIBLE PAVEMENT SECTIONS

Pavement Area	Design TI	HMA ¹ (inches)	AB ² (inches)
Automobile Parking Areas	5.0	3.0	9.0
Driveways / Truck Areas	6.5	4.0	13.0
Notes: 1. HMA = Hot Mix Asphalt (Type A) conforming to Section 39 of Caltrans' latest Standard Specifications. 2. AB = Class 2 Aggregate Base conforming to Section 26 of Caltrans' latest Standard Specifications.			

The recommended pavement sections are based on the following assumptions:

1. Subgrade soil has a minimum R-Value of 10.
2. Subgrade soil is stable, moisture-conditioned, and compacted in accordance with the recommendations of this report. Prior to placing AB, subgrade soil should be proof rolled with a loaded water truck to verify stability.
3. Class 2 AB has a minimum R-Value of 78 and meets the requirements of Section 26 of the latest Caltrans Standard Specifications.
4. Class 2 AB and the top 6 inches of subgrade are compacted to 95% or higher relative compaction at or near optimum moisture content. Prior to placing AC, the AB should be proof-rolled with a loaded water truck to verify stability.
5. HMA should conform to Section 39 of Caltrans' latest Standard Specifications.
6. Periodic maintenance of HMA pavements is performed.

HMA pavement section recommendations for driveways and parking areas are based on the design procedures of Caltrans' Highway Design Manual (Design Manual), Chapter 600, latest edition. It should be noted that most rational pavement design procedures are based on projected street or highway traffic conditions and, hence, may not be representative of vehicular loading that occurs in parking lots and driveways. Pavement proximity to landscape irrigation, reduced traffic speed and short turning radii increase the potential for pavement distress to occur in parking lots even though the volume of traffic is significantly less than that of an adjacent street. The Design Manual indicates that the resulting pavement sections for parking lots are "minimized to keep initial costs down but are reasonable because additional HMA surfacing can be added later, if needed, and generally without incurring traffic hazards or traffic handling problems." It is generally not economically feasible to design and construct the entire parking lot and driveways for the unique loading conditions previously described. Periodic maintenance of the pavement in these areas, therefore, should be anticipated.

To reduce the potential for water from landscaped areas migrating under pavement into the AB, consideration should be given to using full-depth curbs in areas where pavement abuts irrigated landscaping. The full-depth curbs should extend at least 4 inches or more into the soil subgrade beneath the AB. Alternatively, modified drop-inlets that contain weep-holes may be used to encourage accumulated water to drain from beneath the pavement.

Pavement – Rigid Concrete

If rigid Portland cement concrete (PCC) pavement is used in automobile and light-truck traffic areas, we recommend that the PCC pavement be at least 6 inches thick. PCC pavement should be underlain by at least 6 inches of Class 2 AB meeting the requirements of Section 26 of Caltrans' Standard Specifications and compacted to at least 95% relative compaction.

The upper 6 inches of subgrade soils should be prepared and compacted to a minimum of 95 percent relative compaction in accordance with the recommendations of this report. Subgrade should be finished to a smooth, unyielding surface and proof-rolled with a loaded water truck to verify stability.

PCC should have a minimum 28-day compressive strength of 3,500 pounds per square inch (psi). Adequate construction and crack control joints should be used to control cracking inherent in concrete construction. It would be advantageous to provide minimal reinforcement, such as No. 3 steel bars placed 18 inches on center in both horizontal directions to help control cracking. We note that the American Concrete Pavement Association (ACPA) recommends a maximum joint spacing no greater than 24X the slab thickness for PCC pavements directly underlain by granular bases.

Adequate dowels should also be used at joints to facilitate load transfer and reduce vertical offset. To reduce the potential for water from landscaped areas migrating under pavement into the AB, consideration should be given to using full-depth curbs in areas where pavement abuts irrigated landscaping. The full-depth curbs should extend at least 4 inches or more into the soil subgrade beneath the AB. Alternatively, modified drop-inlets that contain weep-holes may be used to encourage accumulated water to drain from beneath the pavement.

In general, we recommend that concrete pavements be detailed, designed, constructed, and maintained in accordance with industry standards such as those provided by the ACI and ACPA.

LIMITATIONS

The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, we should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous materials or environmental contamination was not part of our scope of services.

This report is issued with the understanding that it is the responsibility of the owner or their representative to ensure that the information and recommendations contained herein are brought to the attention of the design team for the project and incorporated into the plans and specifications, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field. The recommendations contained in this report are preliminary until verified during construction by representatives of our firm. Changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. Additionally, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated partially or wholly by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

The firm that performed the geotechnical investigation for the project, the Geotechnical Engineer of Record (GER), should be retained to provide testing and observation services during construction to provide continuity of geotechnical interpretation and to verify that the recommendations presented for geotechnical aspects of site development are incorporated during site grading, construction of improvements, and excavation of foundations. If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of the GER and either acknowledgement of their concurrence with the recommendations presented in our report or revised recommendations based on their own analyses.

Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices used in the site area at this time. No warranty is provided, either express or implied.

Please contact us if you have any questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.



Ronald E. Loutzenhiser, PE, GE
Senior Engineer



Jeremy Zorne, PE
Senior Engineer/Vice President

Attachments: Figure 1, Vicinity Map
Figure 2, Site Plan
Figure 3, Key to Logs
Figures 4 and 5, Boring Logs (C1/DCP1 and C2/DCP2)
Figures 6 and 7, Dynamic Cone Penetrometer Logs (C1/DCP1 and C2/DCP2)
Figure 8, Plasticity Index Test Results





LEGEND:

- Approximate Site Boundary
- C2/DCP2* ⊗ Approximate Core Location

0 100
Scale in Feet



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR – SUITE 800 – RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 – FAX 916.852.9132

California Office of Emergency Services

3650 Schriever Avenue
Mather, California

SITE PLAN

S2120-05-08

October 2023

Figure 2

UNIFIED SOIL CLASSIFICATION

MAJOR DIVISIONS				TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO.4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVELS, SILTY GRAVELS WITH SAND
			GC	CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO.4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SM	SILTY SANDS WITH OR WITHOUT GRAVEL
			SC	CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS	
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS	
		OL	ORGANIC SILTS OR CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		OH	ORGANIC CLAYS OR CLAYS OF MEDIUM TO HIGH PLASTICITY	
	HIGHLY ORGANIC SOILS		PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

BEDDING SPACING DESCRIPTIONS

THICKNESS/SPACING	DESCRIPTOR
GREATER THAN 10 FEET	MASSIVE
3 TO 10 FEET	VERY THICKLY BEDDED
1 TO 3 FEET	THICKLY BEDDED
3 1/4-INCH TO 1 FOOT	MODERATELY BEDDED
1 1/4-INCH TO 3 1/4-INCH	THINLY BEDDED
1/4-INCH TO 1 1/4-INCH	VERY THINLY BEDDED
LESS THAN 1/4-INCH	LAMINATED

STRUCTURE DESCRIPTIONS

CRITERIA	DESCRIPTION
ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS AT LEAST 1/4-INCH THICK	STRATIFIED
ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS LESS THAN 1/4-INCH THICK	LAMINATED
BREAKS ALONG DEFINITE PLANES OF FRACTURE WITH LITTLE RESISTANCE TO FRACTURING	FISSURED
FRACTURE PLANES APPEAR POLISHED OR GLOSSY, SOMETIMES STRIATED	SLICKENSIDED
COHESIVE SOIL THAT CAN BE BROKEN DOWN INTO SMALLER ANGULAR LUMPS WHICH RESIST FURTHER BREAKDOWN	BLOCKY
INCLUSION OF SMALL POCKETS OF DIFFERENT SOIL, SUCH AS SMALL LENSES OF SAND SCATTERED THROUGH A MASS OF CLAY	LENSED
SAME COLOR AND MATERIAL THROUGHOUT	HOMOGENOUS

CEMENTATION/INDURATION DESCRIPTIONS

FIELD TEST	DESCRIPTION
CRUMBLES OR BREAKS WITH HANDLING OR LITTLE FINGER PRESSURE	WEAKLY CEMENTED/INDURATED
CRUMBLES OR BREAKS WITH CONSIDERABLE FINGER PRESSURE	MODERATELY CEMENTED/INDURATED
WILL NOT CRUMBLE OR BREAK WITH FINGER PRESSURE	STRONGLY CEMENTED/INDURATED

IGNEOUS/METAMORPHIC ROCK STRENGTH DESCRIPTIONS

FIELD TEST	DESCRIPTION
MATERIAL CRUMBLES WITH BARE HAND	WEAK
MATERIAL CRUMBLES UNDER BLOWS FROM GEOLOGY HAMMER	MODERATELY WEAK
1/4-INCH INDENTATIONS WITH SHARP END FROM GEOLOGY HAMMER	MODERATELY STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH ONE BLOW FROM GEOLOGY HAMMER	STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH COUPLE BLOWS FROM GEOLOGY HAMMER	VERY STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH MANY BLOWS FROM GEOLOGY HAMMER	EXTREMELY STRONG

IGNEOUS/METAMORPHIC ROCK WEATHERING DESCRIPTIONS

DEGREE OF DECOMPOSITION	FIELD RECOGNITION	ENGINEERING PROPERTIES
SOIL	DISCOLORED, CHANGED TO SOIL, FABRIC DESTROYED	EASY TO DIG
COMPLETELY WEATHERED	DISCOLORED, CHANGED TO SOIL, FABRIC MAINLY PRESERVED	EXCAVATED BY HAND OR RIPPING (Saprolite)
HIGHLY WEATHERED	DISCOLORED, HIGHLY FRACTURED, FABRIC ALTERED AROUND FRACTURES	EXCAVATED BY HAND OR RIPPING, WITH SLIGHT DIFFICULTY
MODERATELY WEATHERED	DISCOLORED, FRACTURES, INTACT ROCK-NOTICEABLY WEAKER THAN FRESH ROCK	EXCAVATED WITH DIFFICULTY WITHOUT EXPLOSIVES
SLIGHTLY WEATHERED	MAY BE DISCOLORED, SOME FRACTURES, INTACT ROCK-NOT NOTICEABLY WEAKER THAN FRESH ROCK	REQUIRES EXPLOSIVES FOR EXCAVATION, WITH PERMEABLE JOINTS AND FRACTURES
FRESH	NO DISCOLORATION, OR LOSS OF STRENGTH	REQUIRES EXPLOSIVES

IGNEOUS/METAMORPHIC ROCK JOINT/FRACTURE DESCRIPTIONS

FIELD TEST	DESCRIPTION
NO OBSERVED FRACTURES	UNFRACTURED/UNJOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 1 TO 3 FOOT INTERVALS	SLIGHTLY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 4-INCH TO 1 FOOT INTERVALS	MODERATELY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 1-INCH TO 4-INCH INTERVALS WITH SCATTERED FRAGMENTED INTERVALS	INTENSELY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT LESS THAN 1-INCH INTERVALS; MOSTLY RECOVERED AS CHIPS AND FRAGMENTS	VERY INTENSELY FRACTURED/JOINTED

BORING/TRENCH LOG LEGEND

	No Recovery	PENETRATION RESISTANCE						
	Shelby Tube Sample	SAND AND GRAVEL			SILT AND CLAY			
	Bulk Sample	RELATIVE DENSITY	BLOWS PER FOOT (SPT)*	BLOWS PER FOOT (MOD-CAL)*	CONSISTENCY	BLOWS PER FOOT (SPT)*	BLOWS PER FOOT (MOD-CAL)*	COMPRESSIVE STRENGTH (tsf)
	SPT Sample	VERY LOOSE	0 - 4	0 - 6	VERY SOFT	0 - 2	0 - 3	0 - 0.25
	Modified California Sample	LOOSE	5 - 10	7 - 16	SOFT	3 - 4	4 - 6	0.25 - 0.50
		MEDIUM DENSE	11 - 30	17 - 48	MEDIUM STIFF	5 - 8	7 - 13	0.50 - 1.0
		DENSE	31 - 50	49 - 79	STIFF	9 - 15	14 - 24	1.0 - 2.0
	Groundwater Level (At Completion)	VERY DENSE	OVER 50	OVER 79	VERY STIFF	16 - 30	25 - 48	2.0 - 4.0
	Groundwater Level (Seepage)				HARD	OVER 30	OVER 48	OVER 4.0
*NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE LAST 12 INCHES OF AN 18-INCH DRIVE								

MOISTURE DESCRIPTIONS

FIELD TEST	APPROX. DEGREE OF SATURATION, S (%)	DESCRIPTION
NO INDICATION OF MOISTURE; DRY TO THE TOUCH	S<25	DRY
SLIGHT INDICATION OF MOISTURE	25<S<50	DAMP
INDICATION OF MOISTURE; NO VISIBLE WATER	50<S<75	MOIST
MINOR VISIBLE FREE WATER	75<S<100	WET
VISIBLE FREE WATER	100	SATURATED

QUANTITY DESCRIPTIONS

APPROX. ESTIMATED PERCENT	DESCRIPTION
<5%	TRACE
5 - 10%	FEW
11 - 25%	LITTLE
26 - 50%	SOME
>50%	MOSTLY

GRAVEL/COBBLE/BOULDER DESCRIPTIONS

CRITERIA	DESCRIPTION
PASS THROUGH A 3-INCH SIEVE AND BE RETAINED ON A NO. 4 SIEVE (#4 TO 3")	GRAVEL
PASS A 12-INCH SQUARE OPENING AND BE RETAINED ON A 3-INCH SIEVE (3"-12")	COBBLE
WILL NOT PASS A 12-INCH SQUARE OPENING (>12")	BOULDER

LABORATORY TEST KEY

CP - COMPACTION CURVE (ASTM D1557)	R - R-VALUE (CTM 301)
CR - CORROSION ANALYSIS (CTM 422, 643, 417)	SE - SAND EQUIVALENT (CTM 217)
DS - DIRECT SHEAR (ASTM D3080)	TXCU - CONSOLIDATED UNDRAINED TRIAXIAL (ASTM D4767)
EI - EXPANSION INDEX (ASTM D4829)	TXUU - UNCONSOLIDATED UNDRAINED TRIAXIAL (ASTM D2850)
GSA - GRAIN SIZE ANALYSIS (ASTM D422)	UC - UNCONFINED COMPRESSIVE STRENGTH (ASTM D2166)
MC - MOISTURE CONTENT (ASTM D2216)	
PI - PLASTICITY INDEX (ASTM D4318)	



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

KEY TO LOGS

Figure 3

DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING C1/DCP1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) <u>~80'</u>	DATE COMPLETED <u>7/26/2022</u>				
					ENG./GEO. <u>T. Henderson</u>	DRILLER <u>Geocon</u>				
					EQUIPMENT <u>HAND-AUGER</u>	HAMMER TYPE _____				
0					MATERIAL DESCRIPTION					
					ASPHALT - 4.25 Inches					
					AGGREGATE BASE - 11.75 Inches					
1										
	SG Combo			CL	Very stiff to hard, moist, brown, Sandy Lean CLAY with Gravel					
2										
3					PRACTICAL REFUSAL AT 3 FEET NO GROUNDWATER ENCOUNTERED BACKFILLED WITH SOIL CUTTINGS AND CAPPED WITH RAPID SET CONCRETE					

Figure 4, Log of Boring, page 1 of 1

IN PROGRESS S2120-05-08 CAL OES SECURITY.GPJ 09/13/22



SAMPLE SYMBOLS

□ ... SAMPLING UNSUCCESSFUL

▨ ... DISTURBED OR BAG SAMPLE

■ ... STANDARD PENETRATION TEST

▩ ... CHUNK SAMPLE

■ ... DRIVE SAMPLE (UNDISTURBED)

▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING C2/DCP2		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) <u>~81'</u>	DATE COMPLETED <u>7/26/2022</u>				
					ENG./GEO. <u>T. Henderson</u>	DRILLER <u>Geocon</u>				
					EQUIPMENT <u>HAND-AUGER</u>	HAMMER TYPE _____				
0					MATERIAL DESCRIPTION					
					ASPHALT - 3.5 Inches					
					AGGREGATE BASE - 11.5 Inches					
1										
	SG Combo			CL	Very stiff to hard, moist, reddish brown, Sandy Lean CLAY with Gravel					
2					PRACTICAL REFUSAL AT 2 FEET NO GROUNDWATER ENCOUNTERED BACKFILLED WITH SOIL CUTTINGS AND CAPPED WITH RAPID SET CONCRETE					

Figure 5, Log of Boring, page 1 of 1

IN PROGRESS S2120-05-08 CAL OES SECURITY.GPJ 09/13/22



SAMPLE SYMBOLS

□ ... SAMPLING UNSUCCESSFUL

▨ ... DISTURBED OR BAG SAMPLE

■ ... STANDARD PENETRATION TEST

▣ ... CHUNK SAMPLE

■ ... DRIVE SAMPLE (UNDISTURBED)

▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

WILDCAT DYNAMIC CONE LOG

Page 1 of 1

Geocon Consultants, Inc.

PROJECT NUMBER: S2120-05-08
DATE STARTED: 07-26-2022
DATE COMPLETED: 07-26-2022

HOLE #: C1/DCP1
CREW: TH/JH
PROJECT: California Office of Emergency Services
ADDRESS: 3650 Schriever Avenue
LOCATION: Mather, California

SURFACE ELEVATION: ~80
WATER ON COMPLETION: N/A
HAMMER WEIGHT: 35 lbs.
CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE 0 50 100 150	N'	TESTED CONSISTENCY	
					SAND & SILT	CLAY
-	N/A				VERY LOOSE	VERY SOFT
-	N/A				VERY LOOSE	VERY SOFT
- 1 ft	N/A				VERY LOOSE	VERY SOFT
-	21	93.2		-	MEDIUM DENSE	VERY STIFF
-	24	106.6		-	MEDIUM DENSE	VERY STIFF
- 2 ft	14	62.2		17	MEDIUM DENSE	VERY STIFF
-	15	66.6		19	MEDIUM DENSE	VERY STIFF
-	28	124.3		-	DENSE	HARD
- 3 ft	45	199.8		-	VERY DENSE	HARD
- 1 m						
-						
- 4 ft						
-						
-						
- 5 ft						
-						
-						
- 6 ft						
-						
- 2 m						
-						
- 7 ft						
-						
-						
- 8 ft						
-						
-						
- 9 ft						
-						
- 3 m						
- 10 ft						
-						
-						
-						
- 11 ft						
-						
-						
- 12 ft						
-						
-						
- 4 m						
- 13 ft						

Figure 6

WILDCAT DYNAMIC CONE LOG

Page 1 of 1

Geocon Consultants, Inc.

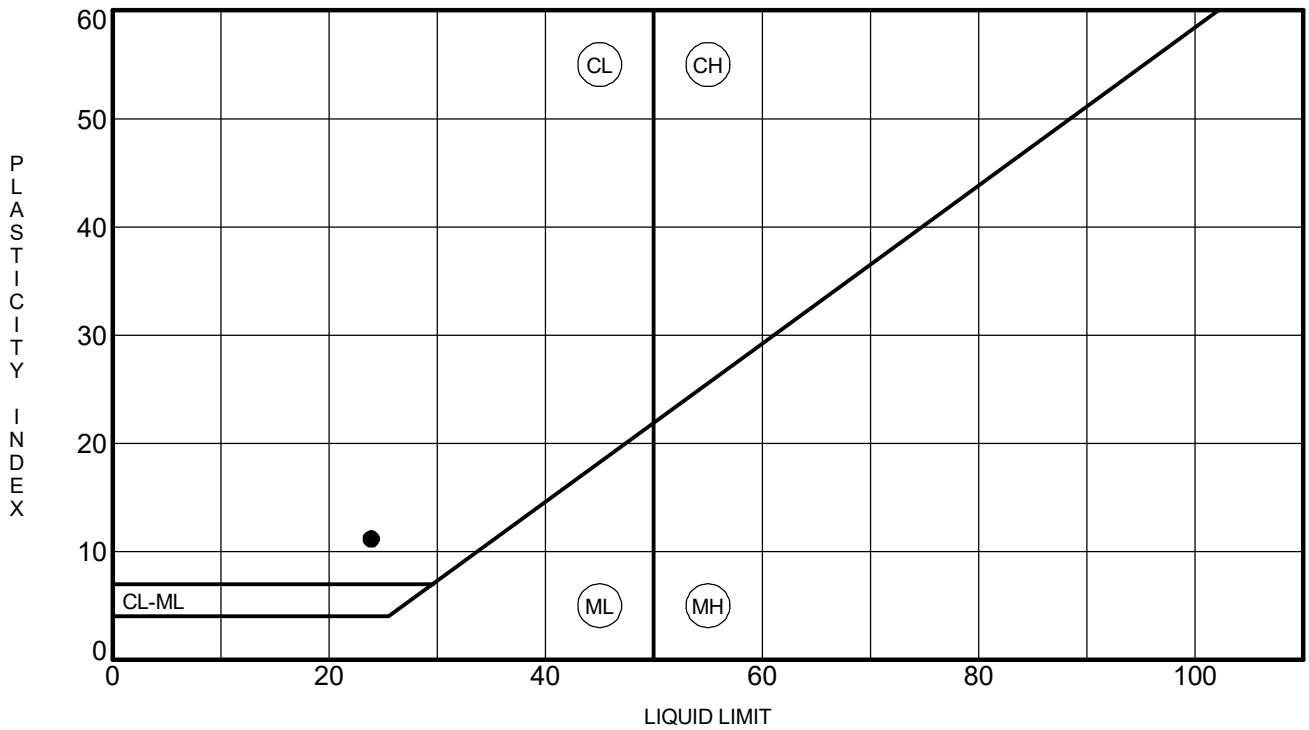
PROJECT NUMBER: S2120-05-08
 DATE STARTED: 07-26-2022
 DATE COMPLETED: 07-26-2022

HOLE #: C2/DCP2
 CREW: TH/JH
 PROJECT: California Office of Emergency Services
 ADDRESS: 3650 Schriever Avenue
 LOCATION: Mather, California

SURFACE ELEVATION: ~81
 WATER ON COMPLETION: N/A
 HAMMER WEIGHT: 35 lbs.
 CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE 0 50 100 150	N'	TESTED CONSISTENCY	
					SAND & SILT	CLAY
-	N/A				VERY LOOSE	VERY SOFT
-	N/A				VERY LOOSE	VERY SOFT
- 1 ft	N/A				VERY LOOSE	VERY SOFT
-	32	142.1		-	DENSE	HARD
-	45	199.8		-	VERY DENSE	HARD
- 2 ft						
-						
-						
- 3 ft						
- 1 m						
-						
- 4 ft						
-						
-						
- 5 ft						
-						
- 6 ft						
-						
- 2 m						
-						
- 7 ft						
-						
-						
- 8 ft						
-						
-						
- 9 ft						
-						
- 3 m						
- 10 ft						
-						
-						
-						
- 11 ft						
-						
-						
- 12 ft						
-						
- 4 m						
- 13 ft						

Figure 7



	Sample No.	Liquid Limit	Plastic Limit	Plasticity Index	% Pass #200 Sieve	Unified Soil Classification Description	Preparation Method
●	Combo Bulk	24	13	11		Lean Clay	dry



Geocon Consultants
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742
Telephone:

ATTERBERG LIMITS (ASTM D4318)

Project: California Office of Emergency Services

Location: Sacramento, CA

Number: S2120-05-08

Figure: 8

Date:

APPENDIX F

Those portions of Lots 60, 61, 62, 65, 66 and 67, of Natomas American River Subdivision No. 4 as shown on the Amended Map thereof filed in the Office of the Recorder of the County of Sacramento in Book 15, Page 44 of Maps, described as follows:

Assessor's Parcel No: 077-0050-0-063-0000

FLOOD ZONE SUBJECT PROPERTY LIES WITHIN FLOOD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 06067C0208H DATED AUGUST 18, 2012.

BASIS OF BEARINGS THE BASIS OF BEARINGS FOR THIS SURVEY IS NAD 83, CALIFORNIA STATE COORDINATE SYSTEM, ZONE 2 (2017.5 EPOCH DATE) RESULTING IN THE CENTERLINE OF SCHRIEVER AVENUE BEING N59°29'19"E AND HAVING A RECORD BEARING OF N59°29'40"E AS SHOWN ON 56 RS 12. ALL DISTANCES AND COORDINATES CITED HEREIN ARE GROUND VALUES, WHICH ARE THE BASIS FOR THE AREAS SHOWN HEREON.

PARKING THERE CURRENTLY EXISTS A TOTAL OF 517 PARKING STALLS WITHIN THE BOUNDARY, AS SHOWN HEREON.

OF THE TOTAL,
23 STALLS ARE DESIGNATED AS 'COMPACT',
4 STALLS ARE DESIGNATED AS 'CARPOOL',
3 STALLS ARE DESIGNATED AS 'COMPACT CARPOOL',
9 STALLS ARE DESIGNATED AS 'EV',
14 STALLS ARE DESIGNATED AS 'RESERVED',
AND 18 STALLS ARE DESIGNATED AS 'HANDICAP'.

AREA BASED UPON MEASURED BEARINGS AND DISTANCES AS SHOWN HEREON, THE AREAS ARE:

(Gross):
586,894 SQ. FT. = 13.473 ACRES
(Net):
544,115 SQ. FT. = 12.491 ACRES

PURPOSE OF SURVEY THE PURPOSE OF THIS MAPPING IS TO CREATE AN ALTA DUE DILIGENCE SURVEY OF THE PROPERTY SHOWN AND LOCATED AT 3650 SCHRIEVER AVE, MATHER, CA. USING TABLE A ITEMS 2, 3, 4, 8, 9, 11, 13, AND 14 PER 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS.

TABLE A, ITEM 14 THE SUBJECT PROPERTY ABUTS OLD PLACERVILLE ROAD AND SCHRIEVER AVENUE.

TOPOGRAPHY THE TOPOGRAPHY SHOWN HEREON IS BASED ON DATA FROM A GROUND SURVEY COMPLETED NOVEMBER 07, 2022.

UTILITIES UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON FIELD LOCATED ABOVE GROUND EVIDENCE AND SURFACE MARKINGS REPRESENTING DETECTED UNDERGROUND UTILITIES. RECORD UTILITIES SHOWN ARE APPROXIMATE AND BASED ON CLIENT SUPPLIED AS-BUILTS. UTILITIES SHOWN HEREON MUST BE VERIFIED PRIOR TO CONSTRUCTION.

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1001	1970407.28	6760268.66	86.10	MAG & NAIL
1002	1970256.86	6760066.08	87.87	MAG & NAIL
1006	1969874.51	6759954.17	86.70	MAG & NAIL
1007	1970065.42	6760215.20	89.25	MAG & NAIL
1100	1970650.43	6760509.43	85.35	SCRIBED X
1101	1969861.09	6759819.61	85.48	SCRIBED X
1102	1970438.90	6760090.30	86.58	SCRIBED X
1103	1970255.39	6759819.17	85.93	SCRIBED X

23 he requirement for submission to this Company of a resolution of the governing body of State of California authorizing the transaction for which this report has been requested. The resolution must designate the officers authorized to execute on the State of California's behalf.

25 Unrecorded matters which may be disclosed by an Owner's Affidavit or Declaration. A form of the Owner's Affidavit/Declaration is attached to this Preliminary Report/Commitment. This Affidavit/Declaration is to be completed by the record owner of the land and submitted for review prior to the closing of this transaction. Your prompt attention to this requirement will help avoid delays in the closing of this transaction. Thank you.

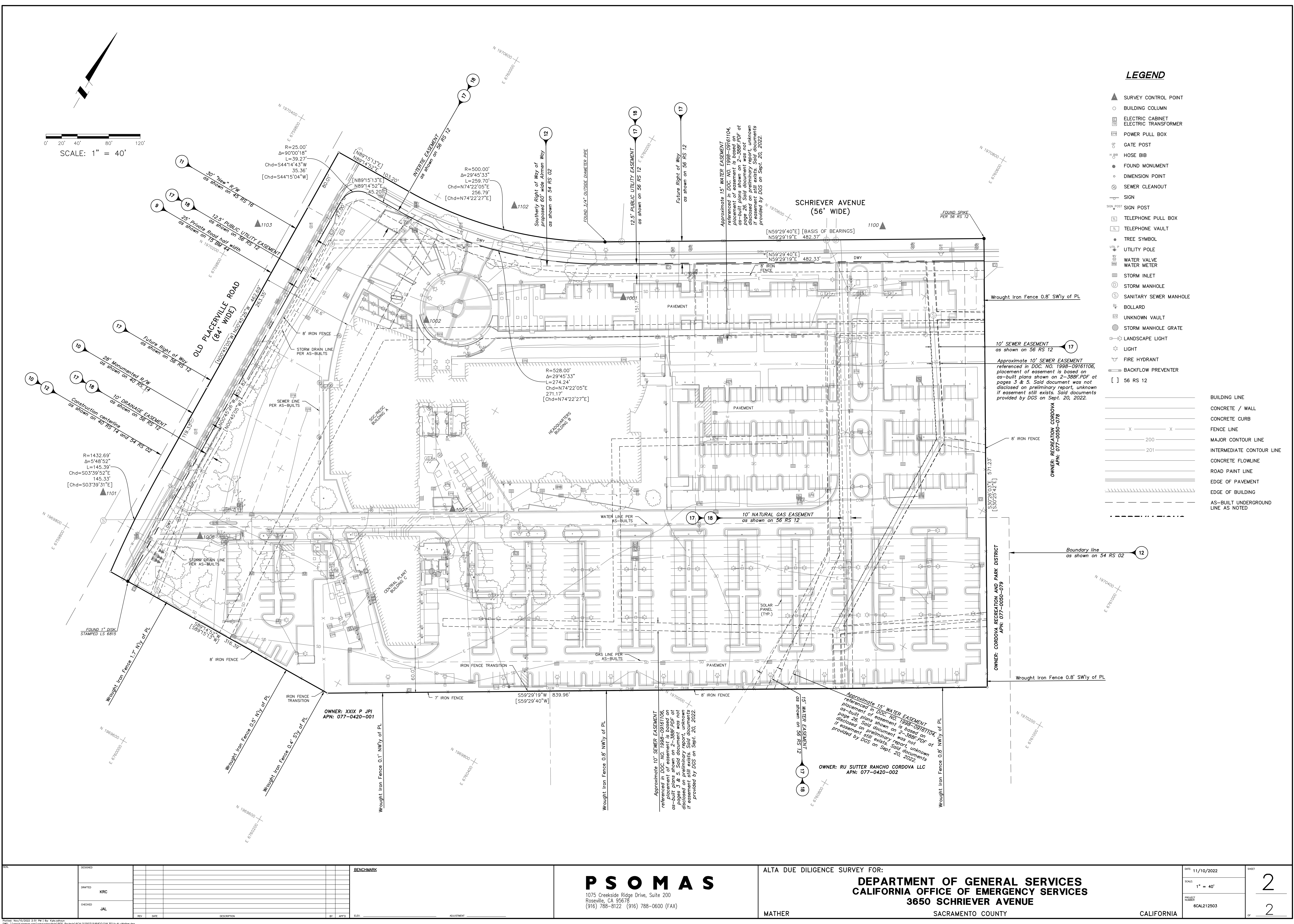
..... The Company reserves the right to add additional items or make further requirements after review of the requested Affidavit/Declaration.

26 Matters which may be disclosed by an inspection and/or by a correct ALTA/ACSM Land Title Survey of said Land that is satisfactory to the Company, and/or by inquiry of the parties in possession thereof.

27 Any rights of the parties in possession of a portion of, or all of, said Land, which rights are not disclosed by the public records. The Company will require, for review, a full and complete copy of any unrecorded agreement, contract, license and/or lease, together with all supplements, assignments and amendments thereto, before issuing any policy of title insurance without excepting this item from coverage.

..... The Company reserves the right to except additional items and/or make additional requirements after reviewing said documents.

Plotted: Nov/10/2022 2:50 PM | By: Kyle Colahan
 (WD) \\serverd.asomias.com\conzarcoprojects\ROS_Projects\6CAL212503\SUBREVIEW\CWL30\V-AI-Mother.dwg

[illegible]

COMMENTS

PURPOSE OF SURVEY THE PURPOSE OF THIS SURVEY IS TO MAP EXISTING TOPOGRAPHY AND PLANIMETRICS FOR A PORTION OF THE PROPERTY SHOWN AND LOCATED AT 3650 SCHRIEVER AVE, MATHER, CA.

HORIZONTAL DATUM THE HORIZONTAL DATUM FOR THIS PROJECT IS BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 2, (2017.5 EPOCH) IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801-8819; SAID DATUM IS BASED LOCALLY UPON FIELD-OBSERVED TIES TO THE CALIFORNIA SPATIAL REFERENCE NETWORK STATIONS P146, P230, P270, AND CMBB.

COORDINATES COORDINATE VALUES SHOWN HEREON ARE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83) ZONE 2 (2017.5 EPOCH) GRID COORDINATES.

VERTICAL DATUM THE VERTICAL DATUM OF THIS MAPPING IS THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NAVD 88) BASED ON THE COUNTY OF SACRAMENTO BENCHMARK 1B-102.

TOPOGRAPHY THE TOPOGRAPHY SHOWN HEREON IS BASED ON DATA FROM A GROUND SURVEY COMPLETED NOVEMBER 07, 2022.

UTILITIES UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON FIELD LOCATED ABOVE GROUND EVIDENCE AND SURFACE MARKINGS REPRESENTING DETECTED UNDERGROUND UTILITIES. RECORD UTILITIES SHOWN ARE APPROXIMATE AND ARE BASED ON CLIENT SUPPLIED AS-BUILTS. UTILITIES SHOWN HEREON MUST BE VERIFIED PRIOR TO CONSTRUCTION.

TREES THIS DOES NOT CONSTITUTE A TREE SURVEY. TREES AND DRIPLINES SHOWN HEREON HAVE BEEN LOCATED BASED ON VISIBLE SURFACE EVIDENCE ONLY. TREE SPECIES AND SIZES HAVE NOT BEEN VERIFIED BY A CERTIFIED ARBORIST.

CONTOUR INTERVAL 1 FOOT MINORS, 5 FOOT MAJORS

MAPPING NOTE PLANIMETRIC DATA SHOWN OUTSIDE OF SURFACE BOUNDARY HAS BEEN SUPPLIED FOR VISUAL PURPOSES ONLY AND DOES NOT REPRESENT A FULL DESIGN SURVEY. WHILE THE VERTICAL DATA SHOWN IS ACCURATE, IT SHOULD NOT BE UTILIZED FOR SURFACING PURPOSES.

LEGEND

- ▲

SURVEY CONTROL POINT
- BUILDING COLUMN
- 

ELECTRIC CABINET
- 

ELECTRIC TRANSFORMER
- 

POWER PULL BOX
- 

GATE POST
- 

HOSE BIB
- 

MONUMENT
- 

SEWER CLEANOUT
- 

SIGN
- 

SIGN POST
- 

TELEPHONE PULL BOX
- 

TELEPHONE VAULT
- 

TREE SYMBOL
- 

UTILITY POLE
- 

WATER VALVE
- 

WATER METER
- 

STORM INLET
- 

STORM MANHOLE
- 

SANITARY SEWER MANHOLE
- 

BOLLARD
- 

UNKNOWN VAULT
- 

STORM MANHOLE GRATE
- 

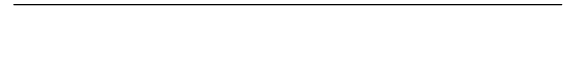
LANDSCAPE LIGHT
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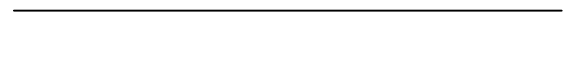
LIGHT
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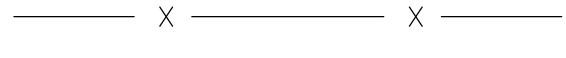
FIRE HYDRANT
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BACKFLOW PREVENTER
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BUILDING LINE
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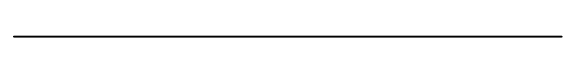
CONCRETE / WALL
- 

CONCRETE CURB
- 

FENCE LINE
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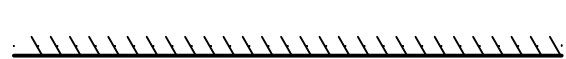
MAJOR CONTOUR LINE
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INTERMEDIATE CONTOUR LINE
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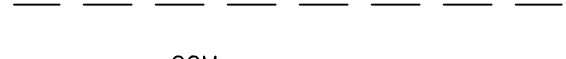
CONCRETE FLOWLINE
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ROAD PAINT LINE
- 

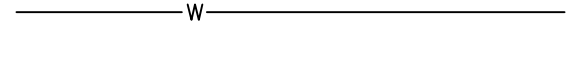
EDGE OF PAVEMENT
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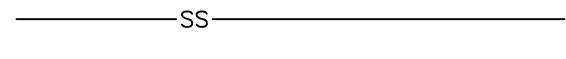
EDGE OF BUILDING
- 

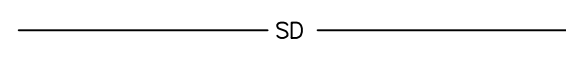
AS-BUILT UNDERGROUND LINE AS NOTED
- 

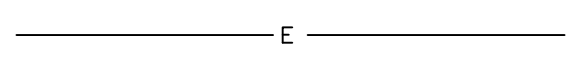
UNDERGROUND COMMUNICATIONS LINE
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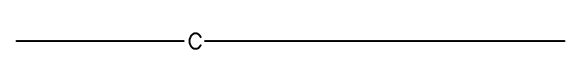
UNDERGROUND WATER LINE
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UNDERGROUND SEWER LINE
- 

UNDERGROUND STORM DRAIN LINE
- 

UNDERGROUND ELECTRIC LINE
- 

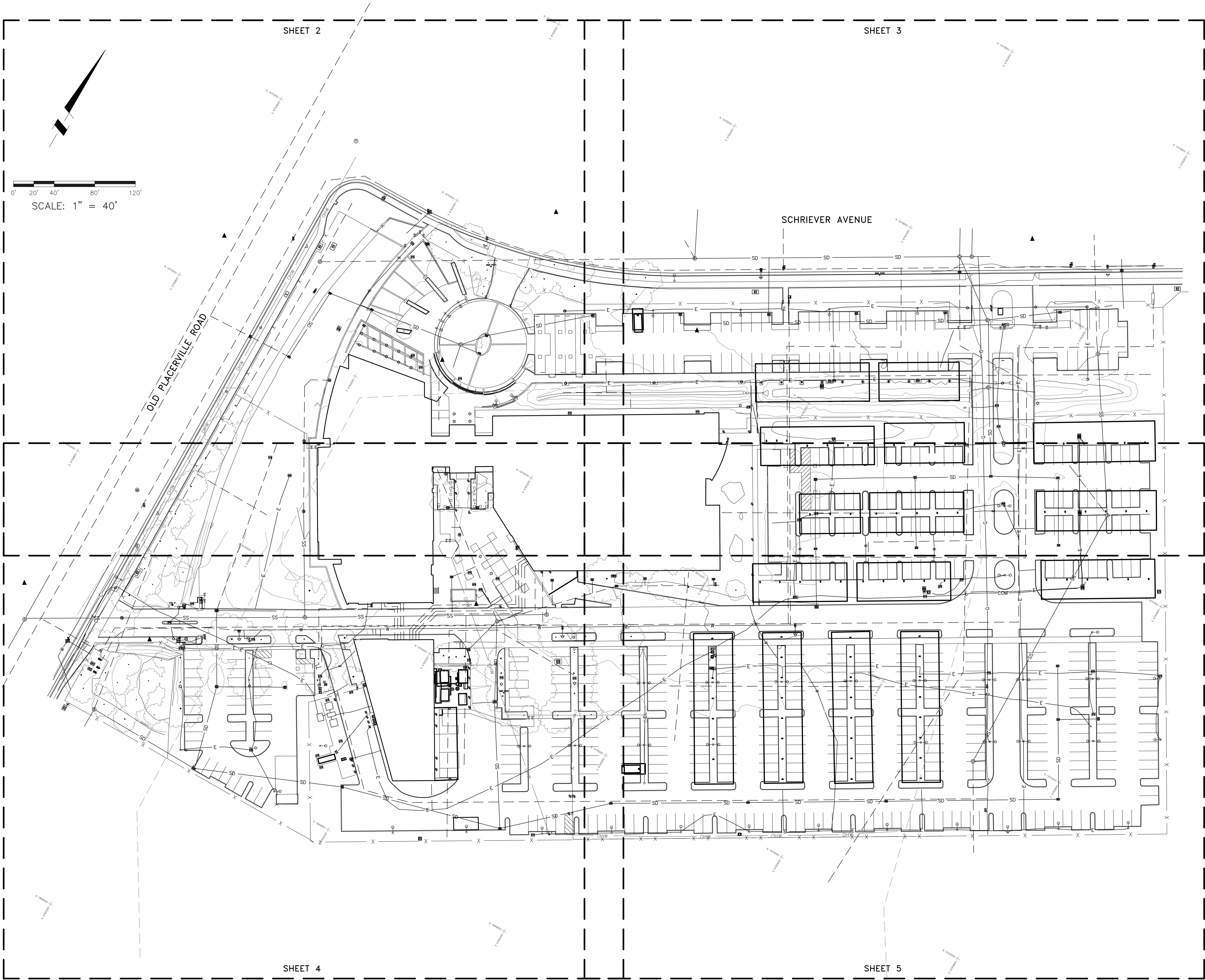
UNDERGROUND CABLE TV LINE
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UNDERGROUND UNKNOWN UTILITY LINE
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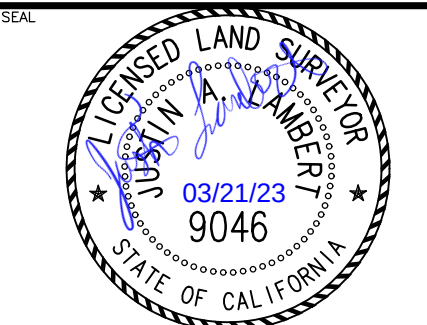
UNDERGROUND GAS LINE

CONTROL TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1001	1970407.28	6760268.66	86.10	MAG & NAIL
1002	1970256.86	6760066.08	87.87	MAG & NAIL
1006	1969874.51	6759954.17	86.70	MAG & NAIL
1007	1970065.42	6760215.20	89.25	MAG & NAIL
1100	1970650.43	6760509.43	85.35	SCRIBED X
1101	1969861.09	6759819.61	85.48	SCRIBED X
1102	1970438.90	6760090.30	86.58	SCRIBED X
1103	1970255.39	6759819.17	85.93	SCRIBED X



APPENDIX G

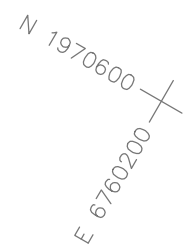
	DESIGNED		BENCHMARK COUNTY OF SACRAMENTO, BM 1B-102 2" BRASS DISC STAMPED "SAC. CO. DEPT OF PUBLIC WORKS" NEAR SOUTHWEST CORNER OF THE CONCRETE BASE FOR SIGNAL STANDARD NORTH SIDE OF INTERNATIONAL DR AT INTERSECTION OF INTERNATIONAL DR AND MATHER FIELD RD. 90.28' NAVD 88	PSOMAS 1075 Creekside Ridge Drive, Suite 200 Roseville, CA 95678 (916) 788-8122 (916) 788-0600 (FAX)	TOPOGRAPHIC SURVEY FOR: DEPARTMENT OF GENERAL SERVICES CALIFORNIA OFFICE OF EMERGENCY SERVICES 3650 SCHRIEVER AVENUE SACRAMENTO COUNTY CALIFORNIA	DATE: 11/15/2022	SHEET 1 5
	DRAWN	KRC				SCALE: 1" = 40'	
	CHECKED	JAL				PROJECT NUMBER: 6CAL212503	
	REV	DATE				DESCRIPTION	



- SEE SHEET 4
-
- TOPOGRAPHIC SURVEY FOR:

DATE:	11/15/2022
SCALE:	1" = 20'
PROJECT NUMBER	6CAL212503

SEE SHEET 3





- P S O M A S**

TOPOGRAPHIC SURVEY FOR:

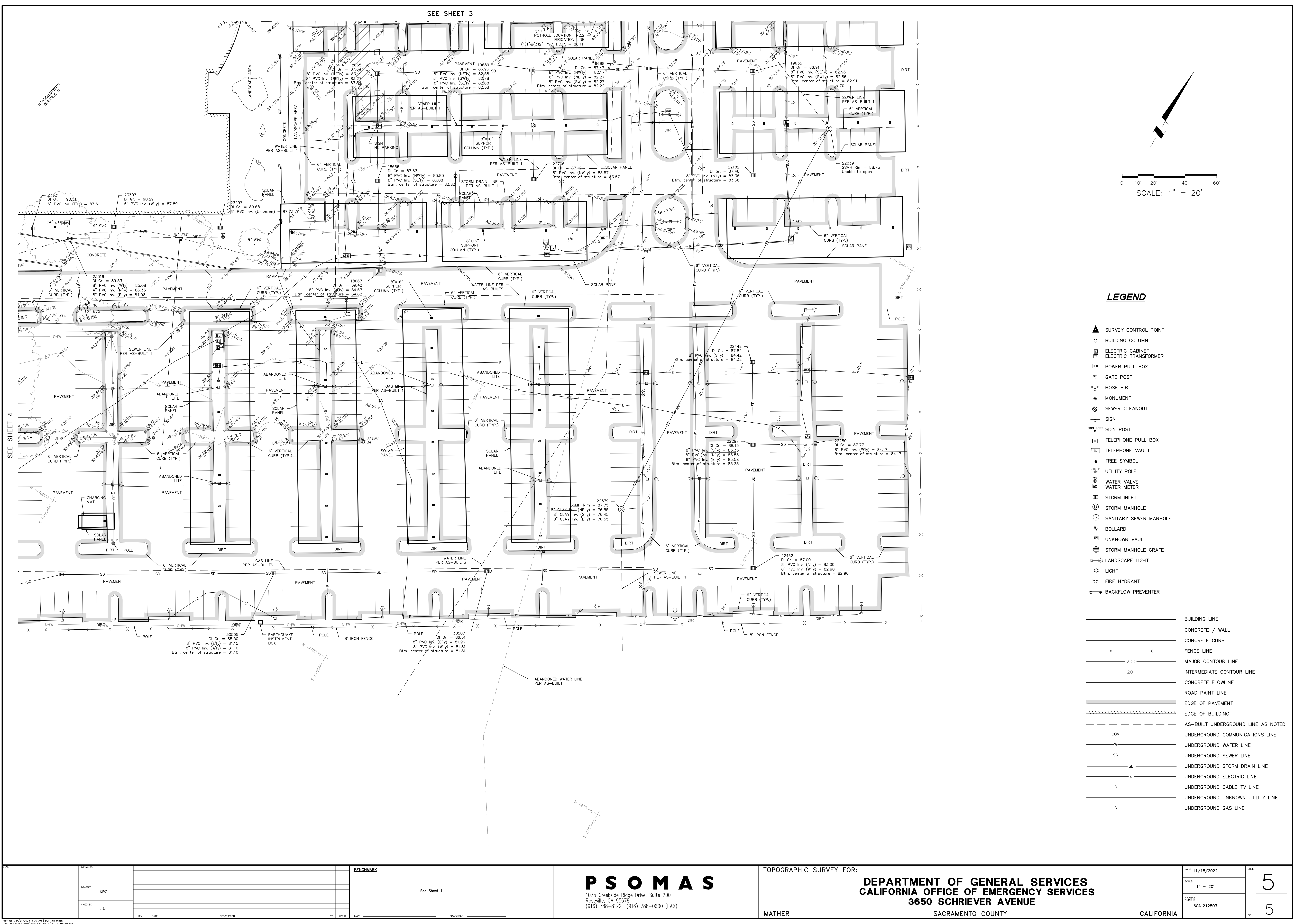
MATHER

CALIFORNIA

4

5

SEE SHEET 3



LEGEND

- ▲ SURVEY CONTROL POINT
 - BUILDING COLUMN
 - ⊞ ELECTRIC CABINET
 - ⊞ ELECTRIC TRANSFORMER
 - ⊞ POWER PULL BOX
 - ⊞ GATE POST
 - ⊞ HOSE BIB
 - ⊞ MONUMENT
 - ⊞ SEWER CLEANOUT
 - ⊞ SIGN
 - ⊞ SIGN POST
 - ⊞ TELEPHONE PULL BOX
 - ⊞ TELEPHONE VAULT
 - TREE SYMBOL
 - ⊞ UTILITY POLE
 - ⊞ WATER VALVE
 - ⊞ WATER METER
 - ⊞ STORM INLET
 - ⊞ STORM MANHOLE
 - ⊞ SANITARY SEWER MANHOLE
 - ⊞ BOLLARD
 - ⊞ UNKNOWN VAULT
 - ⊞ STORM MANHOLE GRATE
 - ⊞ LANDSCAPE LIGHT
 - ⊞ LIGHT
 - ⊞ FIRE HYDRANT
 - ⊞ BACKFLOW PREVENTER
-
- BUILDING LINE
 - CONCRETE / WALL
 - CONCRETE CURB
 - FENCE LINE
 - MAJOR CONTOUR LINE
 - INTERMEDIATE CONTOUR LINE
 - CONCRETE FLOWLINE
 - ROAD PAINT LINE
 - EDGE OF PAVEMENT
 - EDGE OF BUILDING
 - AS-BUILT UNDERGROUND LINE AS NOTED
 - COM ——— UNDERGROUND COMMUNICATIONS LINE
 - W ——— UNDERGROUND WATER LINE
 - SS ——— UNDERGROUND SEWER LINE
 - SD ——— UNDERGROUND STORM DRAIN LINE
 - E ——— UNDERGROUND ELECTRIC LINE
 - C ——— UNDERGROUND CABLE TV LINE
 - G ——— UNDERGROUND UNKNOWN UTILITY LINE
 - G ——— UNDERGROUND GAS LINE

DESIGNED		BENCHMARK		TOPOGRAPHIC SURVEY FOR:		DATE: 11/15/2022		SHEET	
DRAFTED				DEPARTMENT OF GENERAL SERVICES		SCALE: 1" = 20'		5	
CHECKED				CALIFORNIA OFFICE OF EMERGENCY SERVICES		PROJECT NUMBER: 6CAL212503		5	
JAL				3650 SCHRIEVER AVENUE					
				SACRAMENTO COUNTY					
				CALIFORNIA					

PSOMAS

1075 Creekside Ridge Drive, Suite 200
Roseville, CA 95678
(916) 788-8122 (916) 788-0600 (FAX)

MATHER

SACRAMENTO COUNTY

1075 Creekside Ridge Drive, Suite 200
Roseville, CA 95678
(916) 788-8122 (916) 788-0600 (FAX)



APPENDIX H

January 26, 2023

Brett Billingsley
State of California
707 3rd St
W Sacramento, CA 95605

Re: 3650 Schriever Ave

Dear Brett Billingsley,

Thank you for providing PG&E the opportunity to review the proposed plans for 3650 Schriever Ave dated 1/23/2023. Our review indicates the proposed improvements do not appear to directly interfere with existing PG&E facilities or impact our easement rights.

Please note this is our preliminary review and PG&E reserves the right for additional future review as needed. This letter shall not in any way alter, modify, or terminate any provision of any existing easement rights. If there are subsequent modifications made to the design, we ask that you resubmit the plans to the email address listed below.

If the project requires PG&E gas or electrical service in the future, please continue to work with PG&E's Service Planning department: <https://www.pge.com/cco/>.

As a reminder, before any digging or excavation occurs, please contact Underground Service Alert (USA) by dialing 811 a minimum of 2 working days prior to commencing any work. This free and independent service will ensure that all existing underground utilities are identified and marked on-site.

If you have any questions regarding our response, please contact the PG&E Plan Review Team at pgeplanreview@pge.com.

Sincerely,

PG&E Plan Review Team
Land Management