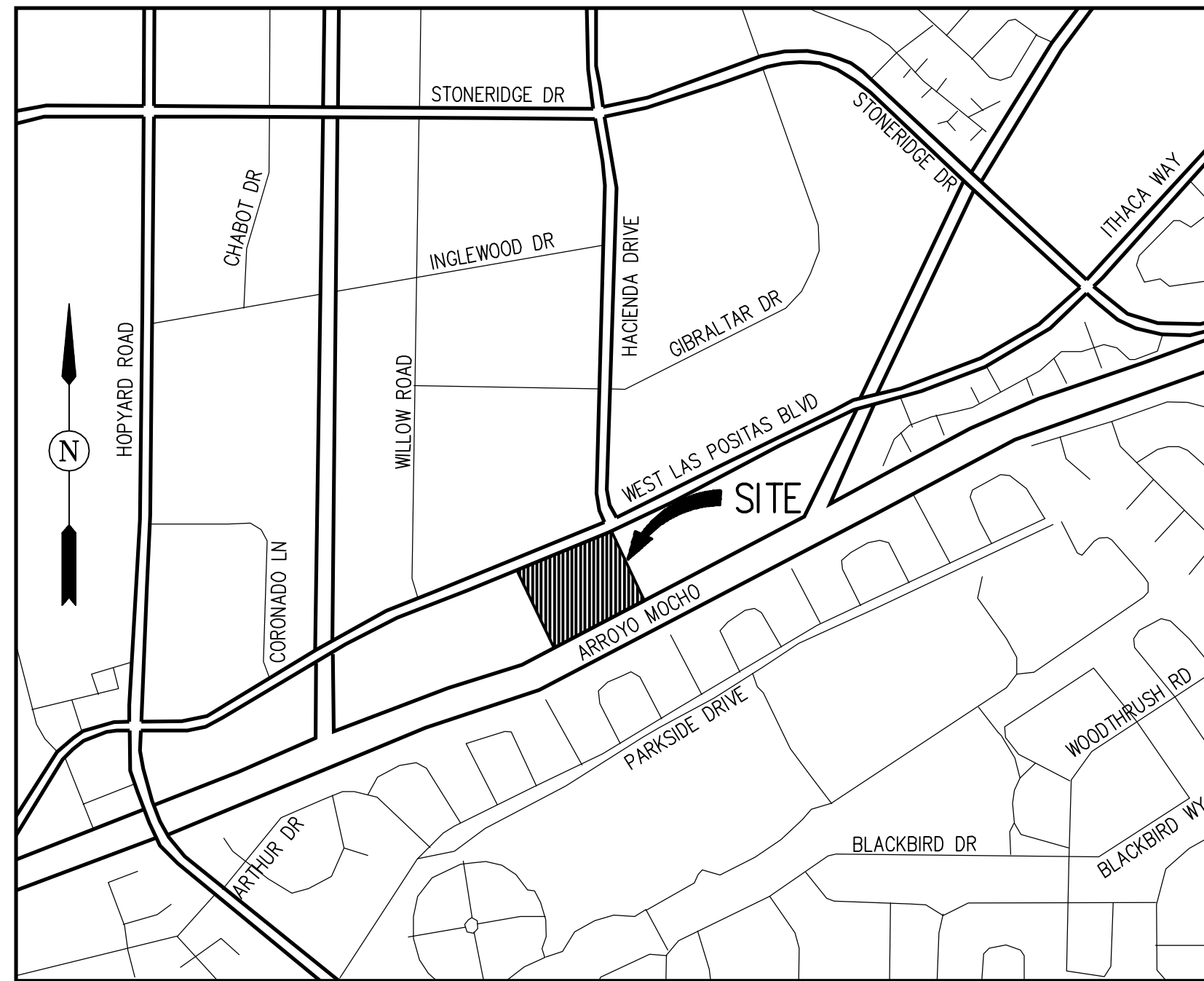
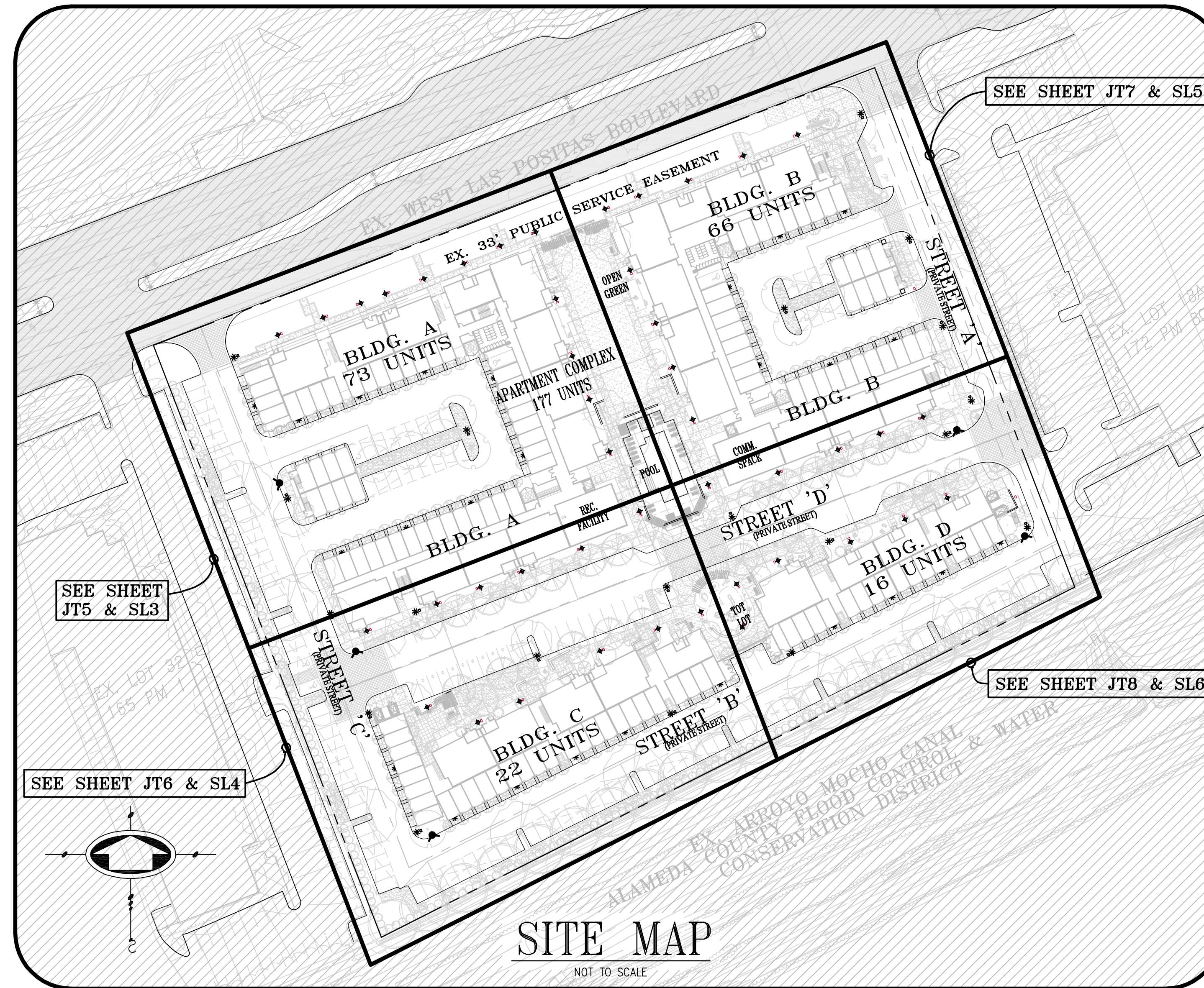


SUMMERHILL HOMES CANNAE PLEASANTON ALAMEDA COUNTY CALIFORNIA



VICINITY MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

LEGEND	
— JT —	PROPOSED JOINT TRENCH
— JTX —	PROPOSED JOINT TRENCH CROSSING
— SVC —	PROPOSED JOINT TRENCH SERVICE
— EX JT —	EXISTING JOINT TRENCH
— GAS —	PROPOSED GAS
— EX GAS —	EXISTING GAS
— EX SD —	EXISTING STORM DRAIN
— EX SS —	EXISTING SEWER
— EX WT —	EXISTING WATER
— ECUG —	EXISTING UNDERGROUND CATV LINES
— EUUG —	EXISTING UNDERGROUND ELECTRIC LINES
— EUUG —	EXISTING UNDERGROUND UTILITY LINES
— ETUG —	EXISTING UNDERGROUND TELEPHONE LINES
— EUOH —	EXISTING OVERHEAD UTILITY LINES
— ECOH —	EXISTING OVERHEAD CATV LINES
— ETOH —	EXISTING OVERHEAD TELEPHONE LINES
— EEOH —	EXISTING OVERHEAD ELECTRIC LINES
— HIGH VOLTAGE —	EXISTING OVERHEAD HIGH VOLTAGE ELECTRIC LINES
— SD —	PROPOSED STORM DRAIN
— SS —	PROPOSED SEWER
— WT —	PROPOSED WATER
— UOH —	PROPOSED OVERHEAD UTILITY LINES
—	DESIGNATES UTILITY LINES TO BE REMOVED
□	EXISTING PRIMARY SPICE BOX
□	EXISTING SECONDARY SPICE BOX
□	PG&E SERVICE BOX, 17" x 30" x 18"/17" x 30" x 26"
5	PG&E SERVICE BOX, 3' x 5' x 3'6"
7	PG&E SERVICE BOX, 4'6" x 8'6" x 6'
▲	PG&E SUBSURFACE TRANSFORMER, 3' x 5' x 4'6"
T	TELEPHONE SERVICE BOX, 14" x 20" x 15"
T4	TELEPHONE SERVICE BOX, 10" x 15" x 12"/11" x 17" x 12"/11" x 17" x 18"
T7	TELEPHONE SERVICE BOX, 30" x 48" x 32"
T7	TELEPHONE SERVICE BOX, 24" x 36" x 42"
C	CATV SPICE BOX, 17" x 30" x 12"
C	CATV SPICE BOX PEDESTAL, 24" x 36" x 18"/12" x 30" x 14"
⊛	ELECTROLIER, POST TOP (XW)
⊕	LIGHTING BOLLARD
⊛	LIGHTING, WALL MOUNTED (BY OTHERS)
□	STREET LIGHT PULL BOX STATE TYPE #3 1/2, 15" x 20" x 12"
⊗	STREET LIGHT GROUND BOX STATE TYPE #5, 18" x 27.5" x 12"
⊕	EXISTING TRAFFIC SIGNAL
⊕	EXISTING ELECTROLIER, SINGLE ARM
⊕	IRRIGATION CONTROLLER (BY OTHERS)
G	GAS ETS BOX, 17" x 30" x 18"
□	BELLHOLE, 4' x 4'
XX-X'	JOINT TRENCH LABEL, XX INDICATES SECTION NUMBER— X' INDICATES TRENCH SECTION LENGTH
X	PG&E SKETCH LOCATION NUMBER
X	PHOTO NUMBER REFERENCE, SEE PHOTO EXHIBIT SHEET(S)

SHEET INDEX

SHEET NO.	DESCRIPTION
JT1	JOINT TRENCH COMPOSITE TITLE SHEET
JT2	JOINT TRENCH GENERAL NOTES AND DETAILS
JT3	JOINT TRENCH DETAILS
JT4	JOINT TRENCH SECTIONS AND DETAILS
JT5 - JT8	JOINT TRENCH COMPOSITE PLAN
SL1-SL2	STREET LIGHTING GENERAL NOTES AND DETAILS
SL3 - SL6	STREET LIGHTING SITE PLAN
PE	PHOTOMETRIC EXHIBIT

- 4 NEW FULL SERVICE COMPLETIONS (MULTI FAMILY DWELLINGS 177 UNITS)
- 1 NEW FULL SERVICE COMPLETION (REC. CENTER)

1,415 L.F. OF JOINT TRENCH, XXXX L.F. OF STREET LIGHT TRENCH, 16 POST TOP STREET LIGHTS AND 36 BOLLARD LIGHTS SHALL BE INSTALLED WITH THIS JOINT TRENCH PLAN SET

TARRAR UTILITY REP.:	KHALID TARRAR	JOB NO.	21325	PHONE NO.	(925) 240-2595
DEVELOPER:	SUMMERHILL HOMES (KEVIN EBRAHIMI)	JOB NO.	21325	PHONE NO.	(850) 842-2288
PG&E ELECTRIC COORDINATOR:	RENEE ROMO	JOB NO.	R-PGEJOBNO	PHONE NO.	(408) 625-2077
PG&E GAS COORDINATOR:	RENEE ROMO	JOB NO.	R-PGEJOBNO	PHONE NO.	(408) 625-2077
TELEPHONE REP.:	JAMES WILBERT MILLAN	JOB NO.	R-TELEJOBNO	PHONE NO.	(925) 823-1587
CABLE T.V. REP.:	ROBERT OBIACORO	JOB NO.	R-CATVJOBNO	PHONE NO.	(925) 206-5121

FILES STATUS			
DESCRIPTION:	BY:	DATE:	STATUS:
CIVIL PLANS (ELECTRONIC FILE)	RUGGERI - JENSEN - AZAR	11-07-2013	R
ARCHITECTURAL PLANS (ELECTRONIC FILE)	KTGY GROUP, INC.	09-10-2013	R
LANDSCAPE PLANS (ELECTRONIC FILE)	VAN DORN ABED LANDSCAPE ARCHITECTS, INC.	11-07-2013	R
GAS DESIGN	TARRAR UTILITY CONSULTANTS	XX-XX-XXXX	XXXX
ELECTRIC DESIGN	LOPES UTILITY DESIGN SERVICES	XX-XX-XXXX	XXXX
TELEPHONE INTENT REPLY	JAMES WILBERT MILLAN (AT&T)	XX-XX-XXXX	XXXX
CATV INTENT REPLY	ROBERT OBIACORO (SEFNCO)	XX-XX-XXXX	XXXX
STREET LIGHT PLANS - PUBLIC	TARRAR UTILITY CONSULTANTS	XX-XX-XXXX	XXXX
STREET LIGHT PLANS - PRIVATE	TARRAR UTILITY CONSULTANTS	XX-XX-XXXX	XXXX
SOILS REPORT	TBD	XX-XX-XXXX	XXXX

A = APPROVED • ANS = APPROVED NOT SIGNED • NA = NOT APPROVED • F = FIRST SUBMITTAL • SS = SECOND SUBMITTAL • R = RECEIVED

COMPOSITE DRAWING BY DEVELOPER

Estimate # _____

Approved _____ Gas ADE _____ Date _____

Approved _____ Electric ADE _____ Date _____

PG & E is not responsible for the accuracy of the specifications shown on this drawing.

COMPOSITE DRAWING BY DEVELOPER

Approved _____ Telephone representative _____ Date _____

Approved _____ CATV representative _____ Date _____

DEVELOPER PLEASE NOTE AND SIGN

ALL PG&E ENCLOSURES AND BOXES HAVE BEEN SET TO GRADE ACCORDING TO GRADE STAKES PROVIDED BY DEVELOPER'S ENGINEER. ALL COSTS TO RELOCATE OR READJUST BOXES AT A LATER DATE WILL BE BILLED TO THE DEVELOPER. PLEASE HAVE YOUR JOB SUPT. VERIFY THE CORRECT GRADE OF ALL ENCLOSURES AND BOXES, AND SIGN AND DATE DRAWING. THANK YOU

SIGNED _____ DATE _____

FOR REVIEW ONLY

3361 Walnut Blvd.
Suite 100
Brentwood, CA 94513
(925) 240-2595
(925) 240-7013 fax
www.tarrar.com

TARRAR

UTILITY CONSULTANTS

- Planning
- T-24
- Design
- PG&E Gas Design
- Estimating
- PG&E Elec Design
- Joint Trench
- M.E.P. Design
- Street Lighting
- Cost Analysis
- Fiber Optic
- Due Diligence

JOINT TRENCH COMPOSITE TITLE SHEET

SUMMERHILL HOMES CANNAE PLEASANTON CALIFORNIA

NO.	REVISIONS	BY	DATE

DATE: DECEMBER 2013 DATE LAST WORKED ON: 12/20/2013

SCALE: NOT TO SCALE DRAWN: AR CHECKED: KT

JOB NO.: 21325 PRELIMINARY NOT FOR CONSTRUCTION

INTENT TO CONSTRUCT

800-227-2600

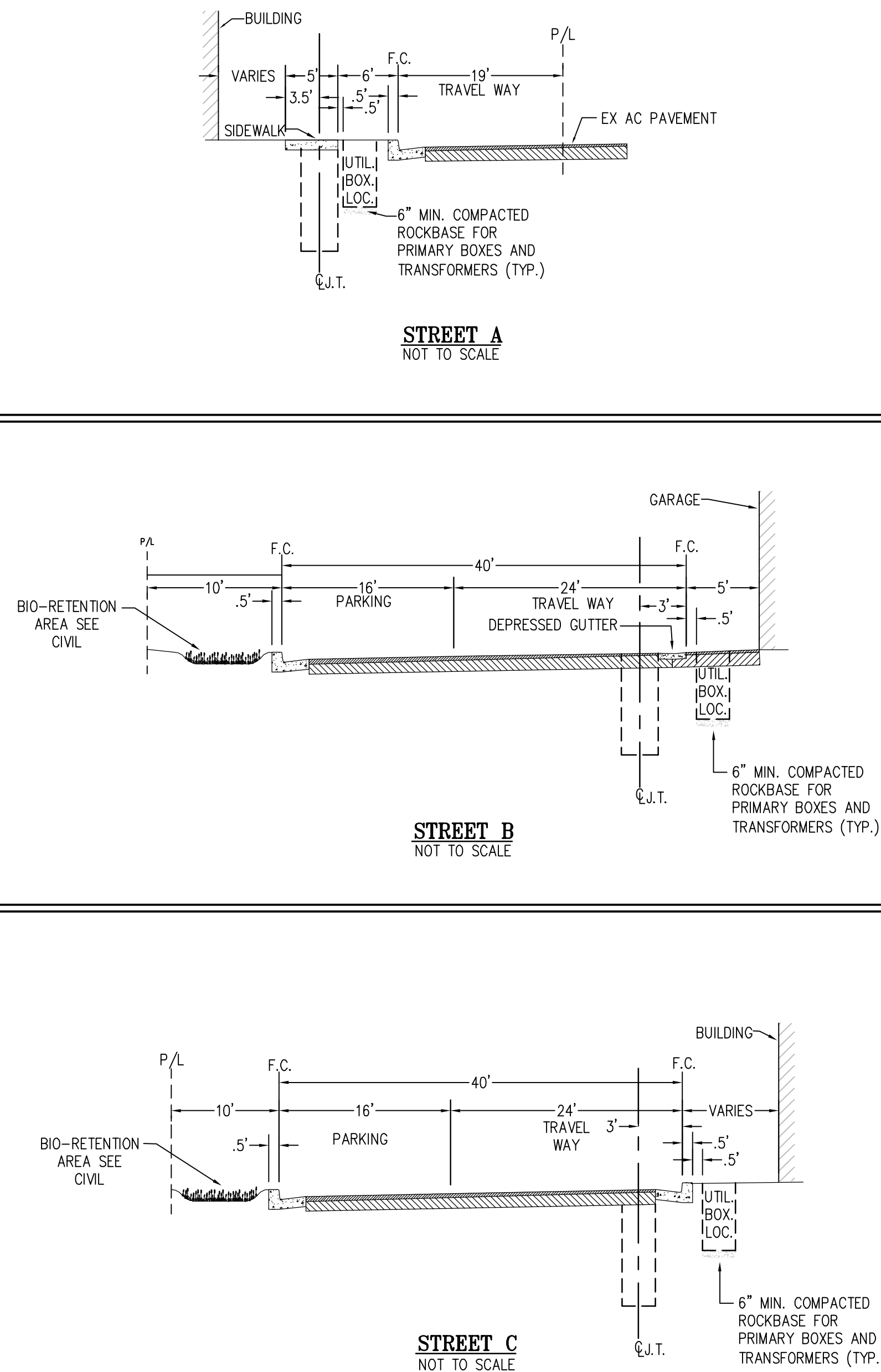
FOR REVIEW ONLY

SHEET
JT1
OF
JT8
SHEETS

PROJECT NOTES:

- FIELD ADJUST SERVICES TO MINIMIZE INTERFERENCE WITH EXISTING FACILITIES (TYPICAL).
- CONTRACTOR SHALL PERFORM ALL TRENCHING, EXCAVATING, BACKFILLING AND OTHER WORK AS SHOWN OR NOTED ON PLANS, AND AS SPECIFIED ON UTILITY BID DOCUMENTS.
- FIELD ADJUST SPICE BOXES TO KEEP CLEAR OF SIDEWALK, DRIVEWAYS AND EXISTING FACILITIES (TYPICAL).
- A 3 FOOT LEVEL WORKING AREA MUST BE MAINTAINED AROUND ALL ELECTRIC ENCLOSURES. PRIOR TO ENERGIZING THE SYSTEM, THE ELECTRIC UTILITY COMPANY INSPECTOR WILL DETERMINE IF RETAINING WALLS ARE REQUIRED TO MEET MINIMUM CLEARANCE BETWEEN ENCLOSURES AND THE TOPS OR TOES OF SLOPES. IF RETAINING WALLS ARE REQUIRED, THE DEVELOPER AND/OR CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS FROM THE CITY/COUNTY BUILDING DEPARTMENT PRIOR TO WALL CONSTRUCTION.
- TRANSITION TO VAULTS FROM TRENCH NOT SHOWN, SEE TRANSITION DETAIL SHEET JT3 (TYPICAL).
- CONTRACTOR SHALL PLACE ALL UTILITY SPICE BOXES, ENCLOSURES & CONDUIT IN PROPER RELATIONSHIP TO FINAL GRADE (SHOWN SCHEMATICALLY).
- ALL PG&E, TELEPHONE, CABLE T.V. AND FIBER OPTIC BOXES AND JOINT TRENCH FACILITIES ARE TO MAINTAIN A MINIMUM OF 3' SEPARATION FROM SEWER, WATER LATERALS AND DRIVEWAYS.
- CONTRACTOR SHALL COORDINATE ALL CONNECTIONS BETWEEN PROPOSED AND EXISTING FACILITIES AS DIRECTED BY THE RESPECTIVE UTILITY COMPANY INSPECTOR. UTILITY COMPANY PERSONNEL SHALL MAKE ALL "HOT TIE-INS"; THE CONTRACTOR IS PROHIBITED FROM WORKING IN ANY ENERGIZED FACILITIES.
- THE CONTRACTOR SHALL OBTAIN THE APPROPRIATE STREET EXCAVATION AND ENCROACHMENT PERMIT(S) FROM THE CITY/COUNTY PRIOR TO STARTING WORK IN THE PUBLIC STREET AREA.
- FIELD LOCATE JOINT TRENCH FACILITIES TO KEEP CLEAR OF SERVICE LATERALS. SERVICE LATERALS TO BE ROUTED TO AVOID SPICE BOX (ADDITIONAL P.U.E MAY BE REQUIRED).
- RESPECTIVE UTILITY COMPANY TO OBTAIN CITY APPROVAL OF ALL ABOVE GROUND EQUIPMENT.
- UNLESS OTHERWISE SHOWN ON THE PLANS, NATURAL BENDS SHALL BE USED FOR ALL CONDUIT EXCEPT STREET LIGHT CONDUIT.
- INCIDENTAL TRENCHING TO SPICE BOXES NOT SHOWN (TYPICAL). CONTRACTOR TO PROVIDE ADDITIONAL TRENCHING AS REQUIRED FOR CONDUIT ROUTING TO SPICE BOXES AND CABINETS (TYPICAL).
- ALL CONDUITS SHALL ENTER OR EXIT PERPENDICULAR TO BOX WALLS.
- ALL CONDUITS MUST BE MANDREL TESTED AND APPROVED.
- OFFSET SPICE BOXES TO ROUTE TELEPHONE/FIBER OPTIC CONDUIT AS NEEDED (TYPICAL).
- PULL ROPES SHALL BE PLACED IN ALL EMPTY CONDUITS AS REQUIRED BY EACH UTILITY COMPANY.
- ALL PG&E SPICE BOXES ADJACENT TO TRANSFORMER SHALL BE 26" IN DEPTH (TYPICAL).
- ALL CONDUITS NOT ENTERING SPICE BOXES OR ENCLOSURES SHALL BE CAPPED.
- COORDINATE TIE-IN WITH UTILITY COMPANY AS REQUIRED.
- THE STREET LIGHT SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE "MATERIAL AND LABOR RECAP" AND LIGHT SCHEDULE AS SHOWN ON THESE PLANS.
- ALL EXISTING DUCTS TO BE USED IN THESE PLANS SHALL BE "VERIFIED" BY PULLING A MANDREL THROUGH THE ENTIRE EXISTING LENGTH PRIOR TO CONNECTION.
- EDGE OF SPICE BOXES & PEDESTALS SHALL BE 5' FROM EDGE OF FIRE HYDRANT AND 3' FROM STREET LIGHT (TYPICAL). CONTRACTOR TO AVOID DISTURBING FIRE HYDRANT THRUST BLOCK.
- ALL UTILITY SUBSTRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE "MATERIAL AND LABOR RECAP" SHOWN ON THESE PLANS
- MAINTAIN 3' CLEARANCE AND LEVEL AREA AROUND PRIMARY SPICE BOXES & XFMRs.
- DUE TO UNCERTAINTIES OF THE EXACT LOCATION OF EXISTING FACILITIES, FIELD LOCATION OF PROPOSED FACILITIES MAY BE REQUIRED. CONFIRM WITH VARIOUS UTILITIES FOR EXACT PLACEMENT.
- FOR CLARITY - BOXES/PEDESTALS ARE SHOWN AT LARGER SIZE THAN ACTUAL. FIELD ADJUST TO KEEP CLEAR OF DRIVEWAYS (TYPICAL).
- ALL SERVICE FACILITIES SHALL BE EXTENDED TO EITHER THE PROPERTY LINE OR TO POSITION SHOWN ON THE PLANS, AND THEN CAPPED, BURIED AND LOCATION STAKED.
- THESE PLANS WERE PREPARED UTILIZING PLANS RECEIVED FROM RUGGERI-JENSEN-AZAR (925) 227-9100.

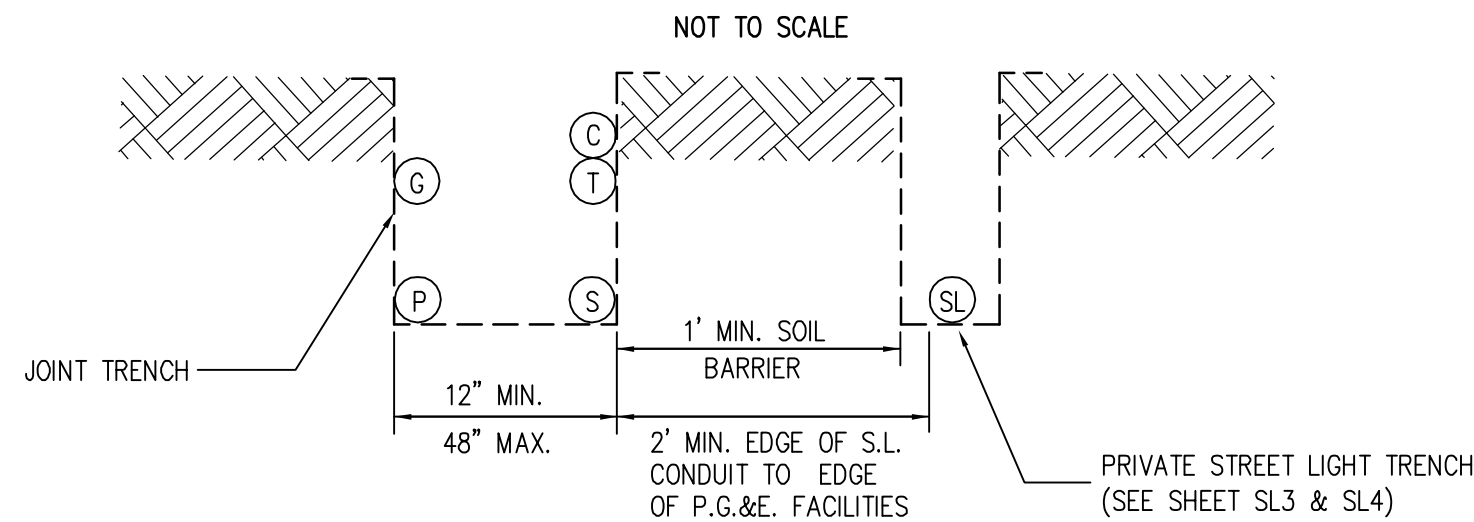
JOINT TRENCH AND UTILITY BOX LOCATION



JOINT TRENCH STREET SECTIONS

NOT TO SCALE
NOTE: SEE PLANS FOR CONFIGURATIONS AND ARRANGEMENTS.
* UNLESS OTHERWISE SHOWN
WITHIN ROADWAY SECTION
(95% RELATIVE COMPACTION FOR THE TOP 6"
BELOW ROAD SUBGRADE AND 90% BELOW THAT)

PRIVATE STREET LIGHT TRENCH LOCATION ADJACENT TO JOINT TRENCH



GENERAL NOTES:

- ALL JOINT TRENCH CONSTRUCTION WORK SHALL BE IN ACCORDANCE WITH PG&E UTILITY OPERATIONS UO STANDARD S5453.
- ALL WORK SHALL BE SUBJECT TO THE INSPECTION AND SATISFACTION OF ALL PARTICIPATING UTILITIES AND CITY INSPECTORS.
- BACKFILL SELECTION SHALL BE SUBJECT TO THE APPROVAL OF THE RESPECTIVE UTILITY COMPANIES, THE SOILS ENGINEER AND THE CITY AND/OR COUNTY WHERE THE PROJECT IS LOCATED. CONSULT PARTICIPATING UTILITIES, SOILS ENGINEER, AND THE CITY FOR APPROVED BACKFILL MATERIAL. COMPACTION TO MEET LOCAL AGENCIES REQUIREMENTS.
- THE BOTTOM OF THE TRENCH SHALL BE CLEARED OF ROCKS AND OTHER HARD SURFACES AND A SAND CUSHION MINIMUM OF 4" MAY BE REQUIRED AS A PAD ON WHICH UTILITY FACILITIES CAN REST.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE PAVEMENT AND/OR SIDEWALK WHERE REMOVED OR DAMAGED AS A RESULT OF ITS OPERATION (UNLESS OTHERWISE NOTED). REPLACEMENT OF PAVEMENT AND/OR SIDEWALK TO BE PER CITY SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND NOTIFY ALL PARTICIPATING UTILITY INSTALLATIONS.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT FIRST NOTIFYING TARRAR UTILITY CONSULTANTS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXISTENCE AND/OR PRECISE LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO THE START OF CONSTRUCTION. TARRAR UTILITY CONSULTANTS MAKES NO WARRANTY WHATSOEVER THAT THE EXISTING UNDERGROUND UTILITIES AND/OR STRUCTURES DEPICTED ON THE PLANS HAVE BEEN ACCURATELY LOCATED OR THAT THERE ARE NO OTHER UNDERGROUND UTILITIES AND STRUCTURES IN ADDITION TO WHAT HAS BEEN SHOWN. CALL U.S.A. A MINIMUM OF 48 HOURS PRIOR TO STARTING CONSTRUCTION. FOR CALIFORNIA NORTH, (KERN COUNTY AND NORTHERLY, AND NEVADA) CALL (800)227-2600. FOR CALIFORNIA SOUTH, (SAN BERNARDINO COUNTY AND SOUTHERLY) CALL (800)422-4133.
- CONTRACTOR SHALL COMPLY WITH ALL STATE, COUNTY AND CITY LAWS AND ORDINANCES AND WITH THE REGULATIONS OF THE DEPARTMENT OF INDUSTRIAL RELATIONS, O.S.H.A. AND ANY OTHER GOVERNMENTAL AGENCY RELATING TO THE SAFETY AND CHARACTER OF WORK, EQUIPMENT AND LABOR PERSONNEL.
- THE DRAWINGS AND SPECIFICATIONS SHALL BE CONSIDERED TO BE COMPLEMENTARY TO EACH OTHER. ANYTHING SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, OR MENTIONED IN THE SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH. IF DISCREPANCY IS FOUND, NOTIFY TARRAR UTILITY CONSULTANTS PRIOR TO STARTING WORK.
- TRENCH AND CONDUIT LAYOUTS ARE SHOWN SCHEMATICALLY.
- TRENCHING OR SUBSTRUCTURE EXCAVATION MAY NECESSITATE OPERATION OVER, UNDER, OR ADJACENT TO OTHER UNDERGROUND UTILITIES (STORM, SEWER, WATER, ETC...). THE CONTRACTOR IS RESPONSIBLE TO LOCATE, PROSPECT, EXPOSE AND PROTECT ALL ADJACENT OR CROSSING UNDERGROUND UTILITIES. THIS WORK TO PROTECT THOSE UTILITIES IS NOT CONSIDERED AS EXTRA WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW IMPROVEMENT PLANS, IN CONJUNCTION WITH THIS PLAN, AND BID THE WORK ACCORDINGLY.
- THE QUANTITIES SHOWN ON THESE PLANS ARE ONLY ESTIMATES OF WHAT WILL ACTUALLY BE REQUIRED FOR THE CONSTRUCTION OF THE OVERALL PROJECT. FINAL QUANTITIES MAY VARY ACCORDING TO CHANGES, ADDITIONS, DELETIONS OR OMISSIONS ON THE ORIGINAL PLAN.
- VERIFY ALL SUBSTRUCTURE EXCAVATION DIMENSIONS WITH SUPPLIER(S) BEFORE BIDDING.
- TARRAR UTILITY CONSULTANTS ASSUMES NO RESPONSIBILITY FOR ANY VARIANCE BETWEEN THESE PLANS AND THE ACTUAL FIELD CONDITIONS. THE CONTRACTOR SHOULD REVIEW THE PROJECT SITE PRIOR TO SUBMITTING ITS BID.
- THE CONTRACTOR IS REQUIRED TO EXCAVATE BELL HOLE(S) AT TIE-IN LOCATIONS AS DIRECTED BY PARTICIPATING UTILITY.
- CONTRACTOR WILL COMPLY WITH ALL LAWS, ORDINANCES AND REGULATIONS, CONTRACTOR SHALL BE FAMILIAR WITH O.S.H.A. INDUSTRIAL ORDERS AND SHALL CONDUCT HIS WORK ACCORDINGLY. WHEN WORKING ENERGIZED EQUIPMENT, THE UTILITY OWNER SHALL BE NOTIFIED TO SUPPLY THE APPROPRIATE MAN POWER AND SAFETY PRECAUTIONS AS NEEDED. THE CONTRACTOR IS RESPONSIBLE FOR PUBLIC SAFETY AND TRAFFIC CONTROL MEASURES.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE AS-BUILT DRAWINGS AFTER INSTALLATION OF PG&E'S GAS AND ELECTRIC SYSTEMS (PRIOR TO "HOT TIE-INS").
- THE CITY INSPECTOR SHALL BE NOTIFIED TWO WORKING DAYS PRIOR TO COMMENCEMENT OF WORK. COORDINATE WITH THE INSPECTOR ANY SERVICES TO BE ABANDONED.
- THE CONTRACTOR IS TO VERIFY THE RIGHT OF WAY, PUBLIC UTILITY EASEMENT AND/OR PUBLIC SERVICE EASEMENT ACQUISITION WITH THE APPLICANT PRIOR TO CONSTRUCTION WITHIN AREAS OF QUESTION.
- PG&E'S GENERAL TERM AND CONDITIONS FOR GAS AND ELECTRIC EXTENSION AND SERVICE CONSTRUCTION BY "APPLICANT" (EFFECTIVE 07/1/95) TO BE UTILIZED FOR ALL TRENCHING, BACKFILLING, AND INSTALLATION WORK.
- IN THE EVENT OF DISPUTES OR DISAGREEMENT OVER ANY INSTALLATIONS, DESIGNS, PLANS OR DRAWINGS, THE SPECIFICATIONS AND REQUIREMENTS OF THE INDIVIDUAL UTILITY COMPANIES AND THEIR INSPECTORS SHALL TAKE PRECEDENCE. IN CASE OF DISCREPANCIES WITHIN THE DRAWINGS AND SPECIFICATIONS HEREIN, THE CONTRACTOR SHALL CONSULT TARRAR UTILITY CONSULTANTS FOR INTERPRETATION BEFORE WORK IS STARTED.
- TARRAR UTILITY CONSULTANTS HEREIN, ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE QUALITY, QUANTITY OR TIMING OF WORK TO BE PERFORMED BY THE CONTRACTOR, UTILITY COMPANY CONSTRUCTION CREWS, OR OTHER SUB-CONTRACTOR OF DEVELOPER.
- ALL TRENCHING, BACKFILLING AND INSTALLATION WORK IS TO BE IN ACCORDANCE WITH THE STANDARD PRACTICES AND SPECIFICATIONS OF EACH UTILITY COMPANY PARTICIPATING IN THE UTILITY TRENCHES WITHIN THE PROJECT.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POINTS OF ACCESS THAT ARE AGREEABLE TO ADJACENT LAND USES AND TENANTS AT ALL TIMES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASCERTAINING WHAT INSPECTIONS WILL BE REQUIRED FOR APPROVAL OF THE WORK AND FOR COORDINATING ALL SUCH INSPECTIONS. THE CONTRACTOR SHALL GIVE AT LEAST 48 HOURS PRIOR NOTICE TO THE CITY, SOILS ENGINEER, UTILITY COMPANIES OR ANY OTHER INDIVIDUALS OR PUBLIC AGENCIES, THAT THE WORK IS READY FOR INSPECTION.
- THE CONTRACTOR SHALL NOTIFY DEVELOPER 48 HOURS PRIOR TO THE NEED FOR SURVEY STAKING. THE CONTRACTOR IS RESPONSIBLE FOR THE PRESERVATION OF ALL CONSTRUCTION STAKING SET BY THE DEVELOPER'S SURVEYORS AND WILL BE BACK CHARGED FOR ANY RE-STAKING THAT IS REQUIRED. ANY EXTRA CONSTRUCTION STAKING NECESSITATED SOLELY BY THE CONTRACTOR'S NEGLIGENCE WILL BE CHARGED TO AND PAID FOR BY THE CONTRACTOR.
- ALL TRANSFORMERS AND TRANSFORMER PADS ARE TO BE INSTALLED PER PG&E SPECIFICATIONS. PROTECTIVE BOLLARDS ARE TO BE PLACED WHERE NEEDED.
- THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THE PROJECT IMPROVEMENT PLANS AND CONDUCT HIS WORK ACCORDINGLY.
- KEEP ALL BOXES AND PEDESTALS WITHIN PUBLIC UTILITY EASEMENTS OR RIGHT OF WAY. AS SHOWN.
- ALL SAND BACKFILL MUST HAVE TESTING OF PH LEVEL AS WELL AS SAND EQUIVALENT. SEE CITY PLEASANTON REQUIREMENTS.
- THE PROPOSED CONSTRUCTION OPERATION MAY TAKE PLACE AT OR NEAR FENCE LINES, PROPERTY LINES AND PROPERTY IMPROVEMENTS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING THESE AREAS AND FOR MAINTAINING THESE AREAS AND FACILITIES AT ALL TIMES DURING THE CONSTRUCTION OPERATION.
- THE CONTRACTOR ASSUMES SOLE AND COMPLETE RESPONSIBILITY FOR THE SITE CONDITION AND SHALL DEFEND AND HOLD THE DEVELOPER AND TARRAR UTILITY CONSULTANTS HARMLESS FROM ANY ALLEGED CLAIMS OR LIABILITIES, EXCEPT THOSE ARISING FROM SOLE NEGLIGENCE OF THE DEVELOPER OR TARRAR UTILITY CONSULTANTS.
- THE APPROXIMATE LOCATIONS OF ALL EXISTING UTILITY COMPANY UNDERGROUND LINES, POLES BOXES, ETC., WERE OBTAINED FROM A REVIEW OF AVAILABLE UTILITY COMPANY RECORDS, REPRESENTATIONS OF UTILITY COMPANY PERSONAL, OR FIELD OBSERVATIONS. NEITHER THE DEVELOPER NOR TARRAR UTILITY CONSULTANTS ASSUME ANY RESPONSIBILITY FOR VARIANCES BETWEEN THESE PLANS AND THE ACTUAL FIELD CONDITIONS. NO EXTRA PAYMENT WILL BE MADE TO THE CONTRACTOR FOR ANY ADDITIONAL TRENCHING, BOX EXCAVATIONS, MATERIALS, ETC., THAT MAY BE REQUIRED TO COMPLETE THIS PROJECT IN THE EVENT AN EXISTING TIE-IN POINT SUBSTRUCTURE IS EITHER NON-EXISTING OR IS NOT SHOWN ON THE PLANS IN ITS ACTUAL FIELD POSITION. IT IS THE CONTRACTOR'S OBLIGATION AND RESPONSIBILITY TO SAFELY LOCATE ALL EXISTING UNDERGROUND FACILITIES BY SURFACE MARKING AND/OR HAND EXCAVATION PRIOR TO STARTING CONSTRUCTION.
- "DEVELOPER AND/OR CONTRACTOR IS RESPONSIBLE TO OBTAIN A CITY OF PLEASANTON ENCROACHMENT PERMIT FOR ALL WORK DONE IN THE PUBLIC RIGHT OF WAY. DEVELOPER AND/OR CONTRACTOR IS ALSO RESPONSIBLE TO PROVIDE JOINT TRENCH PLANS TO THE CITY OF PLEASANTON AT THE TIME OF APPLICATION FOR THE ENCROACHMENT PERMIT."

FOR REVIEW ONLY

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www.tarrar.com

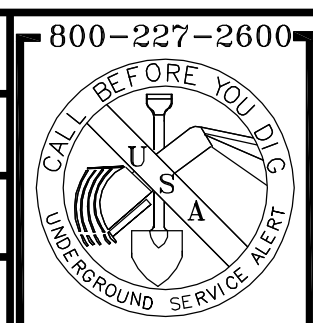


- Planning
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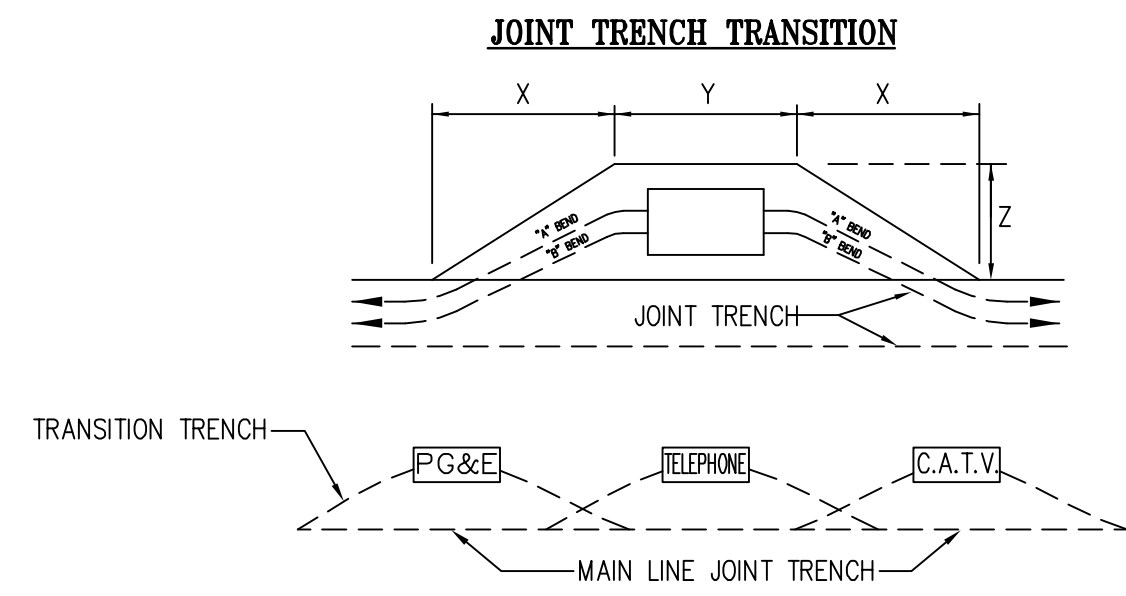
JOINT TRENCH GENERAL NOTES AND DETAILS
SUMMERHILL HOMES
CANNAE
PLEASANTON CALIFORNIA

NO.	REVISIONS	BY	DATE

DATE: DECEMBER 2013	DATE LAST WORKED ON: 12/20/2013
SCALE: NOT TO SCALE	DRAWN: AR
	CHECKED: KT
JOB NO.: 21325	PRELIMINARY NOT FOR CONSTRUCTION
INTENT TO CONSTRUCT	



SHEET
JT2
OF
JT8
SHEETS



BEND	PRIMARY BOX SIZE	DISTANCE (when conduit enters box)			NOTES
		"X"	"Y"	"Z"	
"A"	3' x 5'	24'	7'	5'	BEND IS 60° RADIUS WITH AN ANGLE OF 10 DEG. USE 2-5 COUPLINGS WITH 1-5' CONDUIT SECTION FOR EACH BEND SHOWN.
	4'-6" x 8'-6"	24'	11'	7'	
"B"	3' x 5'	32'	7'	5'	BEND IS 30° RADIUS WITH AN ANGLE OF 15 DEG. USE 3-5 COUPLINGS WITH 2-2 1/2' CONDUIT SECTION FOR EACH BEND SHOWN.
	4'-6" x 8'-6"	32'	11'	7'	

NOTE:

- CONTRACTOR TO EXCAVATE TRANSITIONS FROM MAIN-LINE TRENCH TO VAULTS AS REQUIRED BY EACH UTILITY.
- TRANSITIONS NOT SHOWN ON COMPOSITE DRAWING FOR CLARITY.
- CONTRACTOR TO INCLUDE COST OF TRANSITIONS IN VAULT EXCAVATION COST.

1 TYPICAL PRIMARY BOX EXCAVATION USING CONDUIT
JT3 NOT TO SCALE

CONSTRUCTION LABOR AND MATERIAL RESPONSIBILITY
PUBLIC UTILITY SYSTEM (JOINT TRENCH)

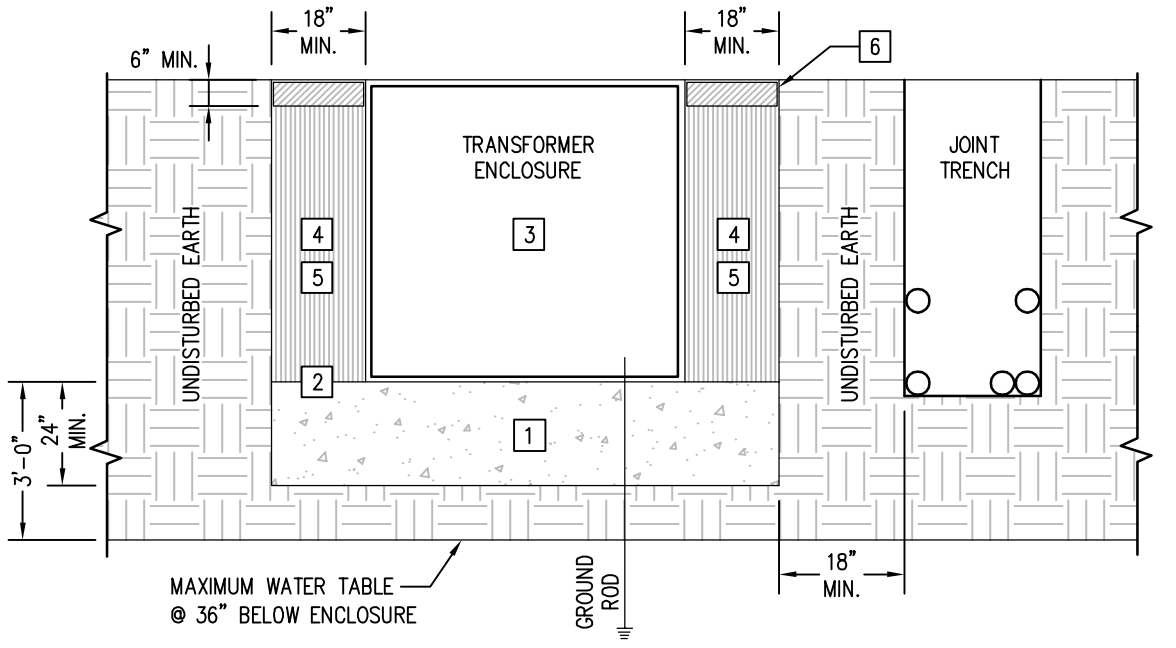
ITEM	PG&E	CONTRACTOR
TRENCHING: EXCAVATE, BACKFILL AND COMPACT	●	○
GAS MATERIAL: FURNISH	○	●
ELECTRIC CABLE: FURNISH	○	●
ELECTRIC CONDUIT: FURNISH	○	●
ELECTRIC SPLICE BOXES: EXCAVATE, FURNISH, INSTALL	○	●
ELECTRIC TMR. ENCLS.: EXCAVATE, FURNISH, INSTALL	○	●
ELECTRIC EQUIP. ENCLS.: EXCAVATE, FURNISH, INSTALL	○	●
TELEPHONE CONDUIT: FURNISH	○	●
TELEPHONE CABLE: FURNISH	○	●
TELEPHONE SPLICE BOX: EXCAVATE, FURNISH, INSTALL	○	●
TELEPHONE INTER. PADS: EXCAVATE, FURNISH, INSTALL	○	●
C.A.T.V. CONDUITS: FURNISH	○	●
C.A.T.V. SPLICE BOXES: EXCAVATE, FURNISH, INSTALL	○	●

SCHEDULE:

INSTALL IN JOINT TRENCH:	NO
INSTALL IN SEPARATE TRENCH:	YES
CONDUIT SIZE:	VARIES
CONDUIT TYPE:	SCH. 40
WIRE SIZE:	VARIES
TYPE:	CJ

ADDITIONAL NOTES:
DEVELOPER TO SUPPLY AND INSTALL GAS & ELECTRIC FACILITIES UNDER THE COMPETITIVE BIDDING PROVISIONS OF PG&E GREEN BOOK RULES 15, 16 AND 20.

● DESIGNATES THE WORK TO BE PERFORMED BY THE CONTRACTOR AND EACH UTILITY COMPANY.



LEGEND

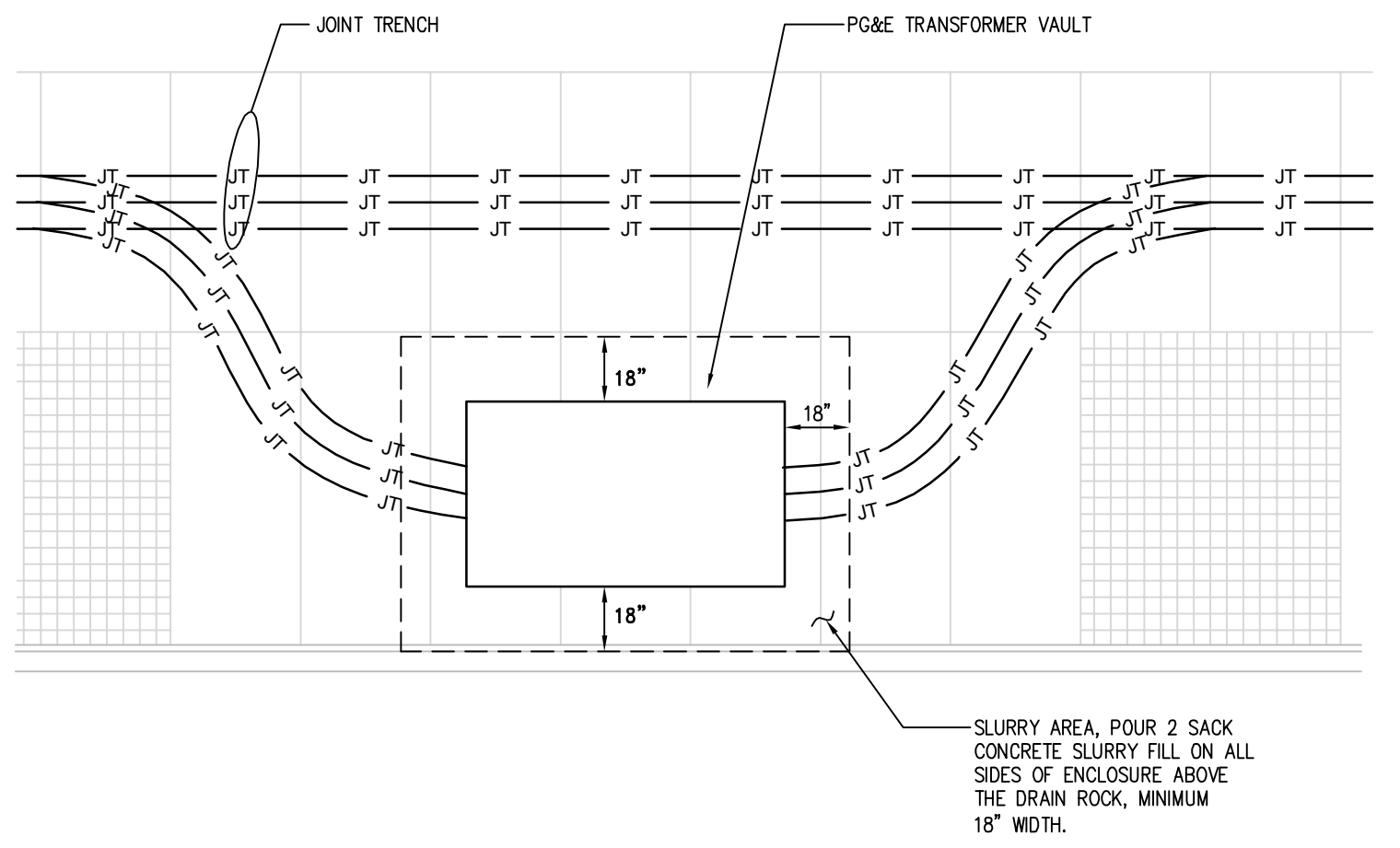
- 1/2" - 3/4" DRAIN ROCK BASE, 24" MINIMUM DEPTH BELOW THE ENCLOSURE.
- US FABRICS TYPE US380W GEOTEXTILE FABRIC (OR SIMILAR) COVERING THE DRAIN ROCK BASE.
- TRANSFORMER ENCLOSURE WITH 4 EVENLY SPACED 2" DRAIN HOLES CORE BORED THROUGH BOTTOM OF ENCLOSURE, WITH HOLES THROUGH THE GEOTEXTILE FABRIC INTO THE ROCK BASE.
- WATERPROOF EXTERIOR SIDE WALLS OF ENCLOSURE USING TREMPROOF 250 GC FLUID APPLIED ELASTOMERIC WATERPROOFING MEMBRANE.
- 2 SACK CONCRETE SLURRY FILL ON ALL SIDES OF ENCLOSURE ABOVE DRAIN ROCK, MINIMUM 18" WIDTH, TO WITHIN 6" OF ENCLOSURE TOP.
- 6" CONCRETE CAP AROUND THE TOP EDGE OF THE ENCLOSURE, MINIMUM 18" WIDTH, MATCHING GRADE OF THE ENCLOSURE LID AND WITH A MINIMUM 2% MAXIMUM 10% SLOPE AWAY FROM THE ENCLOSURE LID. USE 10% SLOPE IF ENCLOSURE IS NOT IN A MONOLITHIC SIDEWALK AREA.

INSTALLATION:

- EXCAVATE FOR 18" SKIRT OF SLURRY AND 24" OF DRAIN ROCK BASE. INSTALL 1/2"-3/4" DRAIN ROCK A MINIMUM OF 24" DEEP COMPACTED ACROSS THE BOTTOM OF THE EXCAVATION TO ALLOW FOR WATER DRAINAGE FROM THE ENCLOSURE.
- INSTALL US FABRICS TYPE US380W GEOTEXTILE FABRIC, LAYFLIED NONWOVEN GEOTEXTILE, TYPE LP16, OR PROPEX SYNTHETICS NONWOVEN, TYPE GEOTEX 1601 ACROSS THE TOP OF THE DRAIN ROCK BASE TO KEEP THE DRAIN ROCK FROM FILLING WITH SOIL.
- SET THE TRANSFORMER ENCLOSURE AND DRILL 4 EVENLY SPACED 2" DRAIN HOLES THROUGH THE BOTTOM OF THE ENCLOSURE, AND THROUGH THE GEOTEXTILE FABRIC INTO THE ROCK BASE. (NOTE: IF LEAD TIME PERMITS, THE ENCLOSURE SUPPLIER MAY BE ABLE TO PROVIDE THE ENCLOSURE WITH THE 2" DRAIN HOLES INCLUDED.)
- WATERPROOF EXTERIOR SIDE WALLS OF ENCLOSURE USING TREMPROOF 250 GC FLUID APPLIED ELASTOMERIC WATERPROOFING MEMBRANE TO KEEP WATER FROM MIGRATING THROUGH THE WALLS INTO THE ENCLOSURE. (NOTE: IF LEAD TIME PERMITS, THE ENCLOSURE SUPPLIER MAY BE ABLE TO PROVIDE A WATERPROOFED ENCLOSURE.)
- INSTALL ANY CONDUITS REQUIRED OUT BEYOND THE SLURRY AREA. POUR 2 SACK CONCRETE SLURRY FILL ON ALL SIDES OF ENCLOSURE ABOVE DRAIN ROCK, MINIMUM 18" WIDTH, TO WITHIN 6" OF ENCLOSURE TOP. THE SLURRY IS TO FURTHER IMPEDE THE MIGRATION OF WATER INTO THE ENCLOSURE WHILE STILL ALLOWING FOR FUTURE ACCESS TO THE CONDUITS.
- POUR A 6" CONCRETE CAP AROUND THE TOP EDGE OF THE ENCLOSURE, MINIMUM 18" WIDTH, MATCHING THE GRADE OF THE ENCLOSURE LID AND WITH A MINIMUM 2% MAXIMUM 10% SLOPE AWAY FROM THE ENCLOSURE LID. USE 10% SLOPE IF ENCLOSURE IS NOT IN A MONOLITHIC SIDEWALK AREA. THE CONCRETE CAP IS TO PROTECT THE SLURRY MIX FROM DAMAGE AND TO IMPED THE FLOW OF SURFACE WATER INTO THE ENCLOSURE. (NOTE: THE STANDARD CURB AND GUTTER MAY SUBSTITUTE FOR PART OF THE CONCRETE CAP AND SLURRY.)

TRANSFORMER ENCLOSURE LOCATION REQUIREMENTS:

- MAY NOT BE IN:**
- DRAINAGE AREA
 - SWALE
 - PERCOLATION AREA
- MUST BE:**
- IN LOCATION WHERE SURROUNDING AREA WATER DRAINS AWAY FROM ENCLOSURE
 - HIGHER THAN SIDEWALK



4 PG&E REMEDIATION OPTION
SUBSURFACE TRANSFORMER INSTALLATION
IN CORROSIVE SOILS AREA
JT3 N.T.S.

REQUIREMENTS FOR ALLOWING INSTALLATION OF SUBSURFACE TRANSFORMER

- SOIL CORROSION TESTS SHALL BE CONDUCTED ON SOIL SAMPLES COLLECTED AT EITHER 4.5-FEET DEPTH FOR TYPE-1 OR 7.5-FEET DEPTH FOR TYPE-2 (PCATOPMS (SEE Table: Transformer Type). THE REFERENCED NATIONAL STANDARDS (e.g. ASTM G57, CTM 127, ETC.) CONTAIN GUIDANCE ON COLLECTING SOIL SAMPLES.

Table: Transformer Type

Type-1	Single-Phase Transformer
Type-2	Three-Phase Transformer

- A SOIL CORROSION TEST SAMPLE IS CONSIDERED VALID FOR A 10-FOOT RADIUS FROM THE SAMPLE CORE. EACH PROPOSED SUBSURFACE ENCLOSURE LOCATION MUST BE ENCOMPASSED WITHIN AN AREA COVERED BY A SOILS TEST.
- IF THE SOIL SAMPLE IS NOT NATIVE SOIL, THEN AN ADDITIONAL TEST OF THE NEAREST NATIVE SOIL WITHIN 20 FEET OF THE ORIGINAL TEST LOCATION IS REQUIRED. IF THERE IS NO NATIVE WITHIN 20 FEET, THEN NO ADDITIONAL TEST IS REQUIRED.
- THE TESTED SOIL CHARACTERISTICS ARE: ELECTRICAL RESISTIVITY; pH; CHLORIDE; REDOX (ORP) POTENTIAL; SULFATE; SULFIDE CONTENT; AND GROUND WATER TABLE (SEE Table: Corrosivity Points)

Table: Corrosivity Points

Soil Characteristic	Range	Possible Points
Resistivity (ohm-cm) per ASTM-G-57; CTM 643; AASHTO T-288	< 500	10
	500 - 1,000	8
	1,001 - 2,000	6
	2,001 - 5,000	4
	5,001 - 10,000	2
Soil pH per ASTM G-51; ASTM D-4972; CTM 643; or AASHTO T-289	> 8.5	0
	8.5 - 5.1	3
	5.0 - 2.0	0
Chloride (ppm) or (mg/kg) per ASTM D-4327; ASTM-512; CTM 422, OR AASHTO T-291	< 100	5
	100 - 199	4
	> 100	3
Redox Potential (mV) (VERSUS CSE) per ASTM G-200	< 100	5
	100 - 199	4
	200 - 400	3.5
	> 400	0
SULFATE (ppm) or (mg/kg) per ASTM D-516; CTM 417 or AASHTO T-290	< 200	0
	200 - 500	1
	501 - 1,000	2
	> 1,000	3
Sulfide per ASTM D-4658	Negative	0
	Trace	2
	Positive	3.5
Water table	- Higher than 7.5 ft. for Type 1 or 10.5 ft. for Type 2	6
	- Lower than 7.5 ft. for Type 1 or 10.5 ft. for Type 2	0
Total Points	≥ 6 FAIL	
	≤ 5.5 PASS	

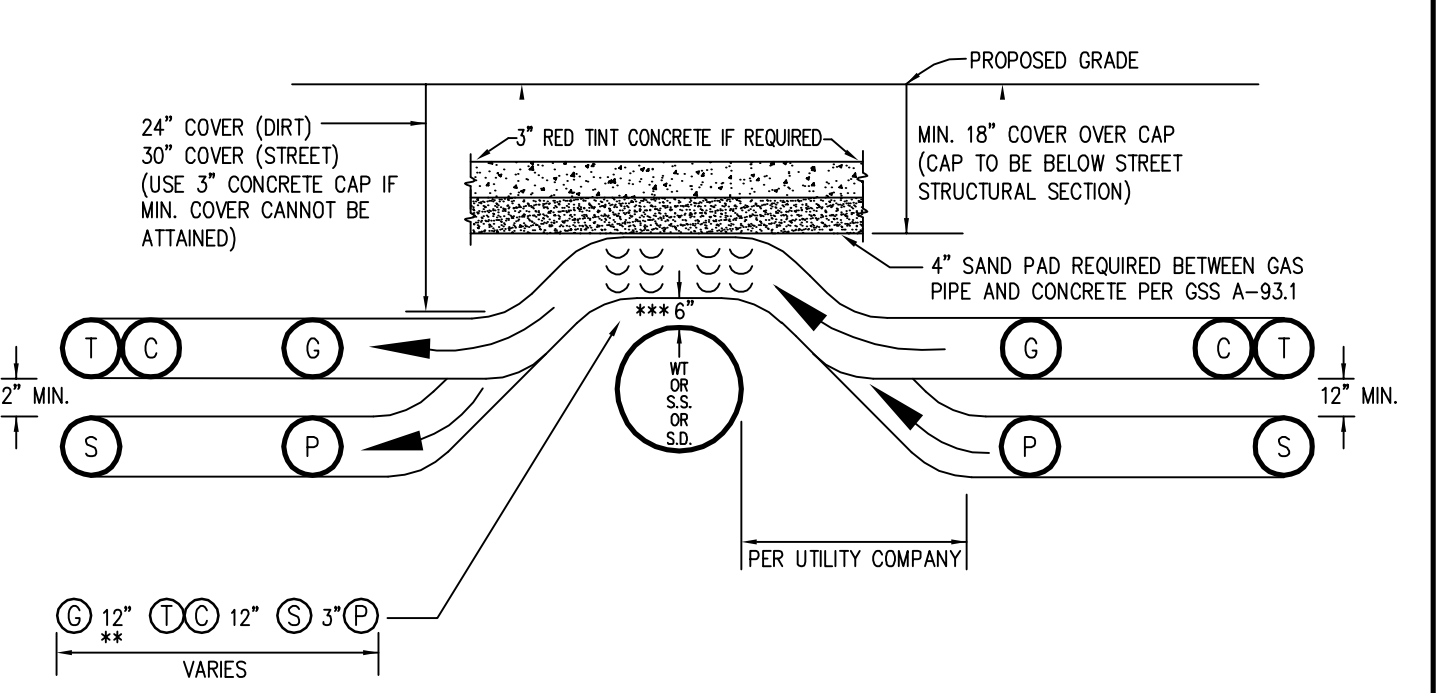
Notes:
ASTM - American Society for Testing and Materials
CTM - California Test Method
AASHTO - American Association of State Highway Transportation Officials

- THE SOIL CHARACTERISTICS SHALL BE TESTED BY ONE OF THE APPLICABLE STANDARDS AS INDICATED IN TABLE. CORROSION POINTS. THE FOLLOWING QUANTITATIVE CRITERIA ARE GRADING RESULTS THAT SHALL BE USED FOR DETERMINING SOIL CORROSION.
- INTERPRETATION OF SOIL CORROSION (SEE TABLE: Corrosivity Score).

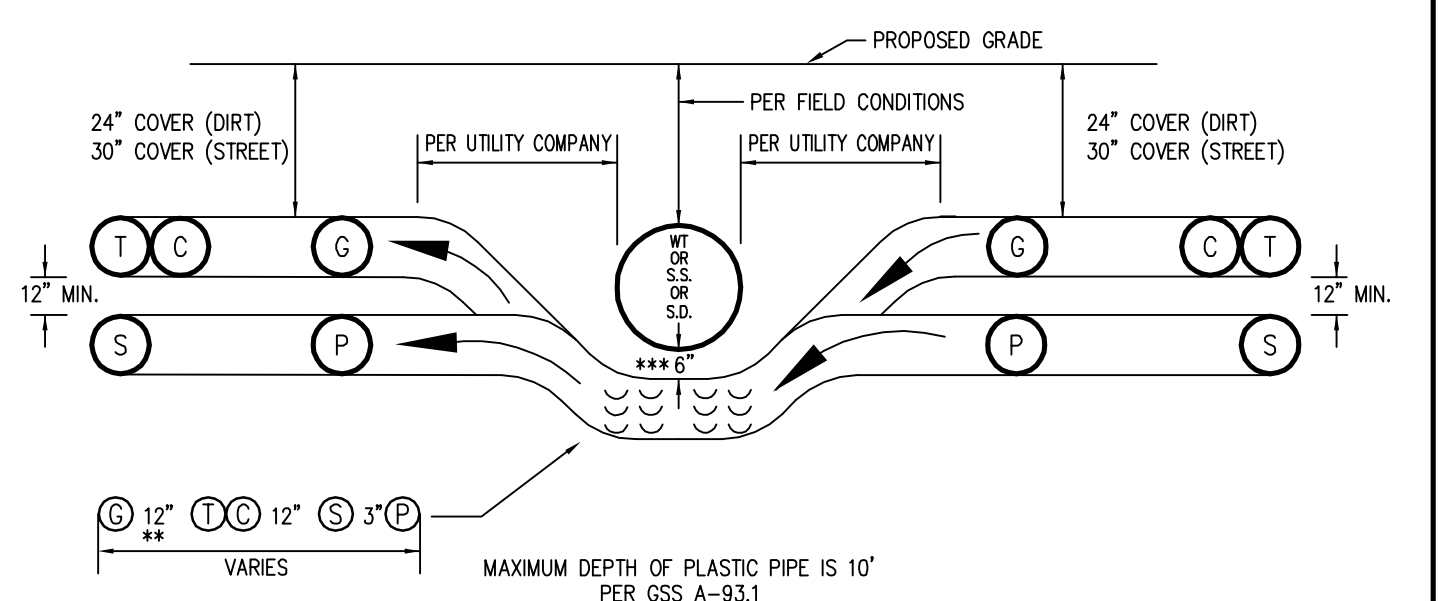
Table: Corrosivity Score

> 12	Extremely Corrosive
6 - 11.5	Corrosive
3 - 5.5	Mildly Corrosive
< 3	Very Mildly Corrosive

- SUBSURFACE TRANSFORMERS MAY ONLY BE INSTALLED IN MILDLY OR VERY MILDLY CORROSIVE SOILS. I.e., 5.5 POINTS OR LESS.



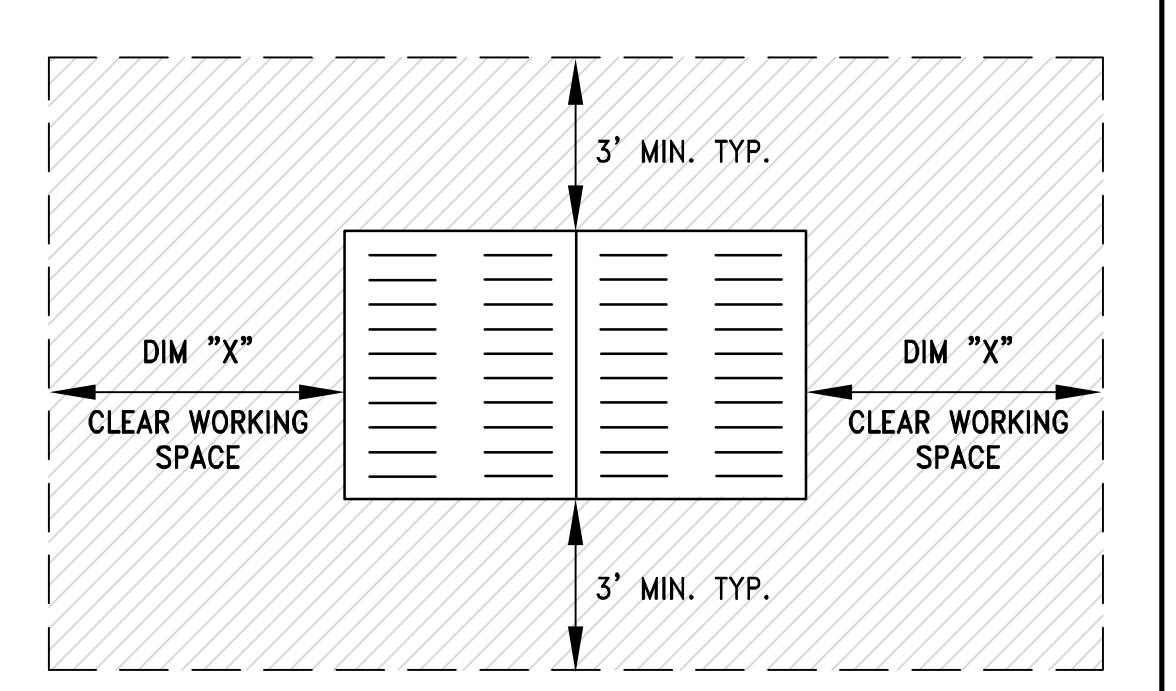
JOINT TRENCH OVER WATER, SANITARY SEWER OR STORM DRAIN
CHOICE 1 (PREFERRED METHOD)



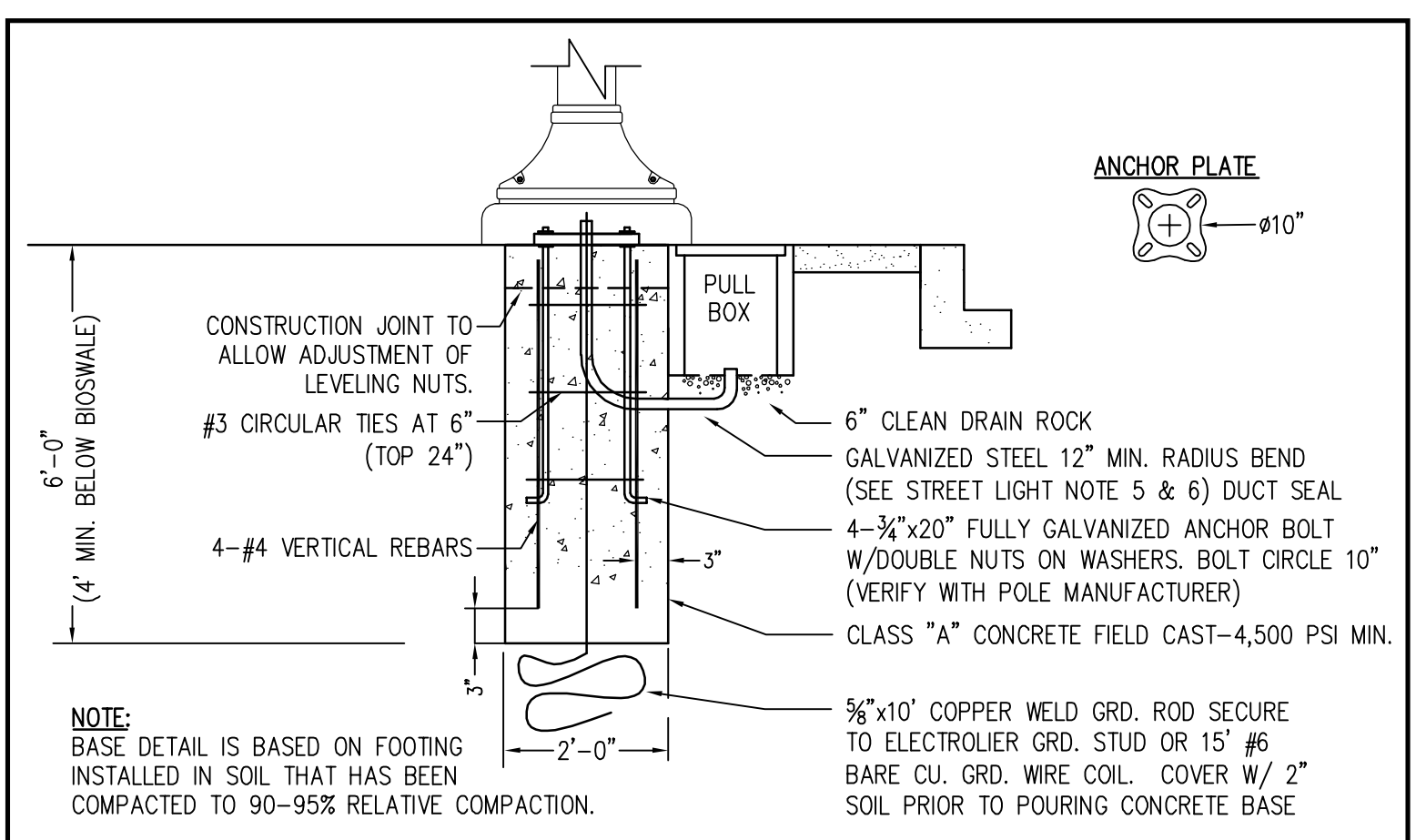
JOINT TRENCH UNDER WATER, SANITARY SEWER OR STORM DRAIN
CHOICE 2 (OPTIONAL METHOD)

- SEE MINIMUM COVER & CLEARANCE CHART
- WITH MUTUAL AGREEMENT, WHEN 4" O.D. OR SMALLER GAS PIPE IS INSTALLED SEPARATION MAY BE REDUCED TO NOT LESS THAN 6" BETWEEN GAS AND COMMUNICATION DUCTS (TELEPHONE & CATV).
- 6" MINIMUM REQUIRED BY PG&E-ADDITIONAL CLEARANCE MAYBE REQUIRED BY CITY OR COUNTY

2 OVER UNDER DETAILS
JT3 N.T.S.



3 PG&E ENCLOSURE CLEARANCES
JT3 N.T.S.



5 PRIVATE POST TOP ELECTROLIER FOOTING DETAIL @ BIOSWALE
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- Due Diligence

JOINT TRENCH DETAILS
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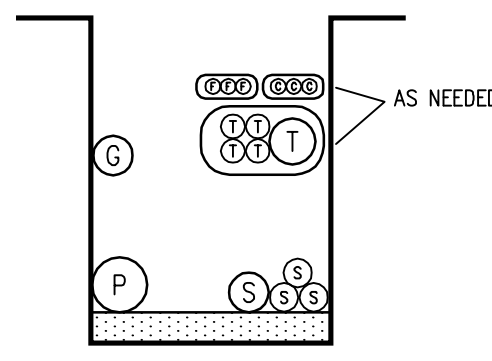
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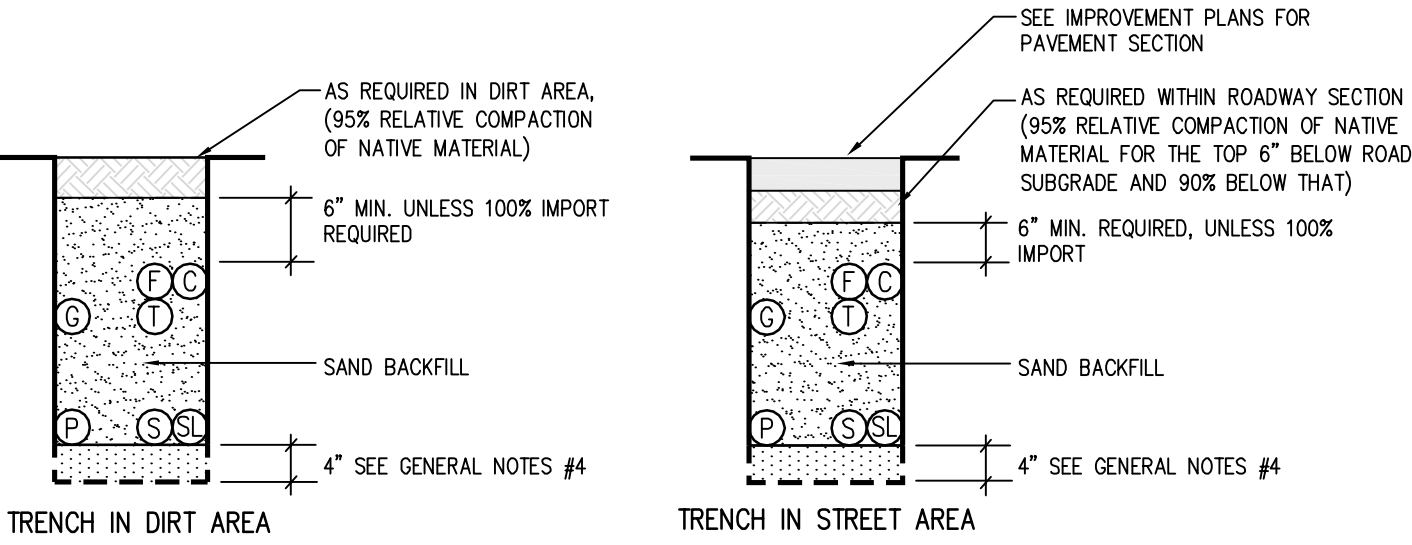
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JT3
OF
JT8
SHEETS

JOINT TRENCH MINIMUM COVER AND CLEARANCES									
MINIMUM SEPARATION FROM									
UTILITY	G	T	C	S	P	SL	F	MINIMUM COVER	
G (GAS)*	12"	12"	6"	12"	12"	6"	12"	24"; 30" IN STREET	
T (TELEPHONE)	12"	1"	12"	12"	12"	12"	1"	24"; 30" IN STREET	
C (CABLE T.V.)	12"	1"	12"	12"	12"	12"	1"	24"; 30" IN STREET	
S (ELECT. SECONDARY)	6"	12"	12"	3"	1"	1"	12"	24"; 30" IN STREET	
P (ELECT. PRIMARY)	12"	12"	12"	3"	3"	3"	12"	30"; 36" IN STREET	
SL (PUBLIC AND PRIVATE-STREET LIGHT)**	12"	12"	12"	12"			12"	24"; 30" IN STREET	
SL (P.G.E.-STREET LIGHT)	12"	12"	1"	3"			12"	24"; 30" IN STREET	
F (FIBER OPTIC)	12"	1"	12"	12"	12"	12"	1"	24"; 30" IN STREET	



TYPICAL EXAMPLE OF STACKING FACILITIES IN JOINT TRENCH



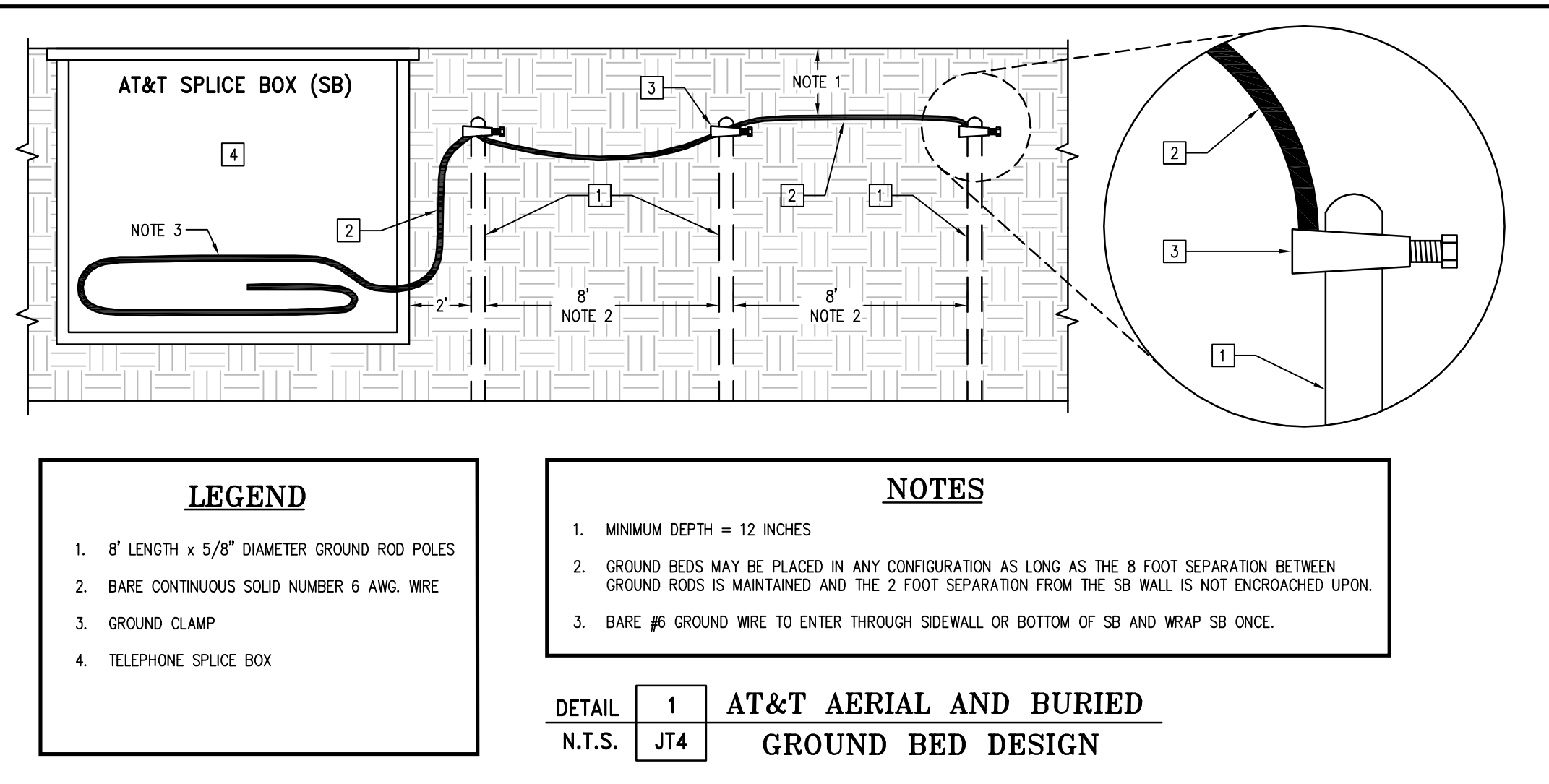
- LEGEND**
- MEETS UTILITY TRENCH ALLOTMENT
 - ⊙ EXCEEDS UTILITY TRENCH ALLOTMENT
 - ⊙ GAS
 - ⊙ ELECTRIC PRIMARY
 - ⊙ ELECTRIC SECONDARY
 - ⊙ TELEPHONE
 - ⊙ CATV
 - ⊙ STREET LIGHT (PUBLIC OR PG&E)
 - ⊙ FIBER OPTIC

JOINT TRENCH NOTES:

- TRENCH COVER & CLEARANCES SHOWN ARE MINIMUMS ONLY AND MAY REQUIRE ALTERATIONS TO SUIT FIELD CONDITIONS.
- IT IS RECOMMENDED THAT ALL FACILITIES ARE TO BE A MINIMUM OF 12" BELOW SUB-BASE DISTURBANCE.
- * WITH MUTUAL AGREEMENT FROM PARTICIPATING UTILITIES, WHEN 4" O.D. OR SMALLER GAS PIPE IS INSTALLED, SEPARATION MAY BE REDUCED TO NOT LESS THAN 6" BETWEEN GAS AND COMMUNICATION DUCTS (TELEPHONE, C.A.T.V. & FIBER OPTIC).
- * WHERE 6" GAS MAIN IS LOCATED IN THE JOINT TRENCH A 12" MINIMUM SEPARATION FROM GAS MAIN TO ALL UTILITIES WILL BE REQUIRED.
- ** WITH MUTUAL AGREEMENT FROM PARTICIPATING UTILITIES, STREET LIGHT SEPARATION MAY BE REDUCED TO 0" BETWEEN STREET LIGHT AND COMMUNICATION DUCTS (TELEPHONE, C.A.T.V. & FIBER OPTIC).
- TRENCH CONFIGURATIONS SHOWN ARE FOR INSTALLATION WHERE EACH OCCUPANT IS UTILIZING HIS ENTIRE SPACE ALLOCATION. OTHER CONFIGURATIONS OR REDUCED DIMENSIONS MAY BE USED, PROVIDED THAT MINIMUM COVER AND CLEARANCES ARE MAINTAINED.
- THE CONTRACTOR IS TO ADJUST TRENCH DEPTHS AT ALL JOINT TRENCH LATERAL CROSSINGS TO MAINTAIN REQUIRED CLEARANCES BETWEEN ALL PARTICIPATING UTILITIES.
- TRENCH SECTIONS ARE SHOWN SCHEMATICALLY AND INDICATE AREAS OF OCCUPANCY ONLY; THEY DO NOT REFLECT SIZE OR QUANTITY OF FACILITIES TO BE INSTALLED.
- TRENCH FOOTAGES PER SECTION ARE APPROXIMATE. SECTIONS ARE DESIGNED TO ACCOMMODATE ALL REQUIRED FACILITIES AS INDICATED ON EACH TRENCH PARTICIPANT'S CONSTRUCTION DRAWINGS.
- THE CONTRACTOR SHALL VERIFY TRENCH FOOTAGES FOR ACCURACY PRIOR TO EXCAVATION AND TAKE NECESSARY PRECAUTION CROSSING WATER AND SEWER FACILITIES.
- THE CONTRACTOR SHALL REFER TO THE COMPOSITE, CONDUIT, AND/OR EACH RESPECTIVE UTILITY INSTALLATION PLAN FOR THE NECESSARY CONDUIT CABLE AND/OR PIPE TO BE INSTALLED IN THIS PROJECT.
- TYPE "M2" TRENCH SHALL BE INSTALLED AFTER CURB AND GUTTER INSTALLATION. CONTRACTOR SHALL COORDINATE ADDITIONAL MOVE-INS NECESSARY TO COMPLETE THE SERVICES TO THE DWELLING UNITS WITH THE DEVELOPER, ALL AGENCIES AND THE UTILITY COMPANIES. THE COST OF THESE MOVE-INS SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE FOR TRENCHING.
- THE AVERAGE TRENCH DEPTHS SHOWN ARE BASED ON THE MINIMUM UTILITY COMPANY REQUIREMENTS FOR DEPTH AND SEPARATION. CONTRACTOR SHALL ADJUST TRENCH WIDTH & DEPTH AS REQUIRED TO ADEQUATELY CLEAR EXISTING UNDERGROUND FACILITIES AND MAINTAIN MINIMUM UTILITY CLEARANCES. ALL TRENCHES OVER 60" DEEP MUST COMPLY WITH OSHA REQUIREMENTS. (SEE THE JOINT TRENCH MINIMUM COVER AND CLEARANCE TABLE)
- CONTRACTOR SHALL USE SAND BEDDING AND SHADING AS REQUIRED BY THE UTILITY COMPANIES. ALL TRENCH SECTIONS SHOWN HEREON INCLUDE A 4" THICK BEDDING LAYER (UON).
- ALL TRENCHING AND BACKFILLING TO BE DONE IN ACCORDANCE WITH THE CITY OF PLEASANTON ENGINEERING STANDARDS AND SPECIFICATIONS.
- ALL PG&E, TELEPHONE, CABLE, AND FIBER OPTIC BOXES AND JOINT TRENCH FACILITIES ARE TO MAINTAIN A MINIMUM OF 3' SEPARATION FROM SEWER AND WATER LATERALS AND DRIVEWAYS. ALL UTILITY VAULTS, BOXES, PEDESTALS, ETC. MUST MAINTAIN A 5' MINIMUM CLEARANCE FROM FIRE HYDRANTS, AND 3' MINIMUM FROM STREETLIGHTS.

JOINT TRENCH OCCUPANCY GUIDE																								
TRENCH SECTION	A*	B*	C*	D*	E*	F*	G*	H*	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
GAS	X	X	X	X					X	X	X	X	X	X	X	X	X	X						
TELEPHONE	X	X	X	X					X	X	X	X	X	X	X	X	X	X						
CABLE T.V.	X	X	X	X					X	X	X	X	X	X	X	X	X	X						
ELECTRIC SEC.	X	X	X	X	X	X	X	X						X	X	X	X	X	X	X	X	X	X	X
ELECTRIC PRI.	X	X	X	X	X	X	X	X																
FIBER OPTCS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

*THESE SECTIONS MAY OR MAY NOT CONTAIN SECONDARY



- LEGEND**
- 8' LENGTH x 5/8" DIAMETER GROUND ROD POLES
 - BARE CONTINUOUS SOLID NUMBER 6 AWG. WIRE
 - GROUND CLAMP
 - TELEPHONE SPLICE BOX

- NOTES**
- MINIMUM DEPTH = 12 INCHES
 - GROUND BEDS MAY BE PLACED IN ANY CONFIGURATION AS LONG AS THE 8 FOOT SEPARATION BETWEEN GROUND RODS IS MAINTAINED AND THE 2 FOOT SEPARATION FROM THE SB WALL IS NOT ENCRONOCHED UPON.
 - BARE #6 GROUND WIRE TO ENTER THROUGH SIDEWALL OR BOTTOM OF SB AND WRAP SB ONCE.

DETAIL 1 AT&T AERIAL AND BURIED
N.T.S. JT4 GROUND BED DESIGN

THIS AREA RESERVED FOR JOINT TRENCH SECTIONS TO BE PLACED AT A LATER TIME

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JOINT TRENCH SECTIONS AND DETAILS
SUMMERHILL HOMES
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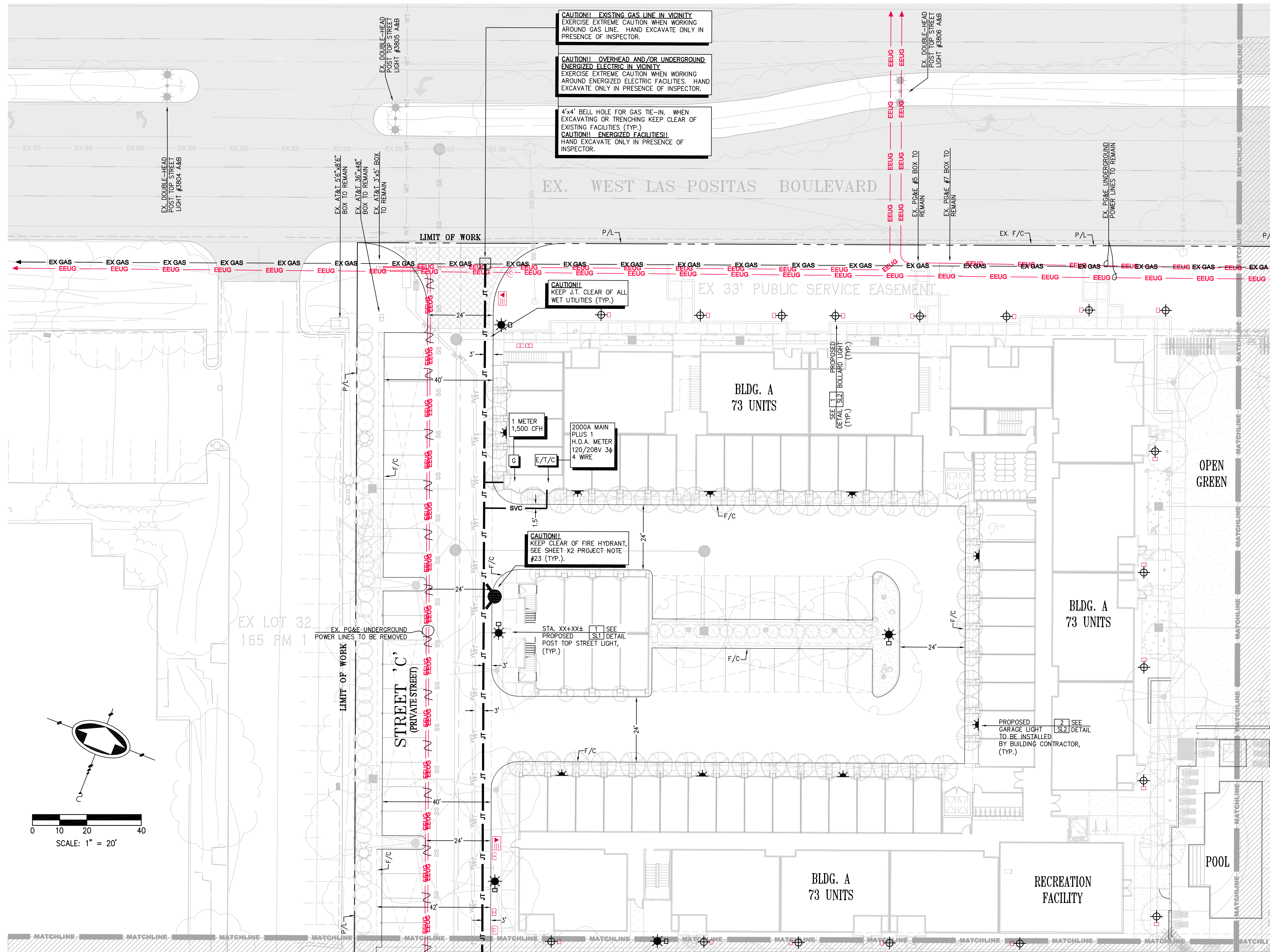
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JT4
OF
JT8
SHEETS



CAUTION!! EXISTING GAS LINE IN VICINITY
EXERCISE EXTREME CAUTION WHEN WORKING AROUND GAS LINE. HAND EXCAVATE ONLY IN PRESENCE OF INSPECTOR.

CAUTION!! OVERHEAD AND/OR UNDERGROUND ENERGIZED ELECTRIC IN VICINITY
EXERCISE EXTREME CAUTION WHEN WORKING AROUND ENERGIZED ELECTRIC FACILITIES. HAND EXCAVATE ONLY IN PRESENCE OF INSPECTOR.

4"x4" BELL HOLE FOR GAS TIE-IN. WHEN EXCAVATING OR TRENCHING KEEP CLEAR OF EXISTING FACILITIES (TYP.)
CAUTION!! ENERGIZED FACILITIES!
HAND EXCAVATE ONLY IN PRESENCE OF INSPECTOR.

NOTE "A"

- JOINT TRENCH CONTRACTOR TO STUB CONDUITS 5' QUI FROM BUILDING WALL.
- BUILDING CONTRACTOR TO TIE-IN TO CONDUITS THAT ARE STUBBED BY JOINT TRENCH CONTRACTOR.
- JOINT TRENCH CONTRACTOR TO VERIFY SERVICE STUB LOCATION WITH DEVELOPER SITE SUPERINTENDENT.

SERVICE TERMINATION LEGEND

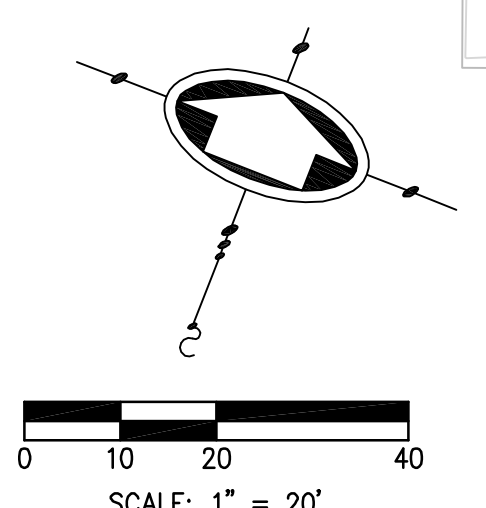
E.T.C. ELECTRIC, TELEPHONE, CATV CLOSET

G GAS CLOSET

NOTE: JOINT TRENCH CONTRACTOR TO TIE-IN TO CONDUIT STUBS INSTALLED BY THE BUILDING CONTRACTOR. ADJUST SERVICE TRENCH ROUTE AS NECESSARY.

PG&E BUILDING GAS LOAD CHART FOR RESIDENTIAL UNITS

BUILDING #	NO. OF UNITS	BUILDING GAS LOAD
A	73	5,500 CFH
B	67	5,050 CFH
C	17	1,275 CFH
D	20	1,500 CFH
REC. FACILITY	1	600 CFH
TOTAL	178	13,925 CFH



MATCH LINE SEE SHEET JT6

MATCH LINE SEE SHEET JT6

MATCH LINE SEE SHEET JT7

MATCH LINE SEE SHEET JT7

JOINT TRENCH OCCUPANCY GUIDE

TRENCH SECTION	A*	B*	C*	D*	E*	F*	G*	H*	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
GAS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TELEPHONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CABLE T.V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ELECTRIC SEC.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ELECTRIC PRI.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

*THESE SECTIONS MAY OR MAY NOT CONTAIN SECONDARY

FOR REVIEW ONLY

CAUTION !! CAUTION !! CAUTION !!
EX. JOINT TRENCH AND EX. GAS AND ALL OTHER UTILITY LOCATIONS ARE SHOWN BASED UPON INFORMATION PROVIDED BY OTHERS AND FIELD OBSERVATION. JOINT TRENCH CONTRACTOR TO VERIFY EXACT LOCATION OF ALL EXISTING FACILITIES PRIOR TO ANY JOINT TRENCH CONSTRUCTION. POTHOLE IF NECESSARY. CONTACT U.S.A. DIG ALERT 24 HOURS IN ADVANCE

CONTRACTOR WILL COMPLY WITH ALL LAWS, ORDINANCES AND REGULATIONS. CONTRACTOR SHALL BE FAMILIAR WITH O.S.H.A. INDUSTRIAL ORDERS AND SHALL CONDUCT HIS WORK ACCORDINGLY. WHEN WORKING AROUND ENERGIZED EQUIPMENT, THE UTILITY OWNER SHALL BE NOTIFIED TO SUPPLY THE APPROPRIATE MAN POWER AND SAFETY PRECAUTIONS AS NEEDED. THE CONTRACTOR IS RESPONSIBLE FOR PUBLIC SAFETY AND TRAFFIC CONTROL MEASURES.

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JOINT TRENCH COMPOSITE PLAN
SUMMERHILL HOMES
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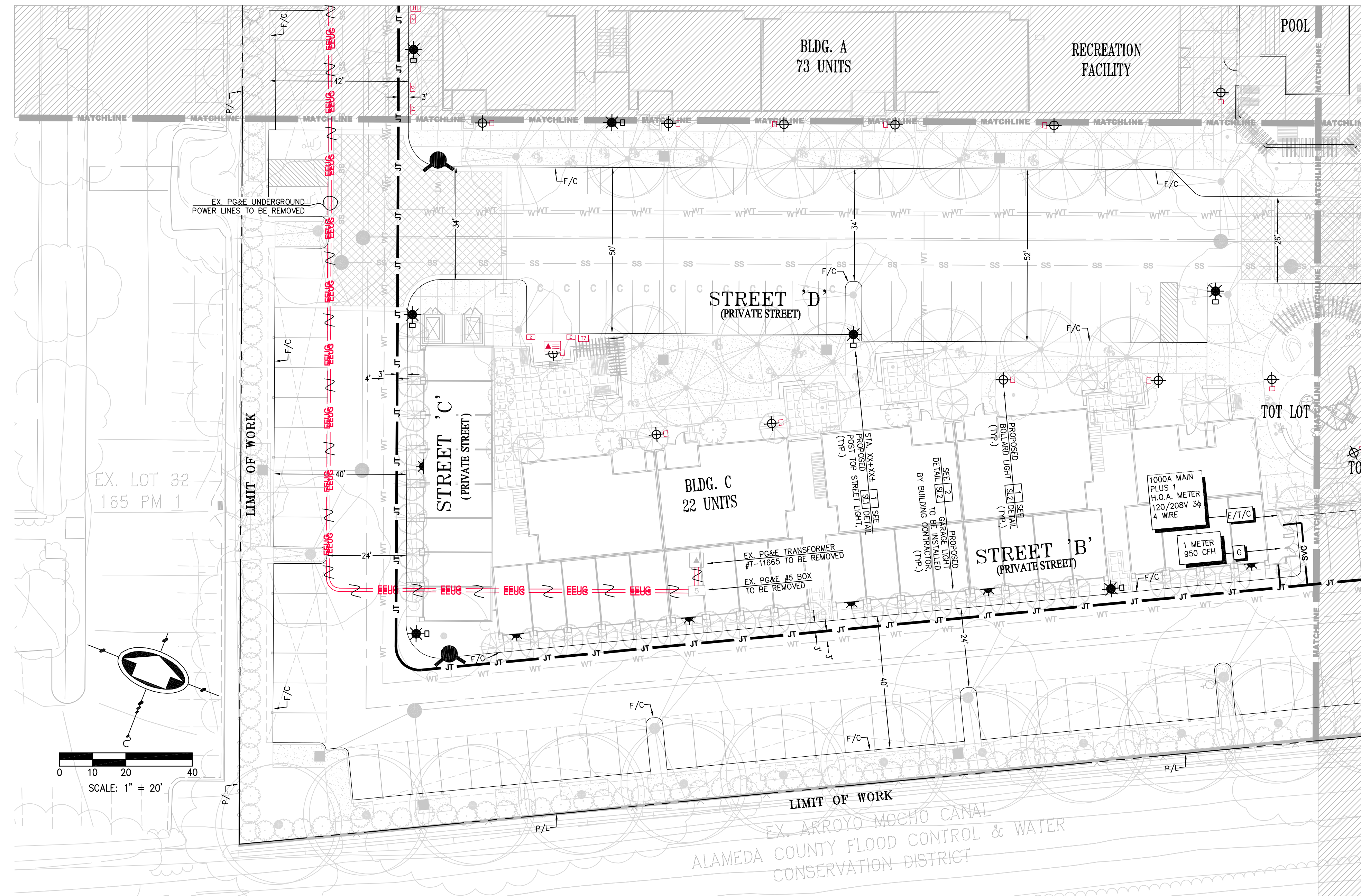
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OF
JT8
SHEETS

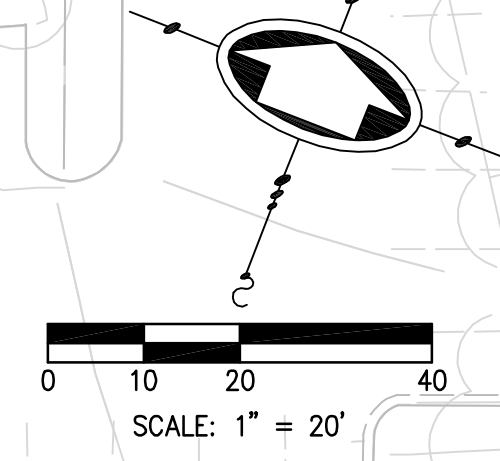
MATCH LINE SEE SHEET JT5

MATCH LINE SEE SHEET JT5



MATCH LINE SEE SHEET JT8

MATCH LINE SEE SHEET JT8



- NOTE "A"**
- JOINT TRENCH CONTRACTOR TO STUB CONDUITS 5' QUI FROM BUILDING WALL.
 - BUILDING CONTRACTOR TO TIE-IN TO CONDUITS THAT ARE STUBBED BY JOINT TRENCH CONTRACTOR.
 - JOINT TRENCH CONTRACTOR TO VERIFY SERVICE STUB LOCATION WITH DEVELOPER SITE SUPERINTENDENT.

SERVICE TERMINATION LEGEND

	ELECTRIC, TELEPHONE, CATV CLOSET
	GAS CLOSET

NOTE: JOINT TRENCH CONTRACTOR TO TIE-IN TO CONDUIT STUBS INSTALLED BY THE BUILDING CONTRACTOR. ADJUST SERVICE TRENCH ROUTE AS NECESSARY.

PG&E BUILDING GAS LOAD CHART FOR RESIDENTIAL UNITS

BUILDING #	NO. OF UNITS	BUILDING GAS LOAD
A	73	5,500 CFH
B	67	5,050 CFH
C	17	1,275 CFH
D	20	1,500 CFH
REC. FACILITY	1	600 CFH
TOTAL	178	13,925 CFH

JOINT TRENCH OCCUPANCY GUIDE

TRENCH SECTION	A*	B*	C*	D*	E*	F*	G*	H*	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
GAS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TELEPHONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CABLE T.V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ELECTRIC SEC.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ELECTRIC PRI.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

*THESE SECTIONS MAY OR MAY NOT CONTAIN SECONDARY

FOR REVIEW ONLY

CAUTION !! CAUTION !! CAUTION !!
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CONTRACTOR WILL COMPLY WITH ALL LAWS, ORDINANCES AND REGULATIONS. CONTRACTOR SHALL BE FAMILIAR WITH O.S.H.A. INDUSTRIAL ORDERS AND SHALL CONDUCT HIS WORK ACCORDINGLY. WHEN WORKING AROUND ENERGIZED EQUIPMENT, THE UTILITY OWNER SHALL BE NOTIFIED TO SUPPLY THE APPROPRIATE MAN POWER AND SAFETY PRECAUTIONS AS NEEDED. THE CONTRACTOR IS RESPONSIBLE FOR PUBLIC SAFETY AND TRAFFIC CONTROL MEASURES.

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JOINT TRENCH COMPOSITE PLAN
 SUMMERHILL HOMES
 CANNAE
 PLEASANTON CALIFORNIA

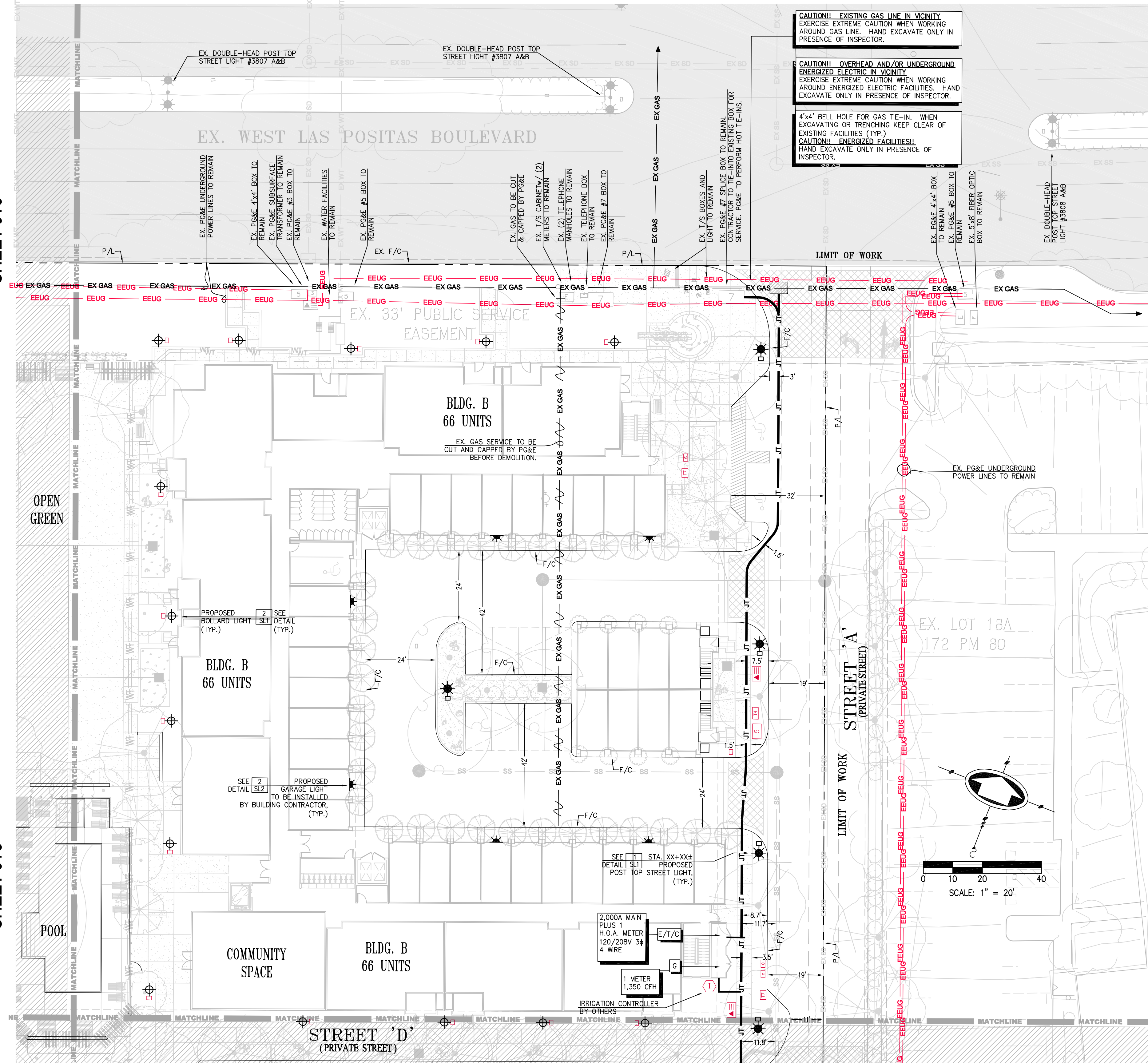
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STATE OF CALIFORNIA
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 C 59346
 Exp. 06/30/15

SHEET
 JT6
 OF
 JT8
 SHEETS



CAUTION!! EXISTING GAS LINE IN VICINITY
EXERCISE EXTREME CAUTION WHEN WORKING AROUND GAS LINE. HAND EXCAVATE ONLY IN PRESENCE OF INSPECTOR.

CAUTION!! OVERHEAD AND/OR UNDERGROUND ENERGIZED ELECTRIC IN VICINITY
EXERCISE EXTREME CAUTION WHEN WORKING AROUND ENERGIZED ELECTRIC FACILITIES. HAND EXCAVATE ONLY IN PRESENCE OF INSPECTOR.

4"x4" BELL HOLE FOR GAS TIE-IN. WHEN EXCAVATING OR TRENCHING KEEP CLEAR OF EXISTING FACILITIES (TYP.).
CAUTION!! ENERGIZED FACILITIES!! HAND EXCAVATE ONLY IN PRESENCE OF INSPECTOR.

NOTE "A"

- JOINT TRENCH CONTRACTOR TO STUB CONDUITS 5' OUT FROM BUILDING WALL.
- BUILDING CONTRACTOR TO TIE-IN TO CONDUITS THAT ARE STUBBED BY JOINT TRENCH CONTRACTOR.
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SERVICE TERMINATION LEGEND

E.T.C. ELECTRIC, TELEPHONE, CATV CLOSET

G GAS CLOSET

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FOR REVIEW ONLY

MATCH LINE SEE SHEET JT5

MATCH LINE SEE SHEET JT5

MATCH LINE SEE SHEET JT8

MATCH LINE SEE SHEET JT8

JOINT TRENCH OCCUPANCY GUIDE

TRENCH SECTION	A*	B*	C*	D*	E*	F*	G*	H*	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
GAS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TELEPHONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CABLE T.V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ELECTRIC SEC.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ELECTRIC PRI.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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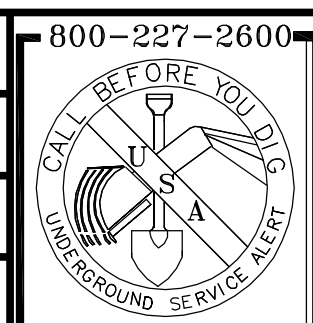


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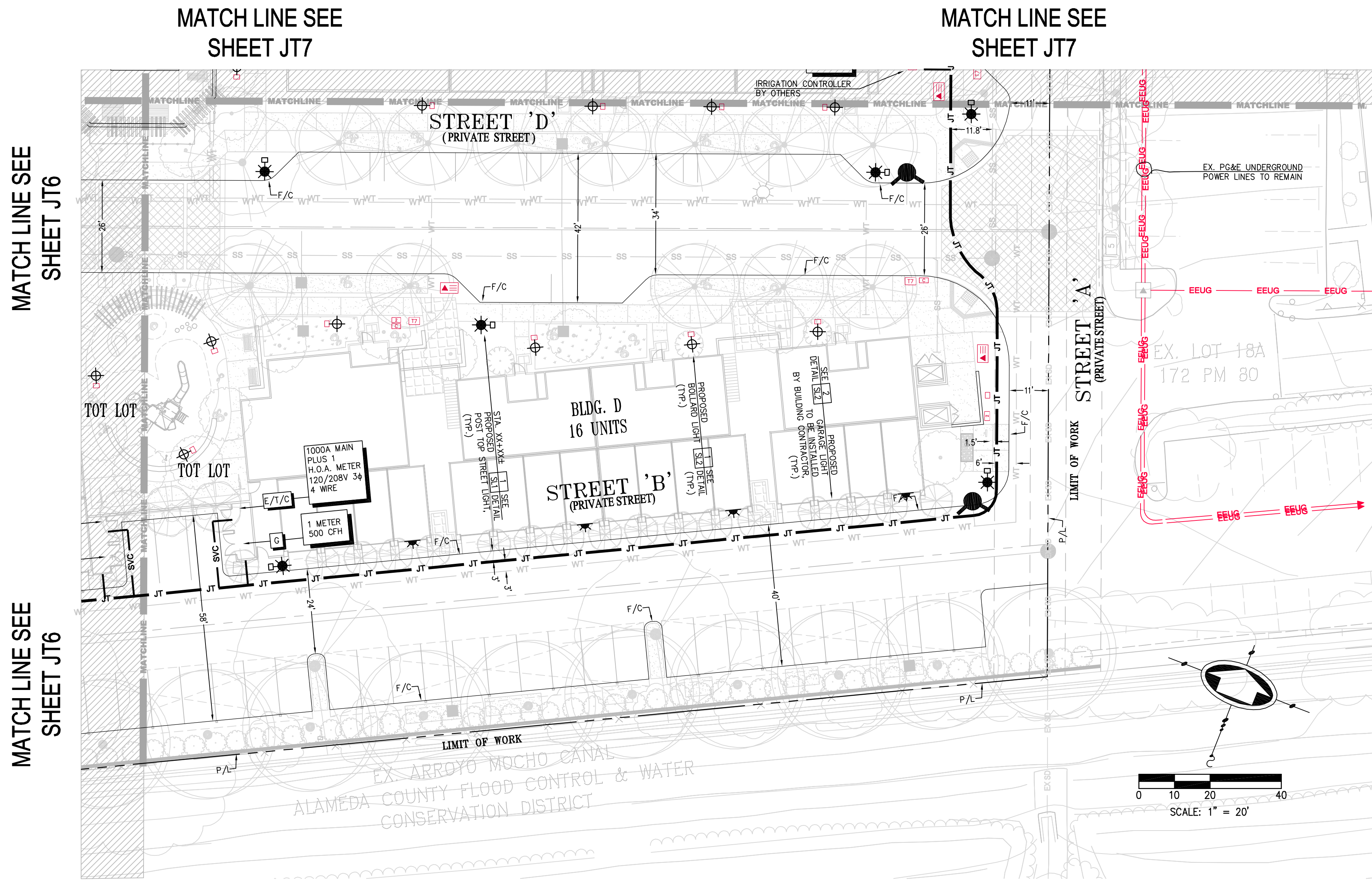
JOINT TRENCH COMPOSITE PLAN
SUMMERHILL HOMES
CANNAE
PLEASANTON CALIFORNIA

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SHEET
JT7
OF
JT8
SHEETS



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GAS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TELEPHONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CABLE T.V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ELECTRIC SEC.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ELECTRIC PRI.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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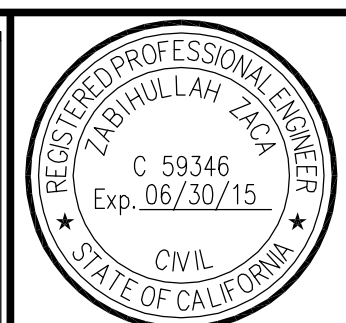
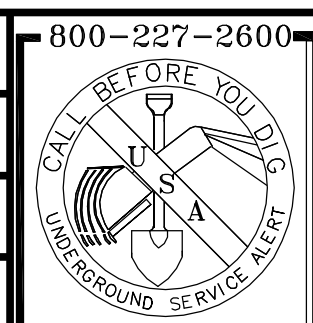


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JOINT TRENCH COMPOSITE PLAN
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SHEET
JT8
 OF
JT8
 SHEETS

SUMMERHILL HOMES CANNÆ PLEASANTON ALAMEDA COUNTY CALIFORNIA

LUMINAIRE SPECIFICATIONS:
 CATALOG NO.:
 TYPE III: CE21T4-F11GC-3M3HS-72W-4K
 -120-F2AP-DJP-SO-HSS-RAL9005TX
 TYPE V: CE21T4-F11GC-5SL4-80W-4K
 -120-F2AP-DJP-SO-RAL9005TX

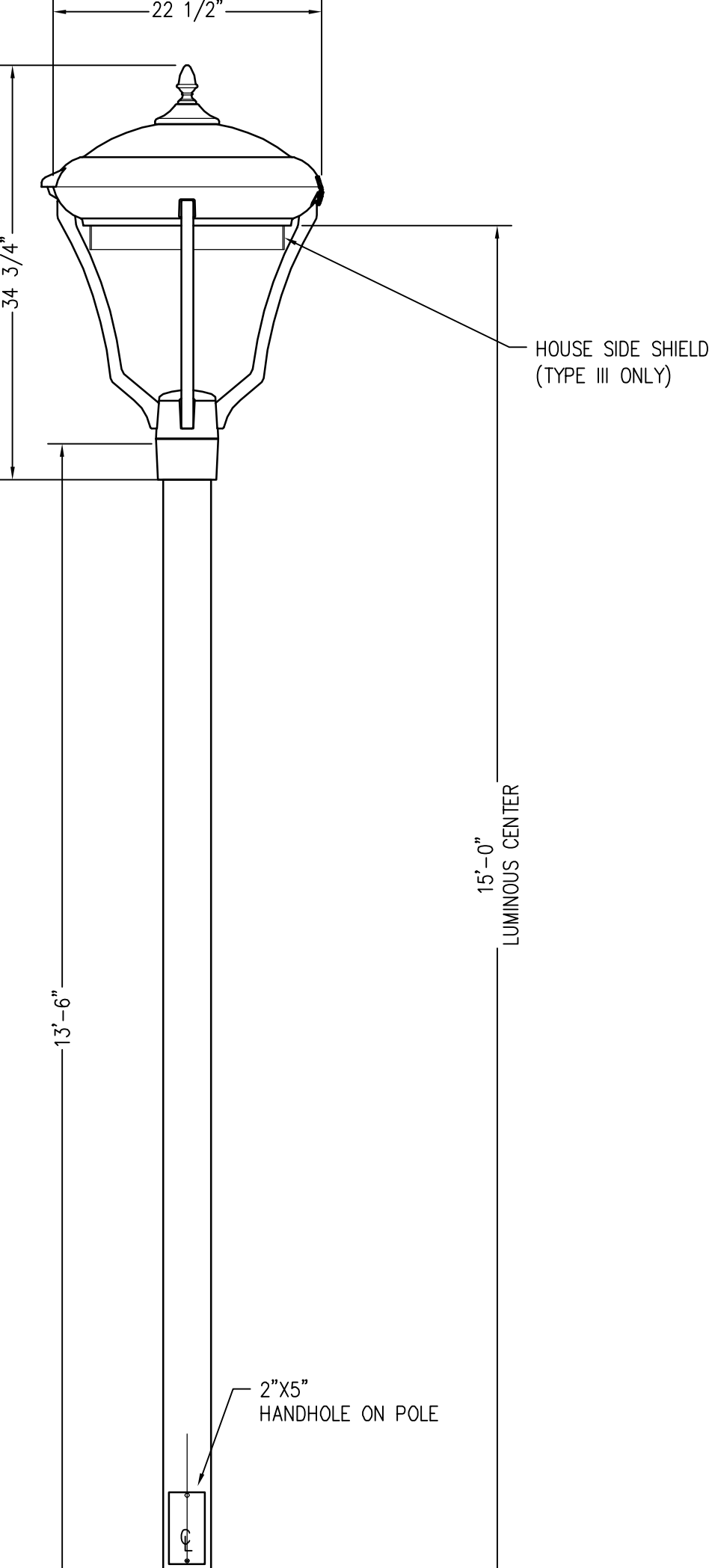
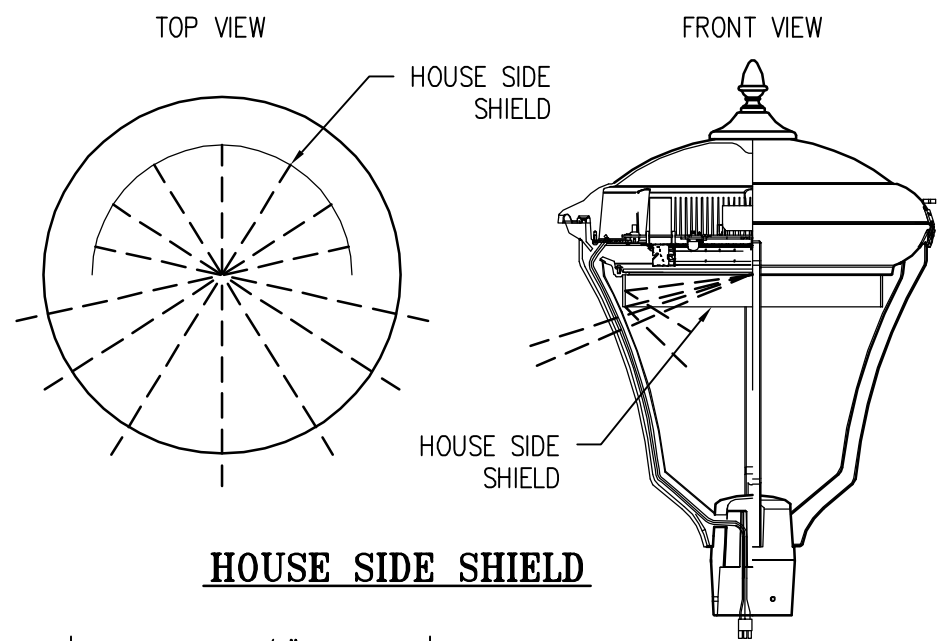
LENS MAT'L: CLEAR TEMPERED GLASS
 IES CLASSIFIC: TYPE III WITH HOUSE SIDE SHIELD & TYPE V
 WATTAGE: TYPE III-72W & TYPE V-80W
 LIGHT SOURCE: LED - 4000K (WHITE)
 LINE VOLTAGE: 120 VOLT
 DRIVER: MOUNTED ON A QUICK RELEASE TRAY.
 ALL COMPONENTS SHALL HAVE QUICK CONNECTORS.
 POLE ADAPTOR: FITTER WITH SQUARE HEAD BOLTS
 IP66 WEATHERPROOF LUMINAIRE WITH "V" GROOVE SILICONE GASKET

POLE SPECIFICATIONS:
 CATALOG NO.: PA40-13'-6"-SA-RAL9005TX
 MATERIAL: 4" ROUND ALUMINUM TUBING
 POLE HEIGHT: 13'-6"
 ANCHOR BOLTS: (4) 3/4" x 20" FULLY GALVANIZED
 BOLT CIRCLE: 10"

BASE COVER SPECIFICATIONS:
 CATALOG NO.: BD11-RAL9005TX
 MATERIAL: TWO-PIECE COVER MADE OF CAST ALUMINUM

ALL NON ELECTRICAL HARDWARE SHALL BE STAINLESS STEEL

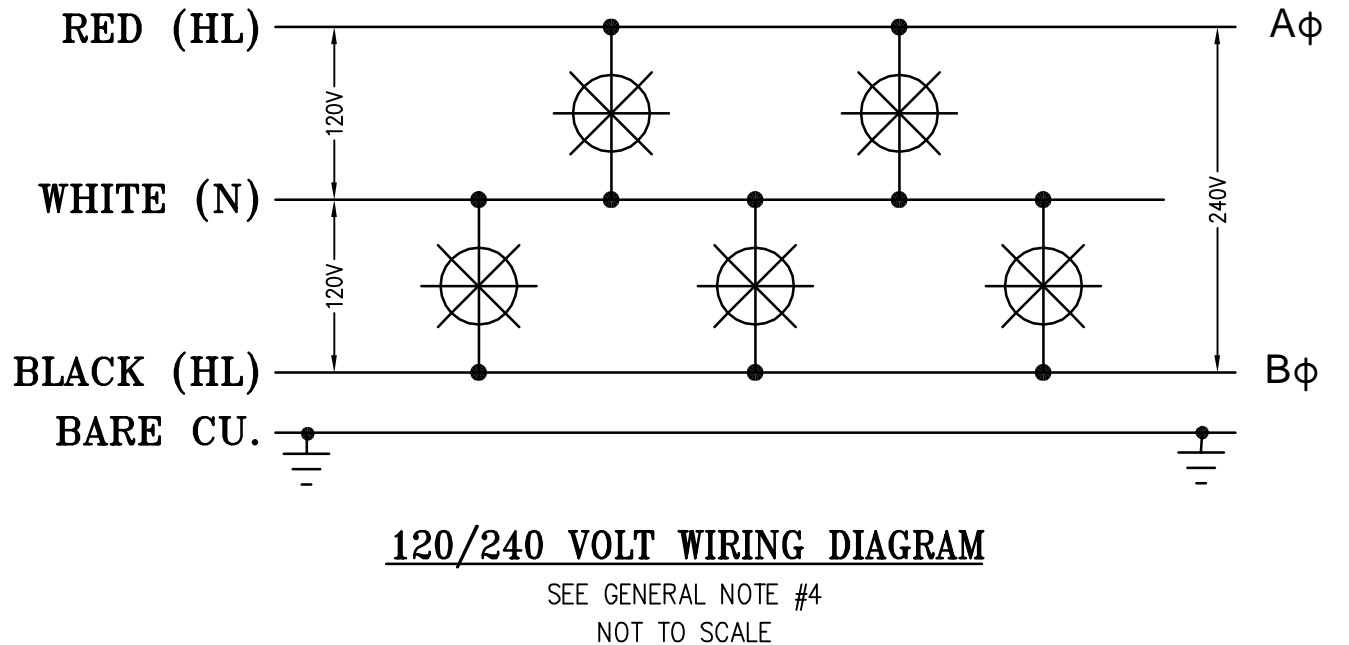
COLOR & FINISH: TEXTURED POWDER COAT RAL9005TX (Jet black)
 PAINT WARRANTY: 5 YEARS



MANUFACTURER REP.:
 GREAT BASIN LIGHTING
 STEVE OR FRAN COLE
 (925) 240-1566

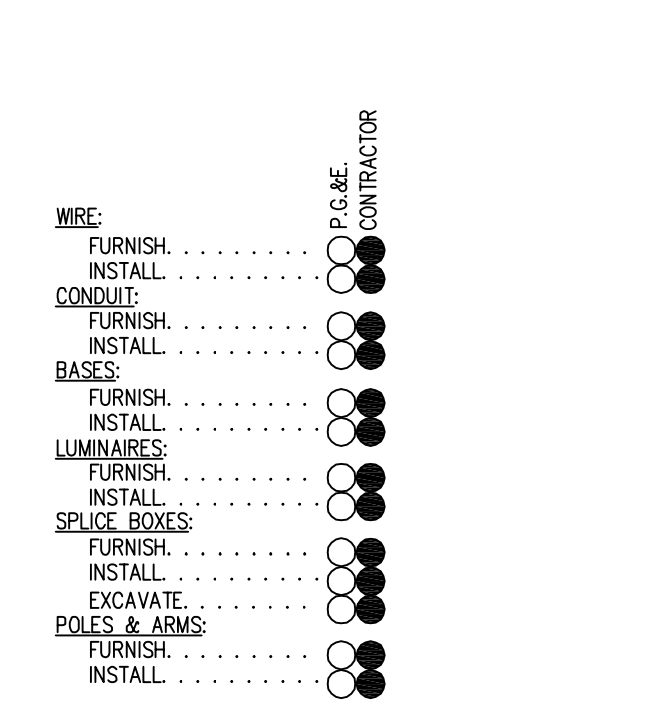
LEGEND

- EXISTING TRAFFIC SIGNAL
- STREET LIGHT PULL BOX STATE TYPE #3 1/2, 15" x 20" x 12"
- STREET LIGHT GROUND BOX STATE TYPE #5, 18" x 27.5" x 12"
- ELECTROLIER, POST TOP
- LIGHTING BOLLARD
- LIGHTING, WALL MOUNTED (BY OTHERS)
- EXISTING ELECTROLIER, SINGLE ARM
- EXISTING ELECTROLIER, POST TOP
- EXISTING LIGHTING BOLLARD
- EXISTING LIGHTING, WALL MOUNTED (BY OTHERS)
- METER SERVICE PEDESTAL
- IRRIGATION CONTROLLER (BY OTHERS)
- CIRCUIT NUMBER
- POLE NUMBER



CONSTRUCTION LABOR AND MATERIAL RESPONSIBILITY

STREET LIGHTING SYSTEM

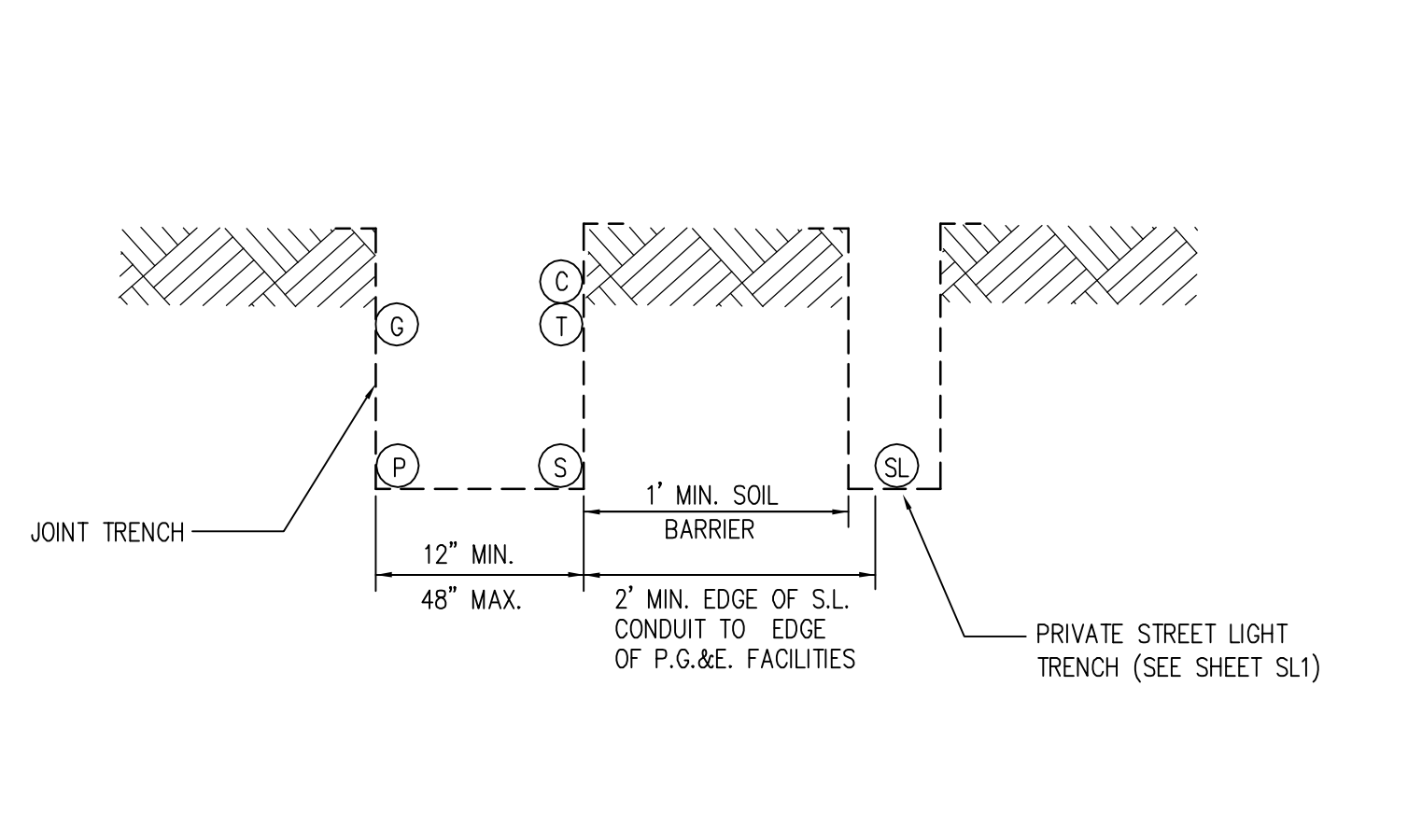
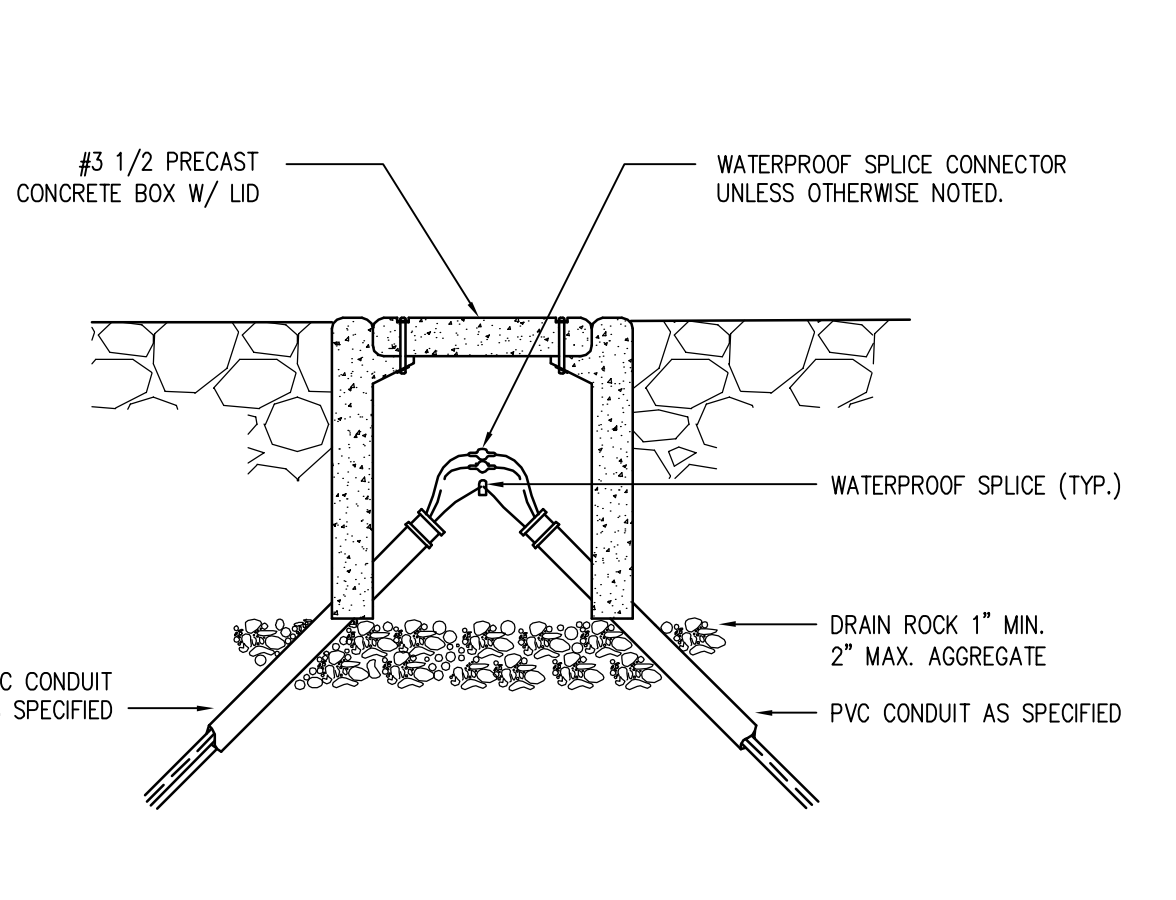
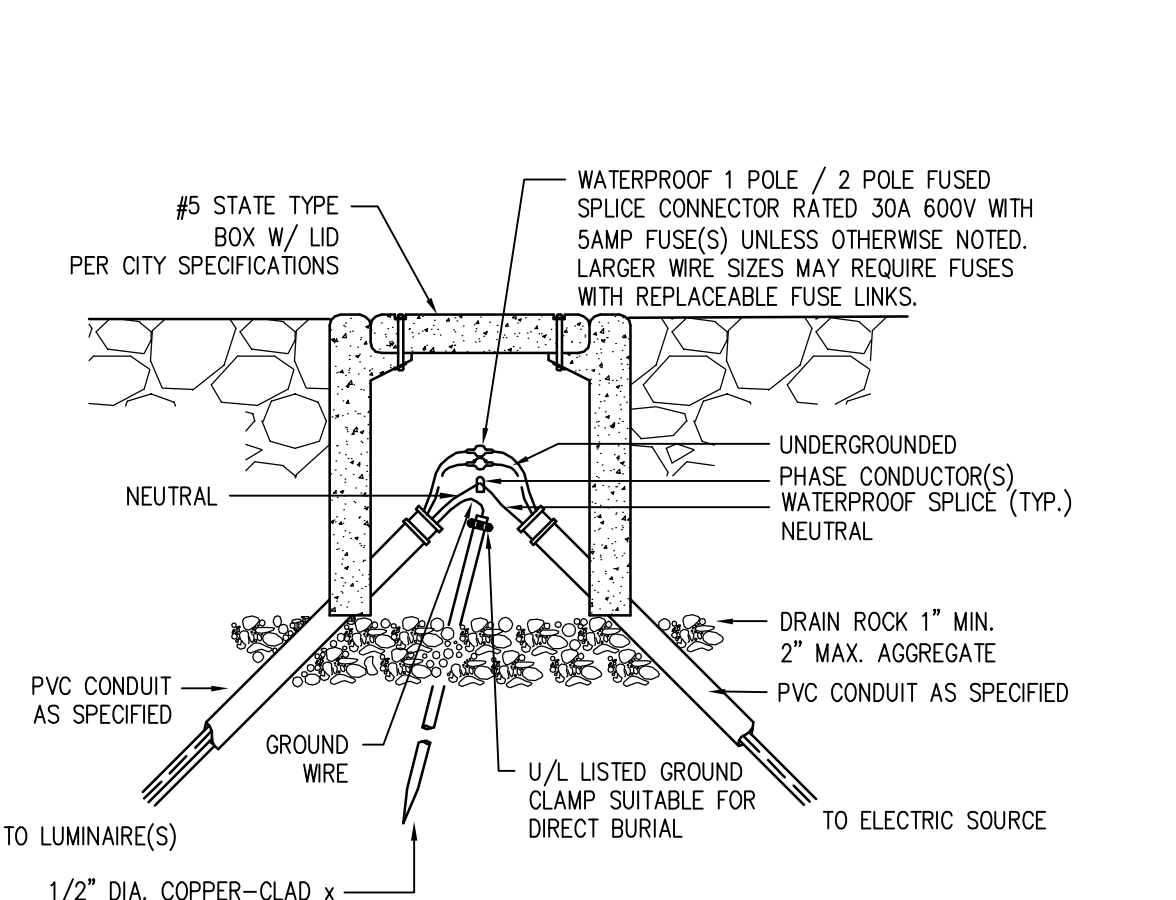
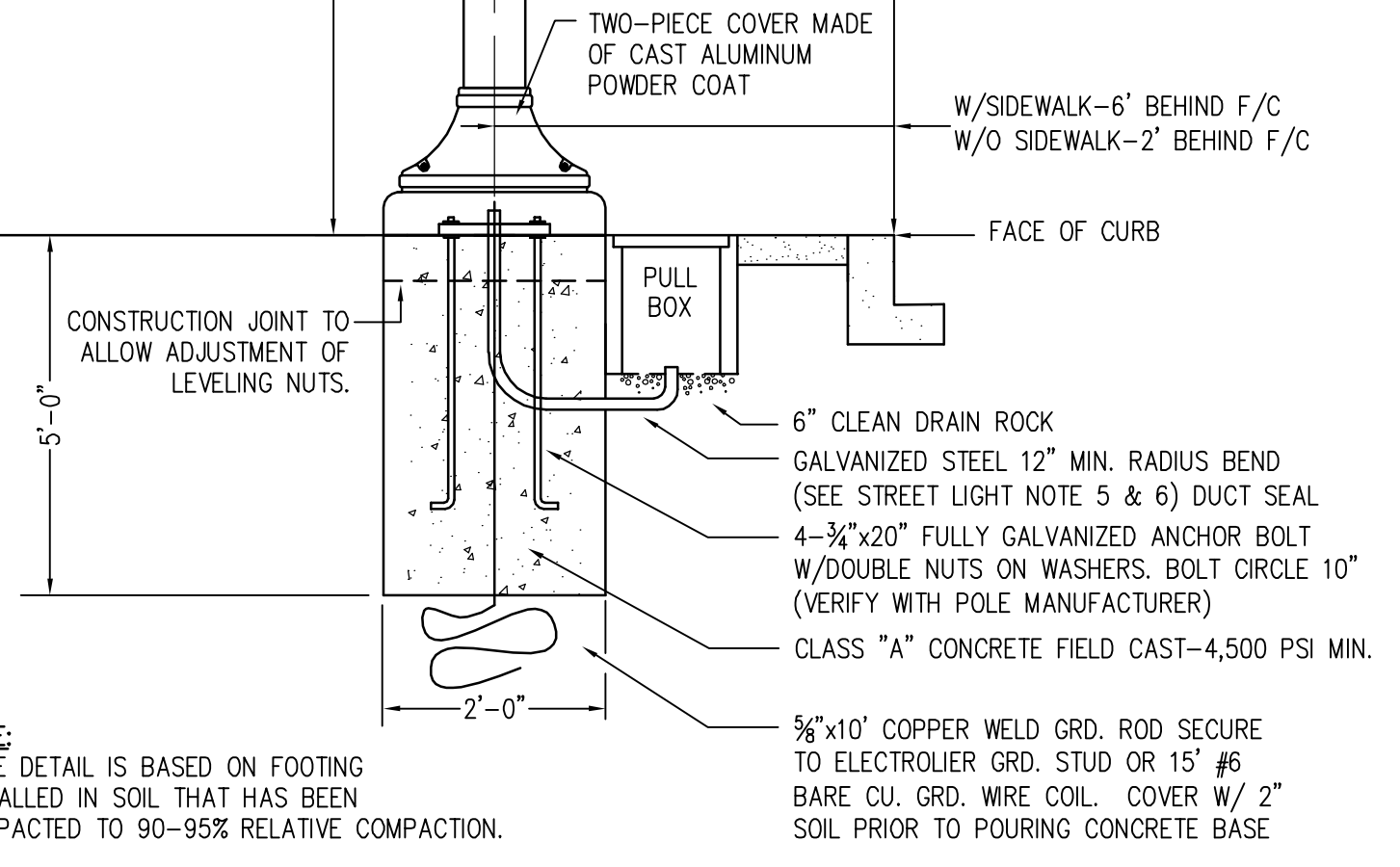
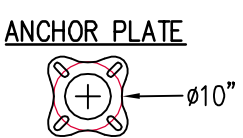


SCHEDULE:	IS2C
INSTALL IN JOINT TRENCH:	NO
INSTALL IN SEPARATE TRENCH:	YES
CONDUIT SIZE:	VARIES
CONDUIT TYPE:	SCH. 40
WIRE SIZE:	VARIES
TYPE:	CU

ADDITIONAL NOTES:
 -STREET LIGHTS TO BE MAINTAINED BY H.O.A., UPON TRACT ACCEPTANCE
 -SEE JOINT TRENCH COMPOSITE FOR TRENCH LOCATION
 -TYPE V DISTRIBUTION AT ALL CUL-DE-SAC BULBS

STREET LIGHTING NOTES:

- ALL MATERIAL AND WORKMANSHIP SHALL FULLY CONFORM WITH THE NATIONAL ELECTRIC CODE AND STANDARD SPECIFICATIONS AND DETAILS OF THE CITY OF PLEASANTON.
- THE ELECTRICAL CONTRACTOR SHALL INSTALL THE UNDERGROUND SERVICE FROM THE LUMINAIRE TO PG&E SERVICE POINT AND TERMINATE CONDUIT AND WIRES AT BOX AS DIRECTED BY PG&E
- KEEP STREET LIGHTS A MINIMUM OF 3 FEET AWAY FROM THE EDGE OF DRIVEWAYS, SEWER AND WATER LATERALS, AND 5 FEET AWAY FROM FIRE HYDRANTS & CATCH BASINS.
- TWO OR MORE STREET LIGHTS ON THE SAME CIRCUIT SHALL BE WIRED TO BALANCE THE LOAD. (SEE WIRING DIAGRAM)
- CONDUIT AND FITTINGS: ALL CONDUIT AND FITTINGS SHALL BE U.L. APPROVED SCHEDULE 40 P.V.C. UNLESS OTHERWISE NOTED OR REQUIRED, USE MINIMUM 1 1/2" SCH. 40 P.V.C. CONDUIT AND FITTINGS BELOW GRADE. MINIMUM RADIUS BENDS SHALL BE 18". FOR ABOVE GROUND INSTALLATION USE METALLIC RIGID STEEL CONDUIT. PROVIDE PULL WIRE IN EMPTY CONDUITS. ALL CROSSINGS TO BE PERPENDICULAR TO STREET.
- CONDUIT DEPTH: 24" UNDER SIDEWALK; 24" UNDER PLANTER STRIP; 30" UNDER PAVEMENT.
- CABLE: CABLE SHALL BE U.L. A.W.G. NO. 8, 7-STRAND SOFT COPPER, TYPE THW OR THHN WITH MINIMUM OF 3/64" (40 MIL) POLYVINYLCHLORIDE INSULATION, UNLESS OTHERWISE NOTED. U.L. LISTED 600 VOLT, NO. 10 IN POLE MAY BE USED (40 MIL INSULATION).
- SPLICE BOXES: SPLICE BOXES SHALL BE NO. 3-1/2 STATE TYPE WITH LID AND BRASS HOLD DOWN BOLTS, UNLESS OTHERWISE NOTED. LIDS TO BE INSCRIBED 'STREET LIGHTING'. SPLICE BOXES SHALL NOT BE MORE THAN 200 FEET APART ON LONG RUNS. SPLICE BOXES TO BE SET ON A CONCRETE FOOTING WHEN SUBJECT TO TRAFFIC LOAD.
- FUSES: EACH POLE SHALL BE FUSED WITH WATERPROOF IN-LINE FUSE HOLDERS AT EACH ADJACENT BOX WITH 5 AMP FUSE. FOR DUPLEX LIGHTS, EACH LUMINAIRE SHALL BE FUSED SEPARATELY.
- SPLICING: ALL SPLICES SHALL BE MADE IN HAND HOLES OR SPLICE BOXES ONLY. SPLICES SHALL BE MADE WITH "STACK -ON" CRIMP JOINTS, "SCOTCH LOCK" FASTENERS, OR APPROVED EQUAL. ON SPLICES MADE BELOW GRADE, WRAP WITH MOISTURE PROOF INSULATION THICKNESS.
- POLE NUMBERS: OBTAIN AND PLACE POLE NUMBERS ON ALL STREET LIGHT STANDARDS AS REQUIRED. COORDINATE WITH PG&E AND/OR CITY FOR THEIR REQUIREMENTS.
- TRENCH: CONDUIT CAN BE PLACED IN JOINT TRENCH. THE CONDUIT LAYOUT IS SHOWN SCHEMATICALLY. SEE COMPOSITE DRAWING FOR TRENCH AND BOX LOCATIONS. ANY INCIDENTAL TRENCHING NOT PROVIDED BY TRENCHING AGENT IS CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT FIRST NOTIFYING TARRAR UTILITY CONSULTANTS.
- TARRAR UTILITY CONSULTANTS ASSUMES NO RESPONSIBILITY FOR ANY VARIANCE BETWEEN THESE PLANS AND THE ACTUAL FIELD CONDITIONS. CONTRACTOR SHOULD REVIEW PROJECT SITE PRIOR TO SUBMITTING ITS BID.
- CONTRACTOR TO CONSULT WITH LOCAL AGENCIES FOR THEIR CIRCUIT GROUNDING REQUIREMENTS. IF GROUND WIRE IS REQUIRED IN CONDUIT, INSTALL ACCORDINGLY.
- LEGEND SYMBOLS ARE SHOWN IN STREET AREA FOR CLARITY. INSTALL BEHIND CURB AND/OR SIDEWALK PER CITY SPECIFICATIONS KEEP CLEAR OF DRIVEWAYS AND PATHWAYS (TYPICAL).
- CENTERLINE OF STREET LIGHTS SHALL BE LOCATED ON THE LOT LINE UNLESS OTHERWISE NOTED ON THESE PLANS.
- ANY CHANGES OR MODIFICATIONS TO PROPOSED STREET LIGHT LOCATIONS SHALL BE APPROVED, IN WRITING, BY THE CITY PRIOR TO INSTALLATION.
- SET ALL STREET LIGHTS TO ULTIMATE FINISHED GRADE. CONSULT WITH CITY FOR PROPER PHYSICAL PROTECTION AND/OR SINGING AND STRIPING ADJACENT TO ANY STREET LIGHTS INSTALLED IN THEIR ULTIMATE LOCATIONS THAT ARE NOT PROTECTED BY A VERTICAL CURB, BERM AND COMPACT EARTH TO FINISHED GRADE A MINIMUM OF 5' AROUND STREET LIGHT BASES AT THESE LOCATIONS.
- CONTACT U.S.A. (2) FULL WORKING DAYS PRIOR TO STARTING WORK IF EXISTING UTILITIES CONFLICT WITH POLE LOCATION, FIELD ADJUST TO CLEAR EXISTING UTILITIES A MINIMUM OF 3'-0".
- STREET LIGHT CONDUIT BENDS SHALL HAVE A MINIMUM 2 FOOT RADIUS. UNLESS OTHERWISE SHOWN ON THE PLANS, NO BEND SHALL BE INSTALLED IN THE STREET LIGHT SYSTEM WITHOUT PRIOR APPROVAL OF THE UTILITY COMPANY INSPECTOR.
- ALL BOXES ARE TO BE INSTALLED WITHIN THE R/W AND/OR P.U.E. AREA.



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STREET LIGHTING GENERAL NOTES AND DETAILS

SUMMERHILL HOMES CANNÆ PLEASANTON CALIFORNIA

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800-227-2600

PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA
 No. 010569
 Exp. 6-30-15

SHEET
SL1
 OF
SL6
 SHEETS

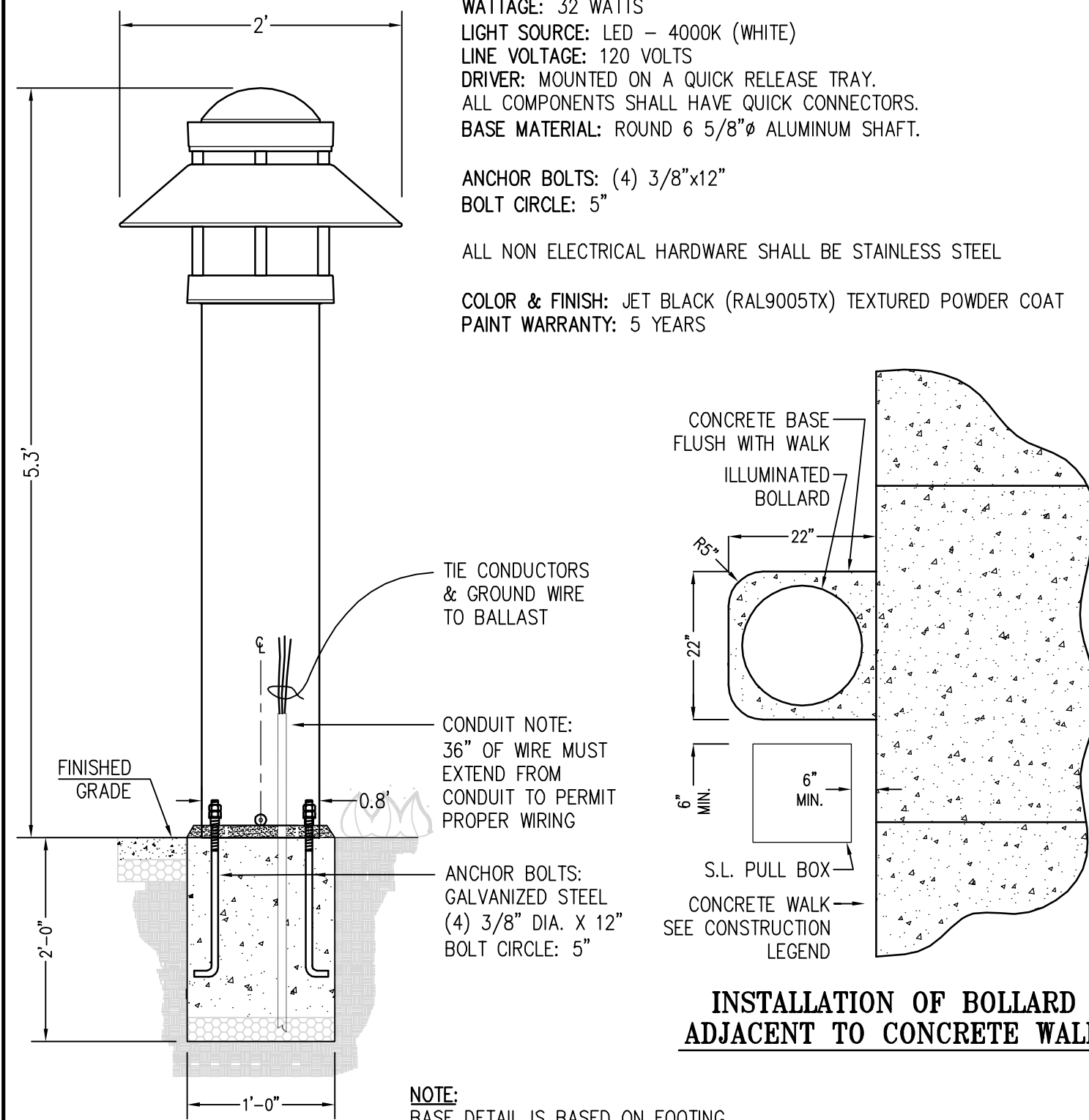
MANUFACTURER REP.:
GREAT BASIN LIGHTING
STEVIE OR FRAN COLE
(925) 240-1566

LUMINAIRE SPECIFICATIONS:
CATALOGUE NO.: CBM1103H-LAP-5SL4-32W-4K-120-BB1-RAL9005TX
LENS MAT'L: POND ACRYLIC
IES CLASSIFIC: TYPE V
WATTAGE: 32 WATTS
LIGHT SOURCE: LED - 4000K (WHITE)
LINE VOLTAGE: 120 VOLTS
DRIVER: MOUNTED ON A QUICK RELEASE TRAY.
ALL COMPONENTS SHALL HAVE QUICK CONNECTORS.
BASE MATERIAL: ROUND 6 5/8" ALUMINUM SHAFT.

ANCHOR BOLTS: (4) 3/8"x12"
BOLT CIRCLE: 5"

ALL NON ELECTRICAL HARDWARE SHALL BE STAINLESS STEEL

COLOR & FINISH: JET BLACK (RAL9005TX) TEXTURED POWDER COAT
PAINT WARRANTY: 5 YEARS



INSTALLATION OF BOLLARD ADJACENT TO CONCRETE WALK

1 PRIVATE LIGHTING BOLLARD DETAIL
SL2 NOT TO SCALE



Exterior - Dark Sky



Catalog# : 2500 Type :
Project :
Prepared By :
Comments :
Date :
Madrid Cutoff
2500 SERIES
Description :
HID Series. Made in U.S.A.

Product Features :

Size
20"W x 13"H x 11 1/4"D

Features

- Housing - Corrosion Resistant Metal
- Diffuser - Tempered Glass
- Finish - Powdercoat Bronze
- Reflector - Specular Aluminum
- UL Listed - Wet Locations

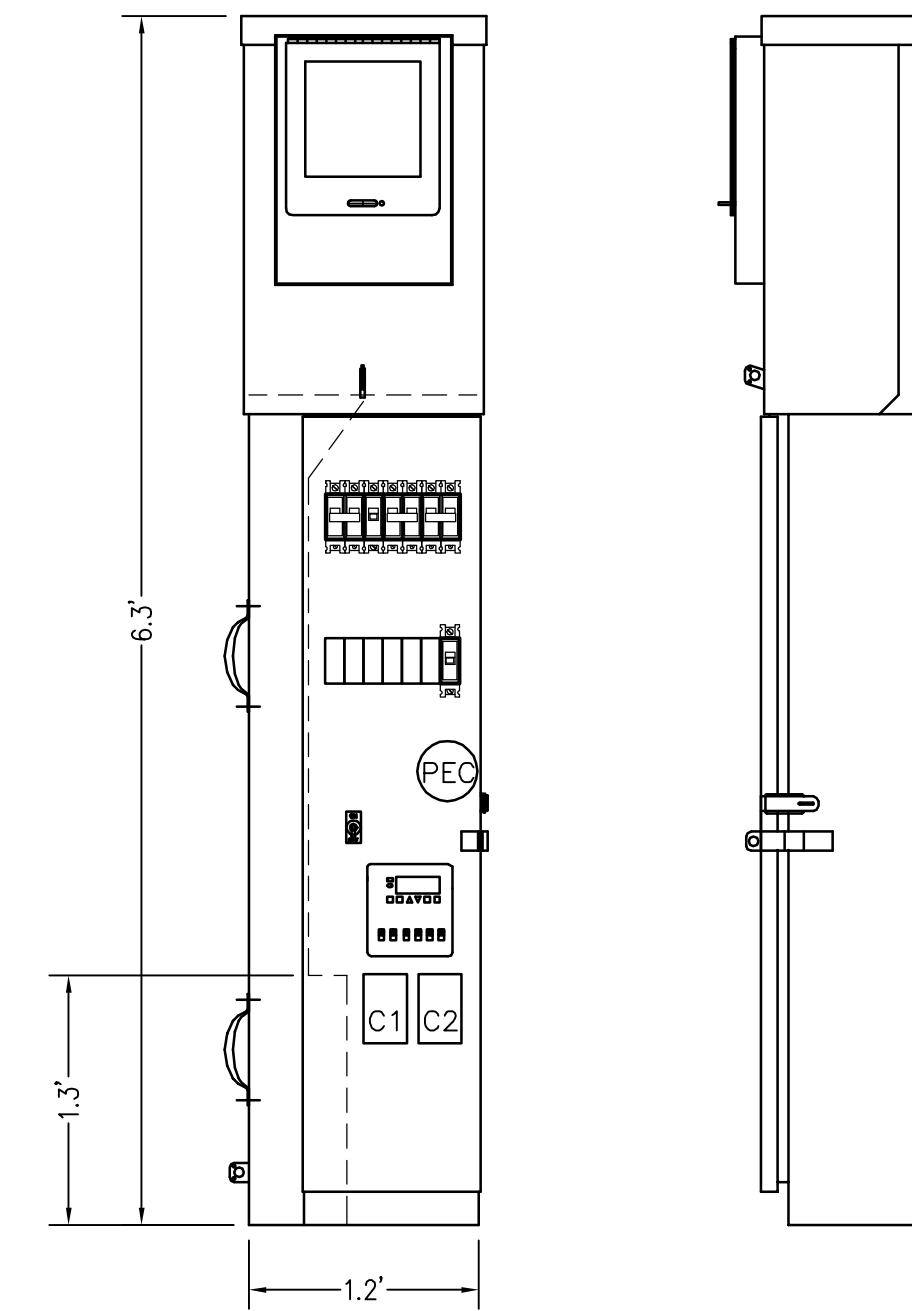
Options

- Custom Sizes Available
- Compact Fluorescent
- Custom Finish
- Fusing
- Photo Cell
- Voltage

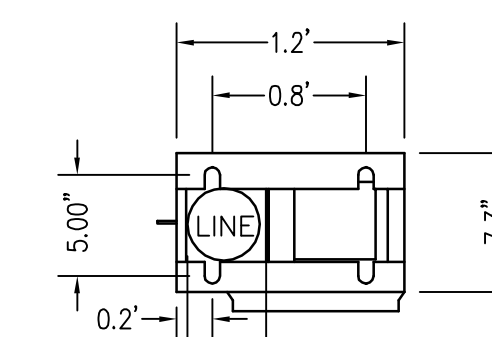
Product Details :

MODEL#	LAMP	LUMEN
2500-95FL	1-85PLH	8000
2500-120FL	1-120PLH	9000
2500-70H	70HPS	6400
2500-100H	100HPS	9500
2500-150H	150HPS	16000
2500-70M	70MH	5500
2500-100M	100MH	9000
2500-150M	150MH	12500
2500-175M	175MH	13500

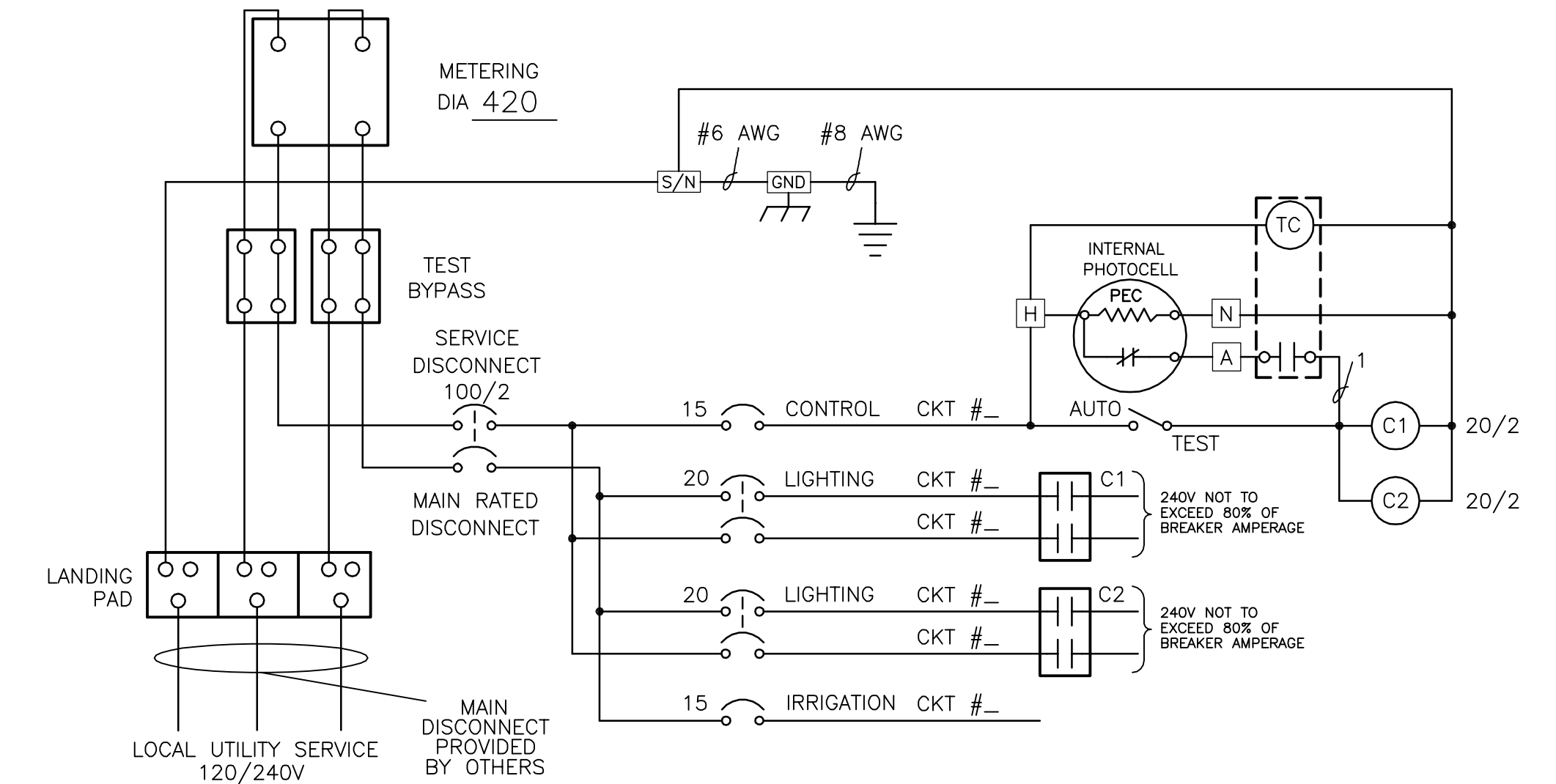
2 WALL SCONCE LIGHT
SL2 NOT TO SCALE



FRONT VIEW RIGHT SIDE



BASE PLAN



NOTE: LOAD CURRENT FOR ALL BREAKERS NOT TO EXCEED 80% OF BREAKER AMPERAGE

ENCLOSURE CONSTRUCTION NOTES

1. EXTERIOR 12 GA. H.D. GALV. STEEL AND INTERIOR 14 GA. COLD ROLLED STEEL ELECTRICALLY WELDED AND REINFORCED WHERE REQUIRED.
2. CONSTRUCTION WILL BE NEMA 3R, RAINTIGHT.
3. ALL NUTS, BOLTS AND SCREWS WILL BE STAINLESS STEEL.
4. NUTS, BOLTS & SCREWS WILL NOT BE VISIBLE FROM OUTSIDE OF ENCLOSURE.
5. NAMEPLATES WILL BE PROVIDED AS REQUIRED.
6. CONTROL WIRING WILL BE MARKED AT BOTH ENDS BY PERMANENT WIRE MARKERS.
7. A PLASTIC COVERED WIRING DIAGRAM WILL BE ATTACHED TO THE INSIDE OF THE FRONT DOOR.
8. ENCLOSURE WILL BE FACTORY WIRED AND CONFORM TO REQUIRED NEMA AND UL 508A STANDARDS.
9. COLOR TO BE: RANCH GREEN

3 METERED SERVICE PEDESTAL
SL2 100A 120/240V 1Ø 3W MAIN BRKR. TYPE III WITH TIME CLOCK AND P.C. OR APPROVED EQUAL.

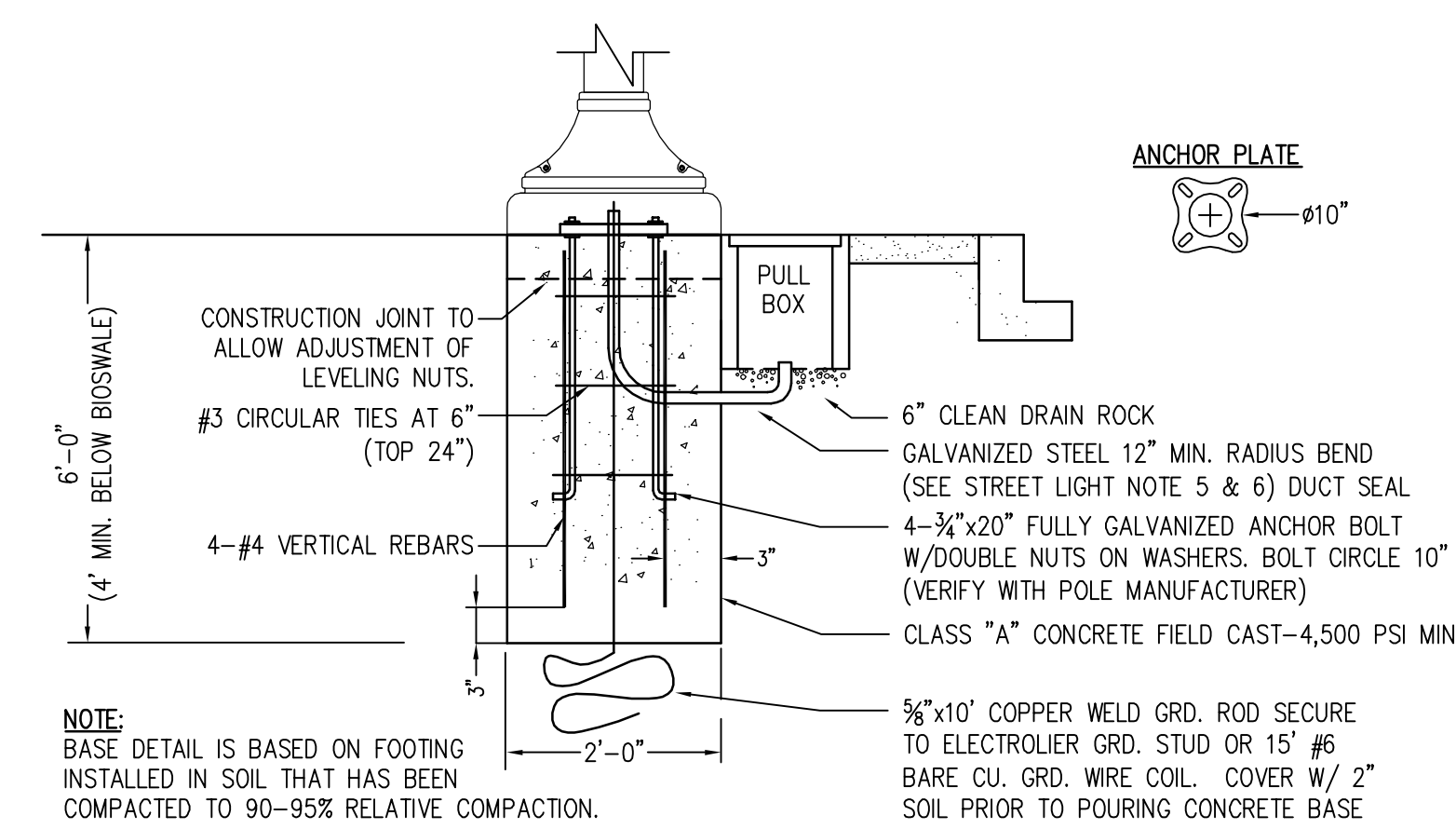
SERVICE EQUIPMENT WIRING DIAGRAM

VOLTAGE	PHASE	WIRES	MINI AMPERES	HZ
120/240	1	3	100	60

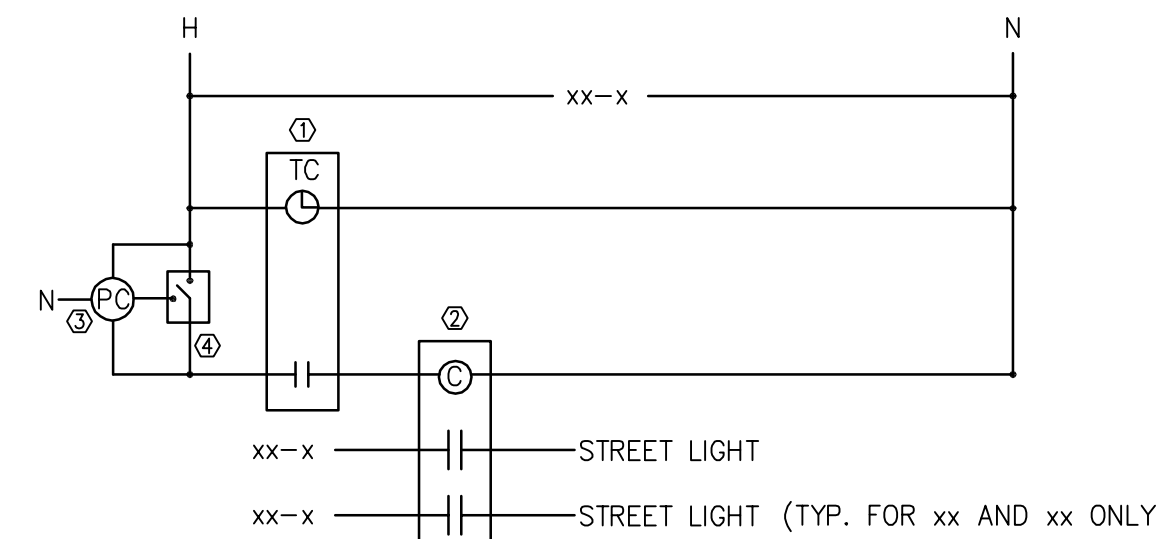
SUITABLE FOR USE ON A CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN 10,000 RMS SYM. 240 V. ENCLOSURE TYPE - 3R

SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT

CONTACT TESCO
916-395-8800
FOR ORDERING DETAIL



4 PRIVATE POST TOP ELECTROLIER FOOTING DETAIL @ BIOSWALE
SL2 NOT TO SCALE



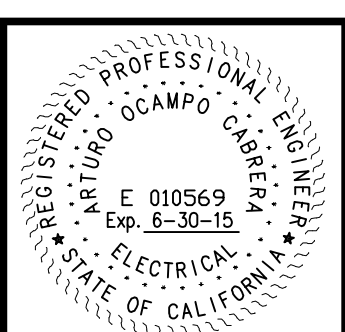
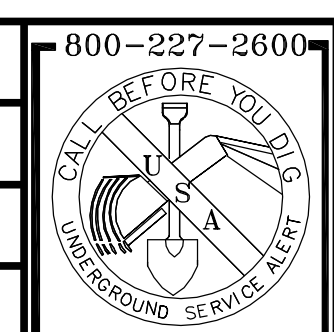
- ① 365 DAYS PROGRAMMABLE TIME CLOCK WITH PROGRAM BACKUP CAPABILITIES FOR AT LEAST 10 HRS.
- ② LIGHTING CONTACTOR 20A MULTIPOLE 120V COIL.
- ③ ADJUSTABLE PHOTO CELL ON ROOF (AIM NORTH)
- ④ BY-PASS TEST SWITCH

LIGHTING CONTROL DIAGRAM
SCHEMATIC

STREET LIGHTING GENERAL NOTES AND DETAILS
SUMMERHILL HOMES
CANNAE
PLEASANTON CALIFORNIA

NO.	REVISIONS	BY	DATE

DATE: DECEMBER 2013 DATE LAST WORKED ON: 1/16/2014
SCALE: NOT TO SCALE DRAWN: AR CHECKED: KT
JOB NO.: 21325 PRELIMINARY NOT FOR CONSTRUCTION
FOR REVIEW ONLY

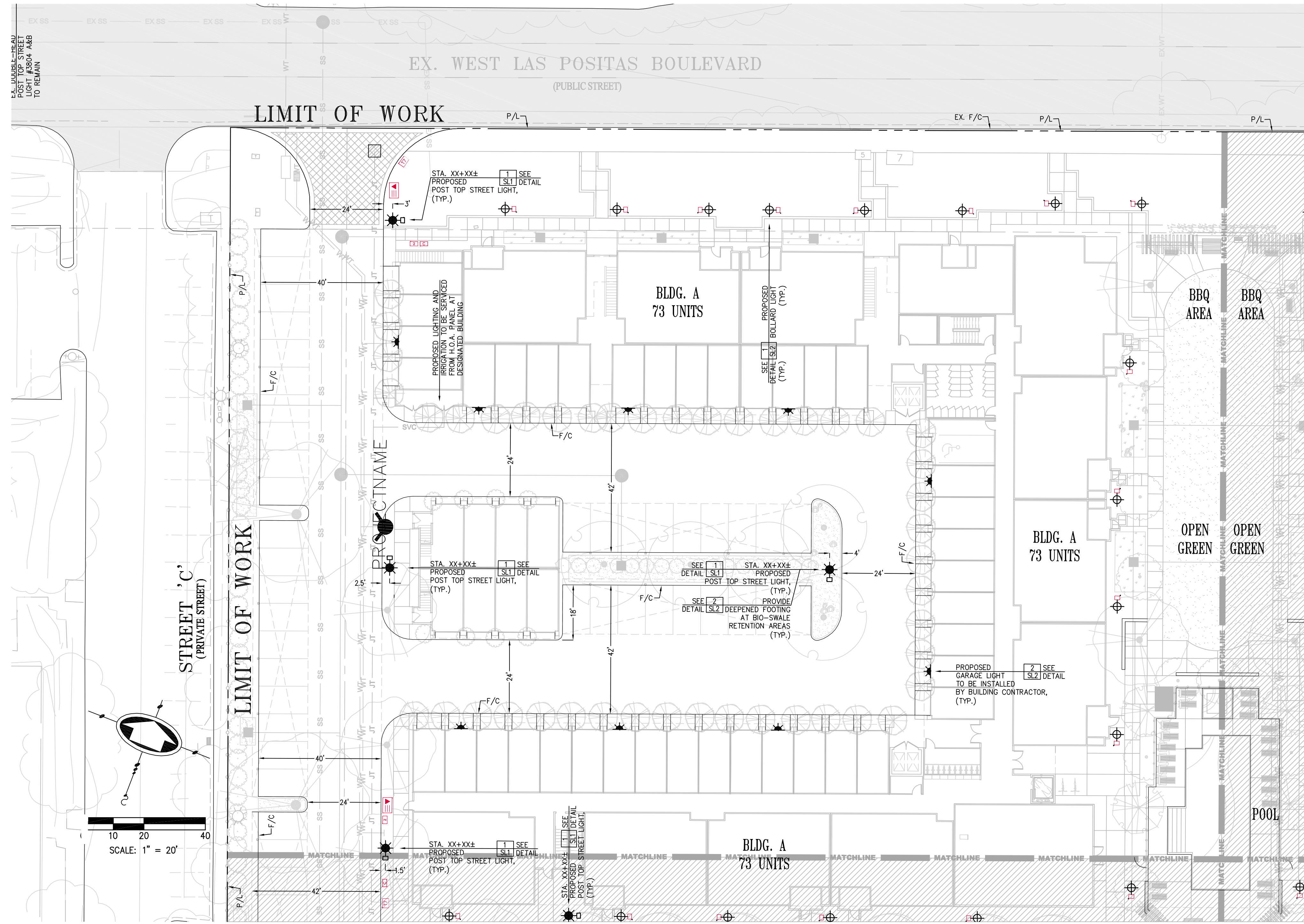


SHEET
SL2
OF
SL6
SHEETS

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(925) 240-2595
(925) 240-7013 fax
tarrar.com



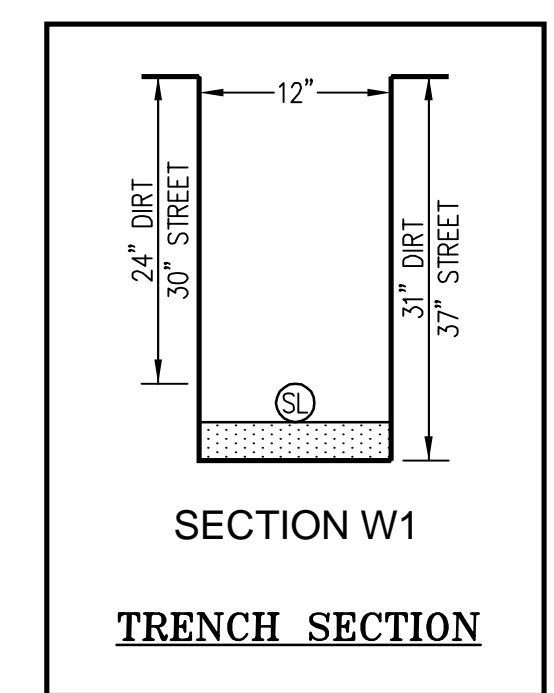
- Planning
- Design
- Estimating
- Joint Trench
- Street Lighting
- Fiber Optic



SCALE: 1" = 20'

MATCH LINE SEE SHEET SL4

MATCH LINE SEE SHEET SL5



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TARRAR

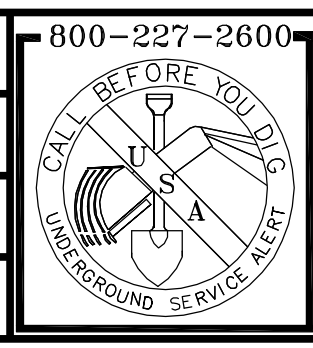
UTILITY CONSULTANTS

- Planning
- Design
- Estimating
- Joint Trench
- Street Lighting
- Fiber Optic
- T-24
- PG&E Gas Design
- PG&E Elec Design
- M.E.P. Design
- Cost Analysis
- Due Diligence

STREET LIGHTING SITE PLAN
SUMMERHILL HOMES
CANNAE
PLEASANTON CALIFORNIA

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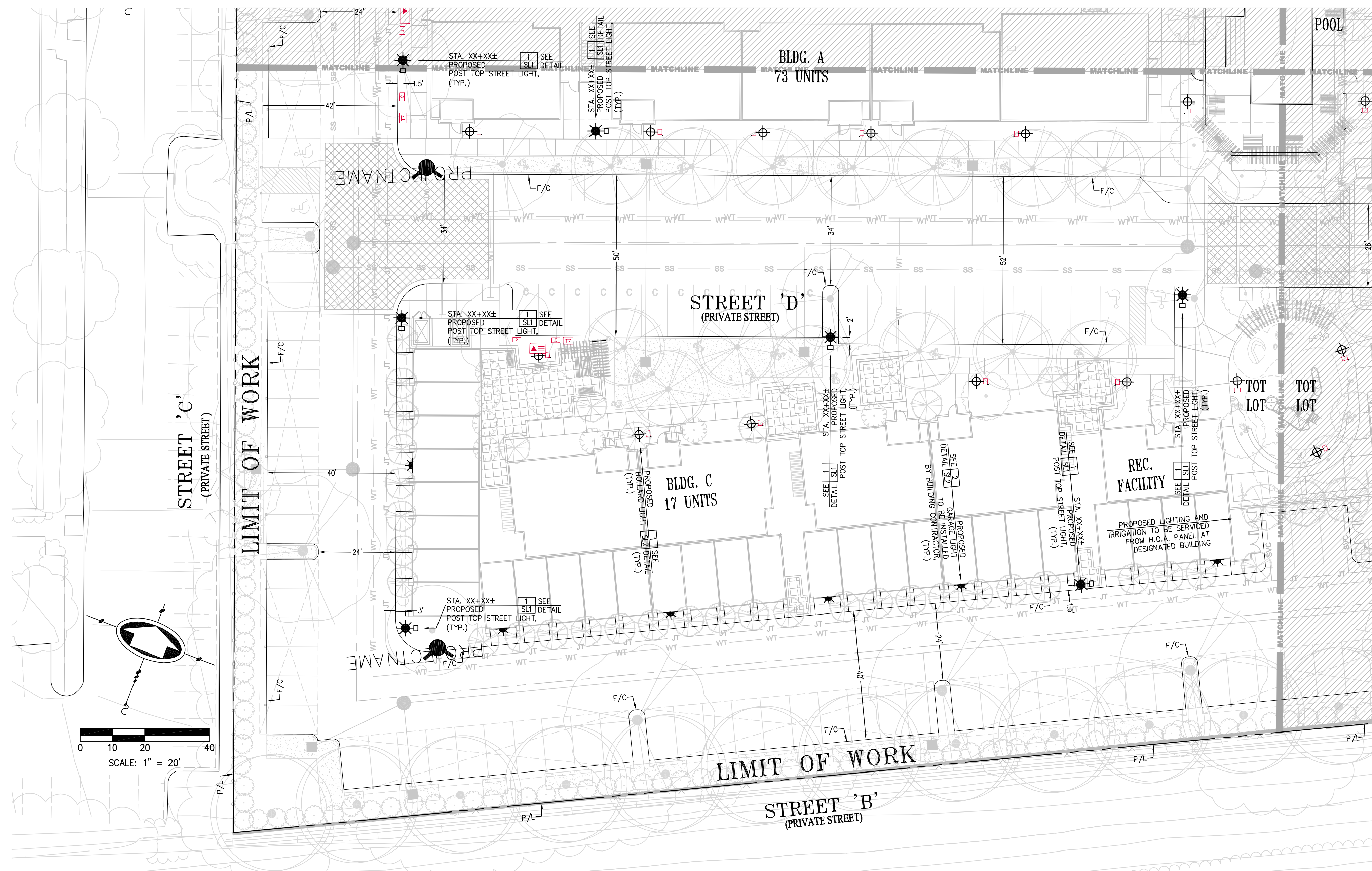


800-227-2600

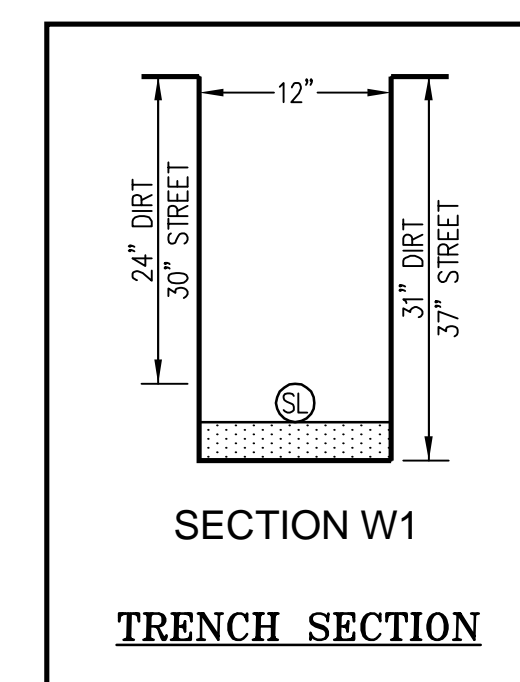
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
ELECTRICAL
E 010569
EXP. 6-30-15

SHEET
SL3
OF
SL6
SHEETS

MATCH LINE SEE SHEET SL3



MATCH LINE SEE SHEET SL6



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STREET LIGHTING SITE PLAN
SUMMERHILL HOMES
CANNAE
PLEASANTON CALIFORNIA

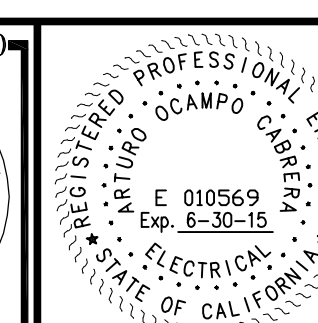
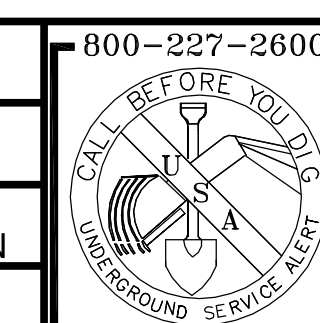
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JOB NO.: 21325

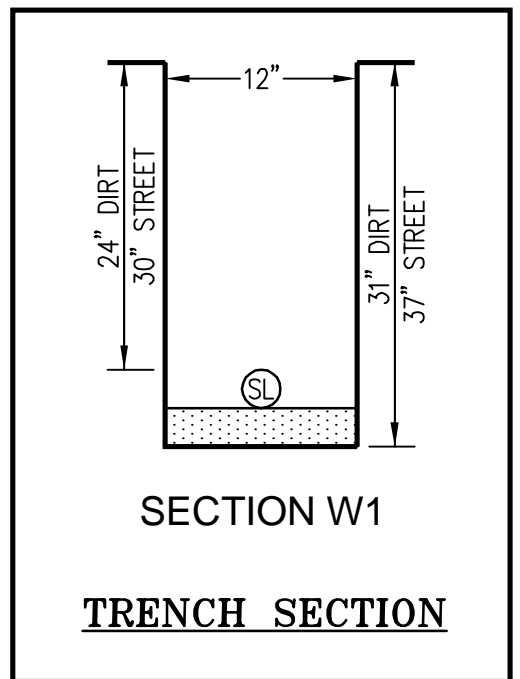
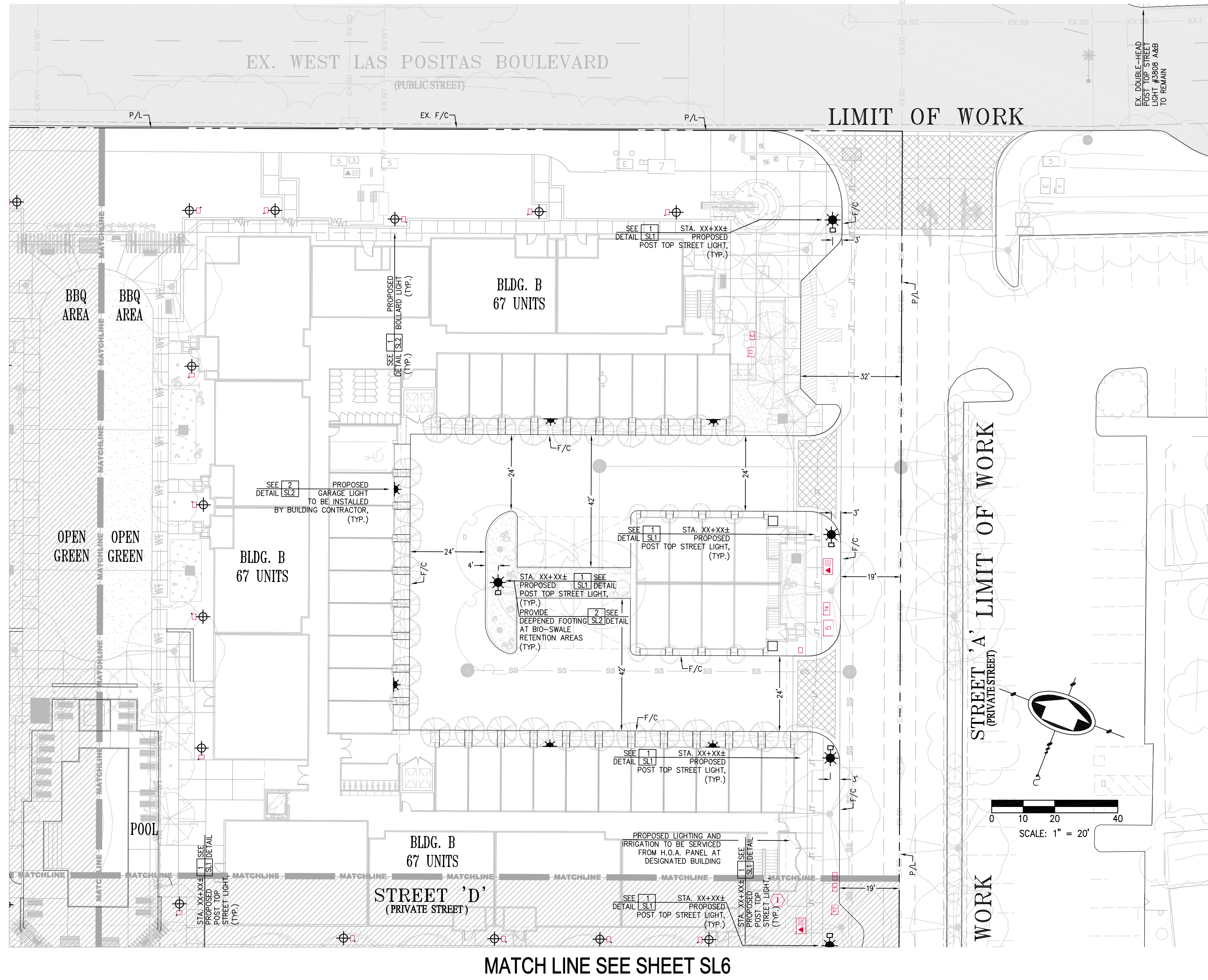
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SHEET
SL4
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SL6
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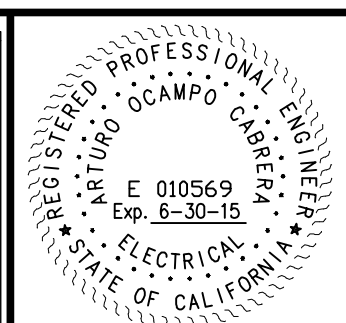
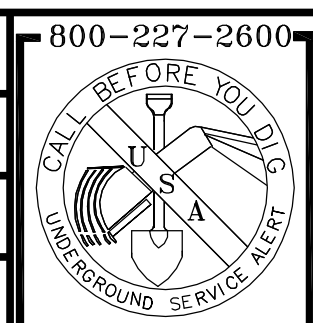


- Planning
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STREET LIGHTING SITE PLAN
SUMMERHILL HOMES
CANNAE
PLEASANTON CALIFORNIA

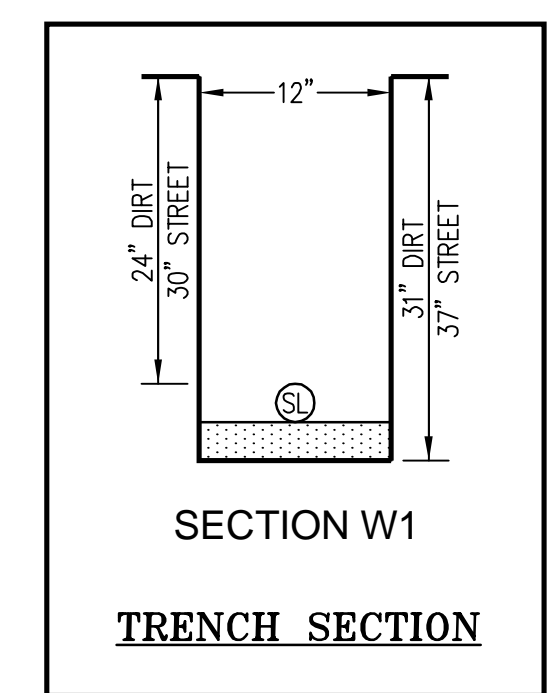
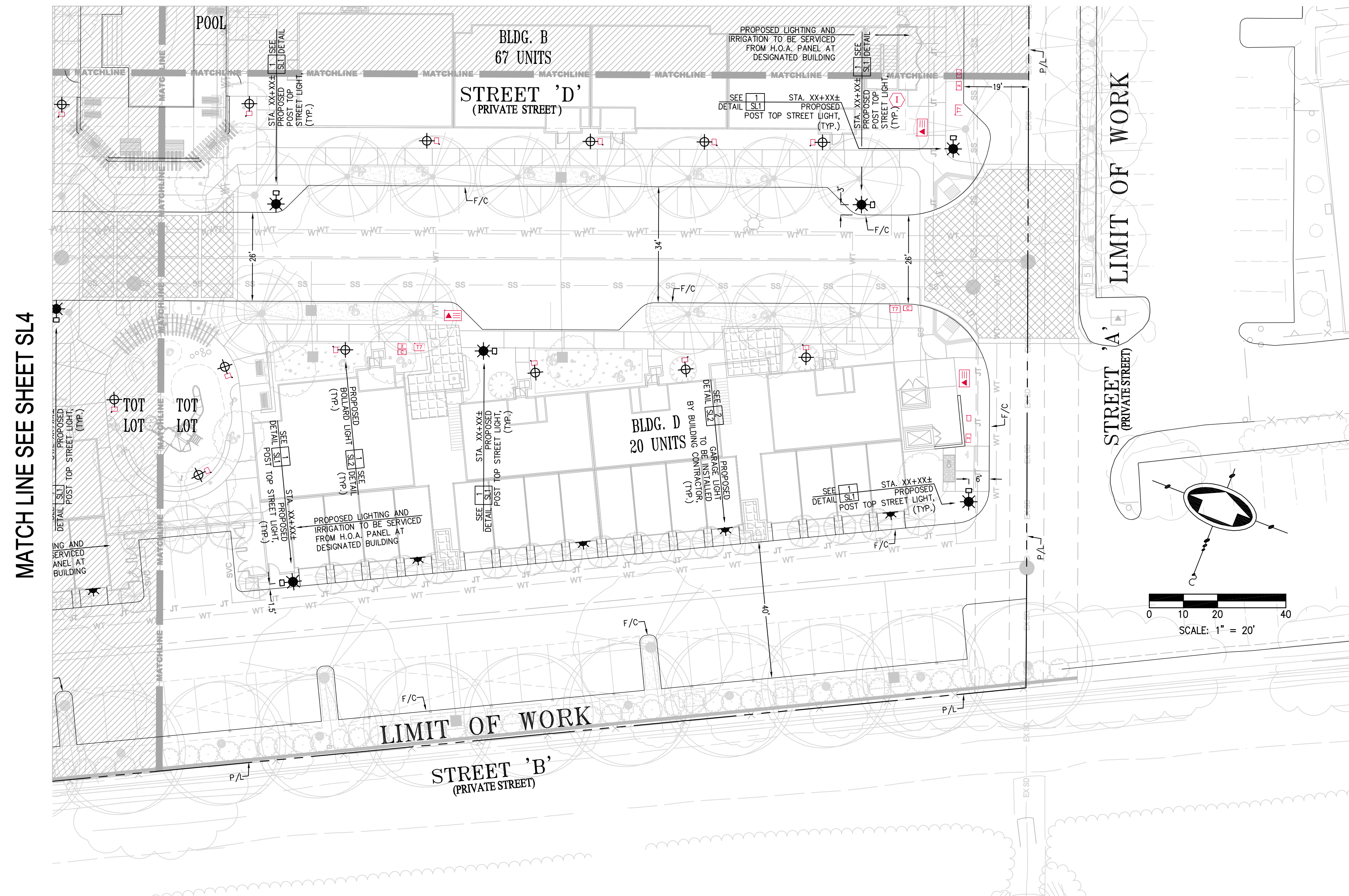
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SHEET
SL5
SL6
OF
SHEETS

MATCH LINE SEE SHEET SL5



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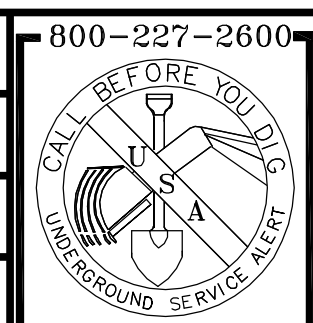


- Planning
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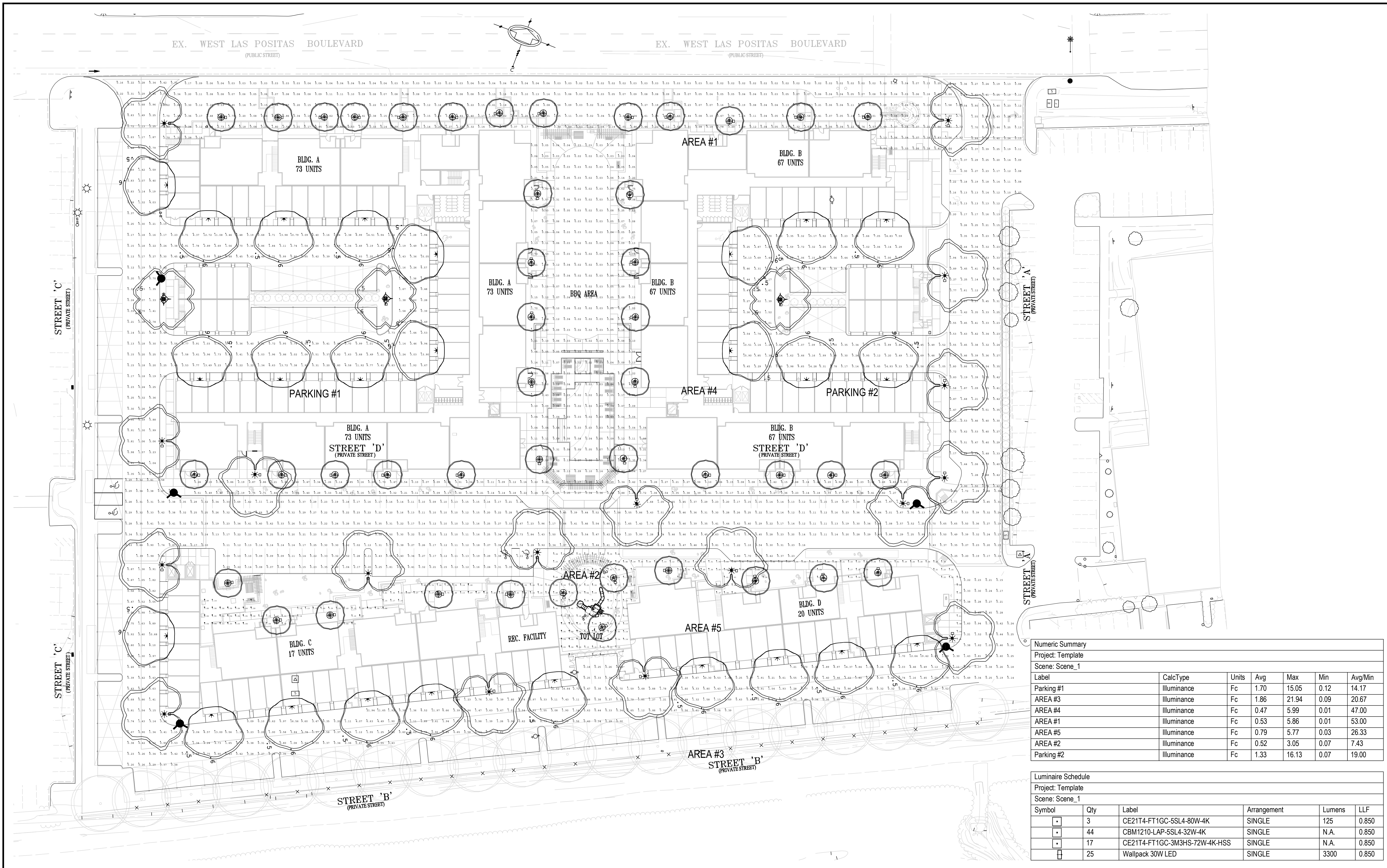
STREET LIGHTING SITE PLAN
SUMMERHILL HOMES
CANNAE
PLEASANTON CALIFORNIA

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SHEET
SL6
OF
SL6
SHEETS



Numeric Summary
 Project: Template
 Scene: Scene_1

Label	CalcType	Units	Avg	Max	Min	Avg/Min
Parking #1	Illuminance	Fc	1.70	15.05	0.12	14.17
AREA #3	Illuminance	Fc	1.86	21.94	0.09	20.67
AREA #4	Illuminance	Fc	0.47	5.99	0.01	47.00
AREA #1	Illuminance	Fc	0.53	5.86	0.01	53.00
AREA #5	Illuminance	Fc	0.79	5.77	0.03	26.33
AREA #2	Illuminance	Fc	0.52	3.05	0.07	7.43
Parking #2	Illuminance	Fc	1.33	16.13	0.07	19.00

Luminaire Schedule
 Project: Template
 Scene: Scene_1

Symbol	Qty	Label	Arrangement	Lumens	LLF
•	3	CE21T4-FT1GC-5SL4-80W-4K	SINGLE	125	0.850
•	44	CBM1210-LAP-5SL4-32W-4K	SINGLE	N.A.	0.850
•	17	CE21T4-FT1GC-3M3HS-72W-4K-HSS	SINGLE	N.A.	0.850
□	25	Wallpack 30W LED	SINGLE	3300	0.850

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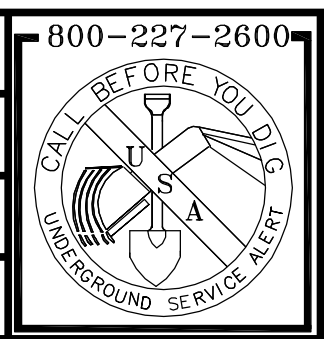


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PHOTOMETRIC EXHIBIT
 SUMMERHILL HOMES
 CANNAE
 PLEASANTON CALIFORNIA

NO.	REVISIONS	BY	DATE

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