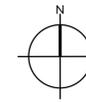


CAMPUS ENTRY SIDEWALK IMPROVEMENT

4000 SUISUN VALLEY ROAD

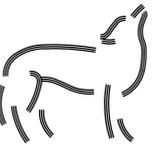
FAIRFIELD, CA

94534



VICINITY MAP:

N.T.S.



Wulff Electric

820 EUBANKS DR.
VACAVILLE, CA
(707) 447-3920

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ELECTRICAL LEGEND AND ABBREVIATIONS:

- ALL SYMBOLS AND ABBREVIATIONS MAY NOT APPEAR ON THE DRAWINGS
- +48" WALL MOUNTED SHALL BE TO TOP OF BOX (ADA)

ABBREVIATIONS:

A	AMPERES	MTD	MOUNTED
AC	ASPHALT CONCRETE/AIR CONDITIONER	N	NEW, NEUTRAL
AFCI	ARC FAULT CIRCUIT INTERRUPTER	N/A	NOT APPLICABLE
AFF	ABOVE FINISHED FLOOR	NEC	NATIONAL ELECTRIC CODE
AFG	ABOVE FINISHED GRADE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
AL	ALUMINUM	NFPA	NATIONAL FIRE PROTECTION AGENCY
ARF	ABOVE RAISED FLOOR	NIC	NOT IN CONTRACT
ATS	AUTOMATIC TRANSFER SWITCH	N.T.S	NOT TO SCALE
AWG	AMERICAN WIRE GAUGE	OC	ON CENTER
BLDG	BUILDING	OH	OVERHEAD
C	CONDUIT	OL	OVERLOAD
CATV	CABLE TELEVISION	OS	OCCUPANCY SENSOR
CB	CIRCUIT BREAKER	P	POLE, PHASE
CO	CONDUIT ONLY	PNL	PANELBOARD
CL	CENTER LINE	PP	POWERPACK
CLG	CEILING	QTY	QUANTITY
CKT	CIRCUIT	R	RELOCATED
CONC.	CONCRETE	REC	RECEPTACLE
CONT.	CONTINUED/CONTINUATION	REF	REFERENCE
CU	COPPER	REFRIG.	REFRIGERATOR
D	DEPTH, DIMMER, DEMOLITION	RM	ROOM
DEPT.	DEPARTMENT	RSC	RIGID STEEL CONDUIT
DIA	DIAMETER	SD	SMOKE DETECTOR
DN	DOWN	SF	SQUARE FEET
DP	DISTRIBUTION PANEL	SWBD	SWITCHBOARD
DW	DISHWASHER	TBD	TO BE DETERMINED
DWG	DRAWING	TEL	TELEPHONE
E	EXISTING	TGB	TELECOMMUNICATIONS GROUNDING BUSS BAR
EA	EACH	TTB	TELEPHONE TERMINAL BOARD
EF	EXHAUST FAN	TC	TERMINAL CABINET
ELEC	ELECTRIC, ELECTRICAL	TV	TELEVISION
EM	EMERGENCY	TYP	TYPICAL
EMT	ELECTRICAL METALLIC TUBING	UG	UNDERGROUND
ENT	ELECTRICAL NON-METALLIC TUBING	UON	UNLESS OTHERWISE NOTED
EQUIP	EQUIPMENT	V	VOLT, VOLTS
ER	EXISTING TO REMAIN	VA	VOLT AMPERE(S)
F	FUTURE	W	WIRE, WIDTH
FA	FIRE ALARM	WP	WEATHERPROOF
FACP	FIRE ALARM CONTROL PANEL	W/	WITH
FC	FAN COIL	W/O	WITHOUT
FIXT	FIXTURE	XFMR	TRANSFORMER
FLOUR	FLOUORESCENT		
FT	FOOT, FEET		
G.GND	GROUND		
GD	GARBAGE DISPOSAL		
GFCI	GROUND FAULT CIRCUIT INTERRUPTER		
HP	HORSEPOWER		
HT	HEIGHT		
ID	IDENTIFICATION		
INV	INVERTER		
INCAN	INCANDESCENT		
KV	KILOVOLT		
KVA	KILOVOLT AMPERE		
KW	KILOWATT		
LCP	LIGHTING CONTROL PANEL		
LED	LIGHTING EMITTING DIODE		
LTG	LIGHTING		
LV	LOW VOLTAGE		
M	MOTOR		
MAX	MAXIMUM		
MIN	MINIMUM		
MISC	MISCELLANEOUS		
MLO	MAIN LUGS ONLY		
MOC	MAXIMUM OVERCURRENT PROTECTION		
MPOE	MAIN POINT OF ENTRY		
MTS	MANUAL TRANSFER SWITCH		

ELECTRICAL LEGEND:

	CIRCUIT BREAKER
	CONDUIT DOWN
	CONDUIT STUBBED AND CAPPED
	CONDUIT UP
	DATA AND TELEPHONE OUTLET COMBINATION
	DAYLIGHT SENSOR FOR AUTOMATIC DIMMING
	DISCONNECT SWITCH - BLANK INDICATES UNFUSED, "F" INDICATES FUSED
	DOUBLE DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE - HALF CONTROLLED
	DUPLEX RECEPTACLE - GFI
	DUPLEX RECEPTACLE - FULLY CONTROLLED
	DUPLEX RECEPTACLE - WEATHERPROOF
	EMERGENCY LIGHTING FIXTURE
	EXIT SIGN CEILING MOUNTED, ARROW INDICATES DIRECTION, IF SHOWN
	EXHAUST FAN
	FAN COIL
	FLUSH FLOOR RECEPTACLE AND DATA COMBINATION
	GROUND CONNECTION
	HOMERUN TO PANELBOARD OR CABINET AS NOTED
	JUNCTION BOX
	LIGHTN INVERTER
	METER
	MOTOR
	OCCUPANCY SENSOR - CEILING MOUNTED
	PANELBOARD
	PHOTOCELL
	POLE MOUNTED FIXTURE
	SWITCH - DIMMER
	SWITCH - OCCUPANCY SENSOR/AB
	SWITCH - OCCUPANCY SENSOR
	SWITCH - OCCUPANCY SENSOR W/ DIMMER
	SWITCHBOARD, DISTRIBUTION PANEL OR MOTOR CONTROL CENTER
	TELEPHONE BACKBOARD
	UTILITY POLE
	TRANSFORMER

SHEET INDEX:

- E0.0 - COVER SHEET
- E1.0 - ELECTRICAL GENERAL NOTES
- E2.0 - SITE PLAN
- E2.1 - SITE PLAN PHOTOMETRICS
- E3.0 - DETAILS

CALLOUTS:

- MECHANICAL EQUIPMENT
- EQUIPMENT NUMBER
- DETAIL NUMBER
- SHEET NUMBER
- SHEET NOTE NUMBER
- REVISION NUMBER

SOLANO COMMUNITY COLLEGE
CAMPUS ENTRY IMPROVEMENT PROJECT
4000 SUISUN VALLEY ROAD
FAIRFIELD, CA
94534

COVER SHEET

NUMBER:	REVISION:	DATE:
	XXX	XXX
	XXX	XXX

ISSUED FOR:	BID
DATE:	06.16.17
SCALE:	N.A.
DRAWN:	FC

SHEET:
E0.0

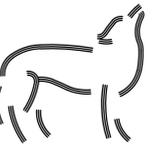
ISSUED FOR BID

ELECTRICAL GENERAL NOTES

- ADOPTED CODES AND STANDARDS FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO, THE 2016 CALIFORNIA ELECTRICAL CODE [CEC], 2016 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS TITLE 24 [CBEES] SAN JOAQUIN COUNTY ORDINANCE AND AMENDMENTS.
- ALL ELECTRICAL PREFABRICATED EQUIPMENT SHALL BE DESIGNED AND CONSTRUCTED IN SUCH A MANNER THAT ALL PORTIONS, ELEMENTS, SUB-ASSEMBLIES, AND/OR PARTS OF SAID EQUIPMENT, AND THE EQUIPMENT AS A WHOLE INCLUDING ATTACHMENTS, WILL RESIST A LOAD WHICH EXCEEDS THE FORCE LEVEL USED TO RESTRAINT AND ANCHOR THE EQUIPMENT TO THE SUPPORTING STRUCTURE.
- ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL OR LISTED OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATE SUBMITTED BY THE MANUFACTURERS ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT, AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:
 - AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
 - INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
 - AMERICAN STANDARD ASSOCIATION (ASA)
 - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
 - AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
 - 2016 CALIFORNIA ELECTRICAL CODE (CEC)
 - INSTITUTE OF ELECTRICAL & ELECTRONIC ENGINEERS (IEEE)
 - ALL LOCAL CODES HAVING JURISDICTION

WHERE THE CODES HAVE DIFFERENT LEVELS OF REQUIREMENTS, THE MOST STRINGENT RULE SHALL APPLY.
- THE CONTRACTOR SHALL VISIT THE SITE INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. HE SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND BY SUBMITTING A BID, ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN A COMPLETE SET OF CONTRACT DOCUMENTS, ADDENDA, DRAWINGS, AND SPECIFICATIONS. HE SHALL CHECK THE DRAWINGS OF THE OTHER TRADES AND SHALL CAREFULLY READ THE ENTIRE SPECIFICATIONS AND DETERMINE HIS RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM DOING THE WORK IN COMPLETE ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AT THE SITE. ANY COSTS TO INSTALL WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE DRAWINGS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES, OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER DURING BID TIME FOR CLARIFICATION. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL PROVIDE AND KEEP UP-TO-DATE A COMPLETE RECORD SET OF DRAWINGS. THESE PRINTS SHALL BE CORRECTED ACCORDINGLY AND SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS. THIS SET OF DRAWINGS SHALL BE KEPT ON THE JOB SITE AND SHALL BE USED ONLY AS A RECORD SET. THIS SHALL NOT BE CONSTRUED AS AUTHORIZATION FOR THE CONTRACTOR TO MAKE CHANGES IN THE LAYOUT WITHOUT DEFINITE INSTRUCTION IN EACH CASE. UPON COMPLETION OF THE WORK, A SET OF REPRODUCIBLE CONTRACT DRAWINGS SHALL BE OBTAINED FROM THE ENGINEER, AND ALL CHANGES AS NOTED ON THE RECORD SET OF DRAWINGS SHALL BE INCORPORATED ON REPRODUCIBLE BOND WITH BLACK INK IN NEAT, LEGIBLE, UNDERSTANDABLE, AND PROFESSIONAL MANNER PER CLIENT'S REQUEST.
- IN SOME INSTANCES, IT MAY BE NECESSARY TO DEFER WORK IN CERTAIN AREAS AND LOCATIONS UNTIL SUCH TIME AS EXISTING FACILITIES CAN BE TEMPORARILY OR PERMANENTLY REARRANGED BY THE OWNER. THEREFORE, WHENEVER IT BECOMES NECESSARY FOR THE CONTRACTOR TO PERFORM WORK UNDER THIS CONTRACT IN EXISTING AREAS IN WHICH THE OWNER'S WORK IS BEING PERFORMED, THE CONTRACTOR SHALL ADVISE THE OWNER RELATIVE TO THIS REQUIREMENT AND SHALL FOLLOW CLOSELY THE DIRECTIVE ISSUED BY THE ENGINEER INsofar AS TIME AND PROCEDURES ARE CONCERNED.
- ALL INTERRUPTION OF ELECTRICAL POWER SHALL BE KEPT TO A MINIMUM. HOWEVER, WHEN AN INTERRUPTION IS NECESSARY, THE SHUTDOWN MUST BE COORDINATED WITH THE OWNER 7 DAYS PRIOR TO THE OUTAGE. ANY OVERTIME PAY AND WORK REQUIRED TO BE ACCOMPLISHED ON WEEKENDS SHALL BE INCLUDED IN THE CONTRACTORS BID. WORK IN EXISTING SWITCHBOARDS OR PANELBOARDS SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVING ACCESS PANELS OR DOORS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW AND TO COORDINATE WITH THE MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR DUCT LINES AND EQUIPMENT.
- ALL EQUIPMENT MOUNTED ON ROOF FOR CONNECTION OF HVAC EQUIPMENT SHALL BE MOUNTED ON UNISTRUT STANDS UTILIZING APPROVED PITCH POCKETS, FLASHING, ETC.
- AFTER ALL REQUIREMENTS OF THE SPECIFICATIONS AND/OR THE DRAWINGS HAVE BEEN FULLY COMPLETED, REPRESENTATIVES OF THE OWNER WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPETENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM TO THE FULL SATISFACTION OF EACH REPRESENTATIVE. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE OWNER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCEPTANCE FROM EACH REPRESENTATIVE.
- THE CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF SUBSTANTIAL COMPLETION.
- COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION AND CONFIGURATION OF THEIR RESPECTIVE EQUIPMENT, SUPPLY POWER AND MAKE CONNECTION TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS, AND DRAWINGS OF OTHER TRADES. REVIEW THE DRAWINGS OF OTHER TRADES FOR CONTROL DIAGRAMS, SIZE AND LOCATIONS OF EQUIPMENT. DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS, AND CONDUIT FOR MECHANICAL AND PLUMBING OPERATIONS SHALL BE PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.
- EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE OR MASONRY WALLS, GRADEBEAMS, FLOORS, OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAWCUTTING, PATCHING, AND REFINISHING OF WALLS AND SURFACES WHEREVER IT IS NECESSARY, TO PENETRATE OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF OPENINGS IN CONCRETE WALLS OR FLOORS SHALL BE FOR UL APPROVED SYSTEMS.
- CONNECTIONS TO VIBRATING EQUIPMENT, MECHANICAL, AND PLUMBING EQUIPMENT AND SEISMIC SEPARATIONS:
 - LIQUID-TIGHT CONDUIT IN ALL LOCATIONS
 - MAXIMUM LENGTH OF FLEXIBLE CONDUIT RUNS SHALL BE 6'-0" U.O.N.

- EQUIPMENT OUTLETS, LIGHTING FIXTURES, CONDUIT, WIRE, AND CONNECTION METHODS IN HVAC AIR-PLenums SHALL BE APPROVED FOR USE IN PLENUMS AND SHALL CONFORM TO THE NEC.
- CONDUIT SHALL NOT BE INSTALLED IN ANY FLOOR SLAB. CONDUIT SHALL BE INSTALLED CONCEALED IN THE CEILING SPACE, CONCEALED IN WALLS, OR BELOW SLAB ON GRADE. UNLESS OTHERWISE NOTED.
- WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEM, ETC., (ALL MATERIALS), ARISES ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ENGINEER.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY TYPE OF CEILING SYSTEMS AND TO FURNISH APPROVED LIGHTING FIXTURES OF THE TYPE REQUIRED FOR MOUNTING IN SUBJECT CEILING. WHERE FIXTURES ARE RECESSED IN PLASTER OR DRYWALL CEILINGS, THEY SHALL BE COMPLETE WITH NECESSARY MOUNTING HARDWARE AND PLASTER FRAMES.
- ALL RECESSED LIGHTING FIXTURES, SPEAKERS, RECEPTACLES, SWITCHES, ETC., MOUNTED IN THE FIRE RATED CEILINGS OR WALLS SHALL BE ENCLOSED WITH AN APPROVED ENCLOSURE CARRYING THE SAME FIRE RATING AS THE CEILING OR WALL BY THIS CONTRACTOR.
- UTILITY PENETRATIONS OF ANY KIND IN FIRE AND SMOKE PARTITIONS AND CEILING ASSEMBLIES, SHALL BE FIRESTOPPED AND SEALED WITH AN APPROVED MATERIAL SECURELY INSTALLED.
 - UTILITY AND ELECTRICAL OUTLETS OR BOXES SHALL BE SECURELY FASTENED TO THE STUD OF FRAMING OF THE WALL, PARTITION, OR CEILING ASSEMBLY. THE OPENING IN THE GYPSUM BOARD DOES NOT EXCEED 1/8 INCH. IN SMOKE WALLS OR PARTITIONS, THE 1/8 INCH CLEARANCE SHALL BE FILLED WITH AN APPROVED FIRE RATED SEALANT.
- ARCHITECTURAL REFLECTED CEILING PLANS INDICATING THE LOCATION OF LIGHTING FIXTURES SHALL TAKE PRECEDENCE OVER THE LOCATIONS OF SAME SHOWN ON THE ELECTRICAL DRAWINGS. INSTALL THE LIGHTING FIXTURES IN ANY GIVEN AREA TO AGREE WITH THE REFLECTED CEILING PLANS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- THE EXACT LOCATIONS AND MOUNTING HEIGHTS OF LIGHTING FIXTURES LOCATED IN MECHANICAL EQUIPMENT SPACES AND STORAGE SHALL BE COORDINATED IN THE FIELD BEFORE INSTALLATION TO AVOID INTERFERENCES WITH DUCTS, PIPING, AND OTHER MECHANICAL EQUIPMENT AND ALL MOUNTING HARDWARE SHALL BE INCLUDED IN BASE BID. WHEN LOCATIONS AND MOUNTING HEIGHTS ARE DETERMINED, OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO INSTALLATION.
- MAXIMUM NUMBER OF CONDUCTORS IN OUTLET OR JUNCTION BOXES SHALL CONFORM TO 2016 CALIFORNIA ELECTRICAL CODE (CEC)
- THE EXACT LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS, DETAILS, OR SECTIONS PRIOR TO INSTALLATION. ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE RECESSED IN WALLS, UNLESS OTHERWISE NOTED. OUTLETS NOT INDICATED ON ARCHITECTURAL ELEVATIONS SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO ROUGH-IN, UNLESS OTHERWISE NOTED.
- DRAWINGS ARE DIAGRAMMATIC ONLY AND DO NOT SHOW SPECIAL CONDUIT ROUTING OR LENGTHS REQUIRED FOR A COMPLETE INSTALLATION. ROUTING OF RACEWAYS SHALL BE THE OPTION OF THE CONTRACTOR BUT SHALL BE IN STRICT COMPLIANCE WITH STRUCTURAL REQUIREMENTS AND SPECIFICATIONS, UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER TRADES. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, OR MECHANICAL ITEMS OR FEATURES. REFER TO ARCHITECTURAL AND STRUCTURAL DIMENSIONAL DRAWINGS.
- THE EQUIPMENT GROUNDING CONDUCTOR RUNS SHALL BE INSTALLED AND RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WIRE SHALL BE PITTAILED IN EACH OUTLET FOR CONNECTION TO BOX AND DEVICE SO THAT IF DEVICE IS REMOVED, GROUND WILL NOT BE INTERRUPTED. ALL EQUIPMENT, GROUNDING CONDUCTORS SHALL BE INSULATED GREEN OR BARE CONDUCTORS. ALTERNATE METHODS OF IDENTIFICATION SHALL NOT BE USED.
- DRAWINGS ARE DIAGRAMMATIC ONLY AND DO NOT SHOW SPECIAL CONDUIT ROUTING OR LENGTHS REQUIRED FOR A COMPLETE INSTALLATION. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR BUT SHALL BE IN STRICT COMPLIANCE WITH STRUCTURAL REQUIREMENTS AND SPECIFICATIONS, UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER TRADES. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL ARCHITECTURAL, STRUCTURAL, CIVIL, OR MECHANICAL ITEMS OR FEATURES. REFER TO ARCHITECTURAL AND STRUCTURAL DIMENSIONAL DRAWINGS.
- FOR SMALL AC MOTORS NOT HAVING BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE MANUAL MOTOR STARTERS WITH OVERLOAD HEATER ELEMENTS SIZED TO THE NAMEPLATE CURRENT RATING OF THE MOTOR. SMALL AC MOTORS WITH BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE A HORSE POWER RATED TOGGLE TYPE DISCONNECT SWITCH.
- BOXES SHALL BE SIZED FOR THE NUMBER AND SIZES OF CONDUCTORS AND CONDUIT ENTERING THE BOX AND EQUIPPED WITH PLASTER EXTENSION RINGS WHERE REQUIRED.
- LIGHTS MUST BE PROVIDED WITH SHATTERPROOF PROTECTION OR CONTAINMENT WHEN LOCATED OVER AREAS USED FOR FOOD PREPARATION (INCLUDING BEVERAGES), UTENSIL WASHING, OPENED FOOD STORAGE, AND WHERE THE LIGHT FIXTURES ARE EXPOSED TO EMPLOYEE CONTACT (e.g., INSIDE REFRIGERATION UNITS).
- LIGHT OF AT LEAST 50 FOOT-CANDLE (fc) INTENSITY MUST BE PROVIDED DURING HOURS OF OPERATION IN KITCHEN AND OTHER FOOD HANDLING AREAS. OTHER AREAS (INCLUDING WALK-IN REFRIGERATOR AND FREEZER UNITS) MAY OPERATE WITH A LIGHT INTENSITY OF AT LEAST 10 fc, EXCEPT DURING CLEANING ACTIVITIES WHEN AT LEAST 50 fc INTENSITY MUST BE PROVIDED.
- PROVIDE SOUND INSULATION AT ALL CONDUIT PENETRATIONS AT SOUND BARRIER RATED WALLS. TYPICAL UNLESS OTHERWISE NOTED.
- WHERE OUTLETS OCCUR AT TACKABLE WALL PANELS OR OTHER WALL FINISHES, PROVIDE EXTENSION RINGS AS REQUIRED SO THAT NO SPACE WILL EXIST BETWEEN DEVICE PLATE AND BACKBOX. SEE ARCHITECTURAL ELEVATIONS FOR WALL FINISHES AND LOCATIONS.
- GROUNDING SYSTEM:
 - THE GROUNDING SYSTEM SHALL BE DERIVED PER 2016 CEC:
 - A) 10' OF METAL UNDERGROUND WATER PIPE
 - B) METAL FRAME OF BUILDING OR STRUCTURE WHERE EFFECTIVELY GROUNDED
 - C) AN ELECTRODE ENCASED BY AT LEAST 2" OF CONCRETE LOCATED WITHIN OR NEAR THE BOTTOM OF A CONCRETE FOUNDATION THAT IS IN DIRECT CONTACT WITH THE EARTH 20' ZINC GALVANIZED OR OTHER ELECTRICALLY CONDUCTIVE STEEL REINFORCING BAR OR ROD NOT LESS THAN 1/2" IN DIAMETER OR BARE COPPER CONDUCTOR NOT SMALLER THAN #4AWG.



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SOLANO COMMUNITY COLLEGE
CAMPUS ENTRY IMPROVEMENT PROJECT
4000 SUISUN VALLEY ROAD
FAIRFIELD, CA 94534

ELECTRICAL GENERAL NOTES

NUMBER:	REVISION:	DATE:
	xxx	xxx
	xxx	xxx

ISSUED FOR:	BID
DATE:	06.16.17
SCALE:	N.A.
DRAWN:	FC

SHEET:
E1.0

ISSUED FOR BID

FIXTURE SCHEDULE				
TAG	MFG	PRODUCT NO.	VOLT AMPS	DESCRIPTION
F1	ASSOCIATED LIGHTING REPS INC.	8258MH-(1)100W ED-17-120v-SILVER	52	POLE MOUNTED DOWNLIGHT

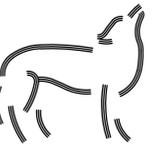
LOAD CALCULATIONS	
SITE LIGHTING	= 0.42kva
FLASH X WALK SIGN	= 0.03kva
TOTAL SITE LOAD	= 0.45kva
LOAD AT 277/480v 3φ 4w	= 0.54A
** NEW FIXTURES AND FLASH SIGN CONNECTED TO EXISTING FIXTURE 20A CIRCUIT. NEW LOADS WILL NOT EXCEED 80% OF 20A CIRCUIT BREAKER	

FEEDER SCHEDULE				
FED FROM	FED TO	QTY	CONDUIT	WIREFILL
EXISTING POLE FIXTURE	L-1	1	1" c	w/4 #8al + #8al gnd

VOLTAGE DROP CALCULATIONS	
CIRCUIT	VOLTAGE DROP
L-1	1 CONDUCTORS PER PHASE UTILIZING A #8 ALUMINUM CONDUCTOR WILL LIMIT THE VOLTAGE DROP TO 0.04% OR LESS WHEN SUPPLYING 0.24 AMPS FOR 366 FEET ON A 480 VOLT SYSTEM.

SHEET NOTES:

1. NEW FLASHING CROSSWALK SIGN TS 40, WII-2 SIGN OR APPROVED EQUIVALENT.
2. EXISTING PG&E VAULT. USA BEFORE TRENCHING/DIGGING
3. EXISTING STREET LIGHT. COBRA HEADS, SEE CITY DETAIL 75, 72
4. NEW CITY STANDARD STREET LIGHT. CONNECT TO NEAREST EXISTING CIRCUIT. CITY LIGHT TO BE PER CITY DETAIL 75A(ALUMINUM STREET LIGHT). FOUNDATION TO COMPLY WITH CITY DETAIL 72 AND NEEDS 4,000 PSI CONCRETE.
5. ALL NEW POLE LOCATIONS BASE WILL BE INSTALLED 24" FROM EDGE OF WALKWAY UNLESS DIRECTED DIFFERENTLY BY THE SCCD. (TYP)
6. 10 ONSITE LIGHTS WILL BE SURPLUS POLES AND FIXTURES TO BE PROVIDED BY DISTRICT



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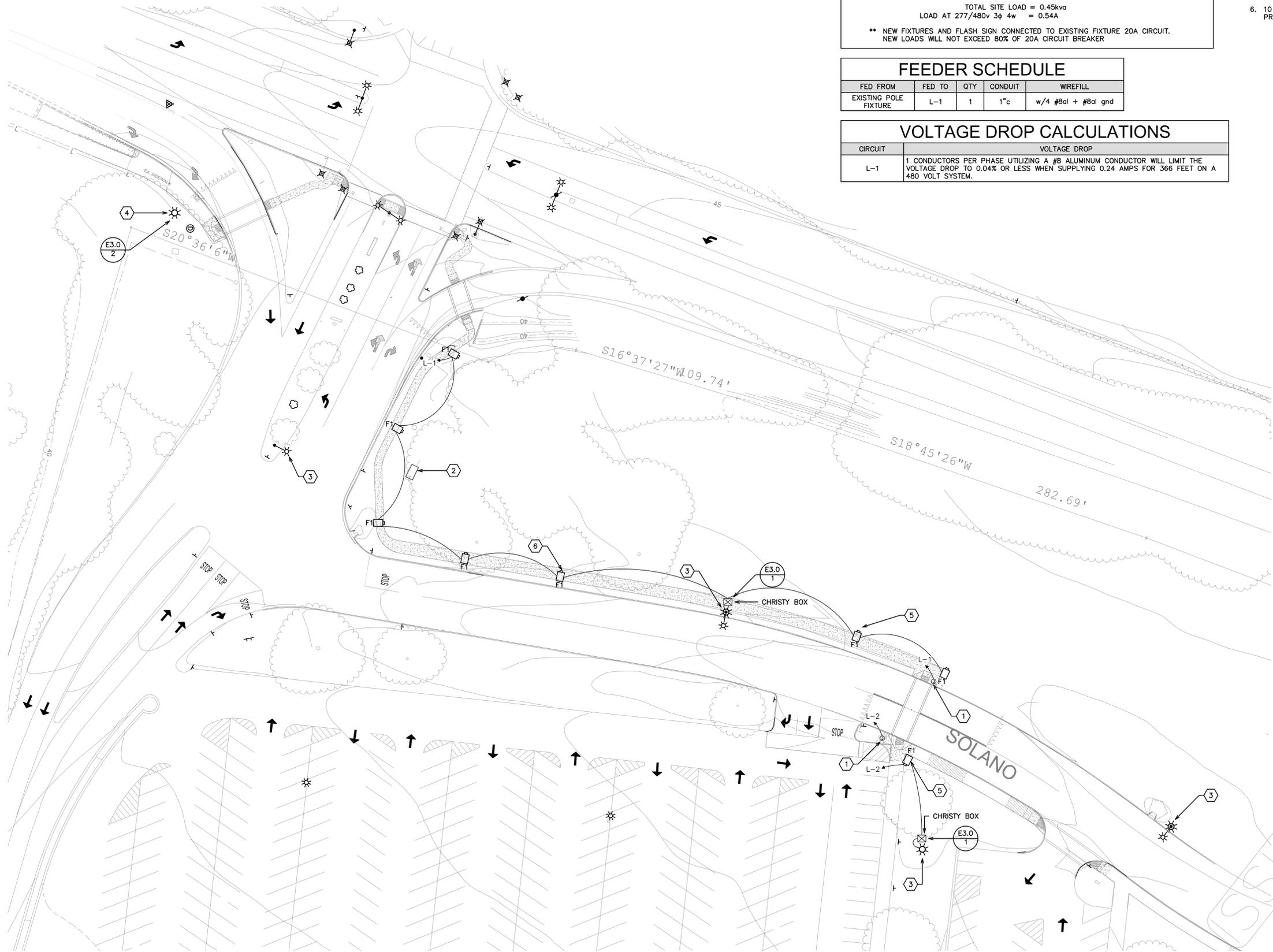
SOLANO COMMUNITY COLLEGE
CAMPUS ENTRY IMPROVEMENT PROJECT
4000 SUISUN VALLEY ROAD
FAIRFIELD, CA 94534

SITE PLAN

NUMBER:	REVISION:	DATE:
XXX	XXX	XXX
XXX	XXX	XXX

ISSUED FOR:	BID
DATE:	06.16.17
SCALE:	1/32"=1'-0"
DRAWN:	FC

SHEET:
E2.0



SITE PLAN:

SCALE: 1/32"=1'-0"





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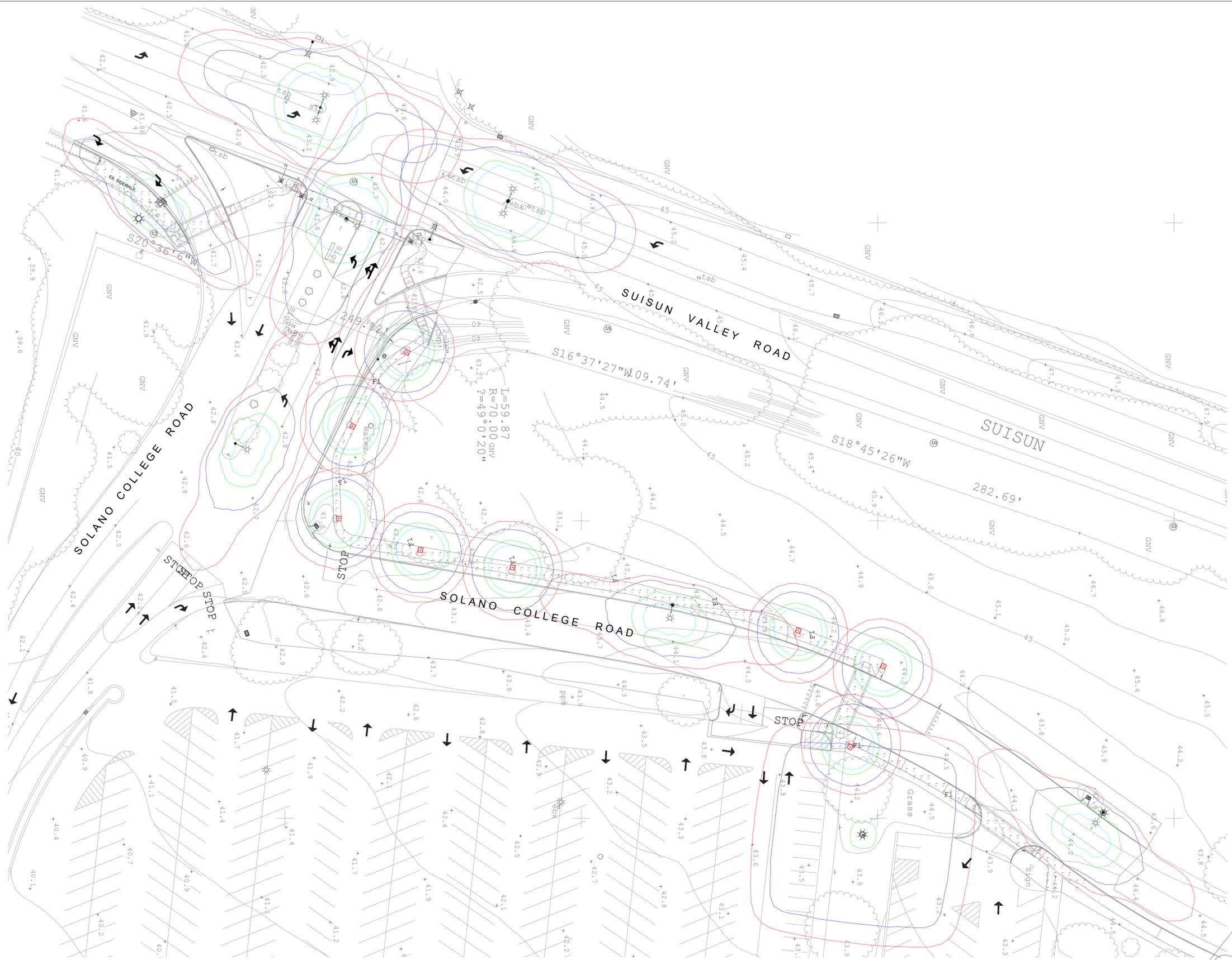
SOLANO COMMUNITY COLLEGE
CAMPUS ENTRY IMPROVEMENT PROJECT
4000 SUISUN VALLEY ROAD
FAIRFIELD, CA 94534

SITE PLAN
PHOTOMETRICS

NUMBER:	REVISION:	DATE:
	XXX	XXX
	XXX	XXX

ISSUED FOR:	BID
DATE:	06.16.17
SCALE:	1/32"=1'-0"
DRAWN:	FC

SHEET:
E2.1



SITE PLAN PHOTOMETRICS:

Symbol	Qty	Label	Arrangement	LLF	Description	Arr. Watts
	10	88240	SINGLE	0.900	88 240	89
	4	GE456802	SINGLE	0.900	ERX1 A1A1540	42
	1	GLEON-AE-01-LED-E1-5MQ-7030-7	BACK-BACK	0.900	GLEON-AE-01-LED-E1-5MQ-7030-700	76
	3	GE456802_1	BACK-BACK	0.900	GE DOUBLE	84

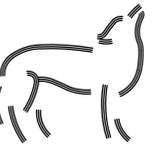
Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Campus Sidewalk	Fc		1.42	5.4	0.1	14.20	54.00
City Sidewalk	Illuminance	Fc	0.79	4.8	0.0	N.A.	N.A.

COLOR	FOOTCANDLE VALVE
BLUE	.125 FC
GREEN	.25 FC
CYAN	.5 FC
RED	5.0 FC NOT TO EXCEED .2FC MINIMUM REQUIREMENTS

SCALE: 1/32"=1'-0"



ISSUED FOR BID



Wulff Electric

820 EUBANKS DR.
VACAVILLE, CA
(707) 447-3920

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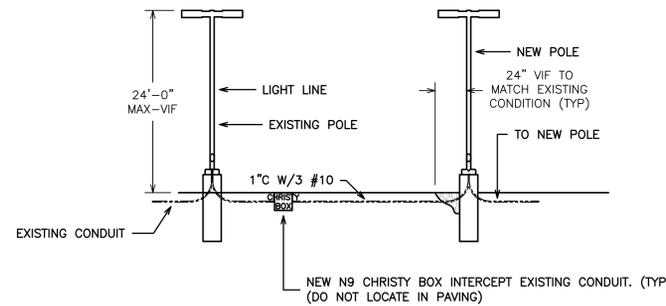
DETAILS

SHEET NOTES:

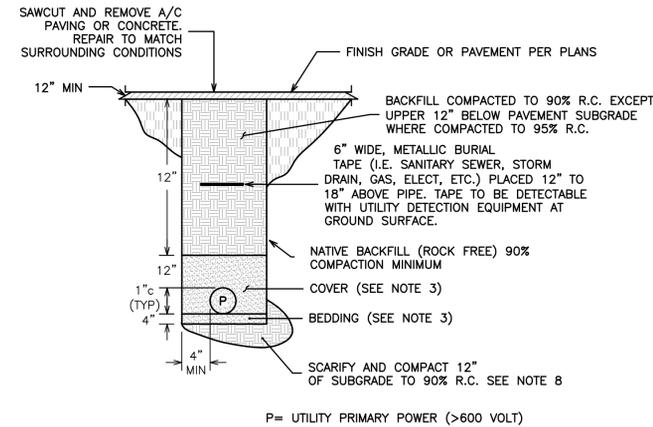
- UTILITY TRENCH CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
- EXCAVATE FOR BELLS OR HUBS SO FULL LOAD IS CARRIED BY PIPE BARRELS.
- BEDDING AND COVER: SAND OR FINE GRAVEL WITH LESS THAN 10% FINES.
- BEDDING SHALL BE PLACED IN A MANNER SUCH AS SLICING, SHOVEL-SPADING, OR SHOVEL RODDING TO ENSURE COMPLETE FILLING OF THE "HAUNCH AREAS" BELOW THE PIPE. JETTING IS NOT PERMITTED.
- SUBGRADE TO BE FREE OF PROTRUDING OBJECTS.
- BACKFILL MAY BE NATIVE SOIL THAT MEETS THE CRITERIA FOR FILL AS DESCRIBED IN THE GEOTECHNICAL REPORT.
- WHERE LESS THAN 18" BETWEEN BOTTOM OF PAVING SECTION (I.E. BOTTOM OF A.B.) AND TOP OF PIPE, BACKFILL TO BE CONTROLLED DENSITY FILL (CDF)
- TRENCH SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- CITY STREET LIGHT CONNECTION - 2" c sch 80pvc WITH 42" OF COVER

SHEET NOTES:

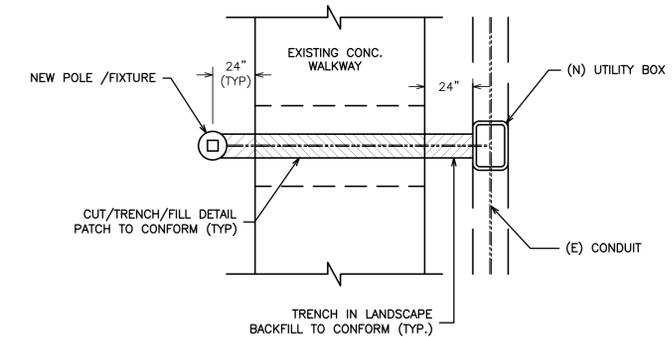
SEE DETAIL 73 FOR WIRE CONNECTIONS INSIDE PULLBOX.



1 NEW POLE CONNECTION TO EXISTING POLE:
SCALE: NOT TO SCALE



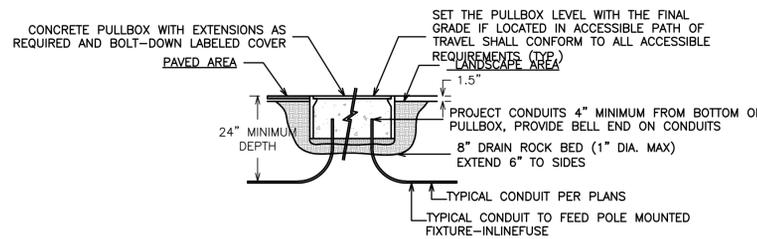
2 UNDERGROUND CONDUIT INSTALLATION:
SCALE: NOT TO SCALE



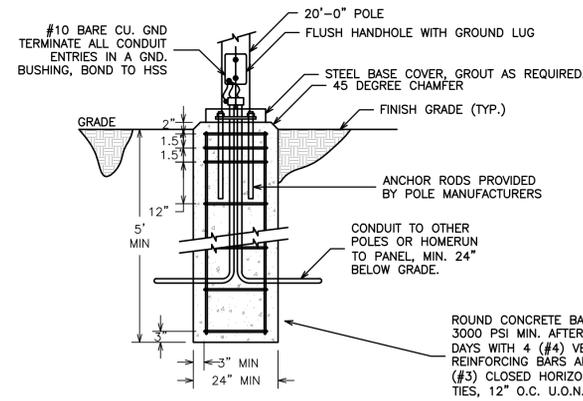
3 UNDERGROUND PULLBOX:
SCALE: NOT TO SCALE

SHEET NOTES:

CONTRACTOR TO AVOID THIS SITUATION IF WATERJET OR BORING IS AN OPTION.



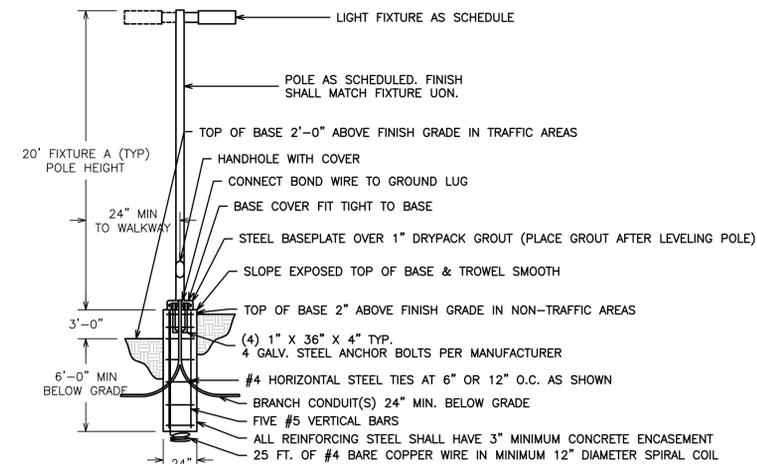
4 TRENCH UNDER WALKWAY:
SCALE: NOT TO SCALE



5 SITE LIGHTING POLE BASE:
SCALE: NOT TO SCALE

SHEET NOTES:

SEE DETAIL 5 FOR ADDITIONAL REQUIREMENTS (TYP.).



6 POLE MOUNTED FIXTURE ON CONCRETE BASE:
SCALE: NOT TO SCALE

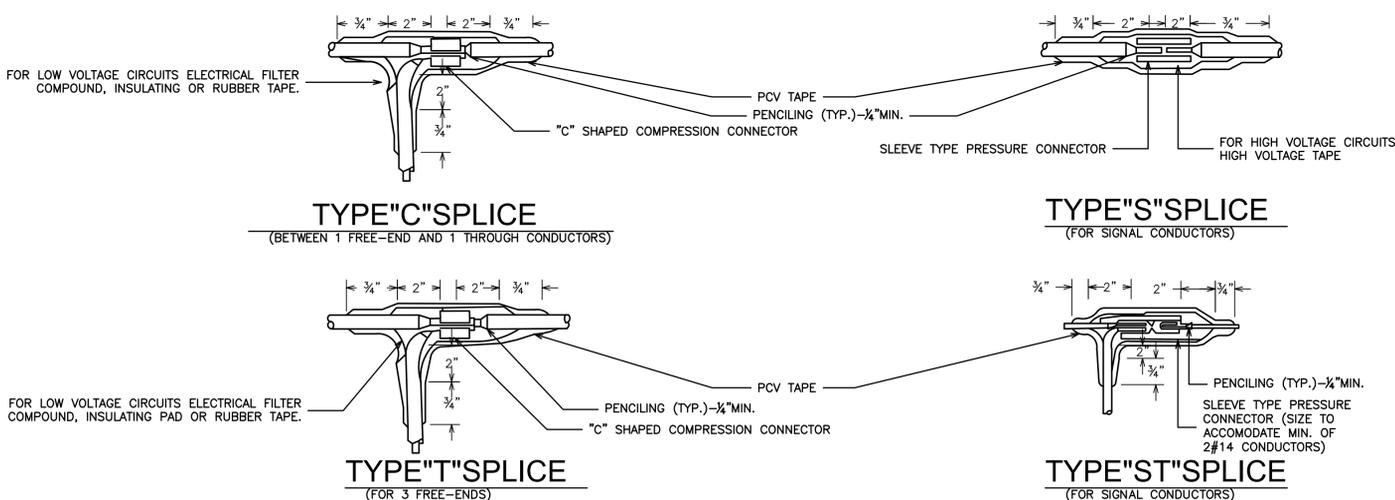
NOTES:

- ALL DIMENSIONS ARE MINIMAL.
- RUBBER TAPES SHALL BE ROLLED AFTER APPLICATION.
- WHEN PVC TAPE IS USED AS FINAL LAYER, PAINT FINISHED SPLICE WITH ELECTRICAL INSULATING COATING.

INSULATING METHODS

LOW VOLTAGE CIRCUITS (0-600 VOLTS)

- COMPLETELY COVER THE SPLICE AREA WITH AN ELECTRICAL INSULATING COATING AND ALLOW TO DRY.
- APPLY 2 LAYER OF ELECTRICAL INSULATING PAD WITH MINIMUM THICKNESS OF 1/8" EACH LAYERS OR 2 LAYERS, HALF LAPPED, SYNTHETIC OIL RESISTANT, SELF FUSING RUBBER TAPE.
- APPLY 3 LAYERS HALF LAPPED PVC TAPE.



7 SPLICE DETAILS & NOTES
SCALE: NOT TO SCALE

ISSUED FOR BID

NUMBER:	REVISION:	DATE:
	XXX	XXX
	XXX	XXX

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SCALE:	AS NOTED
DRAWN:	FC

SHEET:
E3.0