#### ADDENDUM TO RFP DOCUMENTS

	ADDENDUM #02
	SCCD RFP: #17-008
	Project: Solano Community College District
SOL ANO	Fairfield Campus Entry Sidewalk Improvements
COMMUNITY COLLEGE	Date: July 12, 2017

Addendum # 02 – The following clarifications and revisions are provided, in part based on questions received during the pre-bid meeting, which must be added/considered when completing your submittal: Acknowledgement of receipt of this <u>ADDENDUM</u> is <u>required</u> in the proposal's cover letter of introduction. Please clearly note the addendum date and number.

### ITEM:

- Bid Due Date: Revise bid opening date to New Date: Tuesday, July 18, 2017 at 2:00 p.m.
- 2. Time of Completion: Revise working days from 35 to 40
- 3. **Bid form**: to clarify unit cost request replace document -sheet **00 41 13—1** with the attached replacement sheet.
- 4. Attached are the sign in sheet from mandatory pre bid meeting and the Agenda from the meeting.
- 5. Replace civil plan set with attached set, dated 7-10-17. Revisions are:
  - i. Denoting the city required housekeeping pad at new city street light, including a retaining curb
  - ii. Calling out dimension information for replacement sections of existing sidewalk
  - iii. This set includes an additional cover sheet with the DSA review stamp and required DSA cover sheet that has their approval, DSA general notes and accessibility related conditions within their jurisdiction
  - iv. Additional elevation data is shown on the new sidewalk areas
- 6. The new sidewalks for the entry project have a designed cross slope of 1.5%. The maximum allowed cross slope per state and local ADA code is 2%. The Curb ramps are designed with various longitudinal slopes ranging from 1.0% to 7.5%. The maximum allowed slope is 7.5% per Caltrans and 8.3% per City of Fairfield. Therefore the ramps located within city right of way can have a maximum allowed longitudinal slope of 8.3%, and the ramps located on school property can have a maximum allowed longitudinal slope of 7.5%.

- 7. C1.0 note 17 calls out removal of existing hedge. Contractor shall also remove roots to enable smooth, conforming grades and successful grass planting.
- 8. Replace electrical plan set with attached set dated 7-11-17. Revisions are:
  - i. E2.0 corrects note 6 to read 8 lights (provided by district)
  - ii. E2.0 adds L-2 to the feeder schedule.
  - iii. E2.0 note 1 revised to show solar powered flashing signs (see elsewhere in this addendum for details on the flashing signs and the poles).
- 9. Existing surplus lights: See attached photo of lights in District maintenance yard (visited during job walk). Surplus lights (120-277V) shall be wired up to match existing 277V circuits and shall be tested before installation.
- 10. Flashing signs, poles and equipment: as indicated in E2.0 note 1, provide solar powered system. Attached are sheets from an acceptable manufacturer; in accordance with requirements, contractor may propose alternate as an "or equal" product. Furnish and install all items indicated below and verify ordering codes:
  - a. TS 40 Sign with solar panels:
    - i. Model #/Ordering Codes: SI-TS40, W11-2-24, D, SD, 9,A
    - ii. battery: 12Volt option
    - iii. Solar collector: 20 Watt option
    - iv. http://www.xwalk.com/pages/TS40.htm
  - b. PPBs- Wireless Pedestrian Push Buttons.
    - i. Model #/ Ordering Codes: Wireless AC-TS40BDSPFSW,Y,S,BR
    - ii. Wireless Transmitter and transmitter pole mounting kit.
    - iii. http://www.xwalk.com/pages/Wireless-Push-Button.htm
  - c. Ensure all parts work together and can also be mounted on the pole specified herein with appropriate manufacturer approved hardware. Before ordering confirm with the manufacturer that the part numbers indicated, or equals, will work in conjunction to create a working system.
  - d. Pole and foundation: Poles and foundations shall conform to Caltrans RSP (2015) ES-7A, Detail C (attached)
- 11. Contractor's attention is directed to General Notes, section 8 in the Special Conditions Document 00 73 13.
- 12. Misc. Questions and Answers
  - a. Does the District use a contractor for landscape maintenance? No
  - b. Is the striping to be thermoplastic? Yes

- c. Sheet C1.0 Question: conduit run (note 20): should a pull box be added to this 233 ft. (approximate) segment? Answer: an intermediate box may be added for contractor's convenience however code does not require.
- d. Will the District allow use of the parking lot or other areas for staging? To a limited extend the southwest corner of Lot 1 could be used, provided contractor screens the area (opaque fabric over temp. fencing) and is responsible for full restoration of any damage. See attached location map.
- e. Are there special requirements for protection of the lawn area at the College where the new sidewalk is constructed? Contractor would need to restore the grass to pre-existing condition, and protect trees. If tree trimming is proposed by contractor to enable equipment access or use, obtain District landscaper approval.
- f. Who will do the special inspection/materials tests (e.g. for AB compaction and concrete foundations)? Ninyo & Moore
- 13. Insurance requirements (Special Conditions, document 00 73 13): Replace section 3 with the following:

## Insurance Policy Limits and other modifications to General Conditions:

3.1 All of Contractor's insurance shall be with insurance companies with an A.M. Best rating of no less than A:VII. The limits of insurance shall not be less than:

Commercial General Liability	Product Liability and Completed Operations, Fire Damage Liability – Split Limit	\$1,000,000 per occurrence; \$2,000,000 aggregate
Automobile Liability – Any Auto	Combined Single Limit	\$1,000,000
Workers Compensation		Statutory limits pursuant to State law
Employers' Liability		\$1,000,000
Builder's Risk (Course of Construction)	Not Required	
Pollution Liability	Not Required	

3.2. Refer also to General Conditions (document 00 72 13, section 13) for insurance requirements.

3.3. Additional Insureds: In addition to those entities listed in General Conditions (document 00 72 13, section 13) item 13.1.7.3, the Solano Transportation Authority shall also be named as an additional insured.

Summary of enclosed/attached items:

- Pre bid Sign in sheet, 7-6-17
- Agenda 7-6-17
- Bid form replacement sheet 00 41 13-1
- Revised civil plan set 7-10-17
- Revised electrical plan set 7-11-17
- Photo page of available surplus lights
- TS 40 Sign with solar panels example product information
- Wireless Pedestrian Push Buttons example product information
- Caltrans RSP (2015) ES-7A
- Location map showing potential staging area

	In the self afferrate furniture arrive	eid		
Name	Representing	E-Mail Address	Phone/Cell Number	
Scatt Christie	SCCD/owner (Swinerton - CM)	schristie @ Swinerton. com	415. 4/6. 56 90	pu /
Dex Cabrera	California Highway Const.	CHL . GROUPE ALL CON	415. 755-7435	100
BRYAN HOLIN	CAZADORO CONST.	pholinecazadoro. Can	415-466-6093	
ALAN COPER	SWANK UNST.	alane svinkerskuts	707 446 8 808	
John Litter	Li Ster Curk.	Sohn LO Ligren	111 - 757-451 - 2912	104
Alex Regul	Frances E. Suce.	Laptor 1919 0 HOL. C	530-745-5617	
HOCINE MERSOUL	HM CONSTRUCTION , INC	HMER 133 DGMeil	100 510-495-2020	
Parriet Manuer	HEREY ENCLIWERREINS INC.	patrick @ HEREXENSINEEING.	con 347-613-5788.	
JACON MULLER	FER VANTEURED CONSTRUCTION	JANULIÉRENC-INC. NET	925-245-1300	
		/		

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# AGENDA PRE-BID CONFERENCE (Mandatory)

# Solano Community College District Fairfield Campus Entry Sidewalks Improvement Project (#17-008)

July 6, 2017 at 9:30 a.m. at job site

## 1 INTRODUCTIONS

• sign-in sheet.

## 2. **PROJECT OVERVIEW**

- Description of Project
- City of Fairfield right of way/jurisdiction vs. SCCD property
- Plans civil and electrical set
- Addendum #2 to be issued with rev 1 civil plans
- Specifications note city specific provisions
- City permit information; allowance in bid for fees
  - Note separate city required insurance docs
- Owner provided light poles (except for city street light; expected lead time 4-6 wks.)

3. **Bid Date/bids due:** <u>2:00 p.m., Thursday, July 13, 2017</u>, at the Solano Community College, 4000 Suisun Valley Road, Building 600, Board Room, Fairfield

## 4. BIDDER QUALIFICATIONS

- Must hold Class A license; no required prime self perform requirement.
- Refer to doc. 00 21 13 Instructions to Bidders submit bid form/proposal and include:
  - Bid Bond on the District's form or other security.
  - Designated Subcontractors List.
  - Site-Visit Certification
  - Noncollusion Declaration.
  - Qualifying Experience form
- Note on bid form: will issue addendum (#2) to clarify/revise unit cost request for additional remove and replace sidewalk \$/SF

## 5. WORK HOURS; Time of Completion

- Regular work hours on District property 7:00 am to 5:00 pm Mon-Friday (except holidays)
- City right of way: refer to city permit requirements. Lane closures are limited to 9:00 to 3:30 M-F
- Time of Completion: 35 working days

# 6. **QUESTIONS**

- Questions which are substantive will be responded to in writing to all potential bidders/plan holders via an Addendum; note deadline for submitting is 7 calendar days prior to bid opening.
- Refer questions to Construction Manager in writing by email to: schristie@swinerton.com

### DOCUMENT 00 41 13

### **BID FORM AND PROPOSAL**

To: Governing Board of Solano Community College District ("District" or "Owner")

From:

(Proper Name of Bidder)

The undersigned declares that the Contract Documents including, without limitation, the Notice to Bidders and the Instructions to Bidders have been read and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of Bid No. \_\_\_\_\_.

### PROJECT: FAIRFIELD CAMPUS ENTRY SIDEWALK IMPROVEMENTS

("Project" or "Contract") and will accept in full payment for that Work the following total lump sum amount, all taxes included:

	dollars	\$
BASE BID		

1. **Unit Prices.** The Bidder's Base Bid includes the following unit prices, which the Bidder must provide and the District may, at it's discretion, utilize in valuing additive and/or deductive change orders:

Please add in additional removal and replacement of concrete sidewalk @ \$/SF, including subgrade preparation and base rock: Unit Price: \_\_\_\_\_\_\$/SF

2. <u>Allowance.</u> The Bidder's Base Bid shall include an allowance of \$2,000 for the required City of Fairfield encroachment fees

The above allowance shall only be allocated for actual permit fee costs relating to the Work. Contractor shall not bill for or be due any portion of this allowance unless the District has been presented with the City receipt of payment for the fees. Contractor hereby authorizes the District to execute a unilateral deductive change order at or near the end of the Project for all or any portion of the allowance not allocated.

- 3. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Proposal, understands the construction and project management function(s) is described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the District, and agrees that its Proposal, if accepted by the District, will be the basis for the Bidder to enter into a contract with the District in accordance with the intent of the Contract Documents.
- 4. The undersigned has notified the District in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.

#### SOLANO COMMUNITY COLLEGE DISTRICT

BID FORM AND PROPOSAL DOCUMENT 00 41 13-1

# **GENERAL NOTES**

- ALL WORK SHALL BE IN ACCORDANCE WITH THE FEDERAL AMERICANS WITH DISABILITY ACT (ADA) STANDARDS.
- THE PROJECT FALLS UNDER THE JURISDICTION OF THE DEPARTMENT OF THE STATE ARCHITECTS (DSA), STATE OF CALIFORNIA
- 3. GOVERNING CODES: PARTS 1 TO 6 AND 9, TITLE 24, C.C.R.
- 4. A COPY OF PARTS 1 TO 5, TITLE 24, C.C.R. SHALL BE KEPT ON THE JOB SITE DURING CONSTRUCTION.
- DSA SHALL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE (SECTION 4-331, PART 1).
- 6. THE PROJECT INSPECTOR MUST BE EMPLOYED BY THE OWNER AND APPROVED BY ALL OF THE FOLLOWING:
  - A/E OF RECORD STRUCTURAL ENGINEER (WHEN APPLICABLE)
- DSA INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 4-333(B), PART 1, TITLE 24.
- THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-342, PART 1, TITLE 24
- THE ARCHITECT AND THE STRUCTURAL ENGINEER SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTION 4-333(A) AND 4-341, PART 1, TITLE 24.
- SUPERVISION OF CONSTRUCTION BY DSA SHALL BE IN ACCORDANCE WITH SECTION 4-334, PART 1 TITLE 24.
- 9. ALL TESTS TO CONFORM TO THE REQUIREMENTS OF SECTION 4-335, PART 1, TITLE 24, AND **APPROVED T & I SHEET**
- 10. TESTS OF MATERIALS AND TEST LABORATORY SHALL BE IN ACCORDANCE WITH SECTION 4-335, PART 1, TITLE 24. THE SCHOOL DISTRICT SHALL EMPLOY AND PAY THE LABORATORY. COSTS OF RE-TEST MAY BE BACK CHARGED TO THE CONTRACTOR.
- CONTRACTOR, INSPECTOR, ARCHITECT AND ENGINEERS SHALL SUBMIT VERIFIED REPORTS (FORM SSS-6) IN ACCORDANCE WITH SECTION 4-336 AND 4-343, PART 1, TITLE 24.
- 12. ALL ADDENDA AND CHANGE ORDERS MUST BE SIGNED AND APPROVED BY ALL OF THE FOLLOWING (SECTION 4-338, PART 1, TITLE 24):
  - A/E OF RECORD OWNER (CHANGE ORDERS ONLY)
  - STRUCTURAL ENGINEER (WHEN APPLICABLE)
  - DELEGATED PROFESSIONAL ENGINEER (WHEN APPLICABLE)
  - DSA

CHANGE ORDERS ARE NOT VALID UNTIL APPROVED BY DSA. ALL SUBSTITUTIONS SHALL BE CONSIDERED AS A CHANGE ORDER OR ADDENDA, AND SHALL BE APPROVED BY DSA PRIOR TO FABRICATION AND INSTALLATION.

- 13. THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343, PART 1 TITLE 24.
- 14. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, C.C.R. SHOULD ANY EXISTING CONDITIONS BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH SAID TITLE 24, C.C.R., CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK (SECTION 4-317C, PART 1, TITLE).
- 15. DSA IS NOT SUBJECT TO ARBITRATION.
- 16. WORK WHICH IS DAMAGED, CUT OR REMOVED AS A RESULT OF DEMOLITION UNDER THIS CONTRACT, AND WHICH IS TO REMAIN IN THE COMPLETED WORK SHALL BE RESTORED.
- 17. ACCESSIBLE PATH OF TRAVEL AS INDICATED IS A BARRIER FREE ACCESS WITHOUT ANY ABRUPT CHANGES EXCEEDING 1/4" VERTICAL, MAXIMUM CROSS SLOPE IS 2% TYPICAL, U.O.N. THE CONTRACTOR SHALL VERIFY THAT ALL BARRIERS ON THE INDICATED PATH OF TRAVEL HAVE BEEN REMOVED PER 1133.B.7.
- 18. CONSTRUCTION ACTIVITY ON THE SITE IS LIMITED TO 8:00 A.M. TO 6:00 P.M.. AT THE END OF DAY'S WORK, AND AT OTHER TIMES WHEN CONSTRUCTION OPERATIONS ARE SUSPENDED. ALL EQUIPMENT AND OTHER CONSTRUCTION TOOLS SHALL BE REMOVED FROM THE SITE. ANY DIRT DEBRIS OR MUD SHALL BE REMOVED FROM THE TRAVELED WAY.
- 19. CUT AND FILL SLOPES SHALL BE ROUNDED AT THEIR EDGES.
- 20. ALL DISTURBED AREAS SHALL BE HYDROSEEDED TO CONTROL EROSION BY SEPTEMBER 15.
- 21. PROJECT GRADING CUT AND FILL SHALL BE BALANCED ON SITE CUT: 18 CU. YARDS: FILL: 18 CU. YARDS ±
- 22. TRENCHES 5 FEET DEEP OR MORE SHALL BE SHORED AND BRACED PER STATE LAW.
- 23. ALL EXISTING UTILITIES ARE INDICATED IN THEIR APPROXIMATE LOCATION ACCORDING TO THE EXTENT OF THE BEST INFORMATION AVAILABLE. CONTRACTOR TO VERIFY EXACT LOCATIONS ON-SITE.
- 24. THE CONTRACTOR SHALL HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY OR DAMAGE ARISING FROM HIS CONSTRUCTION ACTIVITIES.
- 25. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS.
- 26. ANY DAMAGE CAUSED AS A RESULT OF THIS WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER OR ENGINEER.
- 27. THE REMOVAL OF OBSTRUCTIONS (POWER POLES, FENCES, RETAINING WALLS, TREES STRUCTURES, PIPELINES, ETC.) SHALL BE AT THE CONTRACTORS EXPENSE.
- 28. LIMITS OF GRADING SHALL BE STAKED IN THE FIELD PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES.
- 29. CONSTRUCTION EQUIPMENT SHALL BE PROHIBITED FROM AREAS OF THE SITE BEYOND THE LIMITS OF GRADING. AREAS OF NATURAL VEGETATION SHALL BE PROTECTED AS NECESSARY.
- 30. ALL TREES TO BE SAVED WITHIN OR ADJACENT TO THE DESIGNATED AREA OF GRADING SHALL BE FENCED AT THEIR DRIP LINES PRIOR TO AND DURING CONSTRUCTION.
- 31. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY CONFLICT BETWEEN PROPOSED UTILITIES WITH OTHER UNDERGROUND FACILITIES.

# **PROJECT SCOPE OF WORK**

SITE GRADING AND INSTALL SIDEWALKS, CURB RAMPS, AND CROSSWALKS FROM THE SOUTH ENTRANCE OF THE CAMPUS TO AN EXISTING SIDEWALK WITHIN THE INTERNAL CAMPUS.

(P.O.T.) as indicated is a barrier free access without any abrupt vertical changes exceeding 1/2" at 1:2 Maximum slope, except that level changes do not exceed 1/4" vertical(11B-303 & 11B-403.4). P.O.T. is a minimum of 48" wide (11B-403.5.1Ex3) slip resistant surface with 5% max. slope and 1:48 max. cross slope(11B-403.3). Passing spaces(11B-403.5.3) of 60"x60" min. are located not more than 200' apart. Walks with continuous gradients have 60" in length of level areas (11B-403.7) not more than 400' apart. P.O.T. shall be maintained free of overhanging obstructions to 80" min(11B-307.4) and protruding objects(11B-307) greater than 4" projection from wall above 27" and less than 80". There is no drop-off over 4" at the edge of walk or landing unless identified by a guard, a handrail, or a warning curb at least 6" in height above the walk(11B-303.5). Architect and contractor shall verify that all barriers on the indicated path of travel have been "I to within the houndary of removed."

EGEND	
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# ENTRY SIDEWALK IMPROVEMENTS

# SOLANO COMMUNITY COLLEGE DISTRICT FAIRFIELD CAMPUS

# FAIRFIELD, SOLANO COUNTY, CALIFORNIA DSA SUBMITTAL SET

DSA FILE NO. - 48-C1 DSA APPLICATION NO. - O2 - 115 864



VICINITY MAP SCALE: NTS

# APPLICABLE STATE CODES **AS OF JANUARY 1, 2017**

2016 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R 2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. (2009 INTERNATIONAL BUILDING CODE AND 2010 CALIFORNIA AMENDMENTS) 2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. (2008 NATIONAL ELECTRICAL CODE AND 2010 CALIFORNIA AMENDMENTS)

2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. (2009 UNIFORM PLUMBING CODE AND 2010 CALIFORNIA AMENDMENTS) 2016 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R.

# th of Travel

"Path of travel

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# LIST OF FEDERAL CODES AND STANDARDS

AMERICANS WITH DISABILITIES ACT (ADA), TITLE 2 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN 28 CFR PART 35 FOR TITLE 2 ENTITIES.

# **FEMA INFORMATION:**

FLOOD ZONE DESIGNATION -FLOOD INSURANCE RATE MAP NUMBER **EFFECTIVE DATE OF FIRM -**

# SHEET INDEX

C0.0	COVER SHEET AN
C0.1	COVER SHEET AN
C1.0	SIDEWALK IMPRO
C1.1	SIDEWALK IMPRO
C2.0	DETAILS AND SEC
C2.1	CURB RAMP GRAD

# ABBREVIATIONS

AB	AGGREGATE BASE	C&G	CURB AND GUTTER	FG	FINISH GRADE	O.C.	ON CENTER
AC	ASPHALT CONCRETE	CG&SW	CURB, GUTTER AND SIDEWALK	FL	FLOWLINE	P.C.C.	PORTLAND CEMENT CONCRETE
ACR	ACCESS	DL	DAYLIGHT	FS	FINISH SURFACE	PRO	PROPOSED
	COMPLIANT RAMP	FG	EXISTING GRADE	GB	GRADE BREAK	SF	SQUARE FEET
BSW	BACK OF SIDEWALK	20	EXISTING GIVE	ЦВ		•	
~		EL	ELEVATION	ΠF		SW	SIDEWALK
CJ	CONTROL JOINT			JP	JOINT POLE	TO	
01	CENTERLINE /	EP	DAVEMENT				TOP OF CORB
CL	CONTROL LINE		FAVENIEINI	LF	LINEAR FEET	TP	TOP OF PAVEMENT
CD	CONTROL BOINT	EX.	EXISTING	1.0			
GP	CONTROL FOINT			LP	LOW POINT	LINO	UNLESS NOTED
CR	CURB RETURN	FC	FACE OF CURB	NTS	NOT TO SCALE	5110	OTHERWISE



ZONE X (AREA OUTSIDE 0.2% ANNUAL CHANCE FLOODPLAIN) 06095C0432E MAY 4, 2009

# PROJECT DIRECTORY

DISTRICT:	SOLANO COMMUNITY COLLEGE 4000 SUISUN VALLEY ROAD, FAIRFIELD CA. 94534
CONSTRUCTION MANAGEMENT:	KITCHELL 360 CAMPUS DRIVE, SUITE 203 FAIRFIELD CA. 94534 PHONE: (707) 864-7189

CIVIL

CSW / STUBER STROEH **45 LEVERONI COURT** NOVATO, CA. 94949 PHONE: (415) 883-9850 FAX: (415) 883-9835

ND GENERAL NOTES (DSA)

ND GENERAL NOTES (CITY OF FAIRFIELD)

VEMENT PLAN

VEMENT PLAN

CTIONS

DING AND LAYOUT DETAILS

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATMENT: The drawing sheet delineating the Path of Travel (POT) for a project shall include the following

"Design Professional in General Responsible Charge Statement: The POT identified in these construction documents is compliant with the current applicable California Building Code accessibility provisions for path of travel requirements for alterations, additions and structural repairs. As part of the design of this project, the POT was examined and any elements, components or portions of the POT that were determined to be noncompliant 1) have been identified and 2) the corrective work necessary to bring them into compliance has been included within the scope of this project's work through details, drawings and specifications incorporated into these construction documents. Any noncompliant elements, components or portions of the POT that will not be corrected by this project based on valuation threshold limitations or a finding of unreasonable hardship are so indicated in these construction documents

During construction, if POT items within the scope of the project represented as code compliant are found to be nonconforming beyond reasonable construction tolerances, they shall be brought into compliance with the CBC as a part of this project by means of a construction change document."



SCCD
CSW ST2
CSW/Stuber-Stroeh Engineering Group, Inc.
45 Leveroni Court tel: 415.883.9850
Civil & Structural Engineers
Surveying & Mapping Environmental Planning
Construction Management
http://www.cswst2.com © 2011
DPROFESSIONAL CH
Kirl Bort
*
PIE OF CALIFORN
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
pz-115,8124
AC FLS SSS
rev. date issue
SCCD - FAIRFIELI
SIDEWALK ENTRY
District Project # AE Project # date:
drawn by: RRB checked by: KS
scale: AS NOTED 0 0

C-0.0

# CONSTRUCTION DOCUMENTS FOR ENTRY SIDEWALK IMPROVEMENTS

# SCCD FAIRFIELD CAMPUS

# **GENERAL NOTES**

WORK SHOWN HEREO
FAIRFIELD STANDARD
EDITION, SOLANO COM
STANDARD SPECIFICA
TRANSPORTATION, LA
STANDARD PLANS AND

PROPOSED

N/A

\_\_\_\_\_x\_\_\_\_x\_\_\_\_x\_\_\_\_\_x\_\_\_\_\_

. . . . . . . . . .

N/A

— SS ———

BOLLARD

SIGN

LIGHT - POST MOUNTED

POWER POLE (WITH GUY)

SANITARY SEWER - CLEANOUT

**STORM DRAINAGE - AREA** 

DRAIN

STORM DRAINAGE

CLEANOUT

STORM DRAINAGE - CATCH

BASIN

**STORM DRAINAGE - CURB** 

INLET

STORM DRAINAGE - DROP

INLET

TRAFFIC LIGHT

FOUND / SET - CONTROL

POINT

**CONTOUR - MAJOR** 

**CONTOUR - MINOR** 

CURB, GUTTER AND

SIDEWALK

FENCE

FLOWLINE / SWALE

**RIGHT OF WAY** 

RETAINING WALL

SANITARY SEWER

STORM DRAIN

TREE DRIPLINE

2.	THE CONTRACTOR SHA THE JOB SITE CONDITI DURING THE COURSE OF SHALL APPLY CONTINU HOURS. THE CONTRACT
	SHALL APPLY CONTINU
	HOURS. THE CONTRAC
	HARMLESS FROM ANY
	WITH THE PERFORMAN
	ARISING FROM THE SO

- FROM HIS CONSTRUCTION OPERATIONS.
- EVALUATED.
- EXPENSE.
- ENGINEER.
- SHALL BE AS SHOWN FOR SIMILAR WORK.
- THESE PLANS.

			LIMITED TO RA PLACEMENT, S BETWEEN 8 AI REGARDING C THE ENGINEE		
Rev	Date	Description	Designed	Drawn	Checked
2	07/10/17	ADDENDUM 2	SAS	SAS	KSB
1	06/28/17	ADDENDUM 1	SAS	SAS	KSB
-	06/19/17	ISSUED FOR BID/NOT FOR CONSTRUCTION	SAS	SAS	KSB

LEGEND

EXISTING

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SSCO

OSDCO

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\_\_\_\_\_ SS \_\_\_\_\_

\_\_\_\_C

IN SHALL BE DONE IN ACCORDANCE WITH THE CITY OF CONSTRUCTION PLANS AND SPECIFICATIONS, LATEST MMUNITY COLLEGE STANDARD PLANS AND DETAILS, THE TIONS FOR THE STATE OF CALIFORNIA DEPARTMENT OF TEST EDITION, AND THE APPLICABLE UTILITY AGENCY D SPECIFICATIONS, LATEST EDITION.

IALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR IONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERT OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT JOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING CTOR FURTHER AGREES TO HOLD DESIGN PROFESSIONAL AND ALL LIABILITY. REAL OR ALLEGED, IN CONNECTION VCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY DLE NEGLIGENCE OF THE DESIGN PROFESSIONAL

3. CONTRACTOR SHALL HOLD HARMLESS SOLANO COMMUNITY COLLEGE AND ITS AUTHORIZED REPRESENTATIVES FROM ALL LIABILITIES AND DAMAGES RESULTING

4. PRIOR TO COMMENCING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL VERIFY ALL INTERFACES BETWEEN EXISTING CONDITIONS AND NEW CONSTRUCTION FOR GRADING, DRAINAGE, UNDERGROUND, AND OVERHEAD FACILITIES, INCLUDING LOCATION AND ELEVATION OF EXISTING UNDERGROUND OR AT GRADE FACILITIES AT CROSSINGS WITH PROPOSED UNDERGROUND FACILITIES. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL NOT BEGIN CONSTRUCTION OPERATIONS UNTIL THE CHANGED CONDITIONS HAVE BEEN

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL CONTRACT DOCUMENTS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN

6. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE

7. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION

8. ALL EASEMENTS OR OTHER ENCUMBRANCES SHOWN OR REFERENCED IN THESE PLANS OR DISCLOSED IN THE TITLE REPORT ARE SUBJECT TO INHERENT OR EXPLICIT RESTRICTIONS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE IMPACT OF THESE RESTRICTIONS ON HIS OR HER INTENT FOR THE PROPERTY

9. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE CITY OF FAIRFIELD AND APPROPRIATE JURISDICTIONAL AGENCIES FOR DISCHARGE OF GROUNDWATER THAT MAY BE NECESSARY TO ACCOMPLISH WORK SHOWN ON

10. WATER SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION OPERATIONS.

11. OUTDOOR NOISE-GENERATING CONSTRUCTION ACTIVITIES (INCLUDING BUT NOT PACT COMPACTION (RIC) GRADING, TRENCHING, CONCRETE AND HAMMERING) SHALL BE LIMITED TO THE HOURS 5PM, MONDAY THROUGH FRIDAY. FOR QUESTIONS UCTION HOURS AND/OR RELATED NOISE, PLEASE CONTACT

- 12. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER 48 HOURS PRIOR TO COMMENCING WORK. THE GEOTECHNICAL ENGINEER SHALL OBSERVE CONSTRUCTION TO VERIFY THAT EXISTING AND INSTALLED CONDITIONS ARE CONSISTENT WITH THE GEOTECHNICAL REPORT
- 13. IF, AT ANY TIME DURING GRADING OPERATIONS, ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED. GRADING IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED.
- 14. ALL GRADED BANK TOPS AND TOES SHALL BE ROUNDED
- 15. ALL RAMPS AND OTHER ACCESSIBILITY ACCOMMODATIONS ARE INTENDED TO COMPLY WITH THE CURRENT STANDARDS UNDER THE AMERICANS WITH DISABILITIES ACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY PROPOSED IMPROVEMENTS ARE NOT CONSISTENT WITH THE STANDARDS
- 16. ALL STREETS SHALL BE SWEPT AND KEPT CLEAN AT THE END OF EACH DAY AND SHALL COMPLY WITH ALL APPLICABLE MCSTOPPP, NPDES REQUIREMENTS FOR THE DURATION OF THE PROJECT WORK.
- 17. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (811) A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION.
- 18. THE CONTRACTOR SHALL OBTAIN AN O.S.H.A. PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE 5'OR DEEPER. ALL TRENCHES 5' IN DEPTH OR GREATER SHALL BE SHORED AND BRACED ACCORDING TO STATE LAW.
- 19. UTILITIES AS SHOWN CONFORM TO AVAILABLE RECORD DATA. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITY INFORMATION SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION AND DEPTHS BY POTHOLING OF ALL UTILITIES WITH APPROPRIATE AGENCIES, AND TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ANY CONFLICTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
- 20. CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, FOR INSTALLATION, IMPLEMENTATION, AND MAINTENANCE OF ALL SURFACE WATER POLLUTION PREVENTION MEASURES THROUGHOUT THE FULL EXTENT OF THE PROJECT.
- 21. THIS SURVEY DOES NOT REFLECT A FINAL BOUNDARY DETERMINATION. THE BOUNDARY SHOWN HERON IS DEPICTED FOR GRAPHICHAL PURPOSES ONLY.
- 22. DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF.
- 23. HORIZONTAL AND VERTICAL DATUM IS BASED ON LOCALIZATION OF AERIAL SURVEY CONTROL PROVIDED BY SOLANO COLLEGE.
- 24. THESE PLANS COMPLY WITH ALL CURRENT APPLICABLE ADA/ADAG FOR PROW LAWS AT THE TIME OF PREPARATION.



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**VICINITY MAP** 

# SCALE: NTS

# SHEET INDEX

- C0.1 COVER SHEET AND GENERAL NOTES
- SIDEWALK IMPROVEMENT PLAN C1.0
- SIDEWALK IMPROVEMENT PLAN C1.1
- C2.0 DETAILS AND SECTIONS
- CURB RAMP GRADING AND LAYOUT DETAILS C2.1

# ABBREVIATIONS

AB	AGGREGATE BASE	C&G	CURB AND GUTTER	FG	FINISH GRADE	0.C.	ON CENTER
AC	ASPHALT CONCRETE	CG&SW	CURB, GUTTER AND SIDEWALK	FL	FLOWLINE	P.C.C.	PORTLAND CEMENT CONCRETE
ACR	ACCESS	DL	DAYLIGHT	FS	FINISH SURFACE	PRO	PROPOSED
DOW		EG	EXISTING GRADE	GB	GRADE BREAK	SF	SQUARE FEET
B2M	BACK OF SIDEWALK	FL	FLEVATION	HP	HIGH POINT	SW	SIDEWALK
CJ	CONTROL JOINT			ID		••••	
	CENTERLINE /	EP	EDGE OF	JI	JOINT FOEL	TC	TOP OF CURB
CL	CONTROL LINE		PAVEMENI	LF	LINEAR FEET	тр	
CP		EX.	EXISTING			11	
GF	CONTROL FOINT	50		LP			UNLESS NOTED
CR	CURB RETURN	FC	FACE OF CURB	NTS	NOT TO SCALE	0110	OTHERWISE

# **BASIS OF TOPOGRAPHY**

TOPOGRAPHY SHOWN WAS PERFORMED BY FIELD SURVEY ON SEPTEMBER 9, 2016

# **BENCHMARK**

VERTICAL DATUM IS BASED ON LOCALIZATION OF AERIAL SURVEY CONTROL FROM MOUNTAIN PACIFIC SURVEYS DATED 2012, AND PROVIDED BY SOLANO COLLEGE

# **BASIS OF BEARINGS**

HORIZONTAL CONTROL IS BASED ON LOCALIZATION OF AERIAL SURVEY CONTROL FROM MOUNTAIN PACIFIC SURVEYS DATED 2012, AND PROVIDED BY SOLANO COLLEGE.



D-5348.01

Plan File:



- PROTECT EXISTING SIGNAL / LIGHT POLE IN PLACE. EXISTING PUSH BUTTON TO BE RELOCATED TO ADJACENT POLE (SEE KEYNOTE 16)
- PROTECT EXISTING SIGNAL / LIGHT POLE IN PLACE.
- INSTALL RELOCATED PUSH BUTTON FROM ADJACENT POLE PER CALTRANS STD. PLAN ES-7A, (SEE KEYNOTE
- REMOVE HEDGE (APPROX. 70 LF) TO IMPROVE SIGHT VISIBILITY, REPLACE WITH TURF SIMILAR TO ADJACENT AND ADJUST IRRIGATION AS NEEDED. THE CITY LANDSCAPE SECTION SHALL BE NOTIFIED OF
- NEW YIELD TO PEDESTRIAN CROSSING SIGN PER
- NEW PGE 17x30 SPLICE BOX CONNECTED TO EXISTING
- NEW 2" CONDUIT RUN TO NEW STREETLIGHT (±233 LF)





C S W	S T 2		City	FAIRFIELD	SOLANO
	CSW/Stuber-Stroch Engineering Group, Ind Civil & Structural Engineers   Surveying & Mapping   Environmental Planni Land Planning   Construction Management	g	County	SOLANO	SIDEWALI
	45 Leveroni Court    tel:    415.883.985      Novato, CA 94949    fax:    415.883.985      http://www.cswst2.com    © 20	0 5 17	State	CALIFORNIA	FAIRFIELD CAMPUS ENTF

Sheet		
С	,1	.1
Scale:	1" = 2	0'
Date:	02/09/	/17
Project Nu	umber:	4116410
Plan File:		D-5348.03



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# CAMPUS ENTRY SIDEWALK IMPROVEMENT 4000 SUISUN VALLEY ROAD FAIRFIELD, CA

# 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:**

MISCELLANEOUS

MAIN LUGS ONLY

MAIN POINT OF ENTRY MANUAL TRANSFER SWITCH

MAXIMUM OVERCURRENT PROTECTION

MISC

MLO

MOCP MPOE MTS

٨			
A	AMPERES	MID	MOUNTED
AC	ASPHALT CONCRETE/AIR CONDITIONER	Ν	NEW, NEUTRAL
AFCI	ARC FALL T CIRCUIT INTERRUPTER	N /A	
AFF	ABOVE FINISHED FLOOR	NEC	NATIONAL ELECTRIC CODE
AFG	ABOVE FINSHED GRADE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS
AI			
	ALOMINOM		NATIONAL FIRE PROTECTION AGENCT
ARF	ABOVE RAISED FLOOR	NIC	NOT IN CONTRACT
ATS	AUTOMATIC TRANSFER SWITCH	NTS	NOT TO SCALE
		00	
AWG	AMERICAN WIRE GUAGE		UN CENTER
BLDG	BUILDING	OH	OVERHEAD
C	CONDUIT	$\cap$	
CAIV	CABLE TELEVISION	05	OCCUPANCY SENSOR
CB	CIRCUIT BREAKER	Р	POLE. PHASE
<u> </u>		DNI	
00			FANELDUARD
CL	CENTER LINE	PP	POWERPACK
CLG	CEILING	OTY	QUANTITY
OKT			
CKI		R	RELUCATED
CONC.	CONCRETE	REC	RECEPTACLE
CONT		RFF	REFERENCE
CONT.	CONTINUED/CONTINUEATION		
CU	COPPER	REFRIG.	REFRIGERATOR
D		RM	ROOM
DEDT		PSC	
DEP I.	DEPARIMENT	K3C	RIGID STEEL CONDULT
DIA	DIAMETER	SD	SMOKE DETECTOR
DN		SE	SQUARE FEET
DP	DISTRIBUTION PANEL	SWDD	SWITCHBUARD
DW	DISHWASHER	TBD	TO BE DETERMINED
	DRAMING	TEI	
Ł	EXISTING	IGB	TELECOMMUNICATIONS GROUNDING BUSS
FA	FACH	TTB	TELEPHONE TERMINAL BOARD
	EVHALIST FAN	TC	TERMINAL CARINET
ELEC	ELECTRIC, ELECTRICAL	IV	TELEVISION
FM	FMFRGENCY	TYP	TYPICAL
		LIC	
EMI	ELECTRICAL METALLIC TUBING	00	
ENT	ELECTRICAL NON-METALLIC TUBING	UON	UNLESS OTHERWISE NOTED
FOUIP		V	VOLT VOLTS
ER	EXISTING TO REMAIN	VA	VULI AMPERE(S)
F	FUTURE	W	WIRE, WIDTH
F۵		WP	WEATHERPROOF
		•••	
FACP	FIRE ALARM CONTROL PANEL	W/	WITH
FC	FAN COIL	w./o	WITHOUT
FIYT	FIYTURE		
		XEMR	IRANSFORMER
FLOUR	FLOURESCENT		
FT	FOOT. FEET		
	GROUND		
0,0110			
GD	GARBAGE DISPOSAL		
GFCI	GROUND FAULT CIRCUIT INTERRUPTER		
	HORSEROWER		
	HEIGHT		
ні	HEIGHT		
ID	IDENTIFICATION		
INCAN	INCANDESCENI		
κv			
r v A			
KW	KILOWATT		
I CP	LIGHTING CONTROL PANEL		
LTG	LIGHTING		
IV	LOW VOLTAGE		
м	MUTUK		
МАХ	ΜΑΧΙΜUΜ		
MIN	MINIMUM		
14111 4			

94534

	ELECTRICAL LEGEND:	SHEET
	CIRCUIT BREAKER	E0.0 - COVER SH
		E1.0 – ELECTRICA E2.0 – SITE PLAN E2.1 – SITE PLAN
ERS ASSOCIATIION		E2.1 – SHE PLAN E3.0 – DETAILS
Y	O CONDUIT UP	
	▼ DATA AND TELEPHONE OUTLET COMBINATION	
	DLS DAYLIGHT SENSOR FOR AUTOMATIC DIMMING	
	E DISCONNECT SWITCH - BLANK INDICATES UNFUSED, "F"INDICATES FUSED	
	DOUBLE DUPLEX RECEPTACLE	
	$\Phi$ DUPLEX RECEPTACLE – HALF CONTROLLED	
	GFI DUPLEX RECEPTACLE – GFI	
	DUPLEX RECEPTACLE - FULLY CONTROLLED	
	WPGFI DUPLEX RECEPTACLE – WEATHERPROOF	
BUSS BAR	EXIT SIGN CEILING MOUNTED, ARROW INDICATES DIRECTION, IF SHOWN	
	EF EXHAUST FAN	
	FAN COIL	
	FLUSH FLOOR RECEPTACLE AND DATA COMBINATION	
	GROUND CONNECTION	
	X-X HOMERUN TO PANELBOARD OR CABINET AS NOTED	
	J JUNCTION BOX	
	E-M METER	
	MOTOR	
	COSD OCCUPANCY SENSOR - CEILING MOUNTED	
	PC PHOTOCELL	
	POLE MOUNTED FIXTURE	
	d switch - DIMMER	
	OSLAD SWITCH - OCCUPANCY SENSOR/AB	
	$OS_{c}^{b}$ SWITCH – OCCUPANCY SENSOR	
	$d.o.s_{d}^{\Psi}$ switch – occupancy sensor w/ dimmer	
	$\mathbb{P}$ SWITCHBOARD, DISTRIBUTION PANEL OR MOTOR CONTROL CENTER	
	TELEPHONE BACKBOARD	
	Ø UILITY POLE	



# 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.
- 2. 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.
- 3. 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.

- 4. 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.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. 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.
- 9. 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.
- 10. 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.
- 11. ALL EQUIPMENT MOUNTED ON ROOF FOR CONNECTION OF HVAC EQUIPMENT SHALL BE MOUNTED ON UNISTRUT STANDS UTILIZING APPROVED PITCH POCKETS, FLASHING, ETC.
- 12. 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.
- 13. THE CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF SUBSTANTIAL COMPLETION.
- 14. 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.
- 15. 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.
- 16. 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.

- 17. 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.
- 18. 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.
- 19. 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.
- 20. 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.
- 21. 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.
- 22. 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.
- 23. 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.
- 24. 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.
- 25. MAXIMUM NUMBER OF CONDUCTORS IN OUTLET OR JUNCTION BOXES SHALL CONFORM TO 2016 CALIFORNIA ELECTRICAL CODE (CEC)
- 26. 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.
- 27. 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.
- 28. THE EQUIPMENT GROUNDING CONDUCTOR RUNS SHALL BE INSTALLED AND RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WIRE SHALL BE PIGTAILED 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.
- 29. DRAWINGS ARE DIAGRAMMATIC ONLY AND DON 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.
- 30. 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.
- 31. BOXES SHALL BE SIZED FOR THE NUMBER AND SIZES OF CONDUCTORS AND CONDUIT ENTERING THE BOX AND EQUIPPED WITH PLASTER EXTENSION RINGS WHERE REQUIRED.
- 32. 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).
- 33. 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.
- 34. PROVIDE SOUND INSULATION AT ALL CONDUIT PENETRATIONS AT SOUND BARRIER RATED WALLS. TYPICAL UNLESS OTHERWISE NOTED.
- 35. 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.
- 36. 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.

Wulff Electric 820 EUBANKS DR. VACAVILLE, CA (707) 447-3920
"THIS DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY WULFF ELECTRIC CO. FOR THEIR EXLUSIVE USE IN ACCORD WITH SEC. 6737.4 OF THE PROFESSIONAL ENGINEERS ACT OF THE STATE OF CALIFORNIA. NO PART OF THIS DOCUMENT MAY BE COPIED. REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT PRIOR WRITTEN CONSENT OF WULFF ELECTRIC CO."
LIC. NO. 558055
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: 07.05.17 SCALE: N.A. DRAWN: FC
E1.0



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		FIX	TURE SCH		
	TAG F1	MFG ASSOCIATED LIGHTING REPS INC.	PRODUCT NO. 8258MH-(1)100W FD-17-120y-SII VFR	VOLT AMPS 52	DESCRIF POLE MO DOWNI
		LO	AD CALCUI		5
	SITE	LIGHTING H X WALK SIGN	= 0.4	12kva	
			TOTAL SITE LOAD = $0.4$	45kva	
	**	NEW FIXTURES AND FL NEW LOADS WILL NOT	ASH SIGN CONNECTED T EXCEED 80% OF 20A CI	ro existing fix Rcuit breaker	IURE 20A CIRC
		FEEDEF	R SCHEDUI	_E	
	FED F	ROM FED TO	QTY CONDUIT	WIREFILL	
	EXISTING FIXTU EXISTING FIXTU	POLE L-1 POLE L-2	1 1"c w/4 1 1"c w/4	⊦ #8al + #8al g ⊦ #8al + #8al g	nd jnd
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	L-1	1 CONDUCTORS VOLTAGE DROP	PER PHASE UTILIZING A TO 0.04% OR LESS WHE	#8 ALUMINUM N SUPPLYING 0	CONDUCTOR WI .24 AMPS FOR
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![](_page_15_Figure_2.jpeg)

![](_page_16_Figure_0.jpeg)

Luminaire S	chedule												
Symbol	Qty	Label		Arrang	rement	LLF	Desc	Description					Arr. Watts
	10	88240		SINGLE		0.900 88 240					89		
Ð	4	GE456802		SINGLE		0.900	ERX1	_A1A1540					42
<b>←→</b>	1	GLEON-AE-01-LE	ED-E1-5MQ-7030-7	BACK-B	ACK	0.900	GLEO	N-AE-01-	LED-E1-5	MQ-7030-7	00		76
0 0	3	GE456802_1	6802 1 BACK-BACK		ACK	0.900	900 GE DOUBLE						84
Calcula	tion Sum	mary			1								
Label			CalcType		Units		Avg	Max	Min	Avg/Min	Max/Min		
Campus	Sidewalk		Illuminance		Fc		1.42	5.4	0.1	14.20	54.00		
City Si	dewalk		Illuminance		Fc		0.79	4.8	0.0	N.A.	N.A.		

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

# SHEET NOTES:

![](_page_17_Figure_9.jpeg)

S INSIDE PULLBOX.	Wulff      State
$RE \rightarrow \begin{pmatrix} 24^{"} \\ (TYP) \\ \end{pmatrix} = 24^{"} \begin{pmatrix} N \\ 24^{"} \\ \end{pmatrix} = 24^{"} \begin{pmatrix} N \\ 24^{"} \\ \end{pmatrix} = 24^{"}$	"THIS DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY WULFF ELECTRIC CO. FOR THEIR EXLUSIVE USE IN ACCORD WITH SEC. 6737.4 OF THE PROFESSIONAL ENGINEERS ACT OF THE STATE OF CALIFORNIA. NO PART OF THIS DOCUMENT MAY BE COPIED, REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT PRIOR WRITTEN CONSENT OF WULFF ELECTRIC CO."
CH/FILL DETAIL CONFORM (TYP) TRENCH IN LANDSCAPE BACKFILL TO CONFORM (TYP.)	LIC. NO. 558055 LIC. NO. 558055 CAL CONTRACTOR
JND PULLBOX: - LIGHT FIXTURE AS SCHEDULE AS SCHEDULED. FINISH MATCH FIXTURE UON. " ABOVE FINISH GRADE IN TRAFFIC AREAS COVER WIRE TO GROUND LUG TI TIGHT TO BASE	SOLANO COMMUNITY COLLEGE CAMPUS ENTRY IMPROVEMENT PROJECT 4000 SUISUN VALLEY ROAD FAIRFIELD, CA 94534
LATE OVER 1" DRYPACK GROUT (PLACE GROUT AFTER LEVELING POLE) SED TOP OF BASE & TROWEL SMOOTH E 2" ABOVE FINISH GRADE IN NON-TRAFFIC AREAS " X 4" TYP. EL ANCHOR BOLTS PER MANUFACTURER TAL STEEL TIES AT 6" OR 12" O.C. AS SHOWN DNDUIT(S) 24" MIN. BELOW GRADE IRTICAL BARS DRCING STEEL SHALL HAVE 3" MINIMUM CONCRETE ENCASEMENT #4 BARE COPPER WIRE IN MINIMUM 12" DIAMETER SPIRAL COIL <b>TURE ON CONCRETE BASE:</b> SCALE: NOT TO SCALE	DETAILS
	NUMBER:    REVISION:    DATE:      XXX    XXX    XXX      XXX    XXX    XXX      XXX    XXX    XXX      Image: Stress of the stres of the stress of the
D FOR BID	DATE: 07.05.17 SCALE: AS NOTED DRAWN: FC SHEET: FC

Photos of surplus lights, 7-6-17

![](_page_18_Picture_1.jpeg)

![](_page_19_Picture_0.jpeg)

Traffic Safety Corporation 2708 47th Ave. Sacramento, CA 95822-3806 Toll Free: 888.446.9255 Tel: 916.394.9884 Fax: 916.394.2809 Email: sales@xwalk.com Web: www.xwalk.com

![](_page_19_Picture_2.jpeg)

# TS40 Flashing LED Edge Lit Signs MUTCD Compliant

## How to Specify the TS40

#### 1. Sign Materials - Construction - Compliance

- a. Sign reflective sheeting in compliance with current MUTCD requirements for reflectivity, wording, materials and mounting guidelines.
- b. Pole mounting requirements per MUTCD guidelines.
- c. Sign constructed of .080 aluminum with stainless / aluminum fasteners and weatherproof sealant.
- d. All mounting hardware fasteners shall be theft deterrent hardware preferably Tufnut security hardware where applicable.
- e. 3/8" x 3" stainless steel tap bolts for standard mounting hardware (other mounting options available).
- f. Battery access compartment located at lower portion of sign to allow access to battery compartment for maintenance (field replaceable battery).
- g. Solar signs to have a 2" to 4" wide casing, depending on model, between front and rear sign faces to enclose all wiring, battery, PCB and LED light connections. AC powered signs 2" wide casing.
- h. Security keyed ON/OFF switch located on side of casing controlling operation.
- i. Vented weatherproof casing allowing ambient air to circulate for internal components and prevent condensation and excessive heat buildup.
- j. Compression type solar panel connector allowing optimum directional placement of solar collector.
- k. Anti-theft placards and decals for theft / vandalism deterrents.
- Serial # plate with manufacture date for informational and warranty purposes.

2. Battery	12 Volt 12 Volt 22000mAH SLA	6 Volt 2 - 6 Volt 9000mAh SLA (18 Ah Total)
Dimensions	7.14" x 3.03" x 6.59"	5.95" x 1.34" x 3.70"
Weight	12.74 lb.	3.09 lb.
Terminal Connector	Nut/Bolt	T2 - Spade
Operating Temperature	-40°F to +156°F	-40°F to +156°F
Warranty	1 Year	1 Year

- Battery mounting with aluminum fasteners and brackets for in-field replacement after life cycle has expired.
- b. Battery casing fully sealed in a moisture and corrosion proof casing.
- c. Required battery replacement every 18 months from manufacture date.

#### 3. Solar Panel Collector

a. Solar panels to be 6/12 volt 15/20/30 watt collector type depending on type of sign, region, LED light quantities and application uses.

	15 Watt	20 Watt	30 Watt
Max Power	15W	20W	30W
Operating Voltage	8.0V	17.2V	17.4V
Operating Current	1.88A	1.16A	1.73A
Max Voltage	10.8V	21.6V	21.6V
Operating Temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Dimensions	16.75" x 14.00" x 1.125"	22.75" x 16.75" x 1.125"	26.5" x 16.75" x 1.125"
Туре	Polycrystalline	Polycrystalline	Polycrystalline

- b. Solar panel bracket constructed of aluminum alloy.
- c. Schedule 40 3/4" aluminum tubing attached to the solar panel bracket to the upper casing of the sign casing. Panel must face south.
- d. Angle of panel shall be 45° to 65° depending on region. Special attention required to insure solar collector has good access to solar power with no obstructions for optimum operation.
- e. Electrical connectors shall be insulated spade type connectors.
- f. Tempered glass solar cell sealer/protector.

#### 4. LED Lights (Light Emitting Diodes)

- a. Sign shall have a series of either 4 8 LEDs depending on sign size and configuration.
- b. All LEDs shall be compliant to MUTCD Section 2A.07 and match colors acceptable to each type of signal per this specification.
- c. LED flash rate at 50 to 60 times per minute per MUTCD Section 2A.07 requirements.
- d. LED light dimensions: 1/8" Cree LED inside a 1-1/4" diameter lens.
- e. 100,000 hour rated LED life (11.415 years).
- f. High impact acrylic water/vibration proof housing lens.
- g. Completely resin sealed lens.
- h. Operating voltage: 6/12 VDC / Amp Draw 85ma.
- i. Rubber grommet mounted (for easy in-field replacement) into a 1-1/4" hole.
- j. Output power of LEDs approximate 60,000 mcd brightness.
- k. LEDs wired in series for simultaneous flash pattern per MUTCD.
- 1. Wiring completely enclosed in sign casing with access for replacement.

#### 5. Circuitry / LED Lighting Control Unit

- a. Circuit shall have a minimum of 4 output LED light circuits for use.
- b. Circuit shall control flash rates at 50 to 60 times per minute.
- c. Circuit shall flash 500 milliseconds / 150 milliseconds per flash.
- d. Available dusk-to-dawn flash mode.
- e. Micro-controller technology.
- f. Keyed "ON/OFF" activation for tamper/vandalism protection.
- g. Operation of circuit temperatures -40°C to +80°C.
- h. Circuit enclosed in weatherproof casing.
- i. Low voltage protection program (protecting from total discharge of battery).
- j. All wiring connections in accordance to standard wiring protection guidelines.
- 6. Warranty
  - 10 Year Solar Panel
  - 5 Year Sign Construction
  - 2 Year LED Lights & Circuitry
  - 1 Year Battery

![](_page_20_Picture_0.jpeg)

**Traffic Safety Corporation** 2708 47th Ave. Sacramento, CA 95822-3806 Toll Free: 888.446.9255 Tel: 916.394.9884 916.394.2809 Fax: Email: sales@xwalk.com Web: www.xwalk.com

Wireless **Pedestrian Push-Button** 

Wireless Push-Button

Transmitter

### **General Description**

Our push-button stations are designed for use at a pedestrian crosswalk to activate In-Roadway Warning Lights or Flashing LED Edge Lit Signs. All stations include an instructional sign plate and an ADA-compliant push-button.

#### **BullDog III Push-Button Station**

The BullDog III sets a higher standard for ADA-compliant pedestrian crossing pushbuttons. The BullDog III is not only accessible, but it's also designed for very low maintenance and built on tested and proven technology. This button is highly vandal resistant with essentially no moving parts. It is pressure activated, but can withstand an impact from a baseball bat or hammer. When the switch activates, you will hear a beep and the LED will flash. The BullDog III Push-Button Station includes an instructional sign, a push-button for activating the flashing lights, and a push-button frame.

#### **BullDog III Features**

- · BullDog III Push-Button Station includes: an instructional sign, a push-button, and push-button frame.
- · Superior die-cast aluminum, powdercoated body - independently lab tested to NEMA 250 (6P) specifications.
- 316 Marine grade stainless steel button cap far exceeds the durability of competing products.
- 2" ADA compliant button withstands severe impact from baseball bats, skate boards, hockey sticks, etc.
- Button places a call with less than two pounds of force.
- Button requires push action to activate cannot be jammed or stuck on.
- Wide operating temperature range of -30° to 165°F (-34° to 74°C).
- Ultra-durable, long-life tested to 300 million operations.
- · Wind, rain, hail, and vibration have no negative effects.
- Transient protection meets and exceeds NEMA specifications - independently lab tested and certified.
- Piezo-driven solid state switch sounds simultaneously with push-button.
- Provides two-tone audible confirmation as well as visual ٠ LED confirmation.
- Available in black or yellow (contact TSC for other colors).
- BullDog III push-buttons use power from existing switch wires.
- 5-year warranty.

![](_page_20_Picture_23.jpeg)

![](_page_20_Picture_24.jpeg)

BullDog III Push-Button Station

![](_page_20_Picture_26.jpeg)

BullDog III Push-Button

### Wireless Push-Button Transmitter

MUTCD compliant Push-Buttons communicate securely to a TS1000 In-Roadway Warning Light Control System, or directly with one or more TS40 Flashing LED Edge Lit Signs at distances of up to 1,500 feet.

#### **Transmitter Specifications** Radio:

- Operating Frequency: 2.4 GHz ISM Band, License Free, FCC Part 15 Compliant and Certified
- Range: Communicates with Devices located up to 1,500' Direct Line of Sight
- Technology: RFDANT Transceiver Environmentally Sealed and Industrial Ruggedized
- Patented Protocol: RFDP 8 High Immunity to RF Noise and WIFI Signal Interference
- Security: Transmitter Paired to Receivers using a Unique 32-Bit Electronic Serial Number

#### **Enclosure:**

- Dimensions: 12" x 10" x 6" (Solar/Battery Model), 12" x 8" x 6" (AC Model)
- Type: NEMA 4X with Integrated Lock, Pole Mounting Kit Option Available
- Material: Fiberglass Enclosure and Back Panel Construction
  - Installation: Pole Installation

#### System:

- Power Source: 12 VDC Solar, 110 VAC Model Available
- Operating Temperature Range: -40° to +185°F (-40° to +85°C)
- Lightning Surge Protection: High Energy Surge and Transient Protection

- Autonomy: 5 Days
- Warranty: 5-Year Warranty, Battery Excluded.

Ordering Codes		Body	Power	
Part #	Description	Color	Source	Options
AC-BDL3W	BullDog III Push-Button with Stainless Steel Button*	- B: Black - Y: Yellow	- S: Solar - AC: AC	- BR: Braille on Sign
AC-TS40BDSPW	BullDog III Push-Button with Stainless Steel Button (for TS40 signs)*	Contact TSC for other	- B: Battery	Plate of Station
AC-BDL3FSW	BullDog III Push-Button Station with Stainless Steel Button**	colors.		
AC-TS40BDSPFSW	BullDog III Push-Button Station with Stainless Steel Button (for TS40 signs)**			
AC-BDL3ALFSW	BullDog III Push-Button Station with Left Arrow Button**			
AC-BDL3ARFSW	BullDog III Push-Button Station with Right Arrow Button**			

\* Frame and sign not included. \*\* Frame and sign included.

Notes: 1. For wireless operation, Wireless Push-Buttons must be paired with TS1000 Crosswalk System Controller or with TS40 Signs having Wireless Push-Button option installed.

2. Transmitter Pole Mount Kit Available.

### Visit our web site: www.xwalk.com

![](_page_21_Figure_0.jpeg)

![](_page_22_Figure_0.jpeg)