

# LIBERTY HIGH SCHOOL Administration and Student Commons Modernization

### Addendum 05

January 5, 2021

DSA File Number: 7-H4 DSA Application Number: 01-119033

PTN: 61721-55

#### Owner:

Liberty Union High School District 20 Oak Street Brentwood, CA 94513

#### **Architect:**

Quattrocchi Kwok Architects 636 Fifth Street Santa Rosa, California 95404 P:707.576.0829 F: 707.576.0295

Architect's Project No.: 1783.00

### To: Prospective Bidders

The following changes, modifications and additions to Project Manual and Drawings described below are made a part thereof and are subject to all of the requirements thereof as if originally specified. The Bidder must acknowledge receipt of the Addendum in the space provided on the Bid Form; failure to do so may subject the Bidder to disqualification.

#### Table of Contents - Addendum 05

This Addendum consists of 7 pages and the attachments as listed below dated January 5, 2021

Deleted Text is shown in strikeout type.

Added Text is shown in *bold italicized type*.

#### **ATTACHMENTS:**

#### **Project Manual**

None

ADD Drawings (8.5 inch by 11 inch & 11 inch by 17 inch):

None

#### Drawings: (24 inch by 36 inch)

ADD 05 A-1.2	SITE DETAILS
ADD 05 A-B2.0	CAFETERIA AND A-WING BUILDING DEMOLITION PLAN
ADD 05 S3.1	CANOPY PLANS
ADD 05 S5.1	STEEL DETAILS
ADD 05 E-0.1	SYMBOLS LIST, GENERNAL NOTES & LIST OF DRAWINGS
ADD 05 E-1.1	SITE PLAN - ELECTRICAL
ADD 05 E-A3.1	ADMINISTRATION BLDG POWER & SIGNAL
ADD 05 E-B3.1	CAFETERIA KITCHEN PLAN – LIGHTING
ADD 05 E-5.1	SINGLE LINE DIAGRAM – POWER
ADD 05 E-6.1	PANEL SCHDULE
ADD 05 E-7.4	DETAILS

#### **Project Record**

None

#### **End of Table of Contents**

Project No.: 1783.00

#### A. CHANGES TO PREVIOUS ADDENDA

None.

#### B. CHANGES TO THE BIDDING AND CONTRACT REQUIREMENTS

Item No. 5. 01

None.

#### C. CHANGES/ ADDITIONS TO THE SPECIFICATIONS

#### Item No. 5. 02

Section 08 7100 DOOR HARDWARE

Revised of Article 2.02.C as follows.

#### C. Locks

- 1. Except where otherwise specified, furnish all locksets, latchsets, cylinders and component parts by Schlage as specified. Provide:
  - a. Lock series and trim/design as specified, and at all times shall include Contractor provision and installation cylinders, cores, keying and all components for fully functional hardware set.
  - b. Locksets less cylinders. and cylinders with Everest cylinder in keyway as directed by the District.
  - c. Mortise cylinders and rim cylinders less cores.
  - d. Box strikes as required by frame types with sufficient length lip to prevent latch from damaging trim.

#### Item No. 5. 03

Section 08 7100 DOOR HARDWARE

Delete of Article 2.02.D from specifications

#### Item No. 5. 04

Section 08 7100 DOOR HARDWARE

Revised of Article 2.04 as follows.

#### 2.04 KEYING

- A. Keying Schedule
  - 1. Within 10 days after approval of the hardware submittal, Contractor to have a keying conference with District/Architect to determine the specific keying requirements of the project.
  - 2. Pursuant to the keying conference, Contractor shall submit a final Keying Schedule to District/Architect for approval.
- B. Factory key all locksets and cylinders:
  - 1. Master key/grand master and/or higher level key as required
  - 2. Construction master key
- C. Furnish the following keys and related items:
  - 1. 2 blanks and 2 change per keyed different lock
  - 2. 4 each keyed alike set

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- 3. 5 masters each MK set
- 4. 2 grand masters and/or higher level keys as required
- 5. 10 construction masters
- 6. 1 bitting list
- D. Stamp all key bows with "DO NOT DUPLICATE" and with any other inscription as directed by the District/Architect.
- E. Tag all permanent keys with door and hardware heading numbers and deliver to District.

#### Item No. 5. 01

Section 08 7100 DOOR HARDWARE

Revised of Article 2.05 as follows.

#### 2.05 KEY CONTROL

- A. Key Cabinet
  - 1. Provide MMF Industries STEELMASTER Dupli-Key model or approved equal products
    - listed in 2.01, A.
  - 2. Furnish with key lock and all accessories.
  - 3. Cabinet size to accommodate 125 percent of total number of locks and cylinders.
  - 4. Deliver cabinet to District prior to building occupancy.
  - 5. The District is responsible for installation and hanging of keys on hooks.

#### D. CHANGES/ ADDITIONS TO THE DRAWINGS

#### Item No. 5. 02

The following drawings dated January 5, 2021 denoted **Addendum 05** supersede and replace previous drawings with the same titles:

ADD 05 A-1.2	SITE DETAILS
ADD 05 A-B2.0	CAFETERIA AND A-WING BUILDING DEMOLITION PLAN
ADD 05 S3.1	CANOPY PLANS
ADD 05 S5.1	STEEL DETAILS
ADD 05 E-0.1	SYMBOLS LIST, GENERNAL NOTES & LIST OF DRAWINGS
ADD 05 E-1.1	SITE PLAN - ELECTRICAL
ADD 05 E-A3.1	ADMINISTRATION BLDG POWER & SIGNAL
ADD 05 E-B3.1	CAFETERIA KITCHEN PLAN – LIGHTING
ADD 05 E-5.1	SINGLE LINE DIAGRAM – POWER
ADD 05 E-6.1	PANEL SCHDULE
ADD 05 E-7.4	DETAILS

#### E. BIDDERS QUESTIONS

#### Item No. 5. 03

Q: I am working on a bid for the roofing section of Liberty High School but I do need clarification on the cafeteria plan. Note 2B states that the structure is sloped do we know what the slope is for the cafeteria? Thanks.

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A: The slope varies. One the lower roof the slope from the outside edge to inside wall is 1-1/2". On the upper roof it varies along the ridge with a maximum of 1-1/2" difference from the exterior.

#### Item No. 5. 04

- Q: Regarding aluminum window type W13 updated in addendum 4. When submitting for pricing from specified manufacture All Weather, they responded that they do not fabricate single hung operable windows anymore. Please provide direction on how to proceed with these windows.
- A: Two manufactures are listed in the specifications. If there is not a product available, please provide a substitution request.

#### Item No. 5. 05

- Q: Please reference the entry gate shown on A-A2.1; This detail calls out to reference detail 28/A-1.2, which in turn directs you to provide a Ameristar bi-fold roll gate or similar. Ameristar does not manufacturer bi-fold roll gate. Please advise on design intent.
- A: See changes to drawings

#### Item No. 5. 06

- Q: Page C-1.0 calls to remove awing adjacent to Wings A-D. This work doesn't show on the A & B architectural drawings. Can you provide more information, elevation, pictures, etc?
- A: The original section drawing of the canopy with a note on the overall length of the canopy and how to restore the flatwork at the location of the removed columns have been added to Sheet Addendum A-B2.0 CAFETERIA AND A-WING BUILDING DEMOLITION PLANS.

#### Item No. 5. 07

- Q: In spec section 06 4100 1.03.D References Certified Compliance Program (CCP), 1.03.E References Monitored Compliance Program (MCP); 1.05.A.2 and 1.05.B.1 seem to indicate the (CCP); 2.13.A seems to indicate MCP.
  - Since there is a substantial difference in the cost of these two certification programs, please clarify if the customer wants to have the Certified Compliance Program or the Monitored Compliance Program for this project
- A: CCP is desired on this project.

#### Item No. 5. 08

Q: In Specification 06 4100, paragraph 2.11.D States to locate counter butt joints minimum 6 feet from sink cut-outs. Since the plastic laminate is available at maximum length of 12' it would be impossible to have the butt joints at least 6 feet from each end.

Please clarify the distance between the butt joint to the sink cutout. (Most specs indicate at least 2 feet from the sink cutout to the Butt joint)

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A: 2' is acceptable.

#### Item No. 5. 09

Q: On sheets A-A2.1 and A-A7.1 In Specification 06 4100, paragraph 2.11.D States to locate counter butt joints minimum 6 feet from sink cut-outs. Since the plastic laminate is available at maximum length of 12′ it would be impossible to have the butt joints at least 6 feet from each end.

Please clarify the distance between the butt joint to the sink cutout. (Most specs indicate at least 2 feet from the sink cutout to the Butt joint)

A: 2' is acceptable.

#### Item No. 5. 10

Q: If a bidder chooses to submit phone numbers & email address of their subcontractors within 24 hours of the bid, who at the District should they be sent to? And what is their contact information, including e-mail?

From the Designation of Subcontractors form on page 17:

"\*This information must be provided at the time of submission of the bid or must be provided within 24 hours after the time set for the opening of bids. Bidders who choose to provide this information within 24 hours after the time set for the opening of bids are solely responsible to ensure the District receives this information in a timely manner...."

A: Liz Robbins

Chief Business Officer Liberty Union High School District 20 Oak Street, Brentwood, CA 94513 925-634-2166 ext 2030 robbinsl@luhsd.net

#### Item No. 5. 11

Q: Sheet A-A2.1 shows the wall that has the Flat Screen on it as being a wood framed wall. Keynote 25 on Sheet A-A7.1 indicates casework at that location.

Please clarify what material is on that section of the wall. If it is casework, I need a cross section indicating what it is and how it is anchored to the wood framing.

A: The flat screen is on a wall next to an alcove with cabinets. The flat screen shows on the interior elevation just under keynote #7 on the north elevation.

#### Item No. 5. 12

- Q: Please clarify if the scope of work includes provision of cylinders and keying for door hardware.
- A: Bid amount shall include cost to provide and install all cylinders, cores and keying to provide fully functional hardware set and comply with District choices.

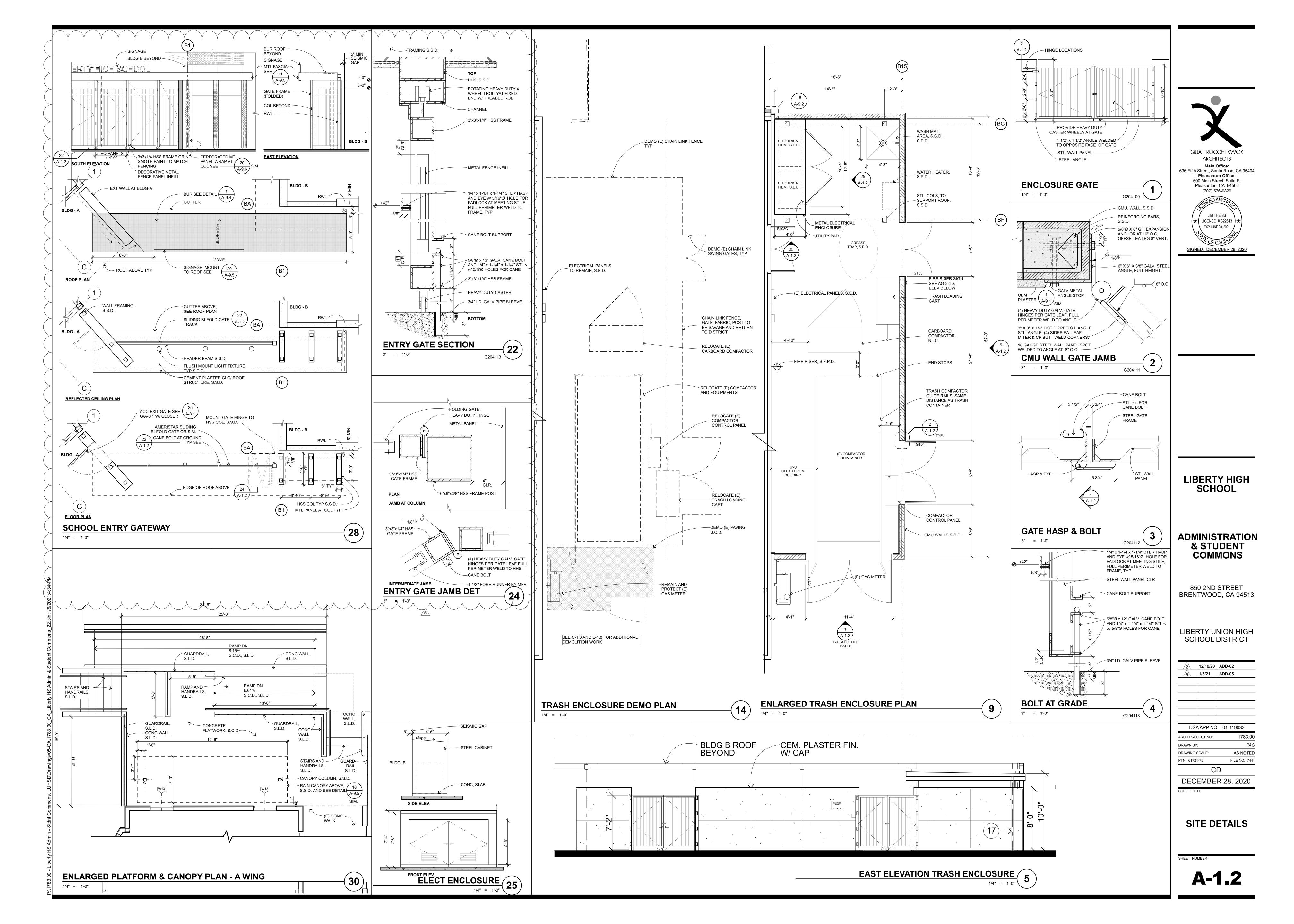
Project No.: 1783.00

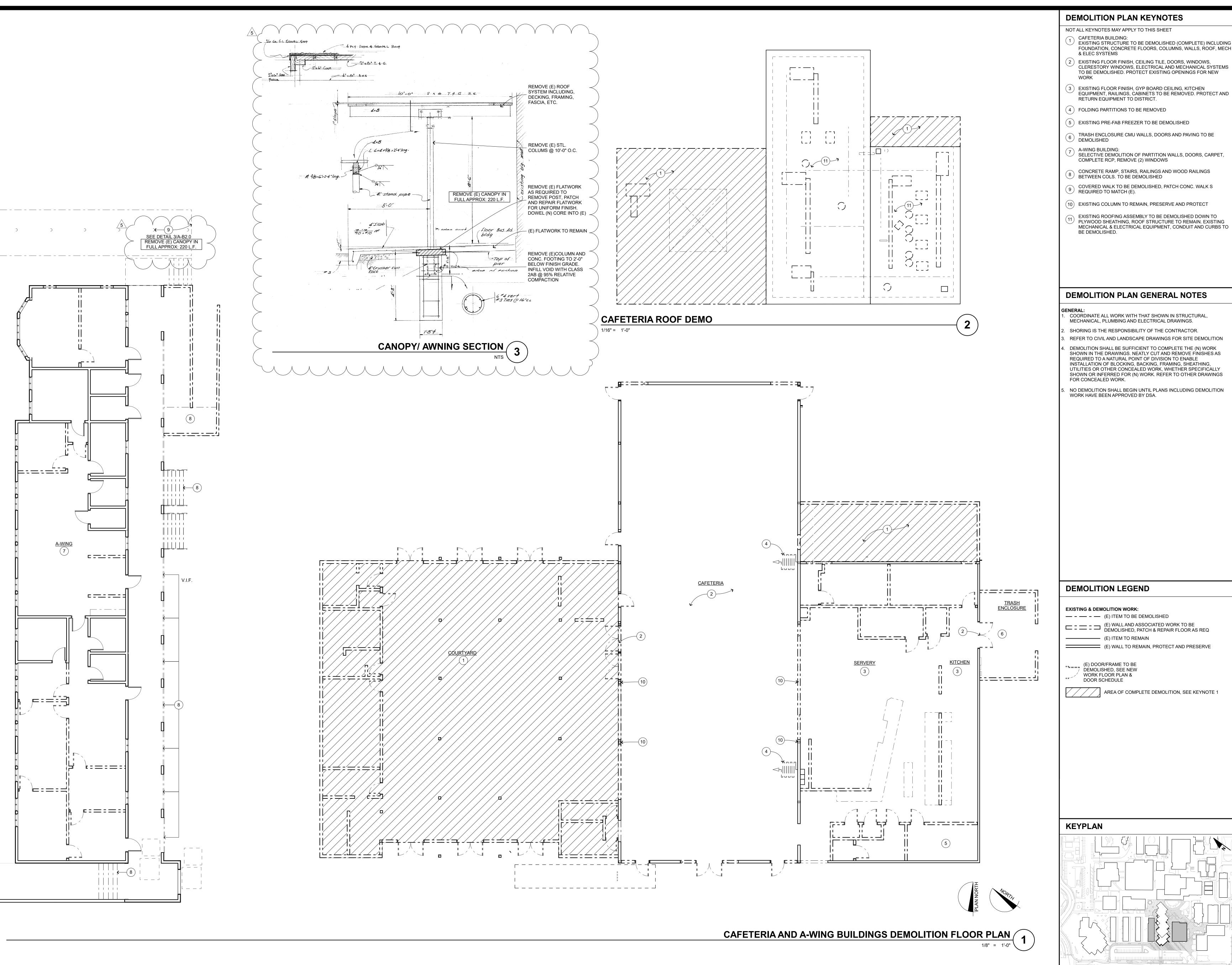
Specification Section 08 7000 Door Hardware articles 2.02.C, 2.03.D 2.04 and 2.05 have been amended by this addendum to clarify that all door hardware sets that require cylinders, cores or keying will be provided and installed by contractor.

Article 3.06 Hardware Schedules – If there is any question based on component model number whether cylinders, cores or keying is to be provided by Contractor, Contractor bid shall provide for hardware sets inclusive of provision and installation of cylinders, cores and keying of all components require for fully functional hardware set.

**END OF ADDENDUM** 

Project No.: 1783.00





- FOUNDATION, CONCRETE FLOORS, COLUMNS, WALLS, ROOF, MECH
- (2) EXISTING FLOOR FINISH, CEILING TILE, DOORS, WINDOWS, CLERESTORY WINDOWS, ELECTRICAL AND MECHANICAL SYSTEMS TO BE DEMOLISHED. PROTECT EXISTING OPENINGS FOR NEW
- (3) EXISTING FLOOR FINISH, GYP BOARD CEILING, KITCHEN

- SELECTIVE DEMOLITION OF PARTITION WALLS, DOORS, CARPET,
- CONCRETE RAMP, STAIRS, RAILINGS AND WOOD RAILINGS
- COVERED WALK TO BE DEMOLISHED, PATCH CONC. WALK S
- (10) EXISTING COLUMN TO REMAIN, PRESERVE AND PROTECT
- PLYWOOD SHEATHING, ROOF STRUCTURE TO REMAIN, EXISTING MECHANICAL & ELECTRICAL EQUIPMENT, CONDUIT AND CURBS TO

## QUATTROCCHI KWOK ARCHITECTS Main Office: 636 Fifth Street, Santa Rosa, CA 95404 **Pleasanton Office:** 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0829 JIM THEISS

★ LICENSE # C22643

EXP JUNE 30, 2021

SIGNED: DECEMBER 28, 2020

## **DEMOLITION PLAN GENERAL NOTES**

## COORDINATE ALL WORK WITH THAT SHOWN IN STRUCTURAL.

- MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
- DEMOLITION SHALL BE SUFFICIENT TO COMPLETE THE (N) WORK SHOWN IN THE DRAWINGS. NEATLY CUT AND REMOVE FINISHES AS REQUIRED TO A NATURAL POINT OF DIVISION TO ENABLE INSTALLATION OF BLOCKING, BACKING, FRAMING, SHEATHING, UTILITIES OR OTHER CONCEALED WORK, WHETHER SPECIFICALLY SHOWN OR INFERRED FOR (N) WORK. REFER TO OTHER DRAWINGS
- NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING DEMOLITION

# LIBERTY HIGH SCHOOL

& STUDENT COMMONS

850 2ND STREET BRENTWOOD, CA 94513

## **ADMINISTRATION**

AREA OF COMPLETE DEMOLITION, SEE KEYNOTE 1

# LIBERTY UNION HIGH

SCHOOL DISTRICT

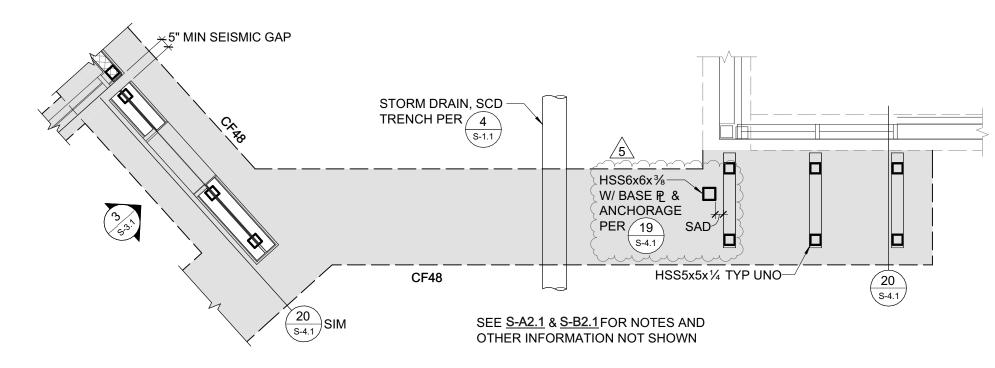
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5	1/7/21	ADD-05
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DSA	AAPP NC	). 01-119033
A DOLL DDG	IEOT NO.	1702.00

ARCH PROJECT NO: 1783.00 CH,GRD DRAWN BY: DRAWING SCALE: 1/8" = 1'-0" FILE NO: 7-H4 PTN: 61721-75

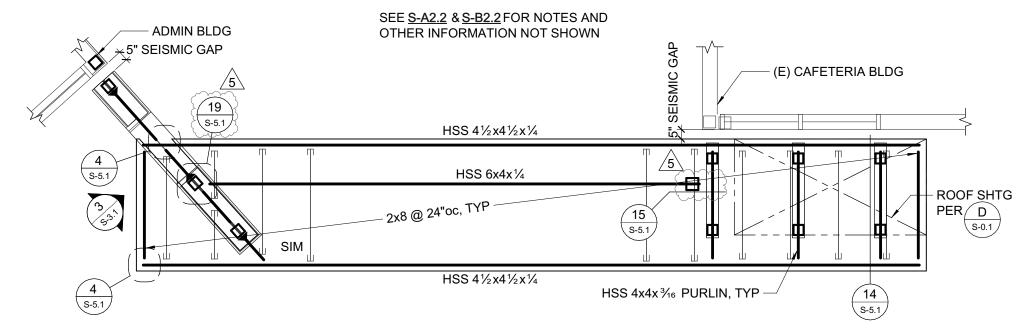
**DECEMBER 28, 2020** 

**CAFETERIA AND** A-WING **BUILDINGS DEMOLITION PLAN** 

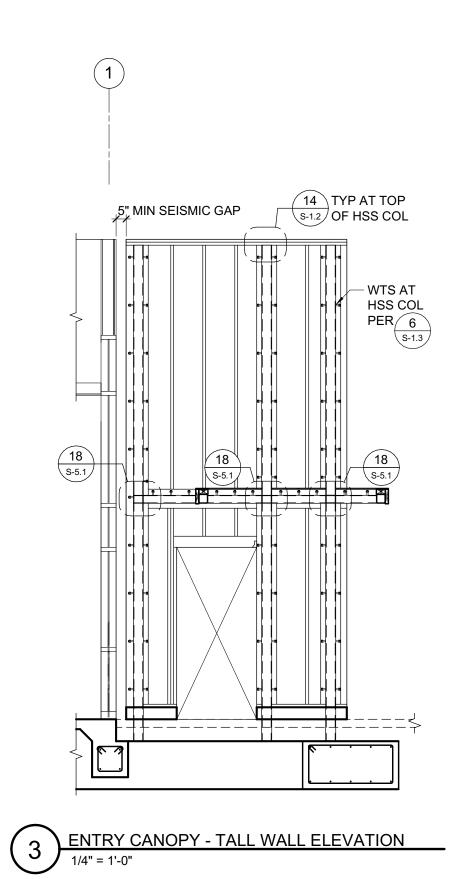
ADDENDUM 02
A-B2.0



1 ENTRY CANOPY - FOUNDATION PLAN
1/4" = 1'-0"



2 ENTRY CANOPY - ROOF FRAMING PLAN
1/4" = 1'-0"







THIS DOCUMENT AND THE IDEAS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF THE ENGINEER AND IS NOT TO BE USED, IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER.

LIBERTY HIGH SCHOOL

ADMINISTRATION
& STUDENT
COMMONS

850 2nd Street Brentwood CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

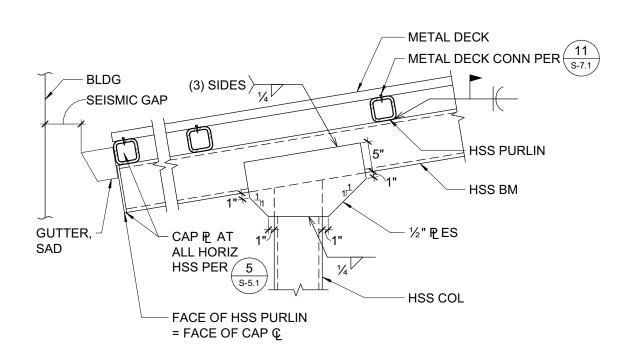
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<u> </u>	1/6/21 ADD-05								
D	SA APP NO	D. 01-119033							
ARCH PRO	DJECT NO:	1783.00							
ENGR / PN	<b>/</b> 1:	KPB / AIZ							
DRAWING	SCALE:	1/4" = 1'-0"							
PTN: 61721	1-75	FILE NO: 7-H4							

DECEMBER 2, 2020

**CANOPY PLANS** 

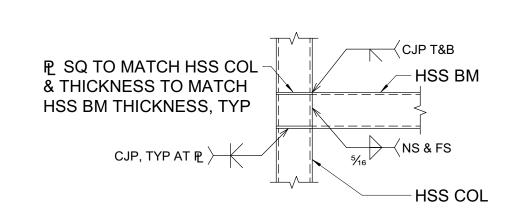
SHEET NUMBER

**S-3.1** 

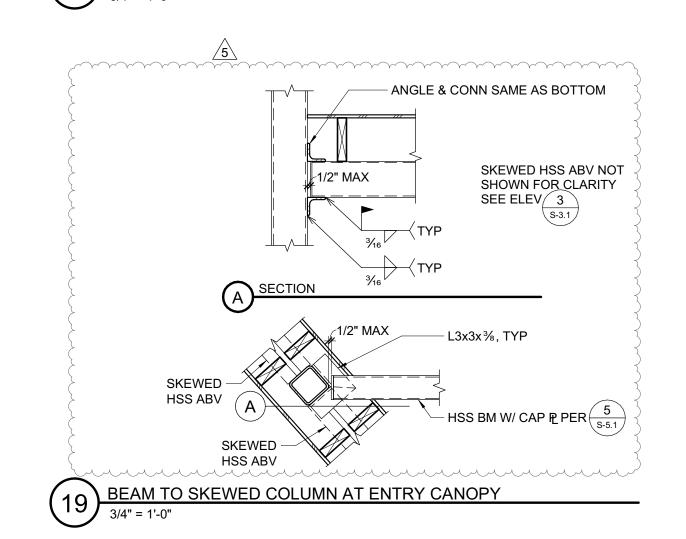


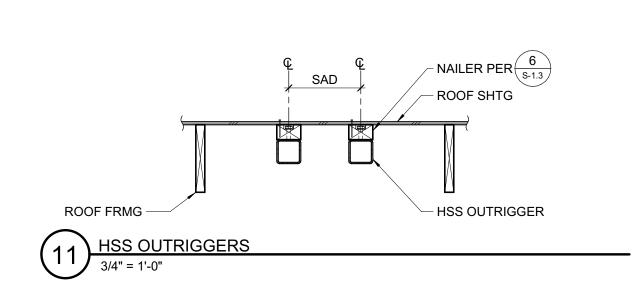
ENTRY CANOPY FRAMING CONNECTION

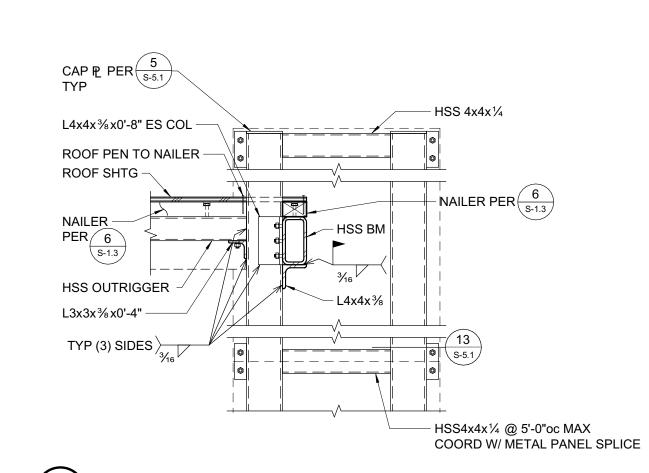
3/4" = 1'-0"

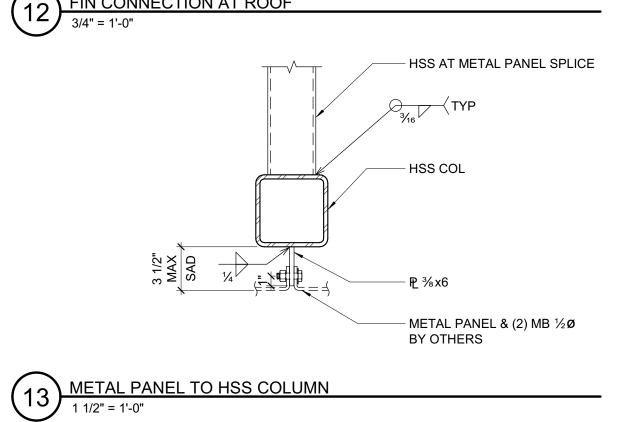


HSS TO HSS MOMENT CONNECTION









NAILER PER 6
S-1.3

HSS PURLIN

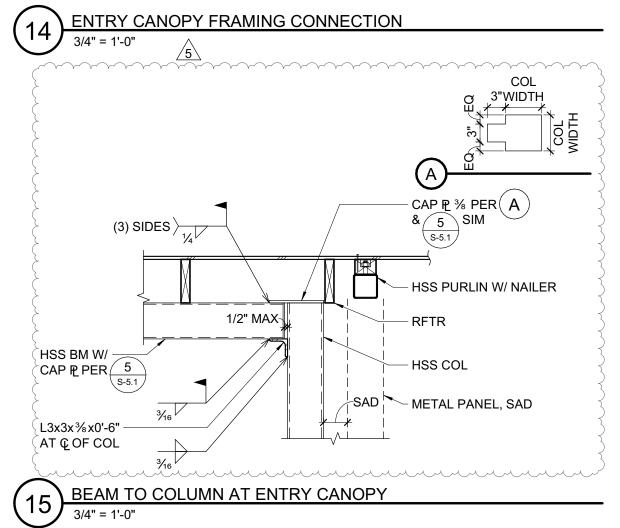
#12 WS @ 12"oc, TYP

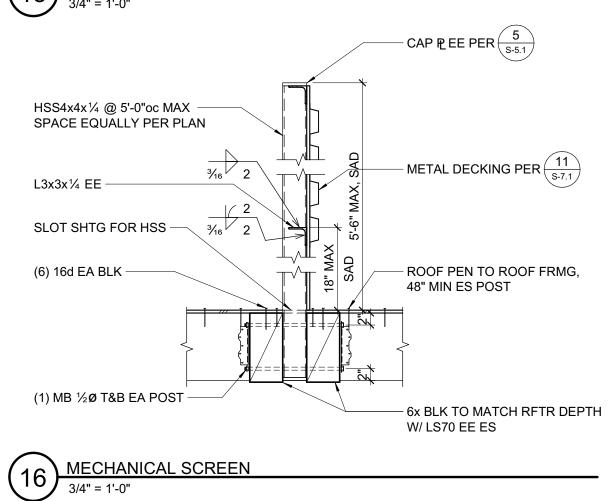
NAILER PER 6
S-1.3

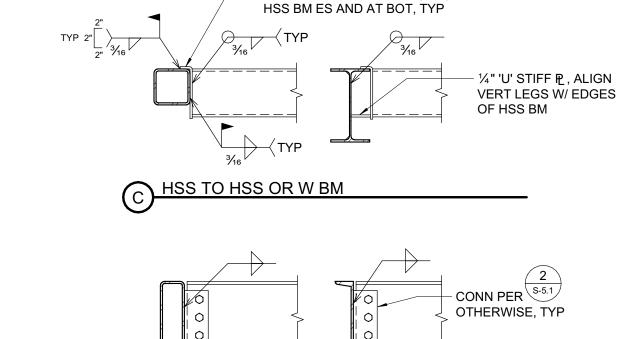
L2x2x3/16, TYP

RFTR W/ HGR PER 5.0.1

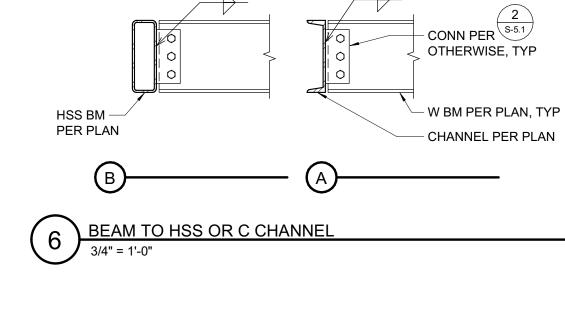
- HSS COL, TYP

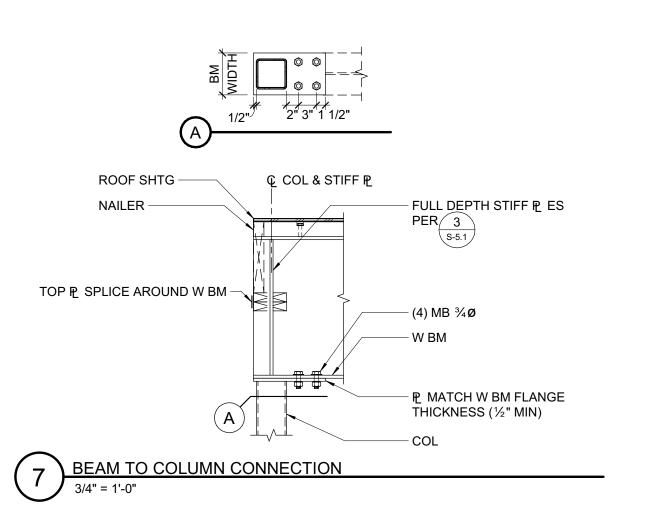


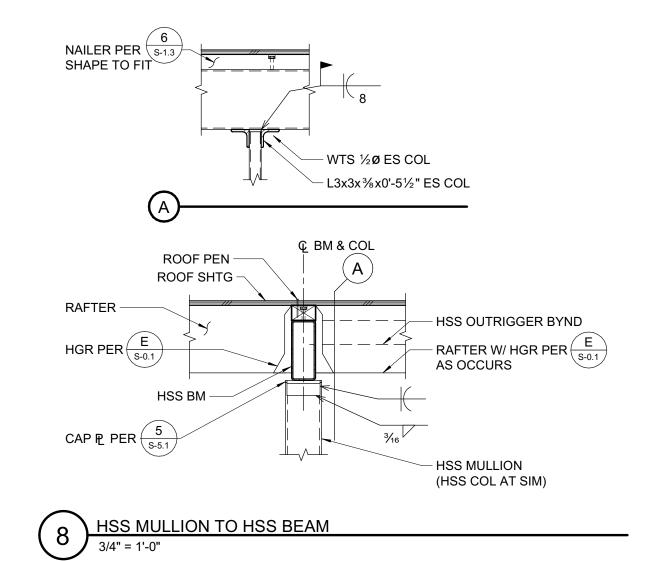


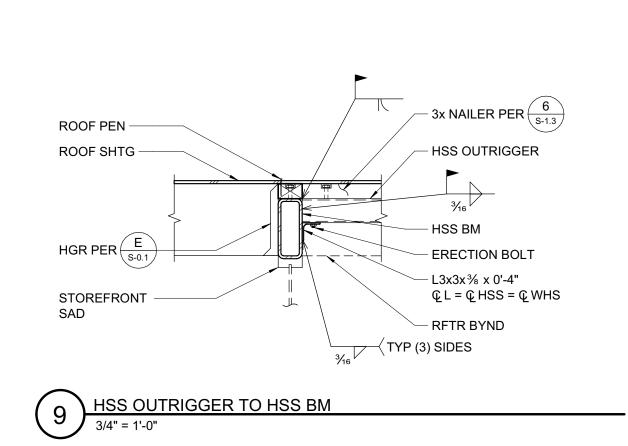


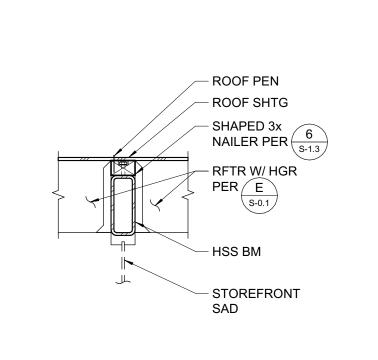
- ¾" BENT ₱, EXTEND ½" (MIN) BYND



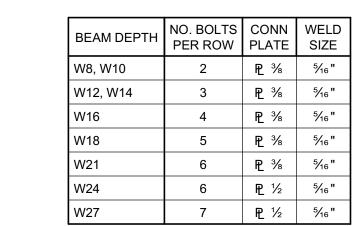






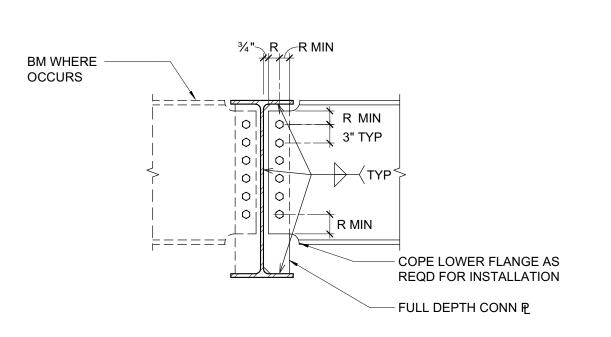






- NOTES:

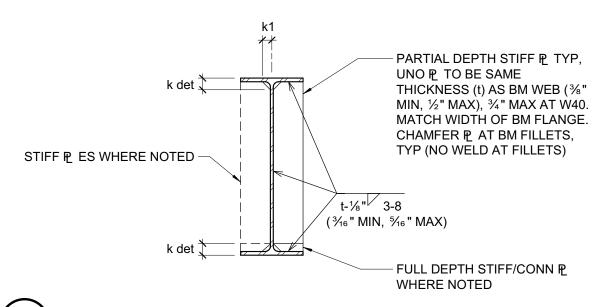
  1. R = 1½" SEE TYP CONNECTION DETAILS. BOLT SPACING AND EDGE DISTANCE SHALL CONFORM TO AISC SPECIFICATIONS.
- 2. A COMPLETE PENETRATION BEVEL WELD MAY BE SUBSTITUTED FOR THE FILLET WELDS SPECIFIED.
- 3. USE ASTM A36 CONNECTION PLATES, UNO.
- 4. HOLE SIZE = BOLT SIZE + 1/16".
- 5. USE SAME CONNECTIONS AT CHANNELS. FOR W6, C6 & ANGLES USE PLATE, WELD & BOLT SIZE PER W8.
- 3/4 "Ø MACHINE BOLT (MB) CONNECTION SCHEDULE



SEE 1 FOR CONN P, BOLTS, & WELD

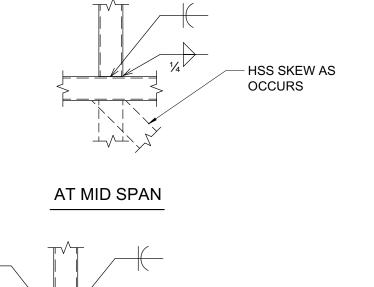
TYPICAL FULL DEPTH BEAM TO BEAM CONNECTION

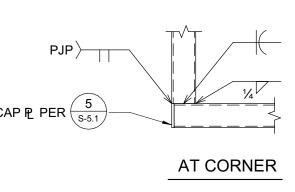
3/4" - 1' 0"



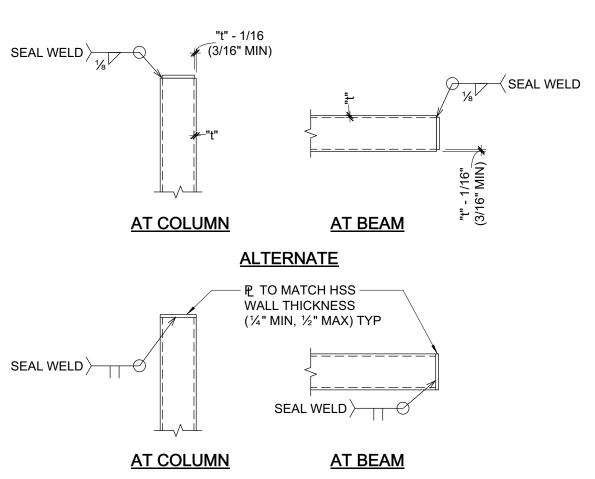
TYPICAL BEAM WEB STIFFENER PLATE DETAIL

3/4" = 1'-0"





4 HSS TO HSS 3/4" = 1'-0"



5 TYPICAL CAP PLATI





LIBERTY HIGH SCHOOL

ADMINISTRATION & STUDENT COMMONS

> 850 2nd Street Brentwood CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

REVISIO	NS							
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<u> </u>	1/6/21	ADD-05						
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DRAWING SCALE: As indicate								
PTN: 61721	1-75	FILE NO: 7-H4						

CD

DECEMBER 2, 2020

STEEL DETAILS

EET NUMBER

**S-5.1** 

## **ELECTRICAL EQUIPMENT ANCHORAGE**

### **ELECTRICAL ANCHORAGE NOTES:**

ALL ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16, CHAPTER 13, 26, AND 30.

- 1. ALL PERMANENT EQUIPMENT AND COMPONENTS. 2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
- "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE. 3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.
- THE FOLLOWING ELECTRICAL COMPONENTS SHALL BE BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.
  - A. COMPONENT WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED

SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR

THE ANCHORAGE OF ALL ELECTRICAL COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

### ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

FLOOR OR HUNG FROM WALL.

ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5. 13.6.6, 13.6.7, 13.6.8, AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (eg., OSHPD OPM FOR 2013 CBC), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED

ELECTRICAL DISTRIBUTION SYSTEMS ARE: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

LIGHT FIXTURES: ALL LIGHT FIXTURES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE FIXTURE, A MINIMUM OF TWO SCREWS OR APPROVED FASTENERS ARE REQUIRED AT EACH LIGHT FIXTURE, PER ASTM E580, SECTION 5.3.1.

SURFACE-MOUNTED LIGHT FIXTURES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES. THE CLAMPING DEVICE SHALL COMPLETELY SURROUND THE SUPPORTING CEILING RUNNER AND BE MADE OF STEEL WITH A MINIMUM THICKNESS OF #14 GAGE. ROTATIONAL SPRING CATCHES DO NOT COMPLY. A #12 GAGE SLACK SAFETY WIRE SHALL BE CONNECTED FROM EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. PROVIDE ADDITIONAL SUPPORTS WHEN LIGHT FIXTURES ARE EIGHT (8) FEET OR LONGER OR EXCEED 56 LB. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED EIGHT (8) FEET.

LIGHT FIXTURES WEIGHING LESS THAN OR EQUAL TO 10 LB. SHALL HAVE A MINIMUM OF ONE (1) #12 GAGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE.

LIGHT FIXTURES WEIGHING GREATER THAN 10 LB. BUT LESS THAN OR EQUAL TO 56 LBS. MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, BUT THEY SHALL HAVE A MINIMUM OF TWO (2) #12 GAGE SLACK SAFETY WIRES CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS TO THE STRUCTURE ABOVE. <u>EXCEPTION:</u> ALL LIGHT FIXTURES GREATER THAN TWO BY FOUR FEET WEIGHING LESS THAN 56 LBS. SHALL HAVE A #12 GAGE SLACK SAFETY WIRE AT EACH CORNER.

ALL LIGHT FIXTURES WEIGHING GREATER THAN 56 LB. SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR (4) TAUT #12 GAGE HANGER WIRES (ONE AT EACH CORNER) ATTACHED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS. THE FOUR (4) TAUT #12 GAGE WIRES OR OTHER APPROVED HANGERS, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, SHALL BE CAPABLE OF SUPPORTING FOUR (4) TIMES THE WEIGHT OF THE FIXTURE.

## **GENERAL DEMOLITION NOTES**

- THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL LINES, LEVELS, DIMENSIONS AND EXISTING CONDITIONS. THE INFORMATION ON THE DRAWINGS REGARDING EXISTING ELECTRICAL EQUIPMENT AND BRANCH CIRCUITS IS THE RESULT OF FIELD SURVEY AND IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. IT IS INTENDED, HOWEVER, AS A GUIDE FOR USE IN VERIFICATION ONLY.
- THE EXISTING PLANS SHALL BE DOCUMENTED AND SUBMITTED TO THE ENGINEER FOR DETERMINATION OF ACTION REQUIRED

ANY EXISTING ELECTRICAL EQUIPMENT IN THE AREA OF NEW CONSTRUCTION NOT SHOWN ON

- WHEREVER THE REMOVAL OF EXISTING ELECTRICAL EQUIPMENT IS CALLED FOR AND ALL EQUIPMENT ON A PARTICULAR BRANCH CIRCUIT IS TO BE REMOVED, ALL CONDUIT AND WIRE BACK TO THE PANEL SHALL BE ENTIRELY REMOVED AND THE CIRCUIT IN PANEL SHALL BE MARKED "SPARE". THIS APPLIES TO SIGNAL AND COMMUNICATIONS SYSTEMS EQUIPMENT, CONDUIT, AND WIRE AS WELL.
- WHEREVER THE REMOVAL OF EXISTING ELECTRICAL EQUIPMENT IS CALLED FOR AND ALL EQUIPMENT ON A PARTICULAR BRANCH CIRCUIT IS NOT TO BE REMOVED, THE CIRCUIT SHALL BE MAINTAINED CONTINUOUS TO THE EXISTING EQUIPMENT IN USE WITH MINIMUM INTERRUPTIONS OF POWER. THIS APPLIES TO SIGNAL AND COMMUNICATIONS SYSTEMS EQUIPMENT, CONDUIT, AND WIRE AS WELL.
- WHENEVER THE REMOVAL OF EXISTING CONSTRUCTION REVEALS ELECTRICAL WORK THAT IS TO REMAIN, BUT IS IN CONFLICT WITH NEW CONSTRUCTION, RELOCATE THE EXISTING ELECTRICAL WORK AS NECESSARY TO AVOID ANY CONFLICT. RELOCATION WORK SHALL BE DONE TO MINIMIZE ANY INTERRUPTIONS OF POWER.
- CARE SHALL BE TAKEN IN ORDER TO IDENTIFY AND PROTECT ALL EXISTING ELECTRICAL WORK THAT IS TO REMAIN.
- ENSURE RECONNECTION OF EXISTING DEVICES WHOSE CIRCUITS HAVE BEEN INTERRUPTED BY DEMOLITION BY PROVIDING NEW CONNECTION TO ANOTHER EXISTING TO REMAIN DEVICE
- ALL EXISTING ELECTRICAL EQUIPMENT SHOWN ON THE PLANS FOR NEW WORK ARE THOSE WHICH ARE TO BE REUSED DURING SOME PHASE OF THE NEW CONSTRUCTION OR REQUIRE SOME SPECIAL CONSIDERATIONS.
- WHENEVER THE REMOVAL OF EXISTING ELECTRICAL PANELBOARDS ARE CALLED FOR AND ALL EXISTING BRANCH CIRCUITS ARE NOT TO BE REMOVED, THE EXISTING BRANCH CIRCUITS SHALL BE CONNECTED TO OTHER EXISTING ELECTRICAL EQUIPMENT OR PANELS STILL IN USE WITH MINIMUM INTERRUPTIONS OF POWER. ALSO, IF REQUIRED, THESE SAME BRANCH CIRCUITS SHALL BE RECONNECTED TO RELOCATED EXISTING OR NEW PANELBOARDS AS PART OF THE NEW CONSTRUCTION. THIS APPLIES TO SIGNAL AND COMMUNICATIONS SYSTEMS EQUIPMENT, CONDUIT AND WIRE AS WELL.
- .0. THE ELECTRICAL CONTRACTOR SHALL REVISE EXISTING PANEL SCHEDULES TO CORRESPOND TO ACTUAL CONDITIONS AFTER ALL DEMOLITION AND NEW WORK IS COMPLETED.
- 11. REMOVE ALL ABANDONED CONDUIT AND WIRE ABOVE CEILINGS.
- 12. WHEN ELECTRICAL EQUIPMENT OR DEVICE IS REMOVED FROM AN EXISTING WALL OR CEILING WHICH IS TO REMAIN, PATCH ABANDONED OPENINGS TO MATCH EXISTING FINISH.
- .3. IN GENERAL, THE DEMOLITION PLANS SHOW ALL EXISTING EQUIPMENT THAT IS TO BE REMOVED UNLESS NOTED OTHERWISE. HOWEVER, ELECTRICAL EQUIPMENT, WHETHER SHOWN ON THIS DRAWING OR NOT, WHERE LOCATED IN THE AREA SCHEDULED TO BE DEMOLISHED, SHALL BE REMOVED COMPLETELY (INCLUDING CONDUIT AND WIRES BACK TO THE LAST REMAINING FIXTURE, OUTLET, DEVICE, ETC.) UNLESS OTHERWISE NOTED. COORDINATE DEMOLITION WORK WITH ARCHITECT AND GENERAL CONTRACTOR.
- 4. EXISTING CONDUIT FEEDS UP THROUGH FLOOR SHALL BE CUT OFF AND PLUGGED FLUSH WITH FLOOR WHERE EXISTING WALLS, ETC., ARE REMOVED. REMOVE CONDUCTORS FROM THE POINT BACK TO LAST OUTLET REMAINING IN SERVICE.
- IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO MAINTAIN CONTINUITY OF ALL ELECTRICAL SYSTEMS, EQUIPMENT, ETC. REMAINING IN OPERATION WHICH IS BEING FED BY AN ABANDONED OUTLET. MAINTAINING CONTINUITY SHALL CONSIST OF REROUTING OF CONDUIT, WIRE, ETC. AS REQUIRED.
- 6. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF EXISTING CIRCUITS AND ADJUST CIRCUIT NUMBERS ACCORDING TO EXISTING CONDITIONS IF
- 7. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OWNER PRIOR TO REMOVAL OF EXISTING ELECTRICAL EQUIPMENT AND TURN OVER REMOVED EQUIPMENT THAT THE OWNER REQUESTS, IN AS-FOUND CONDITION. EQUIPMENT THAT IS TO BE TURNED OVER SHALL BE BOXED AND TAGGED TO IDENTIFY THE SPECIFIC EQUIPMENT. EQUIPMENT TO BE TEMPORARILY REMOVED DUE TO THE CONSTRUCTION SHALL BE CLEANED AND RE-INSTALLED
- IN ITS ORIGINAL CONDITION OR AS REQUIRED. 18. WHERE EXISTING WALLS HAVE BEEN REMOVED, AND THERE ARE EXISTING CONDUIT FEEDS WHICH HAVE BEEN CUT OFF AND CAPPED FLUSH WITH THE FLOOR, IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND DIMENSION ALL SUCH CONDUITS ON THE "AS-BUILT"
- .9. IF ANY EQUIPMENT THAT IS SCHEDULED TO REMAIN IN OPERATION IS DAMAGED BY THE CONTRACTOR, IT SHALL BE REPLACED TO ITS ORIGINAL CONDITION SATISFACTORY TO THE OWNER AT CONTRACTOR'S EXPENSE.

FIRE ALARM SYSTEM MAGNETIC DOOR HOLD-OPEN

**SYMBOLS LIST** 

WALL-MOUNTED BEAM SMOKE DETECTOR - TRANSMITTING UNIT; MOUNT 18" BELOW CEILING LEVEL, U.O.N. WALL-MOUNTED BEAM SMOKE DETECTOR - RECEIVING UNIT; MOUNT IN EXACT HORIZONTAL & VERTICAL ALIGNMENT WITH CORRESPONDING

TRANSMITTING UNIT CEILING-MOUNTED BEAM SMOKE DETECTOR - TRANSMITTING UNIT CEILING-MOUNTED BEAM SMOKE DETECTOR - RECEIVING UNIT; MOUNT IN

EXACT HORIZONTAL & VERTICAL ALIGNMENT WITH CORRESPONDING

TRANSMITTING UNIT FIRE ALARM SYSTEM END-OF-LINE RESISTOR

FIRE SMOKE DAMPER BY MECHANICAL. COORDINATE WITH MECHANICAL FOR MONITORING TO FIRE ALARM SYSTEM (INCLUDING SMOKE DETECTOR PROVISIONS). CONTROL OF DAMPER TO BE BY MECHANICAL, U.O.N. PROVIDE TOGGLE TYPE DISCONNECT SWITCH

FIRE ALARM CONTROL PANEL FIRE ALARM ANNUNCIATOR PANEL

WEATHERPROOF ENCLOSURE CONDUIT AND WIRE CONCEALED IN CEILING OR WALL

----- CONDUIT AND WIRE CONCEALED IN OR UNDER SLAB OR UNDERGROUND —— - — CONDUIT AND WIRE RUN EXPOSED

CROSSMARKS INDICATE QUANTITY OF #12 CONDUCTORS PLUS PARITY SIZED

GROUND CONDUCTOR (INCLUDED BUT NOT INDICATED), NO HASHMARKS INDICATES (2) #12 CONDUCTORS PLUS PARITY SIZED GROUND CONDUCTOR, - GROUND WIRE

WIRE SIZE 10 AWG FOR ALL CONDUCTORS, INCLUDING GROUND WIRE, THROUGHOUT THE COMPLETE CIRCUIT

FLEXIBLE METALLIC CONDUIT HOMERUN TO PANELBOARD OR TERMINAL BOARD, AS NOTED ON PLANS

COMPLETE CONNECTION OF EQUIPMENT

CONDUIT STUBBED OUT, CAPPED AND MARKED CONDUIT TURNED UP

CONDUIT TURNED DOWN

TELEPHONE SYSTEM CONDUIT AND PULLWIRE; 3/4" U.O.N. COMPUTER/DATA SYSTEM CONDUIT AND PULLWIRE; 3/4" U.O.N. TELEPHONE/DATA SYSTEM CONDUIT AND PULLWIRE; 3/4" U.O.N.

#4/0 COPPER GROUNDING ELECTRODE CONDUCTOR, U.O.N. ( AC-1 ) MECHANICAL EQUIPMENT DESIGNATION - SEE MECHANICAL PLANS

DETAIL DESIGNATION - SEE DETAIL 3, SHEET E-6

NUMBERED SHEET NOTE UTILITY METER

CURRENT TRANSFORMERS CIRCUIT BREAKER. NUMBER INDICATES 30A 3-POLE

FEEDER SIZE - SEE POWER SINGLE LINE DIAGRAMS & FEEDER SCHEDULE

## **ABBREVIATIONS**

## A.F.F. ABOVE FINISHED FLOOR

A.F.G. ABOVE FINISHED GRADE BUILDING MANAGEMENT SYSTEM

CONDUIT

CATV CABLE TV CIRCUIT LIGHTING

C.O. CONDUIT ONLY

COPPER

ELECTRICAL CONTRACTOR

EMERGENCY LIGHT FIXTURE ON EMERGENCY GENERATOR OR INVERTER, SWITCHABLE, U.O.N. EMERGENCY LIGHT FIXTURE WITH BATTERY PACK, SWITCHABLE

ENERGY MANAGEMENT SYSTEM

EXISTING EQPT EOUIPMENT

EXISTING EQUIPMENT TO BE RELOCATED

EXISTING EQUIPMENT TO BE DISCONNECTED AND REMOVED

EXTERIOR

FLEXIBLE METALLIC CONDUIT

FEED THROUGH LUGS GROUND FAULT CIRCUIT INTERRUPTING TYPE RECEPTACLE

INTERMEDIATE DISTRIBUTION FRAME

LOCKABLE

LOW VOLTAGE MAIN CIRCUIT BREAKER

MAIN DISTRIBUTION FRAME MANUFACTURER

MAIN LUGS ONLY MOUNTED

NEW (N)

N.E.C. NATIONAL ELECTRICAL CODE NEU NEUTRAL

N.I.E.C. NOT IN ELECTRICAL CONTRACT

O.A.H. OVERALL HEIGHT

O.F.C.I. OWNER FURNISHED, CONTRACTOR INSTALLED O.F.O.I. OWNER FURNISHED, OWNER INSTALLED

INDICATES FIXTURES ON PHOTOCELL CONTROL PUBLIC ADDRESS

TELEPHONE

S.A.D. <u>SEE</u> ARCHITECTURAL DRAWINGS

SIGNAL TERMINAL CABINET INDICATES FIXTURES ON TIMECLOCK CONTROL

TELE TRANSIENT VOLTAGE SURGE SUPPRESSION U.O.N. UNLESS OTHERWISE NOTED

VAV BOX, SEE MECHANICAL DIVISION DRAWINGS FOR LOCATIONS. PROVIDE TOGGLE TYPE DISCONNECT SWITCH

WEATHER PROOF, NEMA 3R WPIU WEATHER PROOF WHILE IN USE

## **SYMBOLS LIST**

MAIN SWITCHBOARD, DISTRIBUTION PANEL OR MOTOR CONTROL CENTER FLUSH MOUNTED PANELBOARD, 6'-6" TO TOP

FUSED EQUIPMENT DISCONNECT SWITCH WITH FUSE SIZE AS RECOMMENDED BY EQUIPMENT MANUFACTURER

SURFACE MOUNTED PANELBOARD, 6'-6" TO TOP

MOTOR DISCONNECT SWITCH; HORSEPOWER RATED, NON FUSE COMBINATION MAGNETIC MOTOR STARTER & MOTOR CIRCUIT PROTECTOR

MAGNETIC MOTOR STARTER VARIABLE FREQUENCY DRIVE, FURNISHED BY MECHANICAL, INSTALLED & CONNECTED COMPLETE BY ELECTRICAL

MANUAL MOTOR STARTER WITH OVERLOAD PROTECTION MOTOR WITH FLEXIBLE CONDUIT CONNECTION AND DISCONNECT

TRANSFORMER CONCRETE PULLBOX, SIZE AS REQUIRED OR SHOWN - CHRISTY OR EQUAL WITH LABELED LID PER USE

COPPER GROUND ROD FLUSH CEILING MOUNTED JUNCTION BOX, U.O.N.

FLUSH WALL MOUNTED JUNCTION BOX, UP 18" U.O.N. JUNCTION BOX FLUSH FLOOR MOUNTED

20A 3PG 125V DUPLEX RECEPTACLE, UP 18" U.O.N. 20A 3PG 125V DUPLEX RECEPTACLE, WEATHERPROOF, UP 18" U.O.N. 20A 3PG 125V DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUPTER TYPE, UP 18" U.O.N.

20A 3PG 125V DUPLEX RECEPTACLE, ISOLATED GROUND TYPE, UP 18" U.O.N. 20A 3PG 125V DUPLEX RECEPTACLE, TAMPER RESISTANT, UP 18" U.O.N.

20A 3PG 125V DUPLEX RECEPTACLE, MOUNTED ABOVE COUNTER, U.O.N. 20A 3PG 125V DOUBLE DUPLEX RECEPTACLE, UP 18" U.O.N.

20A 3PG 125V DOUBLE DUPLEX RECEPTACLE, MOUNTED ABOVE COUNTER, U.O.N. 20A 3PG 125V SINGLE RECEPTACLE, UP 18" U.O.N.

20A 3PG 125V SINGLE TWISTLOCK RECEPTACLE, NEMA L5-20R, UP 18" U.O.N.

SPECIAL RECEPTACLE AS INDICATED ON PLANS CONTROLLED AND IDENTIFIED (SPLIT-WIRED) DUPLEX RECEPTACLE, WITH ONE HALF OF RECEPTACLE WIRED THROUGH LOCAL PLUG-LOAD CONTROLLER, UP 18" U.O.N.

CONTROLLED DUPLEX RECEPTACLE WIRED THROUGH LOCAL PLUG-LOAD CONTROLLER, UP 18" U.O.N. FLUSH IN FLOOR OUTLET BOX WITH QUANTITY OF 20A 3PG 125V DUPLEX RECEPTACLES AS INDICATED ON PLANS

FLUSH CEILING MTD. DUPLEX OUTLET, 20A 3PG LINE VOLTAGE THERMOSTAT, PROVIDED & INSTALLED BY ELECTRICAL, CONNECTED COMPLETE BY MECHANICAL

> SURFACE MOUNTED WIREMOLD RACEWAY WITH RECEPTACLES AS INDICATED ON TERMINAL MOUNTING BACKBOARD, 3/4" PLYWOOD, DIMENSIONS AS NOTED ON PLANS, PAINT TO MATCH ADJACENT WALL SURFACE, MAINTAINING UL FIRE LABEL VISIBLE

COMBINED TELEPHONE/DATA OUTLET, UP 18" U.O.N.

- NUMBER INDICATES QUANTITY OF DATA OUTLET JACKS COMBINED VOICE/DATA OUTLET, MOUNTED ABOVE COUNTER U.O.N.

INTERCOM HANDSET, UP 48" U.O.N. WALL MOUNTED 120V SIGNAL SYSTEM CLOCK, UP 96" U.O.N.

WALL MOUNTED VIDEO OUTLET, UP 18" U.O.N. FLUSH WALL MOUNTED INDOOR PUBLIC ADDRESS SPEAKER, UP 96" U.O.N.

FLUSH WALL MOUNTED OUTDOOR WEATHERPROOF PUBLIC ADDRESS SPEAKER FLUSH CEILING MOUNTED INDOOR PUBLIC ADDRESS SPEAKER FLUSH WALL MOUNTED INDOOR PUBLIC ADDRESS SPEAKER & SIGNAL SYSTEM 120V CLOCK, UP 96" U.O.N.

CCTV CAMERA (O.F.O.I). PROVIDE 3/4" C. WITH 1-DATA DROP TO MIN. 10'-0" A.F.F.. STUB CONDUIT TO ACCESSIBLE LOCATION FOR COMPLETE ROUTING TO SECURITY SYSTEM DOOR CONTACT 'DC' OR WINDOW CONTACT 'WC' (O.F.O.I). SEE DETAILS ON E-7.4 SECURITY SYSTEM MICROPHONE SENSOR, WALL OR CEILING MOUNT PER

SYMBOL (O.F.O.I). SEE DETAILS ON E-7.4 SECURITY SYSTEM KEYPAD (O.F.O.I). SEE DETAILS ON E-7.4 SECURITY SYSTEM ENCLOSURE (O.F.O.I). PROVIDE 1-1/2" CONDUIT TO ACCESSIBLE LOCATION FOR WIRING AND DEVICE BY DISTRICT SECURITY VENDOR. DOUBLE GANG BOX, AT + 48" A.F.F.

FIRE ALARM SYSTEM MANUAL PULL STATION, UP 48" U.O.N. FIRE ALARM SYSTEM HORN/STROBE, UP 80" U.O.N. NUMBER ADJACENT INDICATES CANDELA VALUE FOR STROBE

WEATHERPROOF FIRE ALARM SYSTEM HORN/STROBE, UP 80" U.O.N. NUMBER ADJACENT INDICATES CANDELA VALUE FOR STROBE FIRE ALARM SYSTEM HORN/STROBE, CEILING MOUNTED. NUMBER ADJACENT INDICATES CANDELA VALUE FOR STROBE

FIRE ALARM SYSTEM STROBE, UP 80" U.O.N. NUMBER ADJACENT INDICATES CANDELA VALUE FOR STROBE FIRE ALARM SYSTEM STROBE, CEILING MOUNTED. NUMBER ADJACENT INDICATES CANDELA VALUE FOR STROBE

WEATHERPROOF FIRE ALARM SYSTEM HORN, UP 90" U.O.N. FIRE ALARM SYSTEM SPEAKER/STROBE, UP 80" U.O.N. NUMBER ADJACENT INDICATES CANDELA VALUE FOR STROBE FIRE ALARM SYSTEM SPEAKER/STROBE, CEILING MOUNTED. NUMBER ADJACENT

INDICATES CANDELA VALUE FOR STROBE S **4** FIRE ALARM SYSTEM SPEAKER, UP 90" U.O.N. WEATHERPROOF FIRE ALARM SYSTEM SPEAKER, UP 90" U.O.N. FIRE ALARM SYSTEM SPEAKER, CEILING MOUNTED

WALL MOUNTED ELECTROMAGNETIC DOOR HOLD-OPEN DEVICE, FURNISHED BY DIV. 8, INSTALLED & CONNECTED COMPLETE TO FIRE ALARM SYSTEM BY DIV. 28 FIRE ALARM SYSTEM SPRINKLER FLOW SWITCH. PROVIDE MONITOR MODULE

FIRE ALARM SYSTEM SPRINKLER VALVE SUPERVISORY SWITCH. PROVIDE MONITOR MODULE POST INDICATING VALVE

SPRINKLER FLOW ALARM (PROVIDE BY SPRINKLER CONTRACTOR). CONNECT COMPLETE VIA WATER FLOW SWITCH AUX. CONTACTS

FIRE ALARM SYSTEM SMOKE DETECTOR FIRE ALARM SYSTEM HEAT DETECTOR

FIRE ALARM SYSTEM HVAC DUCT MOUNTED SMOKE DETECTOR. COORDINATE WITH MECHANICAL FOR SUPPLY, INSTALL AND COMPLETE CONNECTION (INCLUDING CONTROL OF HVAC EQUIPMENT) - <u>SEE</u> SPECIFICATIONS

FIRE ALARM SYSTEM MONITOR MODULE FIRE ALARM SYSTEM CONTROL MODULE

> FIRE ALARM SYSTEM RELAY MODULE FIRE ALARM SYSTEM CEILING MOUNTED CARBON MONOXIDE DETECTOR WITH

CALIFORNIA GREEN BUILDING STANDARDS COMPLIANCE ALL EXTERIOR LUMINAIRES SPECIFIED IN THESE CONTRACT DOCUMENTS COMPLY WITH THE REOUIREMENTS OF THE CALIFORNIA ENERGY CODE AND THE CALIFORNIA GREEN BUILDING STANDARDS CODE, SECTION A5.106.8 LIGHT POLLUTION REDUCTION. EXTERIOR LUMINAIRES COMPLY WITH BACKLIGHT, UPLIGHT, AND GLARE (BUG) RATINGS AS DEFINED IN IESNA TM-15-11 AND BUG RATINGS DO NOT EXCEED THE MAXIMUM ALLOWABLE RATINGS FOR THIS PROJECT.

## **SYMBOLS LIST**

ALL SWITCH AND CONTROL MOUNTING HEIGHTS OF 48" SHALL BE TO TOP OF THE DEVICE BOX. ALL RECEPTACLES WITH MOUNTING HEIGHT OF UP TO 18" SHALL BE NO LOWER THAN 15" TO BOTTOM OF THE DEVICE BOX, TYPICAL, U.O.N.

— INDICATES LUMINAIRE TYPE, <u>SEE</u> LUMINAIRE SCHEDULE

RECESSED 2'x2', 2'x4' OR 1'x4' LUMINAIRE, FULLY LENSED

RECESSED 2'x2', 2'x4' LUMINAIRE WITH DECORATIVE ARTICULATED OPTICAL

INDICATES EMERGENCY LUMINAIRE. <u>SEE</u> ABBREVIATIONS FOR TYPE OF EMERGENCY SOURCE SUSPENDED LINEAR LUMINAIRE -INDICATES AIRCRAFT CABLE SUPPORT POINT (VERIFY WITH MANUFACTURER)

-INDICATES COMBINATION AIRCRAFT CABLE/ELECTRICAL FEED POINT (VERIFY WITH MANUFACTURER)

SURFACE CEILING, WALL OR COVE MOUNTED LUMINAIRE UNDER CABINET LUMINAIRE SURFACE OR SUSPENDED STRIP LUMINAIRE

SURFACE CEILING MOUNTED LUMINAIRE ——PENDANT MOUNTED LUMINAIRE WITH CABLE SUSPENSION AND (1) POWER FEED -(2) SUSPENDED CABLE LOCATIONS

SURFACE MOUNTED LIGHTING TRACK WITH TRACK LUMINAIRES RECESSED ADJUSTABLE ACCENT LUMINAIRE. ARROW INDICATES AIMING DIRECTION

DECORATIVE CEILING MOUNTED LUMINAIRE

RECESSED DOWNLIGHT LUMINAIRE

LOCATION AND LUMINAIRE TYPE

RECESSED WALLWASH LUMINAIRE RECESSED OR SURFACE MOUNTED LINEAR WALLWASHER, OPEN AREA INDICATES DIRECTION OF ILLUMINATION

RECESSED DOWNLIGHT WITH DECORATIVE TRIM WALL MOUNTED LUMINAIRE LOCATION OF WALL MOUNTED LUMINAIRE, SEE BUILDING PLANS FOR EXACT

STEPLIGHT RECESSED FLUSH IN WALL POLE ARM-MOUNTED AREA LUMINAIRE; ARROW INDICATES DIRECTION OF LIGHT DISTRIBUTION WHEN NOT PARALLEL TO ARM ORIENTATION

POLE ARM-MOUNTED PEDESTRIAN-SCALE WALKWAY OR AREA LUMINAIRE; ARROW INDICATES DIRECTION OF LIGHT DISTRIBUTION POST-TOP PEDESTRIAN-SCALE AREA LUMINAIRE; ARROW INDICATES DIRECTION OF LIGHT DISTRIBUTION

■ BOLLARD LUMINAIRE: ARROW INDICATES DIRECTION OF LIGHT DISTRIBUTION FLUSH IN-GROUND LANDSCAPE OR BUILDING UPLIGHT, NON-ADJUSTABLE AIMING FLUSH IN-GROUND LANDSCAPE OR BUILDING UPLIGHT WITH ADJUSTABLE AIMIN

FEATURE; ARROW INDICATES AIMING DIRECTION FLUSH IN-GROUND WALLWASH UPLIGHT; OPEN AREA INDICATES DIRECTION OF

STEM MOUNTED SIGN LIGHT WALL MOUNTED EXIT SIGN, ARROWS AS NOTED ON PLANS. SHADED AREA INDICATES NUMBER OF FACES

CEILING MOUNTED EXIT SIGN, ARROWS AS NOTED ON PLANS. SHADED AREA

INDICATES NUMBER OF FACES LOW LEVEL WALL MOUNTED EXIT SIGN

WALL MOUNTED EMERGENCY BATTERY EGRESS LUMINAIRE WITH NUMBER OF ADJUSTABLE LAMP HEADS INDICATED LINE VOLTAGE SINGLE POLE TOGGLE SWITCH, LETTER ADJACENT INDICATES RESPECTIVE ZONE CONTROLLED, UP 48" U.O.N.

LINE VOLTAGE THREE-WAY TOGGLE SWITCH, UP 48" U.O.N. LINE VOLTAGE KEY OPERATED TOGGLE SWITCH LINE VOLTAGE MOTOR RATED TOGGLE SWITCH INSTALLED AT EQPT SHOWN

LINE VOLTAGE TWO POLE TOGGLE SWITCH, UP 48" U.O.N.

LINE VOLTAGE TOGGLE SWITCH WITH PILOT LIGHT, LIGHT IS ON WHEN CIRCUIT IS CLOSED, UP 48" U.O.N. LOW VOLTAGE MOMENTARY CONTACT SWITCH - SEE LOW VOLTAGE RELAY SCHEDULE, LOWER CASE LETTER ADJACENT INDICATES RESPECTIVE ZONE CONTROLLED, UP 48" U.O.N.

LOW VOLTAGE KEYED MOMENTARY CONTACT SWITCH - SEE LOW VOLTAGE RELAY SCHEDULE, LOWER CASE LETTER ADJACENT INDICATES RESPECTIVE ZONE CONTROLLED, UP 48" U.O.N. WALL MOUNTED SWITCH TYPE INFRARED OCCUPANCY SENSOR; UP 48" U.O.N.; SINGLE OR DUAL AS NOTED BY LETTERS ADJACENT. SET TO FIXED 20 MINUTE

WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR; UP 48" U.O.N.; SINGLE OR DUAL AS NOTED BY LETTERS ADJACENT. SET TO FIXED 20 MINUTE TIME DELAY AND MAX SENSITIVITY WALL MOUNTED DIGITAL DUAL TECHNOLOGY DIMMING OCCUPANCY SENSOR OSD

WALL MOUNTED DIGITAL SWITCH, UP 48" U.O.N.; LOWER CASE LETTER ADJACENT INDICATES RESPECTIVE ZONE CONTROLLED WALL MOUNTED SINGLE OR MULTI-ZONE DIGITAL DIMMER SWITCH, UP 48" U.O.N.; LOWER CASE LETTERS ADJACENT INDICATE RESPECTIVE ZONES TO BE

SIMULTANEOUSLY MANUALLY CONTROLLED; NUMERAL DESIGNATES NUMBER OF ZONES ASSIGNED TO THE DEVICE CEILING MOUNTED DUAL TECHNOLOGY DIGITAL OCCUPANCY SENSOR WALL MOUNTED DUAL TECHNOLOGY DIGITAL OCCUPANCY SENSOR

SINGLE OR MULTI-ZONE SWITCHING OR DIMMING OPEN LOOP DIGITAL DAYLIGHTING SENSOR; NOTATIONS ADJACENT IDENTIFY DAYLIGHT ZONES ASSIGNED TO THE DEVICE. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN SINGLE ZONE SWITCHING OR DIMMING CLOSED LOOP DIGITAL DAYLIGHTING

CEILING MOUNTED LINE VOLTAGE DUAL TECHNOLOGY OCCUPANCY SENSOR

SENSOR; NOTATIONS ADJACENT IDENTIFY DAYLIGHT ZONES ASSIGNED TO THE

VENDOR OR CONTRACTOR TO PROVIDE QUANTITY OF ROOM CONTROLLERS

DEVICE. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN DAYLIGHT CONTROL PHOTOCELL - BRACKET MOUNTED: NOTATIONS ADJACENT IDENTIFY DAYLIGHT ZONES ASSIGNED TO THE DEVICE. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN

INDICATES DAYLIGHT ZONE CONTROLLED VIA PHOTOCELL ADJACENT NUMERAL REFERS TO THE NUMBER OF ZONES TO BE CONTROLLED.

REQUIRED FOR THE NUMBER OF CONTROLLED ZONES. PLUG LOAD ROOM CONTROLLER

SWITCH; UP 48" U.O.N.

MASTER WIRELESS BORDER ROUTER & NB - SWITCH IN NETWORK CABINET; SEE

SECONDARY WIRELESS BORDER ROUTER ISOLATED RELAY INTERFACE

**EMERGENCY LIGHTING CONTROL MODULE** OCCUPANCY SENSOR POWER PACK MOUNTED IN CONCEALED ACCESSIBLE

## **GENERAL NOTES**

- PRIOR TO BID THE CONTRACTOR SHALL VISIT THE SITE TO ADEQUATELY DETERMINE ALL PRE-EXISTING CONDITIONS. BY THE ACT OF SUBMITTING A BID, THE CONTRACTOR WILL BE DEEMED TO HAVE COMPLIED WITH THE FOREGOING, TO HAVE ACCEPTED SUCH CONDITIONS, AND TO HAVE MADE ALLOWANCES THEREFORE IN PREPARING THE BID.
- PROVIDE PARITY SIZED GREEN GROUND WIRE IN ALL POWER CONDUITS, BRANCH CIRCUITS (LIGHTING & POWER) AND HOMERUNS. PROVIDE ADDITIONAL ISOLATED GROUND, GREEN WITH
- YELLOW STRIPE, TO ALL ISOLATED GROUND RECEPTACLES. PROVIDE PULLROPE IN ALL EMPTY CONDUITS THROUGHOUT THE PROJECT.
- REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION & CONNECTION REOUIREMENTS OF ALL LUMINAIRE(S) AND ALL OUTLET, SWITCH, AND ELECTRICAL RELATED DEVICE MOUNTING HEIGHTS AND LOCATIONS. COORDINATE LOCATIONS OF ALL LUMINAIRE(S) AND JUNCTION BOXES WITH MECHANICAL DIVISION PRIOR TO ROUGH-IN. COORDINATE LOCATIONS OF ELECTRICAL DEVICES WITH FURNITURE PLANS PRIOR TO ROUGH-IN.
- REFER TO MECHANICAL PLANS FOR EXACT LOCATION(S) OF ALL MECHANICAL EQUIPMENT, AND CONFIRM EXACT CONNECTION REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL DIVISION, PRIOR TO ROUGH-IN. VERIFY EXACT REQUIREMENTS FOR VOLTAGE, PHASE, HORSE-POWER, OR KVA RATINGS, OF ALL MECHANICAL DIVISION EQUIPMENT REQUIRING ELECTRICAL CONNECTION.
- VERIFY EXACT CONNECTION REQUIREMENTS, OUTLET TYPE(S), MOUNTING HEIGHT(S) AND LOCATION(S) OF ALL OWNER-SUPPLIED EQUIPMENT, AND ALL EQUIPMENT PROVIDED UNDER OTHER SECTIONS OF THE SPECIFICATIONS, PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS
- FOR EQUIPMENT LOCATIONS. COORDINATE TRENCHING WITH OWNER AND OTHER TRADES BEFORE BEGINNING WORK.
- ALL CONDUIT PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOORS SHALL BE SEALED AND EQUIPPED WITH U.L. LISTED FIRE PENETRATION ASSEMBLIES TO MAINTAIN FIRE SEPARATION
- 9. DO NOT INSTALL ANY OUTLETS BACK TO BACK IN STUD WALLS OR DE-MOUNTABLE PARTITIONS.
- 10. THE CONTRACTOR SHALL VERIFY ALL CEILING TYPES BEFORE ORDERING OF LUMINAIRE(S). ALSO VERIFY THAT ALL FEATURES CALLED FOR IN LUMINAIRE DESCRIPTIONS ON THE LUMINAIRE SCHEDULE ARE INCLUDED WITH CATALOG NUMBERS LISTED ON THE LUMINAIRE SCHEDULE WHEN LUMINAIRE ORDERS ARE PLACED, AND ARE INCLUDED AS PART OF THE LIGHTING SUBMITTALS FOR THIS PROJECT. IF A DISCREPANCY EXISTS, CONTACT THE ARCHITECT AND ELECTRICAL ENGINEER FOR CLARIFICATION PRIOR TO BID.
- .. CIRCUITRY AND CONDUIT ROUTING SHOWN ON THE PLANS IS DIAGRAMMATIC ONLY. THIS CONTRACTOR IS RESPONSIBLE FOR BECOMING COMPLETELY FAMILIAR WITH THE ARCHITECTURAL AND STRUCTURAL CONDITIONS AND LIMITATIONS IN THE BUILDING AND TO PROVIDE ALL LABOR, TOOLS AND MATERIALS REQUIRED TO PRODUCE A COMPLETELY CONCEALED INSTALLATION
- WHEREVER INDICATED ON THE PLANS. MAINTAIN "AS-BUILT" RECORDS AT ALL TIMES, SHOWING EXACT LOCATION OF ALL UNDERGROUND AND/OR CONCEALED CONDUITS AND SERVICES INSTALLED UNDER THIS CONTRACT, INCLUDING CIRCUIT IDENTIFICATION WHERE APPLICABLE. PROVIDE OWNER WITH "AS-BUILT" DOCUMENTS AS
- INDICATED IN THE SPECIFICATIONS, AND/OR CALLED FOR IN THE SPECIFICATIONS. 3. DRAWINGS INDICATE THE LOCATION(S) OF DEVICES, LUMINAIRE(S) AND EQUIPMENT, AND THE CIRCUIT NUMBER AND PANEL DESIGNATED TO SUPPLY THEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETELY CONNECTING ALL ELECTRICAL DEVICES TO CIRCUITS INDICATED ON
- 4. UNLESS OTHERWISE NOTED, ALL WORK SHOWN ON DRAWINGS IS NEW AND TO BE PROVIDED AND INSTALLED COMPLETE UNDER THIS CONTRACT. 15. ALL EQUIPMENT GROUNDING SHALL CONFORM TO ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE,
- LATEST EDITION. 16. ALL EXTERIOR CONDUIT ABOVE GRADE, INCLUDING ALL ROOF MOUNTED CONDUIT, SHALL BE GALVANIZED RIGID STEEL. COAT ALL EXPOSED THREADS WITH GALVANIZING PAINT. PAINT ALL SURFACE MOUNTED RACEWAYS AND PULLBOXES TO MATCH SURROUNDING CONDITIONS, AS
- DIRECTED BY THE ARCHITECT. 17. ALL ELECTRICAL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LATEST EDITION OF THE N.E.C., AS WELL AS STATE, AND LOCAL CODES AND REQUIREMENTS.
- 18. ALL CONDUIT SHALL BE CONCEALED, UNLESS OTHERWISE NOTED. 19. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE AVAILABLE SHORT CIRCUIT CURRENT AT THE MAIN SWITCHBOARD INCOMING TERMINALS WITH THE UTILITY COMPANY, AND TO VERIFY THAT
- CONDUITS, PULLBOXES AND CLEARANCES, MEET THE UTILITY COMPANY'S REQUIREMENTS, PRIOR TO

ALL POWER AND SIGNAL SERVICE PROVISIONS, INCLUDING CONCRETE EQUIPMENT PADS,

20. EQUIPMENT OVERLOADS AND FUSES SHALL BE PROVIDED AND INSTALLED AS PER NAME PLATE ON THE EQUIPMENT ACTUALLY PROVIDED.

PROVIDED AND INSTALLED AS SPECIFIED IN MECHANICAL DIVISION U.O.N.

- 21. THE CONTRACTOR SHALL PAY FOR ALL REQUIRED PERMITS AND INSPECTION FEES. 22. THE CONTRACTOR SHALL VERIFY ALL CRITICAL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
- 23. ALL EXIT SIGNS SHALL COMPLY WITH THE RELEVANT PORTIONS OF SECTIONS 1008 AND 1013 OF 24. ALL MECHANICAL DIVISION EQUIPMENT LOW VOLTAGE CONTROL WIRING AND RACEWAY SHALL BE
- 25. COORDINATE INSTALLATION OF ALL RECESSED LUMINAIRE(S) WITH MECHANICAL DIVISION PRIOR TO INSTALLATION OF HVAC DUCTS AND SPRINKLER HEADS. ENSURE AFTER INSTALLATION OF LUMINAIRE(S) THAT THERE IS NO CONTACT BETWEEN DUCTS AND LUMINAIRE(S) TO AVOID VIBRATION IN LUMINAIRE(S).
- CONNECTIONS BETWEEN TWO SEPARATE STRUCTURES AND FOR ALL FINAL CONNECTIONS TO "CRITICAL EQUIPMENT" AS DEFINED IN SPECIFICATIONS. MINIMUM 1/2" DIAMETER, LIQUID TIGHT TYPE USED OUTDOORS AND IN ALL WET LOCATIONS; PROVIDE WITH CODE-SIZE (MINIMUM #12) BARE GROUND WIRE IN ALL FLEXIBLE CONDUIT.

6. USE FLEXIBLE CONDUIT FOR ALL MOTOR, TRANSFORMER, RECESSED LUMINAIRE CONNECTIONS, AND

- 7. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR ALL BRANCH CIRCUITS FEEDING OUTLETS AS NOTED ON THE DRAWINGS. 28. FOR FLUSH MOUNTED PANELBOARDS THE CONTRACTOR SHALL STUB A MINIMUM OF FOUR (4) 3/4"
- 29. ALL CONDUIT CONNECTORS TO OUTLET OR JUNCTION BOXES SHALL HAVE INSULATED THROATS (MANUFACTURED AS AN INTEGRAL PART OF THE CONNECTOR). <u>AFTER-MARKET INSERTABLE</u> THROATS ARE NOT ACCEPTABLE. O. ALL CIRCUITS IN ALL JUNCTION BOXES AND DEVICES SHALL BE CLEARLY IDENTIFIED BY MEANS OF

THE CONDUCTOR. ALL JUNCTION BOXES SHALL BE LABELED PER SPECIFICATIONS.

"EZ" NUMBERING TAGS OR EQUIVALENT, TO IDENTIFY THE CIRCUIT NUMBER OR RELAY SUPPLYING

CONDUITS FROM THE PANEL UP INTO THE ACCESSIBLE CEILING ABOVE FOR FUTURE CIRCUITS.

- 31. ALL SURFACE MOUNTED POWER AND SIGNAL BOXES IN FINISHED AREAS SHALL BE "WIREMOLD" TYPE, WITH MATCHING RACEWAYS. SURFACE MOUNTED STEEL JUNCTION BOXES AND/OR EMT ARE 2. ALL LOCATIONS OF BARE METAL SURFACE MOUNTED CONDUIT, BOXES, PANEL COVERS, AND RELATED FITTINGS OR ACCESSORIES INSTALLED IN FINISHED AREAS (BOTH INTERIOR AND EXTERIOR) SHALL BE FINISH PAINTED TO MATCH THE SURFACE TO WHICH THEY ARE MOUNTED TO (AFTER INSTALLATION). PAINTING SHALL INCLUDE DIFFERENT COLORS AS REQUIRED TO MATCH
- EXISTING STRIPING OR OTHER BUILDING FEATURES TO WHICH THE EQUIPMENT IS ATTACHED AND VISIBLE. VERIFY EXACT JUNCTION BOX LOCATION(S) AND ROUTING OF EXPOSED RACEWAYS WITH THE ARCHITECT PRIOR TO ROUGH-IN.

PROVIDE A BLANK COVER PLATE (COLOR TO MATCH ADJACENT DEVICES OR AS SPECIFICALLY CALLED

FOR IN SPECIFICATIONS) FOR ALL JUNCTION BOXES (NEW AND EXISTING) ON THE PROJECT WHEN NO DEVICE IS INSTALLED. 34. FOR OUTDOOR 15 AND 20-AMPERE, 125 AND 250-VOLT RECEPTACLES: RECEPTACLES LOCATED IN "WET" LOCATIONS SHALL HAVE "IN-USE" TYPE WEATHERPROOF COVER PLATES PROVIDED AND INSTALLED; RECEPTACLES LOCATED IN "DAMP" LOCATIONS SHALL HAVE "IN-USE" TYPE

WEATHERPROOF COVER PLATES IN LOCATIONS DEEMED TO BE "IN-USE" WITH CORD AND PLUG

5. TWO OR THREE DIFFERENT PHASES SUPPLIED BY A 3-PHASE PANEL MAY SHARE A SINGLE NEUTRAL

ONLY IF CIRCUIT POSITIONS ARE ADJACENT IN THE PANEL. PROVIDE COMMON HANDLE-TIE ON

BREAKERS FOR MULTI-WIRE BRANCH CIRCUITS, WITH COMMON NEUTRAL, PER NEC REQUIREMENTS.

LIST OF DRAWINGS

E-7.2 DETAILS

\E-Z3\DETAILS

E-8.1 TITLE 24 DOCUMENTATION

E-8.3 TITLE 24 DOCUMENTATION

GENERAL NOTES

FE-1.0 SITE PLAN - FIRE ALARM

FE-0.1 FIRE ALARM EQUIPMENT LIST AND

FE-A3.1 ADMINISTRATION BLDG - FIRE ALARM

FE-B3.1 CAFETERIA KITCHEN PLAN - FIRE

FE-5.1 RISER DIAGRAM - FIRE ALARM

FE-6.1 CALCULATIONS - FIRE ALARM

₹ F-7.4 DFTAII

E-0.1 SYMBOLS LIST, GENERAL NOTES & LIST OF /3\ E-7.1 DETAILS DRAWINGS E-0.2 LUMINAIRE SCHEDULE

E-0.3 LUMINAIRE SCHEDULE

- E-0.4 LIGHTING SEQUENCE OF OPERATIONS E-1.0 SITE PLAN - ELECTRICAL E-1.1 SITE PLAN - LIGHTING
- E-A2.1 ADMINISTRATION BLDG LIGHTING E-B2.1 CAFETERIA KITCHEN PLAN - LIGHTING E-A3.1 ADMINISTRATION BLDG - POWER & SIGNAL E-A3.2 ADMINISTRATION BLDG - MECHANICAL
- & SIGNAL E-B4.1 ENLARGED KITCHEN PLAN - POWER

E-B3.1 CAFETERIA KITCHEN FLOOR PLAN - POWER

E-5.1 SINGLE LINE DIAGRAM - POWER E-5.2 LIGHTING CONTROL DIAGRAMS

EQUIPMENT ELECTRICAL

E-5.3 DETAILS E-6.1 PANEL SCHEDULES

& SIGNAL

QUATTROCCHI KWOI ARCHITECTS





**ADMINISTRATION** 

& STUDENT

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LIBERTY UNION HIGH

REVISIO	NS									
3	12/21/20 ADDENDUM 03									
5	01/05/21 ADDENDUM 05									
DSA	APP NC	0. 01-119033								
ARCH PRO	ARCH PROJECT NO: 1783.00									
DRAWN BY	DRAWN BY: LN									

DRAWING SCALE:

PTN: 61721-75

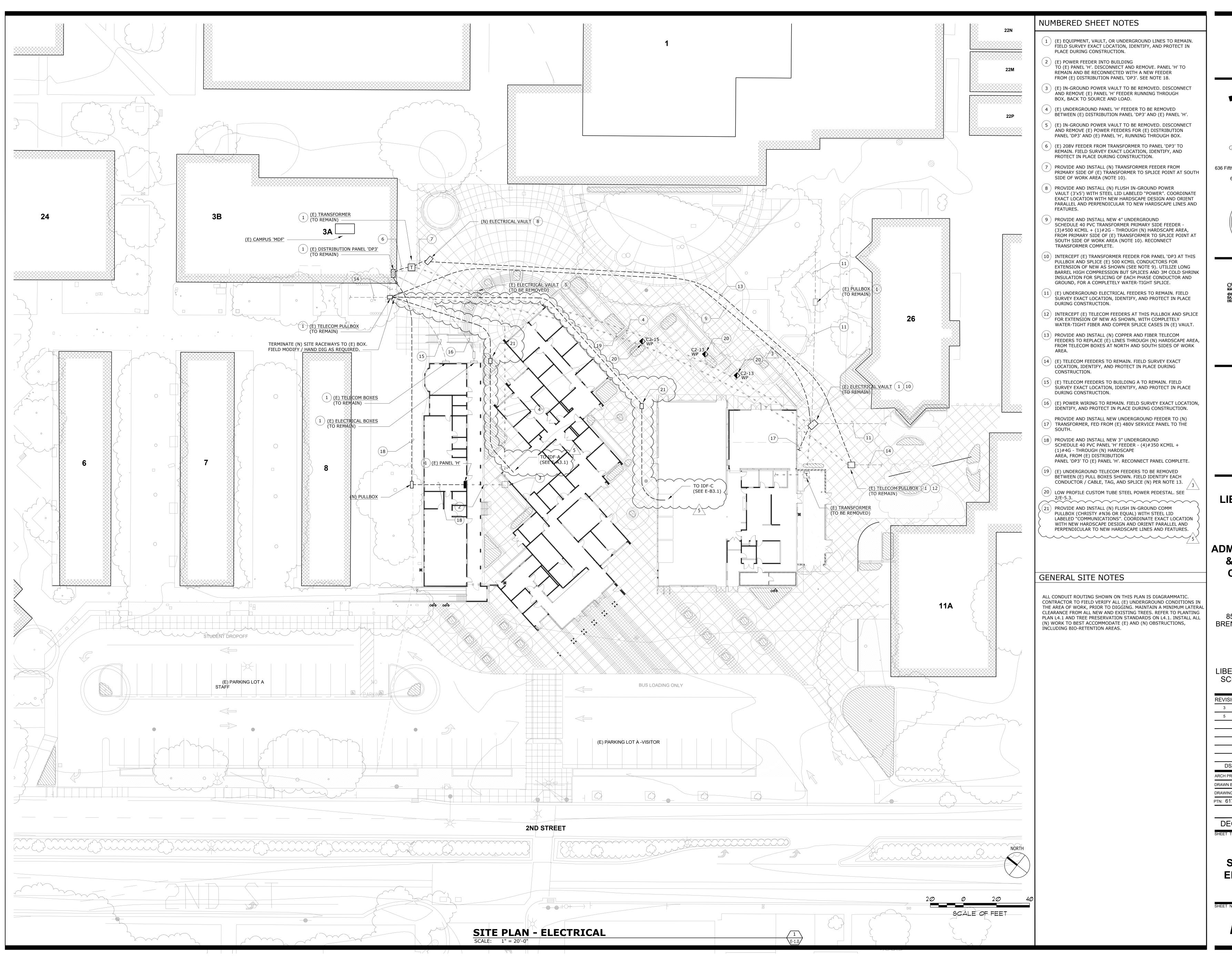
SYMBOLS LIST, **GENERAL NOTES** & LIST OF

**DRAWINGS** 

**DECEMBER 2, 2020** 

AS NOTED

FILE NO: **7-H4** 







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& STUDENT
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LIBERTY UNION HIGH SCHOOL DISTRICT

REVISIONS											
3	12/21/20	ADDENDUM 03									
5	01/05/21	ADDENDUM 05									
DSA	APP NC	). 01-119033									
ARCH PRO	JECT NO:	1783.00									
DRAWN BY	<b>'</b> :	LN									
DRAWING	DRAWING SCALE: AS NOTED										
PTN: 61721-75 FILE NO: 7-H4											
CD											

DECEMBER 2, 2020

SITE PLAN -ELECTRICAL

HEET NUMBER

E-1.0

## **TELECOM GENERAL NOTES**

- 1. ALL NEW FIBER OPTIC SITE CABLING SHALL BE 12-STRAND SINGLE MODE (OS2) FOR 10GB OPERATION. U.O.N.
- 2. COPPER CABLING T BE TERMINATED ON 110 BLOCKS ON EACH END AND LABELED AS SPARE (FOR ANY REQUIRED ANALOG LINES THAT MAY BE NECESSARY NOW OR IN THE FUTURE).
- 3. ALL COPPER CABLING ROUTED OUTDOORS OR IN SLAB SHALL BE RATED FOR OUTDOOR WET LOCATION USE. IN-SLAB COPPER CABLING MAY BE RATED INDOOR/OUTDOOR TYPE.
- 4. ALL FIBER CABLES SHALL BE INSTALLED IN INNER-DUCT. IF NOT INSTALLED IN
- INNER-DUCT, CABLES SHALL BE ARMORED CABLE TYPE.

  5. PROVIDE QUANTITY OF FULLY TERMINATED PATCH PANEL PORTS AT EACH IDF TO

SUPPORT THE QUANTITY OF TELECOM JACKS/CABLES AS INDICATED IN PLANS.

EXISTING IDF (AT OLD ADMIN)

SEE E-1.0

**SINGLE LINE DIAGRAM - TELECOM** 

## **TELECOM NUMBERED NOTES**

- 1 FIBER OPTIC DISTRIBUTION PANEL, 12-PORT / LC CONNECTORS. PROVIDE 30' SERVICE
- 2 SPACE FOR ACTIVE NETWORK EQUIPMENT BY DISTRICT.
- (3) 48-PORT PATCH PANEL (2RU) CATEGORY 6A RATED.
- 4 HORIZONTAL WIRE MANAGEMENT 3RU.
- 5 CATEGORY 6A PATCH CORDS CONTRACTOR TO PROVIDE COMPLETE CONNECTIONS BETWEEN ALL PASSIVE AND ACTIVE EQUIPMENT.
- 6 RACK MOUNTED UNIVERSAL COPPER GROUND BAR. PROVIDE #6AWG GROUNDING STRAP(S) WITH CRIMPED LUG CONNECTORS AT EACH END TO EACH RACK MOUNTED PIECE OF EQUIPMENT, LENGTHS AS REQUIRED. NO DAISY CHAIN ALLOWED.

## **GENERAL ELECTRICAL NOTES**

- 1. CONTRACTOR TO RETAIN INDEPENDENT TESTING COMPANY (EMERSON OR EQUAL) TO PREPARE A SHORT-CIRCUIT AND COORDINATION STUDY (INCLUDING GROUND FAULT), AND ARC-FLASH STUDY FOR DISTRIBUTION SYSTEM, INCLUDING ALL ADJUSTABLE TRIP BREAKERS SET BREAKER TRIP SETTING AS PER STUDY RECOMMENDATIONS AND IDENTIFY ALL ARC FLASH HAZARD LEVELS ON NEW AND EXISTING FOLLOWERS.
- EXISTING EQUIPMENT.

  2. PER NEC 110.06, PROVIDE AND INSTALL ELECTRIC ARC FLASH WARNING SIGNS ON SWITCHBOARD AND ALL PANELBOARDS, TRANSFORMERS, CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROLS.

	COPPER FEEDER SCHEDULE											
FEEDER	CONDUIT	CONDUCTORS										
10004	(1) 3"	(4)350 MCM & (1)#2/0 G.										
4003	(1) 3"	(3)500 MCM & (1)#2 G.										
4004	(1) 3.5"	(4)500 MCM & (1)#2 G.										
2254	(1) 3"	(4)#4/0 & (1)#4 G.										
1004	(1) 1.5"	(4)#2 & (1)#8 G.										
703	(1) 1"	(3)#4 & (1)#8 G.										

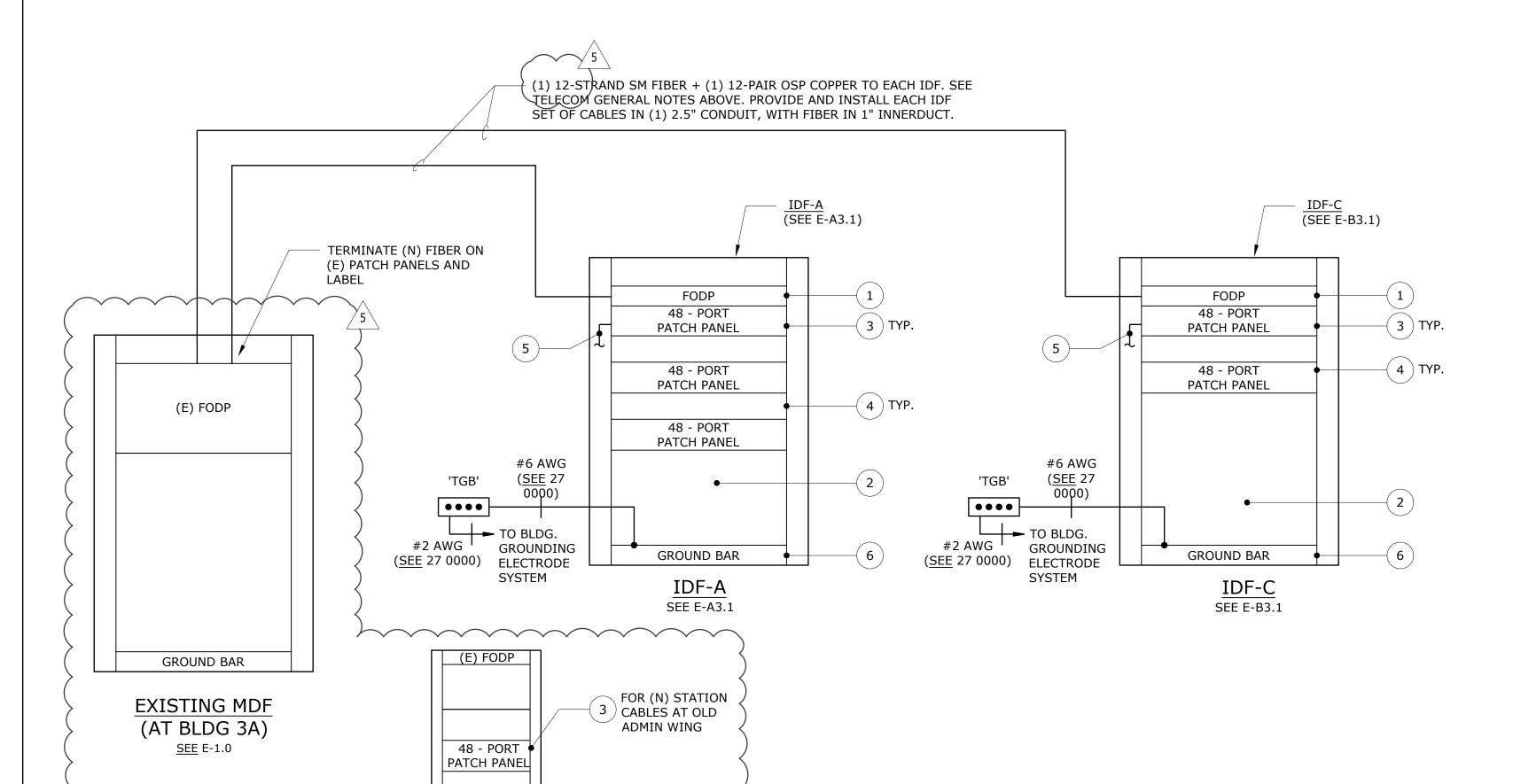
## FEEDER TAG KEY

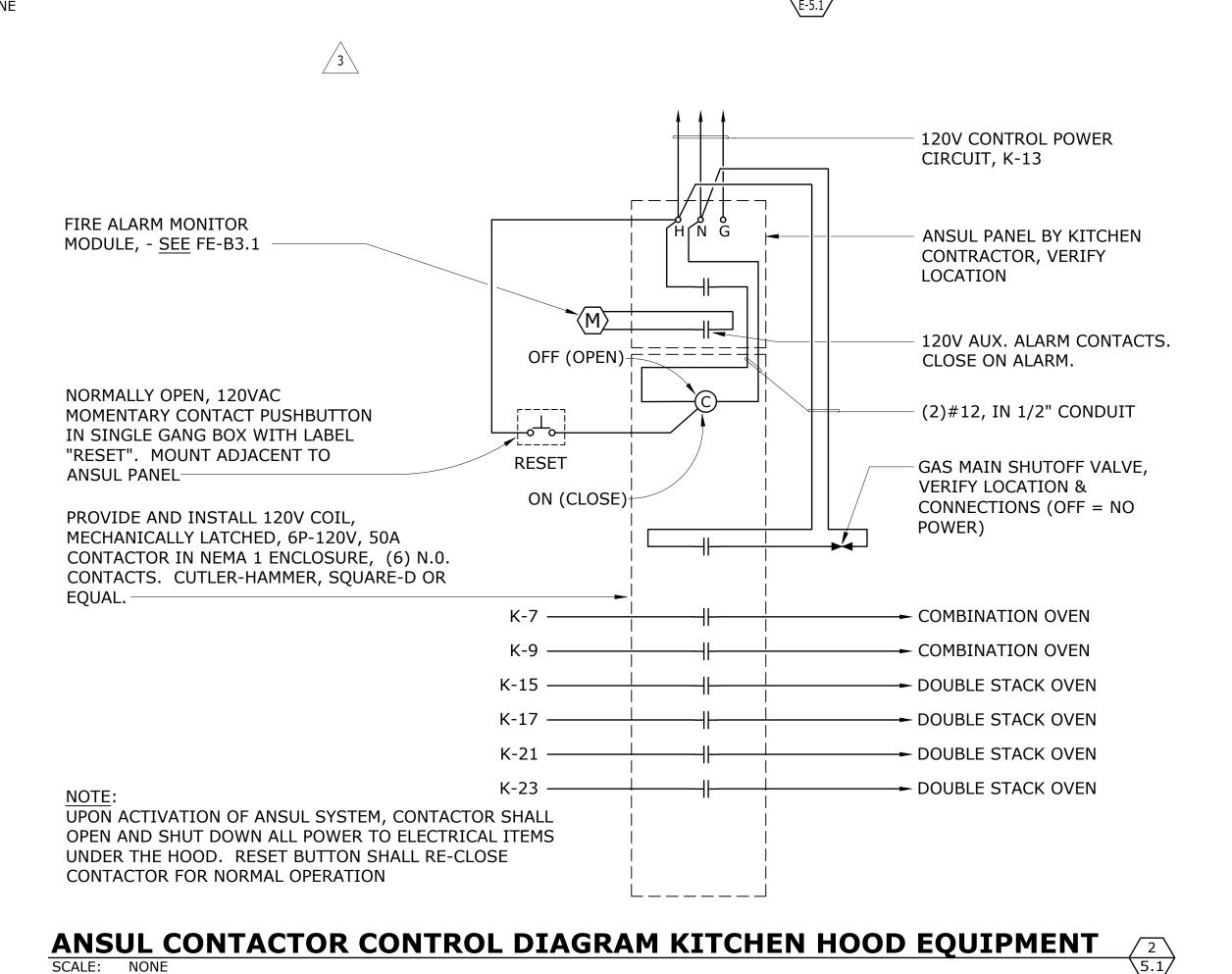
INDICATES DOUBLE NEUTRAL

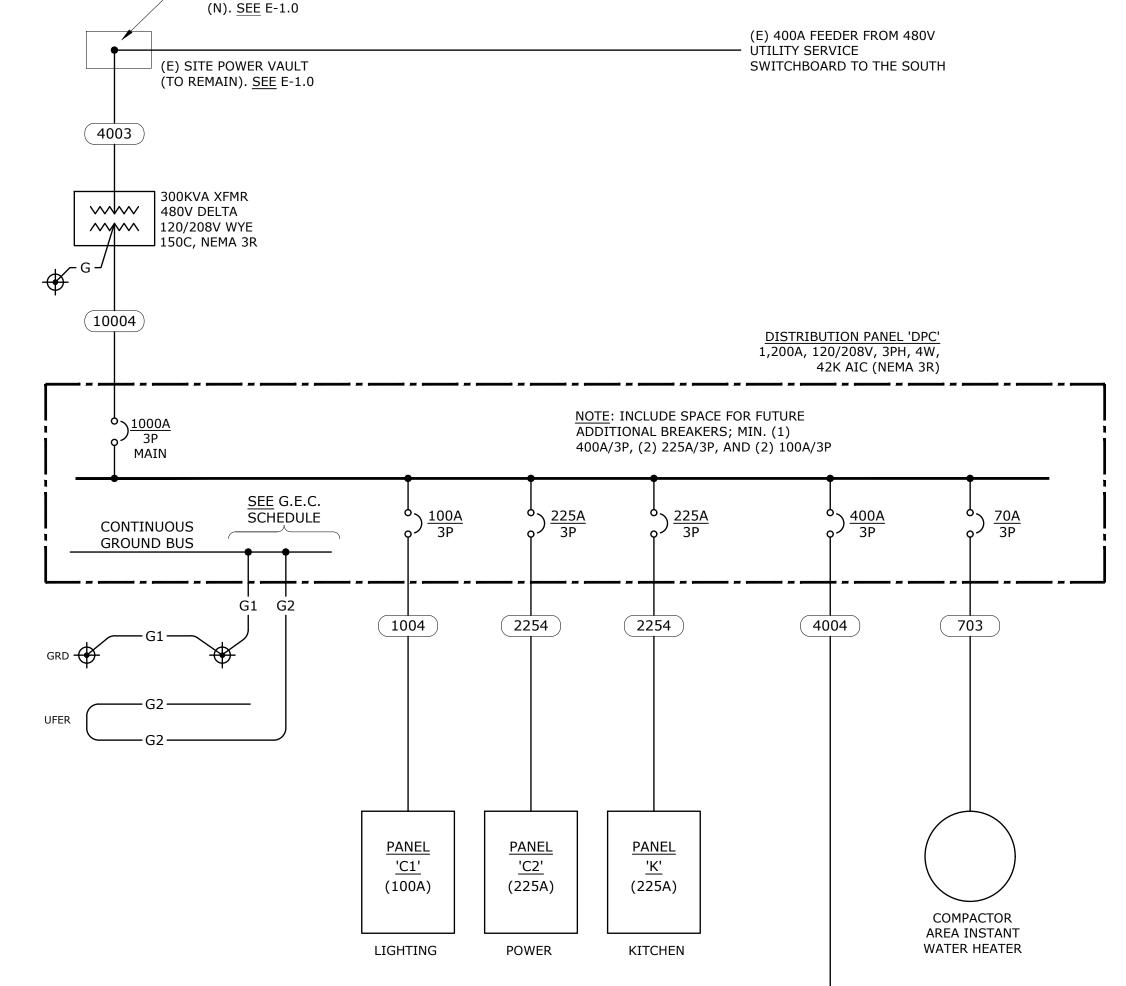
WIRE QUANTITY

FEEDER AMPACITY

NOTE: NOT ALL FEEDERS ON THIS SCHEDULE ARE NECESSARILY USED ON THIS PROJECT.







- SPLICE (E) FEEDER TO

GROU	GROUNDING ELECTRODE SCHEDULE										
G1	(1)#4/0 CU TO GROUND RODS										
G2	(1)#4/0 CU UFER GROUND (MIN. 30 LF IN PAD)										

LIBERTY HIGH

SCHOOL

QUATTROCCHI KWOK

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LIBERTY UNION HIGH SCHOOL DISTRICT

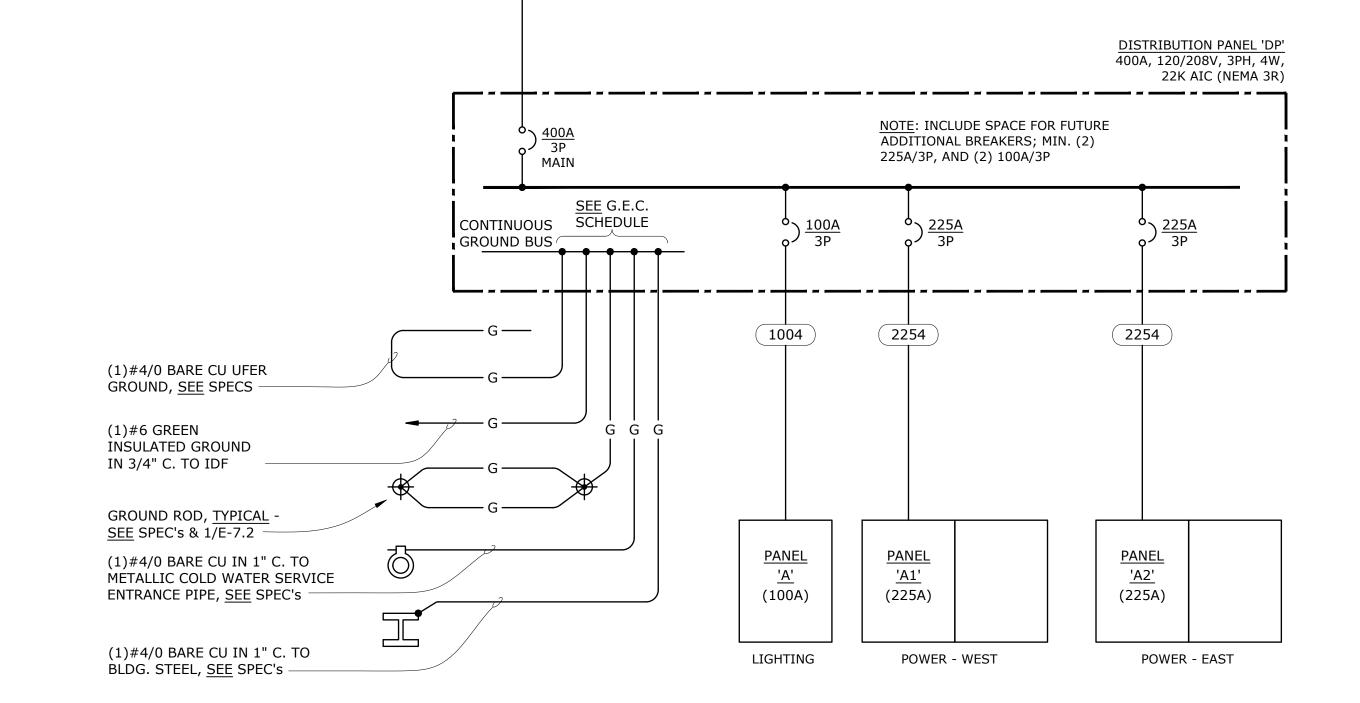
REVISIO	NS	
3	12/21/20	ADDENDUM 03
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ARCH PRO	JECT NO:	1783.00
DRAWN BY	<b>′</b> :	LN
DRAWING	SCALE:	AS NOTED
PTN: 617	21-75	FILE NO: 7-H4

DECEMBER 2, 2020

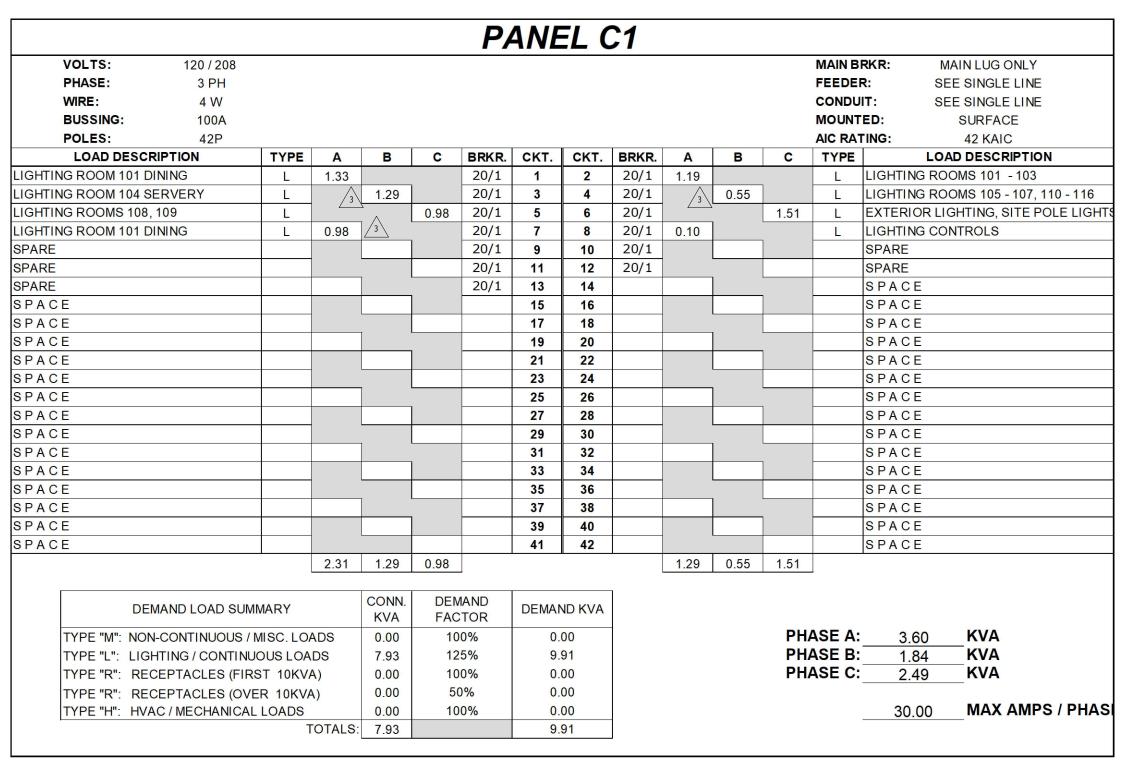
SINGLE LINE DIAGRAM -POWER

HEET NUMBER

E-5.1



SINGLE LINE DIAGRAM - POWER



					P	ANE	EL C	22						
VOLTS: 120 / 208 PHASE: 3 PH WIRE: 4 W BUSSING: 225A POLES: 54P												MAINS: FEEDE CONDU MOUNT AIC RA	R: SEE SINGLE LINE  JIT: SEE SINGLE LINE  FED: SURFACE	
LOAD DESCRIPTION	TYPE	Α	В	С	BRKR.	CKT.	CKT.	BRKR.	Α	В	С	TYPE	LOAD DESCRIPTION	
REC - OFFICE B105	R	0.90			20/1	1	2	20/1	0.60	~	<u> </u>	N	FIRE ALARM 'FACP-B'	
REC - OFFICE B106	R		0.90		20/1	3	4	20/1		0.30		M	SECURITY)	
REC - OFFICE B107	R			0.90	20/1	5	6	20/1		5		$\sim$	SPARE	
REC - DINING	R	1.08			20/1	7	8		5.28		,	Н		
REC - DINING	R		1.08		20/1	9	10	60/3		5.28		Н	AC-1	
REC - DINING	R			1.08	20/1	11	12				5.28	Н		
REC - EXTERIOR	R	0.72			20/1	13	14		5.28			Н		
REC - EXTERIOR	R		0.90		20/1	15	16	60/3		5.28		H	AC-2	
REC - SERVERY	R		,	0.54	20/1	17	18				5.28	Н		
REC - SERVERY REGISTERS	R	0.72		,	20/1	19	20		4.80			Н		
REC - SERVERY REGISTERS	R		0.72		20/1	21	22	50/3		4.80		Н	AC-3, AC-4	
REC - SERVERY REGISTERS	R		_	0.72	20/1	23	24				4.80	Н		
WATER FILLING STATION	R	0.50			20/1	25	26		2.00		,	H		
REC-RESTROOM-EF-4	R		0.40		20/1	27	28	30/3		2.00		Н	MAU-1, MAU-2	
GAS WATER HEATER	M		,	0.50	20/1	29	30			,	2.00	Н		
ROLL UP DOOR	M	1.20		,	30/2	31	32		1.40		7	Н		
KOLL OF BOOK	M		1.20		30,2	33	34	20/3		1.40		Н	KEF-1, KEF-2	
ROLL UP DOOR	M			1.20	30/2	35	36				1.40	H		
NOLL OF BOOK	M	1.20				37	38	15/1	0.50		1	Н	KEF-3	
ROLL UP DOOR	M M		1.20	1.20	30/2	39 41	40 42	20/1		0.9	0.22	R H	ROOF RECEPTACLES	
CAFETERIA PROJECTOR	M	0.50	]		20/1	43	44	15/2	0.22		V	Н	FC-B1	
SPARE		3.50			20/1	45	46	20/1			]	<u> </u>	SPARE	
CAFETERIA AV PRESENTATION	R			0.36	20/1	47	48						SPACE	
SPACE	- 1		]		Z	49	50						SPACE	
SPACE					Е	51	52						SPACE	
SPACE						53	54						SPACE	
		6.82	6.40	6.50					20.09	19.97	18.99			
DEMAND LOAD SUMM	MARY		CONN. KVA		IAND TOR	DEMAN	ND KVA							
TYPE "M": NON-CONTINUOUS / M	ISC. LO	ADS	9.10	10	0%	9.	10				PH	ASE A	: 26.91 <b>KVA</b>	
TYPE "L": LIGHTING / CONTINUO			0.00		5%	0.	00					ASE B		
TYPE "R": RECEPTACLES (FIRS			10.00	10	0%	10	.00					ASE C		
TYPE "R": RECEPTACLES (OVE			2.42		0%	1.								
TYPE "H": HVAC / MECHANICAL			57.25		0%	57							224.24 MAX AMPS / PHAS	
		OTALS:	78.77			77								

						PA	4NE	EL A	12						
VOLTS: PHASE: WIRE: BUSSING: POLES:	120 / 208 V 3 PH 4 W 225A 42P				(SE	CTION 1	- RIGHT	HAND S	IDE)				MAIN B FEEDE CONDU MOUNT AIC RA	R: JIT: FED:	MLO SEE SINGLE LINE SEE SINGLE LINE SURFACE 22K
LOAD DESCRIP	NOIT	TYPE	Α	В	С	BRKR.	CKT.	CKT.	BRKR.	Α	В	С	TYPE	L	OAD DESCRIPTION
REC - COUNSELOR A133		R	0.90		1	20/1	1	2	20/1	0.85		1	М	SHARED CO	ONF AV PRESENTATION
REC - AP OFFICE A134		R		0.90		20/1	3	4	20/1					SPARE	$\sqrt{3}$
REC - CORRIDORS		R		,	0.90	20/1	5	6	20/1					SPARE	
REC - AP SEC A135		R	0.90			20/1	7	8	20/1					SPARE	
REC - STAFF WORK A136	<b>i</b>	R		1.00		20/1	9	10	20/1					SPARE	
REC - STAFF WORK A137	1	R		,	1.00	20/1	11	12	20/1		,			SPARE	
REC - STAFF WORK A138	1	R	0.36		,	20/1	13	14				7		SPACE	
REC - REST RM A137		R		0.36		20/1	15	16						SPACE	
SPARE				7		20/1	17	18			,			SPACE	
REC - AP SEC A139		R	0.90		10	20/1	19	20				1		SPACE	
REC - SHARED CONFERE	NCE	R		1.08		20/1	21	22						SPACE	
REC - COUNSELOR A141		R		,	0.90	20/1	23	24			,			SPACE	
REC - AP OFFICE A146		R	0.90			20/1	25	26						SPACE	
REC - COUNSELOR A145		R		0.90		20/1	27	28						SPACE	
REC - COUNSELOR A144		R			0.90	20/1	29	30			_			SPACE	
REC - AP OFFICE A143		R	0.90			20/1	31	32				-		SPACE	
REC - AP SEC A142		R		0.90		20/1	33	34						SPACE	
REC - EXTERIOR		R			0.54	20/1	35	36						SPACE	
WATER FOUNTAIN		M	0.50			20/1	37	38						SPACE	
SPARE						20/1	39	40						SPACE	
SPARE						20/1	41	42						SPACE	
			5.36	5.14	4.24					0.85	0.00	0.00			
									1		SECTIO			6.21	KVA
DEMA	ND LOAD SUM	MARY		CONN. KVA		IAND TOR	DEMAI	ND KVA			SECTION			5.14 4.24	KVA KVA
TYPE "M": NON-C	ONTINUOUS / N	MISC. LO	ADS	1.35	10	0%	1.	35			THI	S SECT	TION:	51.75	MAX AMPS / PHA
TYPE "L": LIGHT				0.00		5%	0.	00							
TYPE "R": RECE				10.00	10	0%	10	.00		PANI	EL TOTA	AL PHA	SE A:	10.89	KVA
TYPE "R": RECE	•		•	4.24	50	0%	2.	12		PANI	EL TOTA	AL PHA	SE B:	11.70	KVA
TYPE "H": HVAC				0.00	10	0%	0.	00			EL TOTA			10.47	KVA
			OTALS:					.47	1				TOTAL		MAX AMPS / PHA

						P	4 <i>NE</i>	EL A	12						
VOLTS:	120 / 208 V				(SE	ECTION 2	2 - LEFT	HAND SI	DE)				MAIN B	RKR: SUBI	FED, FEED THRU LUGS
PHASE:	3 PH												FEEDE	R:	
WIRE:	4 W												CONDU	IT:	
BUSSING:	225A												MOUNT	ED:	SURFACE
POLES:	42P												AIC RA	TING:	22K
LOAD DESC	RIPTION	TYPE	Α	В	С	BRKR.	CKT.	СКТ.	BRKR.	Α	В	С	TYPE	LO	AD DESCRIPTION
SPARE						20/1	43	44		3.60			Н		
SPARE						20/1	45	46	45/3		3.60		Н	ENERGY REC	COVER VENT. ERV-1
SPARE						20/1	47	48				3.60	Н		
SPACE							49	50	15/2	0.70			Н	FAN COILS A	122 1146
SPACE							51	52	15/2		0.70		Н	FAIN COILS A	133-A 140
SPACE							53	54	15/2			0.38	H	BRANCH CONTROLLERS BC-1,2,3	
SPACE							55	56	13/2	0.38			Н	BRANCH COI	NIROLLERS BC-1,2,3
SPACE							57	58	60/2		2.25		Н	WATER HEA	
SPACE							59	60	60/2			2.25	Н	WATER HEA	IER EVVII-I
SPACE							61	62				,		SPACE	
SPACE							63	64						SPACE	
SPACE			'				65	66		,				SPACE	
SPACE							67	68						SPACE	
SPACE							69	70						SPACE	
SPACE			'				71	72						SPACE	
SPACE							73	74						SPACE	
SPACE							75	76						SPACE	
SPACE			'				77	78		,				SPACE	
SPACE							79	80						SPACE	
SPACE							81	82						SPACE	
SPACE			'				83	84						SPACE	
			0.00	0.00	0.00					4.68	6.56	6.23			
		•				_				THIS	SECTIO	N PHA	SE A:	4.68	KVA
DE	MAND LOAD SUM	MADV		CONN.	DEM	1AND	DEMAI	ND KVA		THIS	SECTIO	ON PHAS	SE B:	6.56	KVA
	INIAND LOAD SOM	WANT		KVA	FAC	TOR	DEIVIAI	ND KVA		THIS	SECTIO	ON PHAS	SE C:	6.23	KVA
TYPE "M": NOI	N-CONTINUOUS / I	MISC. LOA	ADS	0.00	10	0%	0.	00			THI	S SECT	ION:	54.63	MAX AMPS / PHAS
TYPE "L": LIG	HTING / CONTINU	OUS LOA	DS	0.00	12	5%	0.	00							
TYPE "R": RE	CEPTACLES (FIR	ST 10KVA	<b>A</b> )	0.00	10	0%	0.	00							
TYPE "R": RE	CEPTACLES (OVE	R 10KVA	<b>A</b> )	0.00	50	0%	0.	00							
	AC/MECHANÎCAL		-	17.47	10	0%	17	.47							
		Т	OTALS:	17.47			17	.47							

							P	4 <i>NE</i>	EL E	32							$\  \Gamma \ $
7	VOLTS: PHASE: WIRE: BUSSING: POLES:	120 / 208 3 PH 4 W 100A 42P												MAIN I FEEDE COND MOUN AIC RA	ER: UIT:	MAIN LUG ONLY SEE SINGLE LINE SEE SINGLE LINE SURFACE 22 KAIC	
	LOAD DESCR	RIPTION	TYPE	Α	В	С	BRKR.	CKT.	CKT.	BRKR.	Α	В	С	TYPE		LOAD DESCRIPTION	1⊢
REC-	EXTERIOR RECE	PTACLES	R	0.72			20/1	1	2	20/1	0.98			L	LIGHTS		SF
REC -	STUDENT STORE		R		0.54		20/1	3	4	20/1		0.93		L	LIGHTS		SF
REC -	STUDENT STORE		R			0.36	20/1	5	6	20/1			1.18	L	LIGHTS		SF
REC -	OFFICE		R	0.72			20/1	7	8	20/1					SPARE		SF
REC -	TOILET 102 & 103	3	R		0.36		20/1	9	10	20/1					SPARE		SF
REC -	SUPPLY ROOM &	TOILET 106	R			0.54	20/1	11	12	20/1					SPARE		SF
REC -	ASB		R	0.90			20/1	13	14	20/1					SPARE		SI
REC -	ASB		R		0.90		20/1	15	16	20/1					SPARE		SI
REC -	OFFICE		R			0.72	20/1	17	18	20/1					SAPRE	^	SI
REC -	CAREER / EVENT	CENTER	R	0.72			20/1	19	20	20/1					SPARE	3	SI
REC -	CAREER / EVENT	CENTER	R		0.54		20/1	21	22	20/1		0.85		M	CAREEF	R AV PROJECTOR AND REC	SI
REC -	CAREER / EVENT	CENTER	R			0.54	20/1	23	24	20/1			0.85	M	ASB AV	PROJECTOR AND REC	SI
REC-	CAREER / EVENT	CENTER	R	0.54			20/1	25	26						SPAC	E	SI
CFOCH	(CERPEUT)		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<b>/</b> /	0.20	<b>\</b>	20/1	27	28						SPAC	E	SI
SECU	RITY		М			0.30	20/1	29	30						SPAC	E	SI
SPARE			~~~			<b>─</b> / <u>`</u>	20/1	31	32						SPAC	E	SI
SPARE							20/1	33	34						SPAC	E	SI
SPARE	=			-			20/1	35	36						SPAC	E	SI
			M	5.00				37	38						SPAC	E	SI
PANEL	_ 'B'		М		5.00		90/3	39	40						SPAC	E	SI
			М			5.00	1	41	42						SPAC	E	SI
				8.60	7.54	7.46					0.98	1.78	2.03				
	DEN	MAND LOAD SUM	1MARY		CONN. KVA		IAND TOR	DEMA	ND KVA								
	TYPE "M": NON	-CONTINUOUS /	MISC. LO	ADS	17.00	10	0%	17	.00				PI	HASE A	: 9. <del></del>	58 KVA	
	TYPE "L": LIGH	HTING / CONTINU	JOUS LOA	DS	3.29	12	5%	4.	.11				PI	HASE E	B: 9.3	32 KVA	
	TYPE "R": REC	EPTACLES (FIR	ST 10KV	A)	8.10	10	0%	8.	.10				PI	HASE C	9.4	49 <b>KVA</b>	
	TYPE "R": REC	CEPTACLES (OVE	ER 10KV	۹)	0.00	50	)%	0.	.00								
	TYPE "H": HVA	C / MECHANICAL	L LOADS		0.00	10	0%	0.	.00						79.	83 MAX AMPS / PHASE	
				TOTALS	28.39			29	.21	1							

						P	AN	EL .	A					
VOLTS: PHASE: WIRE:	120 / 208 3 PH 4 W												MAIN B FEEDEI	R: SEE SINGLE LINE
BUSSING:	100A												MOUNT	ED: SURFACE
POLES: LOAD DESCR	42P	TVDE	Α.	В	С	PDVD	СКТ.	СКТ.	BRKR.	Α.		С	AIC RA	FING: 22 KAIC LOAD DESCRIPTION
LIGHTING ROOMS 100 -		TYPE	A 0.54	В	C	<b>BRKR.</b> 20/1	1	2	20/1	Α	В	L C	TYPE	LIGHTING ROOMS 105 - 114
LIGHTING ROOMS 100 -		L	0.54	1.14	1	20/1	3	4	20/1	0.98	0.93	1		LIGHTING ROOMS 105 - 114
LIGHTING ROOMS 115 -		L		1.14	0.05	20/1	5	6	20/1		0.93	1 10	<u> </u>	LIGHTING ROOMS 126 - 134
PARKING LOT LIGHTING		L	4.40	1	0.95	20/1			-		7	1.18	L	SPARE
	J	L	1.42	0.40	]	20/1	7	8	20/1			]		SPARE
LIGHTING CONTROLS SPARE		L		0.10		20/1	9	10	20/1					SPARE
				]			11	12	20/1		7			
SPARE					]	20/1	13	14				1		SPACE
SPARE						20/1	15	16						SPACE
SPARE				1		20/1	17	18			7			SPACE
SPACE					1		19	20				1		SPACE
SPACE							21	22						SPACE
SPACE				1			23	24			7			SPACE
SPACE					1		25	26				1		SPACE
SPACE							27	28						SPACE
SPACE				1			29	30			7			SPACE
SPACE					1		31	32				1		SPACE
SPACE							33	34						SPACE
SPACE				1			35	36			٦			SPACE
SPACE					T		37	38				1		SPACE
SPACE							39	40						SPACE
SPACE							41	42						SPACE
			1.96	1.24	0.95					0.98	0.93	1.18		
DEN	MAND LOAD SUMM	MARY		CONN. KVA		MAND	DEMAI	ND KVA						
TYPE "M": NON	-CONTINUOUS / N	/ISC. LO	ADS	0.00	10	0%	0.	00	1			PH	ASE A:	2.94 <b>KVA</b>
TYPE "L": LIGH	ITING / CONTINU	OUS LOA	DS	7.24	12	5%	9.	05				PH	ASE B:	
TYPE "R": REC	EPTACLES (FIRS	ST 10KV	<b>A</b> )	0.00	10	0%	0.	00				PH	ASE C:	
	EPTACLES (OVE			0.00		0%		00						
	C / MECHANICAL		,	0.00		0%		00						24.50 MAX AMPS / PHA
			OTALS:					05						

						P	4NE	ELA	11						
VOLTS:	120 / 208 V				(SE	CTION 1	- RIGHT	HAND S	IDE)				MAIN B	RKR:	MLO
PHASE:	3 PH												FEEDE	R: SI	EE SINGLE LINE
WIRE:	4 W												CONDU	IIT: SI	EE SINGLE LINE
BUSSING:	225A												MOUNT	ED:	SURFACE
POLES:	42P												AIC RA	TING:	22K
LOAD DESCRI	PTION	TYPE	Α	В	С	BRKR.	CKT.	CKT.	BRKR.	Α	В	С	TYPE	LO	AD DESCRIPTION
REC - RECEPTION		R	0.90			20/1	1	2	20/1	0.72			R	REC - AP SEC	
REC - RECEPTION		R		0.90		20/1	3	4	20/1		0.90		R	REC - AP OFF	TCE
REC - NURSE		R			0.90	20/1	5	6	20/1			0.90	R	REC - COUNS	ELOR
REC - NURSE / FILES		R	1.08			20/1	7	8	20/1	0.18			R	REC-CUSTO	DIAN / RESTRM
REC - CORRIDORS		R		1.08		20/1	9	10	20/1	(	0.30		М	SECURITY )	
REC - EXTERIOR		R			1.08	20/1	11	12	20/1	`	<b>1</b> 5	0.85	M	LARGE CONF	AV PRESENTATION
REC - SRO A102		R	0.90			20/1	13	14	20/1	0.85			М	STAFF LOUN	GE AV PRESENTATION
REC - DATA A103		R		0.90		20/1	15	16	20/1		0.90		R	REC MFT A12	20
REC - RESTROOMS NUR	SE	R			0.36	20/1	17	18	20/1	*		0.90	R	REC - PSYCH	123
REC - REGISTRATION		R	0.90			20/1	19	20	20/1	0.36			R	REC - MAIL R	M
REC - INT TEACHER		R		0.90		20/1	21	22	20/1		0.50		R	REC - STAFF	LOUNGE
REC - PRIN SEC		R			0.90	20/1	23	24	20/1					SPARE	
REC - PRINCIPAL		R	1.08			20/1	25	26	20/1					SPARE	
REC - CONFERENCE RM		R		0.72		20/1	27	28	20/1					SPARE	
REC - IDF 'A'		L			1.00	20/1	29	30	20/1					SPARE	
REC - MFT A119		R	0.90			20/1	31	32	20/1					SPARE	
REC - MAIL RM		R		0.72		20/1	33	34	20/1					SPARE	
REC - STAFF LOUNGE		R			0.36	20/1	35	36	20/1	,	-			SPARE	
REC - STAFF LOUNGE		R	0.36			20/1	37	38						SPACE	
REC - STAFF LOUNGE		R		0.18		20/1	39	40						SPACE	
REC - PSYCH 129		R			0.90	20/1	41	42		,				SPACE	
			6.12	5.40	5.50					2.11	2.60	2.65			
					•	_			'	THIS	SECTIO	N PHA	SE A:	8.23	KVA
DEM		MADY		CONN.	DEN	IAND			]	THIS	SECTIO	N PHA	SE B:	8.00	KVA
DEM	AND LOAD SUM	VIAKY		KVA		TOR	DEMAI	ND KVA		THIS	SECTIO	N PHA	SE C:	8.15	KVA
TYPE "M": NON-0	CONTINUOUS / N	IISC. LO	ADS	2.00	10	0%	2.	00	1		THIS	S SECT	ION:	68.58	MAX AMPS / PHAS
TYPE "L": LIGHT	ING / CONTINU	OUS LOA	DS	1.00	12	.5%	1.	25							
TYPE "R": RECE	PTACLES (FIRS	ST 10KV	A)	10.00	10	0%	10	.00		PANE	EL TOTA	AL PHA	SE A:	24.45	KVA
TYPE "R": RECE				11.38	50	0%	5.	69			EL TOTA			23.17	KVA
TYPE "H": HVAC				0.00	10	0%	0.	00		PANE	EL TOTA	AL PHA	SE C:	23.59	KVA
			TOTALS:					.94	1				TOTAL:		MAX AMPS / PHAS

							P	4NE		4 /					
	VOLTS:	120 / 208 V				(SE	ECTION 2	- LEFT	HAND SI	DE)				MAIN B	RKR: SUB FED, FEED THRU LUGS
	PHASE:	3 PH												FEEDE	R:
N.	WIRE:	4 W												CONDU	IIT:
	BUSSING:	225A												MOUNT	ED: SURFACE
1	POLES:	42P												AIC RA	TING: 22K
	LOAD DESCRI	PTION	TYPE	Α	В	С	BRKR.	CKT.	CKT.	BRKR.	Α	В	С	TYPE	LOAD DESCRIPTION
SPARE							20/1	43	44		5.86		,	М	
SPARE							20/1	45	46	75/3		5.86		M	HEAT PUMP HP-A1 - UNIT 1
SPARE							20/1	47	48				5.86	M	
SPARE							20/1	49	50		4.99			M	
SPARE							20/1	51	52	65/3		4.99		М	HEAT PUMP HP-A1 - UNIT 2
SPARE							20/1	53	54				4.99	М	
SPACE	Ξ							55	56	15/2	0.57			M	FAN COILS FC A117-A129
SPACE								57	58	13/2		0.57		М	FAN COILS FC ATTT-AT29
SPACE	Ē							59	60	15/2			0.84	M	FAN COILS FC A100-A116
SPACE	=				]			61	62	13/2	0.84			М	FAN COILS FC A 100-A 116
SPACE	Ī							63	64	15/2		0.15		М	DDANCH CONTROLLED BC 4
SPACE	=							65	66	15/2			0.15	М	BRANCH CONTROLLER BC-4
SPACE	<u> </u>				] '			67	68		3.60			М	
SPACE	Ξ							69	70	45/3		3.60		М	ENERGY RECOVERY VENT ERV-2
SPACE	Ξ,							71	72				3.60	М	
SPACE	=				Ì '			73	74	20/1	0.36			R	ROOF RECEPTACLES
SPACE	Ξ							75	76						SPACE
SPACE	Ξ							77	78						SPACE
SPACE					] '			79	80						SPACE
SPACE	<b>=</b>							81	82						SPACE
SPACE	=							83	84		:				SPACE
				0.00	0.00	0.00		ı			16.22	15.17	15.44		
							-				THIS	SECTIO	N PHAS	SE A:	16.22 <b>KVA</b>
	5514		44.57		CONN.	DEN	1AND	55144	ID 10.44		THIS	SECTIO	N PHAS	SE B:	15.17 <b>KVA</b>
	DEMA	AND LOAD SUMI	WARY		KVA		TOR	DEMAI	ND KVA			SECTIO			15.44 <b>KVA</b>
-	TYPE "M": NON-0	CONTINUOUS / N	AISC. LOA	ADS	46.47	10	0%	46	.47	1		THI	SSECT	ION:	135.18 MAX AMPS / PHASE
1 1	TYPE "L": LIGHT				0.00		5%		00						
1	TYPE "R": RECE				0.36		0%		36						
1 1	TYPE "R": RECE	•		•	0.00		0%		00						
	TYPE "H": HVAC	•		,	0.00		0%		00						
1 -		n control of the second second		OTALS:	46.83				.83	1					



ARCHITECTS

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636 Fifth Street, Santa Rosa, CA 95404

Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566
(707) 576-0829





LIBERTY HIGH SCHOOL

ADMINISTRATION & STUDENT COMMONS

850 2ND STREET, BRENTWOOD CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

REVISIO	ONS	
3	12/21/20	ADDENDUM 03
5	01/05/21	ADDENDUM 05
DSA	A APP NO	). 01-119033
ARCH PRO	DJECT NO:	1783.00
DRAWN B	Y:	LN
DRAWING	SCALE:	AS NOTED
PTN: 617	21-75	file no: 7-H4
		<u> </u>

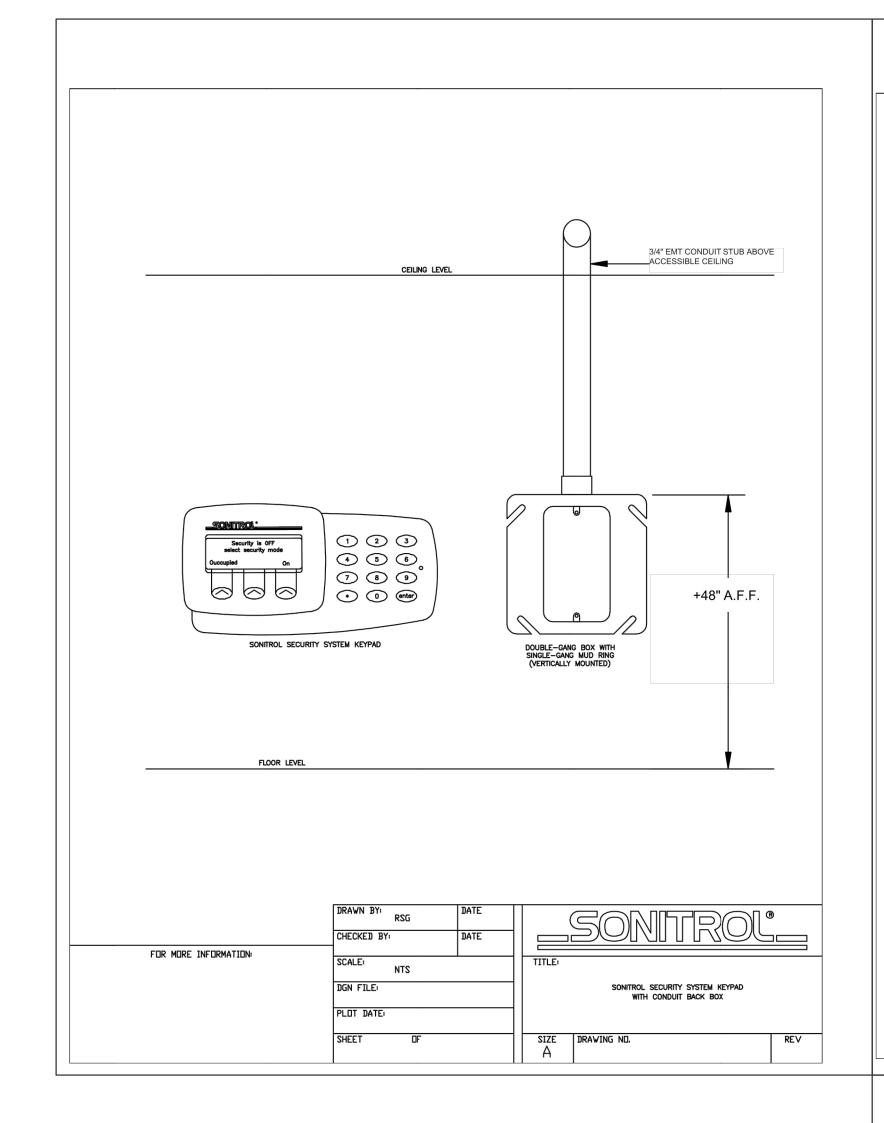
DECEMBER 2, 2020

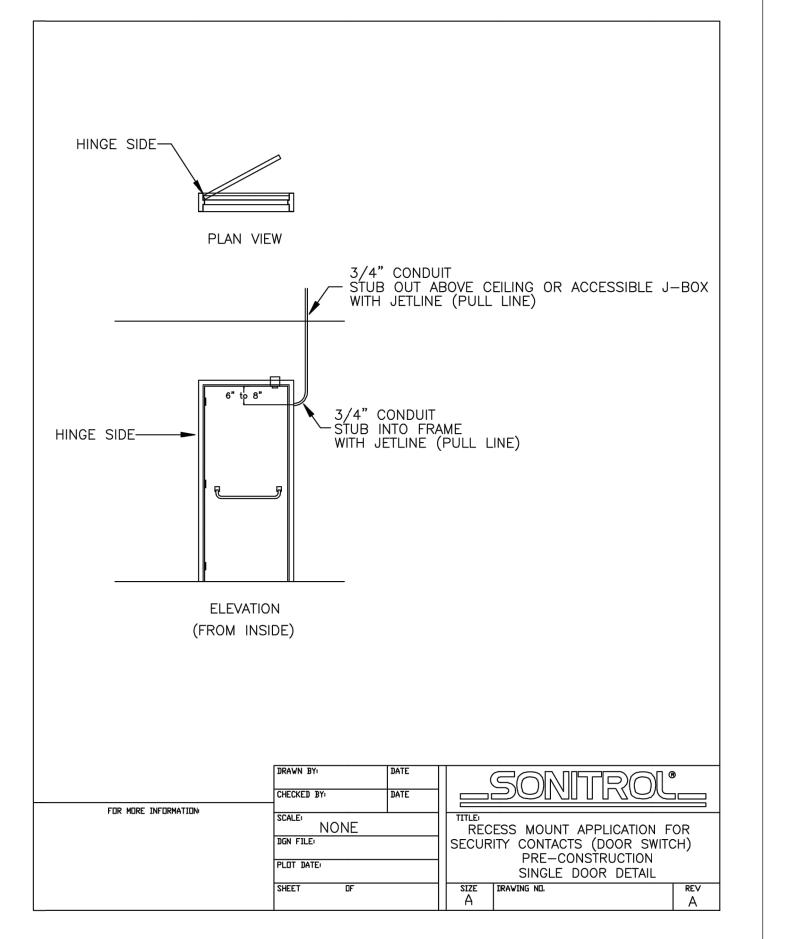
PANEL SCHEDULES

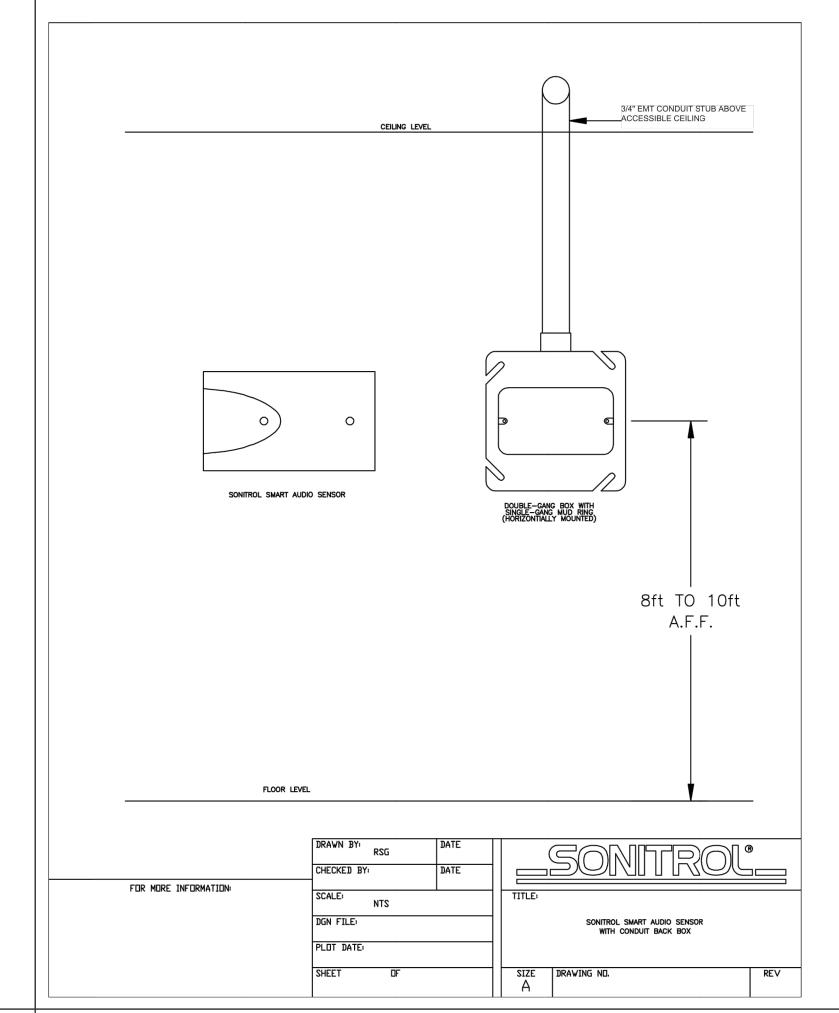
HEET NUMBER

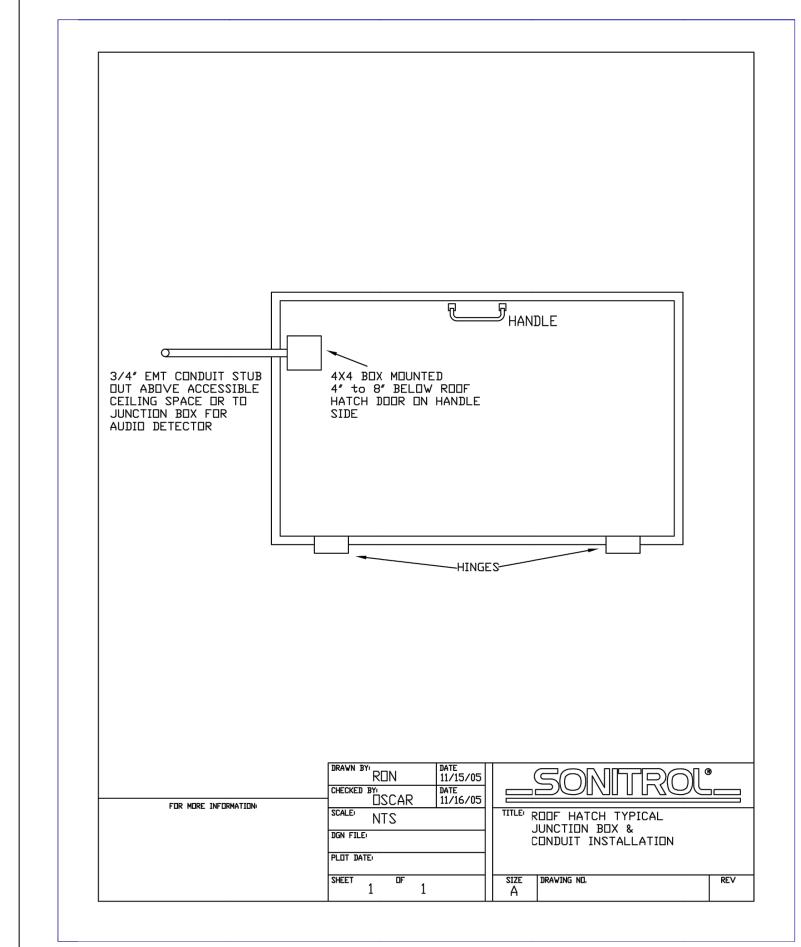
E-6.1

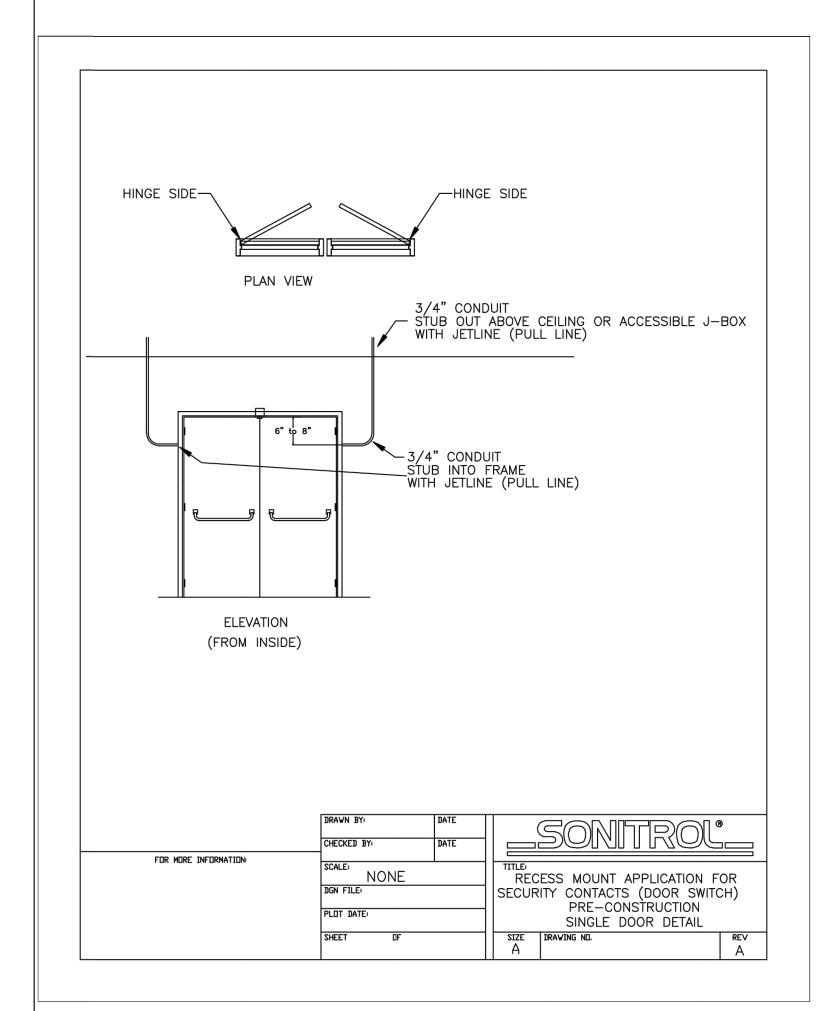






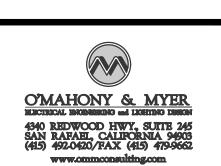












LIBERTY HIGH SCHOOL

ADMINISTRATION & STUDENT COMMONS

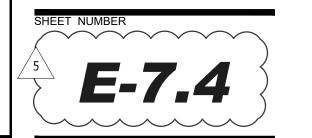
850 2ND STREET, BRENTWOOD CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

REVISIONS  3 12/21/20 ADDENDUM 03  5 01/05/21 ADDENDUM 05					
5 01/05/21 ADDENDUM 05	ADDENDUM 03				
DSA APP NO. 01-119033					
ARCH PROJECT NO: 1783	3.00				
DRAWN BY:	LN				
DRAWING SCALE: AS NO	TED				
PTN: 61721-75 FILE NO: 7	'-H4				

CD
DECEMBER 2, 2020
SHEET TITLE

**DETAILS** 



## NUMBERED SHEET NOTES

- 1 FLUSH MOUNTED IN CUSTOM CASEWORK S.A.D. FOR EXACT
- 2 NOT USED.
- 3 ) 'IDF-A', WALL MOUNTED, FLOOR SUPPORTED ON CASTERS, SWING-OUT STYLE;  $6'H \times 30"D$  (19" RACK FRAME).
- (4) DRINKING FOUNTAIN WITH COOLER.
- ( 5 ) PROTECT IN PLACE ALL (E) EQUIPMENT.
- ( 6 ) FOR ALL CLOCKS PROVIDE 120V CIRCUIT.
- 7) IN <u>PANEL 'H'</u>, REPLACE (E) 90A BREAKER WHICH SUB-FEEDS (E) PANEL 'B' WITH 100A BREAKER. SUB FEED PANEL 'B2' WITH THIS NEW 100A BREAKER. SUB-FEED (E)PANEL 'B' FROM PANEL 'B2'. SEE PANEL SCHEDULE ON E-6.1.
- (8) PROVIDE RED CATEGORY 6A CABLE AND WP DATA JACK FOR DISTRICT PROVIDED IP SECURITY CAMERA TO BE POLE MOUNTED ON INTERIOR SIDE OF PARAPET. COORDINATE EXACT ROUGH-IN LOCATION WITH SECURITY CAMERA INSTALLER PRIOR TO ROUGH-IN.
- (9) PROVIDE YELLOW CATEGORY 6A CABLE AND WP DATA JACK FOR DISTRICT PROVIDED EXTERIOR WI-FI ACCESS POINT. COORDINATE EXACT ROUGH-IN LOCATION WITH DISTRICT PRIOR TO ROUGH-IN.
- (10) AV1 'P': PROVIDE SURFACE MOUNT DOUBLE DUPLEX 120V OUTLET, DATA JACK, AND AV PASS THRU CABLING WHIPS, FOR CONNECTION TO CEILING MOUNT PROJECTOR ASSEMBLY. PROJECTOR AND MOUNT BY OTHERS. PROJECTOR WEIGHT IS
- (11) AV1 'SP': PROVIDE 4-GANG HUBBELL AV BACKBOX #NSAV124M DOUBLE DUPLEX 120V OUTLET, DATA JACK, AND AV PASS THRU CABLING WHIPS, FOR CONNECTION TO SHORT THROW PROJECTOR ASSEMBLY. PROJECTOR AND MOUNT BY OTHERS. PROJECTOR WEIGHT IS LESS THAN 20LB.
- DOUBLE DUPLEX 120V OUTLET, DATA JACK, AND AV INPUT PASS THRU CABLING ((2) HDMI, (1) 3.5mm AUDIO), INSET INTO WALL. COORDINATE LOCATION WITH ARCHITECT. CONTINUE 1-1/4" CONDUIT FROM AV INPUTS TO AV1 LOCATION.
- (13) 'TOPCAT' ACCESS AUDIO SYSTEM WITH MEDIA CONNECTOR BY / LIGHTSPEED. ALSO PROVIDE 1/2" C. TO PROJECTOR AND
- (14) PROVIDE AND INSTALL 1" C. UNDERGROUND, HOMERUN TO SECURITY CONTROL PANEL EQUIPMENT LOCATION.
- (15) LOCATE DEDICATED 120V RECEPTACLE AT +36" A.F.F. FOR SECURITY SYSTEM EQUIPMENT (O.F.O.I.). COORDINATE EXACT



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LIBERTY HIGH SCHOOL

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850 2ND STREET, BRENTWOOD CA 94513

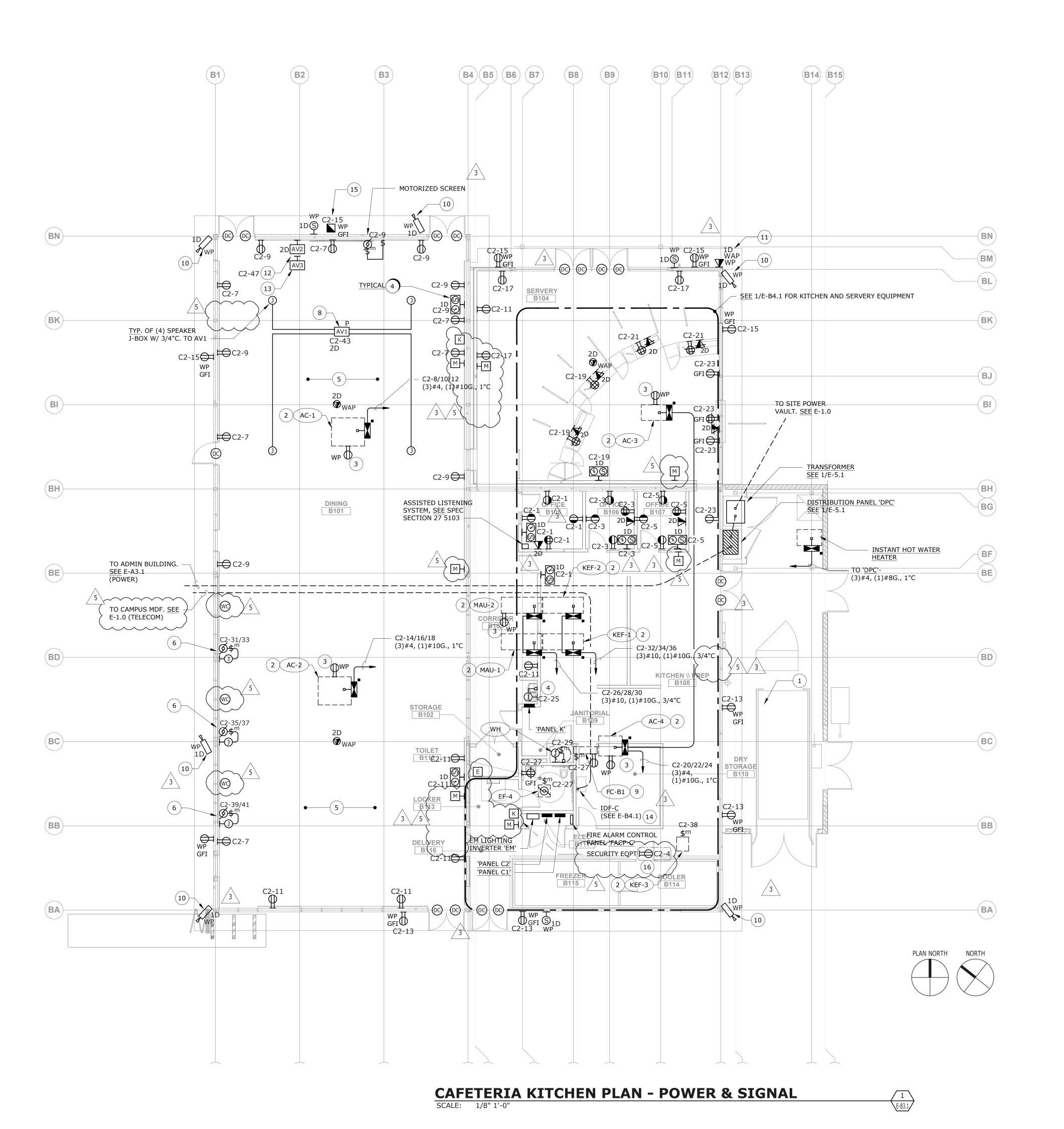
LIBERTY UNION HIGH SCHOOL DISTRICT

REVISIO	NS								
3	12/21/20	ADDENDUM 03							
5	01/05/21	ADDENDUM 05							
DSA	APP NC	0. 01-119033							
ARCH PRO	JECT NO:	1783.00							
DRAWN BY	<b>'</b> :	LN							
DRAWING	SCALE:	AS NOTED							
PTN: 617	21-75	FILE NO: 7-H4							
CD									

DECEMBER 2, 2020

**ADMINISTRATION BLDG - POWER & SIGNAL** 

E-A3.1



## NUMBERED SHEET NOTES

- 1 PROVIDE TEMPORARY POWER SOURCE FOR COMPACTOR AND CARDBOARD BAILER DURING DEMOLITION AND CONSTRUCTION
- 2 MECHANICAL EQUIPMENT LOCATED ON ROOF.
- WEATHERPROOF OUTLET LOCATED ON ROOF. CONNECT TO CIRCUIT C2-40.
- 4 CHILLED WATER FILLING STATION.
- FOR ALL ELECTRICAL / LIGHTING / LOW VOLTAGE ITEMS MOUNTED IN, ON, OR FROM THE HIGH CEILING AREA, PROVIDE MC CABLE (POWER) AND METALLIC FLEX CONDUIT (LOW VOLTAGE) UP SOUTH PERIMETER WALL FURRING AND INTO AND THROUGH CEILING CAVITY SPACE. REFER TO ARCHITECTURAL SECTIONS FOR PROFILE OF LIMITED WALL AND CEILING TRANSITION SPACE. FOR RACEWAYS IN CEILING, MAINTAIN A MINIMUM OF 1.5" CLEAR FROM THE BOTTOM OF ANY ROOFING MATERIALS, PER NEC 300.4(E).
- 6 ELECTRIC ROLL UP DOOR (208, 1PH, 30A). PROVIDE AND INSTALL PUSH BUTTON CONTROLS WITH 'UP', 'DOWN' AND 'STOP' FUNCTIONS. WIRING/CONDUIT: (2) #8 + (1) #10G. IN 3/4" C.
- 7 FOR ALL CLOCKS PROVIDE 120V CIRCUIT.
- 8 AV2: PROVIDE 4-GANG HUBBELL AV BACKBOX #NSAV124M WITH DOUBLE DUPLEX 120V OUTLET, DATA JACK, AND AV INPUT PASS THRU CABLING ((2) HDMI, (1) 3.5mm AUDIO), INSET INTO WALL. COORDINATE LOCATION WITH ARCHITECT. CONTINUE 1-1/4" CONDUIT FROM AV INPUTS TO PROJECTOR LOCATION.
- 9 PROVIDE CIRCUIT C2-44/46 FOR FC-B1. ADDITIONALLY CO-LOCATE 120V OUTLET FOR CONDENSATE PUMP.
- PROVIDE RED CATEGORY 6A CABLE AND WP DATA JACK FOR DISTRICT PROVIDED IP SECURITY CAMERA TO BE SURFACE MOUNTED ON UNDERSIDE OF ROOF SOFFIT BEYOND EDGE OF GLAZING BELOW. COORDINATE EXACT ROUGH-IN LOCATION WITH SECURITY CAMERA INSTALLER PRIOR TO ROUGH-IN.
- PROVIDE YELLOW CATEGORY 6A CABLE AND WP DATA JACK FOR DISTRICT PROVIDED EXTERIOR WI-FI ACCESS POINT. COORDINATE EXACT ROUGH-IN LOCATION WITH DISTRICT PRIOR TO ROUGH-IN.
- AV1 'P': PROVIDE SURFACE MOUNT DOUBLE DUPLEX 120V
  OUTLET, DATA JACK, AND AV PASS THRU CABLING WHIPS, FOR
  CONNECTION TO CEILING MOUNT PROJECTOR ASSEMBLY.
  PROJECTOR AND MOUNT BY OTHERS. PROJECTOR WEIGHT IS
  LESS THAN 20LB.
- AV3: PROVIDE FLUSH 2-GANG AV BACKBOX FOR MEDIA SWITCHING INPUTS WITH 3/4" C. TO PROJECTOR ASSEMBLY.
- (14) 'IDF-C', WALL MOUNTED, SWING-OUT STYLE; 3'H  $\times$  30"D (19" RACK FRAME).
- 15 LOW PROFILE CUSTOM TUBE STEEL POWER PEDESTAL. SEE

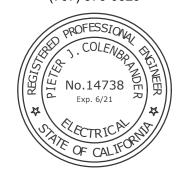
  2/E-5.3

  16 LOCATE DEDICATED 120V RECEPTACLE AT +36" A.F.F. FOR SECURITY SYSTEM EQUIPMENT (O.F.O.I.). COORDINATE EXACT

LOCATION PRIOR TO ROUGH-IN.



Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566
(707) 576-0829





LIBERTY HIGH SCHOOL

ADMINISTRATION & STUDENT COMMONS

850 2ND STREET, BRENTWOOD CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

REVISIO	NS							
3	12/21/20	ADDENDUM 03						
5	01/05/21	ADDENDUM 05						
DSA	APP NC	0. 01-119033						
ARCH PRO	JECT NO:	1783.0						
DRAWN BY	<b>′</b> :	L						
DRAWING	SCALE:	AS NOTE						
PTN: 617	21-75	FILE NO: 7-I						
	CD							

DECEMBER 2, 2020

CAFETERIA
KITCHEN PLAN POWER &
SIGNAL

SHEET NUMBER

E-B3.1