

GENERAL NOTES

- CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMISSION OF BIDS TO REVIEW EXISTING CONDITIONS OF AREAS THAT ARE TO BE BID.
- ADMINISTRATIVE REQUIREMENTS:
 - A COPY OF PARTS 1 & 2, TITLE 24 C.C.R. SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
 - ALL CONSTRUCTION CHANGE DOCUMENTS AND ADDENDA ARE TO BE SIGNED BY THE ARCHITECT, THE CONTRACTOR AND DISTRICT.
 - ALL TESTS TO CONFORM TO THE REQUIREMENTS OF SECTION 4-335, PART 1, TITLE 24, AND APPROVED TESTING & INSPECTION SHEET.
 - TESTS OF MATERIALS AND TESTING LAB SHALL BE IN ACCORDANCE WITH SECTION 4-335 OF PART 1, TITLE 24 AND THE DISTRICT SHALL EMPLOY AND PAY THE LAB, COST OF RE-TEST MAY BE BACK-CHARGED TO THE CONTRACTOR.
 - INSPECTOR TO BE APPROVED BY THE ARCHITECT AND DSA. INSPECTION TO BE IN ACCORDANCE WITH SECTION 4-335(a), THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-342, PART 1, TITLE 24.
 - CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS SHALL SUBMIT VERIFIED REPORTS IN ACCORDANCE WITH SECTIONS 4-336 AND 4-343, PART 1, TITLE 24.
 - THE ARCHITECT AND THE STRUCTURAL ENGINEER AND PROFESSIONAL ENGINEER SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTIONS 4-333(a) AND 4-341, PART 1, TITLE 24.
 - THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343, PART 1, TITLE 24.
 - THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION AND ADDITIONS IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHERE IN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- NATIONAL REFERENCE STANDARDS:
 - ASD (AISC) MANUAL OF STEEL CONSTRUCTION, 14TH EDITION
 - 2012 REVISED NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION – 10-318-11 CODE & COMMENTARY
 - REFERENCE CODE SECTION FOR NFPA STANDARDS – CBC (SFM) 3504.1 (FOR ADDITIONAL LISTING, SEE ITEM 4 APPLICABLE CODES BELOW)
- APPLICABLE CODES FOR THIS PROJECT SHALL BE:
 - 2016 CALIFORNIA ADMINISTRATIVE CODE.....(CAC) (PART 1, TITLE 24, CCR)
 - 2016 CALIFORNIA BUILDING CODE (CBC) VOLUMES 1 & 2.....(PART 2, TITLE 24, CCR)
 - 2015 EDITION INTERNATIONAL BUILDING CODE WITH 2016 CALIFORNIA AMENDMENTS
 - 2016 CALIFORNIA ELECTRICAL CODE (CEC).....(PART 3, TITLE 24, CCR)
 - 2015 EDITION NATIONAL ELECTRICAL CODE WITH 2016 CALIFORNIA AMENDMENTS
 - 2016 CALIFORNIA MECHANICAL CODE (CMC).....(PART 4, TITLE 24, CCR)
 - 2015 EDITION IAPMO UNIFORM MECHANICAL CODE WITH 2015 CALIFORNIA AMENDMENTS
 - 2016 CALIFORNIA PLUMBING CODE (CPC).....(PART 5, TITLE 24, CCR)
 - 2015 EDITION IAPMO UNIFORM PLUMBING CODE WITH 2015 CALIFORNIA AMENDMENTS
 - 2016 CALIFORNIA ENERGY CODE.....(PART 6, TITLE 24, CCR)
 - 2015 EDITION CALIFORNIA ENERGY STANDARDS
 - 2016 CALIFORNIA FIRE CODE (CFC).....(PART 9, TITLE 24, CCR)
 - 2015 EDITION OF INTERNATIONAL FIRE CODE WITH 2015 CALIFORNIA AMENDMENTS
 - 2016 CALIFORNIA GREEN CODE.....(PART 11, TITLE 24, CCR)
 - 2016 CALIFORNIA REFERENCE STANDARDS CODE.....(PART 12, TITLE 24, CCR)
 - NFPA 13 – 2015
 - NFPA 72 – 2015
 - REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS
 - 2016 CBC, CHAPTER 15
 - 2016 CFC, CHAPTER 45
- USE OF ANY MATERIAL CONTAINING ASBESTOS IS PROHIBITED.
- DO NOT SCALE DRAWINGS. DRAWINGS SHOULD BE USED AS A SUPPLEMENTAL TOOL FOR THE CONTRACTOR'S USE IN REVIEWING ACTUAL FIELD CONDITIONS PRIOR TO BIDDING.
- ALL DIMENSIONS ARE APPROXIMATE DUE TO THE AS-BUILT CONDITIONS VARYING FROM ACTUAL FIELD CONDITIONS. ALL DIMENSIONS ARE TO BE FIELD VERIFIED PRIOR TO COMMENCING WORK. DIMENSIONS ARE FROM/TO CENTERLINE OR FACE OF STUDS/SHEATHING U.O.N. PER PLANS.
- MATCH LINES ARE INDICATORS OF WHERE ADJOINING FLOOR PLANS MEET. SEE PLANS ON BOTH SIDES OF MATCH LINE FOR INFORMATION OVERLAPPING THE LINE.
- THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS TO INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY FOR ALL WORK SHOWN, PRESCRIBED, OR REASONABLY IMPLIED, BUT NOT LIMITED TO THAT EXPLICITLY INDICATED IN THE CONTRACT DOCUMENTS. WHERE WORK OR EQUIPMENT IS INDICATED N.I.C. (NOT IN CONTRACT), SUCH WORK AND/OR EQUIPMENT SHALL BE PROVIDED BY OTHERS. CONTRACTOR SHALL COORDINATE AND COOPERATE TO EFFECT SUCH INSTALLATION. ALL REQUESTS FOR CLARIFICATIONS OF THESE DRAWINGS SHALL BE DIRECTED TO DEEMS LEWIS MCKINLEY, ARCHITECTS. ALL REQUIRED WORK SHALL BE PERFORMED BY THE CONTRACTOR INCLUDING THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS, THEY SHALL BE ONE AND THE SAME. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES ON THE PROJECTS. ANY CHANGES OR DELAYS ARISING FROM CONFLICTS BETWEEN TRADES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL TRADES COORDINATE INTERFACE BETWEEN THEMSELVES, I.E., PLUMBING, ROUGH-IN CABINETRY, ETC.
- EXISTING UTILITIES AND IMPROVEMENTS DAMAGED DURING THE COURSE OF THE WORK SHALL BE PROMPTLY REPAIRED. EXISTING UTILITIES AND IMPROVEMENTS DAMAGED FOR WHICH LOCATIONS WERE UNKNOWN SHALL BE IMMEDIATELY BROUGHT TO THE OWNER'S AND ARCHITECT'S ATTENTION AND PROMPTLY REPAIRED AT HIS/HER DIRECTION. THE WORK REQUIRED TO REPAIR DAMAGED EXISTING UTILITIES AND IMPROVEMENTS FOR WHICH LOCATIONS WERE UNKNOWN WILL BE REVIEWED AND TAKEN UNDER CONSIDERATION AS EXTRA WORK.
- ALL ITEMS NOTED TO BE SALVAGED SHALL BE RETURNED TO THE OWNER.
- THE TERM "TYPICAL" (TYP) SHALL BE CONSTRUED TO MEAN APPLYING TO ALL LIKE OR SIMILAR CONDITIONS IN THE AREAS DESIGNATED FOR WORK SCOPE (E. WITHIN THE BOUNDARIES OF THIS PROJECT).
- PENETRATIONS IN FIRE RATED ASSEMBLIES AND BEARING WALLS SHALL BE PROTECTED AS REQUIRED BY 2016 CBC CHAPTER 7.
- THE CONSTRUCTION DOCUMENTS, INCLUDING THE SPECIFICATIONS AND DRAWINGS, ARE COMPLEMENTARY AND WHAT IS CALLED FOR BY ANY ONE SHALL BE AS BINDING AS IF CALLED FOR BY ALL. IN CASE OF CONFLICT, LARGE SCALE (DETAIL) DRAWINGS SHALL GOVERN OVER SMALL-SCALE DRAWINGS. THE SPECIFICATIONS SHALL GOVERN OVER BOTH THE CONSTRUCTION PROJECT MANUAL AND THE CONTRACT DRAWINGS EXCEPT AS NOTED HEREIN BELOW. SPECIAL CONDITIONS SHALL GOVERN OVER BOTH THE CONSTRUCTION DRAWINGS AND THE GENERAL CONDITIONS, AND SUBSEQUENT ADDENDA, INTERPRETATIONS, OR CHANGE ORDERS SHALL GOVERN OVER THE ORIGINAL DOCUMENTS, UNLESS A DIFFERENT ORDER OF PRECEDENCE IS NOTED ELSEWHERE IN CONJUNCTION WITH A SPECIFIC PORTION OF THE DOCUMENTS.

IN CASE OF CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE DOCUMENT CONTAINING ADDITIONAL QUANTITIES SHALL GOVERN IN MATTERS OF QUANTITY. THE DOCUMENT REQUIRING A HIGHER DEGREE OF QUALITY SHALL GOVERN IN MATTERS OF QUALITY. IN CASE OF CONFLICT WITHIN THE DRAWINGS INVOLVING QUANTITIES OR WITHIN THE SPECIFICATIONS INVOLVING QUALITY, THE GREATER QUANTITY AND THE HIGHER QUALITY SHALL BE FURNISHED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL SUCH QUANTITY AND QUALITY CONFLICTS AND SHALL AGREE UPON RESOLUTION, IN WRITING, PRIOR TO PROCEEDING. CES.

WHERE ON ANY DRAWING A PORTION OF THE WORK IS DRAWN OUT AND THE REMAINDER IS INDICATED IN OUTLINE, THE DRAWN-OUT PARTS SHALL APPLY TO ALL OTHER LIKE PORTIONS OF THE WORK. WHERE ORNAMENT OR OTHER DETAILS IS INDICATED AS STARTING, SUCH DETAIL SHALL BE CONTINUED THROUGHOUT THE COURSES OR PARTS IN WHICH IT OCCURS AND SHALL ALSO APPLY TO OTHER SIMILAR PARTS IN THE WORK, UNLESS OTHERWISE INDICATED.
- ITEMS INDICATED TO BE VERIFIED OR FIELD VERIFIED ARE REQUIRED TO BE VERIFIED PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH THE WORK. ITEMS ARE ALWAYS TO BE VERIFIED FOR DESIGN INTENT AND COMPATIBILITY.
- THE CONTRACTOR SHALL MAINTAIN THE PUBLIC RIGHTS OF WAY, SIDEWALKS, CORRIDORS, ETC. AFFECTED BY THE CONSTRUCTION, AND KEEP THESE AREAS FREE OF ALL SOIL, DEBRIS TRASH, ETC., ON A DAILY BASIS. CLEAN EGRESS SHALL BE MAINTAINED AT ALL TIMES FOR ALL ADJACENT BUILDING TENANTS, THEIR EMPLOYEES AND GUESTS.

- THE ARCHITECT'S APPROVAL OF SHOP DRAWINGS SHALL NOT RELIEVE THE GENERAL CONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS UNLESS HE HAS (IN WRITING) CALLED THE ARCHITECT'S ATTENTION TO SUCH DEVIATIONS AT THE TIME OF SUBMISSION NOR SHALL IT RELIEVE HIM OF RESPONSIBILITY FOR ERRORS OF ANY SORT IN THE SHOP DRAWINGS.
- NOT USED
- GENERAL CONTRACTOR OR ITS SUBCONTRACTORS SHALL BE RESPONSIBLE FOR VERIFICATION AND APPROVALS OF SUBSTITUTED MATERIALS AS REQUIRED BY GOVERNING CODES AND AGENCIES.
- IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTORS TO SUPPLY AND DISTRIBUTE ADEQUATE COPIES OF ALL DRAWINGS TO ALL TRADES FALLING UNDER THEIR RESPONSIBILITY AT ALL TIMES DURING THE PROGRESS OF THE JOB (I.E.; REVISIONS).
- UPON COMPLETION OF THE JOB, THE GENERAL CONTRACTOR SHALL SUBMIT CERTIFICATES OF INSPECTION OF SATISFACTORY COMPLETION, AND OPERATION AND MAINTENANCE INSTRUCTIONS TO THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL WORK AND MATERIALS IN CONFORMANCE WITH ANY CODE OR CODES OF FEDERAL, STATE, COUNTY OR MUNICIPALITY HAVING JURISDICTION OVER SUCH WORK. ALL APPLICABLE REQUIREMENTS IN THESE REGULATIONS ALL BE FOLLOWED THE SAME AS IF NOTED ON THE DRAWINGS. CONFLICTS BETWEEN WORK SET FORTH ON THE DRAWINGS AND BUILDING CODES, LAWS OR REGULATIONS NOTED BY THE GENERAL CONTRACTOR SHALL BE SUBMITTED TO THE ARCHITECT FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL SUBMIT ALL PERTINENT SHOP DRAWINGS AND COLOR SAMPLES (INCLUDING CASEWORK) FOR THE ARCHITECT'S REVIEW. ALLOWING ADEQUATE TIME FOR REVIEW AND CORRECTIVE ACTION, SHOULD IT BE REQUIRED. BY SUBMITTING SHOP DRAWINGS, THE CONTRACTOR THEREBY REPRESENTS THAT HE HAS VERIFIED ALL FIELD MEASUREMENTS, METHODS OF ACCESS TO THE POINT OF INSTALLATION AND SIMILAR FIELD CRITERIA FOR CABINETRY/MILLWORK AND ALL PREFABRICATED ASSEMBLIES OTHER THEN BUILDING STANDARD WORK.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST/NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND AGENCIES.
- NO EXTRA WORK OR CHARGE SHALL BE MADE UNLESS WRITTEN AND COUNTERSIGNED BY THE ARCHITECT AND OWNER OR WRITTEN ORDER FROM THE ARCHITECT IS OBTAINED. THIS ORDER SHALL STATE THAT THE OWNER HAS AUTHORIZED THE EXTRA WORK OR CHARGE AND NO CLAIM FOR AN ADDITIONAL SUM SHALL BE VALID UNLESS SO PRESENTED AS DESCRIBED ABOVE.
- CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL AT ALL TIMES, KEEP PREMISES FREE FROM ACCUMULATION OF DEBRIS CAUSED BY ITS OPERATIONS. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL CLEAN THE BUILDING AND LEAVE THE WORK "READY FOR MOPPING AND WAXING."
- GENERAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND FIELD VERIFYING DEMOLITION REQUIREMENTS IN RELATION TO CONSTRUCTION DRAWINGS. THE ARCHITECT IS TO BE NOTIFIED OF ANY AND ALL CONFLICTS, DISCREPANCIES OR PROBLEMS.
- CONTRACTOR TO REPAIR AND PATCH ALL AREAS DISTURBED DUE TO THIS PROJECT'S SCOPE OF WORK.

ABBREVIATIONS

A.B./ANCHOR BOLT	E./EAST	I.D./INSIDE DIAMETER
ABV./ABOVE	(C)/EXISTING	I.N./INCH
A.C./ASPHALIC CONCRETE	E.A./EACH	IN.CAND./INCANDESCENT
A.C.T./ACOUSTICAL CEILING TILE	E.J./EXPANSION JOINT	INCR./INCREMENT
A/C/AIR CONDITIONING	EL./ELEVATION	INFO./INFORMATION
ACOUS./ACOUSTICAL	ELAS./ELASTOMERIC	INSUL./INSULATION
A.D./AREA DRAIN	ELEC./ELECTRICAL	INT./INTERIOR
ADMIN./ADMINISTRATION	ELEV./ELEVATOR	
ADJ./ADJUSTABLE	EMER./EMERGENCY	
A.F.F./ABOVE FINISHED FLOOR	ENCL./ENCLOSURE	
AGGR./AGGREGATE	ENGR./ENGINEER	
AL./ALUMINUM	EQ./EQUAL	
ALT./ALTERNATE	EQUIP./EQUIPMENT	
A.P./ACCESS PANEL	E.S./EACH SIDE	
APP./APPLICATION	EXP./EXPANSION	
APPROX./APPROXIMATE	EXH./EXHAUST	
ARCH./ARCHITECTURAL	EXIST./EXISTING	
ASPH./ASPHALT	EXT./EXTERIOR	
ATTEN./ATTENUATING	E.W./EACH WAY	
	F./FREEZER	
	F.A./FIRE ALARM	
	F.A.F./FORGED FRAME	
	F.D./FLOOR DRAIN	
	FND./FOUNDATION	
	F.F./FIRE EXTINGUISHER	
	F.E.C./FIRE EXTINGUISHER & CABINET	
	FED./FEDERAL	
	F.V./FIELD VERIFY	
	F.F./FINISH FLOOR	
	F.H.C./FIRE HOSE CABINET	
	FIN./FINISH	
	FIX./FIXTURE	
	F.L./FLOW LINE	
	FLR./FLOOR	
	FLUR./FLUORESCENT	
	F.O./FACE OF	
	F.O.C./FACE OF CONCRETE	
	F.O.F./FACE OF FINISH	
	F.O.M./FACE OF MASONRY	
	F.O.S./FACE OF STUD	
	F.O.W./FACE OF WALL	
	FRPF./FIREPROOF(NG)	
	FRW./FRAMING	
	F.R.T./FIRE RETARDANT TREATED	
	F.R.P./FIBERGLASS REINFORCED	
	POLYESTER	
	F.S./FLOOR SINK	
	F.S.E./FOOD SERVICE EQUIPMENT	
	FT./FOOT OR FEET	
	FTG./FOOTING	
	FURR./FURRING	
	FUT./FUTURE	
	GA./GAUGE	
	GALV./GALVANIZED	
	GLB./GLUE- LAMINATED (WOOD) BEAM	
	GL./GLASS	
	GRD./GROUND	
	G.R.G./GLASS REINFORCED	
	GYP/SUM	
	G.S.M./GALVANIZED SHEET METAL	
	GYP./GYPSUM	
	G.W.B./GYPSUM WALL BOARD	
	H.B./HOSE BIBB	
	H.C./HOLLOW CORE	
	HDWR./HARDWARE	
	HWDD./HARDWOOD	
	HT./HEIGHT	
	H.M./HOLLOW METAL	
	HORIZ./HORIZONTAL	
	H.P./HIGH POINT	
	HVAC./HEATING, VENTILATING, AIR CONDITIONING	

NOTE: NOT ALL ABBREVIATIONS MAY BE USED IN THIS PROJECT

JAN./JANITOR	JST./JOIST	JT./JOINT
KIT./KITCHEN		
K.P./KICK PL		
LAB./LABORATORY		
LAM./LAMINATE		
LAV./LAVATORY		
LB./POUND		
L.F./LINEAR FEET		
L.H./LEFT HAND		
LN./LINEAR		
LKR./LOCKER		
L.L.H./LONG LEG HORIZONTAL		
L.P./LOW POINT		
LT./LIGHT		
LVR./LOUVER		
MACH./MACHINE		
MAINT./MAINTENANCE		
MATL./MATERIAL		
MAS./MASONRY		
MAX./MAXIMUM		
M.B./MARKER BOARD or MACHINE BOLT		
M.C./MEDICINE CABINET		
MECH./MECHANICAL		
MEMB./MEMBRANE		
MET./METAL		
MFR./MANUFACTURER		
MIN./MINIMUM		
MIR./MIRROR		
MISC./MISCELLANEOUS		
MK./MARK		
M.O./MASONRY OPENING		
M.T./MOUNTED		
MTL./METAL		
MUL./MULLION		
N./NORTH		
(N)/NEW		
N/A./NOT APPLICABLE		
N.E./NORTHEAST		
N.I.C./NOT IN CONTRACT		
N.O./NUMBER		
NOM./NOMINAL		
N.T.S./NOT TO SCALE		
N.W./NORTHWEST		
OGS./OBSCURE		
O.C./ON CENTER		
O.D./OUTSIDE DIAMETER or DIMENSION		
O.F.C.I./OWNER FURNISHED, CONTRACTOR INSTALLED		
O.F.D./OVERFLOW DRAIN		
O.F.S./OVERFLOW SCUPPER		
O.H./OVER HEAD		
OPNG./OPENING		
OPP. HD./ OPPOSITE HAND		
OZ./OUNCE		

PROJECT TEAM

OWNER	MENLO PARK CITY SCHOOL DISTRICT	ARCHITECT	HED
181 ENCINAL AVENUE ATHERTON, CALIFORNIA 94027	T: 650.321.7140	417 MONTGOMERY STREET, SUITE 400 SAN FRANCISCO, CALIFORNIA 94104	T: 415.981.2345
ELECTRICAL ENGINEER	ALLIANCE ENGINEERING CONSULTANTS		
4701 PATRICK HENRY DRIVE, BLDG. 10 SANTA CLARA, CALIFORNIA 95054	T: 408.970.9888		

CLASSROOM LIGHTING REPLACEMENT

at ENCINAL SCHOOL

MENLO PARK CITY SCHOOL DISTRICT

SHEET INDEX

G-001	TITLE SHEET
ARCHITECTURAL	
AS-001	SITE PLAN
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E2.1	ELECTRICAL PLAN (BASE BID)
E21A	ELECTRICAL PLAN (BID ALTERNATE)
E3.1	ELECTRICAL DETAILS

PROJECT SCOPE

- THE WORK SHALL INCLUDE BUT IS NOT LIMITED TO:
- REPLACEMENT OF EXISTING LIGHTING AT CLASSROOMS 8, 9, 10, 11, WITH NEW LIGHTING FIXTURES AND ALL ASSOCIATED ACCESSORIES.
 - REPLACE AND MODIFY EXISTING ELECTRICAL CONDUITS AND SWITCHES ASSOCIATED WITH THE LIGHTS BEING REPLACED.
 - REPLACEMENT OF EXISTING GLED-ON CEILING TILES WITH NEW IN THE CLASSROOMS MENTIONED ABOVE.
 - SELECTIVE DEMOLITION, PATCH, REPAIR AND REFINISH OF AREAS AFFECTED BY NEW WORK.
 - REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
 - REMOVE EXISTING BLOW-IN INSULATION AT ROOMS 8, 9, 10 AND 11 AND REPLACE WITH NEW THERMAL BATT INSULATION AS DESCRIBED IN SECTION 07 21 00 (SEE PROJECT MANUAL).
- THE PRECEDING DESCRIPTION DOES NOT LIMIT THE EXTENT OF WORK. CONTRACTOR IS RESPONSIBLE FOR ALL WORK CONTAINED WITHIN THE CONTRACT DOCUMENTS.

FOR REFERENCE ONLY, REFER TO ASBESTOS AND LEAD SURVEY, DATED MAY 3, 2007.

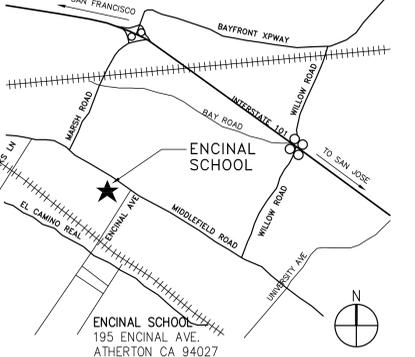
BID ALTERNATE 'A':

PROVIDE WIRELESS LIGHTING CONTROLS AND OCCUPANCY SENSORS, SED.

DEFERRED APPROVAL

NONE

VICINITY MAP



SYMBOL LEGEND

ROOM NAME NUMBER/INTERIOR ELEVATION SHEET	GALLERY (A101) A7.X	WALL SECTION REFERENCE	17 AS (DWG #/SHEET #)
DOOR NUMBER	101A	STRUCTURAL GRID	A (NUMBER OR LETTER)
DEMOLITION NOTE	1	DETAIL DRAWING REFERENCE	1 DWG # AX.XX SHEET #
TOILET ACCESSORY	1	BUILDING ELEVATION REFERENCE	1 DWG # AX.XX SHEET #
CONSTRUCTION NOTE	1	INTERIOR ELEVATION REF	1 ELEVATION DWG # AX.XX SHEET #
PARTITION TYPE	1-ETI	WINDOW TYPE	1
MATCH LINE	+	BUILDING SECTION	1 DWG # AX.XX SHEET #
DATUM POINT	+0'-0" A.F.F.		
NORTH ARROW	N		
MAGNETIC NORTH PROJECT NORTH			

THIS IS NOT A DIVISION OF THE STATE ARCHITECT (DSA) PROJECT



Encinal School Classroom Lighting Replacement

195 Encinal Avenue
Atherton, CA 94027 (650) 326-6164

Date	Issued For

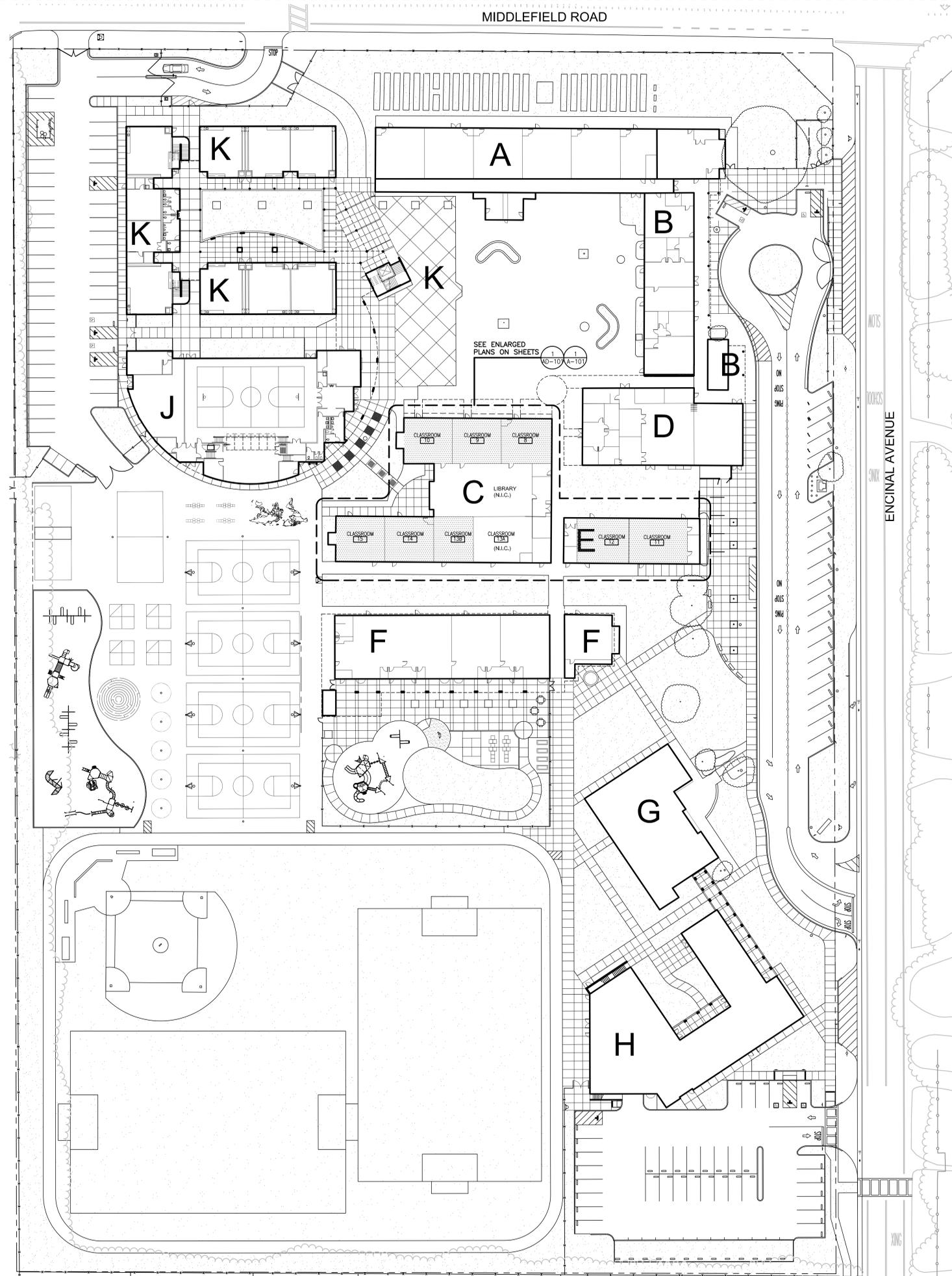


417 Montgomery Street
Suite 400
San Francisco, CA
94104 USA
(415) 981-2345
WWW.HED.DESIGN

BD18-03799-000

TITLE SHEET

G-001



LEGEND

AREA OF NEW WORK

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.



Encinal School Classroom Lighting Replacement

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date Issued For



417 Montgomery Street
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(415) 981-2345
WWW.HED.DESIGN

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BD18-03799-000

Site Plan

AS-001

March 27, 2019 - MPCSBD Bid #001-2019-01

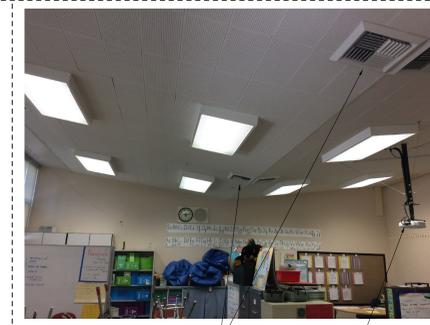
1 SITE PLAN
1" = 30'-0"

LEGEND

- (E) WALL TO REMAIN
- (E) CEM. PLASTER CEILING TO BE REMOVED
- (E) HVAC SUPPLY & RETURN TO REMAIN
- (E) FAN TO REMAIN
- (E) GLUED-ON CEILING TILE TO BE REMOVED
- (E) CEILING MOUNTED PROJECTOR TO REMAIN



4 PHOTO 3
NTS



3 PHOTO 2
NTS



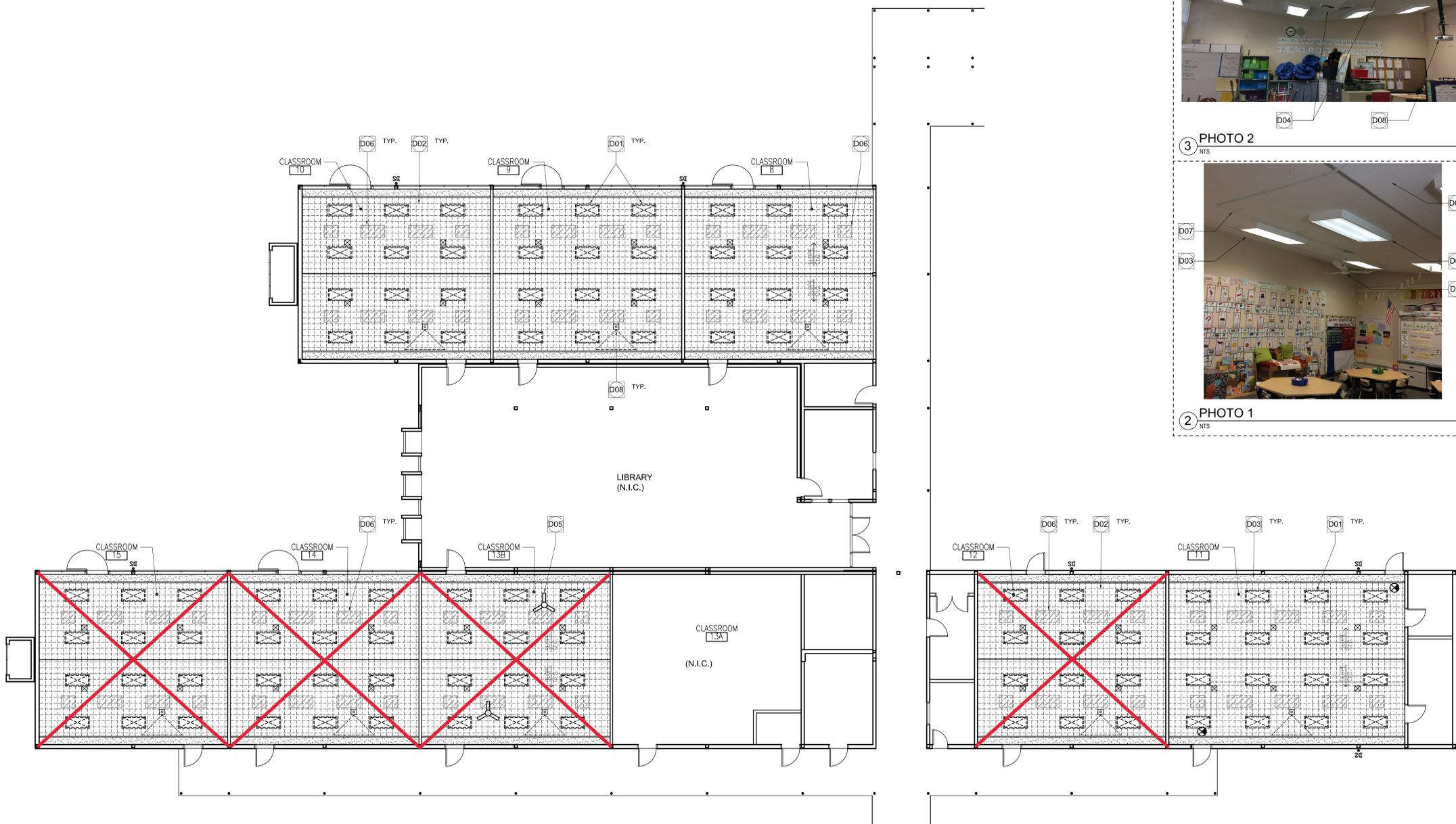
2 PHOTO 1
NTS

GENERAL NOTES

1. REFER TO ELECTRICAL FOR ADDITIONAL INFORMATION.
2. DISCARDED/REMOVED CEILING TILES AND RELATED ACCESSORIES SHALL BE DISPOSED OF OFFSITE AND NOT REUSED.
3. TEMPORARILY REMOVE (E) CEILING FANS, (E) CEILING PROJECTORS AND SURFACE MOUNTED CONDUITS, FA DETECTORS AND CEILING SIGNS. RE-INSTALL AFTER PLACEMENT OF NEW CEILING TILES.

DEMO NOTES (TYPICAL, U.O.N.)

- D01 REMOVE (E) LIGHT FIXTURE AND ALL RELATED ACCESSORIES.
- D02 REMOVE (E) GLUED-ON CEILING TILE AND ALL RELATED ACCESSORIES.
- D03 (E) GYP. CEILING AND ALUM. REVEAL TO REMAIN, PROTECT.
- D04 TEMPORARILY REMOVE (E) MECHANICAL DIFFUSER. REINSTALL AFTER PLACEMENT OF NEW CEILING TILE.
- D05 TEMPORARILY REMOVE (E) CEILING FAN AND ACCESSORIES. REINSTALL AFTER PLACEMENT OF NEW CEILING TILE.
- D06 REMOVE 24"x24" OR 24"x48" SECTIONS OF (E) WOOD SLATS AT CEILING FOR THE PLACEMENT OF WOOD BLOCKING AT NEW LIGHT FIXTURE SUPPORT POINTS. REPLACE IN-KIND AFTER PLACEMENT OF NEW CEILING AND LIGHTS. V.I.F., SED.
- D07 TEMPORARILY REMOVE (E) SURFACE MOUNTED CONDUITS. REINSTALL AFTER PLACEMENT OF NEW CEILING TILE.
- D08 TEMPORARILY REMOVE (E) CEILING MOUNTED PROJECTOR AND ACCESSORIES. REINSTALL AFTER PLACEMENT OF NEW CEILING TILE.



1 DEMOLITION REFLECTED CEILING PLAN
1/8" = 1'-0"

LEGEND

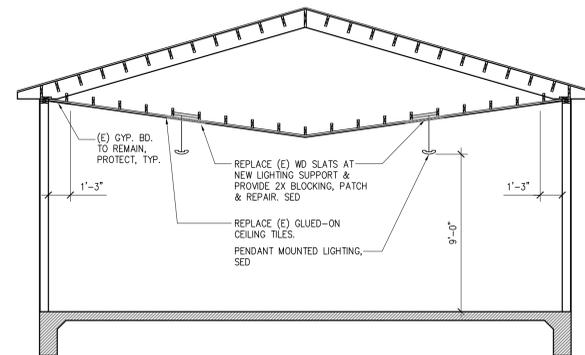
-  (E) WALL TO REMAIN
-  PENDANT LIGHT FIXTURE, SED
-  (E) HVAC SUPPLY & RETURN TO REMAIN
-  (E) CEILING FAN TO REMAIN
-  GLUED-ON CEILING TILE
-  (E) CEILING MOUNTED PROJECTOR TO REMAIN

GENERAL NOTES

1. REFER TO ELECTRICAL FOR ADDITIONAL INFORMATION.
2. NEW CEILING TILE TO BE ARMSTRONG, FINE FISSURED, CONCEALED, 1'X1'X5/8", MEDIUM TEXTURE AND COLOR WHITE.

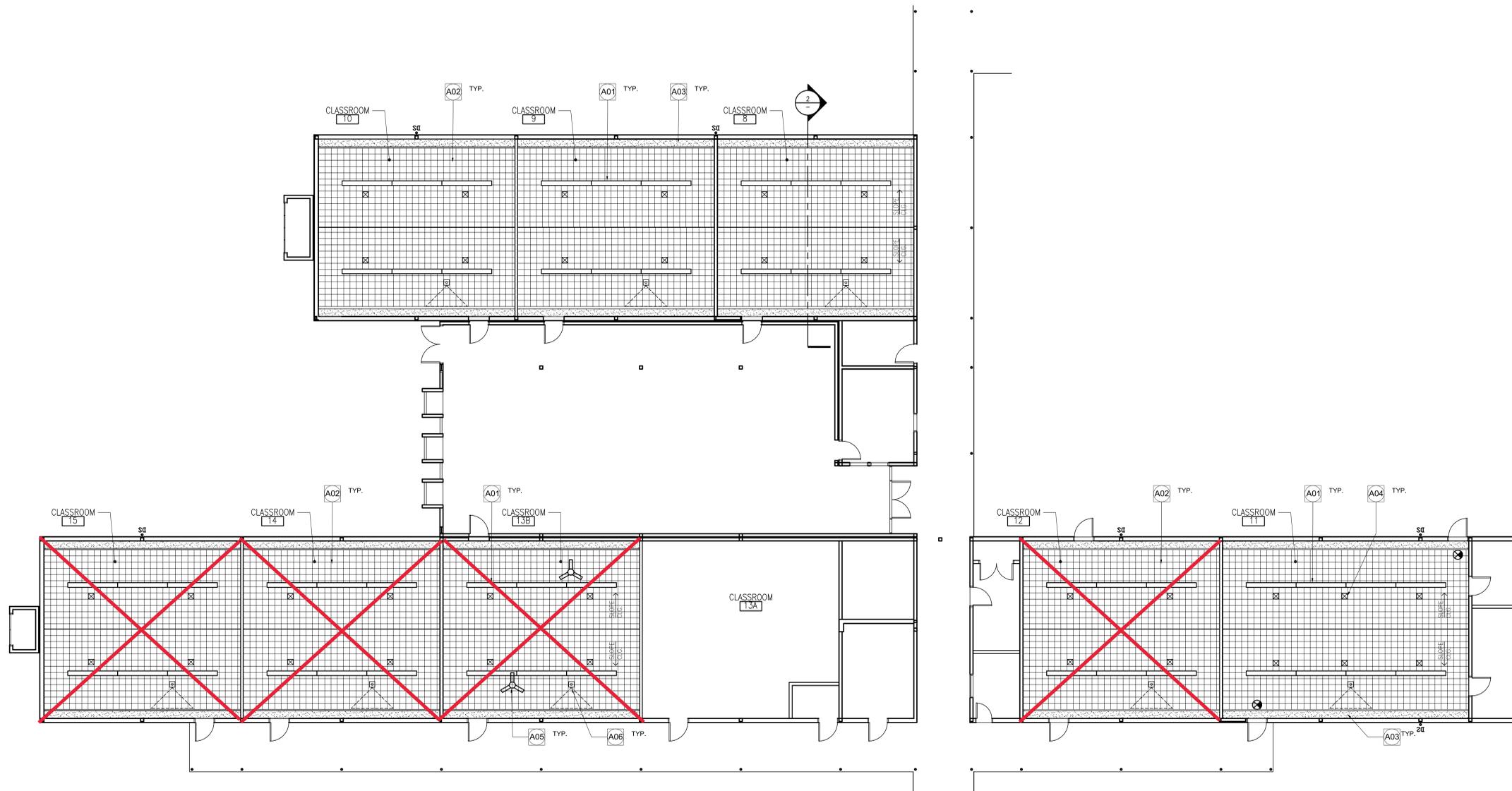
KEYNOTES (TYPICAL, U.O.N.)

- A01 LIGHT FIXTURE, SED.
- A02 GLUED-ON CEILING TILE.
- A03 (E) GYP. BD. CEILING TO REMAIN, PROTECT.
- A04 (E) MECHANICAL DIFFUSER TO REMAIN, PROTECT.
- A05 (E) CEILING FAN TO REMAIN, PROTECT.
- A06 (E) CEILING MOUNTED PROJECTOR TO REMAIN, PROTECT



2 TYP. CLASSROOM SECTION

1/4" = 1'-0"



1 REFLECTED CEILING PLAN

1/8" = 1'-0"

Encinal School
Classroom Lighting
Replacement

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date Issued For
05/04/18 PROGRESS DRAWINGS



GENERAL NOTES	GENERAL NOTES (CONTINUATION)	LEGEND	DRAWING INDEX																																																																																																																																							
<p>1. THE COMPLETE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE CALIFORNIA ELECTRICAL CODE, SPECIFICATIONS AND STANDARD, THE LATEST RULES AND REGULATIONS OF THE SAFETY ORDERS ISSUED BY THE DIVISION OF INDUSTRIAL SAFETY, THE NATIONAL BOARD OF FIRE UNDERWRITERS AND ALL APPLICABLE STATE AND LOCAL CODES ISSUED BY AUTHORITIES HAVING JURISDICTION.</p> <p>2. PRIOR TO SUBMITTING PROPOSAL, BIDDER SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS, VISIT CONSTRUCTION SITE AND ATTEND THE PRE-BID MEETING TO BE FAMILIAR WITH EXISTING CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH WILL IN ANYWAY AFFECT THE WORK UNDER THIS CONTRACT. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.</p> <p>3. THIS CONTRACTOR SHALL INCLUDE ALL CONTINGENCIES WHICH MAY ARISE AND WHICH MAY BE REQUIRED BY ALTERATION AND DEMOLITION WORK. THIS IS TO INCLUDE ALL REMOVAL, RELOCATION AND REWORKING OF ELECTRICAL OUTLETS, CONDUITS, WIRING AND ITEMS FOR ELECTRICAL EQUIPMENT REQUIRED AND ANY NECESSARY SPLICING OR EXTENSION OF EXISTING CONDUIT AND WIRING SYSTEMS. THE ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND DETERMINE EXTENT OF THE WORK.</p> <p>4. FIELD VERIFY TO CONFIRM ALL FIRE RESISTIVE CEILINGS AND WALLS. PROVIDE FIRE STOP SEALS PER UNIFORM BUILDING CODE FOR CONDUIT PENETRATION THROUGH FIRE RESISTIVE FLOORS, WALLS AND CEILINGS.</p> <p>5. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITER'S LABORATORIES AND BEAR THEIR LABEL.</p> <p>6. CONDUIT ROUTING SHOWN IS ESSENTIALLY DIAGRAMMATIC. CONTRACTOR SHALL LAYOUT RUNS TO SUIT FIELD CONDITIONS AND THE COORDINATION REQUIREMENTS OF OTHER TRADES. ALL EXPOSED CONDUIT, BOXES, FITTINGS, SUPPORT, ETC. SHALL BE PAINTED TO MATCH ADJACENT SURFACES.</p> <p>7. THE CONTRACTOR SHALL CONSULT THE ARCHITECTURAL AND OTHER DRAWINGS RELATED TO THIS PROJECT FOR ADDITIONAL WORK TO BE PROVIDED.</p> <p>8. THE OWNER RETAINS FIRST SALVAGE RIGHTS TO ALL EXISTING EQUIPMENT REMOVED UNDER THIS CONTRACT. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE OWNER FOR DISPOSITION OF THE EXISTING EQUIPMENT TO BE REMOVED BY HIM. THE CONTRACTOR SHALL INCLUDE IN HIS BID PROPOSAL ALL COSTS RELATED TO THE DISPOSAL OF EXISTING EQUIPMENT REMOVED UNDER THIS CONTRACT.</p> <p>9. ANY POWER SHUTDOWN SHALL BE COORDINATED WITH SCHOOL DISTRICT CONSTRUCTION COORDINATOR. A SHUTDOWN SCHEDULE SHALL BE PRESENTED TO SCHOOL DISTRICT FOR APPROVAL TWO WEEKS PRIOR TO COMMENCEMENT OF WORK. SHUTDOWN SHALL BE PERFORMED IN OVERTIME HOURS IF SO DIRECTED BY SCHOOL DISTRICT.</p> <p>10. ALL FEEDER AND BRANCH CIRCUIT CONDUITS SHALL BE INSTALLED CONCEALED IN FINISHED AREA, UNLESS OTHERWISE NOTED. CUT AND PATCH (E) WALL OR CEILING AS REQUIRED. SURFACE TYPE RACEWAY MAY BE PROVIDED IN LIEU OF CONCEALED CONDUITS. SEE NOTES 34, 35 AND 36 FOR REQUIREMENTS.</p> <p>11. ALL PENETRATIONS THROUGH FIRE RESISTIVE WALLS SHALL BE TOTALLY SEALED TO PREVENT THE SPREAD OF SMOKE, FIRE, TOXIC GASES, AND WATER THROUGH THE PENETRATION BEFORE, DURING AND AFTER A FIRE CONDITION. THE FIRE RATING OF THE SEALED PENETRATION SHALL BE AT LEAST THAT OF THE WALL INTO WHICH IT IS INSTALLED. THE SEAL SHALL PERMIT THE VIBRATION, EXPANSION AND/OR CONTRACTION OF THE CONDUIT PASSING THROUGH THE PENETRATION WITHOUT THE SEAL CRACKING OR CRUMBLING.</p> <p>12. PROVIDE FLEXIBLE CONDUIT AT BUILDING SEISMIC JOINTS.</p> <p>13. UNLESS OTHERWISE INDICATED, THE MINIMUM SIZE OF CONDUCTORS SHALL BE 12 AWG THWN STRANDED COPPER ONLY.</p> <p>14. UNLESS OTHERWISE INDICATED, THE MINIMUM SIZE OF CONDUIT SHALL BE 3/4".</p> <p>15. GREEN INSULATED GROUND CONDUCTORS SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUIT WIRING.</p> <p>16. PROVIDE LABELS ON ALL EQUIPMENT AND DEVICES. LABELS SHALL BE SELF-ADHESIVE PHENOLIC TYPE AND WHITE LETTER ON BLACK BACKGROUND. PROVIDE BRADY OR DYMO TYPE LABELS (CIRCUIT IDENTIFICATION) FOR ALL SWITCHES AND RECEPTACLES.</p> <p>17. THE CONTRACTOR SHALL PROVIDE TYPED DIRECTORIES FOR ALL ELECTRICAL PANELS INVOLVED IN THIS PROJECT. THE PANEL DIRECTORIES SHALL REFLECT THE AS-BUILT CIRCUITS. ONE COPY OF THE SCHEDULE SHALL BE TAPED TO THE INSIDE OF THE PANEL DOOR, AND ONE COPY SHALL BE SUBMITTED TO THE ENGINEER AS AN "AS-BUILT" DRAWING.</p> <p>18. ALL ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION PER CBC REQUIREMENTS.</p> <p>19. THE CONTRACTOR SHALL EMPLOY QUALIFIED AND EXPERIENCED WORKMEN FOR THIS WORK. ALL RESTORATION WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT AND/OR OWNER AND IOR.</p> <p>20. THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING PAINTING AND/OR OTHER REPAIRS DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THIS SPECIFICATION. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC. AS REQUIRED. THIS SHALL INCLUDE ALL WALLS, CEILINGS, ROOFS, PAVEMENT, PLANTERS, ETC.</p> <p>21. WHERE CONDUIT IS ROUTED ON ROOF STRUCTURES, PROVIDE SUPPORT AT 10'-0" O.C. MAXIMUM.</p> <p>22. ALL EXPOSED CONDUIT BELOW 7'-0" SHALL BE RSC AND ALL EXPOSED HARDWARE SHALL BE "HOT DIPPED" GALVANIZED. ALL INTERIOR CONDUITS MAY BE EMT, UNLESS OTHERWISE NOTED.</p> <p>23. WHERE SURFACE WIRING IS CALLED FOR IN A FINISHED AREA, SURFACE TYPE RACEWAY SYSTEM SHALL BE INSTALLED COMPLETE WITH ALL PROPER FITTINGS, ADAPTERS, OUTLETS, DEVICES COVERS, END CAPS, ETC. AS MANUFACTURED BY PANOUT OR AN APPROVED EQUAL AND SHALL BE PAINTED TO MATCH COLOR OF ADJACENT WALL OR CEILING. ALL EXPOSED CONDUITS, BOXES AND CABINETS SHALL ALSO BE PAINTED TO MATCH COLOR OF ADJACENT WALL OR CEILING.</p>	<p>24. SURFACE TYPE RACEWAY SYSTEM SHALL BE INSTALLED PARALLEL TO, OR AT RIGHT ANGLES TO BUILDING LINES AND ROUTE AROUND SURFACE MOUNTED ITEMS, SUCH AS TACK BOARDS, ETC.</p> <p>25. ALL WIRES SHALL BE IN CONDUIT U.O.N.</p> <p>26. GENERALLY, HORIZONTAL RUNS SHALL BE INSTALLED ON THE CORNER BELOW CEILING LINE AS APPROVED BY THE ENGINEER.</p> <p>27. ALL UNDERGROUND CONDUIT SHALL HAVE #12 TRACER WIRE WITH THWN INSULATION UNDER EACH RUN OF THE UNDERGROUND CONDUIT DUCTBANK AND 6" FOL MARKER IN TRENCH. TRACER WIRE SHALL EXTEND AT TERMINATION POINTS A MIN. OF 3 FT FROM SUCH SURFACE AND SHALL BE TRAPPED SECURED TO CONDUIT OR ACCEPTABLE EQUIVALENT.</p> <p>28. UPON COMPLETION OF CONSTRUCTION, PAINT ALL EXPOSED ELECTRICAL CONDUITS, DEVICES AND BOXES (UNLESS DEVICES OR BOXES ARE ALREADY PRE-FINISHED) PER SPECIFICATION SECTION 09900, PARAGRAPH 2.3 PAINTING SCHEDULE. PAINT COLOR SHALL MATCH THE EXISTING SURFACES.</p> <p>29. THE CONTRACTOR SHALL MAINTAIN AT THE JOB SITE, AN UP TO DATE "AS BUILT" DRAWING SET. THE "AS BUILT" DRAWING SET SHALL REFLECT ALL APPROVED CHANGES TO THE DESIGN DRAWINGS. THE "AS BUILT" DRAWING SET SHALL BE KEPT CLEAN AND IN GOOD CONDITION AND SHALL BE TURNED OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL BE UPDATED DAILY AND BE CHECKED WEEKLY BY IOR. THE PROGRESS PAYMENT IS TIED TO THEIR COMPLETION.</p> <p>30. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SCHEDULE AND PERFORM A COMPLETE FUNCTIONAL TEST IN THE PRESENCE OF DSA IOR TO DEMONSTRATE TO THE OWNER THAT THE NEW INSTALLATION IS OPERATING AS INTENDED. TEST RESULTS SHALL BE SENT TO DISTRICT FOR IOR AND AOR. ANY DEFECTS OR DEFICIENCIES IN THE MATERIALS OR WORK SHALL BE CORRECTED IMMEDIATELY BY AND AT THE CONTRACTOR'S EXPENSE.</p>	<p> HOMERUN TO PANEL, HASHMARKS INDICATE NUMBER OF #12 AWG WIRES IF MORE THAN (3); (1) INDICATES GROUND.</p> <p> CONDUIT AND CONDUCTORS CONCEALS IN WALL OR CEILING</p> <p> CONDUIT AND WIRES CONCEALED IN FLOOR OR UNDERGROUND</p> <p> CAT6 CABLE IN 3/4" CONDUIT (LOW VOLTAGE CONTROL CABLE)</p> <p> CONDUIT STUBBED OUT IN ACCESSIBLE LOCATION, CAP AND MARK LOCATION</p> <p> CONDUIT RISER</p> <p> SURFACE MOUNTED ELECTRICAL PANELBOARD, 120/208V</p> <p> RECESSED MOUNTED ELECTRICAL PANELBOARD, 120/208V</p> <p> HASHMARK INDICATES EXISTING ELECTRICAL ITEM TO BE DISCONNECTED AND REMOVED INCLUDING WIRES AND CONDUIT UP TO THE NEXT JUNCTION BOX WHICH IS TO REMAIN.</p> <p> PULLBOX, SIZE AS SHOWN ON THE DRAWING</p> <p> JUNCTION BOX OR PULL BOX, SIZE PER CODE.</p> <p> DUPLEX RECEPTACLE, 20A, 120V, NEMA 5-20, +18" AFF (UON)</p> <p> SINGLE RECEPTACLE, 50A, 250V, NEMA 6-50R, +18" AFF (UON) (COORDINATE WITH THE ELECTRIC RANGE PLUG TO BE COMPATIBLE)</p> <p> CEILING MOUNTED OCCUPANCY SENSOR</p> <p> DUAL TECHNOLOGY CORNER MOUNTED OCCUPANCY SENSOR WATTSTOPPER CAT. #LMDX-100</p> <p> 1'x8" LIGHT FIXTURE</p> <p> DIMMING ROOM CONTROLLER WATTSTOPPER CAT. #LMRC-212</p> <p> DIMMING CLOSED LOOP DIGITAL PHOTOSENSOR WATTSTOPPER CAT. #LMLS-400</p> <p> DIMMING SCENE SWITCH WATTSTOPPER CAT. #LMSW-105</p> <p> SHEET NOTE REFERENCE, SEE NOTE 1</p> <p> DETAIL TAG. REFER TO DETAIL 1 ON SHEET NUMBER E3.1</p>	<p>E0.1 GENERAL NOTES, LEGEND, ABBREVIATION AND DRAWING INDEX</p> <p>E0.2 ELECTRICAL SPECIFICATION</p> <p>E1.1 ELECTRICAL DEMOLITION PLAN</p> <p>E2.1 ELECTRICAL PLAN (BASE BID)</p> <p>E2.1A ELECTRICAL PLAN (BID ALTERNATE)</p> <p>E3.1 ELECTRICAL DETAILS</p>																																																																																																																																							
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ELECTRICAL SPECIFICATION
SECTION 26 00 00

PART 1 GENERAL

- 1.01 SCOPE
A. The scope of work shall include all labor, materials, equipment and services necessary for the complete installation of all electrical work as herein specified and as shown on the Drawings, including, but not limited to the following:
1. Power circuits to all equipment and devices.
2. Wiring devices, necessary conduit, wiring and interconnections
3. All necessary cutting, patching, trenching and backfilling.
4. Painting, labeling and equipment identification as specified.
5. Test the complete work. Correct any deficiencies to the satisfaction of the Owner or his designated representative.
- 1.02 PRODUCT HANDLING
A. Contractor shall be responsible for delivery, storage, protection and placing of all equipment and materials.
B. Protection: Contractor shall protect from damage during construction, work and materials of other trades as well as electrical work and material. Electrical equipment stored and installed on job site shall be protected from dust, water, or any other damage.
- 1.03 RULES AND REGULATIONS
A. All work and materials shall be in full accordance with regulations of the California Administrative Code, Title 24, State Building Standards, National Electrical Code, Local City and County Code, applicable regulations of local utility companies, and any other applicable laws or regulations.
B. Nothing in these specifications is to be construed to permit work not conforming to the above codes.
C. Drawings and/or specifications shall take precedence when work and material called for exceed code requirements.
- 1.04 DRAWINGS AND SPECIFICATIONS
A. Any error or omissions of detail in either Drawings or Electrical Specifications shall not relieve Contractor from correctly installing all materials necessary for complete and operating electrical systems.
B. Locate and install all equipment so that it will be readily accessible for operation and maintenance.
- 1.05 MATERIAL AND EQUIPMENT
A. Unless otherwise noted, all material and equipment shall be new, of the type, capacity and quality specified and free from defects. Material shall bear the label of, or be listed by the Underwriter's Laboratories unless of a type for which label or listing service is not provided.
B. Materials shall be of the same brand or manufacturer throughout for each class of material or equipment wherever possible.
- 1.06 SUBMITTALS
A. Forward all submittals in related groups. Individual or incomplete submittals are not acceptable. Submit six copies of shop drawings for the following items:
Conduits and wires
Wiring devices.
- 1.07 SITE EXAMINATION
A. Examine the site and premises prior to bidding to determine the conditions under which the work is to be performed. No allowances will be made for extra expenses incurred due to failure to examine the premises or to discover site conditions which affect the work.
- 1.08 WORKMANSHIP
A. Good workmanship shall be evidenced in the installation of all electrical materials and equipment. Equipment shall be level, plumb and true with the structure and other equipment. All materials shall be firmly secured in place and adequately supported and permanent. The requirements of the codes are minimum standards.
B. Work covered or concealed before being inspected and approved shall be opened and uncovered upon request without any cost to the Owner and/or the Architect.
- 1.09 MANUFACTURER'S DIRECTIONS
A. Follow manufacturer's directions where these directions cover points not included on the Drawings or in the Specifications.

- 1.10 DEMOLITION
A. Provide as required to accommodate new work called for and as noted. Work shall be done carefully to avoid damage to surfaces not being replaced.
- SERVICE INTERRUPTIONS
A. The facility shall remain in operation during the period of construction. Interruption of power service, if required, shall be done on weekends or nightshift hours with no added expense to the Owner. Any interruptions must be scheduled in writing with the Owner, forty-eight (48) hours in advance and must meet with their approval.
- 1.12 AS-BUILT DRAWINGS
A. The Contractor shall furnish one set of clean "AS-BUILT" marked blue line prints to the Owner at completion of the project showing all work including the circuiting.
- 1.13 GUARANTEE
A. The Contractor shall guarantee that all work executed under this Section will be free from defects of materials and workmanship for a period of one year from the date of final acceptance of this work and further guarantee that he will, at his own expense, repair and replace all such defective work, and all other work damaged thereby, which becomes defective during the term of the guarantee.
- PART 2 PRODUCTS
- 2.01 MATERIALS
A. Unless otherwise noted, all material and equipment shall be new, of the type, capacity and quality specified and free from defects. Material shall bear the label of, or be listed by, the Underwriter's Laboratories unless of a type for which label of listing service is not provided.
B. Materials shall be of the same brand or manufacturer throughout for each class of material or equipment wherever possible.
C. Equipment shall be the product of a manufacturer who has, for a period of not less than five (5) years, been in successful manufacture of the equipment and who has a nationally distributed catalog covering ratings and specifications of said equipment.
- 2.02 RACEWAY
A. All conduits installed indoors shall be electrical metallic tubing (EMT) with compression type fittings. Conduits exposed outdoors shall be rigid steel. Raceway exposed or other finished areas shall be Wiremold or equal. Underground conduit shall be schedule 40 PVC.
B. Conduits shall be 3/4 inch minimum in size.
- 2.03 CONDUCTORS
A. All conductors shall be in conduit. Minimum size shall be #12 AWG.
B. Color code all branch circuits and feeders as follows:
- | 120/208 Volts | | 277/480 Volts | |
|---------------|-------|---------------|--------|
| Phase A | Black | Phase A | Brown |
| Phase B | Red | Phase B | Orange |
| Phase C | Blue | Phase C | Yellow |
| Neutral | White | Neutral | Gray |
| Ground | Green | Ground | Green |
- C. Conductors in sizes up through #10 AWG shall have solid color finish as listed above.
D. Color coding shall be continuous and consistent throughout the work.
E. All insulation shall be 600V minimum type THHN/THWN.
F. Conductors shall be copper, 98% conductivity.
G. All conductors shall be identified and tagged at all electrical panels, pullboxes, devices and termination points with Partex PA sleeve type markers.
H. Splices: For conductors #10 and smaller, pre-insulated type connectors, 3M Scotchlocks, T & B Piggy's or equal, nylon self-insulated type. Splices #8 and larger use compression type connector, insulated with Scotchtape No. 88. Wire splicing devices shall be sized according to manufacturer's recommendations.
I. Cable ties: For wire training and clamping in cabinets and enclosures use nylon cable ties.
J. Swab conduits before installing cables, and exercise care in pulling to avoid damage or disarrangement of conductors, use approved grips.

- 2.04 BOXES
A. Shall be of size and shape best suited for particular application, properly code sized for number of wires and conduits passing through or terminating therein. Support boxes directly to structural members, framing or blocking by means of screws, anchors or bolts.
- 2.05 MOTOR DISCONNECT SWITCH
A. Motor disconnect switch shall be heavy duty type HD, fused, fully enclosed, Nema 1 for indoor installation and Nema 3R for outdoor installation. The fused disconnect switch shall be provided with resection clips and fuses rated as required by the manufacturer of the equipment that is to disconnect.
B. Switch shall be provided with a cover interlock to prevent opening of the switch door when switch is in the "on" position, means of defeating the interlock mechanism shall be provided to allow authorized personnel to access the switch interior with the switch in the on position.
- 2.06 SUPPORT SYSTEMS
A. As manufactured by Unistrut, Kindorf or Power strut.
B. Clamp, one hole malleable iron.
- 2.07 GROUNDING SYSTEMS
A. Acceptable device manufacturer's: Burndy, O.Z., Appleton and "Erico" Coldwell.
B. Install ground wire in all feeder and branch circuit conduits.
- PART 3 EXECUTION
- 3.01 COORDINATION
A. Coordinate work with that of all contractors on the job for an efficient and effective completion of the project. Refer to the contract documents of other trades for construction details.
- 3.02 WORKING SPACE
A. Adequate working space shall be provided around electrical equipment in strict compliance with the N.E.C. and Electrical Safety Orders.
- 3.03 GROUNDING
A. Permanently and effectively ground all services, raceway systems, supports, and utilization apparatus. Obtain good contact between conduit, tubing and fittings, cabinets, outlet boxes, and equipment.
B. Provide grounding conductor inside all conduits.
- 3.04 RACEWAY INSTALLATION
A. Exposed raceways shall run parallel or at right angles to wall or ceiling.
B. Paint all exposed conduits, Wiremold and boxes to match existing architectural finishes.
- 3.05 MOTOR DISCONNECT SWITCH INSTALLATION
A. Motor disconnect switch shall be installed near the motor that is disconnect.
B. Disconnect switch shall be mounted on building wall or on steel channel structures as required for each particular equipment.
C. Provide nameplate indicating panel and circuit designation. Nameplate shall be phenolic, black face with white core.
D. Fuses for motors shall be dual element time delay type.
- 3.06 WIRING, EMERGENCY SYSTEM
A. Wiring from an emergency source or emergency source distribution overcurrent protection to emergency loads shall be kept entirely independent of all other wiring and equipment.
B. Identification of all boxes and enclosures for emergency circuits shall be permanently marked so they will be readily identified as a component of emergency circuit or system.
- 3.07 TESTS
A. Test all wiring and connections for continuity and grounds before the equipment are connected and where such tests indicate faulty insulation or other defects, they shall be located, repaired and tested again. Electrical loads shall be balanced at the panelboard.

Encinal School
Classroom Lighting
Replacement

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date Issued For
05/04/18 PROGRESS DRAWINGS

Alliance
Engineering
Consultants, Inc.
2000 North Hollywood Blvd. Ste. 1000 Los Angeles, CA 90028
State Office: CA 800-999-9999
PROJECT NO. 101-18-06 www.aec-engineers.com



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ELECTRICAL
SPECIFICATIONS

E0.2

March 27, 2019 - MPCS0 Bid #01-2019-01

SHEET NOTES:

- ① INTERCEPT (E) HOT WIRES (FIELD VERIFY) AND EXTEND (N) CONDUIT AND WIRES TO (N) LIGHTING FIXTURES AS SHOWN. REFER TO NOTE ② ON SHEET E1.1.
- ② UTILIZE (E) 3/4" C TO INSTALL (N) CAT6 CABLE FOR DIMMING CONTROL. REFER TO NOTE ③ ON SHEET E1.1.
- ③ SEE CONTROL WIRING DIAGRAM FOR ADDITIONAL WORK REQUIRED AND INFORMATION.
- ④ REINSTALL (E) SMOKE DETECTOR. EXTEND CONDUIT AND WIRES AS REQUIRED TO PUT IT BACK IN SERVICE. REPROGRAM (E) FACP IN THE ADMIN. BUILDING, AS REQUIRED AFTER THE INSTALLATION OF SMOKE DETECTOR.
- ⑤ REINSTALL (E) CEILING FAN. EXTEND CONDUIT AND WIRES AS REQUIRED TO PUT IT BACK IN SERVICE. SEE ATTACHEMENT DETAIL 1 ON SHEET E3.1.
- ⑥ REINSTALL (E) AUDIO PROJECTOR. EXTEND CONDUIT AND WIRES AS REQUIRED TO PUT IT BACK IN SERVICE. SEE ATTACHEMENT DETAIL 1 ON SHEET E3.1. COORDINATE WITH ARCHITECT FOR EXACT LOCATION.
- ⑦ REINSTALL (E) EXIT SIGN. EXTEND CONDUIT AND WIRES AS REQUIRED TO PUT IT BACK IN SERVICE.
- ⑧ PROVIDE UNSWITCHED HOT WIRE TO EMERGENCY DRIVER.
- ⑨ ALL DATA CONTROL CABLES FOR VIDEO PROJECTOR THAT ARE SHORT WITH THIS RELOCATION SHALL BE REPLACED. CABLE TYPE SHALL MATCH (E). FIELD VERIFY FOR (E) IDF LOCATION.

**Encinal School
Classroom Lighting
Replacement**

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

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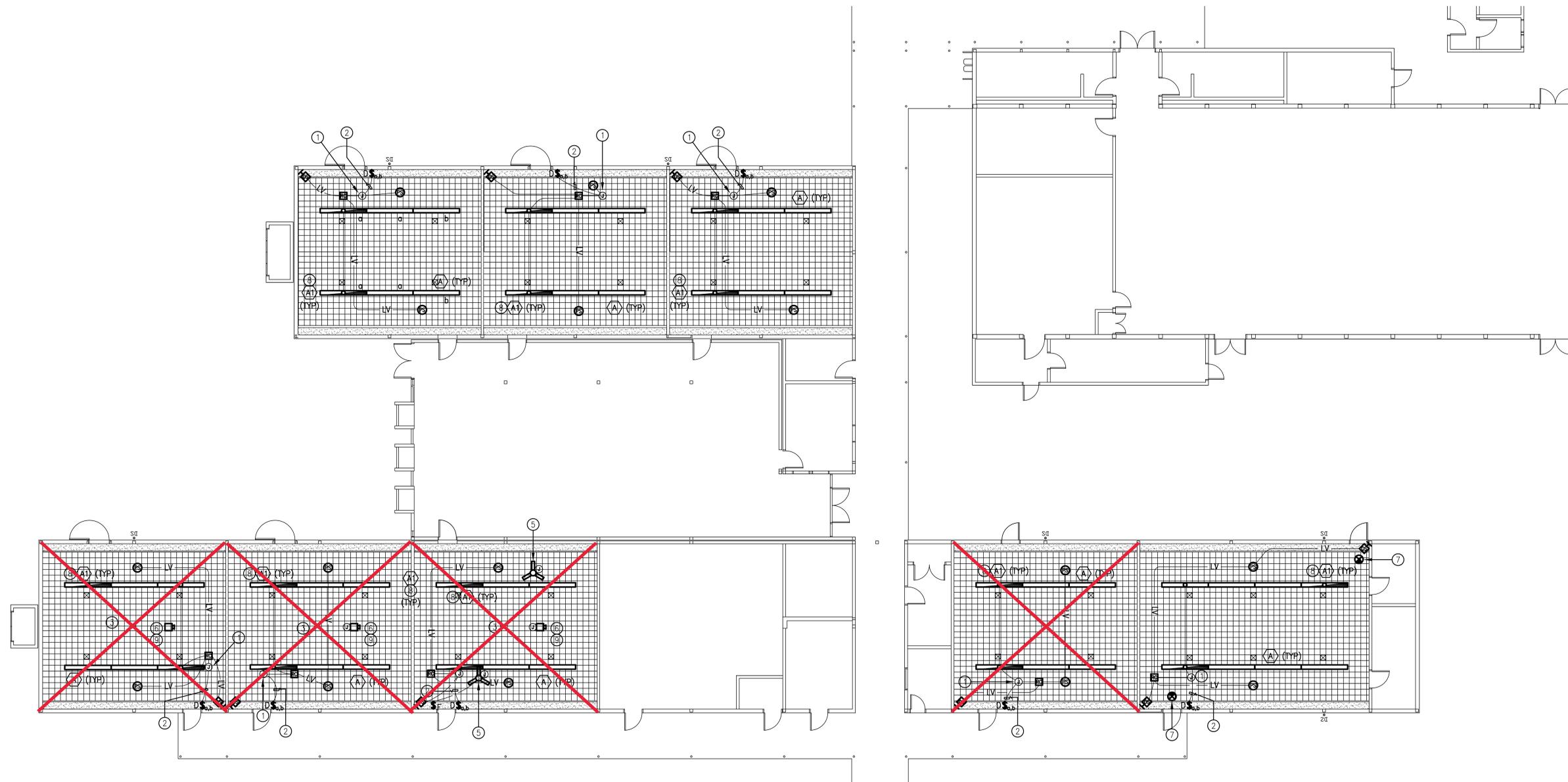
AE Alliance
Engineering
Consultants, Inc.
4207 Rockwood Drive, Suite 100
San Jose, CA 95128
PROJECT NO. 101-18-06



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ELECTRICAL PLAN



1 ELECTRICAL PLAN
SCALE: 1/8"=1'-0"

(BASE BID)

E2.1

SHEET NOTES:

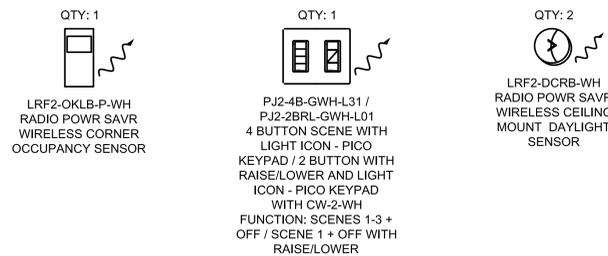
- INTERCEPT (E) HOT WIRES (FIELD VERIFY) AND EXTEND (N) CONDUIT AND WIRES TO (N) LIGHTING FIXTURES AS SHOWN. REFER TO NOTE (2) ON SHEET E1.1.
- NOT USED.
- SEE CONTROL WIRING DIAGRAM FOR ADDITIONAL WORK REQUIRED AND INFORMATION.
- REINSTALL (E) SMOKE DETECTOR. EXTEND CONDUIT AND WIRES AS REQUIRED TO PUT IT BACK IN SERVICE. REPROGRAM (E) FACP IN THE ADMIN. BUILDING, AS REQUIRED AFTER THE INSTALLATION OF SMOKE DETECTOR.
- REINSTALL (E) CEILING FAN. EXTEND CONDUIT AND WIRES AS REQUIRED TO PUT IT BACK IN SERVICE. SEE ATTACHEMENT DETAIL 1 ON SHEET E3.1.
- REINSTALL (E) AUDIO PROJECTOR. EXTEND CONDUIT AND WIRES AS REQUIRED TO PUT IT BACK IN SERVICE. SEE ATTACHEMENT DETAIL 1 ON SHEET E3.1. COORDINATE WITH ARCHITECT FOR EXACT LOCATION.
- REINSTALL (E) EXIT SIGN. EXTEND CONDUIT AND WIRES AS REQUIRED TO PUT IT BACK IN SERVICE.
- PROVIDE UNSWITCHED HOT WIRE TO EMERGENCY DRIVER.
- ALL DATA CONTROL CABLES FOR VIDEO PROJECTOR THAT ARE SHORT WITH THIS RELOCATION SHALL BE REPLACED. CABLE TYPE SHALL MATCH (E). FIELD VERIFY FOR (E) IDF LOCATION.

LEGEND

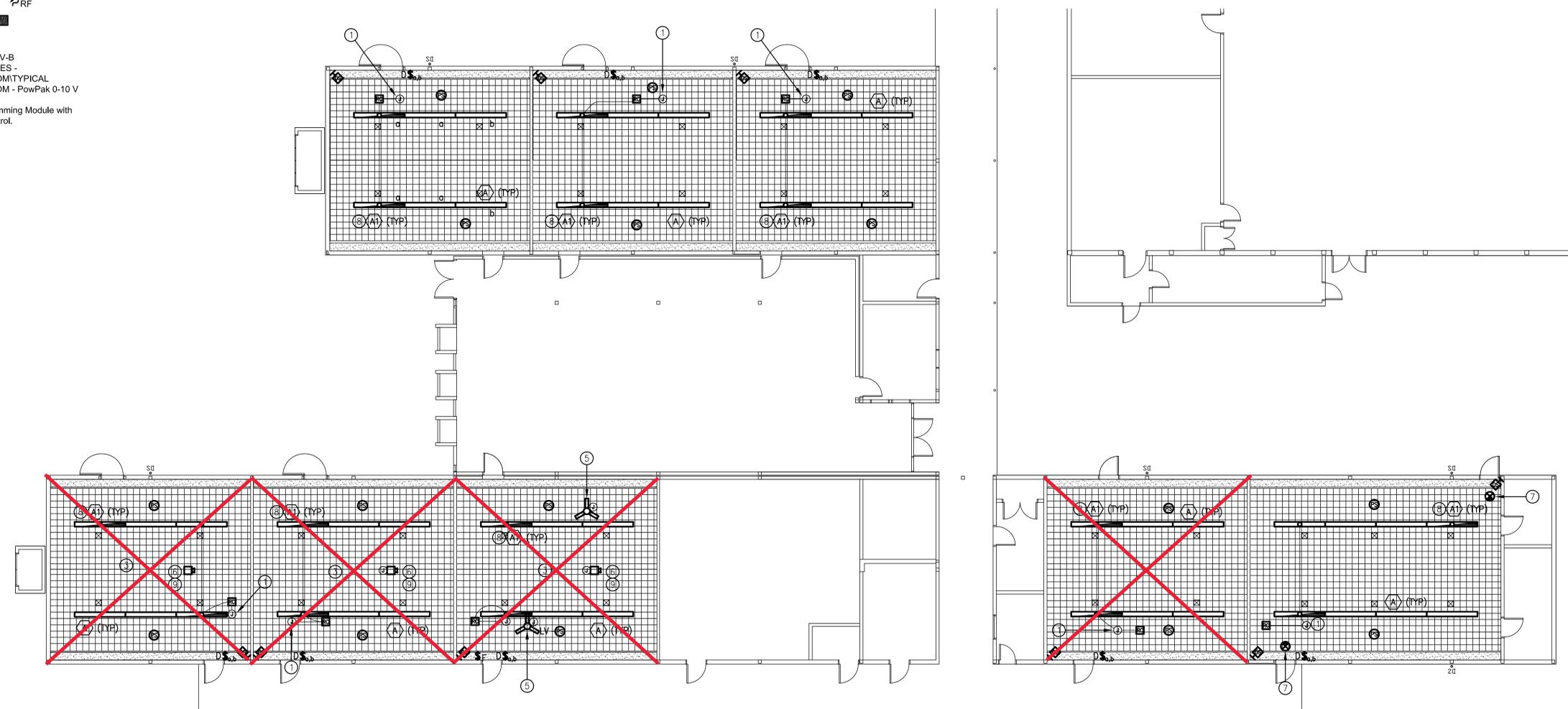
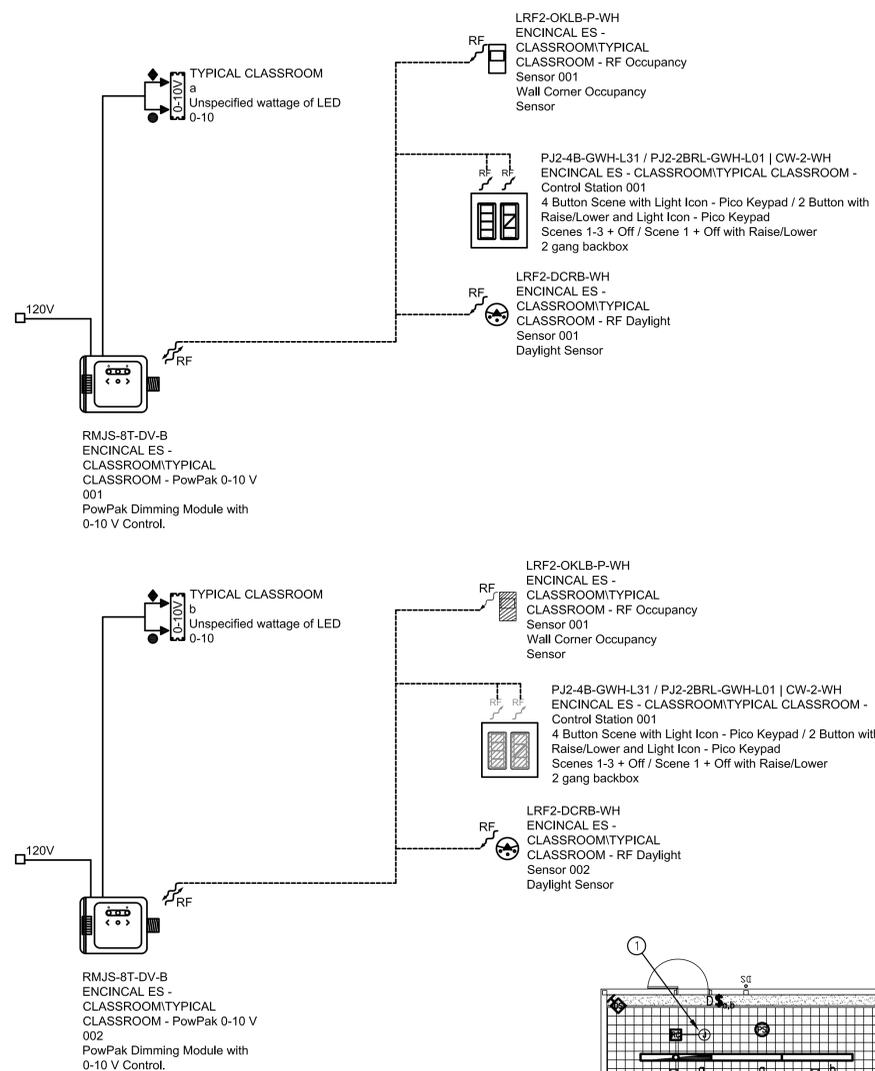
- PASSIVE INFRARED OCCUPANCY SENSOR, CORNER MOUNTED
LUTRON P/N #LRF2-OKLB-P
- DIMMING ROOM CONTROLLER (2 UNITS AT EACH LOCATION)
LUTRON P/N #RMJ-8T-DV-B
- DIMMING CLOSED LOOP DIGITAL PHOTOSENSOR
LUTRON P/N #LRF2-DCRB
- DIMMING SCENE SWITCH (2 UNITS AT EACH LOCATION, 1 PER ZONE)
LUTRON P/N #PJ2-2BRL-GWH

TYPICAL CLASSROOM

LOAD SCHEDULE						
ZONE	FIXTURE TYPE	CONTROL TYPE	TOTAL WATTAGE	EM	CONTROL EQUIPMENT	INTERFACE
A	A (2), A1 (1)	LED 0-10 V	37.4	-	POWPAK 0-10 V 001 (RMJS-8T-DV-B)	-
B	A (2), A1 (1)	LED 0-10 V	37.4	-	POWPAK 0-10 V 002 (RMJS-8T-DV-B)	-



HIDDEN EQUIPMENT:

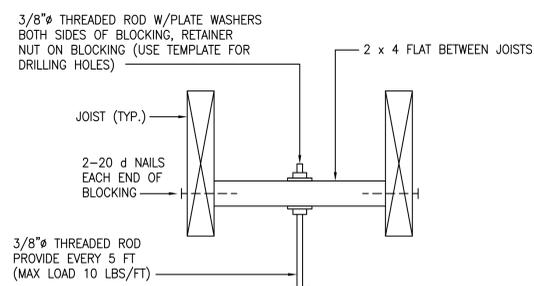


1 ELECTRICAL PLAN
SCALE: 1/8"=1'-0"

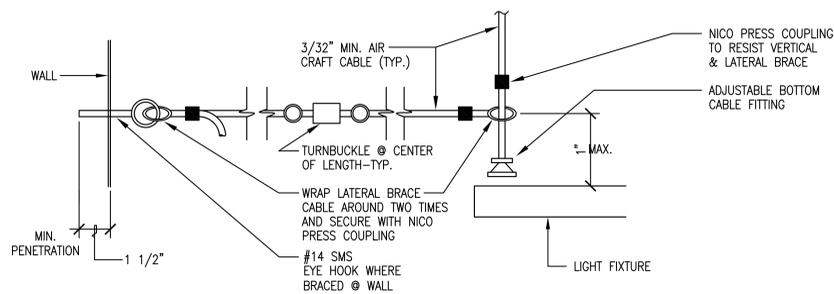
(BID ALTERNATE)

FILE: M:\01-18-06 Encinal ES\06-E21.dwg May 01, 2018 2:22 pm Scale: 1=1 by CHRIS XREFS:

LIGHTING FIXTURE SCHEDULE								
MARK	MANUFACTURERS MODEL NO.	LAMPS		TOTAL WATTS	VOLTS	MOUNTING	DESCRIPTION AND REMARKS	WEIGHT
		QTY.	TYPE					
A	FINELITE CAT #S12-LED-ID-DCO-CTO-4FT- 3E-V-V-3500K-91-277-SC-FA50- FE-C4	-	LED	37.4	120	PENDANT	DIRECT/INDIRECT LED LIGHT FIXTURE WITH 0-10 V DIMMING DRIVER	16 LBS
A1		-	-	-	-	-	SAME AS TYPE "A" EXCEPT WITH BATTERY BACK-UP	16 LBS

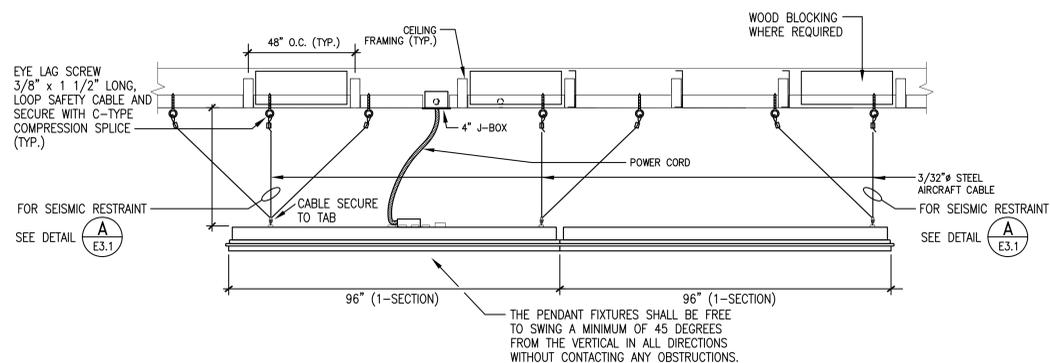


1
E3.1
PROJECTOR/CEILING FAN/PENDANT LIGHT FIXTURE
UPPER SUPPORT MOUNTING DETAIL (TYP)
NOT TO SCALE

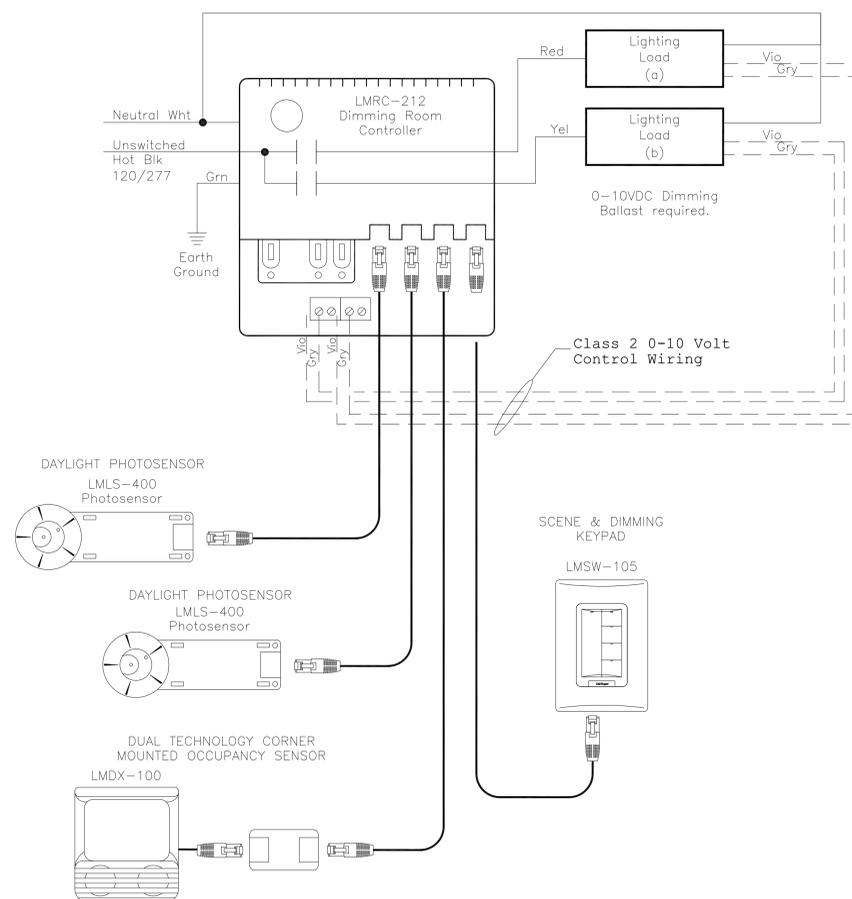


NOTE:
1. WHERE NEEDED TO BRACE TO TRUSS
CHORDS, DRILL 1/4" HOLE MAX.
AND WRAP 2 TIMES SECURE
WITH NICO PRESS COUPLING

A
E3.1
SEISMIC RESTRAINT DETAIL (ON THE WALL)
NOT TO SCALE



2
E3.1
PENDANT LIGHT FIXTURE MOUNTING DETAIL
NOT TO SCALE



3
E3.1
TWO ZONE CLASSROOM DIAGRAM
NOT TO SCALE