ADDENDUM NO. 02

March 16, 2020

SYCAMORE CANYON SCHOOL – LEARNING RESOURCE CENTER (LRC) – 04-118743

SANTEE SCHOOL DISTRICT

Item No. 1	Specifications
AD2	Division 1

A. Add Specification Section 01 91 13 General Commissioning Requirements, per the attached AD2-01 91 13.

Item No. 2	Drawings
AD2	Sheet A2.1

A. Revise sheet A2.1 Enlarged Floor Plan- Dimension, to show relocation of door 8 at Electrical Room 8, per AD2-A2.1

Item No. 3	Drawings
AD2	Sheet E1.1

A. Revise sheet E1.1 to show underground electrical utilities stubbed out at "Future Classroom Building", per AD2-E1.1.

Item No. 4	Drawings
AD2	Sheet E2.1

A. Revise sheet E2.1 to show additional fixture callouts at Classroom 10, per AD2-E2.1

Item No. 5	Drawings
AD2	Sheet E3.1

A. Revise sheet E3.1, detail 2 to show reconfigured Electrical Room 8, per AD2-E3.1.

Item No. 6	Drawings
AD2	Sheet E5.0

A. Revise sheet E5.0 to show replacement of remote annunciator, per AD2-E5.0

Item No. 7	Drawings
AD2	Sheet E5.2

A. Revise sheet E5.2 to show new annunciator, per AD2-E5.2

Item No. 8	Drawings
AD2	Sheet E5.3

A. Revise sheet E5.3 to show revised riser diagram, per AD2-E5.3

Item No. 9	Drawings
AD2	Sheet E7.1

A. Revise sheet E7.1, detail 1 one-line diagram to updated panel 'L1' and panel 'L2', per AD2-E7.1.

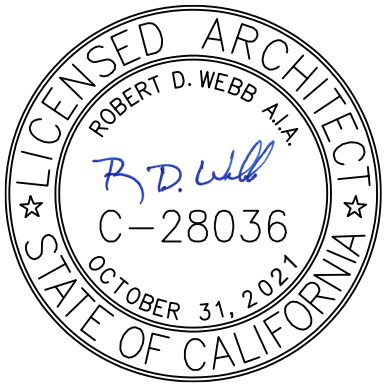
Item No. 10	Drawings
AD2	Sheet E9.1

A. Revise sheet E9.1 to show updated Panel 'L1' schedule, per AD2-E9.1-1.
B. Revise sheet E9.1 to show updated Panel 'L2' schedule, per AD2-E9.1-2.

END OF ADDENDUM NUMBER 02

StudioWC

Robert D. Webb, AIA, Architect, Senior Vice President



ATTACHMENTS:

Specifications 8.5" x 11"
AD2-01 91 13

Drawings 8.5″ x 11″

AD2-A2.1 Enlarged Floor Plan- Dimension

AD2-E3.1 Level 1 Floor Plan- Power

Drawings 11″ x 17″

AD2-E1.1 Overall Site Plan

AD2-E2.1 Level 1 Floor Plan- Lighting

AD2-E5.0 Fire Alarm Site Plan

AD2-E5.2 Fire Alarm Schedule

AD2-E5.3 Fire Alarm Riser and Calculations

AD2-E7.1 One-Line Diagram

AD2-E9.1-1 Panel Schedules

AD2-E9.1-2 Panel Schedules

SECTION AD2- 01 91 13

GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. District's Project Requirements and Basis-of-Design documentation are included by reference for information only.

1.2 SUMMARY

A. Section Includes:

1. General requirements for coordinating and scheduling commissioning.
2. Commissioning Team duties.
3. Commissioning meetings.
4. Commissioning scheduling.
5. Test equipment, instrumentation, and tools for commissioning.
6. Construction verification.
7. Functional performance testing.
8. Commissioning tests and commissioning test demonstration.
9. Commissioning Report.

B. Related Requirements:

1. Section 01 33 00 "Submittal Procedures" for submittal procedures requirements for commissioning.
2. Section 01 77 00 "Closeout Procedures" for certificate of Construction Phase Commissioning Completion submittal requirements.
3. Section 01 78 23 "Operation and Maintenance Data" for preliminary operation and maintenance data submittal.
4. Section 23 08 00 "Commissioning of HVAC" for technical commissioning requirements for HVAC.

1.3 DEFINITIONS

A. Acceptance Criteria: Threshold of acceptable work quality or performance specified for a commissioning activity, including, but not limited to, construction checklists, performance tests, performance test demonstrations, commissioning tests and commissioning test demonstrations.

B. Basis-of-Design: A detailed description of building Design criteria, parameters, set-points, concepts, decisions and selections used to meet the District’s Project Requirements that serves as a basis for review, approval and documentation of the Design process used for all building systems.

C. Commissioning Agent: A District appointed entity that plans and coordinates all activities that implement commissioning as outlined by District's Basis of Design.

D. Commissioning Plan: A document, prepared by Commissioning Agent, that outlines the organization, schedule, allocation of resources, and documentation requirements of commissioning.

E. Commissioning Report: A document, prepared by the Commissioning Agent, that records the activities and results of the Commissioning process.

F. Commissioning: The process of ensuring that systems are designed, installed, functionally tested and performing in conformity with the District's Requirements and that the District has received complete equipment/systems documentation and training.

G. Construction Verification: A quality control verification process performed by the installer as building assemblies, components, equipment and systems are being installed that documents that the materials, installation procedures, interfaces with other trades, start-up, testing and operations are correct, complete, in compliance with Contract Documents and manufacturer's recommendations and are ready for Functional Performance Testing.

H. District's Project Requirements: A narrative of the program, use and functional requirements of the building with a description of the Project goals and criteria in general categories (e.g.: flexibility of use, ease of maintenance, future expansion, etc.) and specific categories (e.g.: specialized environments, specific sustainable features, quality of materials, etc.).

I. Functional Performance Tests: Contractor testing of installed building assemblies, components, equipment, systems and interfaces which confirms correct performance through all operating modes and compliance with Contract Documents, manufacturer's recommendations and the District's Project Requirements.

J. Retro-Commissioning: A systematic process for improving and optimizing a building's operations and supporting those improvements with enhanced documentation and operator training.

K. Test: Performance tests, performance test demonstrations, commissioning tests, and commissioning test demonstrations.

1.4 ABBREVIATIONS

A. The following abbreviations are used in this Section:

1. A/E Architect / Engineer.
2. BAS: Building Automation System.
3. Cx: Commissioning.
4. CxA: Commissioning Agent.
5. DPR: District's Project Requirements.
6. FPT: Functional Performance Tests.
7. O&M: Operations and Maintenance.
8. PI: Project Inspector.
9. PPO: Physical Plant Operations
10. P/T: Pressure / Temperature.
11. TAB: Testing, Adjusting, and Balancing.

1.5 COMMISSIONING TEAM DUTIES

Cx TASK	Provided By					Provided To					Planning	Design	Construction	Turnover	Operation
	DISTRICT	PI	A/E	CxA	CONTRACTOR	PPO	PI	A/E	CxA	CONTRACTOR					
District's Project Requirements				X		X	X	X		X	PPO Narrative	Update	Update	Update, Include in Cx Report	
	X	X	X						X		Review Comments on PPO	Additional Comments on PPO	Additional Comments on PPO	Additional Comments on PPO	
Basis of Design			X			X	X		X		Basis of Design	Update	Update	Update	
	X	X		X				X			Review Comments	Additional Comments	Additional Comments	Additional Comments	
				X		X	X	X		X				Include in Cx Report	
Cx Plan				X		X	X	X		X	Cx Plan	Update	Update	Update, Include in Cx Report	Update, Include in Cx Report
	X	X			X				X		Review Comments	Additional Comments	Additional Comments	Additional Comments	Additional Comments
Construction Verification Checklists and Checklist Tracking Report					X	X			X				Edit and Develop		
					X	X			X				Perform and Submit as Work is Installed	Include in O&M Manuals	
	X			X						X			Review Comments		
Functional Performance Tests and FPT Tracking Report					X	X			X				Develop & Update Test Forms, Schedule and Direct Tests	Include in Cx Report	
					X	X			X				Perform and Submit		
	X			X						X			Review Comments		
Cx Report				X		X	X	X		X				Draft Report	Final Report
Cx Issues, Site Visit and Closeout				X		X	X	X		X	Cx Issues, Site Visit & Closeout Log	Update	Update	Update	

Cx TASK	Provided By					Provided To					Planning	Design	Construction	Turnover	Operation
	DISTRICT	PI	A/E	CxA	CONTRACTOR	PPO	PI	A/E	CxA	CONTRACTOR					
Items Log					X				X				Actions Taken	Actions Taken	
PPO Training					X	X	X	X	X				O&M Data, Training Plan and Training		
		X		X						X			Evaluate O&M Data & Training		

1.6 INFORMATIONAL SUBMITTALS

A. Comply with requirements in Section 01 33 00 "Submittal Procedures" for submittal procedures general requirements for commissioning.

B. Lists:

1. Construction Verification List.

a. Select appropriate lists from Appendix A.

2. Function Performance Tests List.

a. Select appropriate lists from Appendix C.

C. Forms:

1. Construct Verification Tracking Report.

a. See Appendix B.

2. Functional Performance Test Tracking Report.

a. See Appendix D.

PART 2 - PRODUCTS

2.1 TEST EQUIPMENT, INSTRUMENTATION, AND TOOLS

A. Provide equipment required to perform startup, checkout and testing. Provide equipment that has been calibrated per the manufacturer's recommendations within the past year.

PART 3 - EXECUTION

3.1 COMMISSIONING PLAN

A. Assist District's Commissioning Agent in development of a complete commissioning plan detailing the following information at a minimum:

1. Contact information for key members of commissioning team.
2. Description of procedures to be utilized for each commissioning task.
3. List of commissioning systems and associated equipment.
4. Functional Performance Test sampling approach to be utilized for repeat equipment items.
5. List of responsibilities for each party involved in the commissioning process.
6. Commissioning milestones and schedule.

B. Commissioning Meetings:

1. Attend commissioning meetings with involved subcontractors and other personnel requested by CxA. Each party is responsible for providing a review of Project progress, commissioning issues and scheduling for future commissioning tasks.

C. Communication:

1. Relay communications resulting from or in relation to commissioning activities directly to the responsible party whenever possible, with copies to District Construction Manager and Project Inspector.

D. Responsibilities:

1. All parties are to follow the Commissioning Plan and are responsible for commissioning activities as outlined in Article "Commissioning Team Duties."

E. Scheduling:

1. Provide CxA and involved subcontractors with a copy of the Project Schedule and regular monthly updates. CxA will provide Contractor with a detailed schedule of commissioning tasks for incorporation into project schedule.

F. Construction Verification:

1. The purpose of the Construction Verification List is to have a formal means of providing individual workers the key criteria for a successful installation and to easily track construction progress.
2. Notify CxA five days prior to construction verification so that CxA may witness, as deemed necessary, each assembly, component, equipment, system start up and testing.
3. If CxA identifies more than a 10 percent discrepancy rate, revalidate all items covered by that checklist and resubmit new checklists.

G. Functional Performance Testing:

1. Assist CxA in establishing a schedule for Functional Performance Testing.
2. Ensure all subcontractors involved with specific assemblies, components, equipment, systems and interfaces have qualified installers and technicians present at the same time working together to perform testing and demonstrate correct performance through all

operating and failure modes and compliance with Contract Documents, manufacturer's recommendations and the District's Project Requirements.

3. Ensure completion and coordination of the Work prior to testing. Preplan testing procedures, and ensure necessary staff and resources are on hand for expediting testing. Failure to complete or coordinate work, preplan, or have staff and resources available to carry out testing will result in retesting.
4. CxA will establish sampling protocol and, at the time of testing, select sample test locations for identical pieces of equipment. Receive CxA approval where simulation of conditions or altering of set points or values is required to achieve an opening or failure mode for testing.
5. Correct minor deficiencies during testing. Deficiencies that cannot be corrected during testing will be documented and subject to retest. Retesting will continue until no deficiencies remain.
6. The cost of retesting is the responsibility of the Contractor and subject to deductive change order. Deficiencies and retesting are the responsibility of the Contractor and are not subject to time extensions or delay claims. Review preliminary construction checklists and preliminary test procedures and data forms.

3.2 OPERATION AND MAINTENANCE DATA

A. Provide as specified in Section 01 78 23 "Operation and Maintenance Data."

3.3 DEMONSTRATION AND TRAINING

A. Provide as specified in Section 01 79 00 "Demonstration and Training."

3.4 COMMISSIONING REPORT

A. CxA will provide Contractor, Architect, and District a Commissioning Report for the Project upon Substantial Completion. This report will include contact information for key members of the commissioning team; description of commissioned systems, commissioning activities, sampling protocol and results. The report will also include the District's Project Requirements, Basis-of-Design, Construction Verification Checklist Tracking Report, and Functional Performance Test Tracking Report.

END OF SECTION 01 91 13

APPENDIX A – CONSTRUCTION VERIFICATION LIST

Choose from the following Construction verification checklists and provide additional items as needed to reflect the verification Requirements of assemblies, components, equipment and systems to be commissioned on this Project and used on the Construction Verification Tracking Report.

CV-22 05 14 – Backflow Preventers
CV-22 05 14 – Trap Primer Values
CV-22 07 00 – Plumbing Insulation
CV-22 11 00 – Water Distribution
CV-22 13 00 – Sanitary Sewage
CV-22 14 00 – Storm Drainage
CV-22 30 00 – Expansion Tanks
CV-22 30 00 – In-line Centrifugal Pumps
CV-22 30 00 – Water Heaters (Electric)
CV-22 30 00 – Water Heaters (Gas)
CV-22 42 00 – Plumbing Fixtures
CV-22 60 00 – Air Compressors
CV-23 05 14 – Variable Frequency Drives
CV-23 05 15 – Air Separators
CV-23 05 15 – Expansion Tanks
CV-23 05 15 – Suction Diffusers
CV-23 07 00 – HVAC Ductwork Insulation
CV-23 07 00 – HVAC Piping Insulation
CV-23 09 14 - Air Compressors
CV-23 09 14 - Control Wiring and Devices
CV-23 11 00 - Gas Piping
CV-23 21 13 - Hydronic Piping
CV-23 21 13 - Pumps
CV-23 23 00 - Refrigerant Piping / VRF, VRV
CV-23 25 00 - HVAC Water Treatment
CV-23 31 00 - Ductwork and Casings
CV-23 34 00 - Ceiling Exhaust Fans
CV-23 34 00 - Centrifugal Fans
CV-23 34 00 - Destratification Fans
CV-23 34 00 - Vaneaxial Fans
CV-23 36 00 - Air Terminal Units
CV-23 37 13 - Diffusers, Grilles and Registers
CV-23 41 00 - Filter Racks
CV-23 52 00 - Cast Iron or Modular Cast Iron Boiler
CV-23 52 00 - Fire Box, Fire Tube, Flexible Water Tube or Vertical Tubeless Boilers
CV-23 54 00 - Gas Fired Furnaces
CV-23 55 00 - Direct Fired MUA Units
CV-23 55 00 - Gas Fired Unit Heaters
CV-23 55 00 - Indirect Fired MUA Units
CV-23 62 13 - Air Cooled Chillers
CV-23 64 15 - Water Cooled Chillers
CV-23 73 12 - Refrigerant Coils
CV-23 82 00 - Fan Coil Units
CV-23 82 00 - Reheat Coils
CV-23 82 00 - Unit Heaters
CV-23 82 00 - Unit Ventilators
CV-26 05 13 - Medium Voltage Cables
CV-26 05 26 - Grounding and Bonding
CV-26 05 33 - Conduit, Raceway & Boxes for Electrical Systems
CV-26 05 36 - Cable Trays
CV-26 18 23 - Medium Voltage Surge Arrestor
CV-26 22 00 - Low Voltage Transformer

CV-26 24 13 - Switchboard
CV-26 24 16 - Panelboards
CV-26 27 13 - Electrical Meter
CV-26 27 28 - Non-Fusible Disconnect Switches
CV-26 28 16 - Enclosed Switches and Circuit Breakers
CV-26 29 00 - Magnetic Motor Starters
CV-26 29 00 - Manual Motor Starters
CV-26 29 00 - Motor Control Centers
CV-26 36 00 - Automatic Transfer Switches
CV-26 43 13 - Transient Voltage Suppression
CV-26 51 13 - Interior Light Fixtures, Lamps & Ballasts
CV-26 51 15 - Lighting Control Panels
CV-26 56 29 - Site Lighting
CV-27 00 00 - Communications Cabling
CV-28 31 00 - Fire Alarm Control Panels
CV-28 31 00 - Fire Alarm Wiring & Devices

APPENDIX B – CONSTRUCTION VERIFICATION TRACKING REPORT

Fill out the following tracking report using Construction Verification List for this Project.

Construction Verification Checklist No.	Equipment/System Type	No. of Equip., Areas (floors, etc.) or Groups	Checklists Tracking	
			Total Checklists	Complete to Date

APPENDIX C – FUNCTIONAL PERFORMANCE TEST LIST

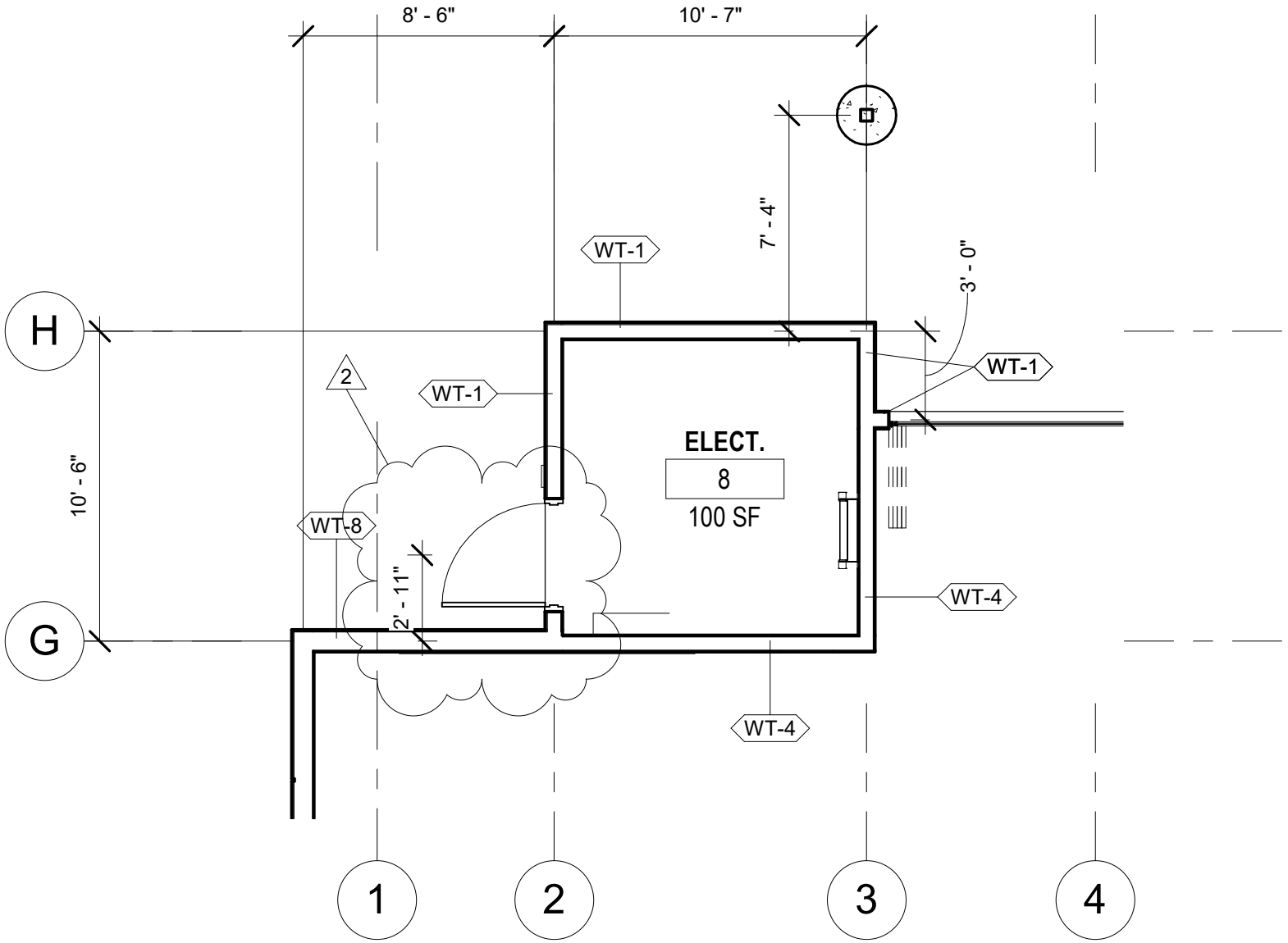
Choose from the following Functional Performance Test list and provide additional items needed to reflect the Testing Requirements of assemblies, components, equipment and systems to be commissioned on this Project and used on Functional Performance Test Tracking Report.

FPT-22 30 00 - Domestic Booster Pumps
FPT-22 30 00 - Inline Centrifugal Pumps
FPT-22 30 00 - Water Heaters
FPT-23 05 14 - Variable Frequency Drives
FPT-23 09 23 - EMS Communication/Calibration
FPT-23 21 13 - Pumps
FPT-23 34 00 - HVAC Fans
FPT-23 36 00 - Air Terminal Units
FPT-23 52 00 - Boiler
FPT-23 54 00 - Gas Fired Furnaces
FPT-23 55 00 - Direct Fired MUA Units
FPT-23 55 00 - Gas Fired Unit Heaters
FPT-23 62 13 - Air-Cooled Chillers
FPT-23 64 15 - Water Cooled Chillers
FPT-23 73 13 - Air Handling Units/VRF, VRV
FPT-23 82 00 - Cabinet Heaters
FPT-23 82 00 - Fan Coil Units
FPT-23 82 00 - Re-Heat Coils
FPT-23 82 00 - Unit Heaters
FPT-26 51 15 - Lighting Controls

APPENDIX D – FUNCTIONAL PERFORMANCE TEST TRACKING REPORT

Fill out the following tracking report using the Functional Performance Test List for this Project.

Functional Performance Test No.	Equipment/System Type	No. of Equip., Areas (floors, etc.) or Groups	Test Tracking	
			Total Tests	Complete to Date



LICENSED ARCHITECT
ROBERT D. WEBB A.I.A.
C-28036
OCTOBER 31, 2021
STATE OF CALIFORNIA

PARTIAL ENLARGED FLOOR PLAN- DIMENSION

3/16" = 1'-0"

1

SHEET NO.
AD2-A2.1

DSA APPL. NO.
04-118743

DATE:
03/16/20

SYCAMORE CANYON ELEM. SCHOOL
LIBRARY RESOURCE CENTER (LRC)

SANTEE SCHOOL DISTRICT

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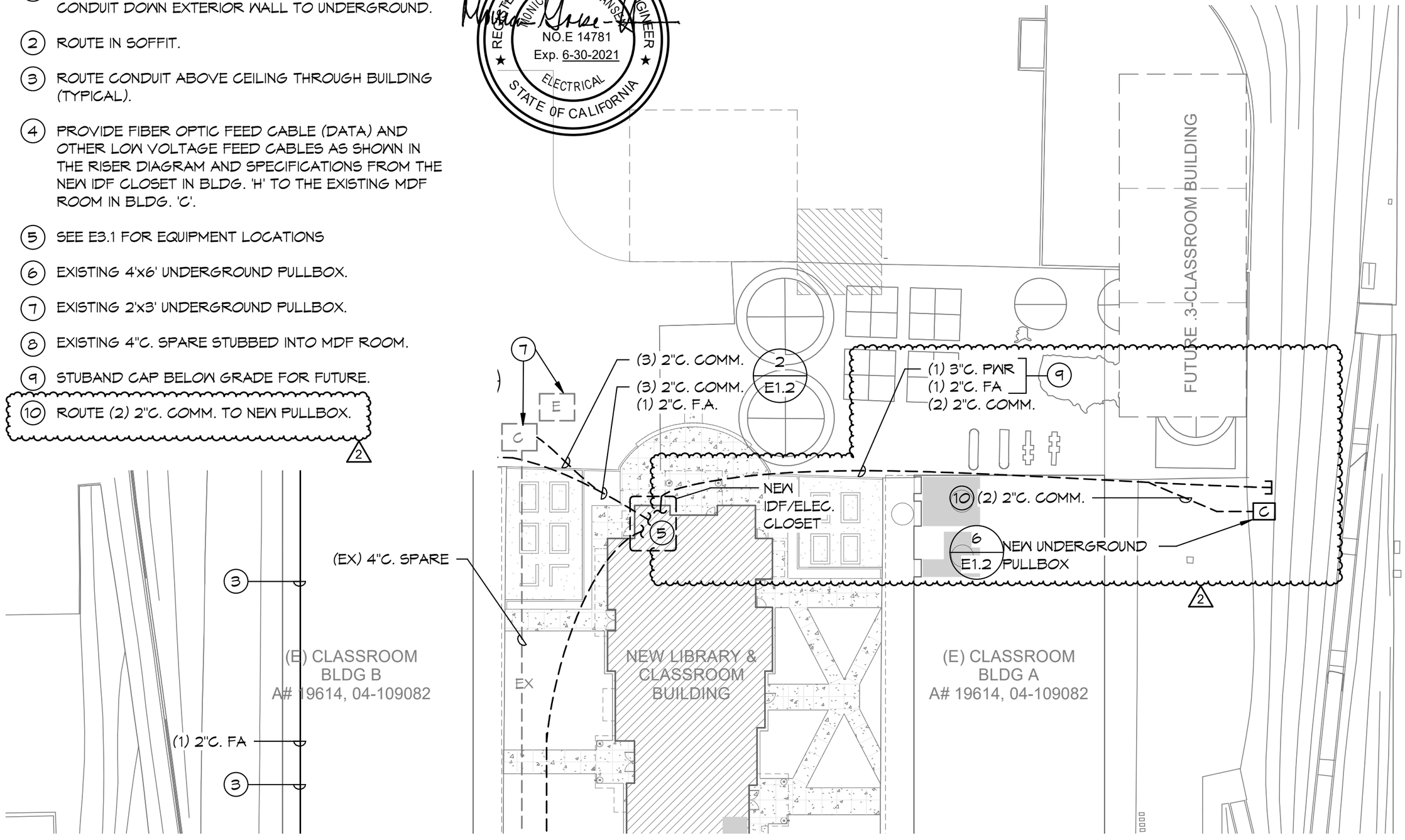
515 Encinitas Blvd. Ste. 201, Encinitas, California 92024
Telephone: (760)753-6800 Fax: (760)452-7541

KEY NOTES:

1. PROVIDE WALL MOUNTED J-BOX THEN ROUTE CONDUIT DOWN EXTERIOR WALL TO UNDERGROUND.
2. ROUTE IN SOFFIT.
3. ROUTE CONDUIT ABOVE CEILING THROUGH BUILDING (TYPICAL).
4. PROVIDE FIBER OPTIC FEED CABLE (DATA) AND OTHER LOW VOLTAGE FEED CABLES AS SHOWN IN THE RISER DIAGRAM AND SPECIFICATIONS FROM THE NEW IDF CLOSET IN BLDG. 'H' TO THE EXISTING MDF ROOM IN BLDG. 'C'.
5. SEE E3.1 FOR EQUIPMENT LOCATIONS
6. EXISTING 4'x6' UNDERGROUND PULLBOX.
7. EXISTING 2'x3' UNDERGROUND PULLBOX.
8. EXISTING 4"C. SPARE STUBBED INTO MDF ROOM.
9. STUBAND CAP BELOW GRADE FOR FUTURE.
10. ROUTE (2) 2"C. COMM. TO NEW PULLBOX.

REGISTERED PROFESSIONAL ENGINEER
MONICA GOESE-HANSEN
NO.E 14781
Exp. 6-30-2021
ELECTRICAL
STATE OF CALIFORNIA



OVERALL SITE PLAN | 1" = 30'-0" | 1

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SYCAMORE CANYON ELEM. SCHOOL
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SANTEE SCHOOL DISTRICT

SHEET NO. AD2-E1.1

04-118473

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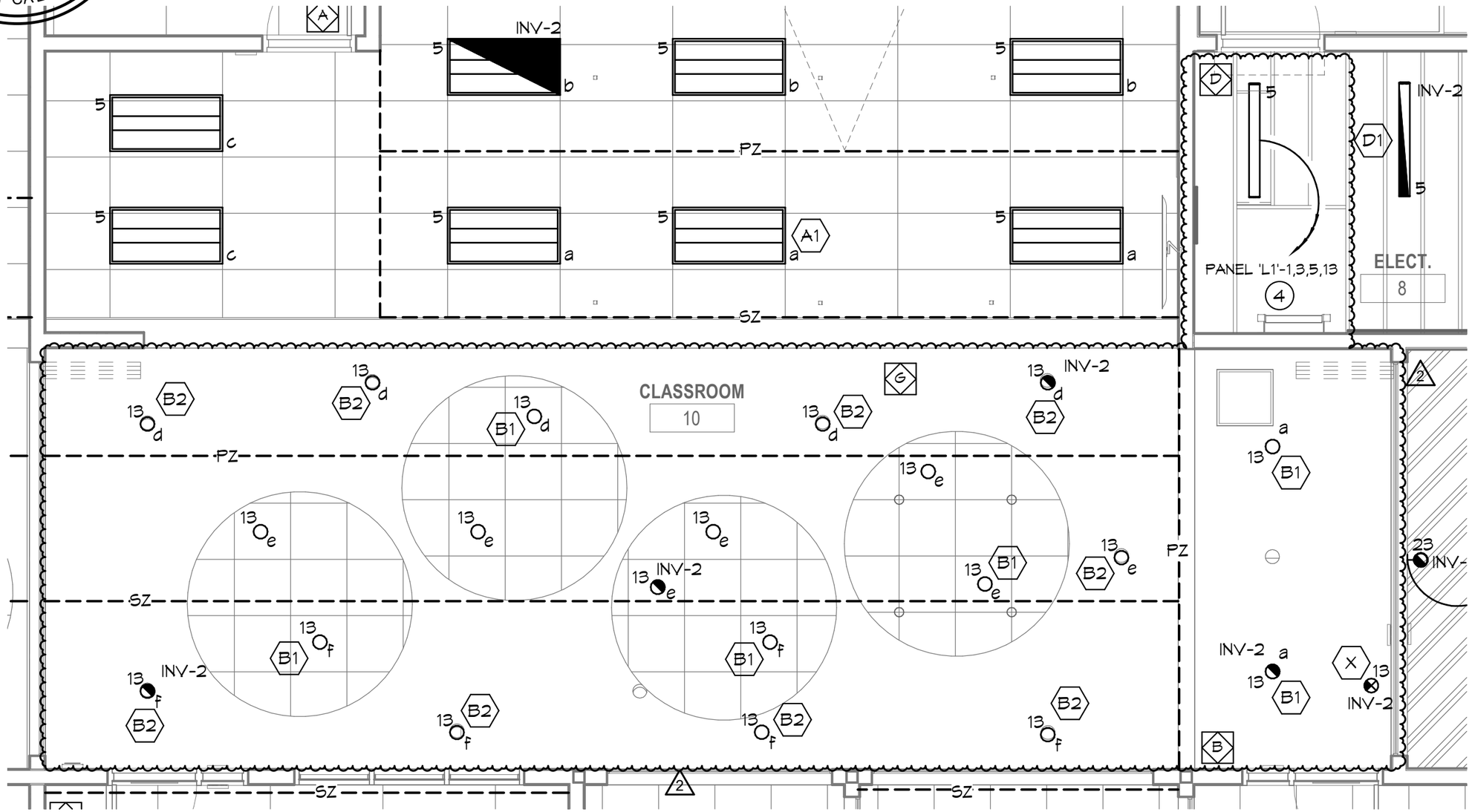

LEVEL 1 FLOOR PLAN - LIGHTING | 1/4" = 1'-0" | 1

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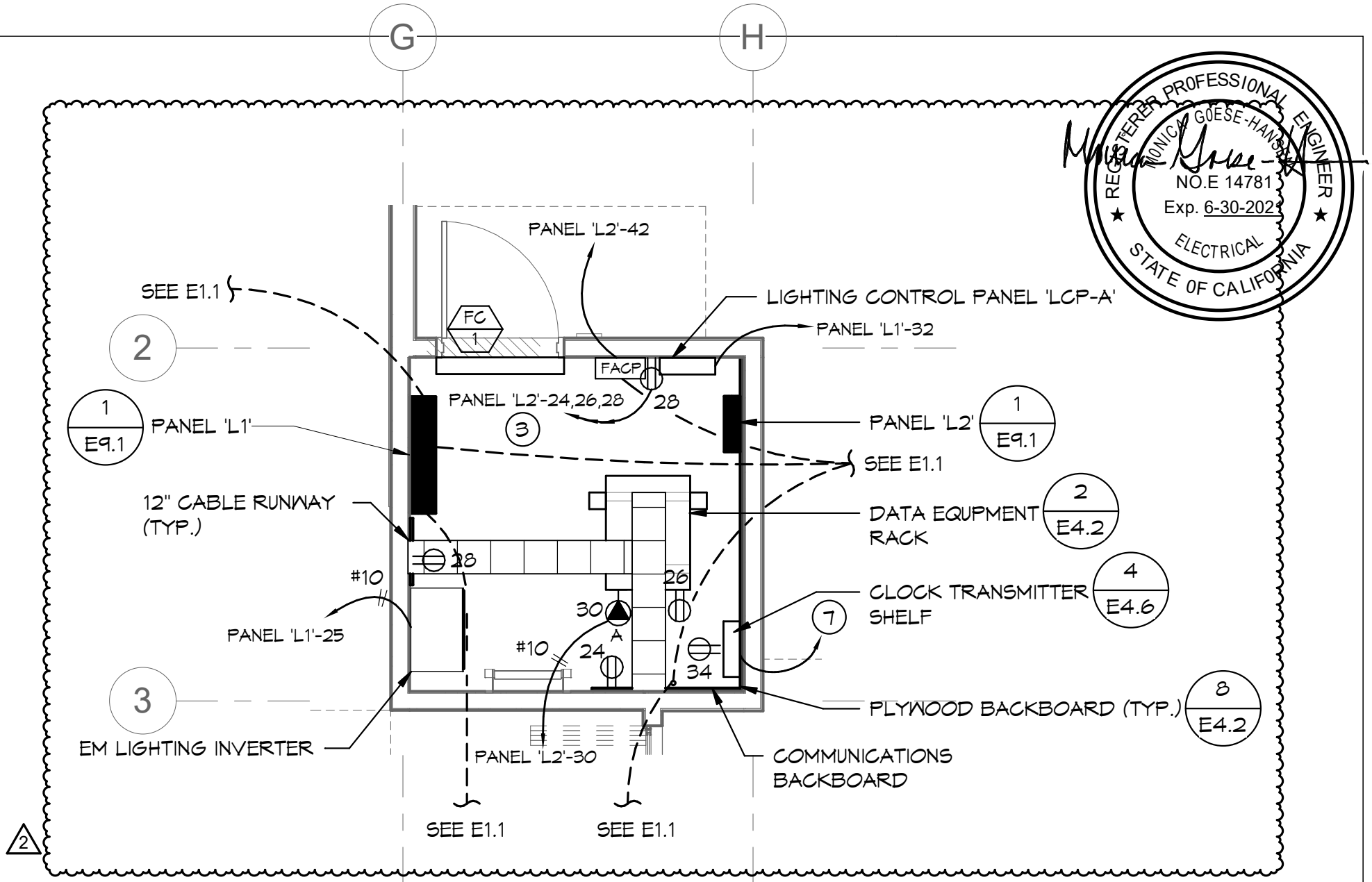
SANTEE SCHOOL DISTRICT

SHEET NO. AD2-E2.1

04-118473



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LEVEL 1 - ENLARGED ROOM PLAN | 1/4" = 1'-0" | 2

SHEET NO.
AD2-E3.1

DSA APPL. NO.
04-118743

DATE:
3-16-20

SYCAMORE CANYON ELEM. SCHOOL
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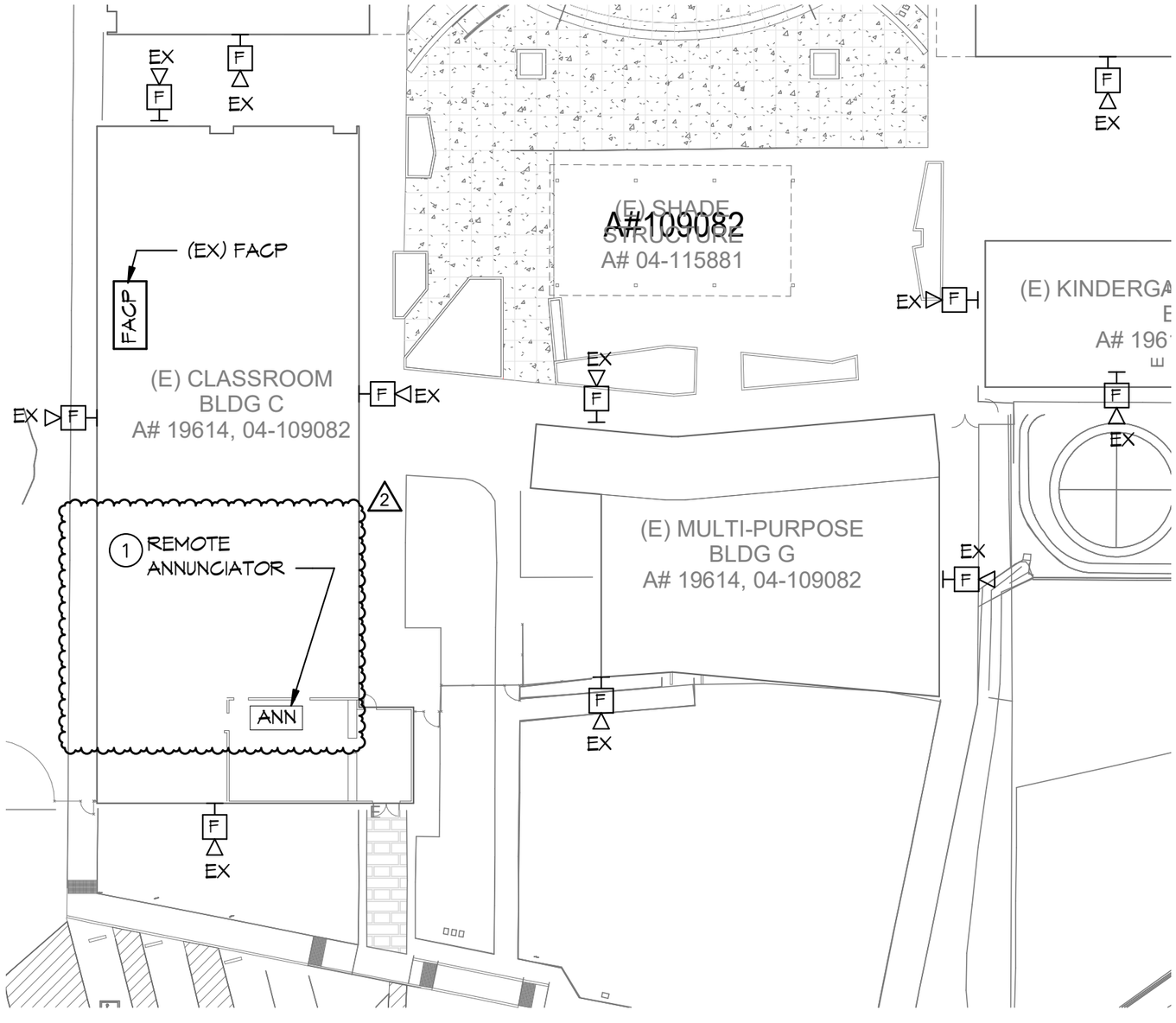
KEY NOTES:

1. EXISTING REMOTE ANNUNCIATOR TO BE DISCONECTED AND REMOVED.
   PROVIDE NEW REMOTE ANNUNCIATOR AT EXISTING LOCATION.
   PROVIDE ALL REQUIRED WIRING, CARDS, SOFTWARE AND PROGRAMMING FOR A COMPLETE SYSTEM.



FIRE ALARM SITE PLAN | 1" = 30'-0" | 1

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SANTEE SCHOOL DISTRICT

SHEET NO. AD2-E5.0

04-118473

FCI MODEL E3					
	SYM	MODEL NO.	DESCRIPTION	C.S.F.M. LISTING	MFG.
	FACP	FCI-E3	FIRE ALARM CONTROL PANEL/VOICE EVAC	7165-1703:0125	GAMEWELL FCI
2	SM	SERIES DMS	SYNC MODULE	7300-0785:0132	COOPER WHEELOCK
	ANN	GFANN-80	REMOTE ANNUNCIATOR	7120-1703:0183	GAMEWELL FCI
	S C	MCS-COF	INTELLIGENT SMOKE /CO DETECTOR	7275-1703:0175	GAMEWELL FCI
		B200S	SENSOR SOUNDER BASE	7300-1653:0213	SYSTEM SENSOR
	S	ASD-PL2F	INTELLIGENT SMOKE DETECTOR	7272-1703:0121	GAMEWELL FCI
		B210LP	SENSOR BASE	7300-1653:0109	SYSTEM SENSOR
				7300-1653:0109	SYSTEM SENSOR
	H A	ATD-HL2F	INTELLIGENT HEAT DETECTOR (ABOVE CEILING)	7270-1703:0115	GAMEWELL FCI
		B501	SENSOR BASE	7300-1653:0109	SYSTEM SENSOR *
	F	ET1010	EXTERIOR SPEAKER W/WBB BACKBOX	7320-0785:0105	COOPER WHEELOCK
		LSTC	STROBE (15/30/75/110) cd (CEIL MNT)	7125-0785:0180	COOPER WHEELOCK
		LSPSTC	SPEAKER/STROBE - CEILING	7125-0785:0178	COOPER WHEELOCK
		LSPST	SPEAKER/STROBE - WALL	7125-0785:0175	COOPER WHEELOCK
	M	AMM-2F	ADDRESSABLE MONITOR MODULE	7300-1703:0102	GAMEWELL FCI
	R	AOM-2RF	ADDRESSABLE RELAY MODULE	7300-1703:0102	GAMEWELL FCI
	R1	RIC-1	120 VOLT RELAY MODULE	7300-1004:0101	SAE INC
		TYPE FPL	SIGNAL LINE CIRCUIT CONDUCTORS ('M')	7161-0859:0101	WEST PENN
		TYPE THHN	AUDIO VISUAL AND POWER CONDUCTORS (AV,P)	N/A	SOUTHWIRE

* IF OTHER MANUFACTURER IS USED IT IS TO BE UL. AND CSFM LISTED.

ANNUNCIATOR ZONE SCHEDULE

	ROOM SMOKE/CO OR HEAT DETECTORS	ABOVE CEILING HEAT DETECTORS	SPRINKLER SYSTEM	TROUBLE INDICATION
BLDG. SCE	YES	YES	N/A	YES

NOTES:

1. ALL SMOKE DETECTORS/CO DETECTORS, HEAT DETECTORS ABOVE CEILING DETECTORS, DUCT DETECTORS MANUAL PULL STATIONS, FLOW SWITCHES, TAMPER SWITCHES SHALL BE INDIVIDUALLY ADDRESSABLE.

2

2. PROVIDE (1) ANNUNCIATOR AT BLDG. 'C' WHICH WILL PROVIDE LED LIGHT INDICATORS TO IDENTIFY THE ABOVE ZONE SCHEDULE (IN ADDITION TO ANNUNCIATOR NOTED IN NOTE # 3).
3. PROVIDE (1) 32 CHARACTER BACK-LIGHTED ALPHA-NUMERIC DISPLAY ANNUNCIATOR WITH KEYPAD FOR OPERATOR CONTROL, PROGRAMMING AND TESTING.

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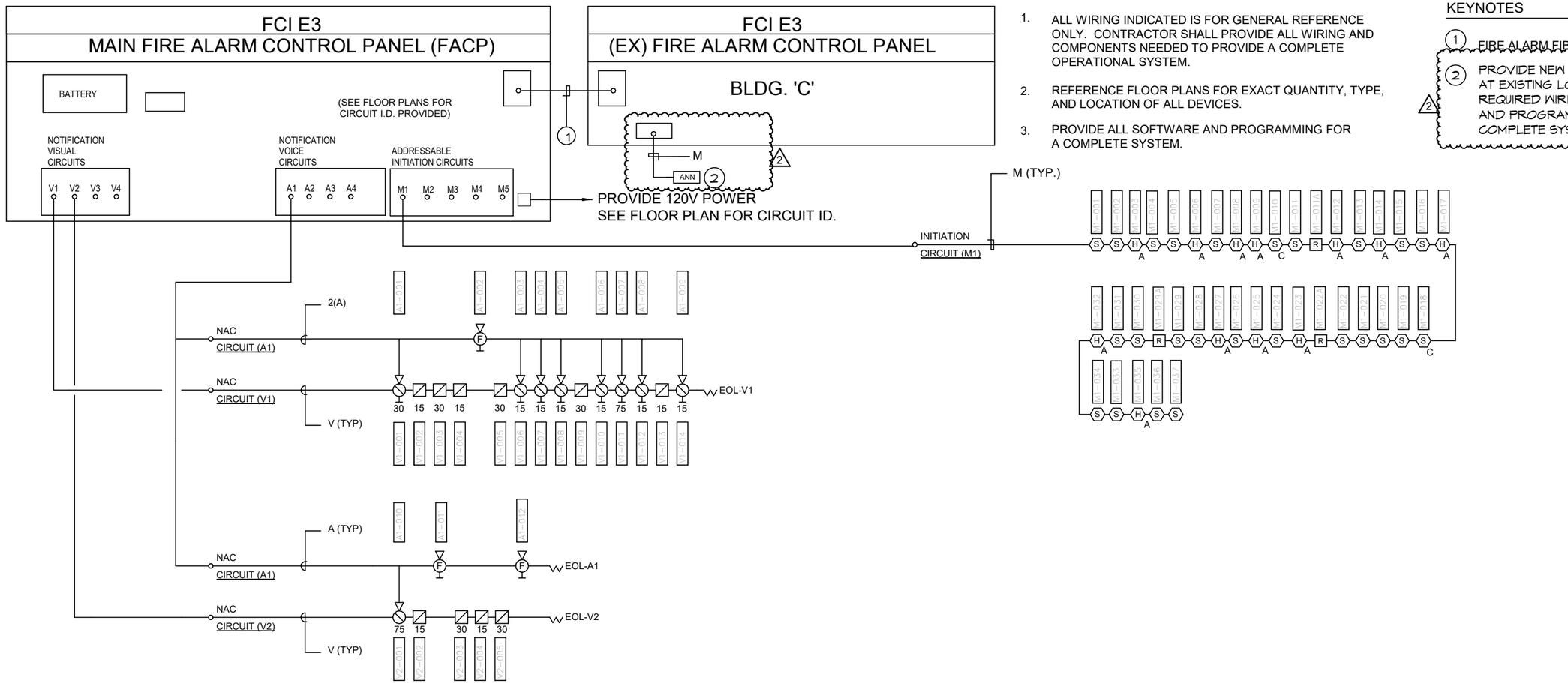
SYCAMORE CANYON ELEM. SCHOOL
LIBRARY RESOURCE CENTER (LRC)
SANTEE SCHOOL DISTRICT

SHEET NO. AD2-E5.2

04-118473



GENERAL NOTES:

1. ALL WIRING INDICATED IS FOR GENERAL REFERENCE ONLY. CONTRACTOR SHALL PROVIDE ALL WIRING AND COMPONENTS NEEDED TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.
2. REFERENCE FLOOR PLANS FOR EXACT QUANTITY, TYPE, AND LOCATION OF ALL DEVICES.
3. PROVIDE ALL SOFTWARE AND PROGRAMMING FOR A COMPLETE SYSTEM.

KEYNOTES

1. FIRE ALARM FIBER NETWORK
2. PROVIDE NEW REMOTE ANNUNCIATOR AT EXISTING LOCATION. PROVIDE ALL REQUIRED WIRING, CARDS, SOFTWARE AND PROGRAMMING FOR A COMPLETE SYSTEM.

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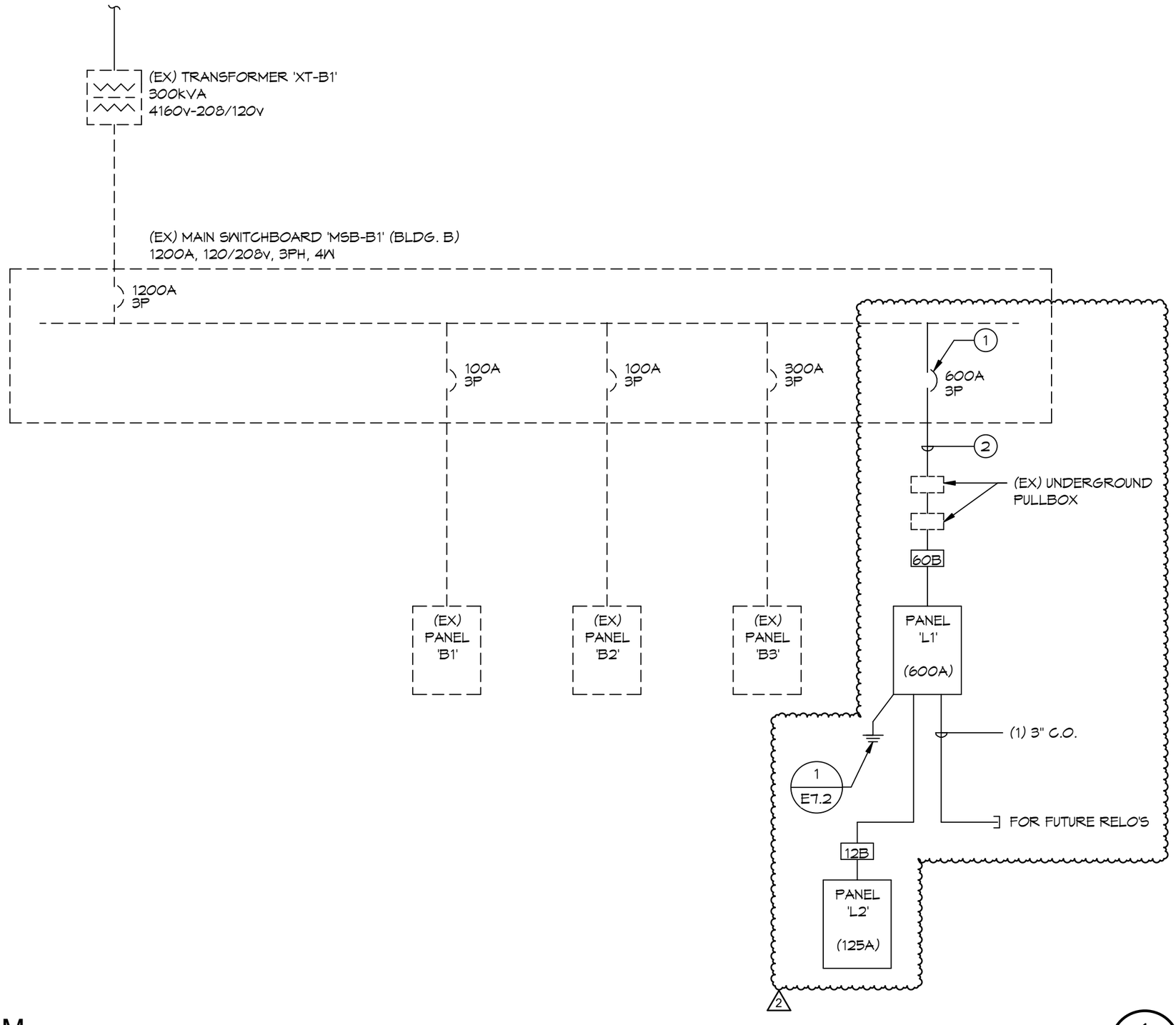
SYCAMORE CANYON ELEM. SCHOOL
LIBRARY RESOURCE CENTER (LRC)
SANTEE SCHOOL DISTRICT

SHEET NO. AD2-E5.3

04-118473

REGISTERED PROFESSIONAL ENGINEER
MONICA GOESE-HANSEN
NO.E 14781
Exp. 6-30-2021
ELECTRICAL
STATE OF CALIFORNIA



ONE-LINE DIAGRAM

NO SCALE

1
E7.1

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SANTEE SCHOOL DISTRICT

SHEET NO. AD2-E7.1

04-118473

REGISTERED PROFESSIONAL ENGINEER
VERONICA GOESE-HANSEN
NO.E 14781
Exp. 6-30-2021
ELECTRICAL
STATE OF CALIFORNIA

2

120/208	120/208 3PH, 4WIRE		600 AMP	Main	Breaker	X		ENCLOSURE TYPE	ENCLOSURE NOTE
	200% Neutral Bus				Lug			X NEMA TYPE 1	
	(INTEGRAL)TVSS Protection			Enclosure	Recessed			NEMA TYPE 3R	
L1	(REMOTE)TVSS Protection				Surface	X		NEMA TYPE 4X	
	Service Entrance Rated	X	GENERAL DISTRIBUTION	PROVIDE LOCK ON BREAKER DEVICES FOR ALL EMERGENCY LIGHTING,					
	Load Side Feed thru Lugs		BREAKER REQUIREMENTS :	MOTORS, AND FIRE ALARM EQUIPMENT SERVED FROM THIS PANEL					

LCL	NHL	CIRCUIT DESCRIPTION	AMP	POLE	NO	PHASE A	PHASE B	PHASE C	NO	AMP	POLE	CIRCUIT DESCRIPTION	LCL	NHL
X		INTERIOR LTG	20	1	1	850								
						3240			2	40	3	AC-1		
X		INTERIOR LTG	20	1	3		1100							
							3240		4	-	-	"		
X		INTERIOR LTG	20	1	5			950						
								3240	6	-	-	"		
		CU-1	30	2	7	1260								
						3720			8	50	3	AC-2		
		"	-	-	9		1260							
							3720		10	-	-	"		
		EF-1	20	1	11			66						
								3720	12	-	-	"		
X		INTERIOR LTG	20	1	13	1040								
						3720			14	50	3	AC-3		
		EWH-1-CR10	40	1	15		3500							
							3720		16	-	-	"		
		EWH-1-CR10	40	1	17			3500						
								3720	18	-	-	"		
		EWH-1-TOILET	40	1	19	3500								
						3720			20	50	3	AC-4		
		DISPLAY LTG	20	1	21		200							
							3720		22	-	-	"		
X		EXTERIOR LTG	20	1	23			465						
								3720	24	-	-	"		
		EM LTG INVERTER	20	1	25	250								
						150			26	20	2	FC-1		
		SPARE	20	1	27									
							150		28	-	-	"		
		SPARE	20	1	29									
									30	20	1	SPARE		
		SPARE	20	1	31									
									32	20	1	SPARE		
		SPARE	20	1	33									
									34	20	1	SPARE		
		SPARE	20	1	35									
									36	20	1	SPARE		
		PANEL L2	125	3	37	8000								
									38	200	3	FUTURE PANEL DR		
		"	-	-	39		6300							
									40	-	-	"		
		"	-	-	41			10800						
									42	-	-	"		

SPECIAL PANEL		NOTE #1	
NOTE		NOTE #2	

NHL= Non Harmonic Load	TOTAL LOAD PER PHASE	29450	26910	30181
LCL= Long Continuous Load	25% LONG CONTINUOUS LOADS	473	275	354
	SUB PANEL			
Max. Neut. Load	SUB PANEL			
428 AMPS	TOTAL CONNECTED LOAD	29923	27185	30535

HIGH PHASE 30534.8 / 0.9pf = VA @ 120V **282.7** AMPS
ALL PHASES 87642.3 / 0.9pf = VA @ 208V/3PH **270.5** AMPS
DEMAND PER NEC 220-34 AMPS

M:\Panel Schedule\2019\19030 Sycamore Canyon\L1 8:46 AM3/16/2020

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SANTEE SCHOOL DISTRICT

SHEET NO. AD2-E9.1-1

04-118473

REGISTERED PROFESSIONAL ENGINEER
MONICA GOESE-HANSEN
NO.E 14781
Exp. 6-30-2021
ELECTRICAL
STATE OF CALIFORNIA

2

120/208	120/208 3PH, 4WIRE		400 AMP	Main	Breaker	x		ENCLOSURE TYPE	ENCLOSURE NOTE
	200% Neutral Bus				Lug		x	NEMA TYPE 1	
	(INTEGRAL)TVSS Protection	X		Enclosure	Recessed			NEMA TYPE 3R	
L2	(REMOTE)TVSS Protection				Surface	X		NEMA TYPE 4X	
	Service Entrance Rated		GENERAL DISTRIBUTION	PROVIDE LOCK ON BREAKER DEVICES FOR ALL EMERGENCY LIGHTING, MOTORS					
	Load Side Feed thru Lugs		BREAKER REQUIREMENTS :	AND FIRE ALARM EQUIPMENT (DEVICE SHALL BE RED) SERVED FROM THIS PANEL					

LCL	NHL	CIRCUIT DESCRIPTION	AMP	POLE	NO	PHASE A	PHASE B	PHASE C	NO	AMP	POLE	CIRCUIT DESCRIPTION	LCL	NHL
		ROOFTOP RECEPT.	20	1	1	600			2	20	1	RECEPT CORD REEL -10		
						600								
		EXTERIOR RECEPT.	20	1	3		800		4	20	1	RECEPT CORD REEL -10		
							600							
		RECEPT - 2	20	1	5			1000	6	20	1	RECEPT CORD REEL -10		
								600						
		RECEPT - 2	20	1	7	1000			8	20	1	RECEPT CORD REEL -10		
						600								
		RECEPT - 2	20	1	9		600		10	20	1	RECEPT CORD REEL -10		
							600							
		RECEPT - 2	20	1	11			800	12	20	1	RECEPT CORD REEL -10		
								600						
		RECEPT - 3,4	20	1	13	600			14	20	1	RECEPT CORD REEL -10		
						600								
		RECEPT - 3,4	20	1	15		400		16	20	1	RECEPT - 10		
							800							
		RECEPT - 2	20	1	17			400	18	20	1	RECEPT - 10		
								600						
		RECEPT - 4	20	1	19	800			20	20	1	RECEPT -10		
						400								
		RECEPT - 4	20	1	21		800		22	20	1	RECEPT - 10		
							400							
		RECEPT - 6	20	1	23			600	24	20	1	IDF RECEPT.		
								1500						
		RECEPT - 7	20	1	25	800			26	20	1	IDF RECEPT.		
						1500								
		RECEPT - 5	20	1	27		400		28	20	1	RECEPT.		
							400							
		HAND DRYER	20	1	29			1200	30	30	1	IDF RECEPT. - UPS		
								3000						
		SPARE	20	1	31				32	20	1	LTG CONTROL PANEL		
						500								
		SPARE	20	1	33		500		34	20	1	WIRELESS CLOCK		
		SPARE	20	1	35				36	20	1	SPARE		
		SPARE	20	1	37				38	20	1	SPARE		
		SPARE	20	1	39				40	20	1	SPARE		
		SPARE	20	1	41				42	20	1	FIRE ALARM EXT. PANEL		
								500						

SPECIAL PANEL					NOTE #1			
NOTE					NOTE #2			
NHL= Non Harmonic Load	TOTAL LOAD PER PHASE	8000	6300	10800	HIGH PHASE	10800	/ 0.9pf = VA @ 120V	100.0 AMPS
LCL= Long Continuous Load	25% LONG CONTINUOUS LOADS	0	0	0	ALL PHASES	25100	/ 0.9pf = VA @ 208V/3PH	77.5 AMPS
	SUB PANEL							
Max. Neut. Load	SUB PANEL				DEMAND PER			
153 AMPS	TOTAL CONNECTED LOAD	8000	6300	10800	NEC 220-34			AMPS

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