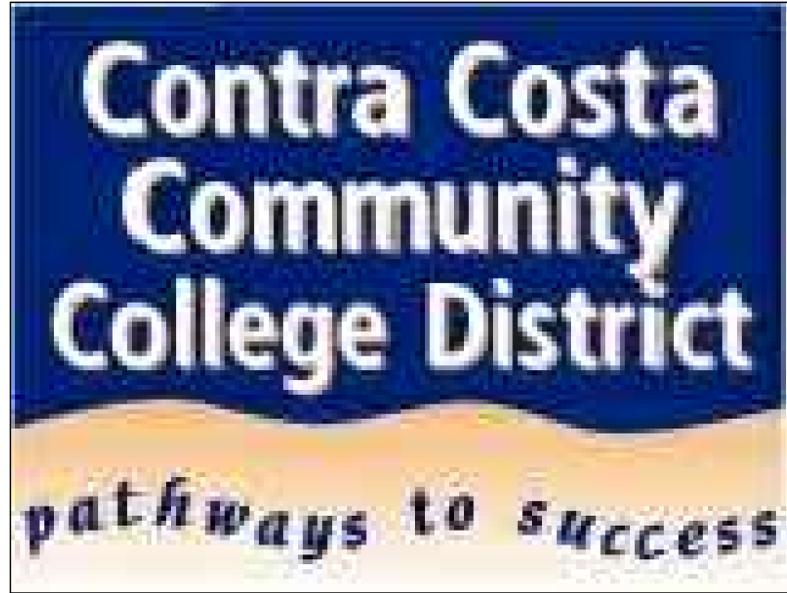


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EARLY LEARNING CENTER (ELC) HVAC CONTROLS CONVERSION

CCCCD PROJ. NOS.: C-1224

03/28/2023

DO NOT SCALE DRAWING. ALL MARKED DIMENSIONS TAKE PRECEDENT. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY CONTRACTOR PRIOR TO EXECUTION OF WORKS.

REVISIONS		
NO.	DESCRIPTION	DATE
1	ADDENDUM 2	03/28/23

APPROVAL STAMPS

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PROJECT TITLE:
**EARLY LEARNING CENTER (ELC)
HVAC CONTROLS CONVERSION**

DRAWING TITLE:
COVER SHEET

SCALE: NONE	CCCCD PROJECT NO: C-1224
CAMPUS: CCC	BUILDING:
DRAWN BY/CHECKED BY: RL / SL	SHEET NO: G0.01
DATE: 03/28/2023	GAYNER PROJ. NO. 17029

SCOPE OF WORK

BASE SCOPE:

A. GENERAL:

- CONVERSION OF THE EXISTING ANDOVER DIRECT DIGITAL CONTROL (DDC) SYSTEM WITH A NEW DDC CONTROL SYSTEM TO MATCH THE CURRENT EXISTING CAMPUS BUILDING AUTOMATION SYSTEM (BAS). THE NEW DDC SYSTEM SHALL IMPLEMENT T-24 AND ASHRAE GUIDELINE 36 CONTROL REQUIREMENTS, AND SEQUENCE OF OPERATION AS MUCH AS PRACTICAL. WORK INCLUDES ALL REQUIRED ELECTRICAL, AIR BALANCING, SUPPORTS, AND WATER PROOFING OF ROOF PENETRATIONS WHERE REQUIRED.
- CHECK TO ENSURE THAT ALL THE EXISTING HVAC EQUIPMENT ARE RUNNING IN PROPER OPERATION. IF THERE IS ANY EQUIPMENT THAT REQUIRES REPAIR, INFORM THE COLLEGE OF THE REQUIRED REPAIR. MAKE ALL THE ADJUSTMENT NECESSARY TO THE EQUIPMENT COMPONENTS, RELATED TO THE CONTROLS UPGRADE WORK TO ACHIEVE THE REQUIRED CONTROL SEQUENCE OF OPERATIONS.

B. EXISTING SYSTEM

- THE ELC BUILDING IS HEATED AND COOLED BY EIGHT PACKAGED ROOFTOP GAS/ELECTRIC AC UNITS (AC-1 TO AC-8). AC-1, 2, 5, 6, 7, AND 8 ARE SINGLE ZONE CONSTANT VOLUME SYSTEM. AC-3 AND 4 ARE VARIABLE VOLUME VARIABLE TEMPERATURE (VVT) SYSTEM. AC-3 SERVES 7 VVT TERMINALS, AND AC-4 SERVES 3 VVT TERMINALS. ALL AC UNITS ARE EQUIPPED WITH ECONOMIZER DAMPERS AND POWER EXHAUST.
- THERE ARE EIGHT (8) CONSTANT SPEED EXHAUST FANS THROUGHOUT THE BUILDING:
 - EF-1: INTERLOCKED WITH AC-1.
 - EF-2: LINE VOLTAGE THERMOSTAT CONTROLLED.
 - EF-3: INTERLOCKED WITH AC-3.
 - EF-4 AND 5: KITCHEN HOOD EXHAUST FAN WITH LOCAL ON/OFF SWITCH.
 - EF-6: INTERLOCKED WITH AC-6.
 - EF-7: INTERLOCKED WITH AC-7.
 - EF-8: INTERLOCKED WITH AC-8.
- THE EXISTING CONTROL SHOP DRAWINGS ARE PROVIDED TO THE BIDDERS FOR INFORMATION ONLY.

C. WORK FOR THE PACKAGED AC UNITS SHALL INCLUDE THE FOLLOWING:

- REPLACE EXISTING SUPPLY AND RETURN AIR TEMPERATURE SENSORS.
- REPLACEMENT OF THE UNIT DDC CONTROLLERS.
- REPLACE ALL ROOM THERMOSTATS, WITH NEW THERMOSTAT WITH BUILT IN CO2 SENSOR.
- REPLACE THE EXISTING LOCAL ECONOMIZER DAMPER CONTROL WITH DDC CONTROL, AND INTEGRATE THEM INTO THE SUPPLY AIRZONE TEMPERATURE CONTROL SEQUENCE. THIS INCLUDES REPLACEMENT OF THE EXISTING DAMPER ACTUATORS WITH NEW ACTUATORS EQUIPPED WITH POSITION FEEDBACK.
- REPLACE THE SUPPLY AIR BY PASS CONTROL, INCLUDING NEW MODULATING BY-PASS DAMPER ACTUATOR WITH POSITION FEEDBACK, AND DUCT STATIC PRESSURE MONITOR.
- REPLACE GLOBAL OUTSIDE AIR TEMPERATURE SENSOR.
- ADDITION OF:
 - FILTER DIFFERENTIAL PRESSURE MONITOR.
 - CO2 DEMAND CONTROL VENTILATION CONTROL.
- AC-3 AND AC-4: REPLACE ALL VVT CONTROLLERS WITH NEW ALC CONTROLLERS.
- REPLACE EXISTING BUILDING EXTERIOR SCHEDULED LIGHTING ON/OFF CONTROL FROM ANDOVER TO ALC.
- MAINTAIN THE EXISTING SUPPLY AIR DUCT SMOKE DETECTOR UNIT SHUT DOWN.

D. WORK FOR THE EXHAUST FAN SHALL INCLUDE THE FOLLOWING:

- REMOTE DDC START/STOP, EXCEPT FOR EF-4 AND 5.
- FAN STATUS VIA CURRENT SENSOR - ALL FANS.
- REPLACE LINE VOLTAGE THERMOSTAT CONTROL FOR EF-2 TO DDC CONTROL, INCLUDING A NEW ROOM THERMOSTAT WITHOUT CO2 SENSOR.

BID ALTERNATE NO. 1:

UTILIZE THE EXISTING INTERIOR LIGHTING CONTROL SYSTEM OCCUPANCY SENSORS TO PROVIDE UNOCCUPIED TEMPERATURE SETBACK/SETUP SEQUENCE.

THE EXISTING LIGHTING CONTROL SYSTEM IS LUTRON VIVE WIRELESS SYSTEM. THE SYSTEM HAS TWO (2) HUBS WHICH HAS BACNET/IP INTEGRATION MODULE.

DRAWING INDEX

G0.01	COVER SHEET
G0.02	DRAWING INDEX AND PROJECT OVERVIEW
G0.03	CONTRA COSTA COLLEGE CAMPUS PLAN
M0.1	EXISTING EQUIPMENT SCHEDULES
M2.1	EXISTING FLOOR PLAN
M2.2	EXISTING ROOF PLAN
M3.1	EXISTING LIGHTING CONTROL
M5.1	CONTROL DIAGRAMS

PROJECT LOCATIONS

CONTRA COSTA COLLEGE
 2600 MISSION BELL DRIVE
 SAN PABLO, CA 94806

PROTECTION OF EXISTING SPACE

THE BUILDINGS WILL BE OCCUPIED DURING CONSTRUCTION. MINIMIZE INTERRUPTIONS TO BUILDING OCCUPANTS AS MUCH AS POSSIBLE. UNLESS APPROVED BY THE DISTRICT, WORK THAT REQUIRES SHUT DOWN SHALL BE PERFORMED AFTER HOURS, ON THE WEEKENDS, AND/OR DURING HOLIDAY CLOSURES.

ALL SPACES MUST BE KEPT CLEAN. DUST AND DEBRIS WITHIN OCCUPIED AREAS CAUSED BY THIS PROJECT WORK MUST BE CLEANED IMMEDIATELY. DO NOT DISRUPT ONGOING CLASSROOMS AND/OR OFFICE OPERATIONS. WHERE REQUIRED, PROTECT ALL FURNISHINGS AND EQUIPMENT FROM DAMAGE AND CONTAMINATION FROM DUST AND DEBRIS. ALL EQUIPMENT SHUTDOWNS SHALL BE COORDINATED WITH FACILITIES.

APPLICABLE CODES

CODE AND PROJECT INFORMATION

THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND REQUIREMENTS OF OTHER REGULATORY AGENCIES, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

- 2019 CALIFORNIA ADMINISTRATIVE REGULATIONS
- 2019 CALIFORNIA BUILDING CODE
- 2019 CALIFORNIA ELECTRICAL CODE
- 2019 CALIFORNIA MECHANICAL CODE
- 2019 CALIFORNIA PLUMBING CODE
- 2019 CALIFORNIA ENERGY CODE - TITLE 24
- 2019 CALIFORNIA FIRE CODE
- 2019 CALIFORNIA REFERENCE STANDARDS CODE

UNLESS OTHERWISE SPECIFIED, REFERENCES TO CODES, REGULATIONS, STANDARDS, MANUFACTURER'S INSTRUCTIONS, OR REQUIREMENTS OF REGULATORY AGENCIES SHALL MEAN THE LATEST EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION OF BIDS, THE DATE OF THE CHANGE ORDER, OR THE DATE OF THE FIELD ORDER.



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REVISIONS		
NO.	DESCRIPTION	DATE
	ADDENDUM 2	03/28/23

APPROVAL STAMPS

PROJECT TITLE:
EARLY LEARNING CENTER (ELC) HVAC CONTROLS CONVERSION

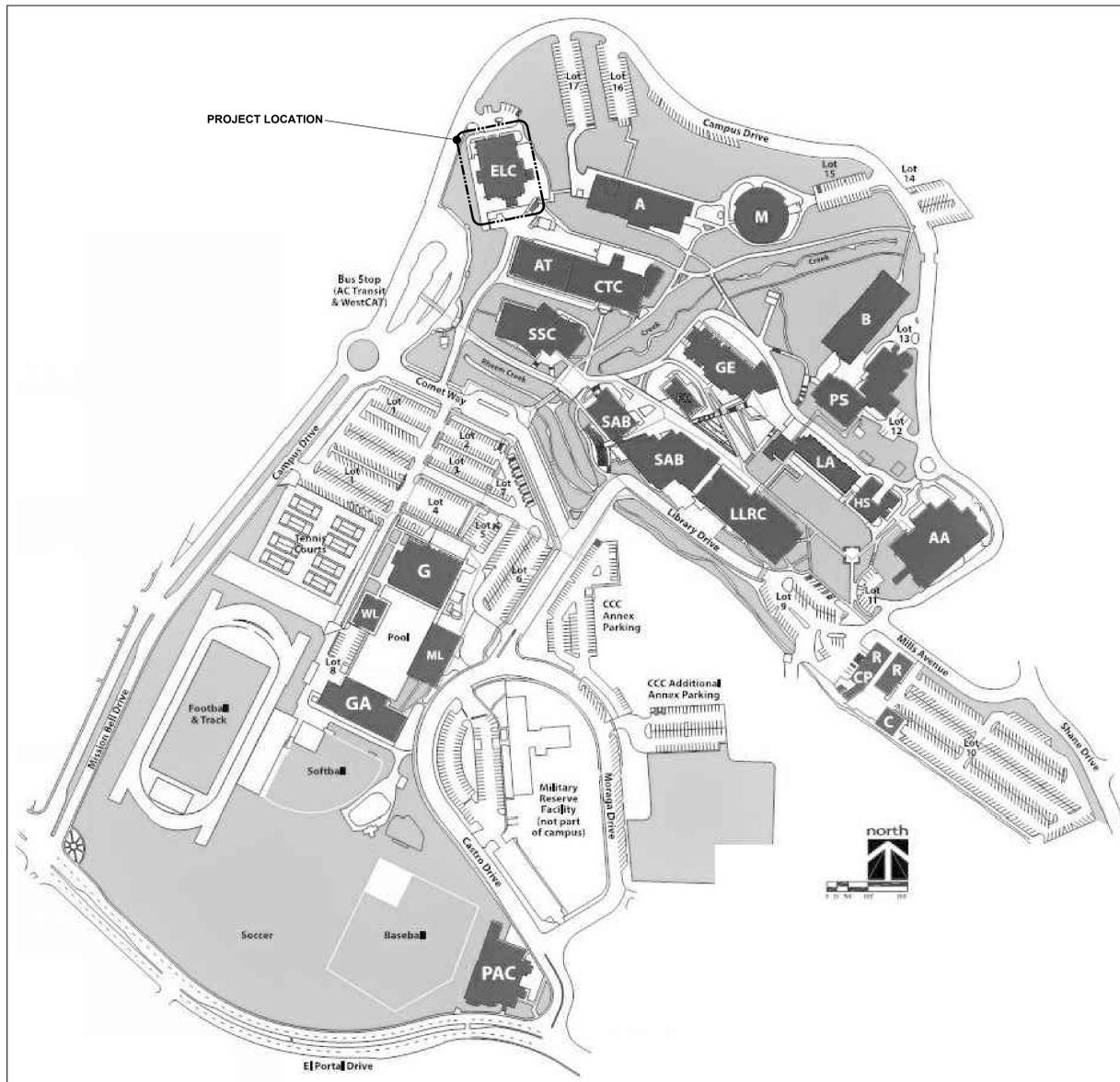
DRAWING TITLE:
DRAWING INDEX AND PROJECT OVERVIEW

SCALE: NONE	CCCCD PROJECT NO: C-1224
CAMPUS: CCC	BUILDING:
DRAWN BY/CHECKED BY: EYO / SL	SHEET NO: GO.02
DATE: 03/28/2023	GAYNER PROJ. NO. 17029

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CONTRA COSTA COLLEGE CAMPUS
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REVISIONS		
NO.	DESCRIPTION	DATE
ADDENDUM 2		03/28/23

APPROVAL STAMPS

PROJECT TITLE:
EARLY LEARNING CENTER (ELC) HVAC CONTROLS CONVERSION

DRAWING TITLE:
CONTRA COSTA COLLEGE CAMPUS PLAN

SCALE: NONE	CCCCD PROJECT NO: C-1224
CAMPUS: CCC	BUILDING:
DRAWN BY/CHECKED BY: EYO / SL	SHEET NO: GO.03
DATE: 03/28/2023	GAYNER PROJ. NO. 17029

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EXISTING ROOFTOP AIR CONDITIONING UNIT SCHEDULE																							MANUFACTURER: CARRIER						
CODE	AREA SERVED	NOM. COOL. TONS (1)	FAN		MIN. OSA (CFM)	TYPE & MODEL	COOLING (9)					HEATING		ELECTRICAL							MIN. EER	MIN. SEER	OPER. LBS (3)	MIN. PLENUM SIZES (14)		REMARKS			
			CFM	ESP (11) (\"WC)			TOTAL (MBH)	SEN (MBH)	EAT DB	EAT WB	AMB	INPUT MBH	OUTPUT MBH	COMPRESSOR QTY	RLA/EA	LRA/EA	EVAP FAN FLA	COND FAN FLA	COMB FAN FLA	POWERED EXH. FLA				MCA	VOLT/PHASE		SUPPLY (WGXHL)	RETURN (WGXHL)	
AC-1	TODDLER	4	1600	1.00	400	DOWN DISCHARGE 48HJ005	47.6	38.7	77.5	62.5	85	72.0	59.04	1	7.4	49.5	2 HP	0.4	0.30	1.1	-	460/3	11.05	13.00	1100	18X12X8'-0"	26X11X8'-0"	(7) (13)	
AC-2	INFANT	3	1200	0.75	400	48HJ004	36.7	31.0	78.5			72.0	59.04	1	5.1	39.0	2.2	0.4	0.30	1.1	10.1	460/3	11.20	13.00	1100	18X12X8'-0"	26X11X8'-0"	(10) (13)	
AC-3	CENTER/INTERIOR	7-1/2	3000	1.25	1000	48HJ006	88.4	75.9	78.5			125.0	102.5	2	6.4	44.0	5 HP	200.7	0.30	1.7	-	460/3	11.00	-	1600	29X14X9'-0"	36X13X10'-0"	(7)	
AC-4	ENTRY LOBBY	6	2400	1.10	400	48HJ007	76.3	62.7	76.5			115.0	93.15	1	9.6	70.0	3 HP	0.6	0.30	1.1	-	460/3	11.00	-	1150	24X14X7'-0"	26X14X8'-0"	(7)	
AC-5	CLASS/LAB	6	2100	0.75	600	48HJ007	74.7	62.4	77.9			72.0	59.04	1	9.6	70.0	2.6	0.6	0.30	1.1	16.3	460/3	11.00	-	1150	22X14X8'-0"	26X14X8'-0"	(12) (13)	
AC-6	PRE-SCHOOL #3	4	1600	0.75	500	48HJ005	47.6	39.4	78.0			72.0	59.04	1	7.4	49.5	2.2	0.4	0.30	1.1	13.0	460/3	11.05	13.00	1100	18X12X8'-0"	26X14X8'-0"	(7) (13)	
AC-7		#2	5	2000	1.10	500	48HJ006	60.8	51.1	77.5			72.0	59.04	1	9.0	62.0	3 HP	0.8	0.30	1.1	-	460/3	11.00	13.00	1150	22X14X8'-0"	26X14X8'-0"	(7) (13)
AC-8		#1	4	1600	1.00	500	48HJ005	47.6	39.4	78.0			72.0	59.04	1	7.4	49.5	2 HP	0.4	0.30	1.1	-	460/3	11.05	13.00	1100	18X12X8'-0"	26X14X8'-0"	(13)

NOTES:
 (1) AT ARI CONDITIONS.
 (2) ALL UNITS TO MEET C.A.C. TITLE 24 ENERGY REGULATIONS.
 (3) UNIT WEIGHTS INCLUDE ALL ACCESSORIES INCLUDING POWERED EXHAUST FANS ECONOMIZERS AND ROOF CURBS.
 (4) UNLESS ALL UNITS TO BE PROVIDED WITH MANUFACTURER'S 14" MIN. HIGH PREFAB ROOF CURB WITH WOOD NAILER AND TAPERED BOTTOM TO MATCH ROOF SLOPE. PROVIDE TALLER CURBS WITH HEIGHTS AS REQUIRED TO PROVIDE A MINIMUM 8" CLEARANCE FROM FINISHED ROOF IN CRICKETED AREAS (SAD - VERIFY THICKNESS OF INSULATION IN CRICKETED AREAS WITH GENERAL CONTRACTOR).
 (5) ALL UNITS TO BE PROVIDED WITH FIELD INSTALLED "MICROMET" CENTRIFUGAL POWERED EXHAUST AND MODULATING ECONOMIZER WITH MOTORIZED DAMPER MOTOR AND CONTROLS.
 (6) ALL UNITS TO BE PROVIDED WITH ANDOVER DDC CONTROLS (ADDITIONAL 110V POWER CONNECTION REQUIRED - COORDINATE WITH ELECTRICAL CONTRACTOR - SEE CONTROL DIAGRAMS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS).
 (7) UNIT TO BE PROVIDED WITH FIELD SUPPLIED SUPPLY FAN MOTOR AND DRIVES AS REQUIRED TO MEET LISTED AIR FLOW QUANTITIES (TOTAL UNIT MCA NOT PROVIDED).
 (8) ALL UNITS TO BE PROVIDED WITH MFR'S FLUE EXTENSION.
 (9) TOTAL AND SENSIBLE CAPACITIES LISTED ARE GROSS (DO NOT INCLUDE REDUCTION DUE TO FAN MOTOR HEAT).
 (10) UNIT TO BE PROVIDED WITH FIELD SUPPLIED SUPPLY FAN DRIVE AS REQUIRED TO MEET LISTED AIR FLOW QUANTITY.
 (11) SUPPLY FAN EXTERNAL STATIC PRESSURES DO NOT INCLUDE ECONOMIZER PRESSURE DROPS.
 (12) ALL UNITS TO BE SHUT DOWN UPON DETECTION OF SMOKE FROM BUILDING'S "TOTAL COVERAGE" SMOKE DETECTION SYSTEM (EXCEPTION NO.1 CMC SECTION 608 - COORDINATE WITH ELECTRICAL CONTRACTOR).
 (13) PROVIDE ROOM TEMPERATURE SENSOR WITH CAMPUS STANDARD ACCESSORIES - VERIFY WITH CAMPUS BUILDINGS AND GROUNDS DEPARTMENT.
 (14) MIN. CONNECTING PLENUM SIZES APPLY TO ACOUSTICALLY LINED DUCT WITH 1" LINING. SIZES ARE IN INCHES - NET CLEAR OF LINING. PROVIDE EQUIVALENT SIZES AS REQUIRED TO CLEAR OBSTRUCTIONS.

EXISTING EXHAUST FAN SCHEDULE													MFR: GREENHECK	
CODE	TYPE AND MODEL	CFM	S.P. *W.C.	BHP	MOTOR		SERVICE	LOCATION	SONES	OPER. WT # (1)	INLET CONNECTION SIZE (INCHES)	CONTROL	REMARKS	
					HP	VOLT/PHASE								
EF-1	DIRECT DRIVE ROOFTOP CENTRIFUGAL G-80-D	300	0.25	<0.05	1/20	115/1	TODDLER TOILET	ROOF	6.0	50	10X10	INTERLOCK W/ AC-1 (VA EMS)	(2) (3)	
EF-2	DIRECT DRIVE ROOFTOP CENTRIFUGAL G-95-D	600	0.25	0.07	1/8		ELEC. ROOM	ROOF	6.5	50	10X10	LOCAL LINE VOLTAGE T'STAT	(3)	
EF-3	BELT DRIVE ROOFTOP CENTRIFUGAL GB-120	1050	0.5	0.16	1/4		JAN. LAUNDRY & SINGLE TOILETS	ROOF	6.9	75	12X12	INTERLOCK W/ AC-3 (VA EMS)		
EF-4	DIRECT DRIVE ROOFTOP UPBLAST CENTRIFUGAL CUE-95-A	400 ⁽⁵⁾	0.5	<0.16	1/4		KITCHEN	ROOF		60	12X12	HOOD SWITCH (4)	(3)	
EF-5	DIRECT DRIVE ROOFTOP UPBLAST CENTRIFUGAL CUE-95-A	400 ⁽⁵⁾	0.5	<0.16	1/4		CHILDREN'S KITCHEN	ROOF		60	12X12	HOOD SWITCH (4)		
EF-6	DIRECT DRIVE ROOFTOP CENTRIFUGAL G-80-D	300	0.25	<0.05	1/20		PRESCHOOL NO. 3 TOILET	ROOF	6.0	50	10X10	INTERLOCK W/ AC-6 (VA EMS)		
EF-7	DIRECT DRIVE ROOFTOP CENTRIFUGAL G-85-D	350	0.25	0.04	1/20		PRESCHOOL NO. 2 TOILET		5.5		10X10	INTERLOCK W/ AC-7 (VA EMS)		
EF-8	DIRECT DRIVE ROOFTOP CENTRIFUGAL G-85-D	350	0.25	0.04	1/20		PRESCHOOL NO. 1 TOILET				10X10	INTERLOCK W/ AC-8 (VA EMS)		

NOTES:
 (1) UNIT WEIGHTS INCLUDE ALL ACCESSORIES INCLUDING ROOF CURBS.
 (2) PROVIDE WITH OBD AND MANUFACTURER'S 12" HIGH PREFAB ROOF CURB WITH WOOD NAILER AND BUILT-IN CANT AT NON-CRICKETED AREAS. OMIT CANT AND PROVIDE CURB WITH HEIGHT AS REQUIRED TO PROVIDE 8" MINIMUM CLEAR ABOVE FINISHED ROOF IN CRICKETED AREAS (SAD - VERIFY THICKNESS OF INSULATION IN CRICKETED AREAS WITH GENERAL CONTRACTOR).
 (3) DIRECT DRIVE FAN - PROVIDE MANUFACTURER'S SOLID STATE SPEED CONTROLLER TO BE MOUNTED IN MOTOR HOUSING COMPARTMENT.
 (4) PROVIDE SEPARATE ON/OFF WALL SWITCH IF EXHAUST HOOD DOES NOT HAVE INTEGRAL SWITCH (VERIFY WITH GENERAL CONTRACTOR - INCLUDE ALLOWANCE IN BID TO PROVIDE SEPARATE SWITCH).
 (5) VERIFY EXHAUST AIR QUANTITY WITH SPECIFIC EXHAUST HOOD BEING PROVIDED (COORDINATE WITH GENERAL CONTRACTOR PRIOR TO SUBMITTING). NOTE - HOOD IS TO BE ORDERED WITHOUT INTEGRAL FAN.

EXISTING VWT TERMINAL BOX SCHEDULE						
CODE	CFM SETTING		DUCT CONNECTION		AREA SERVED	REMARKS
	MAX.	MIN.	INLET (INCHES)	OUTLET (INCHES)		
WT 3-0	1675	0	14"	10X17-1/2		(2)
WT 3-1	140	80	8"	12X8	CRIB RM.	
WT 3-2	865	325	12"	16X15	OBSER. #2, ELEC. HALL #1 TOILET #6, HALL #3 LAUNDRY	
WT 3-3	660	230	10"	14X12-1/2	CHILDREN'S KITCHEN	
WT 3-4	280	145	8"	12X10	ADULT KITCHEN	
WT 3-5	220	110	8"	12X8	OBSER. #1, HALL #2	
WT 3-6	370	145	8"	12X10	DIRECTOR, HALL #1	
WT 3-7	465	230	10"	14X12-1/2	ISOLATION, CONF., RECEIPT.	
WT 4-0	1010	0	12"	16X15		(2)
WT 4-1	740	325	12"	16X15	LOBBY (WEST HALF)	(5)
WT 4-2	920	325	12"	16X15	STAFF	
WT 4-3	740	325	12"	16X15	LOBBY (EAST HALF)	(5)

NOTES:
 (1) VWT TERMINAL BOXES SHALL BE TITUS MODEL DESV WITH VELOCITY SENSORS BUT LESS ACTUATOR AND BALANCE OF CONTROLS. ACTUATOR AND REMAINING CONTROLS TO BE ANDOVER.
 (2) BY-PASS DAMPER - 110V, 1# POWER CONNECTION REQUIRED FOR EACH. CONTROLS CONTRACTOR TO PROVIDE LOW VOLTAGE CONTROLS TRANSFORMER(S) AT BY-PASS BOX TO PROVIDE POWER TO EACH ZONE BOX ON SAME AC UNIT SYSTEM.
 (3) INLET DUCT SIZE TO BE EQUAL TO BOX INLET CONNECTION SIZE IF 4'-0" OR SHORTER - ONE SIZE LARGER (BUT NOT LARGER THAN OUTLET DUCT SIZE ON PLAN) IF LONGER THAN 4'-0" - PROVIDE ADDITIONAL TRANSITION DUCT.
 (4) PROVIDE DUCT TRANSITION AT BOX OUTLET AS REQUIRED TO TRANSITION TO OUTLET DUCT SIZE SHOWN ON PLAN.
 (5) PROVIDE ROOM TEMPERATURE SENSOR WITH BLANK COVER (NO OVERRIDE BUTTON, TEMP. ADJUSTMENT KNOB OR READ OUT). ALL OTHERS TO HAVE CAMPUS STANDARD ACCESSORIES - VERIFY WITH CAMPUS BUILDINGS AND GROUNDS DEPARTMENT.

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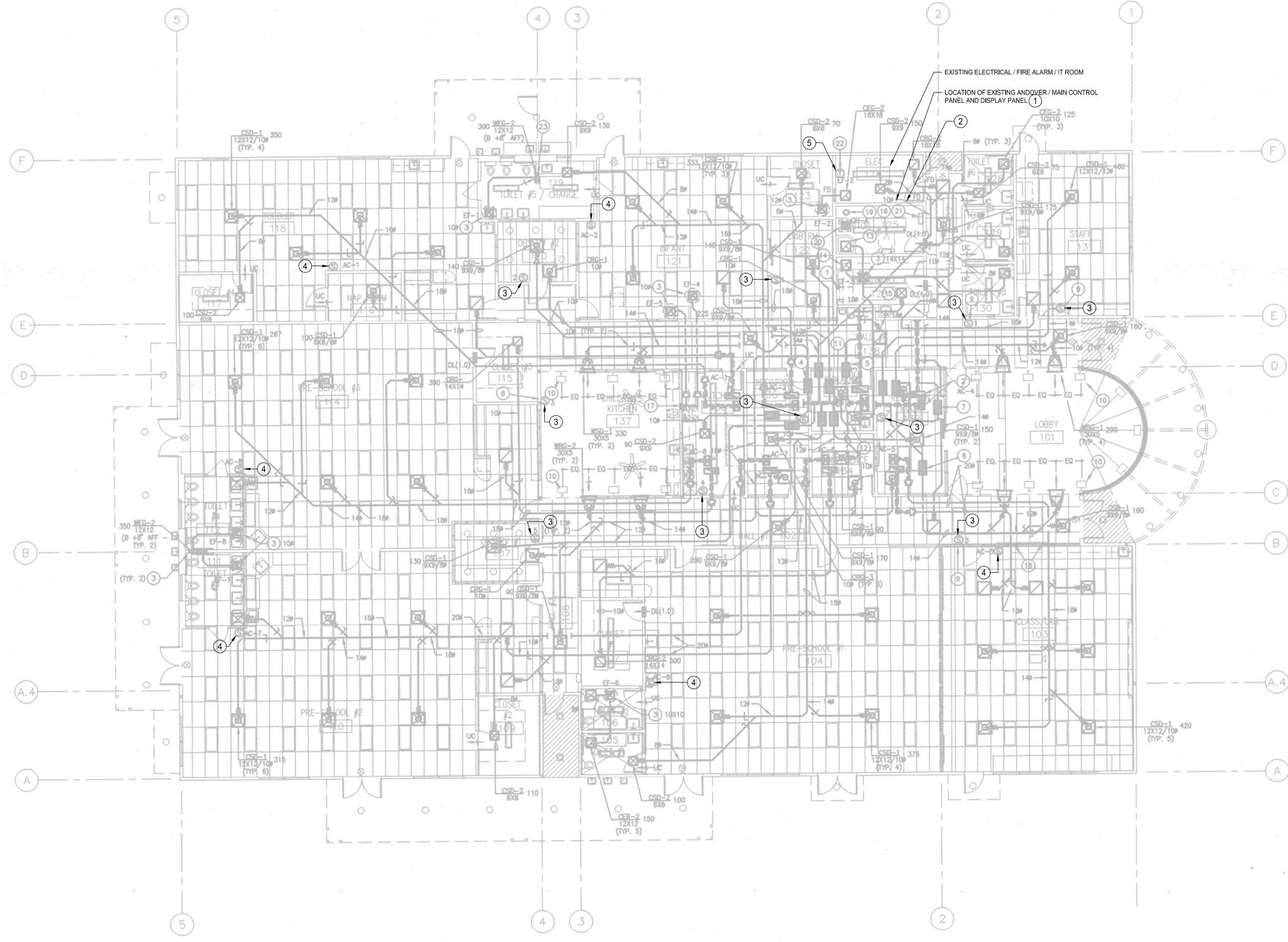
REVISIONS		
NO.	DESCRIPTION	DATE
	ADDENDUM 2	03/28/23

APPROVAL STAMPS

PROJECT TITLE:
EARLY LEARNING CENTER (ELC) HVAC CONTROLS CONVERSION

DRAWING TITLE:
EXISTING EQUIPMENT SCHEDULE

SCALE: NONE	CCCCD PROJECT NO: C-1224
CAMPUS: CCC	BUILDING: 28
DRAWN BY/CHECKED BY: EYO / SL	SHEET NO: M0.1
DATE: 03/28/2023	GAYNER PROJ. NO. 17029



1 FLOOR PLAN
SCALE: 1/8" = 1'-0"
NORTH

GENERAL NOTES

- A. VERIFY EXISTING CONDITION IN THE FIELD.
- B. TAKE PREDEMOLITION AIR BALANCE READINGS TO ALL THE VVT SYSTEM SUPPLY AND RETURN DIFFUSERS/GRILLES, AND BALANCE TO EXISTING AIRFLOW RATE AFTER COMPLETION OF NEW WORK.

SHEET NOTES

- ① REMOVE THE EXISTING MAIN CONTROL PANEL AND THE DISPLAY PANEL. PATCH EXISTING WALL TO MATCH EXISTING.
- ② LOCATE NEW TEMPERATURE CONTROL PANEL AND SUPPORT FROM THE WALL.
- ③ REPLACE THE EXISTING VVT THERMOSTAT WITH NEW.
- ④ REPLACE THE EXISTING AC UNIT THERMOSTAT WITH NEW.
- ⑤ REPLACE EXISTING EF-2 LINE VOLTAGE THERMOSTAT WITH NEW DDC THERMOSTAT.



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REVISIONS		
NO.	DESCRIPTION	DATE
ADDENDUM 2		03/28/23

APPROVAL STAMPS

PROJECT TITLE:
EARLY LEARNING CENTER (ELC) HVAC CONTROLS CONVERSION

DRAWING TITLE:
EXISTING FLOOR PLAN

SCALE: 1/8" = 1'-0"	CCCCD PROJECT NO: C-1224
CAMPUS: CCC	BUILDING:
DRAWN BY/CHECKED BY: RL / SL	SHEET NO: M2.1
DATE: 03/28/2023	GAYNER PROJ. NO. 17029



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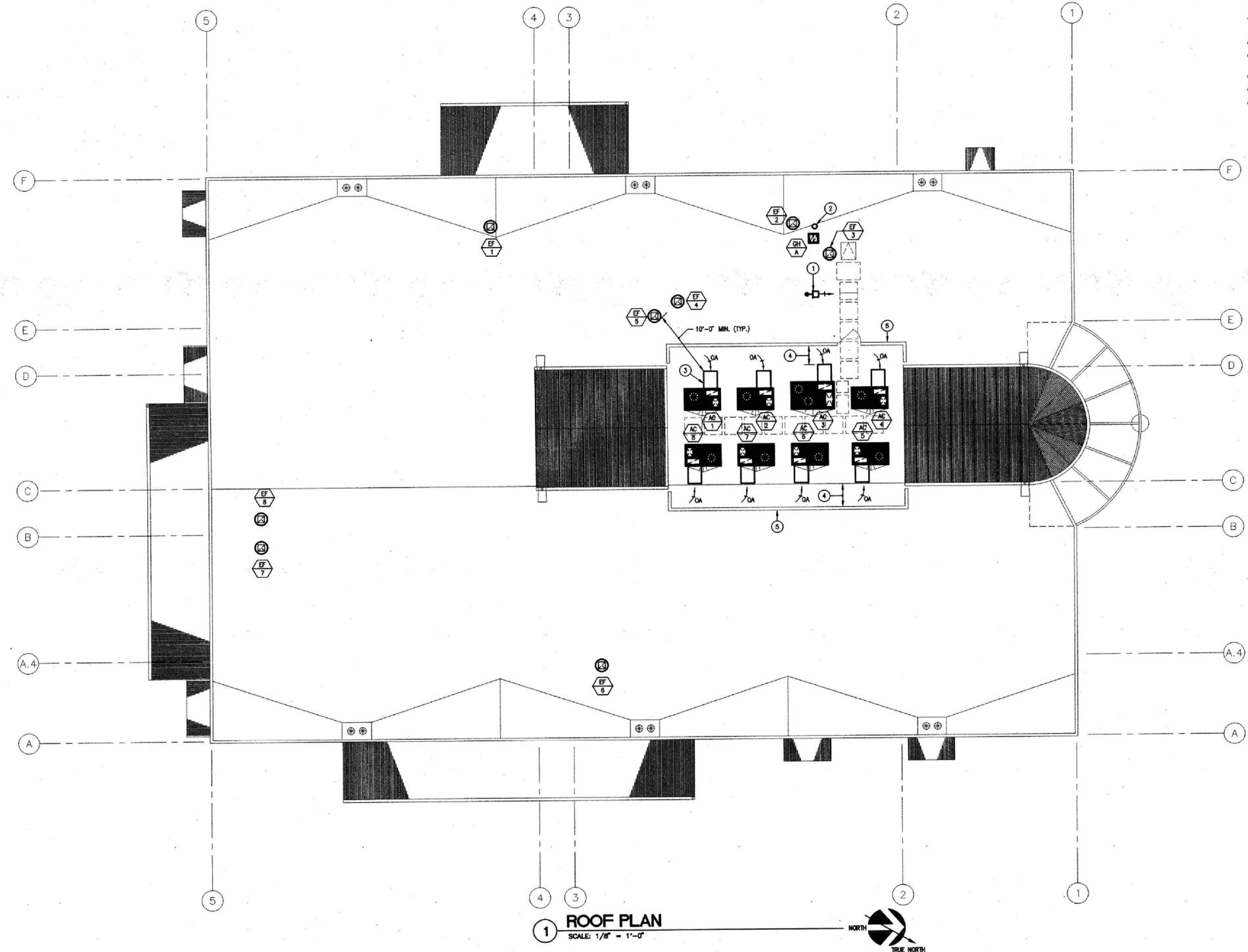


SHEET NOTES

1. SEE DETAILS ON M-3 FOR EQUIPMENT ANCHORAGE REQUIREMENTS.
2. MAINTAIN AC UNIT MIN. SERVICE AND ELEC. CODE CLEARANCES FROM ADJACENT UNITS AND STRUCTURES.
3. COORDINATE WITH PLUMBING CONTRACTOR TO LOCATE PLUMBING VENT TERMINATIONS AS FAR FROM AC UNIT OA INTAKES AS POSSIBLE (MIN. 10'-0").

SHEET NOTES

- 1 DRYER VENT TERMINATION - PROVIDE BOD AT OUTLET.
- 2 TERMINATE WATER HEATER FLUE 2'-0" MIN. ABOVE ROOF WITH LISTED CAP.
- 3 TYPICAL AC UNIT POWERED EXHAUST/ECONOMIZER ACCESSORY.
- 4 3'-0" MIN. (TYP) - COORDINATE WITH GENERAL CONTRACTOR.
- 5 MECHANICAL SCREEN (SAD).



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

DO NOT SCALE DRAWING. ALL MARKED DIMENSIONS TAKE PRECEDENT. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY CONTRACTOR PRIOR TO EXECUTION OF WORKS.

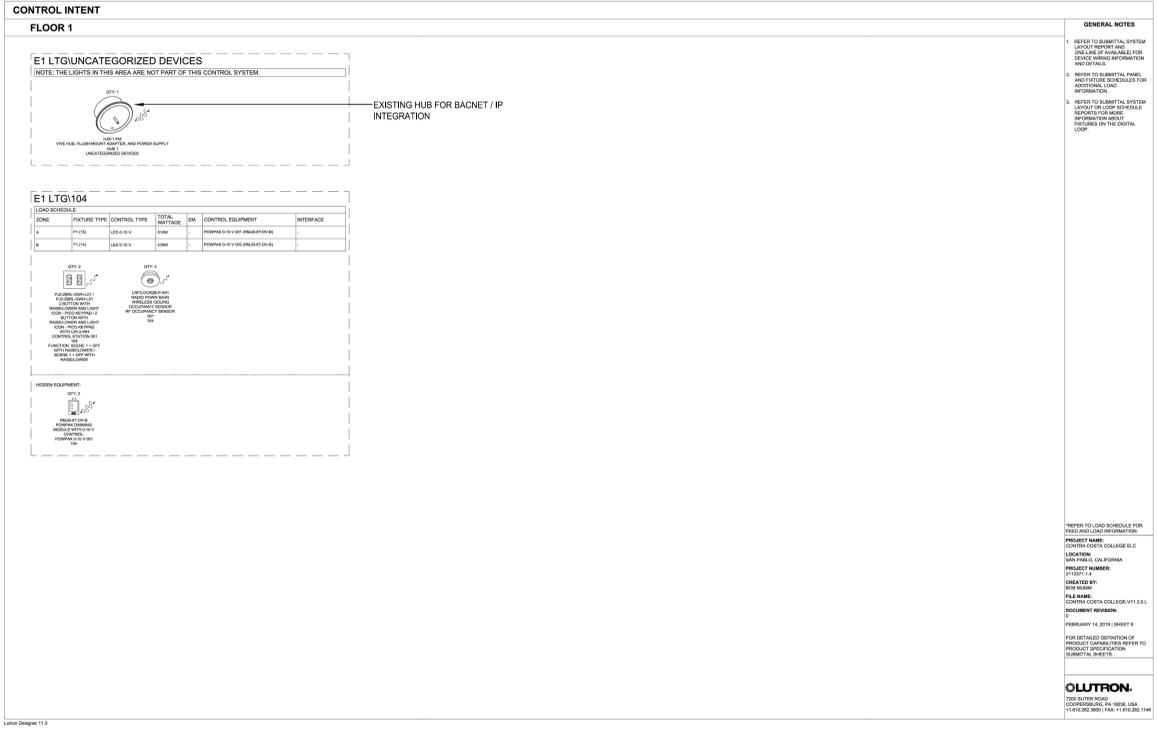
REVISIONS		
NO.	DESCRIPTION	DATE
ADDENDUM 2		03/28/23

APPROVAL STAMPS

PROJECT TITLE:
EARLY LEARNING CENTER (ELC) HVAC CONVERSION

DRAWING TITLE:
EXISTING ROOF PLAN

SCALE: 1/8" = 1'-0"	CCCCD PROJECT NO: C-1224
CAMPUS: CCC	BUILDING:
DRAWN BY/CHECKED BY: RL / SL	SHEET NO: M2.2
DATE: 03/28/2023	GAYNER PROJ. NO. 17029

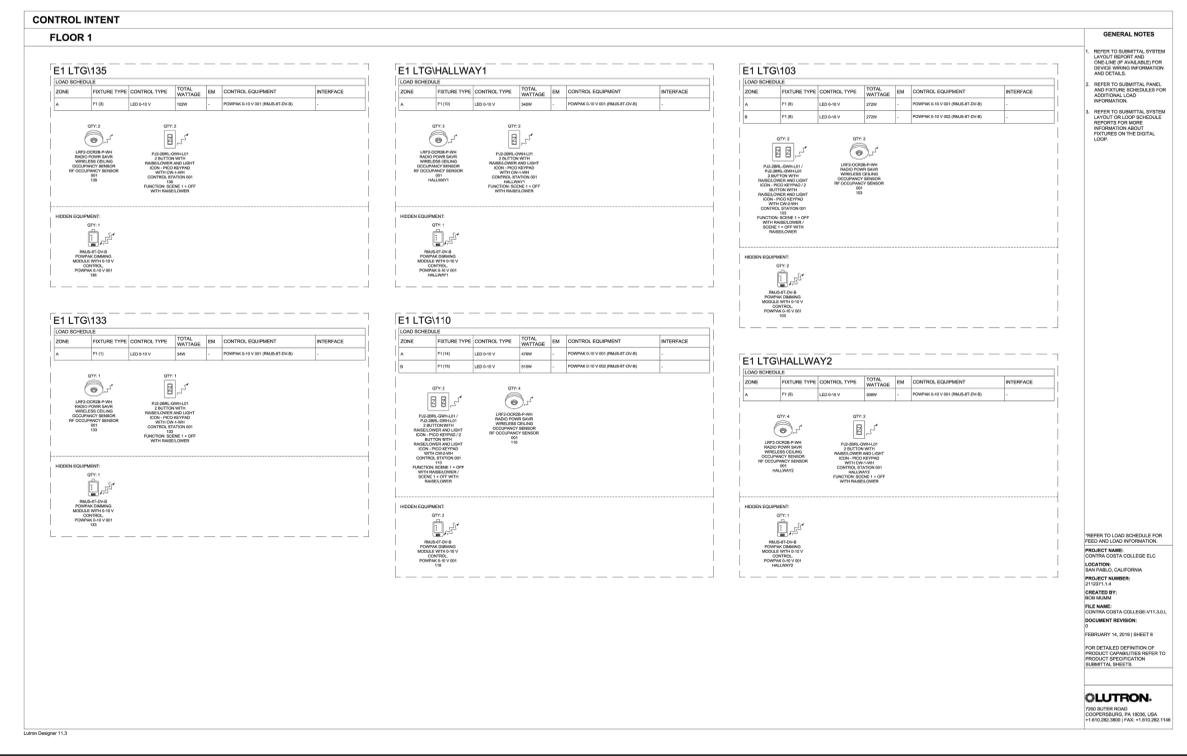
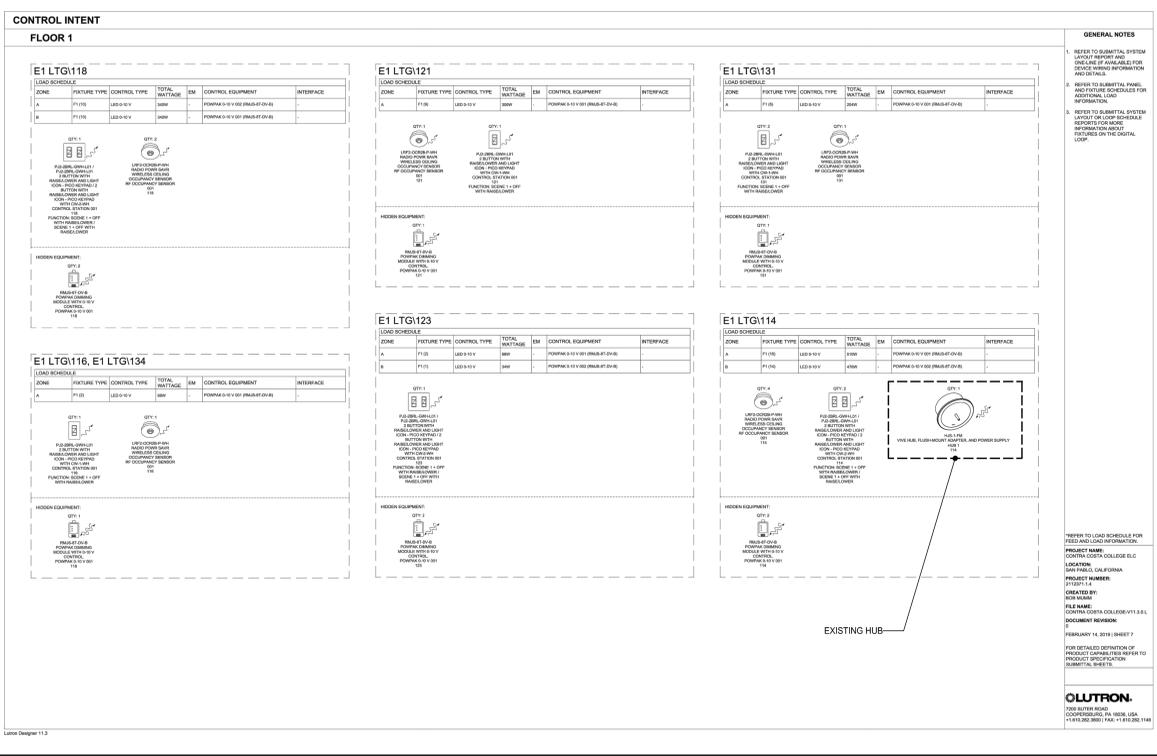


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REVISIONS		
NO.	DESCRIPTION	DATE
ADDENDUM 2		03/28/23

APPROVAL STAMPS

PROJECT TITLE:
EARLY LEARNING CENTER (ELC) HVAC CONTROLS CONVERSION

DRAWING TITLE:
EXISTING LIGHTING CONTROL

SCALE: NONE	CCCCD PROJECT NO: C-1224
CAMPUS: CCC	BUILDING:
DRAWN BY/CHECKED BY: RL / SL	SHEET NO: M3.1
DATE: 03/28/2023	GAYNER PROJ. NO. 17029

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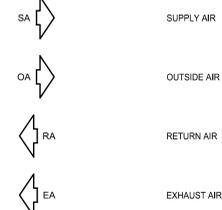


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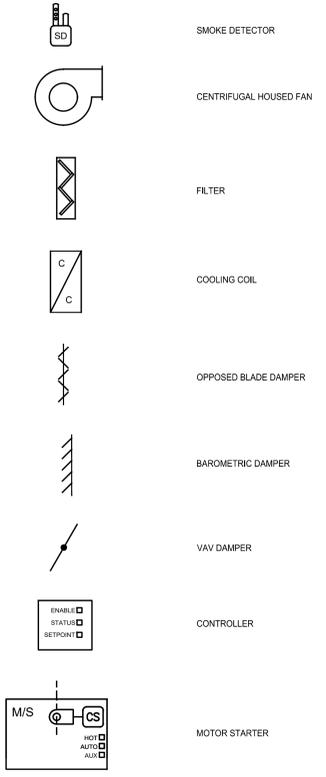


CONTROL LEGEND

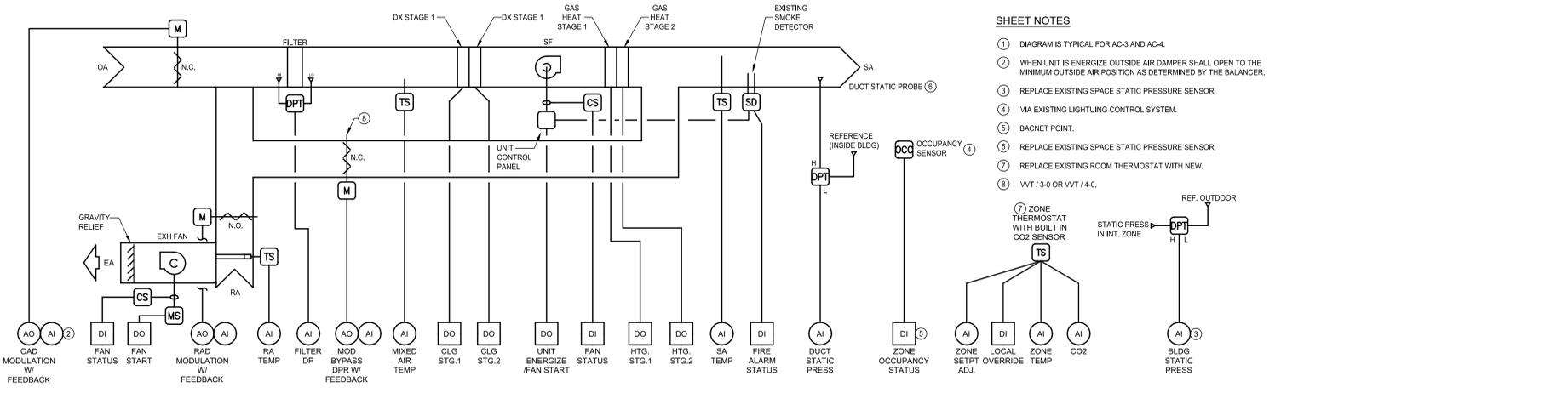
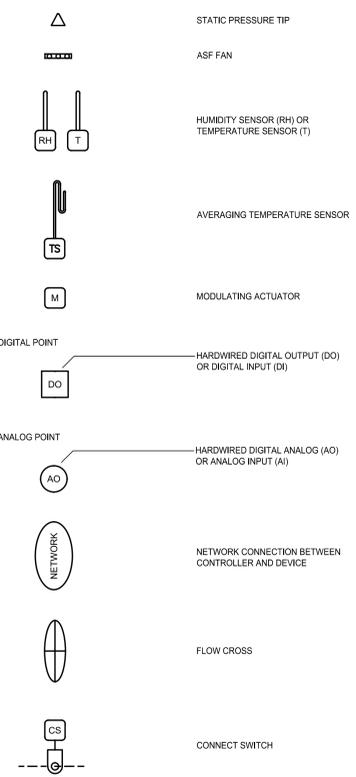
GENERAL



EQUIPMENT



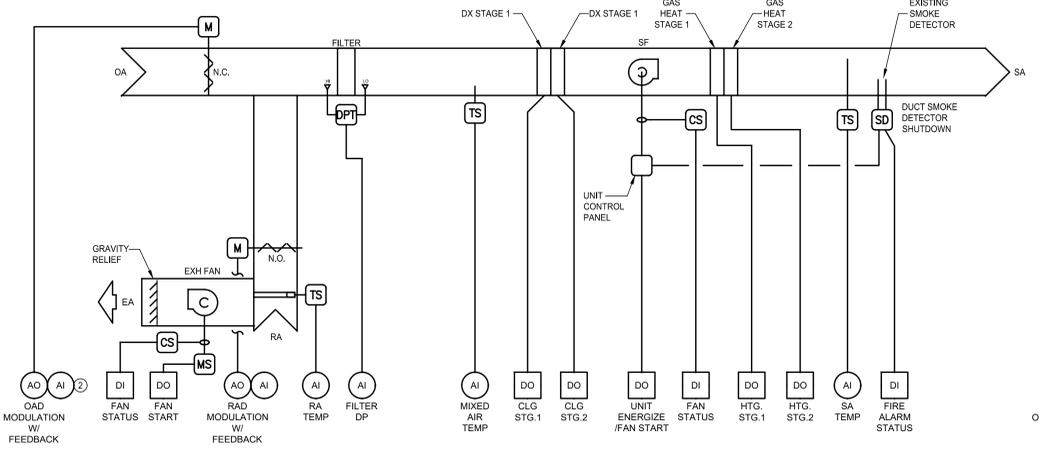
SENSOR



1 PACKAGED GAS / ELECTRIC VVT SYSTEM WITH POWER EXHAUST
SCALE: NONE

SHEET NOTES

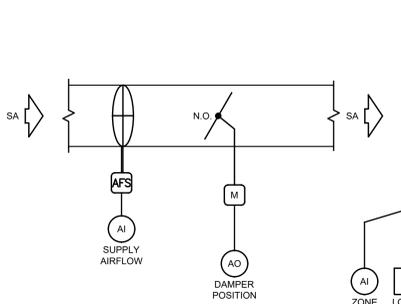
- DIAGRAM IS TYPICAL FOR AC-3 AND AC-4.
- WHEN UNIT IS ENERGIZE OUTSIDE AIR DAMPER SHALL OPEN TO THE MINIMUM OUTSIDE AIR POSITION AS DETERMINED BY THE BALANCER.
- REPLACE EXISTING SPACE STATIC PRESSURE SENSOR.
- VIA EXISTING LIGHTING CONTROL SYSTEM.
- BACNET POINT.
- REPLACE EXISTING SPACE STATIC PRESSURE SENSOR.
- REPLACE EXISTING ROOM THERMOSTAT WITH NEW.
- VVT / 3-0 OR VVT / 4-0.
- ZONE THERMOSTAT WITH BUILT IN CO2 SENSOR



2 PACKAGED GAS / ELECTRIC AC UNIT WITH POWER EXHAUST
SCALE: NONE

SHEET NOTES

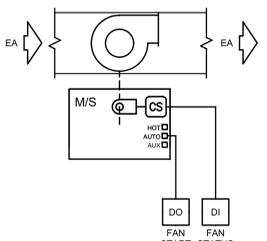
- DIAGRAM IS TYPICAL FOR AC-1, 2, 5, 6, 7, & 8.
- WHEN UNIT IS ENERGIZE OUTSIDE AIR DAMPER SHALL OPEN TO THE MINIMUM OUTSIDE AIR POSITION AS DETERMINED BY THE BALANCER.
- REPLACE EXISTING SPACE STATIC PRESSURE SENSOR.
- VIA EXISTING LIGHTING CONTROL SYSTEM.
- BACNET POINT.
- REPLACE EXISTING ROOM THERMOSTAT WITH NEW.



SHEET NOTES

- DIAGRAM IS TYPICAL FOR VVT / 3-1 TO VVT / 3-7 AND VVT / 4-1 TO VVT / 4-3. BACNET POINTS.
- VIA EXISTING LIGHTING CONTROL SYSTEM.

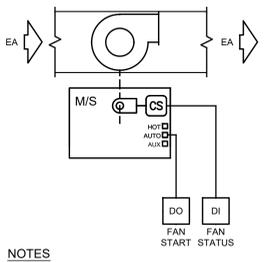
3 VVT ZONE CONTROL DIAGRAM
SCALE: NONE



NOTES

- DIAGRAM IS TYPICAL FOR EF-1, 3, 6, 7 AND 8.
- DIAGRAM IS SIMILAR FOR EF-4 & 5, EXCEPT START/STOP IS VIA LOCAL SWITCH.
- EF-1 IS INTERLOCK WITH AC-1.
- EF-3 IS INTERLOCK WITH AC-3.
- EF-6 IS INTERLOCK WITH AC-6.
- EF-7 IS INTERLOCK WITH AC-7.
- EF-8 IS INTERLOCK WITH AC-8.
- ALL FAN INTERLOCK:
 - WHEN AC UNIT FAIL TO OPERATE, EF SHALL STOP.
 - WHEN EF FAIL TO OPERATE, AC UNIT SHALL CONTINUE TO RUN.

4 EXHAUST FAN CONTROL DIAGRAM
SCALE: NONE



NOTES

- DIAGRAM IS TYPICAL FOR EF-2.

5 EXHAUST FAN WITH THERMOSTAT CONTROL
SCALE: NONE

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NO.	DESCRIPTION	DATE
ADDENDUM 2		03/28/23

APPROVAL STAMPS

PROJECT TITLE:
EARLY LEARNING CENTER (ELC) HVAC CONTROLS CONVERSION

DRAWING TITLE:
CONTROL DIAGRAMS

SCALE: NONE	CCCCD PROJECT NO: C-1224
CAMPUS: CCC	BUILDING:
DRAWN BY/CHECKED BY: RL / SL	SHEET NO: M5.1
DATE: 03/28/2023	GAYNER PROJ. NO. 17029