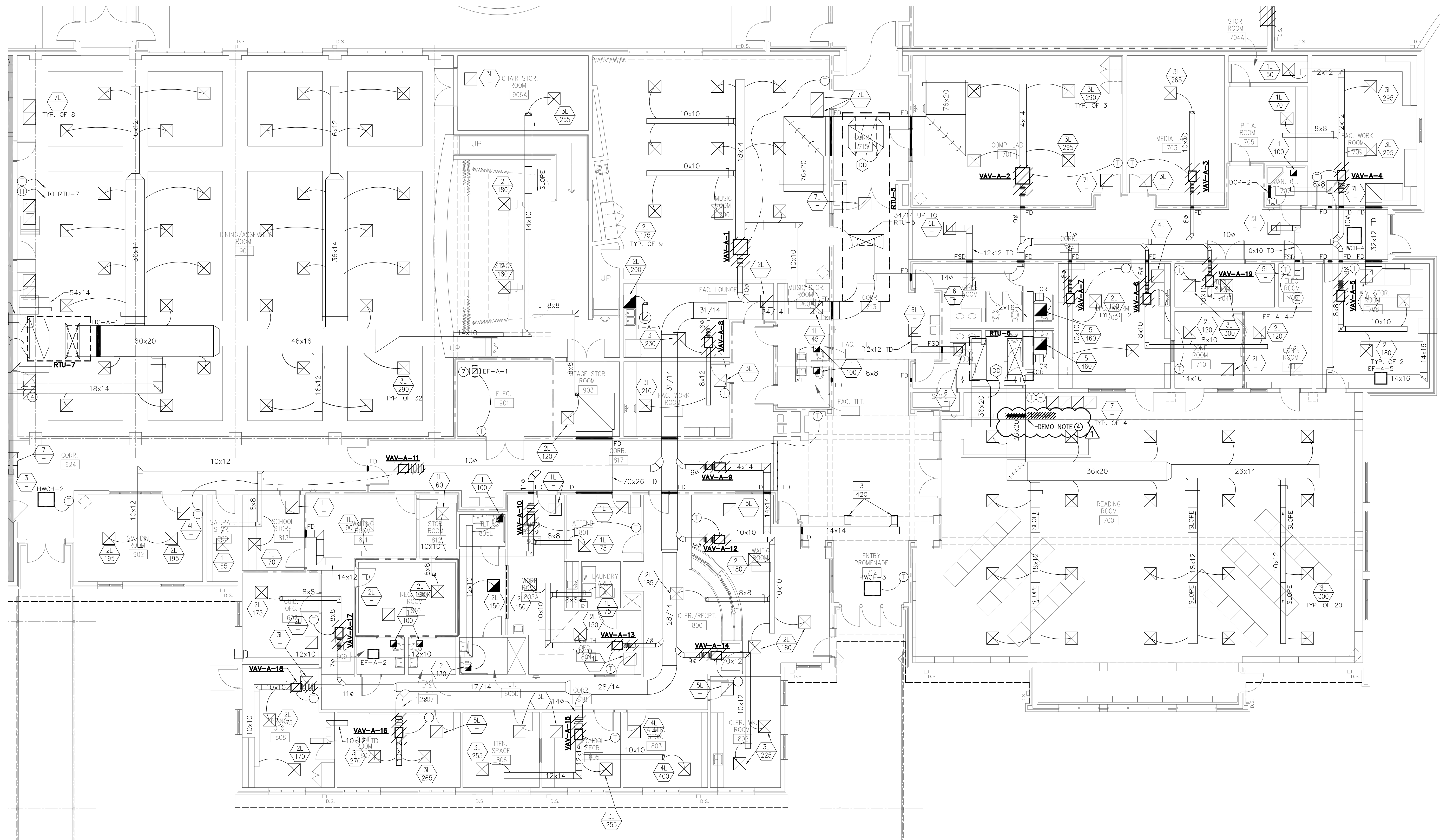


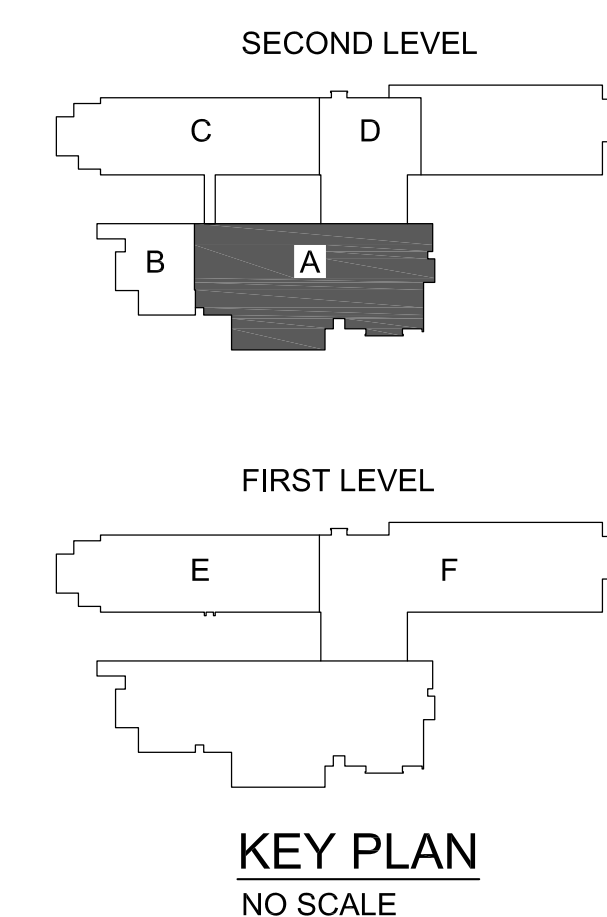
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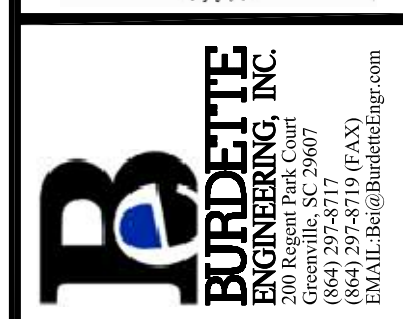
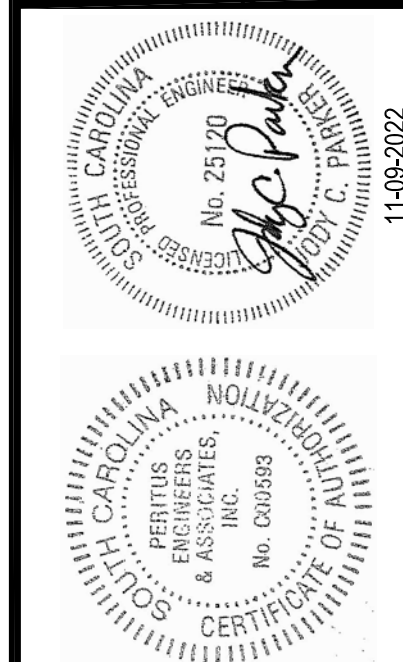
//// DEMO WORK NOTED IN BOLD AND SHOWN HATCHED

Demolition Notes:

1. Remove Existing Variable air volume (VAV) box along with existing heating hot water coil from existing supply duct system. Removal shall include any interconnecting ductwork between VAV box and heating coil, as well as interconnecting supply and return heating hot water piping including existing coil piping packages. Disconnect ZD/TU from existing power source along with existing Direct Digital Controls. Prepare existing ductwork and piping for new Variable Air Volume (VAV) box installation and associated connections. Existing fire dampers, where installed, shall be inspected & tested and shall remain.
2. Remove Existing Variable air volume (VAV) from existing supply duct system. Disconnect VAV box from existing power source along with existing Direct Digital Controls. Prepare existing ductwork for new Variable Air Volume (VAV) box installation.
3. Existing duct sizes, pipe sizes, air distribution symbols and notes are shown for information purposes only and for use with test & balance work.
4. Remove existing duct mounted heating hot water coil, and remove existing hot water supply and piping through the control valve. Cap existing piping at the shut off valves. See new work plan for new duct spool piece.



NO.	DATE	BY	DESCRIPTION
1	11-09-22	JCP	ADDENDUM #1
0	10-11-22	JCP	ISSUE FOR BIDS AND CONSTRUCTION

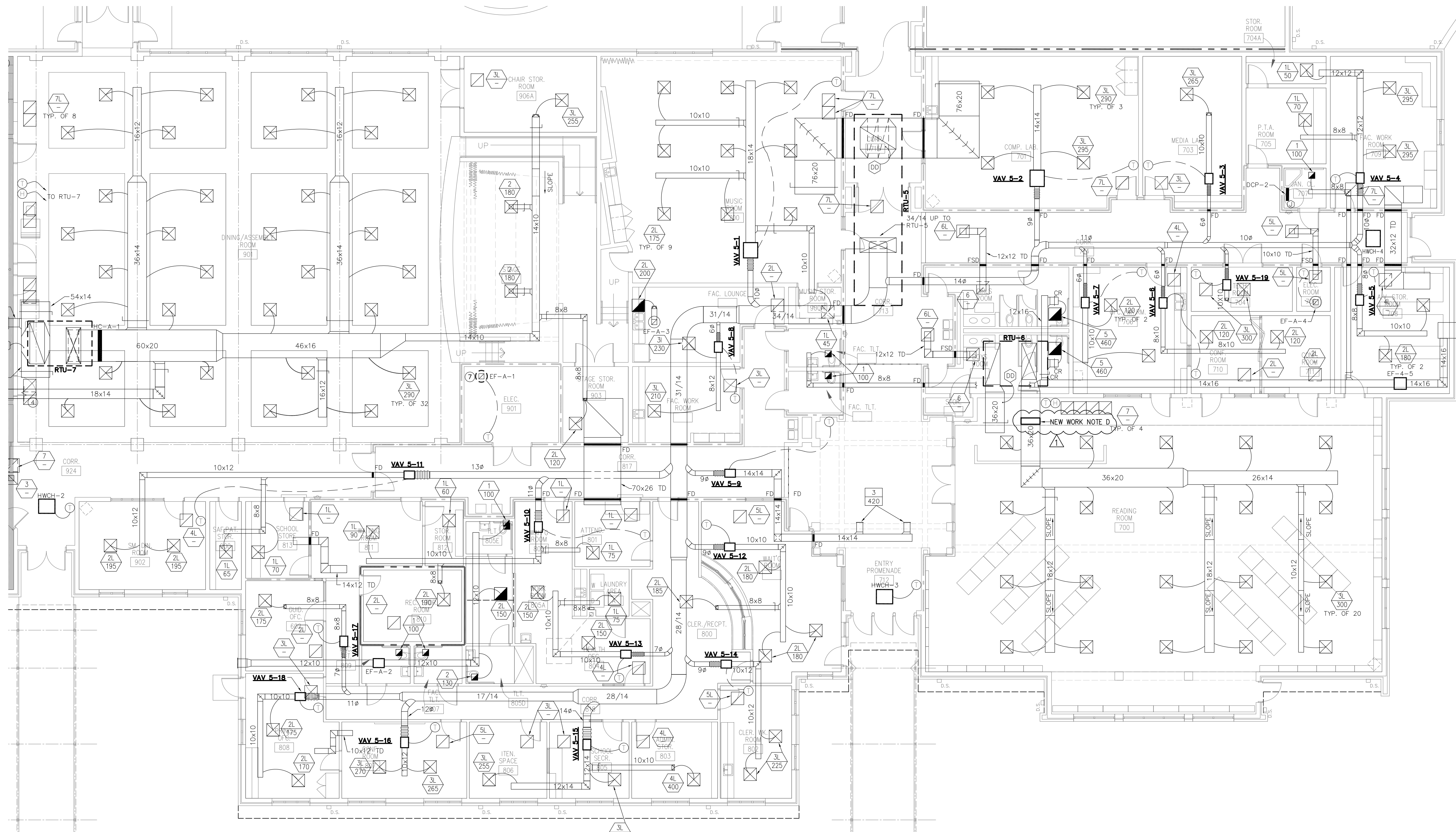


HVAC AND FIRE ALARM SYSTEM REPLACEMENT FOR
LAKE FOREST ELEMENTARY SCHOOL
 GREENVILLE, SOUTH CAROLINA
 ENLARGED SECOND FLOOR HVAC DEMO PLAN - AREA A

DESIGN SEM	DRAWN TCM
CHECKED JCP	
DATE 7-12-2022	
PERITUS JOB NO. 210913	
SHEET	

MD-103

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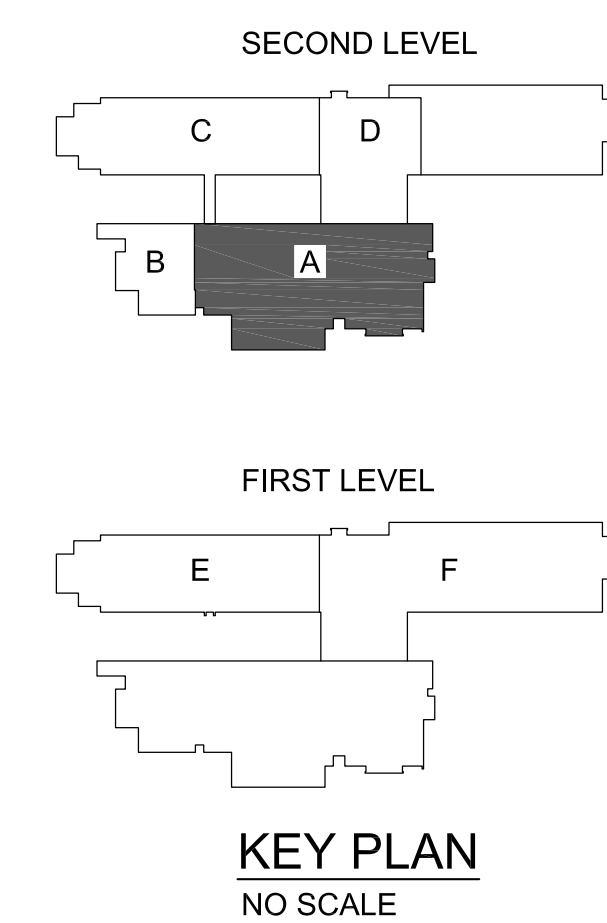
New construction notes:

A. Install new Variable Air Volume (VAV) Box and reconnect to existing supply duct system. Provide duct transitions as required from existing duct sizes to inlet and outlet connection sizes on new VAV Box. Straight length of inlet duct shall be straight up to the connection on the VAV box in accordance with manufacturer's recommendations. New VAV Box shall be located in accessible location no higher than 18" above existing ceiling, and shall be installed with 3 ft. minimum access to control panel. New heating hot water piping to VAV Boxes, that are equipped with heating coils, shall use coil piping packages as scheduled. Install new control end devices to VAV Box digital controls along with new communication wiring. Install new duct mounted bi-polar ionization air purification device in ductwork downstream of new VAV Box. Air device to utilize low voltage control power from VAV Box and shall be installed as part of the control's subcontractor scope of work. New ductwork shall be externally insulated up to and through VAV Box heating coils, where equipped with heating coils, and existing ductwork installation shall be repaired and sealed as required for completed insulated duct system.

B. Existing duct sizes, pipe sizes, air distribution symbols and notes are shown for information purposes only and for use with test & balance work.

C. **ABC-1** Refer to schedule Drawing M-102 for information and locations.

D. Install new spool piece of 36"x20" supply duct and exterior insulation where heating coil was removed.



ALL NEW WORK IN BOLD

ENLARGED SECOND FLOOR HVAC PLAN - AREA D

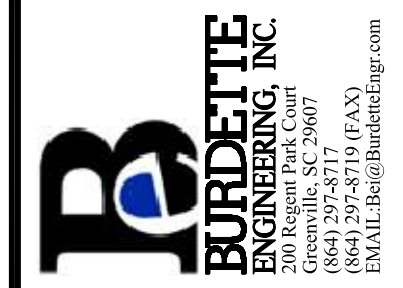
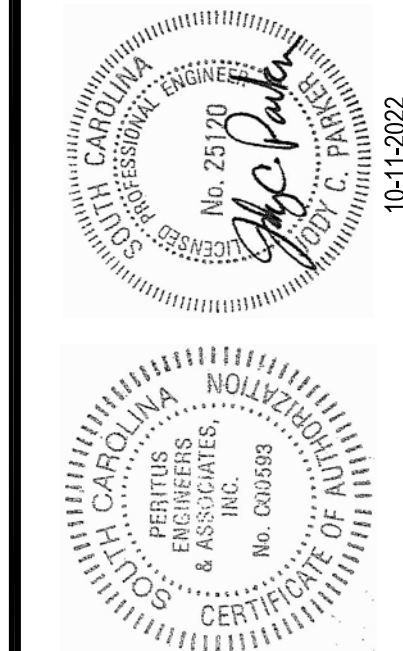
1/8"

HVAC AND FIRE ALARM SYSTEM REPLACEMENT FOR
**LAKE FOREST
 ELEMENTARY SCHOOL**
 GREENVILLE, SOUTH CAROLINA
 ENLARGED SECOND FLOOR HVAC PLAN - AREA A

DESIGN SEM	DRAWN TCM
CHECKED JCP	
DATE 7-12-2022	
PERITUS JOB NO. 210913	
SHEET	

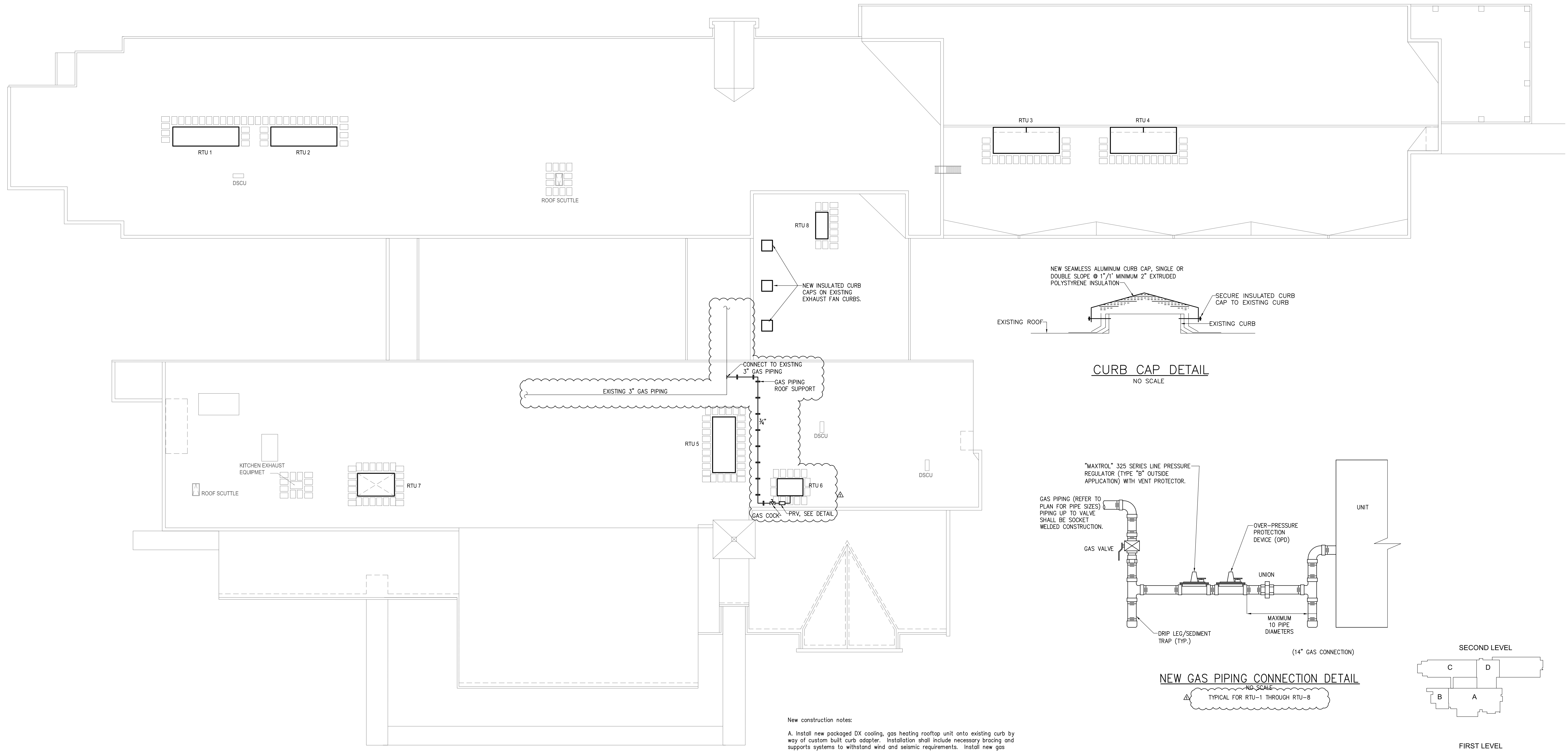
M-103

NO.	DATE	BY	DESCRIPTION
1	11-09-22	JCP	ADDENDUM #1
0	10-11-22	JCP	ISSUE FOR BIDS AND CONSTRUCTION



REVISIONS

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New construction notes:
 A. Install new packaged DX cooling, gas heating rooftop unit onto existing curb by way of custom built curb adapter. Installation shall include necessary bracing and supports systems to withstand wind and seismic requirements. Install new gas piping with new gas pressure regulator and extend and connect to new packaged unit.

ALL NEW WORK IN BOLD
 OVERALL HVAC ROOF PLAN

1/16"

NO.	DATE	BY	DESCRIPTION
1	11-09-22	JCP	ADDENDUM #1
0	10-11-22	JCP	ISSUE FOR BIDS AND CONSTRUCTION



HVAC AND FIRE ALARM SYSTEM REPLACEMENT FOR
LAKE FOREST ELEMENTARY SCHOOL
 GREENVILLE, SOUTH CAROLINA
 OVERALL HVAC ROOF PLAN

DESIGN SEM	TCM
CHECKED JCP	
DATE 7-12-2022	
PERITUS JOB NO. 210913	
SHEET	

M-108

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PACKAGE ROOFTOP DX COOLING/GAS HEAT MULTIPLE ZONE VARIABLE AIR VOLUME A/C UNIT SCHEDULE																										
UNIT No.	NOMINAL TONS	TRANE MODEL No.	C.F.M.		MAX. E.S.P. INCHES SUPPLY	SUPPLY FAN H.P.	EXHAUST FAN CFM	MAX. E.S.P. INCHES RETURN (EXHAUST)	EXHAUST FAN H.P.	VOLTAGE	EER (AHR)	IEER (AHR)	COOLING DATA				ELECTRICAL DATA			HEATING DATA			UNIT WEIGHT (lbs.)	REMARKS		
			TOTAL	O/A									ENT. AIR		LVG. AIR (COL)		M.C.A.	M.O.P.	VOLTAGE	INPUT M.B.H.	OUTPUT M.B.H.	TURNDOWN				
			DB °F	WB °F									DB °F	WB °F	DB °F	WB °F	DB °F	WB °F	DB °F	WB °F						
RTU-1	50	SFHLF504L	14420	6950	2.5	20	12000	1.0	5	460/3/60	11.0	17.3	598.8	80.0	67.0	53.3	53.3	137.0	176	460/3/60	500.0	405.0	2	STAGES	10220	NOTES 1-19
RTU-2	50	SFHLF504L	14995	6950	2.0	20	12000	1.0	5	460/3/60	11.0	17.3	603.4	80.0	67.0	53.8	53.7	137.0	176	460/3/60	500.0	405.0	2	STAGES	10220	NOTES 1-19
RTU-3	25	SFHLF254L	7820	3790	2.0	10	7820	1.0	3	460/3/60	10.7	17.1	307.2	80.0	67.0	53.7	53.7	76.0	99	460/3/60	235.0	190.35	2	STAGES	6962	NOTES 1-19
RTU-4	40	SFHLF404L	9360	5125	2.0	15	9360	1.0	5	460/3/60	10.7	16.3	438.5	80.0	67.0	51.3	51.2	103.0	128	460/3/60	350.0	283.5	2	STAGES	9450	NOTES 1-19
RTU-5	25	SFHLF254L	8470	2080	2.0	10	8470	1.0	3	460/3/60	10.7	17.1	311.5	80.0	67.0	54.7	54.6	76.0	99	460/3/60	235.0	190.35	2	STAGES	6962	NOTES 1-19

- ACCESSORIES
- HI-EFF. THROW AWAY FILTERS, 2" THICK MERV8 WITH 1 EXTRA SET
 - U.L. LISTED
 - LOW-LEAK O.A. DAMPER
 - HIGH EFFICIENCY SUPPLY/EXHAUST FAN MOTORS WITH SHAFT GROUNDING RINGS
 - EXTENDED GREASE LINES
 - HINGED ACCESS DOORS
 - HEAVY GAUGE CURB EXTENSION WITH SPRING VIBRATION ISOLATION RAILS
 - 2" INCH SPRING ISOLATORS UNDER SUPPLY AND EXHAUST FAN/MOTOR ASSEMBLIES, INTERNAL TO UNIT
 - EXTENDED 10 YR. COMPRESSOR WARRANTY AND GAS HEAT EXCHANGER WARRANTY
 - FACTORY INSTALLED AND WIRED VARIABLE FREQUENCY DRIVES ON SUPPLY FAN AND EXHAUST FANS
 - R-410A REFRIGERANT
 - FACTORY VAV SYSTEM CONTROLS INCLUDING SUPPLY AIR TEMPERATURE CONTROL AND SUPPLY DUCT STATIC PRESSURE CONTROL
 - DUCT SMOKE DETECTORS MOUNTED IN SUPPLY & RETURN DUCTS, INTERLOCK WITH RTU'S FOR IMMEDIATE SHUTDOWN UPON ACTIVATION BY MECHANICAL
 - DISCONNECTS BY ELECTRICAL CONTRACTOR
 - LOUVERED CONDENSER COIL GUARDS FOR HAIL PROTECTION
 - DOUBLE WALL CASING CONSTRUCTION WITH INTERIOR SOLID SHEET METAL SURFACE
 - STAINLESS STEEL DRAIN PAN
 - 100% MODULATING OUTSIDE AIR ECONOMIZER OPERATION WITH REFERENCE FROM GLOBAL OUTSIDE AIR TEMPERATURE/HUMIDITY
 - INTEGRAL BUILDING PRESSURE CONTROLS AND MODULATING EXHAUST FAN OPERATION

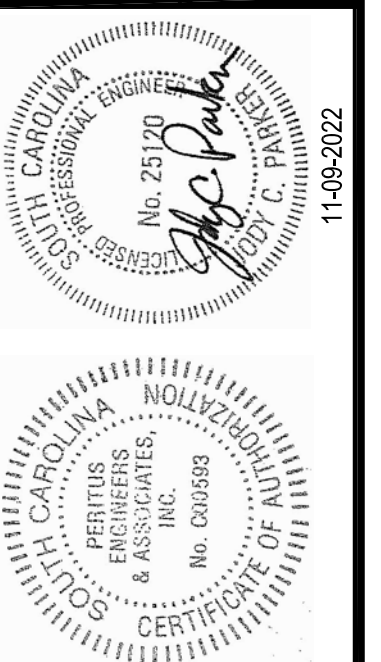
PACKAGE A/C UNIT WITH NATURAL GAS HEAT (HOT GAS RE-HEAT) SCHEDULE																							
UNIT No.	NOMINAL TONAGE	TRANE MODEL No.	C.F.M.		MAX. E.S.P. INCHES	FAN H.P.	COOLING DATA				HOT GAS REHEAT DATA				NATURAL GAS HEAT		ELECTRICAL			UNIT WEIGHT (lbs.)	REMARKS		
			TOTAL	O/A			ENT. AIR		LVG. AIR		REHEAT		INPUT MBH	OUTPUT MBH	VOLTAGE	MCA (AMPS)	MOP (AMPS)						
			DB °F	WB °F			EER A.R.I.	IEER A.R.I.	DB °F	WB °F	DB °F	DP °F	DB °F	WB °F	DB °F	WB °F							
RTU-6	12.5	YSJ150A4	4570	375	2.2	4.7	152.39	80.0	67.0	10.8	14.0	56.9	56.1	73.0	51.6	89.37	150.0	121.5	460/3/60	36.0	50	2123	NOTES 1-17
RTU-7	30	YCD360C4	11215	2890	2.0	15	353.56	77.4	66.5	10.6	14.4	56.0	55.9	70.0	52.2	182.6	600.0	486.0	460/3/60	89.8	110	5400	NOTES 1, 2, 4-18
RTU-8	10	YSJ120A4	4000	800	1.2	3.1	124.4	80.0	67.0	11.0	14.6	57.8	56.9	79.6	57.2	92.8	150.0	121.5	460/3/60	32.0	40	1828	NOTES 1-17

- NOTE:
- GAS HEAT STAGED.
 - LOW LEAK ECONOMIZER, COMPARATIVE ENTHALPHY WITH BAROMETRIC RELIEF.
 - CUSTOM BUILT FULLY WELDED CONSTRUCTION ADAPTER CURB.
 - HINGED PANELS, 2" PLEATED FILTERS, MERV 8.
 - STANDARD CONDENSER COIL WITH HAIL GUARD.
 - DISCONNECTS BY ELECTRICAL.
 - POWERED CONVENIENCE OUTLET.
 - TRANE COMMUNICATIONS INTERFACE.
 - DEHUMIDIFICATION HOT GAS REHEAT.
 - CLOGGED FILTER, FAN FAILURE SWITCH AND CONDENSATE OVERFLOW.
 - STAINLESS STEEL DRAIN PAN.
 - ROOM SENSOR WITH OVERRIDE BUTTONS (FLD).
 - HUMIDITY WALL MOUNTED SENSOR (FLD).
 - POWER EXHAUST (FLD).
 - 5 YEAR PARTS, LABOR AND REFRIGERANT WARRANTY.
 - STAINLESS STEEL GAS HEAT EXCHANGER.
 - EXTENDED 10 YEAR COMPRESSOR AND GAS HEAT EXCHANGER WARRANTY.
 - HEAVY GAUGE CURB EXTENSION WITH SPRING ISOLATION RAILS.

AIR PURIFICATION SYSTEM SCHEDULE (INSTALLED BY CONTROLS) SUB-CONTRACTOR								
TAG	PHENOMINAL AIR MODEL	SERVICE	NOMINAL COOLING (TONS)	DESIGN S.A. (CFM)	INPUT VOLTAGE	POWER CONSUMPTION	QTY.	MOUNTING LOCATION
AP-1	R-SERIES	VAV BOX OUTLET	----	----	24V	12 VA		SUPPLY DUCT DOWNSTREAM OF VAV
FC-1	C-SERIES	RTU-6	12.5	4570	24V	12 VA	1	FAN INLET
FC-5	C-SERIES	RTU-7	30	11215	24V	12 VA	1	FAN INLET
FC-9	C-SERIES	RTU-8	10	4000	24V	12 VA	1	FAN INLET

- NOTES:
- AIR PURIFICATION DEVICE SHALL BE PROVIDED, INSTALLED AND WIRED BY BAS SUB-CONTRACTOR.
 - NEEDLE POINT IONIZATION GENERATOR.

ADDENDUM #	ISSUE FOR BIDS AND CONSTRUCTION	DESCRIPTION
JCP	11-09-22	
JCP	10-11-22	
BY	DATE	NO.



HVAC AND FIRE ALARM SYSTEM REPLACEMENT FOR
LAKE FOREST ELEMENTARY SCHOOL
 GREENVILLE, SOUTH CAROLINA

HVAC SCHEDULES

DESIGN SEM	TCM
CHECKED JCP	
DATE	7-12-2022
PERITUS JOB NO.	210913
SHEET	

M-109