



ADDENDUM No. 1
Request for Competitive Sealed Proposals (CSP)
20CSP040 Upgrades at Travis Heights Elementary School

December 5, 2019

Received by bidder:

Date: _____

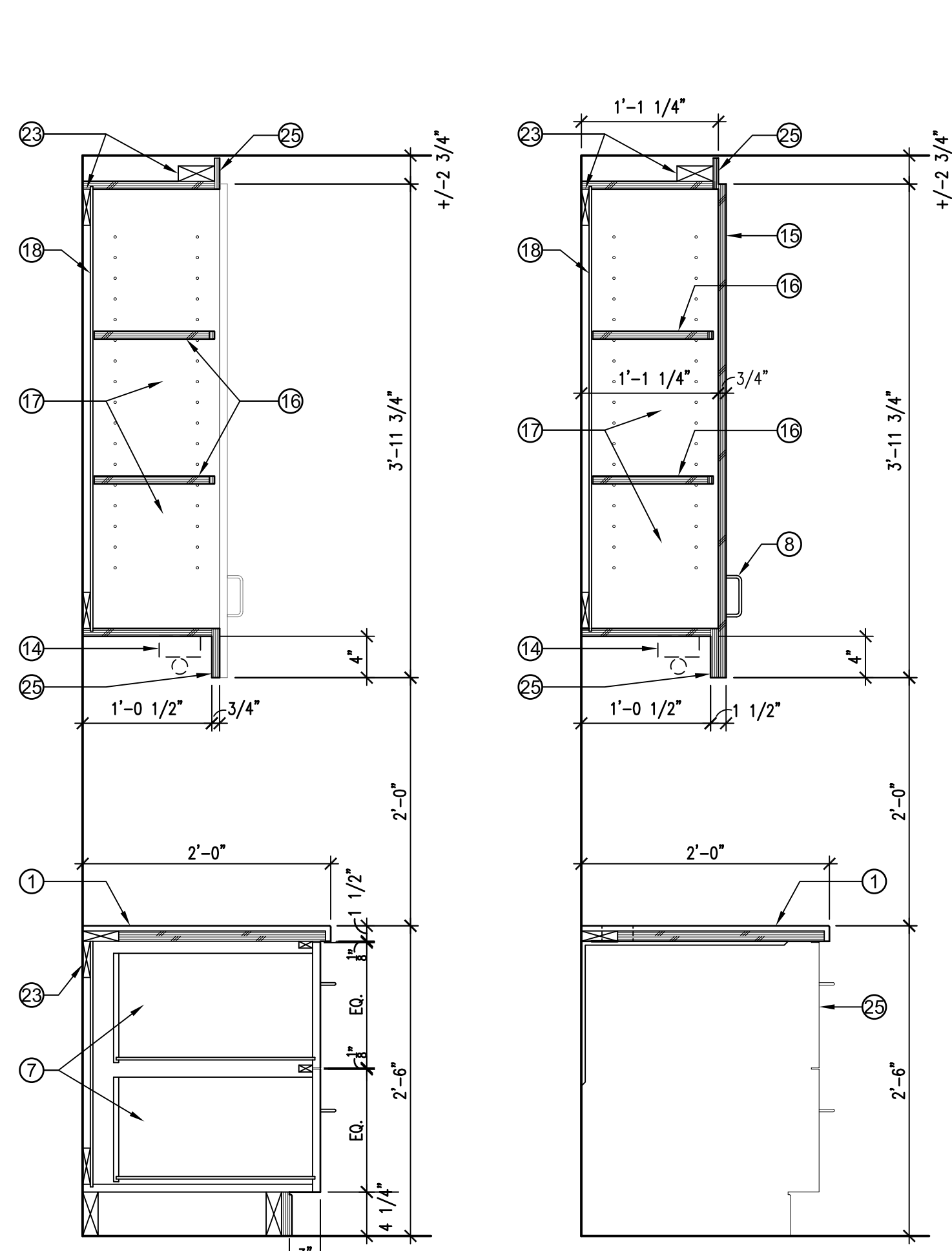
Name: _____

Signature: _____

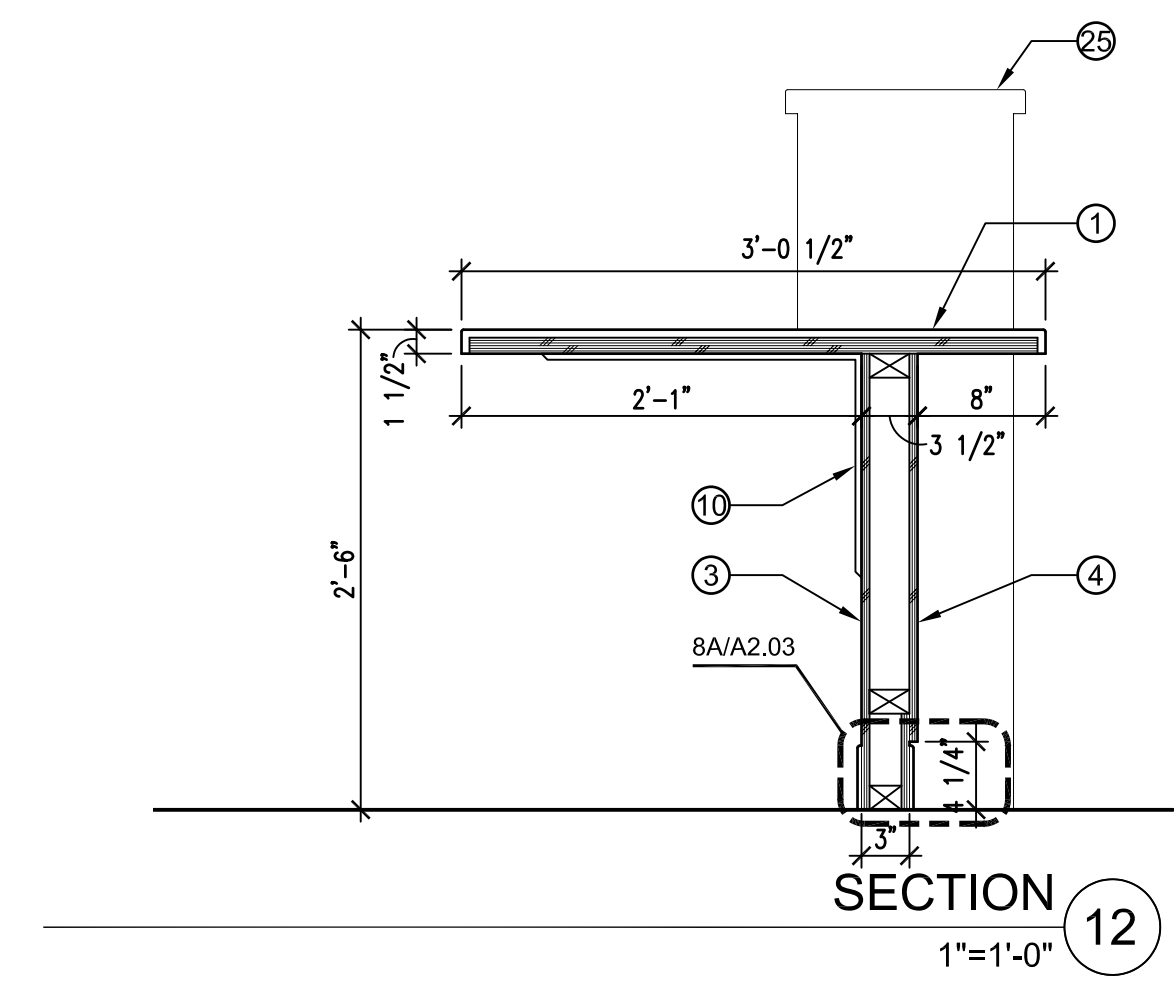
Item 1: Updates to Specs and Drawings

Specs and drawings have been updated and are available at [Miller IDS](#) under 20CSP040.

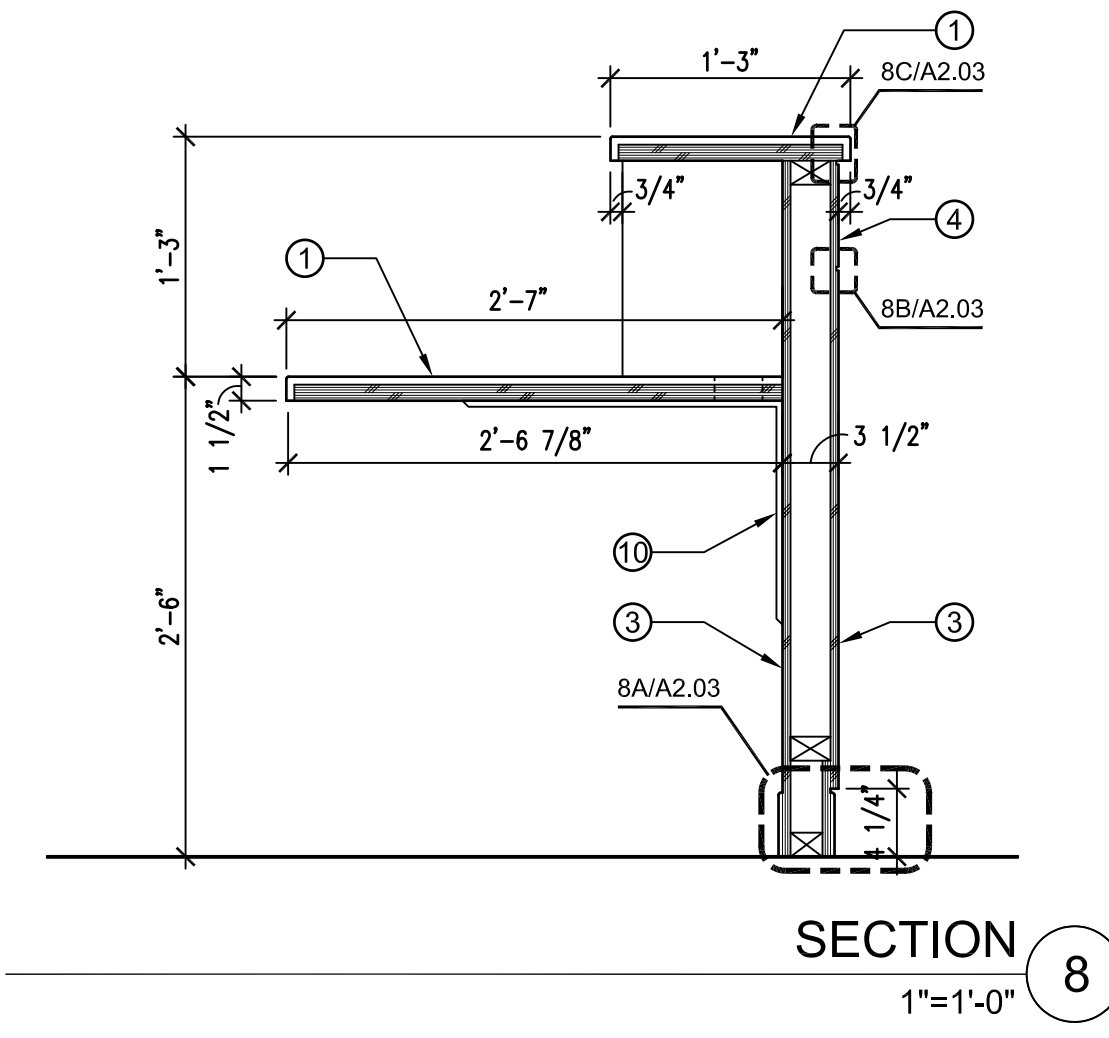
Included in this addendum is the addition of Sheet A2.03 which includes Plans, Elevations and Details for a new Reception Desk in the Admin. office.



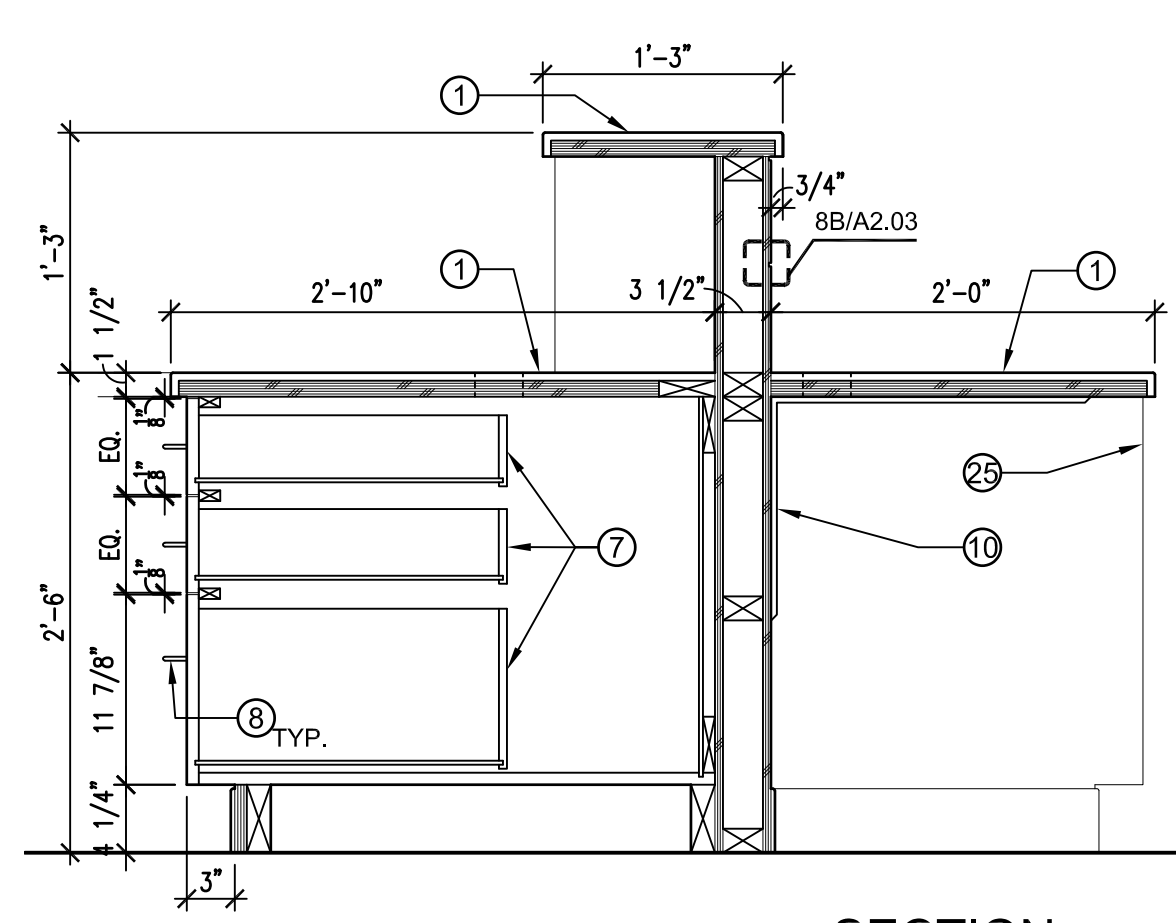
SECTION 15B 1"=1'-0" SECTION 15A 1"=1'-0"



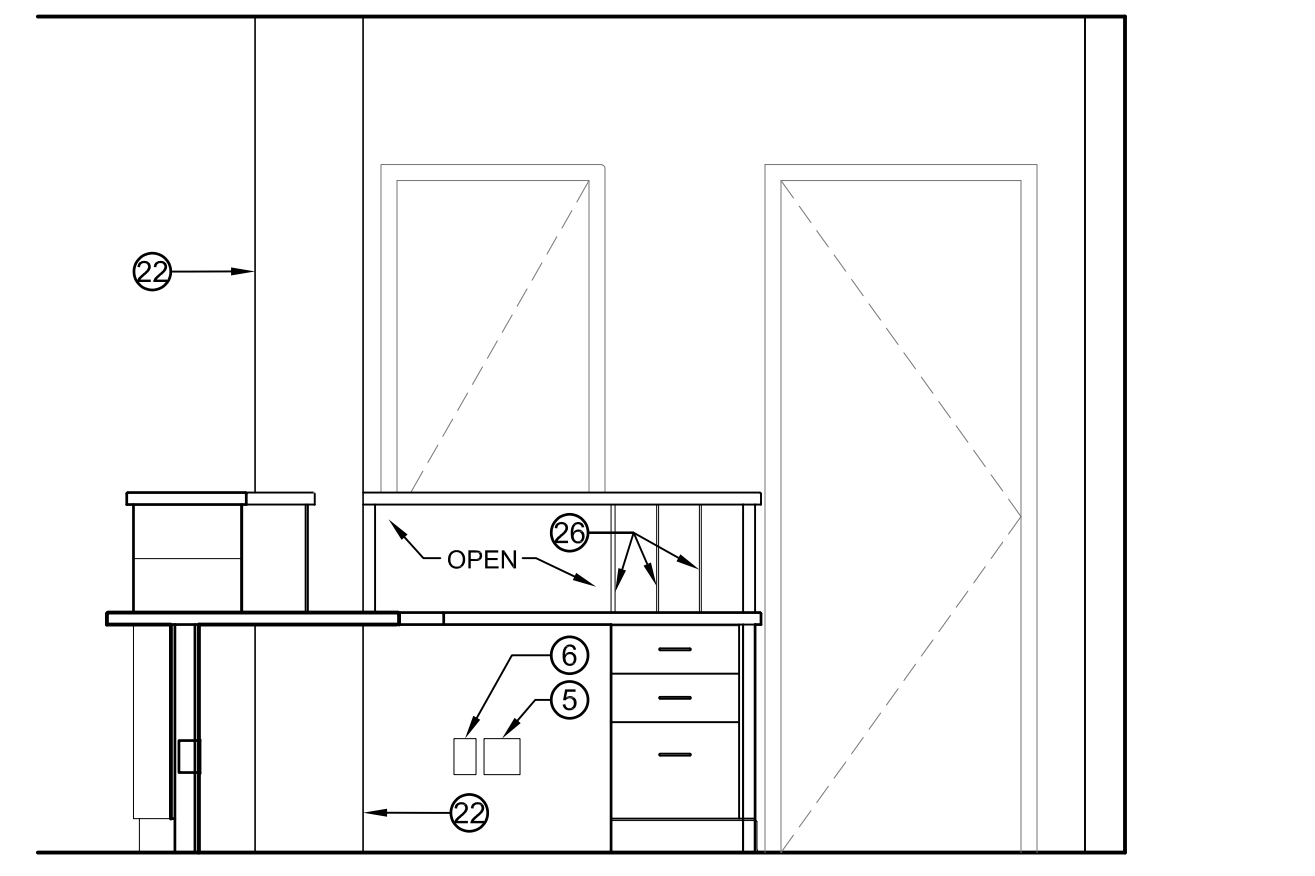
SECTION 12 1"=1'-0"



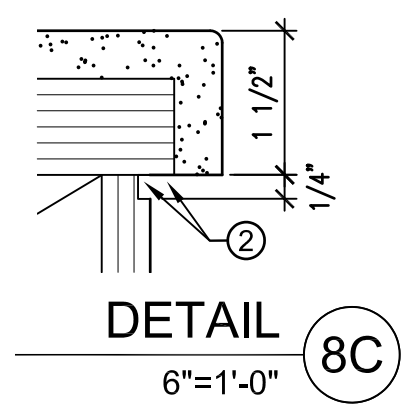
SECTION 8 1"=1'-0"



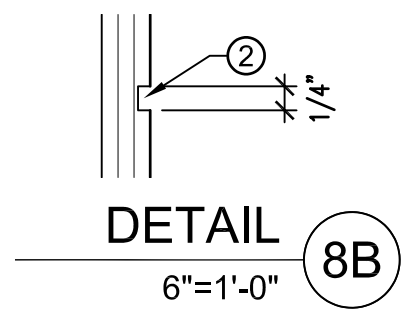
SECTION 11 1"=1'-0"



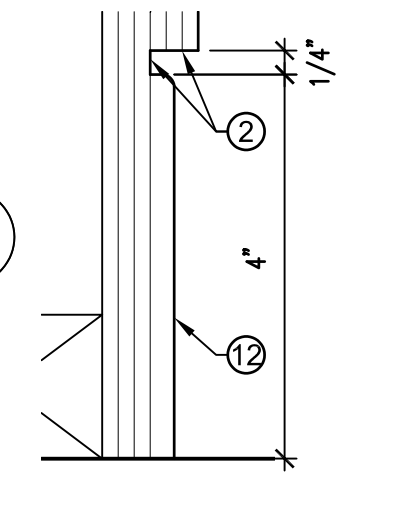
SECTION THRU ADMIN. DESK 7 1/2" = 1'-0"



DETAIL 8C 6"=1'-0"



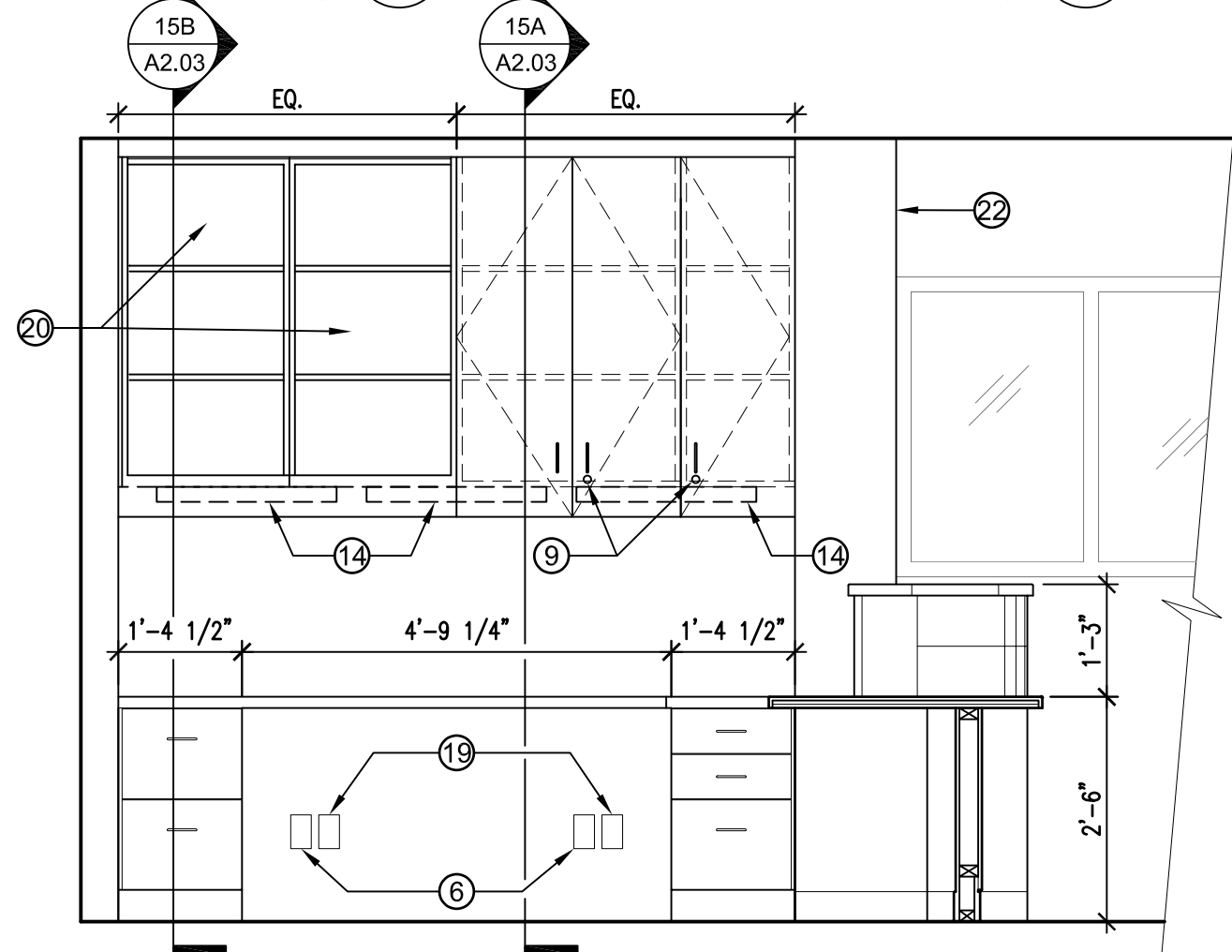
DETAIL 8B 6"=1'-0"



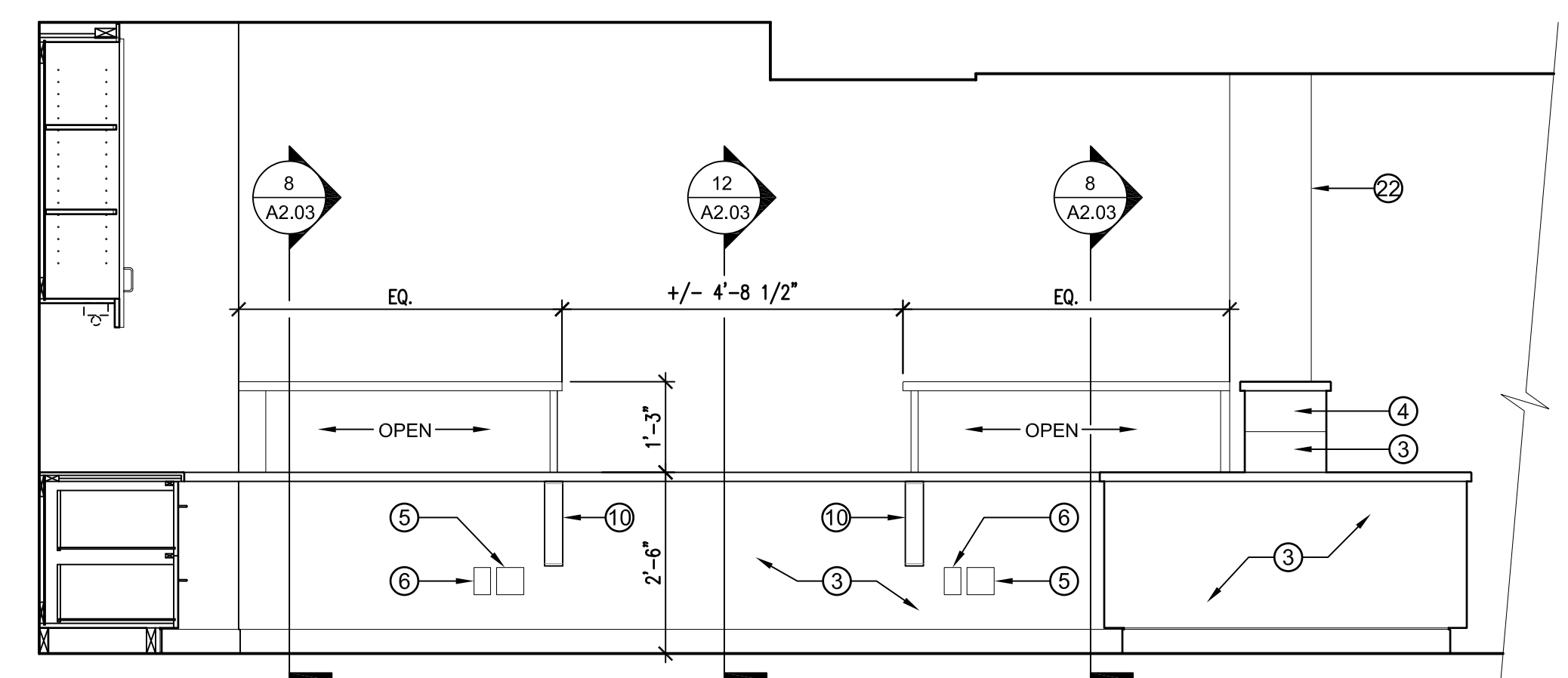
DETAIL 8A 6"=1'-0"

- KEY NOTES**
- 1-1/2" THICK SOLID SURFACE COUNTERTOP WITH 1/8" RADIUS CORNERS ON PLYWOOD BACKING. COLOR TO BE SELECTED BY ARCHITECT.
 - 1/4" REVEAL - PAINT ALL EDGES BLACK.
 - P-LAM (PL-1) COLOR TO BE SELECTED BY ARCHITECT.
 - P-LAM (PL-2) COLOR TO BE SELECTED BY ARCHITECT.
 - QUADPLEX OUTLET.
 - VOICE / DATA OUTLET.
 - P-LAM CLAD DRAWERS WITH FULL EXTENSION DRAWER GUIDES. LINE INTERIOR FACES WITH MELAMINE. COLOR TO BE SELECTED BY ARCHITECT.
 - CABINET WIRE PULL.
 - CABINET LOCK.
 - METAL COUNTERTOP SUPPORT - PROVIDE BLOCKING AS NEEDED.
 - TOE KICK.
 - 4" STRAIGHT RUBBER BASE. COLOR TO BE SELECTED BY ARCHITECT.
 - 3" GROMMET (ON LOWER COUNTERTOP ONLY).
 - UNDER CABINET MOUNTED LED FIXTURE.
 - P-LAM CLAD CABINET DOOR. COLOR TO BE SELECTED BY ARCHITECT.
 - P-LAM CLAD ADJUSTABLE SHELVES WITH HARDWOOD EDGE. COLOR TO BE SELECTED BY ARCHITECT.
 - 3/4" PLYWOOD SIDES, CLAD IN P-LAM WITH HOLES FOR ADJUSTABLE SHELF SUPPORTS. LAMINATE TO BE SELECTED BY ARCHITECT.
 - 1/4" P-LAM CLAD PLYWOOD BACK. COLOR TO BE SELECTED BY ARCHITECT.
 - DUPLEX OUTLET.
 - P-LAM CLAD OPEN ADJUSTABLE SHELVES. COLOR TO BE SELECTED BY ARCHITECT.
 - EDGE OF EXISTING WALL.
 - EXISTING COLUMN.
 - BLOCKING AS REQUIRED.
 - P-LAM CLAD VALANCE.
 - PROFILE OF MILLWORK BEYOND.
 - 1/4" MELAMINE CLAD DIVIDERS. COLOR TO BE SELECTED BY ARCHITECT.

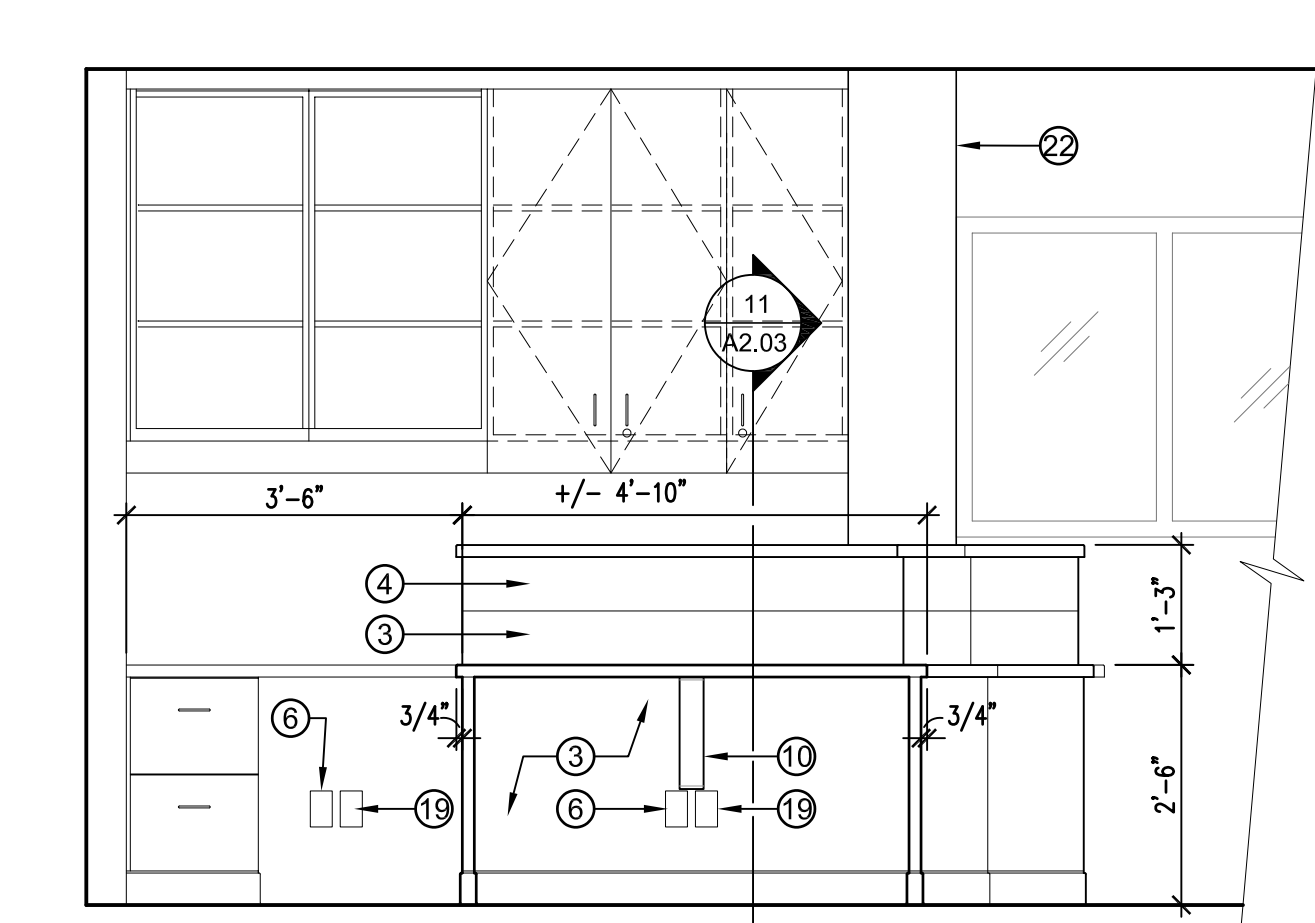
- GENERAL NOTES**
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS. REPORT ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS BEFORE COMMENCING WORK. DO NOT SCALE DRAWINGS.
 - SHOP DRAWINGS TO BE SUBMITTED FOR ACCEPTANCE BY THE ARCHITECT BEFORE BEGINNING FABRICATION.
 - CONSTRUCTION STAGING AREA TO BE IDENTIFIED AT CONSTRUCTION KICK-OFF MEETING.
 - PROTECT ALL SURFACES ADJACENT TO CONSTRUCTION AREA. ANY DAMAGE TO EXISTING TO REMAIN FINISHES / SURFACES SHALL BE REPAIRED TO "LIKE EXISTING" CONDITION.



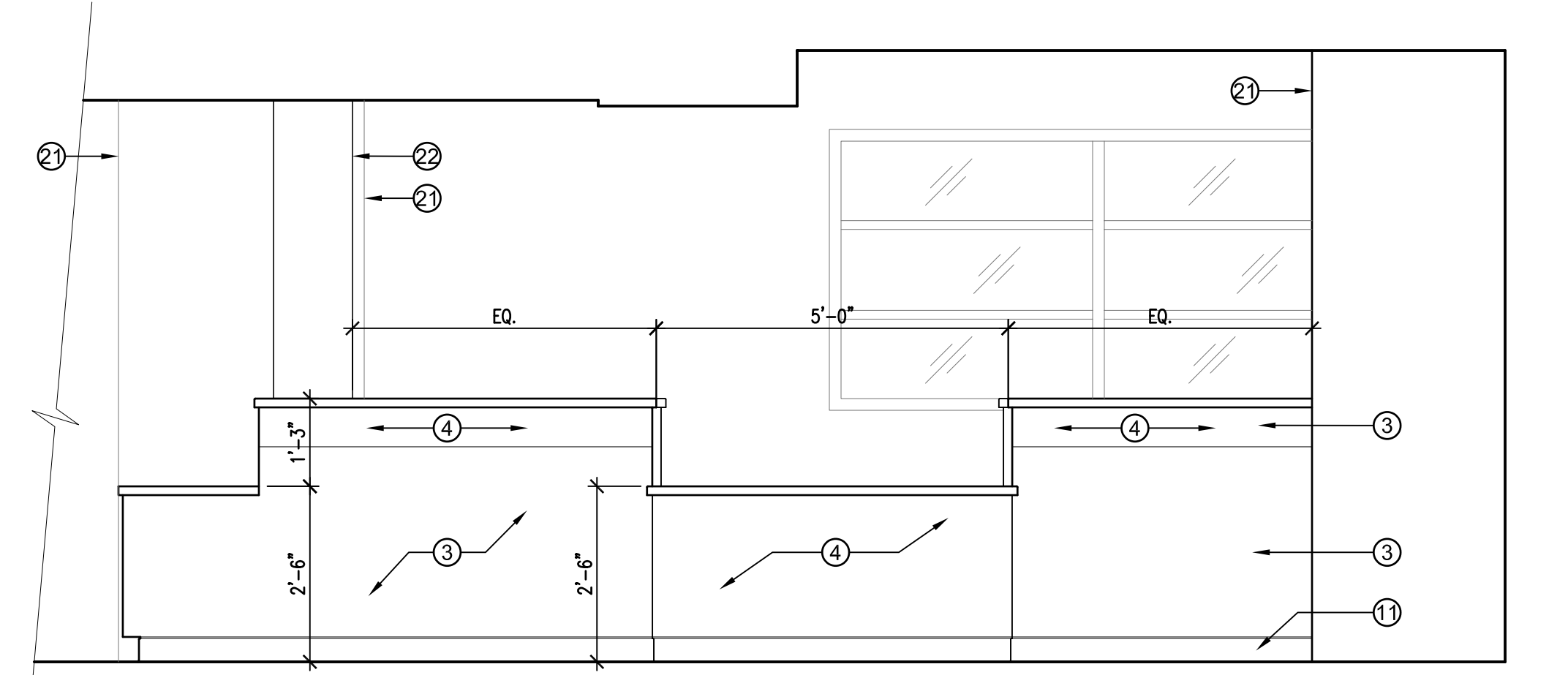
SECTION THRU ADMIN. DESK 14 1/2" = 1'-0"



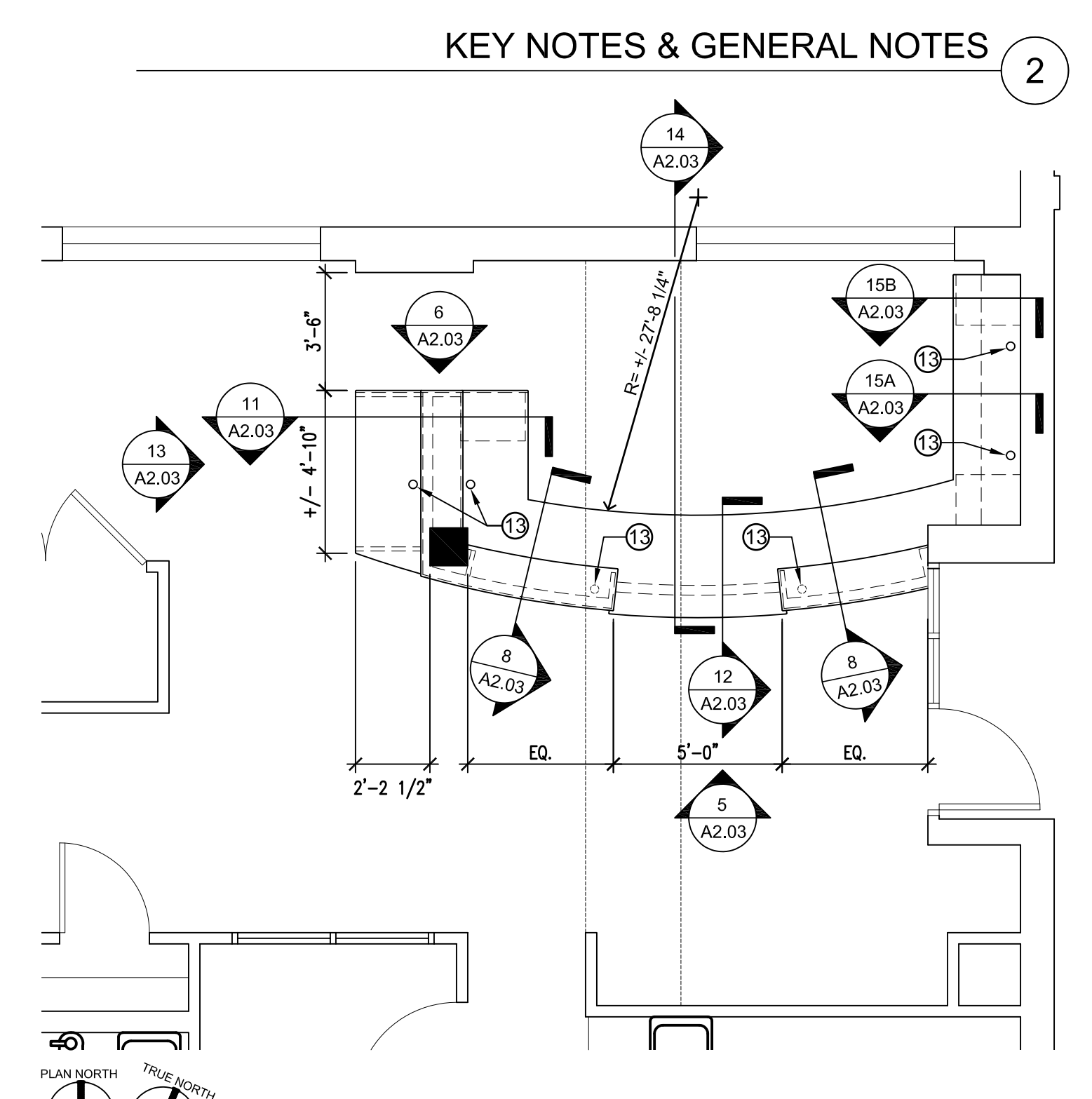
ELEVATION AT BACK OF ADMIN. DESK 6 1/2" = 1'-0"



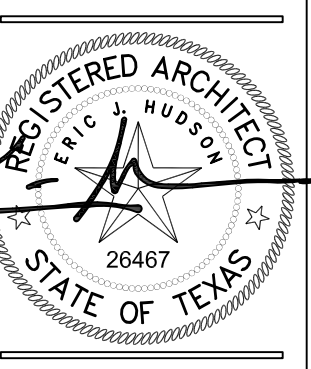
ELEVATION AT SIDE OF ADMIN. DESK 13 1/2" = 1'-0"



ELEVATION AT FRONT OF ADMIN. DESK 5 1/2" = 1'-0"



ADMIN. DESK PLAN 1 1/4" = 1'-0"



METHOD ARCHITECTURE, PLLC
1907 N. LAMAR BLVD., STE. 260
AUSTIN, TEXAS 78705
PHOTOGRAPH BY JEFFREY W. HARRIS
PROFESSIONAL PHOTOGRAPHER, LLC

SHEET:
ADMIN DESK & DETAILS

REVISIONS:
1 ADDENDUM 1

TL: EH / DE: AS

DATE: 12-06-19

PROJECT:
MA1013

SHEET:
A2.03

Addendum

DATE

12/05/2019

ADDENDUM NO.

1

PROJECT

195012 | Travis Heights Elementary

The work described herein shall be added to the scope of work defined by the contract documents or it shall modify the scope of work defined by the contract documents as described. This work shall become a part of the contract documents by addendum.

SPECIFICATIONS

Item 01 **Specification Section 23 74 33 – 100% Outside Air Rooftop Unit With Gas heat**

- A. Specification has been added, with approved manufacturers.

DRAWINGS

Item 02 **Sheet M4.01 – MECHANICAL SCHEDULES**

- A. Existing Make Up Air unit schedule has been removed.

Item 03 **Sheet E2.02 – FIRST FLOOR ELECTRICAL PLAN**

- A. Power and data added to admin office desk.
- B. Remove existing stage lighting dimmer, replace with new panel, conventional incandescent dimmer, as indicate on plan

Item 04 **Sheet E5.01 – ELECTRICAL SCHEDULES**

- A. Add panel G1

END OF ADDENDUM

SECTION 23 74 33 - 100% OUTSIDE AIR ROOFTOP UNIT WITH GAS HEAT

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish and install one piece air-to-air electric cooling, natural gas heating unit. The unit shall have a single point electrical power service connection. The unit shall be suitable to be mounted on a roof curb on the roof. The unit shall include an outdoor air louver with a bird screen and a manual damper. The cooling and heating performance shall be as per drawings. The unit shall be a complete assembly and factory tested complete with refrigerant charge (refrigerant oil) and ready to operate. The unit shall have a down discharge supply duct arrangement as per drawings. All electrical components shall have UL or ETL listing. All wiring shall be in full compliance with the latest National Electrical Code. The unit shall be rated and tested in accordance with all applicable ARI, and UL or ETL standards. The units shall be designed to conform to the latest ANSI/ASHRAE requirements. All insulations and adhesive shall meet all requirements of latest NFPA 91A for flame spread and smoke generation.
- B. Units shall be manufactured for 100 percent outside air conditions and shall be factory warranted for 100 percent outside air application.

1.2 OPERATIONS PERSONNEL TRAINING

- A. Provide a training session for the owner's operations personnel. Training session shall be performed by a qualified person who is knowledgeable in the subject system/equipment. Submit a training agenda two (2) weeks prior to the proposed training session for review and approval. Training session shall include at the minimum:
 - 1. Purpose of equipment.
 - 2. Principle of how the equipment works.
 - 3. Important parts and assemblies.
 - 4. How the equipment achieves its purpose and necessary operating conditions.
 - 5. Most likely failure modes, causes and corrections.
 - 6. On site demonstration.

PART 2 - PRODUCTS

2.1 SUMMARY

- A. The contractor shall furnish and install Self Contained units as shown and scheduled in the plans.
- B. Approved manufacturers:
 - 1. Aeon
 - 2. Trane
 - 3. Valent

2.2 UNIT CABINET

- A. Unit casing shall be a minimum 18 gauge galvanized steel sheets and factory primed.
- B. All casing walls, roofs and floors shall be of formed construction, with at least two breaks at each joint. Joints shall be secured by sheet metal screws or pop rivets. Wall and floor joints shall be broken in and roof joints broken out for rigidity. All joints shall be caulked with a water-resistant sealant.
- C. Units shall be provided with access doors to the following components:
 - 1. Fans and Motors
 - 2. Filters
 - 3. Cooling Coil
 - 4. Compressors and Controls
- D. Access Doors shall be large enough for easy access. They shall be hinged type, fully lined, with piano hinges and pins, and Ventlock 310 Handles, operable from both sides.
- E. Casings shall be supported on formed galvanized steel structural members designed and welded for low deflections. Integral lifting lugs shall be provided for hoisting.

2.3 INSULATION

- A. All units shall be internally insulated with 1" thick 1-1/2 lb./cu. ft. density, neoprene coated fiberglass thermal insulation. The insulation shall be secured to metal panels with a fire-retardant adhesive and welded steel pins at 16" on center. All longitudinal insulation joints and butt ends shall be covered by a sheet metal break to prevent erosion of exposed edges. Drain pans and all floor areas shall be insulated on the underside.

2.4 DRAIN PAN

- A. The evaporator drain pans shall be an integral part of the floor paneling, a minimum of 2" deep, with welded corners and coated with an asphaltic water-proofing compound. The drain pans shall extend a minimum of 6" downstream of coil face and be provided with a 1" M.P.T. drain connection.

2.5 ROOF CURB

- A. Provide full perimeter, insulated type roof mounting curb of heavy gauge sheet metal, minimum of 12 inches high, and complete with wood nailer, neoprene sealing strip, and fully welded "Z" bar with 1" upturn on inner perimeter, to provide a complete seal against the elements. Roof curb shall be coordinated with roof slope and unit supported on a horizontal level plane.

2.6 EVAPORATOR FAN

- A. The evaporator fan shall be centrifugal type rated in accordance with AMCA Standard Test Code, bulletin 210. The fan and fan assembly shall be dynamically balanced during factory test run. Fan shaft shall be selected for stable operation at least 20% below the first critical RPM. Fan shaft shall be provided with a rust inhibiting coating.
- B. The ratio of blast area to nominal outlet area for forward curved fans shall be 60% or

greater.

- C. Motor, fan bearings and drive assembly shall be located inside the fan plenum to minimize bearing wear and to allow for internal vibration isolation of the fan-motor assembly, where required. Motor mounting shall be adjustable to allow for variations in belt tension.
- D. Fan-motor assembly shall be provided with vibration isolators. Isolators shall be bolted to structural steel member welded to unit floor, which is welded to the structural frame of the unit. Fan shall incorporate vertical spring type isolators with leveling 1" deflection designed to waffled pads with minimum 1" deflection designed to achieve high isolation efficiency. Fans shall be attached to the discharge panel by a heavy glass fabric, neoprene impregnated, with a double locking fabric to metal connection.
- E. Provide extended grease lines terminating outside the serviceable side of the unit.
- F. Fan motors shall be open drip proof type of standard manufacturer and designed for a 1.15 service factor. Furnish motors with grease lubricated ball bearings with alternate fittings.
- G. Mount the fan drive motor on an adjustable base and arrange for positive and easy adjustment of drive alignment and belt tension.
- H. Provide fan motor that will not overload when scheduled fan rpm is increased 10 percent. Submit a fan curve for each scheduled unit showing operating points at scheduled conditions and at scheduled rpm increased 10 percent.

2.7 COILS

- A. The evaporator coils shall be constructed of copper tube, aluminum fin, copper headers. Fins constructed of aluminum or copper shall be rippled for maximum heat transfer and shall be mechanically bonded to the tubes by mechanical expansion of the tubes. The coils shall have a galvanized steel casing. All coils shall be factory tested with air at 300 psig pressure.
- B. Refrigerant Superfin evaporator type coils shall be equipped with distributors connected to the coil by copper tubes. Where a hot gas bypass is required, the inlet shall be at the refrigerant distributor. Solenoid valves, expansion valves, and related accessories shall be furnished, installed and factory tested.
- C. Refrigerant coils with multiple compressors shall be alternate tubecuted in order to distribute the cooling effect over the entire coil face at reduced load conditions. Provision for use of thermal expansion valves.
- D. Condenser coil guards shall be provided.

2.8 GAS FIRED FURNACE

- A. Units shall have an indirect natural gas fired heating section that is AGA or C.G.A. and ETL or UL approved.

- B. Heat exchanger shall be a primary drum and multi-tube secondary assembly constructed of titanium stainless steel with multi-plane metal turbulators be of a floating stress relieved design. Heat exchanger shall be provided with condensate drain connection. Clam shell heat exchanger shall not be acceptable.
- C. The burner assembly shall be a blow through positive pressure type with an intermittent pilot ignition system to provide a high seasonal efficiency. A flame surveillance shall be with a solid state programmed flame relay complete flame rod. The burner and gas train shall be in a cabinet enclosure. Insulation in the burner section shall be a heat reflective galvanized steel liner.
- D. Operating natural gas pressure shall be approximately 7" w.c.

2.9 FILTERS

- A. Filter sections shall be provided with adequately sized access doors to allow easy removal of filters.
- B. 2" Pleated Panel Disposable Filters: Non-woven cotton fabric media with a metal support grid and heavy-duty beverage board enclosing frame. Media shall have an average efficiency of 30% on ASHRAE Standard 52-76.

2.10 REFRIGERATION

- A. Compressors shall be hermetic type, 3600 RPM set on resilient neoprene mounts and complete with line voltage break internal overload protection, internal overloaded crankcase heater.
- B. Condenser coils shall be copper tube type, mechanically expanded into aluminum fins. Coils shall be factory tested with air at 300 psig while immersed in an illuminated water tank.
- C. Condenser fans shall be direct driven propeller type arranged for vertical draw through air flow. Motors shall be weather resistant TEAO 6 pole type, with integral overload protection and designed specially for vertical shaft condenser fan applications. Fan and motor assemblies shall be mounted on a formed orifice plate for optimum efficiency with a minimum noise level.

2.11 SAFETY CONTROLS

- A. Packaged units shall operate down to 50°F as standard. Multiple refrigeration circuits shall be separate from each other. Refrigeration circuits shall be complete with liquid line filter-dryers, combination sight glass moisture indicators and service ports fitted with Schraeder fittings. Units incorporate load compensated thermal expansion valves with external equalizers. The complete piping system shall be purged and pressure tested with dry nitrogen, then tested again under vacuum. Each system shall be factory run and adjusted prior to shipment.
- B. Controls shall include compressor and condenser fan motor contactors and overload protection control circuit transformer, cooling relays, ambient compressor lockout, high pressure controls and automatic reset low pressure controls. Head pressure actuated fan

cycling control shall be provided on all multiple condenser fan units.

- C. Provide five minute anti-cycle timers.
- D. Provide interstage time delay timers.
- E. Provide hot gas bypass on a lead compressor.
- F. The unit shall have two compressors with completely independent refrigeration circuits and all controls required for 100% outside air applications per manufacturers written requirements.

2.12 ELECTRICAL WIRING

- A. Packaged heating and cooling units shall be factory wired and tested.
- B. Wiring shall be in accordance with the latest National Electrical Code, pertaining to specific equipment type and purpose.
- C. All electrical circuits shall undergo a dielectric strength test, and shall be factory tested and checked as to proper function.
- D. Prewired AC units shall have all the necessary identification marks, electrical data, and any necessary cautions as required by the National Electrical Code.
- E. Provide a system of motor control, including all necessary terminal blocks, magnetic motor starter with thermal overloads, remote mounted START/STOP buttons, grounding lugs, control transformers, auxiliary contactors and terminals for the connection of external control devices or relays.
- F. Gas fired units shall also include high limit and combustion air flow switch.
- G. Automatic controls shall be housed in a control panel mounted in or on the air unit, which will meet the NEC standard of the specific installation.

2.13 FACTORY CONTROL FOR GAS FIRED FURNACE

- A. The gas fired furnace shall be complete with electronic control complete with a solid-state analyzer and a discharge thermistor to maintain set point discharge air temperature. It shall provide rapid response to small changes in discharge air temperature, incorporating modulating gas valve and proportional combustion air, utilizing the solid state electronic controller to vary combustion air motor speed in response to the modulation of gas flow to provide optimum fuel/air mixture and efficiency at all operating conditions. Modulating damper control shall not be acceptable. Modulating gas valve and proportional combustion air control shall be utilized.
- B. A remote mounted 24 volt AC, field adjustable cooling/heating temperature sensor shall be furnished by this unit manufacturer. This sensor shall be installed in the supply air duct at the most remote point. The duct temperature sensor shall send signals to the electronic controller which in turn shall reset the discharge air temperature to maintain the set duct temperature.

- C. During the heating mode of the unit, the controller shall send signals to the power burner which shall operate the burner in prepurge, rapid repeat low fire, or variable speed operation synchronized with electronic modulating gas valve.
- D. At no time shall the gas fired heating furnace be energized if the unit is operating in the cooling cycle or vice versa.

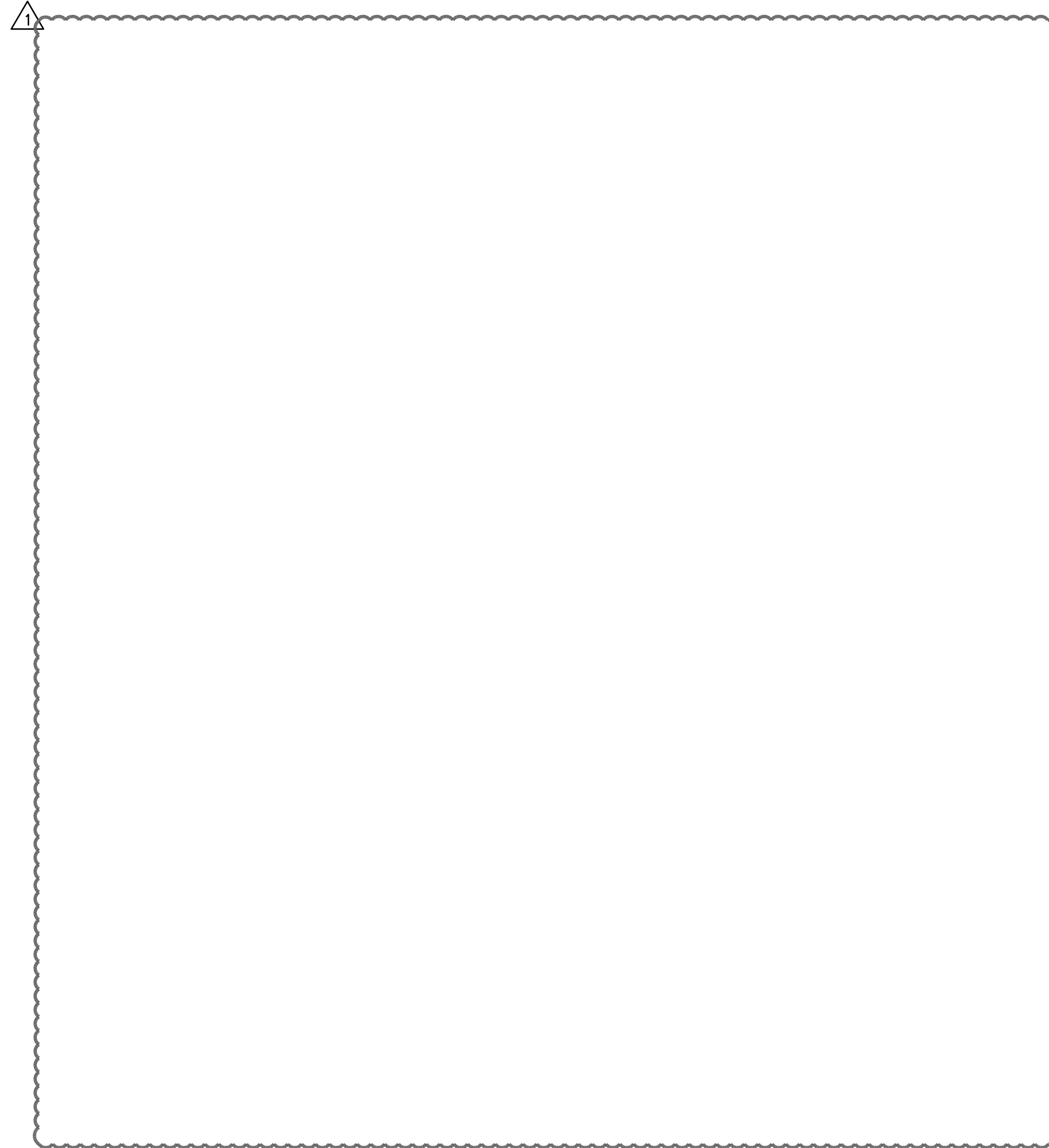
2.14 FACTORY CONTROLS FOR COOLING SYSTEM

- A. A solid state electronic temperature controller shall have capability of providing a minimum of 3 stages of cooling to maintain the set discharge air temperature. The set discharge air temperature shall be automatically reset by the temperature controller upon receiving signals from the duct temperature sensor, to maintain the set supply air temperature. It shall be roof top unit manufacturer's responsibility to provide proper type of solid state electronic controller, discharge air temperature sensor, remote cooling/heating room temperature sensor and all other required control devices to maintain the set duct temperatures. These devices shall be factory tested and installed in the unit before the unit is shipped to the jobsite.
- B. The minimum run and off time for compressors shall be 4 minutes at full load startup, and may range up to 8 minutes under part load conditions. The solid state electronic controller shall incorporate proportional/integral control scheme that reduces temperature drop by resetting to the set point after each stage is cycled on.
- C. Provide an adjustable deadband range between the heating and cooling modes from 2°F to 11°F.
- D. Cooling Cycle: Upon a call for cooling, the duct temperature sensor shall send electronic signals to the electronic cooling controller which in turn shall automatically reset the discharge air temperature sensor, and control the compressors (including the hot gas bypass) to maintain the set duct temperature.

PART 3 - EXECUTION

- 3.1 The packaged air conditioning unit shall be installed on the factory roof curb on the roof deck. Contractor shall furnish and install weather proof, asbestos free flexible duct connector at the discharge of the unit.
- 3.2 Provide P-Traps at condensate drain connections of the unit with seal depths 1 inch more than the total static pressure of the unit.

END OF SECTION

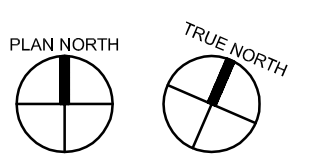


PACKAGED MAKE-UP AIR ROOF TOP UNIT SCHEDULE	
MARK	AHU-K (15-Ton)
SERVES	KITCHEN
UNIT TYPE	ROOFTOP
DUCT CONFIGURATION	BOTTOM DISCHARGE
DESIGN SUPPLY AIR (CFM)	4,670
MINIMUM SUPPLY AIR (CFM)	4,670
DESIGN OUTDOOR AIR (CFM)	4,670
MINIMUM OUTDOOR AIR (CFM)	4,670
E. E. R. (AT AHRI CONDITIONS)	11.3
EXT. S. P. (IN. W. G.)	1.50
FAN MOTOR HORSEPOWER	5.0
FAN TYPE	Plenum
FAN DRIVE	Direct Drive
COOLING DATA	
AMBIENT AIR (°F)	105.0
TOTAL COOLING CAPACITY (MBH)	217.0
TOTAL SENSIBLE CAPACITY (MBH)	188.1
EAT DB/WB (°F)	105/78
LAT DB/WB (°F)	65.25/64.84
HEATING DATA (GAS)	
HEATING CAPACITY (MBH)	292.5
EAT DB/WB (°F)	25.0
LAT DB/WB (°F)	71.4
ELECTRICAL DATA	
VOLTS/PHASE/HERTZ	208/3/60
MCA	79.0
MOCP	100.0
RLA	49.0
FLA	73.0
MANUFACTURER	AAON
MODEL NO.	RN-015
OPERATING WEIGHT (LBS)	1,961
NOTES	ALL

- NOTES:
- EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO COIL(S), FILTERS, HOUSING, NOR ACCESSORIES.
 - PROVIDE UNIT WITH OUTDOOR AIR INTAKE HOOD WITH MODULATING MOTORIZED DAMPER.
 - PROVIDE UNIT WITH SINGLE POINT ELECTRICAL CONNECTION.
 - PROVIDE FLOAT SWITCH IN PRIMARY DRAIN PAN TO DE-ENERGIZE THE UNIT WHEN PRIMARY DRAIN LINE BECOMES RESTRICTED.
 - PROVIDE UNITS WITH MINIMUM MERV 13 FILTERS.
 - PROVIDE UNIT CONTROLLER BY MANUFACTURER. PROVIDE CONTROLLER WITH BACNET INTERFACE CARD FOR INTEGRATION WITH EMCS.
 - PROVIDE UNIT WITH HOT GAS REHEAT FOR HUMIDITY CONTROL.
 - PROVIDE UNIT WITH CONDENSER HAIL GUARD AND 14" PREFABRICATED ROOF CURB.
 - PROVIDE UNIT WITH COMPARATIVE ENTHALPY ECONOMIZER AND BAROMETRIC RELIEF.
 - PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH AND POWERED CONVENIENCE OUTLET.
 - PROVIDE UNIT WITH DUCT MOUNTED SMOKE DETECTORS IN SUPPLY DUCTWORK FOR ALL UNITS DISCHARGING 2,200 CFM OR GREATER.
 - CONTRACTOR TO PROVIDE A LIKE FOR LIKE REPLACEMENT FOR THE EXISTING KITCHEN MAKEUP AIR UNIT SCHEDULE. CONTRACTOR SHALL CONFIRM MAKE AND MODEL BEFORE INSTALLATION

DUCTLESS SPLIT SYSTEM SCHEDULE	
INDOOR UNIT	
MARK	DS-1
SERVES	KIT200
TYPE	HIGH WALL
AIRFLOW (CFM)	400
TOTAL COOLING (MBH)	12000
HEATING (KW)	-
VOLTS/PHASE/HERTZ	208/3/60
MCA	1
MANUFACTURER	mitsubishi
WEIGHT (LBS)	33
MODEL NUMBER	PK-A12HA7
OUTDOOR UNIT	
MARK	DSCU-1
VOLTS/PHASE/HERTZ	208/3/60
MCA	11
MOCP	28
EER	20.8
SEER	12
MANUFACTURER	mitsubishi
WEIGHT (LBS)	104
MODEL NUMBER	PUY-A12NKA7
NOTES:	1, 2, 3

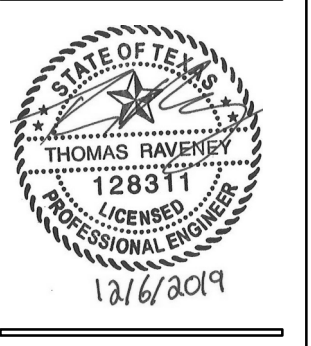
- NOTES:
- PROVIDE REFRIGERANT PIPING IN ACCORDANCE WITH MFR'S RECOMMENDATIONS.
 - PROVIDE FULL SIZE CONDENSATE DRAIN TO NEAREST RECEPTACLE. PROVIDE CONDENSATE PUMP.
 - PROVIDE WALL MOUNTED THERMOSTAT.
 - INDOOR UNIT IS SUPPLIED FROM THE OUTDOOR UNIT.



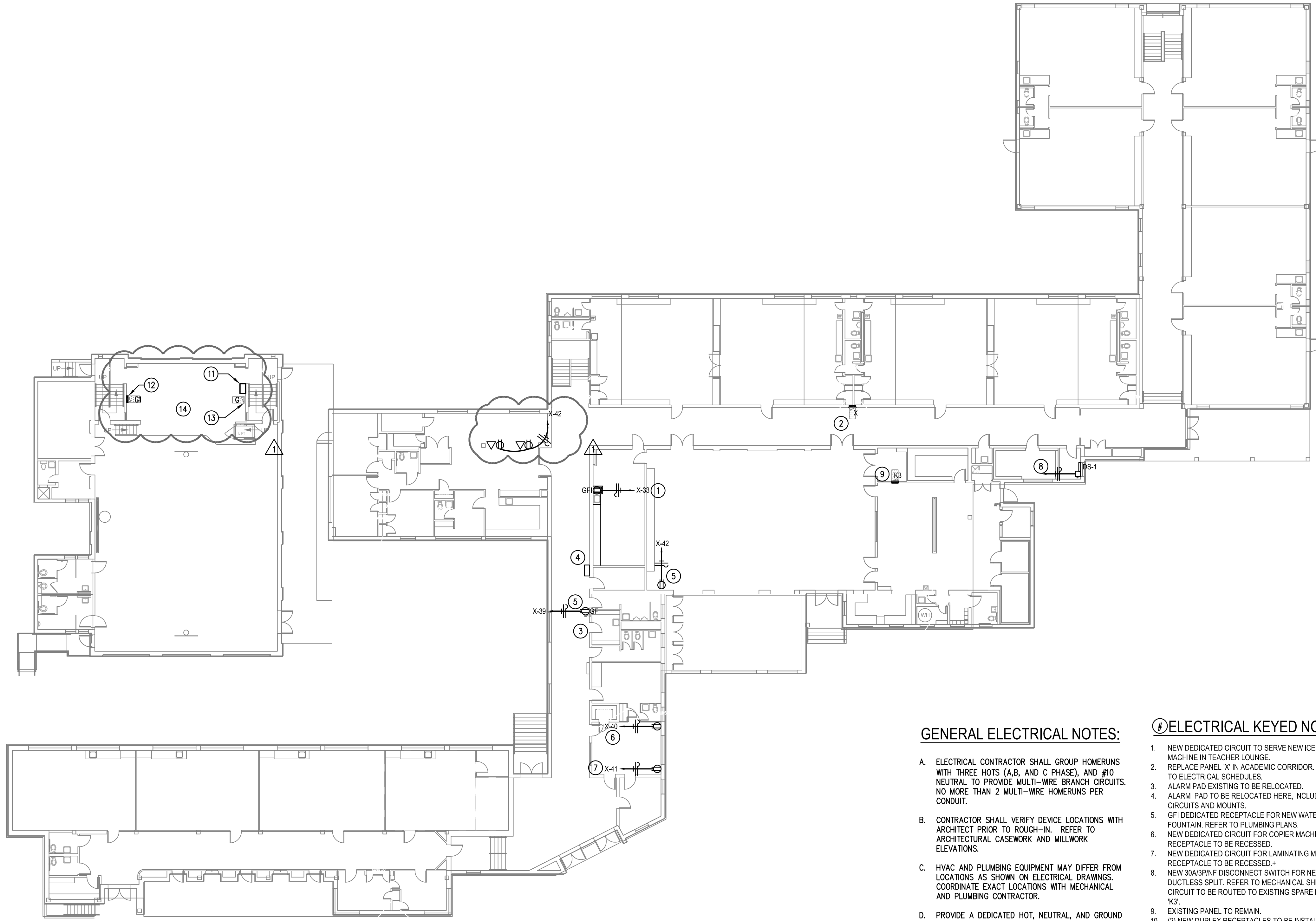
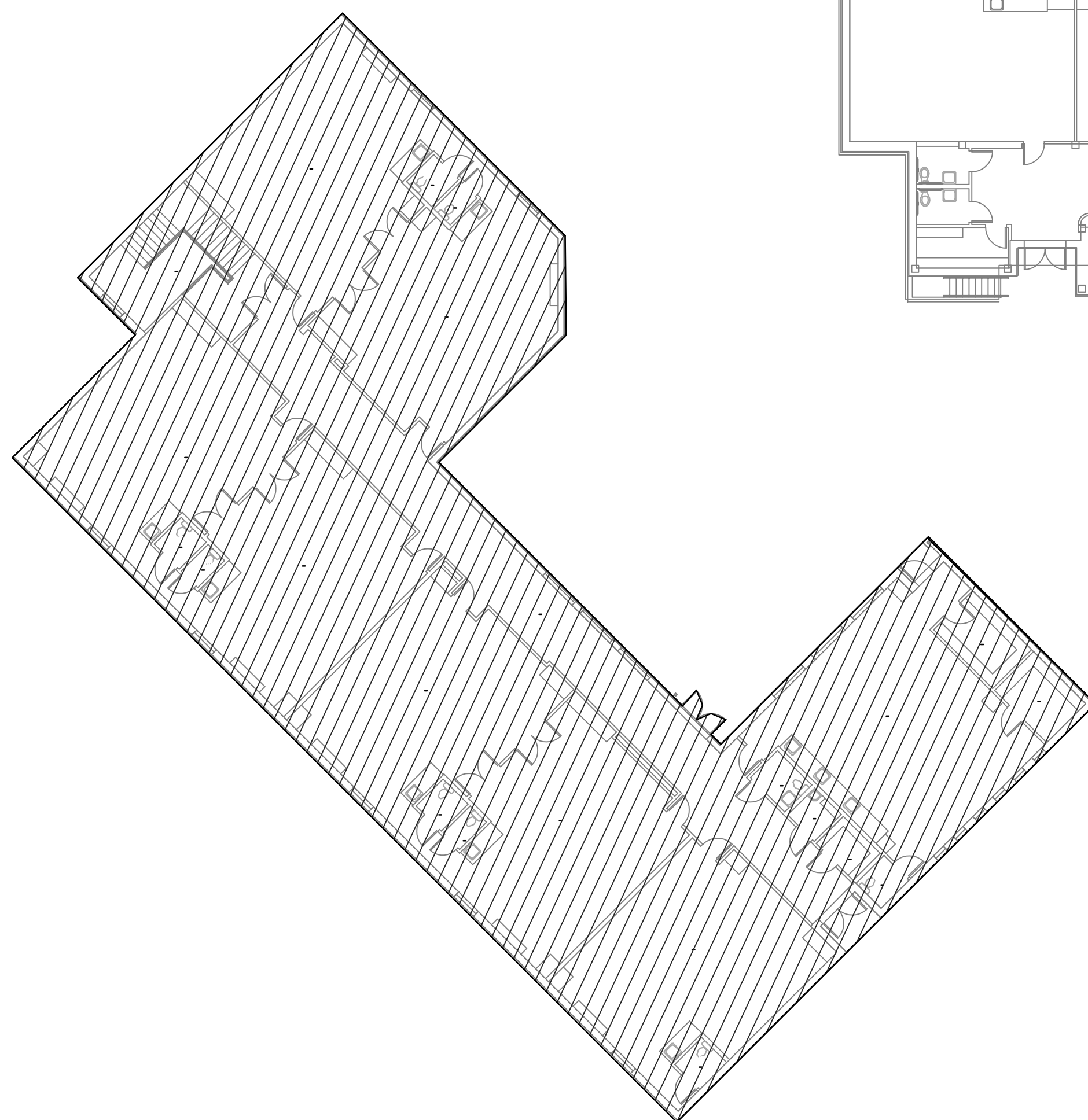
JONES & DBR
STATE OF TEXAS REG. NO. 13002
 9990 Richmond Avenue
 South Building, Suite 310
 Houston, Texas 77042
 713.914.4333 p
 713.914.9260 f
 T&E Firm Registration No. 13002

JONES & DBR Project Number 1910.000

TR | JA | KC | BG | --



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 DALLAS, TEXAS 75244
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1 FIRST FLOOR ELECTRICAL
E2.02 1/16"=1'-0"

GENERAL ELECTRICAL NOTES:

- A. ELECTRICAL CONTRACTOR SHALL GROUP HOMERUNS WITH THREE HOTS (A,B, AND C PHASE), AND #10 NEUTRAL TO PROVIDE MULTI-WIRE BRANCH CIRCUITS. NO MORE THAN 2 MULTI-WIRE HOMERUNS PER CONDUIT.
- B. CONTRACTOR SHALL VERIFY DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL CASEWORK AND MILLWORK ELEVATIONS.
- C. HVAC AND PLUMBING EQUIPMENT MAY DIFFER FROM LOCATIONS AS SHOWN ON ELECTRICAL DRAWINGS. COORDINATE EXACT LOCATIONS WITH MECHANICAL AND PLUMBING CONTRACTOR.
- D. PROVIDE A DEDICATED HOT, NEUTRAL, AND GROUND FOR ALL COPY MACHINES.
- E. CONTRACTOR SHALL PROVIDE HANDLE TIES MANUFACTURED BY THE SWITCH GEAR SUPPLIER ON ALL MULTI-WIRE CIRCUITS TO MEET THE REQUIREMENTS OF ARTICLE 210.4(B) OF THE 2014 NEC. AT THE CONTRACTOR'S OPTION, TWO AND THREE POLE BREAKERS MAY BE USED.
- F. CONTRACTOR SHALL INDICATE CIRCUIT SERVING EACH RECEPTACLE BY PROVIDING TYPE WRITTEN LABELING LOCATED ON INSIDE FACE OF EACH RECEPTACLE COVER PLATE.
- G. CONTRACTOR SHALL ARRANGE PANELBOARDS IN ELECTRICAL ROOM TO PROVIDE CLEARANCE PER NEC 110.26.
- H. ALL RECEPTACLES LOCATED IN RESTROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, ELEVATOR PITS OR SHAFTS, ELEVATOR EQUIPMENT ROOMS, SERVING ELECTRIC DRINKING FOUNTAINS OR VENDING MACHINES, LOCATED WITHIN 6' OF A SINK, LOCATED ABOVE A WET COUNTERTOP OR IN A KITCHEN OR COFFEE BAR SHALL BE GFCI. EACH GFCI PROTECTED RECEPTACLE SHARING THE SAME CIRCUIT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON.

ELECTRICAL KEYED NOTES:

- 1. NEW DEDICATED CIRCUIT TO SERVE NEW ICE MACHINE IN TEACHER LOUNGE.
- 2. REPLACE PANEL 'X' IN ACADEMIC CORRIDOR. REFER TO ELECTRICAL SCHEDULES.
- 3. ALARM PAD EXISTING TO BE RELOCATED.
- 4. ALARM PAD TO BE RELOCATED HERE, INCLUDING CIRCUITS AND MOUNTS.
- 5. GFI DEDICATED RECEPTACLE FOR NEW WATER FOUNTAIN. REFER TO PLUMBING PLANS.
- 6. NEW DEDICATED CIRCUIT FOR COPIER MACHINE. RECEPTACLE TO BE RECESSED.
- 7. NEW DEDICATED CIRCUIT FOR LAMINATING MACHINE. RECEPTACLE TO BE RECESSED.
- 8. NEW 30A/3P/NE DISCONNECT SWITCH FOR NEW DUCTLESS SPLIT. REFER TO MECHANICAL SHEETS. CIRCUIT TO BE ROUTED TO EXISTING SPARE IN PANEL 'K3'.
- 9. EXISTING PANEL TO REMAIN.
- 10. (2) NEW DUPLEX RECEPTACLES TO BE INSTALLED UNDER ADMIN DESK. REFER TO SHEET A2.03 FOR MOUNTING DETAILS.
- 11. REMOVE EXISTING DIMMER SWITCHES CONDUIT ASSOCIATED WITH DIMMING RACK. PROVIDE NEW LUTRON DIVA LINE VOLTAGE 1000W SWITCHES, 11 IN TOTAL, RECONNECTED TO STAGE LIGHTING CIRCUITS. EXISTING DIMMER RACK SHALL BE REPLACED WITH NEW PANEL. REUSE EXISTING INCOMING FEEDER TO SERVE NEW PANEL. RECONNECT EXISTING LIGHTING CIRCUITS TO NEW PANEL, WITH CIRCUITRY MODIFIED TO PASS THROUGH NEW DIMMER SWITCH INSTALLATION ACROSS STAGE.
- 12. EXISTING PANEL 5 WITH 100A/2POLE/1PH/PHASE 240V CONNECTION TO DIMMER RACK SHALL BE REUSED TO FEED NEW PANEL G1. G1 SHALL BE PROVIDED AS INDICATED ON PANEL SHEET E5.01.
- 13. LIGHTING RE-CIRCUIT SCOPE ON STAGE INCLUDES RE-CIRCUITING 11 EXISTING LIGHTING CIRCUITS, WITH FIXTURES TO REMAIN IN ORIGINAL LOCATION THROUGH NEW PANEL G1 WITH 11 NEW DIMMER SWITCHES (1 PER CIRCUIT). SURFACE MOUNT CONDUIT, BOXES, STRAPPING SHALL BE PAINTED TO MATCH EXISTING WALLS.

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200025-TRVHT - IMPROVEMENTS TO TRAVIS HEIGHTS ELEM. SCHOOL
2010 Alameda Dr
AUSTIN, TX 78745

SHEET:
FIRST FLOOR ELECTRICAL PLAN

REVISIONS:
ADDENDUM 1

TL: JDBR / DE: JDBR

DATE: 12-05-2019

PROJECT: MA1013

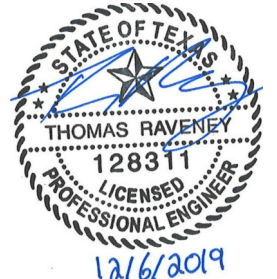
SHEET:

E2.02

10,000 AIC Rating														
X Existing														
New														
115/230 Volt, 3-Phase, 4-Wire			MCB		AMP MCB				Single			Mounting		
1 Section			X	MLO	100	AMP BUS (Copper)			Double			X Surface		
1 -Nema Rating					ISO. GRND. BUS				Feed - Thru			Flush		
Notes	Load (VA)	Description	Type	Wire	CB	PKT #	PKT #	CB	Wire	Type	Description	Load (VA)	Notes	
		EXISTING		12	20/1	1	A	2	20/1	12	EXISTING			
		EXISTING		12	20/1	3	B	4	20/1	12	EXISTING			
		EXISTING		12	20/1	5	C	6	20/1	12	EXISTING			
		EXISTING		12	20/1	7	A	8	20/1	12	EXISTING			
		EXISTING		12	20/1	9	B	10	20/1	12	EXISTING			
		SPARE		12	20/1	11	C	12	20/1	12	SPARE			
		EXISTING		12	20/1	13	A	14	20/1	12	EXISTING			
		EXISTING		12	20/1	15	B	16	20/1	12	EXISTING			
		EXISTING		12	20/1	17	C	18	20/1	12	EXISTING			
		EXISTING		12	20/1	19	A	20	20/1	12	EXISTING			
		EXISTING		12	20/1	21	B	22	20/1	12	EXISTING			
		EXISTING		12	20/1	23	C	24	20/1	12	EXISTING			
		SPARE		12	20/1	25	A	26	20/1	12	EXISTING			
		EXISTING		12	20/1	27	B	28	20/1	12	EXISTING			
		EXISTING		12	20/1	29	C	30	20/1	12	EXISTING			
		EXISTING		12	20/1	31	A	32	20/1	12	EXISTING			
	900	ICE MACHINE	R	12	20/1	33	B	34	20/1	12	SPARE			
		EXISTING		12	20/1	35	C	36	20/1	12	EXISTING			
		EXISTING		12	20/1	37	A	38	20/1	12	EXISTING			
	500	WATER FOUNTAIN	R	12	20/1	39	B	40	20/1	12	R COPER	1200		
	1200	LAMINATOR		12	20/1	41	C	42	20/1	12	R WATER FOUNTAIN	500		
N.E.C. (2005)		Load Type	Conn.	Fct.	Diversity	N.E.C. (2005)		Conn.	Fct.	Diversity				
223.44	(R) Recept.	3,100		3,100	210.20(a)	(L) Lighting	0	125%	0					
220.56	(K) Kitchen	0	100%	0		(EL) Ext. Ltg.	0	125%	0					
220.60	(C) Cooling	0	0%	0	620.14	(E) Elevators	0	100%	0					
220.60	(H) Heating	0	0%	0		(WH) Water Ht.	0	100%	0					
220.60	(F) Fans	0	100%	0	220.50	(MT) Lrg. Mot.	0	125%	0					
	(M) Misc.	0	100%	0		(SP) Sub Panel	0	100%	0					
Total Connected Load				3,100 VA =	#DIV/0! AMPS	Location of Panel:								
Total Load (Diversified)				3,100 VA =	#DIV/0! AMPS									

10,000 AIC Rating														
X Existing														
New														
120/240 Volt, 1-Phase, 3-Wire			MCB		AMP MCB				Single			Mounting		
1 Section			X	MLO	100	AMP BUS (Copper)			Double			X Surface		
1 -Nema Rating					ISO. GRND. BUS				Feed - Thru			Flush		
Notes	Load (VA)	Description	Type	Wire	CB	PKT #	PKT #	CB	Wire	Type	Description	Load (VA)	Notes	
	1000	STAGE LIGHTING	L	12	20/1	1	A	2	20/1	12	L STAGE LIGHTING	1000		
	1000	STAGE LIGHTING	L	12	20/1	3	B	4	20/1	12	L STAGE LIGHTING	1000		
	1000	STAGE LIGHTING	L	12	20/1	5	A	6	20/1	12	L STAGE LIGHTING	1000		
	1000	STAGE LIGHTING	L	12	20/1	7	B	8	20/1	12	L STAGE LIGHTING	1000		
	1000	STAGE LIGHTING	L	12	20/1	9	A	10	20/1	12	L STAGE LIGHTING	1000		
	1000	STAGE LIGHTING	L	12	20/1	11	B	12	20/1	12	SPARE			
		SPARE		12	20/1	13	A	14	20/1	12	SPARE			
		SPARE		12	20/1	15	B	16	20/1	12	SPARE			
		SPARE		12	20/1	17	A	18	20/1	12	SPARE			
	6,000	Subtotal										5,000		
N.E.C. (2005)		Load Type	Conn.	Fct.	Diversity	N.E.C. (2005)		Conn.	Fct.	Diversity				
220.44	(R) Recept.	0		0	210.20(a)	(L) Lighting	11,000	125%	13,750					
220.56	(K) Kitchen	0	100%	0		(EL) Ext. Ltg.	0	125%	0					
220.60	(C) Cooling	0	0%	0	620.14	(E) Elevators	0	100%	0					
220.60	(H) Heating	0	0%	0		(WH) Water Ht.	0	100%	0					
220.60	(F) Fans	0	100%	0	220.50	(MT) Lrg. Mot.	0	125%	0					
	(M) Misc.	0	100%	0		(SP) Sub Panel	0	100%	0					
Total Connected Load				11,000 VA =	45.8 AMPS	Location of Panel:								
Total Load (Diversified)				13,750 VA =	57.3 AMPS									

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SHEET:
 ELECTRICAL SCHEDULES
 REVISIONS:
 ADDENDUM 1
 TL: JDBR / DE: JDBR
 DATE: 12-05-2019
 PROJECT: MA1013
 SHEET: E5.01

