

Addendum #02 for RFB #915800-01

Project Name: Grimes Switchgear Replacement

DAS RFB #: 915800-01

DAS Project #: 9158.00

Date: 6/25/2020

Addendum #2:

- Cover Page – Table of Contents, Clarifications, Drawings, Substitutions and Questions (2 pages)
- Revised Drawings – Sheets E1, E2 and M1 (3 pages)

Bids Due: Tuesday, June 30, 2020 at 2:00pm

Clarifications:

1. There is a new transformer located in the SE corner of the switchgear electrical room. This transformer serves the elevators. Reference updated sheets E1 and E2 for

Drawings:

1. Drawing E1– ELECTRICAL GENERAL NOTES, ONE-LINE, AND SCHEDULES
 - a. **Clarify** existing 15kVA transformer shown on Demo and New one-line Diagram
 - b. **Add** breaker in panel LPB to match existing breaker feeding 15kVA transformer.
 - c. Refer to attached full size sheet E1.
2. Drawing E2-Grimes Electrical Plan
 - a. **Clarify** location of existing 15kVA transformer in electrical room.
 - b. Refer to attached full size sheet E2.
3. Drawing M1 – Mechanical Plan
 - a. **Revise** Keynote 1. Fan model changed to Greenheck Model AER-E206-620-B3.
 - b. **ADD** a note to Detail 3/M1 Propeller Exhaust Fan Detail about providing a flanged frame around the existing opening as required.
 - c. Refer to attached full size sheet M1.

Substitutions

The following shall be added to specifications as approved manufacturers:

Light Fixture Type

Strip Light

Emergency Light

Manufacturer

Columbia MPS, Lithonia CLX

LightAlarms LCA, Lithonia ELM2L

Questions:

Q1. Concerning the generator cables temporarily installed inside the garage and hallways, are these to be sleeved in conduit for added protection, or is normal care in layout sufficient?

A1. The cables do not need to be in conduit. The contractor is responsible to protect temporary cables from damage and ensure the placement is safe for building occupants.

Q2. Is it the intent to completely fill with concrete, or could a base of fill type material be used first and then topped with concrete?

A2. Please reference keynote 3 on sheet M1. The pit is to be filled with compacted sand and topped with 6" of concrete.

INSTALLATION NOTES - ELECTRICAL

- CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH EXISTING FIELD CONDITIONS PRIOR TO BID.
- RACEWAYS AND BOXES ARE SHOWN DIAGRAMMATICALLY ONLY AND INDICATE THE GENERAL AND APPROXIMATE LOCATION. THE LAYOUT DOES NOT NECESSARILY SHOW THE TOTAL NUMBER OF RACEWAYS OR BOXES FOR THE CIRCUITS REQUIRED, NOR ARE THE LOCATIONS OF INDICATED RUNS INTEND TO SHOW THE ACTUAL ROUTING OF THE RACEWAYS.
- ALL RECEPTACLE CIRCUITS SHALL HAVE DEDICATED NEUTRALS PER CODE.
- PROVIDE A DEDICATED GREEN INSULATED GROUND CONDUCTORS TO ALL DEVICES. THE CONDUIT SYSTEM SHALL NOT BE USED AS THE ONLY EQUIPMENT GROUNDING METHOD.
- BALANCE THE LOAD ON PANELS AS EVENLY AS POSSIBLE DURING INSTALLATION. CIRCUIT NUMBERING SHOWN ON PLANS MAY BE ADJUSTED.
- PROVIDE FINAL TYPED PERMANENT PANEL DIRECTORY AT PROJECT COMPLETION. CONTRACTOR SHALL BE RESPONSIBLE FOR OPENINGS IN ALL WALLS CREATED OR UTILIZED BY THEIR WORK. PENETRATIONS SHALL BE SEALED IN ACCORDANCE WITH THE RATINGS OF THE AFFECTED WALL. REFER TO ARCHITECTURAL CODE PLAN FOR RATED WALLS.

CODE NOTES - ELECTRICAL

- THE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH ALL STATE AND NATIONAL CODES.
- THE CURRENT ADOPTED EDITION OF THE ELECTRICAL CODE SHALL BE THE STANDARD FOR THE ELECTRICAL INSTALLATION. VERIFY WITH STATE OFFICIALS WHEN PERMITS ARE OBTAINED. NOTIFY DESIGN TEAM OF ANY DISCREPANCIES BETWEEN THE PROJECT MANUAL OR DRAWINGS AND THE GOVERNING CODE.

ELECTRICAL ABBREVIATIONS

A	DEVICE MOUNTED *8" ABOVE COUNTER TOP (VERIFY LOCATION)	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	NM	NONMETALLIC
ATS	AUTOMATIC TRANSFER SWITCH	NTS	NOT TO SCALE
C	CENTRAL	OC	ON CENTER
CB	CIRCUIT BREAKER	OF	OWNER FURNISHED
CT	CURRENT TRANSFORMER	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CT	EXISTING ITEM TO REMAIN	OFOI	OWNER FURNISHED OWNER INSTALLED
EC	ELECTRICAL CONTRACTOR	R	EXISTING ITEM TO BE REMOVED
EM	EMERGENCY LIGHT FIXTURE	RR	EXISTING ITEM TO BE REMOVED AND RELOCATED
ER	NEW LOCATION OF EXISTING ITEM	RR	EXISTING ITEM TO BE REMOVED AND RELOCATED
F	ROUGH IN FOR FUTURE DEVICE	RN	EXISTING ITEM TO BE REMOVED AND REPLACED WITH NEW
FAAP	FIRE ALARM ANNUNCIATOR PANEL	SCCR	SHORT CIRCUIT CURRENT RATING
FACP	FIRE ALARM CONTROL PANEL	T	TAMPER PROOF DEVICE
G	GROUND FAULT CIRCUIT INTERRUPTER	TCC	TEMPERATURE CONTROL CONTRACTOR
GND	GROUND	TV	TELEVISION
KV	KILO-VOLT	TYP	TYPICAL
KVA	KILO-VOLT-AMPERES	UPS	UNINTERRUPTIBLE POWER SUPPLY
KW	KILOWATTS	V	VOLTS
LV	LOW VOLTAGE, 600V AND BELOW	VA	VOLT-AMPERES
MC	MECHANICAL CONTRACTOR	WG	WIREGUARD COVER
MCB	MAIN CIRCUIT BREAKER	WP	WEATHERPROOF DEVICE
MDP	MAIN DISTRIBUTION PANEL	WR	WEATHER RESISTANT DEVICE
MLO	MAIN LUGS ONLY	+24"	INDICATES MOUNTING HEIGHT CENTER LINE OF DEVICE TO FINISHED FLOOR
MV	MEDIUM VOLTAGE, 8KV-15KV		
N	NEW DEVICE IN EXISTING LOCATION		

DEMOLITION AND RENOVATION NOTES - ELECTRICAL

- THE ELECTRICAL DEMOLITION DRAWING SHOWING EXISTING CONDITIONS HAS BEEN PREPARED BASED ON LIMITED FIELD OBSERVATION. ADDITIONAL COMPONENTS MAY EXIST WHICH ARE NOT SHOWN, AND SUCH ITEMS SHALL BE DEALT WITH IN A MANNER SIMILAR TO THOSE ITEMS WHICH ARE SHOWN.
- CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH EXISTING ELECTRICAL SYSTEM WHICH WILL BE AFFECTED BY THE DEMOLITION WORK. CONTRACTOR SHALL OBTAIN PERMISSION FROM OWNER'S REPRESENTATIVE TO SHUT OFF SERVICES OR SYSTEMS WHICH MAY AFFECT OTHER AREAS BEYOND THE LIMITS OF THE DEMOLITION AREA. SUCH PERMISSION WILL BE GRANTED ONLY AFTER OWNER'S REPRESENTATIVE IS INFORMED OF THE REASON FOR AND DURATION OF THE SHUTDOWN AND IS SATISFIED THAT THE SHUTDOWN CAN BE MADE WITH AS LITTLE INCONVENIENCE TO OTHER AREAS AS POSSIBLE.
- PROVIDE LABOR AND MATERIALS TO REMOVE ELECTRICAL FACILITIES AND CLEAR THE AREA TO RECEIVE THE NEW WORK TO BE PROVIDED UNDER THIS CONTRACT.
- CONDUITS, BOXES, ETC., SHALL BE REMOVED AS REQUIRED BY WALL AND CEILING DEMOLITION AND ADJACENT REMOVALS. ALL EXISTING WIRING SHALL BE REMOVED FOR DEMOED DEVICES. ALL UNUSED CONDUIT SHALL BE REMOVED.
- ALL WIRING FOR REMODELED AREAS SHALL BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE. EXISTING CONDUITS MAY BE RETAINED FOR CONTINUED USE AS APPLICABLE. ALL UNUSED CONDUIT SHALL BE REMOVED.
- ALL BRANCH CIRCUITS TO BE DISCONNECTED SHALL BE IDENTIFIED AS TO LOCATION OR ITEM SERVED BEFORE DISCONNECTING.
- CIRCUITS SERVING AREAS BEYOND THE DEMOLITION AREA SHALL BE MAINTAINED. EXTEND AND/OR RECONNECT NEW WIRING TO EXISTING AS REQUIRED TO MAINTAIN EXISTING CIRCUITS.
- PANELBOARDS, DISCONNECTS, FIXTURES, WIRING DEVICES, SIGNAL DEVICES, ETC., SHOWN ON PLANS SHALL BE REMOVED UNLESS NOTED OTHERWISE. REMOVAL SHALL BE DONE IN A TIMELY MANNER IN ACCORDANCE WITH THE GENERAL DEMOLITION WORK. COORDINATE WITH THE OWNER AND OTHER CONTRACTORS.
- ALL EXISTING BUILDING SYSTEMS (EXISTING AND/OR NEW) THAT ARE NOT AFFECTED BY THE SCOPE OF THE PROJECT ARE TO BE KEPT OPERATIONAL IN ALL OCCUPIED AREAS OF THE BUILDING THROUGHOUT THE DURATION OF THE PROJECT. COORDINATE ANY REQUIRED OUTAGES WITH THE OWNER IN ADVANCE OF SHUT DOWN.
- DO NOT CUT EXISTING TELECOMMUNICATION WIRING, CABLES OR CONDUIT AS EXISTING SYSTEMS SHALL REMAIN OPERATIONAL DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR WHO CUTS IN-SERVICE CABLES SHALL BE RESPONSIBLE FOR ANY AND ALL DOWNTIME AND COSTS TO REPAIR.
- INSTALL STAINLESS STEEL COVER PLATE OVER HOLE AT REMOVED DEVICE LOCATIONS.
- PROVIDE CUTTING AND PATCHING OF EXISTING CONSTRUCTION AS REQUIRED FOR THE PROPER COMPLETION OF THE DEMOLITION WORK AND THE INSTALLATION OF THE NEW WORK.
- EQUIPMENT AND DEVICES SHOWN AS EXISTING OR AS REMOVE/RELOCATE SHALL BE PROTECTED AND HANDLED WITH APPROPRIATE CARE SO AS TO MAINTAIN FULL FUNCTIONAL AND AESTHETIC INTEGRITY OF THE DEVICE.
- REMOVE EQUIPMENT AND SYSTEMS AS SHOWN. THE EXISTING METER WILL BE SALVAGED BY THE OWNER. ALL MATERIALS NOT SALVAGED BY THE OWNER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR PROPER DISPOSAL.
- REMOVE AND REINSTALL ANY CEILING TILES REQUIRED FOR THE WORK BEING DONE UNDER THIS CONTRACT. DAMAGED CEILING TILES SHALL BE REPLACED TO MATCH EXISTING.
- ALL ABANDONED AND UNUSED CONDUIT AND CONDUCTORS LOCATED WITHIN THE ELECTRICAL ROOM SHALL BE REMOVED BY THE ELECTRICAL CONTRACTOR.

TEMPORARY SERVICE NOTES

- CONTRACTOR TO COORDINATE SHUTDOWN AND SERVICE INTERRUPTIONS WITH OWNER.
- INSTALL SPD ON PANELBOARDS USED FOR TEMPORARY SERVICE. SPD USED FOR NEW EQUIPMENT MAY BE UTILIZED FOR THIS PROTECTION.
- GENERATOR LOCATION TO BE COORDINATED WITH OWNER.
- GENERATOR FUEL, MAINTENANCE, AND PARTS WILL BE PROVIDED BY THE CONTRACTOR.

LIGHTING SYMBOLS

- SURFACE MOUNTED STRIP FIXTURE
- LINEAR PENDANT MOUNTED FIXTURE
- EMERGENCY LIGHT FIXTURE, WALL MOUNT, *96" OR AS NOTED
- SINGLE POLE SWITCH, WALL MOUNT *48", OR AS NOTED. LETTER INDICATES SWITCH LEG
- LIGHTING CONTACTOR
- RELAY
- PHOTOCCELL
- ROOM/ZONE CONTROLLER, MOUNT ABOVE ACCESSIBLE CEILING

TEMPERATURE CONTROLS SYMBOLS

- THERMOSTAT JUNCTION BOX ROUGH-IN, WALL MOUNTED *48" OR AS NOTED. INSTALL 3/4" CONDUIT TO ACCESSIBLE LOCATION ABOVE CEILING.
- HUMIDISTAT JUNCTION BOX ROUGH-IN, WALL MOUNTED *48" OR AS NOTED. EXTEND 3/4" CONDUIT TO ACCESSIBLE LOCATION ABOVE CEILING.

POWER SYMBOLS

- SINGLE RECEPTACLE, WALL MOUNT *18", OR AS NOTED
- DUPLEX RECEPTACLE, TAMPER-RESISTANT, NEMA 5-20R GRAY WITH STAINLESS STEEL COVER PLATE, COMPRESSION OR CLAMP FOR BACK WIRING, WALL MOUNT *18", OR AS NOTED
- EQUIPMENT CONNECTION. REFER TO ELECTRICAL EQUIPMENT CONNECTION SCHEDULE FOR CONNECTION TYPE
- JUNCTION BOX, CEILING MOUNT
- JUNCTION BOX, WALL MOUNT. REFER TO PLAN OR DETAIL FOR MOUNTING HEIGHT
- GROUND BAR
- DRY-TYPE TRANSFORMER
- METER
- SURGE PROTECTIVE DEVICE
- SAFETY DISCONNECT SWITCH
- EMERGENCY PUSH BUTTON
- PANELBOARD - SURFACE MOUNTED
- DISTRIBUTION PANELBOARD/SWITCHBOARD - SURFACE MOUNTED AS NOTED.

GENERAL SYMBOLS

- CONDUIT SLEEVE
- CONDUIT UP, REFER TO TAG ON DRAWING FOR SIZE
- CONDUIT DOWN, REFER TO TAG ON DRAWING FOR SIZE
- CIRCUIT HOMERUN, CONCEALED CONDUIT OR CABLE
- CIRCUIT HOMERUN, UNDER FLOOR CONDUIT OR CABLE
- KITCHEN EQUIPMENT TAG NUMBER. REFER TO KITCHEN EQUIPMENT CONNECTION SCHEDULE
- KEYNOTE
- EQUIPMENT IDENTIFICATION TAG. REFER TO EQUIPMENT CONNECTION SCHEDULE
- DETAIL DRAWING REFERENCE TAG, SIM-SIMILAR, TYP-TYPICAL, OPP-OPPOSITE SHEET REFERENCE
- SECTION CUT REFERENCE TAG, SIM-SIMILAR, TYP-TYPICAL, OPP-OPPOSITE SHEET REFERENCE
- INTERIOR ELEVATION DRAWING REFERENCE TAG

NOTE: NOT ALL SYMBOLS APPLY TO THIS PROJECT

BRANCH PANEL: BW2

LOCATION: SUPPLY FROM: MOUNTING: SURFACE ENCLOSURE: TYPE 1

VOLTAGE: 120/208 WYE PHASES: 3 WIRES: 4

SCCR RATING: 10,000 MAINS TYPE: MCB MAINS RATING: 225 A MCB RATING: 225 A

NOTES:

CIRCUIT DESCRIPTION	P	AMP	CKT NO	A	B	C	CKT NO	AMP	P	CIRCUIT DESCRIPTION
EXISTING CIRCUIT	1	20 A	1	0	0		2	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	3		0	0	4	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	5			0	6	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	7	0	0		8	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	9		0	0	10	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	11			0	12	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	13	0	0		14	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	15		0	0	16	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	17			0	18	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	19	0	0		20	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	21		0	0	22	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	23			0	24	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	25	0	0		26	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	27		0	0	28	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	29			0	30	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	31	0	0		32	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	33		0	0	34	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	35			0	36	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	37	0	0		38	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	39		0	0	40	20 A	1	EXISTING CIRCUIT
EXISTING CIRCUIT	1	20 A	41			0	42	20 A	1	EXISTING CIRCUIT
NEW EXHAUST FAN	1	20 A	43	1224	0		44	20 A	1	SPARE
METER	1	20 A	45		0	0	46	20 A	1	SPARE
RECEPTACLE	1	20 A	47			180	48	20 A	1	SPARE
SPARE	1	20 A	49	0	0		50	20 A	1	SPARE
SPARE	1	20 A	51		0	0	52	20 A	1	SPARE
SPARE	1	20 A	53			0	54	--	--	SPACE
SPARE	1	20 A	55	0	0		56	--	--	SPACE
SPARE	1	20 A	57		0	0	58	--	--	SPACE
SPARE	1	20 A	59			0	60	--	--	SPACE
SPARE	1	20 A	61	0	0		62	--	--	SPACE
SPARE	1	20 A	63		0	0	64	--	--	SPACE
RE-FEED FROM EM PANEL	1	20 A	65			0	66	20 A	1	RE-FEED FROM EM PANEL
RE-FEED FROM EM PANEL	1	20 A	67	0	0		68	20 A	1	RE-FEED FROM EM PANEL
RE-FEED FROM EM PANEL	1	20 A	69		0	0	70	20 A	1	RE-FEED FROM EM PANEL
RE-FEED FROM EM PANEL	1	20 A	71			0	72	20 A	1	RE-FEED FROM EM PANEL
				1224 VA	0 VA	180 VA				
				10 A	0 A	2 A				

LEGEND:

LOAD CLASSIFICATION	CONNECTED...	DEMAND...	ESTIMATED...	PANEL TOTALS
POWER	1224 VA	100.00%	1224 VA	TOTAL CONN. LOAD: 1404 VA
RECEPTACLE	180 VA	100.00%	180 VA	TOTAL EST. DEMAND: 1404 VA
				TOTAL CONN.: 4 A
				TOTAL EST. DEMAND: 4 A

NOTES: TOTAL PANEL LOAD IS SHOWN FOR NEW LOADS ONLY. NEW BREAKERS IN PANEL SERVING EXISTING LOADS SHALL MATCH RATING IN DEMOLISHED PANEL FOR RECONNECTION, FIELD VERIFY.

BRANCH PANEL: LPB

LOCATION: SUPPLY FROM: MOUNTING: SURFACE ENCLOSURE: TYPE 1

VOLTAGE: 480/277 WYE PHASES: 3 WIRES: 4

SCCR RATING: 14,000 MAINS TYPE: MLO MAINS RATING: 400 A

NOTES:

CIRCUIT DESCRIPTION	P	AMP	CKT NO	A	B	C	CKT NO	AMP	P	CIRCUIT DESCRIPTION
EXISTING LIGHTING CIRCUIT	1	20 A	1	0	0		2	20 A	1	EXISTING LIGHTING CIRCUIT
EXISTING LIGHTING CIRCUIT	1	20 A	3		0	0	4	20 A	1	EXISTING LIGHTING CIRCUIT
EXISTING LIGHTING CIRCUIT	1	20 A	5			0	6	20 A	1	EXISTING LIGHTING CIRCUIT
EXISTING LIGHTING CIRCUIT	1	20 A	7	0	0		8	20 A	1	EXISTING LIGHTING CIRCUIT
EXISTING LIGHTING CIRCUIT	1	20 A	9		0	0	10	20 A	1	EXISTING LIGHTING CIRCUIT
EXISTING LIGHTING CIRCUIT	1	20 A	11			0	12	20 A	3	EXISTING LIGHTING CIRCUIT
SPARE	2	20 A	13		0	0	16			
SPARE	1	20 A	17			0	18	30 A	3	15KVA ELEVATOR TRANSFORMER
SPARE	1	20 A	21		0	0	20	20 A	1	SPARE
SPARE	1	20 A	23			0	22	20 A	1	SPARE
SPARE	1	20 A	25	0	0		24	20 A	1	SPARE
SPARE	1	20 A	27		0	0	26	--	--	SPACE
SPARE	1	20 A	29			0	28	--	--	SPACE
SPARE	1	20 A	31	0	0		30	--	--	SPACE
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	32			0	31	0		
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	33		0	0	32			
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	34			0	33			
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	35			0	34			
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	36			0	35			
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	37	0	0		36			
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	38		0	0	37			
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	39			0	38			
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	40			0	39			
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	41			0	40			
EXISTING 100A FUSE - VERIFY FUSE SIZE BEFORE PURCHASE. RE-FEED EXISTING FEEDER FROM SWBD LAB	3	100 A	42			0	41			
				0 VA	0 VA	0 VA				
				0 A	0 A	0 A				

LEGEND:

LOAD CLASSIFICATION	CONNECTED...	DEMAND...	ESTIMATED...	PANEL TOTALS
				TOTAL CONN. LOAD: 0 VA
				TOTAL EST. DEMAND: 0 VA
				TOTAL CONN.: 0 A
				TOTAL EST. DEMAND: 0 A

NOTES:

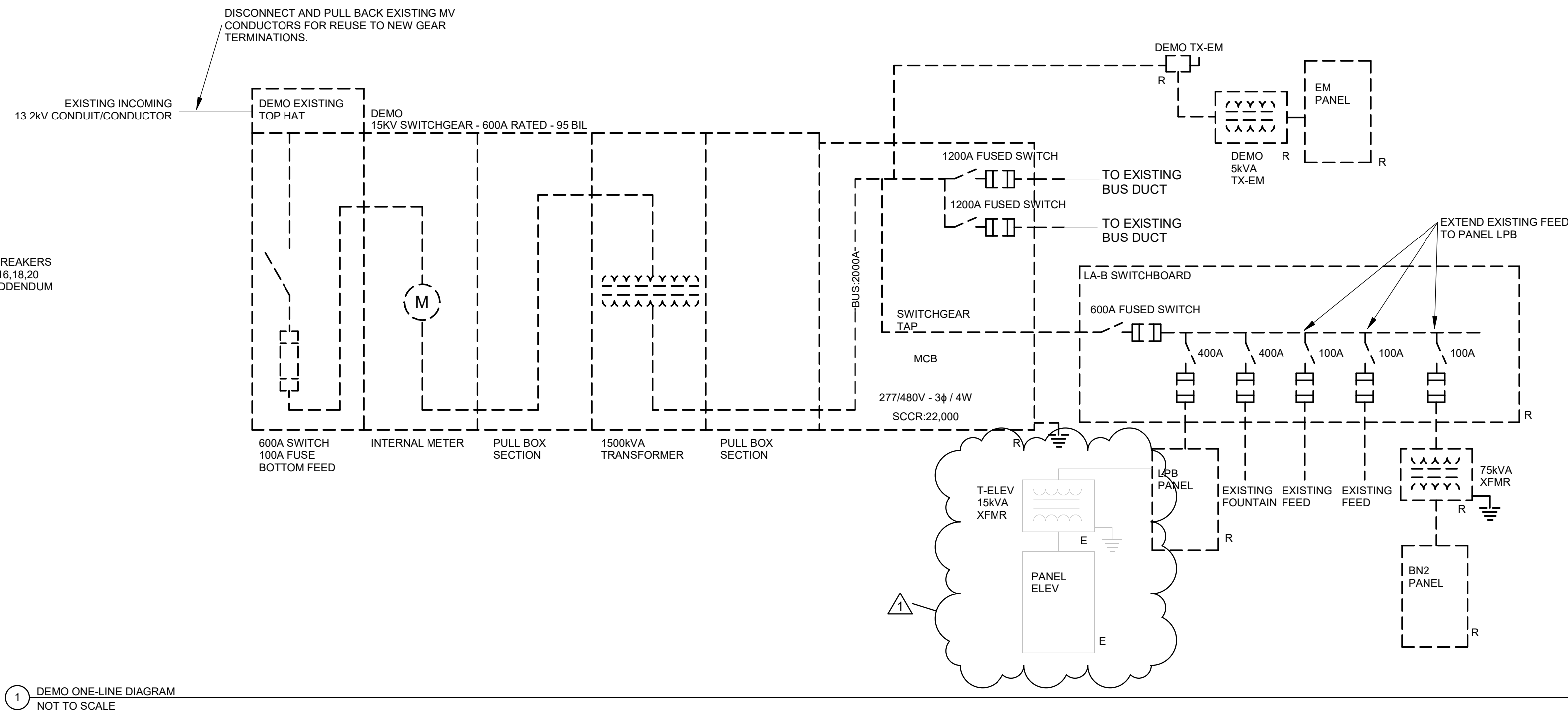
RATING IN DEMOLISHED PANEL FOR RECONNECTION, FIELD VERIFY.

ELECTRICAL RISER DIAGRAM NOTES

- DIAGRAM INDICATES OVERALL LAYOUT OF ELECTRICAL DISTRIBUTION SYSTEM. REFER TO FLOOR PLANS FOR EQUIPMENT LOCATIONS.
- WIRING SHALL BE COPPER UNLESS INDICATED OTHERWISE.
- NEUTRAL CONDUCTOR SIZE SHALL MATCH THE PHASE CONDUCTORS UNLESS OTHERWISE NOTED.
- REFER TO SPECIFICATIONS FOR ADDITIONAL SWITCHBOARD, DISTRIBUTION PANEL, PANELBOARD, AND TRANSFORMER DETAILS.

KEY

- EXISTING
- DEMO
- NEW



1 DEMO ONE-LINE DIAGRAM NOT TO SCALE

2 NEW ONE-LINE DIAGRAM NOT TO SCALE

Project No: 20030

Date: 06/02/2020

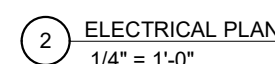
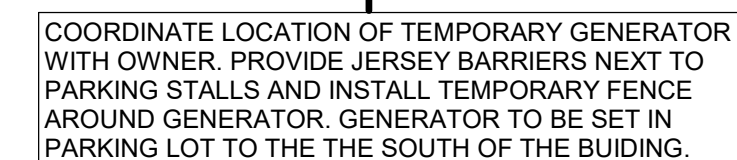
CONSTRUCTION DOCUMENTS

Revision 1 ADDENDUM #2 Date 06/25/2020

Drawing Name: ELECTRICAL GENERAL NOTES, ONE-LINE, AND SCHEDULES

Drawing #: E1

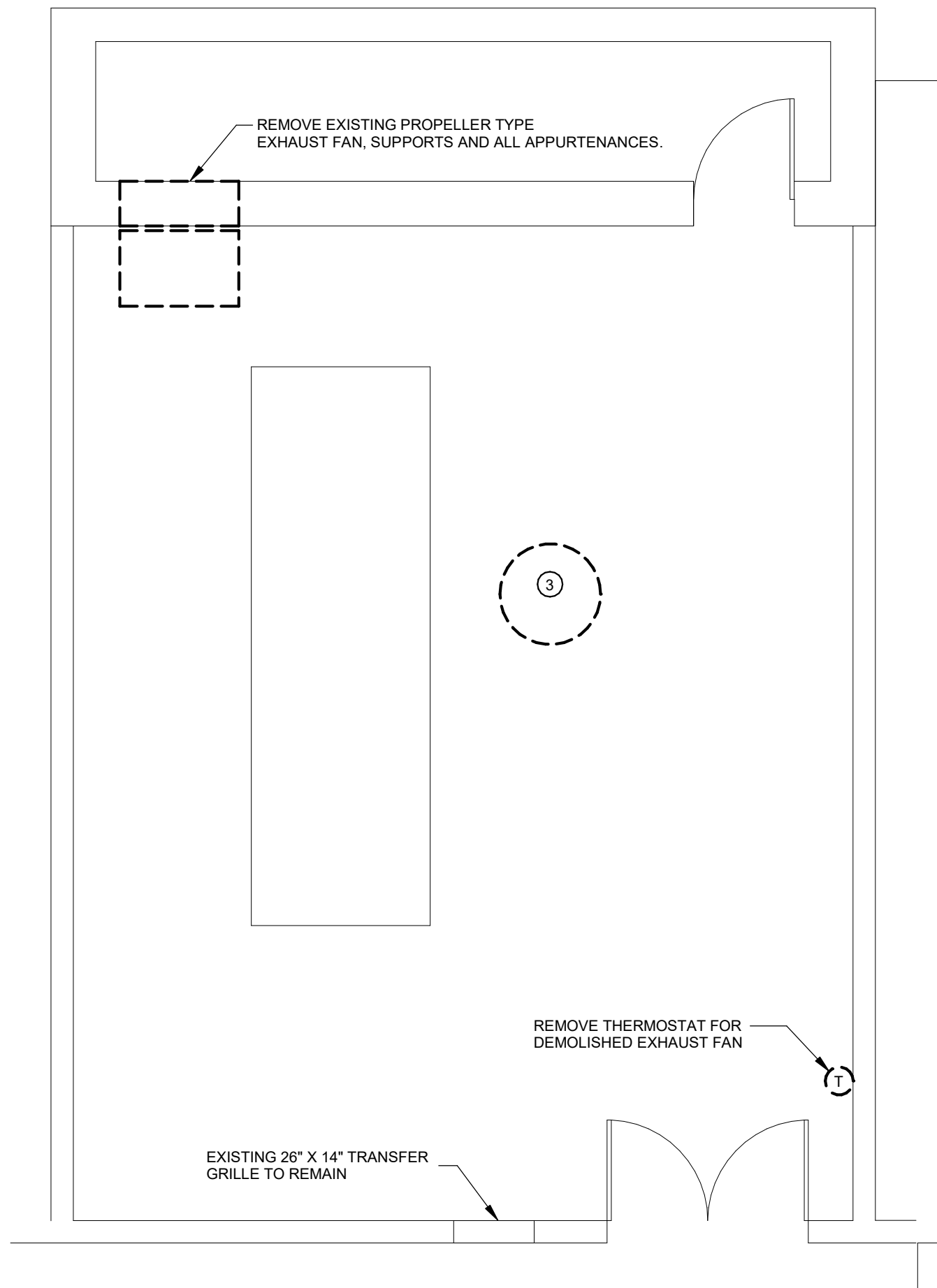
1. REPLACE ALL MV AND LV EQUIPMENT OVER TWO SEQUENTIAL WEEKENDS. OUTAGE TIMING AND LENGTH WILL NEED TO BE COORDINATED WITH OWNER AND GC.
2. POWER OUTAGE THE FIRST WEEKEND FOR CHANGING OVER THE BUS DUCTS TO THE DISTRIBUTION PANEL AND BACKFEEDING THE DISTRIBUTION PANEL WITH A 200KV GENERATOR. MAXIMUM POWER OUTAGE OF 18 HOURS TO DISTRIBUTION PANEL. ANY LONGER OUTAGES WILL NEED TO BE COORDINATED PER CIRCUIT OUTAGE OR TEMPORARY POWER PROVIDED FOR THE INTERIM.
3. REPLACE 480V AND 208V PANELS AND TRANSFORMERS OVER THE FIRST WEEKEND.
4. REPLACE ALL MV SWITCHGEAR, METER, TRANSFORMER, AND MAIN 480V SWITCH DURING THE WEEK.
5. POWER OUTAGE THE SECOND WEEKEND FOR CHANGE OVER TO UTILITY POWER AND DISCONNECTING THE GENERATOR. MAXIMUM POWER OUTAGE OF 6 HOURS.



1. INSTALL NEW JUNCTION BOXES ON WALL TO INTERCEPT EXISTING FOUNTAIN FEED AND 2) 100A FEEDS FROM DEMOLISHED SWITCHGEAR. EXTEND CIRCUITS WITH NEW 1/2" RIBBON, 120V-277V, SELF-DIAGNOSTIC, AND 2 WATT MAXIMUM. RENAME-Label NEW BREAKERS AND JUNCTION BOXES TO MATCH OWNERS NAMING CONVENTION
2. INSTALL NEW LIGHT FIXTURES: CHAIN HUNG AT 9' ABOVE FLOOR. FIXTURES TO BE 4' DIA. 100 WATT, 1500 LUMENS @ 8' LONG. MULTI-VOLT 4000K LED STRIP LIGHT. HE WILLIAMS 78R-84 100-240-Volt-0-ENGINEER PRE-APPROVED
3. REUSE EXISTING CONDUIT FROM EXISTING LIGHTING CIRCUIT IN SPACE. EXTEND CONDUIT AND CONDUCTORS FROM EXISTING LOCATION TO NEW LIGHT FIXTURE LOCATIONS.
4. NEW TOP HAT COVER TO EXTEND HAT MINIMUM 6" TO THE WEST OF THE GEAR TO INTERCEPT EXISTING CONDUIT AND CONDUCTORS. 18" EXTENSION TO HAVE DRIP COVERED COVER TO BE 1/2" THICK AN UNDERGROUND WATER FROM INCOMING CONDUIT.
4. INSTALL NEW METER IN ENCLOSURE. METER TO BE SCHNEIDER ELECTRIC PM8244 OR PRE-APPROVED EQUAL. METER TO DIN RAIL. METER TO BE PROVIDED BY COMMISSIONING AND TRAINING TO BE PROVIDED BY INSTALLING CONTRACTOR. COORDINATE INSTALLATION AND CONNECTION TO EXISTING ELECTRICAL SERVICE AND SYSTEM AND NETWORK CONNECTION. INSTALL 120V METER FROM PANEL BW2 TO METER ENCLOSURE SHOWN.
5. INSTALL NEW JUNCTION BOXES, CABLES, AND CONDUIT TO INTERCEPT AND EXTEND (8) EXISTING CIRCUITS FROM PANEL EM TO PANEL BW2. INSTALL NEW #12 AWG + #12 GND CONDUIT FOR EACH CIRCUIT. VERIFY EXISTING USE FOR CIRCUIT/CONDUIT GOING BELOW GRADE. EXISTING CONDUIT AND CONDUCTORS TO MAKE EXISTING CONDUIT USEFUL FOR NEW CIRCUITS.
6. INSTALL NEW 120V CIRCUIT AND CONDUCTORS FOR EXHAUST FAN. CIRCUIT BREAKER IN PANEL BW2 WILL BE USED FOR DISCONNECTING MEANS. LABEL JUNCTION BOX FROM PANEL BW2 TO EXHAUST FAN. EXHAUST FAN DISCONNECT. EC TO WIRE MOTOR OPERATED DAMPERS FROM SAME CIRCUIT AS FAN.
7. REMOVE EXISTING METER AND ENCLOSURE. REMOVE EXISTING COMPONENTS TO CLOSURE.
8. REMOVE BUS DUCT BACK TO NEW MDP LOCATION. CONTRACTOR TO VERIFY EXISTING CONNECTIONS AND TERMINATIONS IN THE EXHAUST FAN. CONTRACTOR TO INSTALLATION METHOD WITH EXISTING CONDITIONS. REUSE EXISTING TAPS AND CABLES FOR NEW CIRCUITS.
9. DEMO EXISTING CONDUIT, CABLES, AND CONDUCTORS FOR EXHAUST FAN. CONDUIT CAN REMAIN FOR REUSE IF DEMEDED IN GOOD CONDITION.
10. NEW EMERGENCY LIGHTING IN SPACE FOR EXISTING LIGHTING CIRCUIT IN ROOM. PROVIDE QUALITY E1V2-OR PRE-APPROVED ENGINEERING EAL. FIXTURES TO BE UL LISTED, 120V-277V, SELF-DIAGNOSTIC, AND 2 WATT MAXIMUM.
11. NEW PANEL LPB TO FEED 1) 100A CIRCUITS FROM DEMOLISHED SWITCHGEAR. EXTEND CIRCUITS WITH NEW 1/2" RIBBON IN 1/2" RIBBON IN 1/2" RIBBON IN 1/2" RIBBON.
12. NEW MDP TO FEED "FOUNTAIN" CIRCUIT FROM DEMOLISHED SWITCHGEAR. EXTEND CIRCUIT FROM JUNCTION BOX TO FOUNTAIN ONE-LINE EAL. CONTRACTOR TO VERIFY EAL.
13. DEMO EXISTING PANEL EM. VERIFY USE OF EXISTING (8) CIRCUIT IN PANEL. ALL CIRCUITS REMAINING IN USE TO BE EXTENDED TO PANEL BW2. SEE NEW PLANS FOR MORE DETAIL.

MECHANICAL - GENERAL NOTES

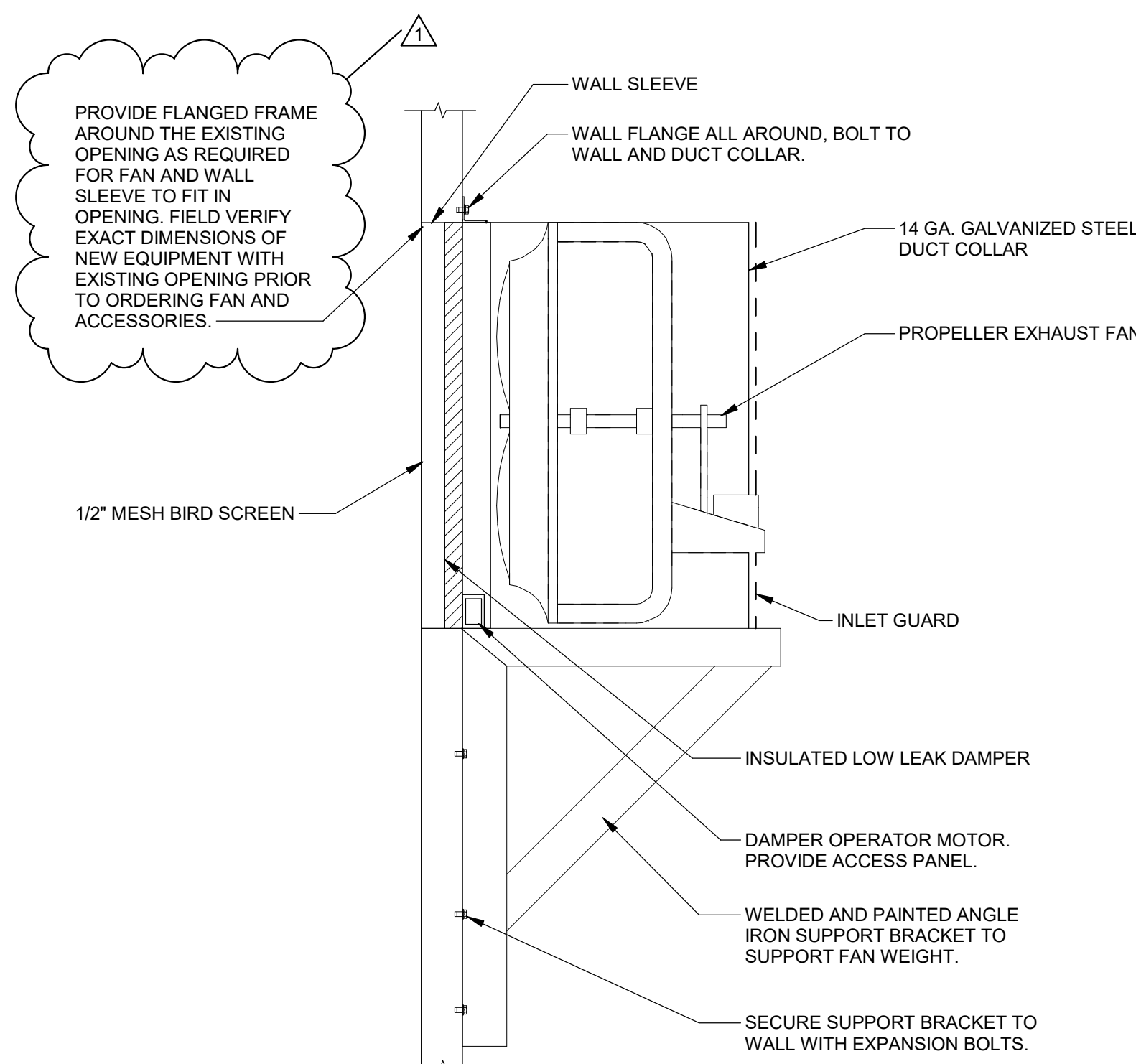
- COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT. ANY REWORK OF INSTALLED EQUIPMENT WILL BE AT CONTRACTORS EXPENSE.
- INCORPORATE INTO INSTALLATION MECHANICAL SPECIFICATIONS, DRAWINGS, STATE CODES, AND OTHER APPLICABLE REQUIREMENTS.
- ON COMPLETION OF THE INSTALLATION, MECHANICAL CONTRACTOR SHALL COOPERATE WITH THE OWNER TO PROVIDE ANY NECESSARY ADJUSTING AND BALANCING TO OBTAIN PROPER OPERATION OF ALL EQUIPMENT AND SYSTEMS. CONTRACTOR SHALL PROVIDE ALL FACILITIES AND EQUIPMENT, AND MAKE ALL TESTS, REQUIRED FOR ADJUSTMENTS AND BALANCING TO ESTABLISH THE PROPER PERFORMANCE OF ANY PIECE OF EQUIPMENT.
- PROVIDE TESTING, ADJUSTING AND BALANCING REPORT FOR FAN TO CONFIRM DESIGN EXHAUST AIRFLOW.
- EACH TRADE IS RESPONSIBLE TO MAKE PENETRATIONS WHERE REQUIRED IN EXISTING WALLS, FLOORS, AND CEILINGS. PENETRATIONS SHALL BE NEAT. ANY OVERCUT SHALL BE CONCEALED OR CAULKED.
- ALL EXPOSED WALL PENETRATIONS SHALL BE COVERED BY ESCUTCHEONS OR SHEET METAL AS APPROPRIATE.
- ALL CONCEALED AND EXPOSED PIPING AND DUCT WALL PENETRATIONS SHALL BE CAULKED TO PREVENT NOISE TRANSFER BETWEEN SPACES.
- CONTRACTOR SHALL BE RESPONSIBLE TO CREATE NECESSARY OPENINGS TO THE BUILDING TO REMOVE EXISTING ITEMS AND TO BRING IN NEW EQUIPMENT. ALL OPENINGS CREATED SHALL BE PATCHED AND FINISHED WITH MATERIALS TO MATCH EXISTING CONDITIONS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK.
- MECHANICAL CONTRACTOR SHALL WARRANT ALL EQUIPMENT AND INSTALLATION PER THE CONTRACT DOCUMENTS. ALL DEFECTS THAT BECOME APPARENT WITHIN THE WARRANTY PERIOD SHALL BE REPAIRED BY THE MECHANICAL CONTRACTOR AS DIRECTED BY THE ENGINEER THROUGH THE OWNERS REPRESENTATIVE. WARRANTY WILL NOT OBLIGATE THE MECHANICAL CONTRACTOR TO REPAIR DAMAGE RESULTING FROM ACCIDENT OR IMPROPER OPERATION OF CARE ON THE PART OF THE OWNER, AND NOT DUE TO DEFECTIVE MATERIAL OR INSTALLATION.



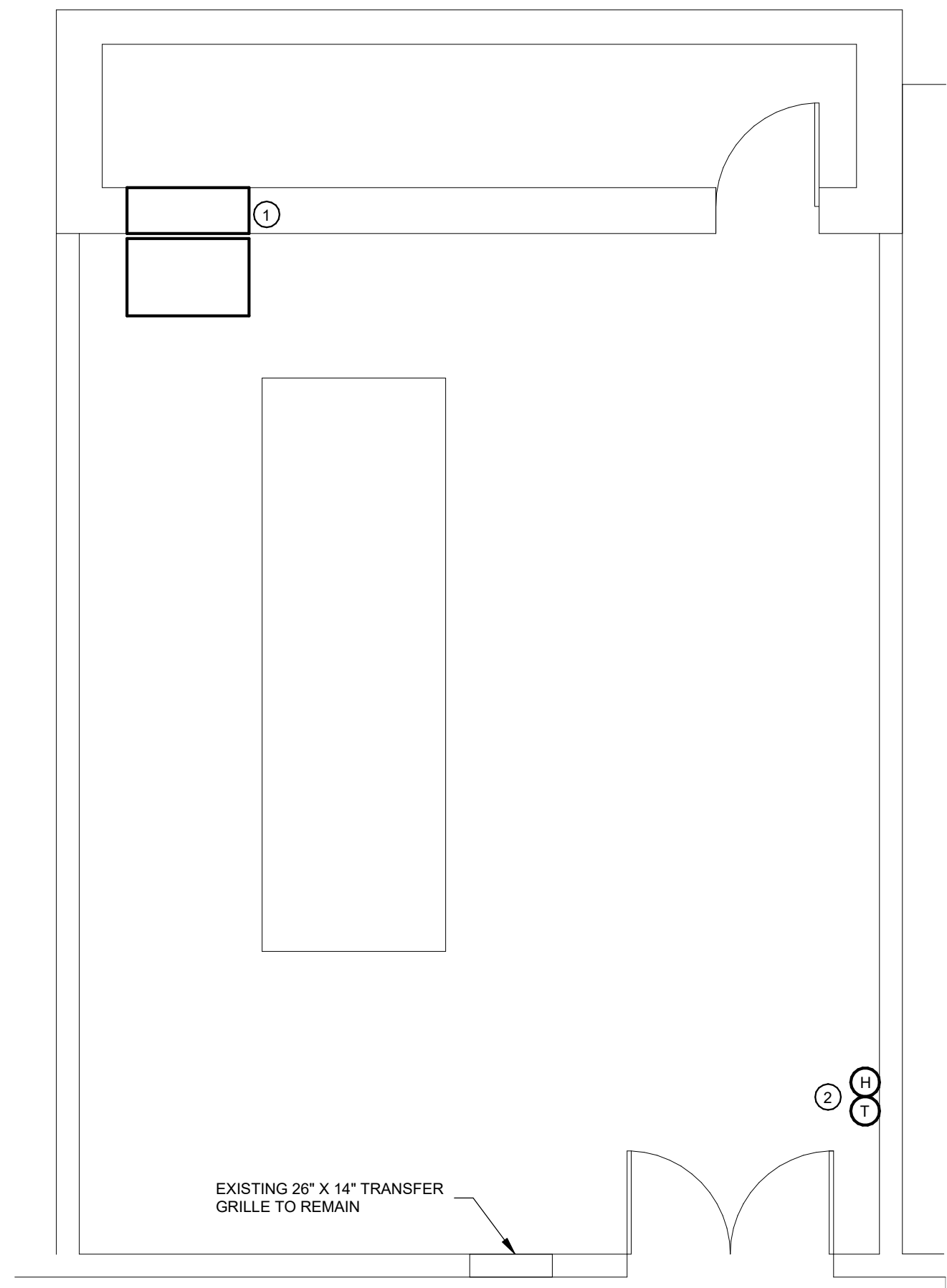
MECHANICAL DEMO PLAN
1/4\" = 1'-0"

HVAC - NOTES

- CONTRACTOR TO COORDINATE INSTALLATION WITH ALL OTHER TRADES AS DESCRIBED IN MECHANICAL GENERAL NOTE #1.
- MECHANICAL CONTRACTOR TO PROVIDE A COMPLETE HVAC SYSTEM, INCLUDING EXHAUST DUCTWORK, MECHANICAL EQUIPMENT, SUPPORTS, HANGERS, AND ALL APPURTENANCES. INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. INSTALL SYSTEM TO MEET ALL STATE CODES AND REQUIREMENTS.
- CONTRACTOR TO SEAL ALL WALL DUCT PENETRATIONS. PROVIDE FIRE CAULKING ASSEMBLIES FOR PENETRATIONS OF RATED WALLS.



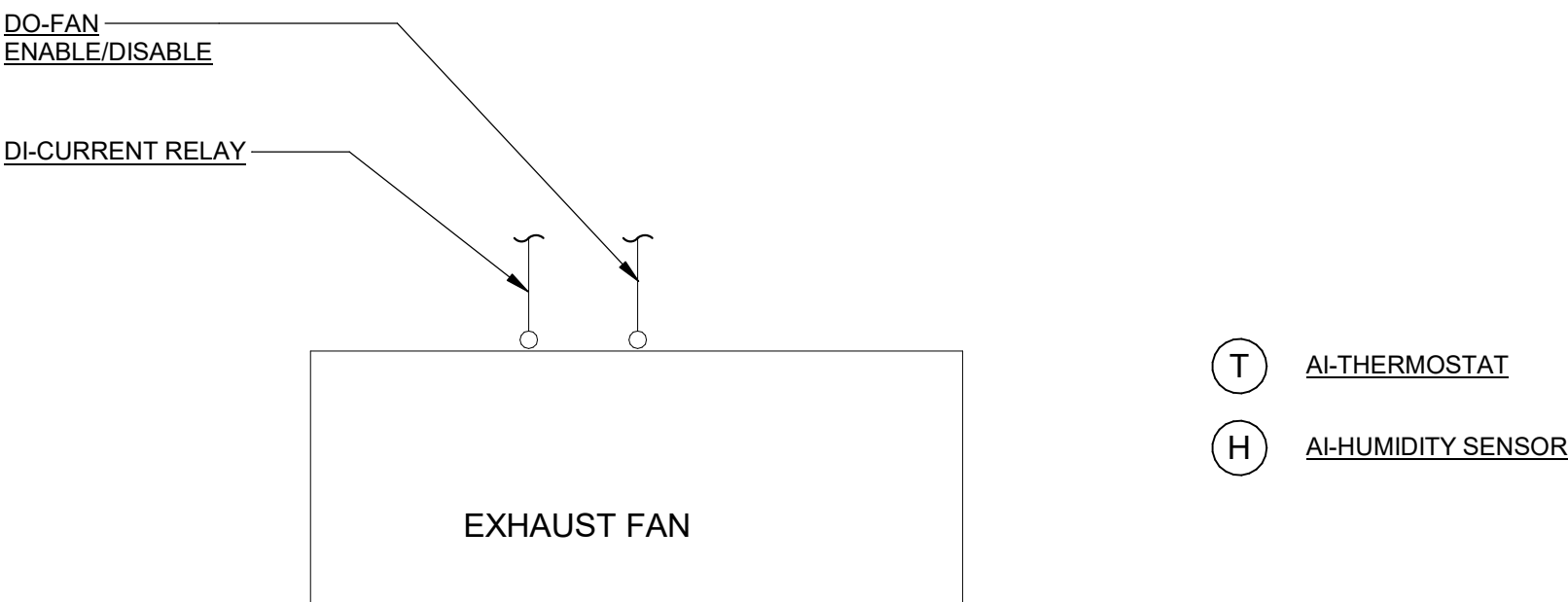
PROPELLER EXHAUST FAN
NOT TO SCALE



MECHANICAL PLAN
1/4\" = 1'-0"

KEYNOTES

- PROVIDE NEW EXHAUST FAN PF-1 IN EXISTING OPENING. FAN SHALL BE WALL PROPELLER TYPE. FAN SHALL BE GREENHECK MODEL AER-E206-620-B3 OR ENGINEER PRE-APPROVED EQUAL. FAN SHALL BE 2,000 CFM, 0.4\" W.C. ESP, 1/3 HP, 120V, WITH SPEED CONTROL AND LOW-LEAK 120V MOTOR OPERATED DAMPER, WIRED BY EC, ON OUTLET TO OPEN/CLOSE WITH FAN OPERATION. PROVIDE WITH WALL SLEEVE AND MOTOR GUARD. SUPPORT FROM WALL PER PROPELLER EXHAUST FAN DETAIL 3/M1 ON THIS SHEET.
- REMOVE DDC TEMP AND HUMIDITY SENSOR ON WALL HERE.
- FILL IN EXISTING 36\" DIAMETER, 10\" DEEP PIT WITH COMPACTED SAND. COMPACT SAND WITH EVERY 12\" OF FILL AND TOP TO 6\" WITHIN TOP OF ADJACENT SLAB. DOWEL IN #5 REBAR 6\" DEEP AND 3\" DOWN FROM TOP OF EXISTING SLAB IN 6 DIFFERENT LOCATIONS. INSTALL 1/4\" EXPANSION JOINT AROUND ENTIRE PERIMETER OF POUR. POUR 3000 PSI CONCRETE. LET CURE FOR 28 DAYS BEFORE REGULAR AND HEAVY EQUIPMENT USE.



CONTROL SEQUENCE

EXHAUST FAN SHALL BE ENABLED WHEN TEMPERATURE REACHES 80°F(ADJ.) AND DISABLED WHEN TEMPERATURE REACHES 75°F(ADJ.). SPACE TEMPERATURE AND CURRENT RELAY TO BE MONITORED THROUGH DDC SYSTEM.

ALARMS

AN ALARM SHALL BE GENERATED AT THE DDC IF THE SPACE TEMPERATURE RISES ABOVE 65°F(ADJ.) FOR MORE THAN 15 MIN(ADJ.). AN ALARM SHALL BE GENERATED AT THE DDC IF THE SPACE HUMIDITY RISES ABOVE 65% (ADJ.) RELATIVE HUMIDITY FOR MORE THAN 1 HOUR (ADJ.)

TRENDS

ALL POINTS SHALL BE HISTORICALLY TRENDED. TREND POINTS AT 1 HOUR INTERVALS OVER A MINIMUM 90 DAY PERIOD OF TIME.

EXHAUST FAN CONTROL
NOT TO SCALE