

TARRANT COUNTY GREEN BAY JAIL RTU AND FAN REPLACEMENT

2500 Urban Drive, Fort Worth TX 76101

Tarrant County Facilities Management

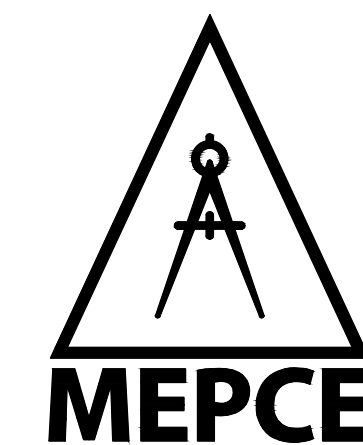


ISSUE FOR BID
APRIL 28, 2023

SHEET LIST

M0.01	GENERAL NOTES AND LEGENDS MECHANICAL
M3.00	MECHANICAL RTU ROOF PLAN -OVERALL
M3.01	MECHANICAL RTU ROOF PLAN - NORTH
M3.02	MECHANICAL RTU ROOF PLAN - SOUTH
M6.01	MECHANICAL SCHEDULE RTUS
M6.02	MECHANICAL SCHEDULE UVC AND FANS
M7.01	MECHANICAL DETAILS
M8.01	MECHANICAL CONTROLS PLAN -SMOKE PURGE
E0.00	ELECTRICAL LEGEND
E3.01	ELECTRICAL ROOF PLAN - NORTH
E3.02	ELECTRICAL ROOF PLAN - SOUTH

PREPARED BY



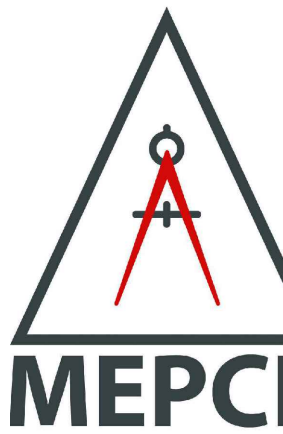
HVAC GENERAL NOTES	
1.	ALL DUCTWORK DIMENSIONS SHOWN REPRESENT INSIDE CLEAR DIMENSIONS.
2.	THE MECHANICAL LAYOUT SHOWN ON THIS DRAWING IS FOR GENERAL ARRANGEMENT ONLY. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE CONDITIONS AT THE JOB SITE AND ALL THE OTHER TRADES INVOLVED.
3.	THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE NECESSARY PIPING, FITTINGS, VALVES, HARDWARE, SUPPORTS AND ACCESSORIES REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE NEW MECHANICAL SYSTEM(S).
4.	DO NOT SCALE LOCATIONS OR PARTITIONS FROM THIS DRAWING. THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S CUT-SHEETS, ROUGHING-IN DIMENSIONS, DETAILS, SPECIFICATIONS AND ALL OTHER INFORMATION RELATED TO THIS PROJECT, AS REQUIRED.
5.	THE CONTRACTOR SHALL COORDINATE ALL THE FLOOR AND PARTITION PENETRATIONS WITH THE FIELD CONDITIONS AND STRUCTURAL DESIGN BEFORE DRILLING OR CORE-BORING.
6.	THE CONTRACTOR SHALL SEAL ALL PENETRATIONS WITH A CODE APPROVED FIRE RATED MATERIAL AS REQUIRED TO MAINTAIN THE FIRE SEPARATION BETWEEN FLOORS/ROOF REQUIRED BY THE ARCHITECTURAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND FIRE BARRIER LOCATIONS.
7.	THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S SPECIFICATIONS AND CUT-SHEETS FOR ALL THE EQUIPMENT, FITTINGS AND COMPONENTS AS REQUIRED FOR FINAL APPROVAL BY THE ENGINEER BEFORE PURCHASING OR INSTALLING THEM. REFER TO SPECIFICATIONS FOR MORE COMPLETE INFORMATION ABOUT THE EQUIPMENT SCHEDULED.
8.	THE CONTRACTOR SHALL TEST ALL NEW PIPING AND NEW EQUIPMENT FOR PROPER OPERATION AND SHALL MAKE ALL NECESSARY REPAIRS AS REQUIRED TO PROVIDE A COMPLETE WORKING SYSTEM.
9.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL THE AREAS AFFECTED BY THE WORK REQUIRED IN THESE DRAWINGS TO THEIR ORIGINAL CONDITION AS REQUIRED BY THE OWNER/ARCHITECT.
10.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE JOB-SITE AS REQUIRED BY THIS CONTRACT IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
11.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING, PERMITTING, AND CONDUCTING ALL THE INSPECTIONS AND TESTS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE OF COMMISSIONING INSPECTION TO THE ENGINEER.
12.	ALL WORK AND INSTALLATION SHALL BE DONE BY A LICENSED CONTRACTOR WITH EXPERIENCE IN THE WORK REQUIRED FOR THIS PROJECT.
13.	ALL EQUIPMENT SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS. NO WEIGHT CAN BE PLACED ON THE ROOFING MATERIALS OR INSULATION.
14.	ALL PIPING, CLAMPS, SUPPORTS, ETC. SHALL BE FASTENED TO JOISTS OR BEAMS. DO NOT ATTACH ANYTHING DIRECTLY TO THE DECK, CEILING SUPPORT SYSTEM, PIPING, CONDUIT OR DUCTWORK ABOVE.
15.	CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY CODE ISSUES NOT ALREADY ADDRESSED.
16.	THESE DRAWINGS DO NOT INDICATE OR SHOW ALL EXISTING PIPING, EQUIPMENT, DUCTWORK, ETC. THESE DRAWINGS ARE NOT A SUBSTITUTE FOR FIELD VERIFICATION.
17.	ALL NEW ROOF PENETRATIONS SHALL BE PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
18.	ALL NEW EQUIPMENT SUPPORTS SHALL BE INSTALLED PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
19.	ALL NEW CURB CAPS SHALL BE INSTALLED PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
20.	ALL ROOF MOUNTED EQUIPMENT LOCATIONS SHALL BE VERIFIED AND APPROVED BY A TEXAS REGISTERED STRUCTURAL ENGINEER.
21.	DUCTWORK SHOP DRAWINGS SHALL BE PROVIDED TO, REVIEWED BY, AND APPROVED BY THE ENGINEER PRIOR TO ANY DUCTWORK FABRICATION AND OR INSTALLATION. DUCTWORK SHOP DRAWINGS SHALL INDICATE THE ACTUAL SIZE OF EACH SECTION OF DUCT AND ALL REQUIRED FITTINGS AND TRANSITIONS.
22.	CONTRACTOR SHALL PROVIDE UL LISTED FIRE DAMPERS AT ALL FIRE WALL PENETRATIONS. REFER TO ARCHITECTURAL FOR FIRE WALL RATING. REFER TO MECHANICAL FLOOR PLANS FOR DAMPER SIZING.
23.	PROVIDE DUCTWORK TRANSITIONS AS REQUIRED FOR ALL AIR DEVICE AND EQUIPMENT CONNECTIONS.
24.	REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF-SITE, UNLESS INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND REINSTALLED.
25.	REMOVE AND SALVAGE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND DELIVER THEM TO OWNER OR OWNER'S REPRESENTATIVE READY FOR REUSE.
26.	REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONSTRUCTION, PREPARE THEM FOR REUSE, AND REINSTALL THEM WHERE INDICATED.
27.	EXISTING TO REMAIN: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, REMOVED AND SALVAGED, OR REMOVED AND REINSTALLED.

DEMOLITION GENERAL NOTES	
1.	COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE BEGINNING SELECTIVE DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
2.	MAINTAIN FIRE-PROTECTION FACILITIES IN SERVICE DURING SELECTIVE DEMOLITION OPERATIONS.
3.	REMOVE, REPLACE, PATCH, AND REPAIR MATERIALS AND SURFACES CUT OR DAMAGED DURING SELECTIVE DEMOLITION, BY METHODS AND WITH MATERIALS SO AS NOT TO VOID EXISTING WARRANTIES.
4.	VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED BEFORE PROCEEDING TO DEMOLITION.
5.	MAINTAIN SYSTEMS TO REMAIN AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.
6.	LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS SERVING AREAS TO BE SELECTIVELY DEMOLISHED.
7.	IF SERVICES/SYSTEMS ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, BEFORE PROCEEDING WITH SELECTIVE DEMOLITION PROVIDE TEMPORARY SERVICES/SYSTEMS THAT BYPASS AREA OF SELECTIVE DEMOLITION AND THAT MAINTAIN CONTINUITY OF SERVICES/SYSTEMS TO OTHER PARTS OF BUILDING.
8.	REMOVE AIR-CONDITIONING EQUIPMENT WITHOUT RELEASING REFRIGERANTS.
9.	ANY WORK INVOLVING A SERVICE SUSPENSION SHALL BE SCHEDULED IN ADVANCE WITH THE OWNER. OBTAIN WRITTEN APPROVAL FROM THE OWNER WHEN INTERRUPTION OF SERVICES IS UNAVOIDABLE.
10.	PERFORM NO WORK IN ANY BUILDING WHICH WOULD INTERFERE WITH ITS USE DURING NORMAL HOURS OF OCCUPANCY, UNLESS SPECIAL PERMISSION IS GRANTED BY THE OWNER. INCLUDED ARE OPERATIONS WHICH WOULD CAUSE OBJECTIONABLE NOISE OR SERVICE INTERRUPTIONS.
11.	DO NOT CUT ANY STRUCTURAL MEMBER UNLESS SPECIFIC WRITTEN PERMISSION IS PROVIDED BY THE ARCHITECT AND STRUCTURAL ENGINEER.
12.	WHERE OPENINGS ARE CUT IN FIRE-RATED WALLS OR FLOORS, SEAL THE ANNULAR SPACE BETWEEN THE WORK INSTALLED AND THE FIRE-RATED CONSTRUCTION. SEALANT, AS APPLIED, SHALL BE FIRE-RATED TO MAINTAIN THE FIRE RATING OF THE CONSTRUCTION PENETRATED, AND SHALL BE APPROVED BY THE ARCHITECT.

HVAC LEGEND			
	←	EXISTING RTU TO BE REPLACED	
	←	EXISTING RTU TO REMAIN	
	←	EXISTING FAN TO BE REPLACED	
	←	EXISTING FAN TO REMAIN	

HVAC SYMBOLS			
AIR DEVICES		EQUIPMENT	
	SUPPLY AIR DEVICE		CEILING MOUNTED EXHAUST FAN
	RETURN AIR DEVICE		FAN COIL UNIT (FCU)
	EXHAUST AIR DEVICE		CONDENSING UNIT (CU)
ACCESSORIES		SYMBOLS	
	BALANCE DAMPER		DIFFUSER/GRILLE TAG (TYPICAL)
	FIRE DAMPER		DETAIL CALL-OUT
	FIRE/SMOKE DAMPER		SHEET NUMBER
	THERMOSTAT *INSTALL 48" ABOVE FINISH FLOOR		PLAN NUMBER ENLARGED PLAN CALL-OUT
	TEMPERATURE SENSOR *INSTALL 48" ABOVE FINISH FLOOR		SHEET NUMBER
	HUMIDISTAT *INSTALL 48" ABOVE FINISH FLOOR		ELEVATION NUMBER ELEVATION CALL-OUT
	CARBON DIOXIDE SENSOR (CO2) *INSTALL 48" ABOVE FINISH FLOOR		MOTORIZED DAMPER
	SMOKE DETECTOR		
PIPING			
	CHILLED WATER SUPPLY PIPING (CHS)		HEATING WATER SUPPLY (HWS)
	CHILLED WATER RETURN PIPING (CHR)		HEATING WATER RETURN (HWR)
	CONDENSER WATER SUPPLY (CWS)		REFRIGERANT PIPING (RP)
	CONDENSER WATER RETURN (CWR)		STEAM PIPING (SP)
	MECHANICAL CLEARANCES		STEAM CONDENSATE PIPING (SC)
	EXISTING MECHANICAL		PIPE DOWN
			PIPE UP

ISSUE FOR BID



April 28, 2023
Derek Bramlage
David Graham
31.00.401

DATE
DRAWN BY
CHECKED BY
PROJECT NUMBER

TC Green Bay Jail
RTU Replacement
Tarrant County
2500 Urban Dr.
Forth Worth, Texas 76106

NO.	REVISION	DATE

M0.01

GENERAL NOTES AND LEGEND

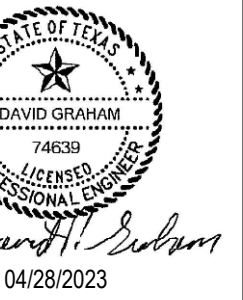
GENERAL NOTES

- EQUIPMENT MARKED WITH (E) IS EXISTING TO REMAIN. ALL OTHER FANS AND RTUS ON THIS SHEET WILL BE REPLACED.
- REFER TO SHEETS M3.01 AND M3.02 FOR MORE INFORMATION ON EQUIPMENT REPLACEMENT.



1 OVERALL MECHANICAL ROOF PLAN
SCALE: 1" = 23' - 9 5/16"

ISSUE FOR BID



April 28, 2023
Derek Bromberg
David Graham
31.00401

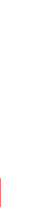
DATE
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RTU Replacement
Tarrant County
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Forth Worth, Texas 76106

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M3.00

MECHANICAL RTU
ROOF PLAN - OVERALL

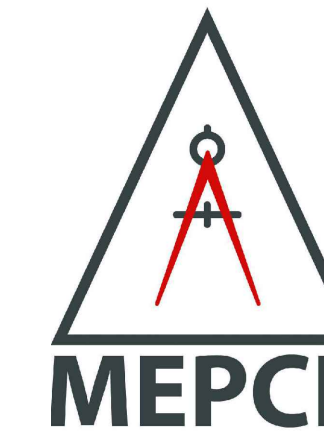
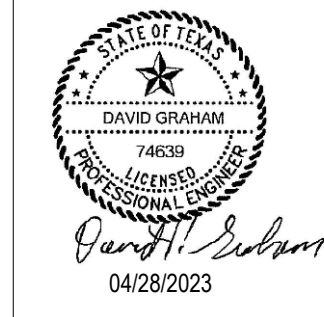


- NOTES BY SYMBOL**
- REMOVE EXISTING RTU AND REPLACE WITH NEW. INSTALL NEW WITH SAME RTU NUMBER. REFER TO EQUIPMENT SCHEDULE. RECONNECT ELECTRICAL AND CONTROL WIRING. RECONNECT GAS LINES AND CONDENSATE DRAIN PIPING. USE CURB ADAPTERS AND RECONNECT SUPPLY AND RETURN DUCTWORK.
 - PROVIDE DUCT MOUNTED UV LIGHT KIT IN SIDE OF SUPPLY AIR DUCT INSIDE AT DISCHARGE OF RTU. FIELD MEASURE TO CONFIRM DUCT SIZE BEFORE ORDERING. REFER TO SCHEDULE ON SHEET M6.02.
 - REMOVE EXISTING FAN AND REPLACE WITH NEW. INSTALL NEW WITH SAME FAN NUMBER. REFER TO EQUIPMENT SCHEDULE. RECONNECT ELECTRICAL AND CONTROL WIRING.

- GENERAL NOTES**
- EQUIPMENT MARKED WITH (E) IS EXISTING TO REMAIN. ALL OTHER FANS AND RTUs ON THIS SHEET WILL BE REPLACED.
 - REFER TO SHEETS M6.01 AND M6.02 FOR MORE INFORMATION ON EQUIPMENT REPLACEMENT.



ISSUE FOR BID



April 28, 2023
 Derek Bramlage
 David Graham
 31.00401

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 Tarrant County
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 Fort Worth, Texas 76106

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1 NORTH MECHANICAL ROOF PLAN
 SCALE: 1/16" = 1' 0"

M3.01

MECHANICAL RTU ROOF PLAN - NORTH



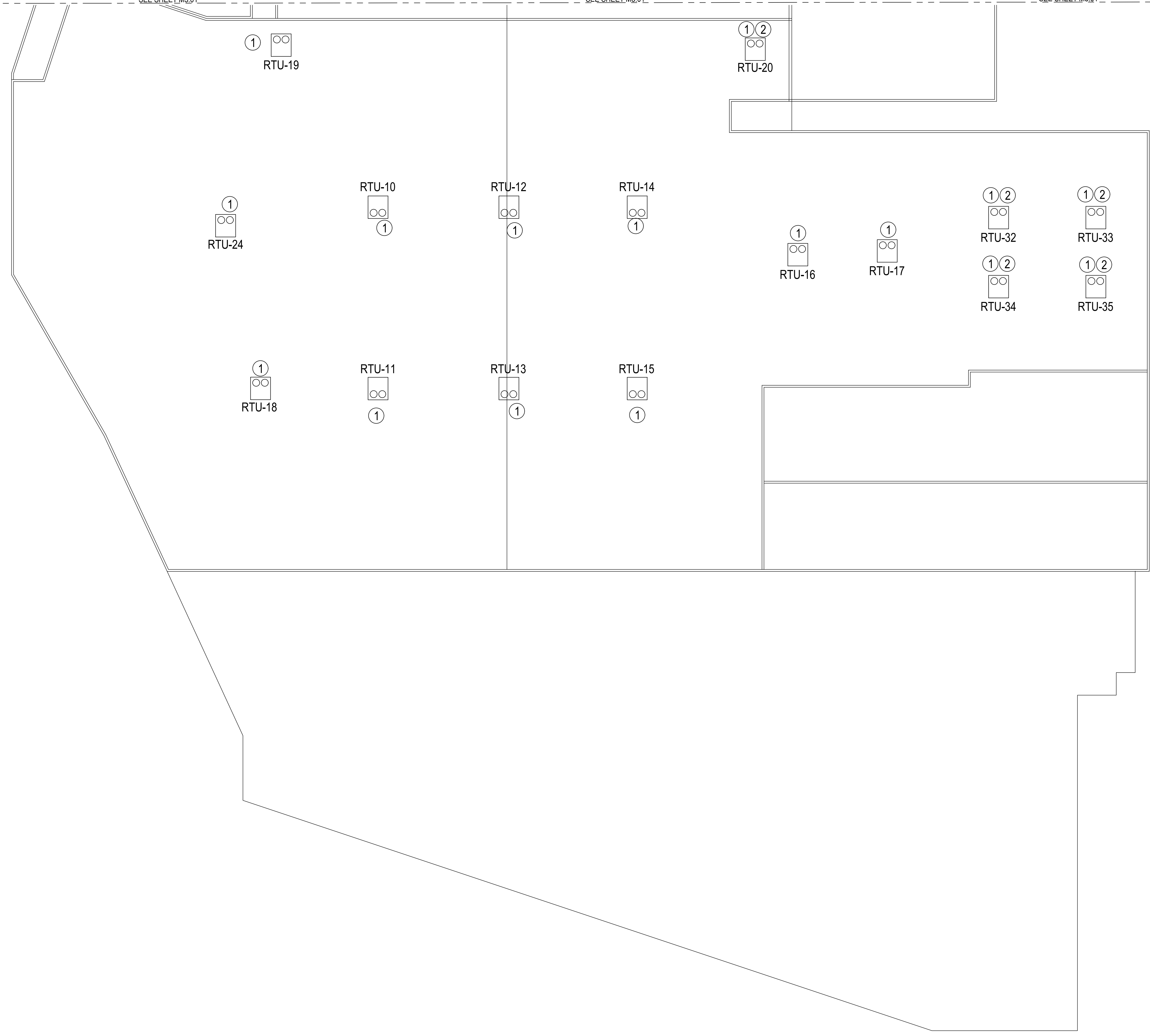
NOTES BY SYMBOL

- REMOVE EXISTING RTU AND REPLACE WITH NEW. INSTALL NEW WITH SAME RTU NUMBER. REFER TO EQUIPMENT SCHEDULE. RECONNECT ELECTRICAL AND CONTROL WIRING. RECONNECT GAS LINES AND CONDENSATE DRAIN PIPING. USE CURB ADAPTERS AND RECONNECT SUPPLY AND RETURN DUCTWORK.
- PROVIDE DUCT MOUNTED UV LIGHT KIT IN SIDE OF SUPPLY AIR DUCT INSIDE AT DISCHARGE OF RTU. FIELD MEASURE TO CONFIRM DUCT SIZE BEFORE ORDERING. REFER TO SCHEDULE ON SHEET M6.02.

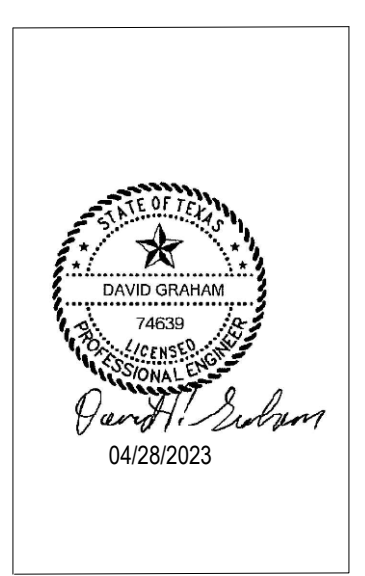
GENERAL NOTES

- EQUIPMENT MARKED WITH (E) IS EXISTING TO REMAIN. ALL OTHER FANS AND RTUS ON THIS SHEET WILL BE REPLACED.
- REFER TO SHEETS M6.01 AND M6.02 FOR MORE INFORMATION ON EQUIPMENT REPLACEMENT.

SEE SHEET M3.01 SEE SHEET M3.01 SEE SHEET M3.01 SEE SHEET M3.01 SEE SHEET M3.01



ISSUE FOR BID



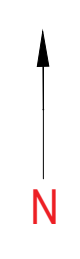
April 28, 2023
 Derek Bramlage
 David Graham
 31.00401

DATE
 DRAWN BY
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 PROJECT NUMBER

**TC Green Bay Jail
 RTU Replacement
 Tarrant County**
 2500 Urban Dr,
 Fort Worth, Texas 76106

NO.	REVISION	DATE

1 SOUTH MECHANICAL ROOF PLAN
 SCALE: 1/16" = 1' 0"



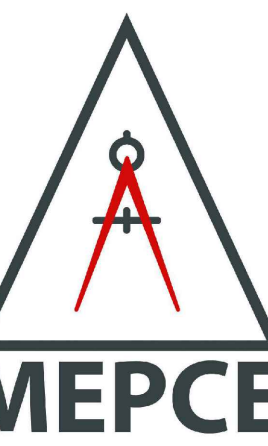
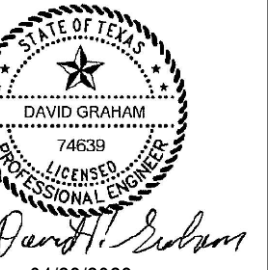
M3.02
 MECHANICAL RTU
 ROOF PLAN - SOUTH

ROOFTOP UNIT SCHEDULE

MARK	CAPACITY (TONS)	EER	COOLING PERFORMANCE								HEATING PERFORMANCE				ELECTRICAL			WEIGHT (LBS)	AMBIENT TEMP (°F)	MANUFACTURER	MODEL NO.
			SUPPLY AIRFLOW (CFM)	OUTDOOR AIRFLOW (CFM)	ESP (IN. W.C.)	EAT (DB°F / WB°F)	UAAT (DB°F / WB°F)	SENSIBLE MBH	TOTAL MBH	HOT GAS REHEAT	GAS INPUT (BTU/H)	GAS OUTPUT (BTU/H)	E.A.T. (DB°F)	L.A.T. (DB°F)	VOLTAGE / PHASE	MCA	MOCP				
RTU-10	12	11.8	5040	1008	0.8	75 / 62	54.21 / 52.41	123	144	Y	293	234.00	60.0	103.00	460 / 3	37.0	45.0	1909	105	AAON	RN-013-3-0-GA04-2G2 0000-000-DRF-AH0-0DLA0A0-00-0HC00000B
RTU-11	12	11.8	5040	1008	0.8	75 / 62	54.21 / 52.41	123	144	Y	293	234.00	60.0	103.00	460 / 3	37.0	45.0	1909	105	AAON	RN-013-3-0-GA04-2G2 0000-000-DRF-AH0-0DLA0A0-00-0HC00000B
RTU-12	12	11.8	5040	1008	0.8	75 / 62	54.21 / 52.41	123	144	Y	293	234.00	60.0	103.00	460 / 3	37.0	45.0	1909	105	AAON	RN-013-3-0-GA04-2G2 0000-000-DRF-AH0-0DLA0A0-00-0HC00000B
RTU-13	12	11.8	5040	1008	0.8	75 / 62	54.21 / 52.41	123	144	Y	293	234.00	60.0	103.00	460 / 3	37.0	45.0	1909	105	AAON	RN-013-3-0-GA04-2G2 0000-000-DRF-AH0-0DLA0A0-00-0HC00000B
RTU-14	12	11.8	5040	1008	0.8	75 / 62	54.21 / 52.41	123	144	Y	293	234.00	60.0	103.00	460 / 3	37.0	45.0	1909	105	AAON	RN-013-3-0-GA04-2G2 0000-000-DRF-AH0-0DLA0A0-00-0HC00000B
RTU-15	12	11.8	5040	1008	0.8	75 / 62	54.21 / 52.41	123	144	Y	293	234.00	60.0	103.00	460 / 3	37.0	45.0	1909	105	AAON	RN-013-3-0-GA04-2G2 0000-000-DRF-AH0-0DLA0A0-00-0HC00000B
RTU-16	12	11.8	5000	1000	0.8	75 / 62	54.11 / 52.40	122	144	Y	293	234.00	60.0	103.30	460 / 3	37.0	45.0	1909	105	AAON	RN-013-3-0-GA04-2G2 0000-000-DRF-AH0-0DLA0A0-00-0HC00000B
RTU-17	12	11.8	5000	1000	0.8	75 / 62	54.11 / 52.40	122	144	Y	293	234.00	60.0	103.30	460 / 3	37.0	45.0	1909	105	AAON	RN-013-3-0-GA04-2G2 0000-000-DRF-AH0-0DLA0A0-00-0HC00000B
RTU-18	12	11.8	5000	1000	0.8	75 / 62	54.11 / 52.40	122	144	Y	293	234.00	60.0	103.30	460 / 3	37.0	45.0	1909	105	AAON	RN-013-3-0-GA04-2G2 0000-000-DRF-AH0-0DLA0A0-00-0HC00000B
RTU-19	6	9.6	2400	480	0.8	75 / 62	54.71 / 52.90	55.44	64.08	N	150	120	60.0	106.3	460/3	16	20	1073	105	AAON	RN-006-3-0-GA02-2K2 0000-000-DTD-AH0-0DLA0A0-00-0CC00000B
RTU-20	5	11.6	2000	400	0.8	75 / 62	55.75 / 53.13	45.17	53.61	N	100	81	60	97.5	460/3	15	20	871	105	AAON	RQ-005-3-V-CA01-232 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-21	12	11.8	4000	800	0.8	75 / 62	51.10 / 49.80	108	139	Y	195	156.00	60.00	96.10	460 / 3	34.0	40.0	1851	105	AAON	RN-013-3-0-GA04-2F2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-22	2	13	600	120	0.4	75/62	49.31 / 47.91	17.02	23.19	N	-	-	60	112.6	460/3	18	20	726	105	AAON	RQ-002-3-V-CA01-112 0000-000-QKC-AH0-0DLA0A0-00-0HC00000B
RTU-23	2	13	600	120	0.4	75/62	49.31 / 47.91	17.02	23.19	N	-	-	60	112.6	208/1	61	70	726	105	AAON	RQ-002-1-V-CA01-112 0000-000-QKC-AH0-0DLA0A0-00-0HC00000B
RTU-24	26	10.8	11000	2200	0.8	75/62	55.92 / 53.23	255.77	301.74	N	540	432	60	102.1	460/3	84	100	2817	105	AAON	RN-030-3-0-EA09-2C2 0000-000-DLA-AH0-0DLA0A0-00-0HC00000B
RTU-25	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-26	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-27	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-28	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-29	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-30	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-31	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-32	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-33	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-34	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-35	5	11.6	2400	480	0.8	75/62	57.65 / 54.74	49.78	54.87	N	140	113.4	60	103.7	460 / 3	15	20	890	105	AAON	RQ-005-3-V-CA01-251 0000-000-QJD-AH0-0DLA0A0-00-0HC00000B
RTU-36	3	11.5	900	180	0.5	75/62	52.57 / 50.33	22.61	29.57	N	60	48.6	60	110	208/1	32	45	764	105	AAON	RQ-003-9-V-CA01-211 0000-000-QKC-AH0-0DLA0A0-00-0HC00000B
RTU-37	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-38	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-39	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-40	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-41	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-42	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-43	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-44	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-45	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-46	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-47	9	11.4	4000	660	0.8	75/62	55.30 / 53.30	92.43	106.17	N	210	168	60	98.9	460/3	27	40	1278	105	AAON	RN-010-3-0-GA02-2L2 0000-000-DCE-AH0-0DLA0A0-00-0HC00000B
RTU-48	2	13	900	100	0.8	75/62	59.83 / 57.51	20.41	27.33	Y	60	48.6	60	110.1	460/3	10	15	784	105	AAON	RQ-002-3-V-CA01-211 A000-D0B-QKC-AHA-01LRA0-00-0HC00000B

1. ACCEPTABLE APPROVED EQUAL MANUFACTURERS: TRANE, CARRIER, AAOON, AND DAIKIN. EQUIPMENT SHALL MATCH CAPACITIES LISTED AND COMPLY WITH GENERAL NOTES BELOW.
2. ALL UNITS SHALL USE R-410 REFRIGERANT.
3. ALL ROOFTOP UNITS SHALL HAVE A SINGLE POINT POWER CONNECTION AND DISCONNECT.
4. REUSE EXISTING SMOKE DETECTORS IN THE RETURN DUCT. SMOKE DETECTOR SHALL DE-ENERGIZE UNIT UPON DETECTION OF SMOKE.
5. PROVIDE RTU-48 WITH ENTHALPY ECONOMIZER KIT.
6. PROVIDE ALL UNITS WITH INSULATED ROOF CURB ADAPTERS TO CONNECT TO EXISTING SUPPLY/ RETURN DUCTWORK.
7. CONTROLS BY OWNERS CONTROLS CONTRACTOR.
8. PROVIDE CONDENSATE OVERFLOW FLOAT SWITCH. UNIT SHALL SHUT DOWN WHEN SENSOR IS TRIGGERED.
9. PROVIDE (1) SET OF NEW FILTERS.
10. PROVIDE UNITS WITH MERV-14 FINAL FILTERS.
11. USE COPPER PIPE TO CONNECT THE CONDENSATE OUTLETS TO THE EXISTING CONDENSATE PIPING.
12. ADJUST PIPE AS NECESSARY TO SECURE CONNECTIONS.
13. RTU-22 AND RTU-23 EACH HAVE 10 KW ELECTRIC HEAT.
14. PROVIDE UNITS WITH CONVENIENCE OUTLET.
15. PROVIDE UNITS OVER 3 TONS COOLING CAPACITY WITH GERMICIDAL UVC LIGHTS INTERNAL TO THE UNIT.
16. RTU SELECTIONS ARE BASED ON ORIGINAL PLANS AND SITE CONDITIONS.

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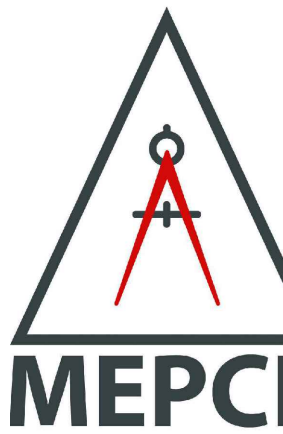
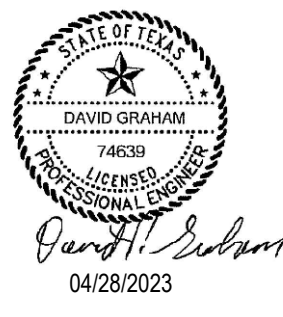
April 28, 2023
Derek Bramlage
David Graham
31.00401

DATE
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CHECKED BY
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**TC Green Bay Jail
RTU Replacement
Tarrant County**
2500 Urban Dr.
Forth Worth, Texas 76106

NO.	REVISION	DATE

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M6.02
MECHANICAL SCHEDULES

IN DUCT GERMICIDAL UV LIGHT SCHEDULE

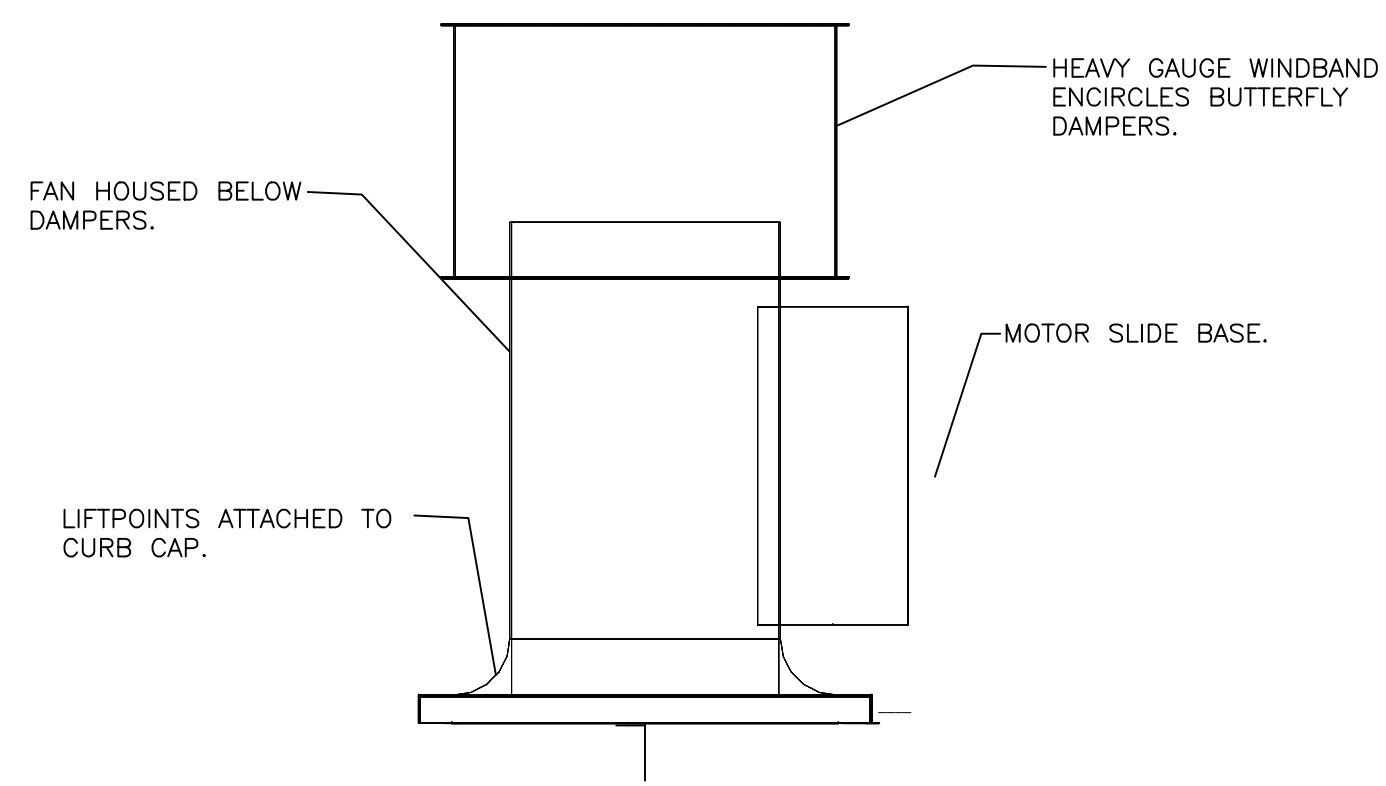
RTU SUPPLY DUCT LOCATION	WATTS/ SQ. FT.	EER	ELECTRICAL		WEIGHT (LBS)	MANUFACTURER	MODEL NO.
			VOLTAGE	TOTAL WATTS			
RTU-20	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-22	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-23	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-25	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-26	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-27	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-28	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-29	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-30	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-31	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-32	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-33	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-34	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-35	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-36	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277
RTU-48	24	11.6	120	94	16	UV RESOURCES	DLX-N-HO-120-277

1. ACCEPTABLE APPROVED EQUAL MANUFACTURERS:
2. PROVIDE AND INSTALL SEL SE 08 BASE HIGH OUTPUT ENCAPSULAMP SIMILAR TO M# SEL-24RL-T508-HO-1-EL, 24".
3. PROVIDE AND INSTALL ACCESSS INTERLOCK SAFETY SWITCH-120-240VAC SIMILAR TO M# UVR-120-240V ISS.
4. PROVIDE AND INSTALL WATER PROOF UV LAMP TOGGLE SWITCH SIMILAR TO M# UVR-WP-TS.
5. PROVIDE AND INSTALL WARNING SIGN - PLASTIC 12" X 8" - 4 HOLES FOR MOUNTING SIMILAR TO M# WS-12X8
6. TO MOUNT ON SIDE OF SUPPLY DUCT. FIELD MEASURE TO CONFIRM DUCT SIZE BEFORE ORDERING UV LIGHT KITS.

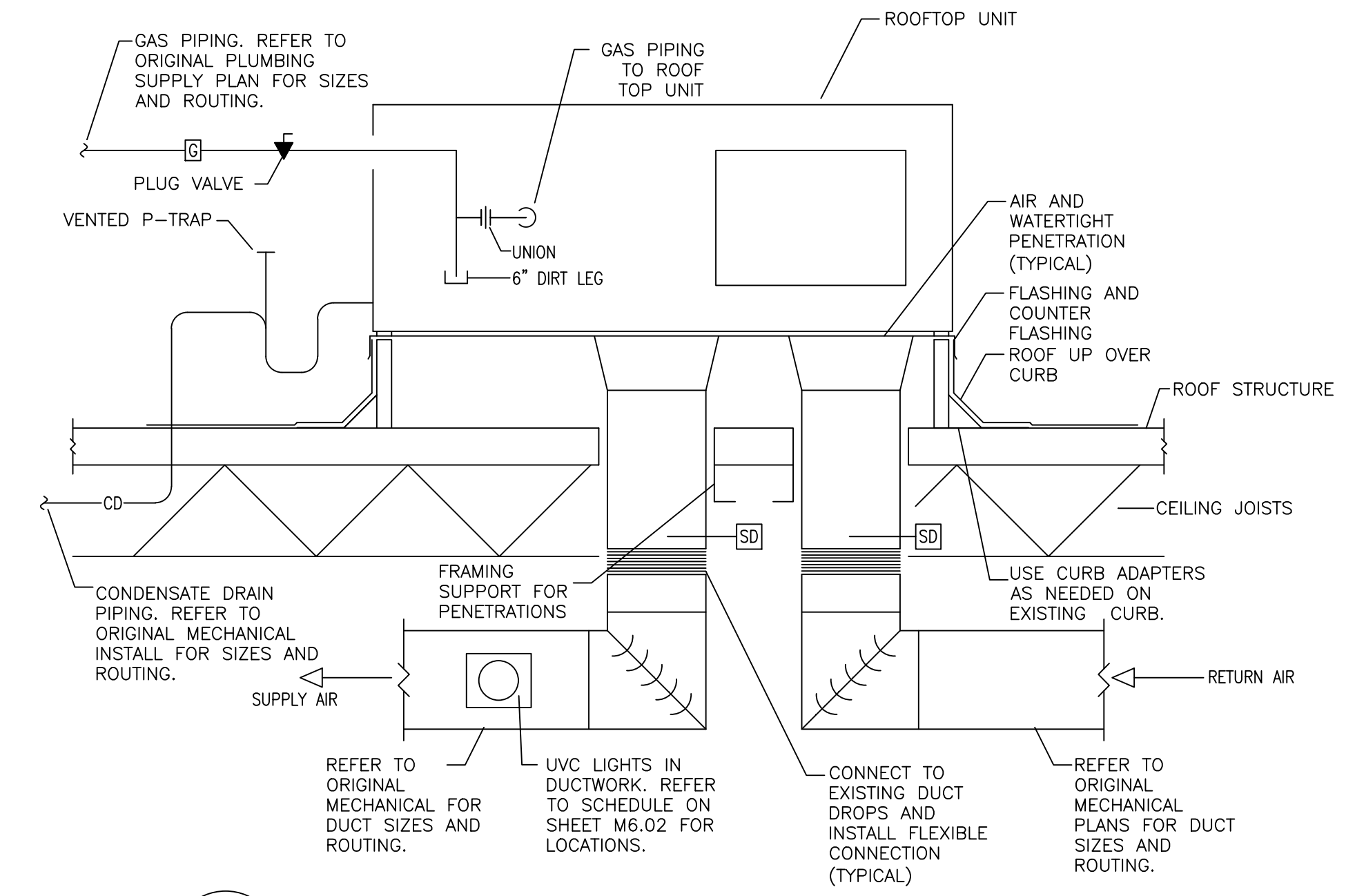
FAN SCHEDULE

MARK	TYPE	AIRFLOW (CFM)	E.S.P. (IN. W.G.)	DRIVE	ELECTRICAL		MAX WEIGHT (LBS)	MANUFACTURER / MODEL	CONTROLLED BY
					HP	VOLTS / PHASE			
EF-10	UPBLAST SMOKE	39,000	0.75	BELT	15	460/3	1130	COOK / TUBSC	
EF-11	UPBLAST SMOKE	39,000	0.75	BELT	15	460/3	1130	COOK / TUBSC	
EF-12	UPBLAST SMOKE	39,000	0.75	BELT	15	460/3	1130	COOK / TUBSC	
EF-19	UPBLAST SMOKE	39,000	0.75	BELT	15	460/3	1130	COOK / TUBSC	
EF-20	UPBLAST SMOKE	39,000	0.75	BELT	15	460/3	1130	COOK / TUBSC	
EF-21	UPBLAST SMOKE	39,000	0.75	BELT	15	460/3	1130	COOK / TUBSC	
EF-22	UPBLAST SMOKE	49,000	0.75	BELT	20	460/3	1348	COOK / TUBSC	
EF-23	UPBLAST SMOKE	49,000	0.75	BELT	20	460/3	1348	COOK / TUBSC	
EF-24	UPBLAST SMOKE	49,000	0.75	BELT	20	460/3	1348	COOK / TUBSC	
EF-28	UPBLAST SMOKE	32,000	0.75	BELT	15	460/3	1135	COOK / TUBSC	
EF-29	UPBLAST SMOKE	32,000	0.75	BELT	15	460/3	1135	COOK / TUBSC	
EF-32	UPBLAST SMOKE	24,000	0.75	BELT	10	460/3	730	COOK / TUBSC	
SF-14	SUPPLY DOWNBLAST	29,000	0.50	BELT	7.5	460/3	1259	COOK / HES	
SF-17	SUPPLY DOWNBLAST	29,000	0.50	BELT	7.5	460/3	1259	COOK / HES	
SF-18	SUPPLY DOWNBLAST	29,000	0.50	BELT	7.5	460/3	1259	COOK / HES	
SF-30	SUPPLY DOWNBLAST	24,000	0.50	BELT	7.5	460/3	1345	COOK / HES	
SF-31	SUPPLY DOWNBLAST	24,000	0.50	BELT	7.5	460/3	1345	COOK / HES	

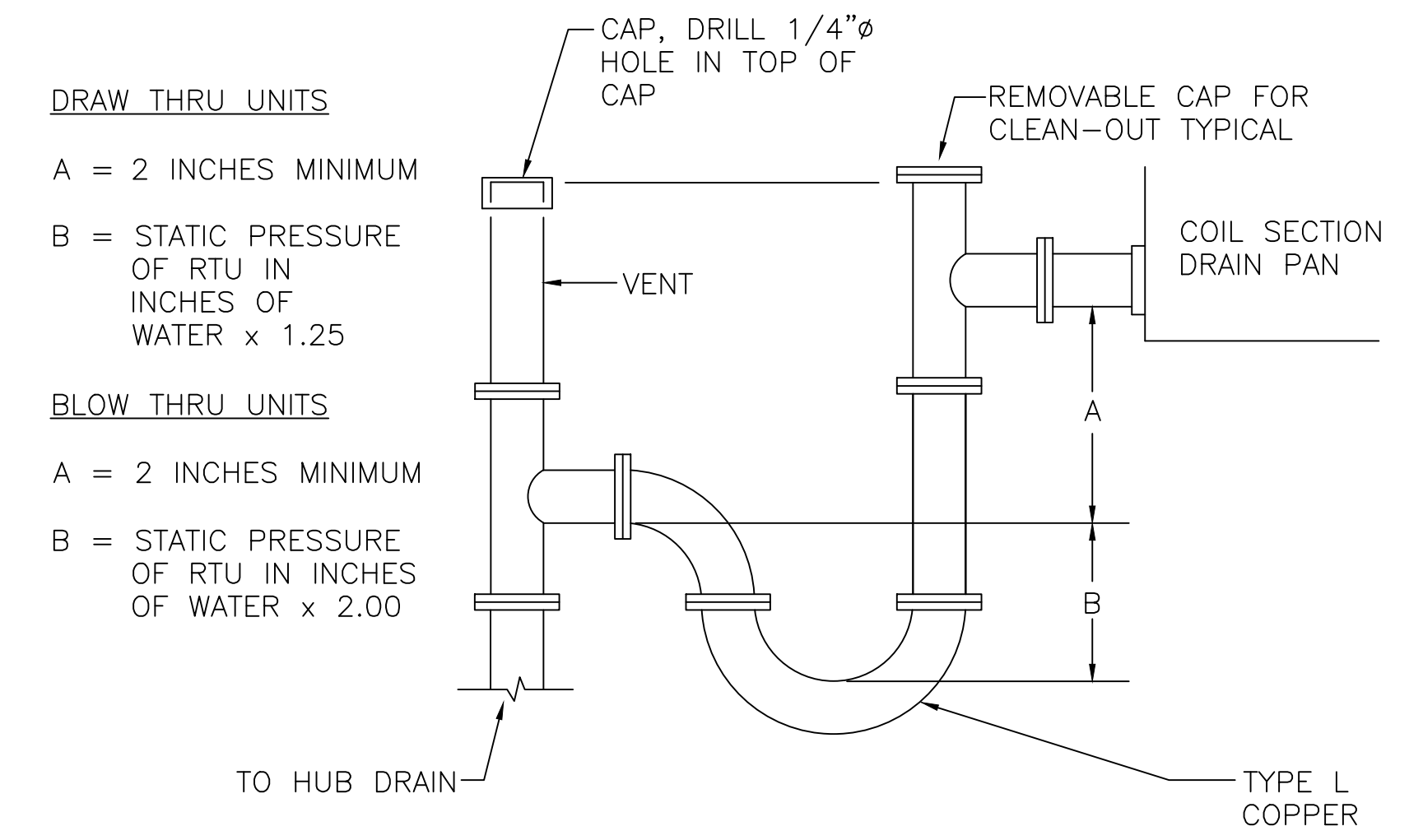
1. PROVIDE BUTTERFLY DAMPERS FOR UPBLAST EXHAUST FANS AND MOTORIZED DAMPERS FOR SUPPLY DOWNBLAST FANS.
2. MAINTAIN MINIMUM CLEARANCES REQUIRED FOR SERVICE, MAINTENANCE, AND INSPECTION.
3. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
4. INSTALL ROOF MOUNTED FANS WITH FACTOR PRE-WIRED NEMA-3R DISCONNECT SWITCH.
5. PROVIDE ROOF MOUNTED FANS WITH ROOF CURB ADAPTERS IF REQUIRED TO MATCH EXISTING DUCTWORK.
6. EXISTING SELECTIONS BASED ON ORIGINAL PLANS.



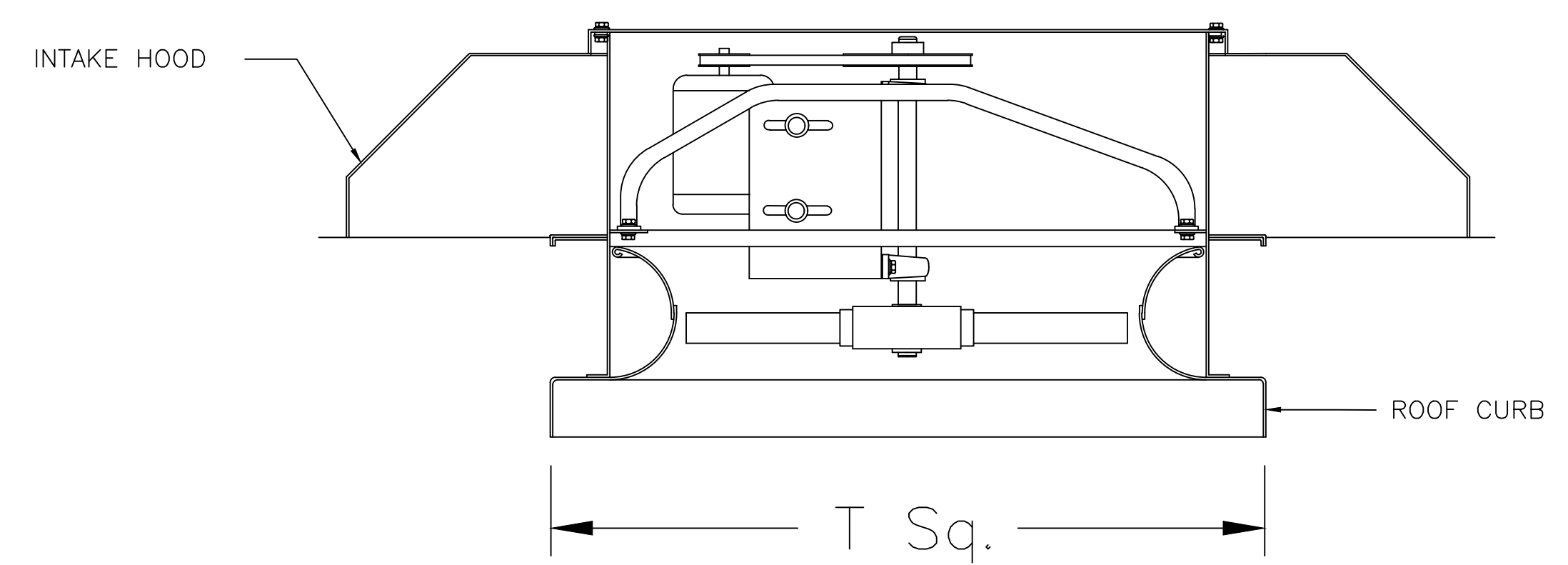
4 ROOF MOUNTED EXHAUST
SCALE: NONE



1 ROOF RTU
SCALE: NONE

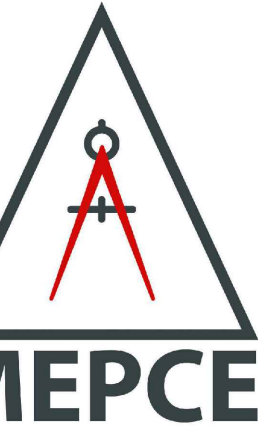
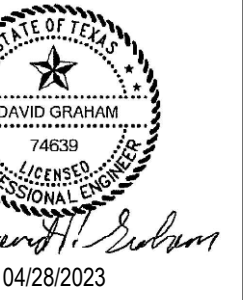


2 VENTED P-TRAP
SCALE: NONE



2 ROOF SUPPLY FAN
SCALE: NONE

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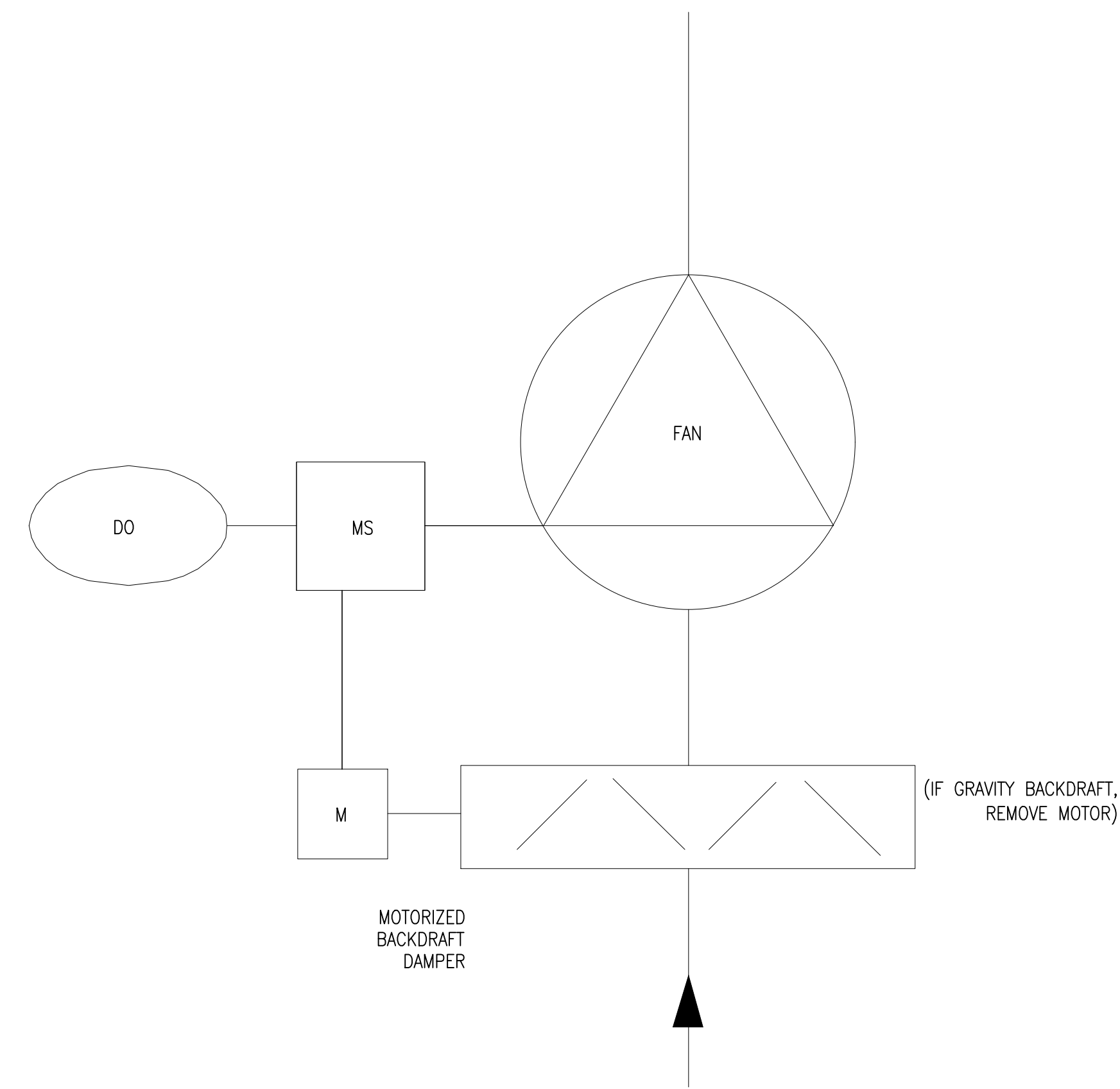
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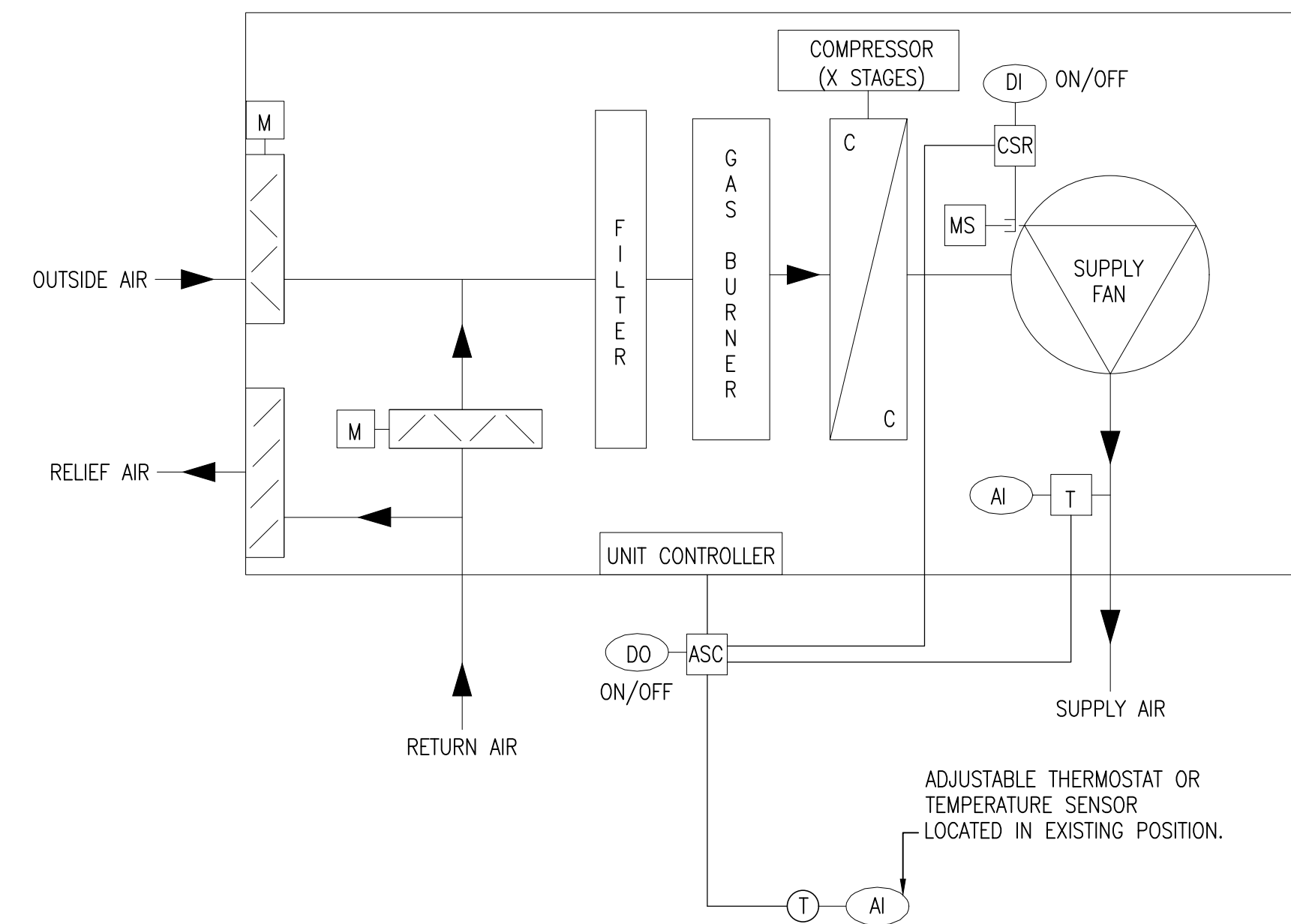
NO.	REVISION	DATE

M7.01

MECHANICAL DETAILS



1 EXHAUST FAN CONTROL DIAGRAM
SCALE: NONE



2 RTU - GAS HEAT
SCALE: NONE

RTU AND FANS SMOKE ACTIVATION ROSTER														
SMOKE PURGE ZONES #1-0 ACTIVE			SMOKE PURGE ZONES #1-1 ACTIVE			SMOKE PURGE ZONES #1-2 ACTIVE			SMOKE PURGE ZONES #1-3 ACTIVE			SMOKE PURGE ZONES #1-4 ACTIVE		
AHU	3	OFF	AHU	3	ON	AHU	3	ON	AHU	3	ON	AHU	3	ON
AHU	4	ON	AHU	4	ON	AHU	4	ON	AHU	4	OFF	AHU	4	ON
RTU	22	ON	RTU	22	ON	RTU	22	ON	RTU	22	ON	RTU	22	ON
RTU	36	ON	RTU	36	ON	RTU	36	OFF	RTU	36	ON	RTU	36	ON
RTU	37	ON	RTU	37	ON	RTU	37	OFF	RTU	37	ON	RTU	37	ON
RTU	38	ON	RTU	38	ON	RTU	38	OFF	RTU	38	ON	RTU	38	ON
RTU	39	ON	RTU	39	ON	RTU	39	OFF	RTU	39	ON	RTU	39	ON
RTU	40	ON	RTU	40	ON	RTU	40	OFF	RTU	40	ON	RTU	40	ON
RTU	41	ON	RTU	41	ON	RTU	41	OFF	RTU	41	ON	RTU	41	ON
RTU	42	ON	RTU	42	ON	RTU	42	ON	RTU	42	ON	RTU	42	ON
RTU	43	ON	RTU	43	OFF	RTU	43	ON	RTU	43	ON	RTU	43	ON
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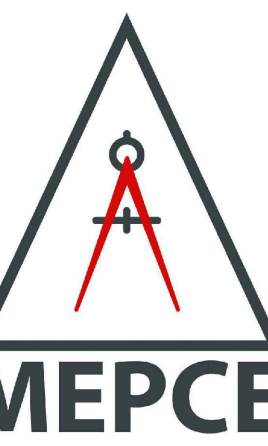
SEQUENCE OF OPERATION
RTUS 10 - 18, 20, 21, 37 - 48

- SUPPLY FAN OPERATING: THE SUPPLY FAN RUNS CONTINUOUSLY. THE COOLING COIL OR GAS FURNACE OPERATE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT AS CONTROLLED BY THE FACILITY DDC SYSTEM.
- OUTSIDE AIR DAMPER OPERATION: THE OUTSIDE AIR DAMPER SHALL BE A FIXED POSITION DAMPER. THE POSITION OF THE OUTSIDE AIR AND RETURN AIR DAMPERS ARE SET TO BRING IN THE SCHEDULED CFM OF OUTSIDE AIR FOR THAT UNIT.
- SMOKE DETECTION, DUCT SMOKE DETECTORS (RETURN DUCT MOUNTED) STOP THE FAN WHENEVER THE PRESENCE OF SMOKE IS DETECTED. TO RESTART THE FAN, THE SMOKE DETECTORS AND THE CONTROL PANEL MUST BE MANUALLY RESET. REFER TO W7.01 FOR SMOKE PURGE OPERATION UPON DETECTION OF SMOKE.
- SPACE TEMPERATURE CONTROL: EACH RTU IS EQUIPPED WITH A TEMPERATURE AND HUMIDITY SENSOR WHICH ARE LOCATED IN THE CONDITIONED SPACE. IF THE SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT OF 75(ADJUSTABLE) THE ASSOCIATED ROOFTOP UNIT SHALL ENERGIZE THE FIRST STAGE OF COOLING SETPOINT THE SECOND STAGE OF COOLING SHALL BE ENERGIZED AND THE ROOFTOP UNIT SHALL CYCLE BOTH STAGES OF COOLING AS NECESSARY TO MAINTAIN THE SPACE SETPOINT TEMPERATURE. WHEN THE SPACE TEMPERATURE FALLS BELOW THE SETPOINT 65(ADJUSTABLE) THE GAS FURNACE WILL ENERGIZE AND CYCLE AS REQUIRED TO PREVENT THE SPACE TEMPERATURE FROM FALLING BELOW THE HEATING SETPOINT OF 65°.
- SYSTEM HUMIDITY CONTROLS: HUMIDITY CONTROLS SHALL BE ENERGIZED IN "OCCUPIED" MODE. WHEN RELATIVE HUMIDITY RISES ABOVE SPACE HUMIDITY SENSOR SETPOINT (55%) ADJUSTABLE, COOLING CYCLE SHALL BE FORCED TO FULL COOLING MODE OPERATION TO DEHUMIDIFY THE SPACE. IF SUPPLY AIR TEMPERATURE DROPS BELOW SETPOINT DURING DEHUMIDIFICATION PROCESS, THE HOT-GAS REHEAT COIL CONTROLS SHALL BE ENERGIZED TO MAINTAIN SPACE TEMPERATURE SETPOINT.
- EMERGENCY POWER OPERATION: DURING A LOSS OF ELECTRICAL POWER THE EVAPORATOR FAN MOTOR AND GAS FURNACE SHALL OPERATE UNDER EMERGENCY POWER. THE AIR CONDITIONING COMPRESSORS SHALL BE DISABLED.

GENERAL CONTROL NOTES

- NEW RTUS WILL RECEIVE NEW INTERFACE BOARD TO COMMUNICATE WITH CURRENT DDC SYSTEM. REUSE EXISTING DDC SYSTEM EVERYWHERE ELSE.
- THE CONTROL SYSTEMS SHALL BE COMPLETE WITH ALL WIRING, CONDUIT, POWER SUPPLIES AND ALL OTHER ITEMS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM THAT WILL ACCOMPLISH THE SEQUENCE OF OPERATIONS, INTENT OF CONTROL DIAGRAMS AND PROVIDE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL ASPECTS OF THE DDC CONTROL SYSTEM AND THE FIRE ALARM/SUPPRESSION SYSTEMS AND SMOKE PURGE SYSTEM TO ENSURE THAT THE SYSTEMS OPERATE AS REQUIRED BY THESE DOCUMENTS AND NATIONAL AND LOCAL CODES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL NEW ROOF TOP UNITS AND FANS TO THE CURRENT DDC CONTROL SYSTEM.

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MECHANICAL
CONTROLS PLAN -
SMOKE PURGE

DEMOLITION GENERAL NOTES

- VERIFY AND DE-ENERGIZE ALL BRANCH CIRCUITS SERVING EQUIPMENT AND FIXTURES WHICH ARE SCHEDULED TO BE REMOVED. CONTRACTOR IS RESPONSIBLE FOR ACCURACY OF CIRCUITS TO BE DE-ENERGIZED.
- LAYOUT SHOWN ON DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE NOT INTENDED TO DEPICT EXACT FIELD CONDITIONS. VERIFY ALL ASPECTS OF FIELD CONDITIONS BEFORE BEGINNING WORK.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO RECONNECT ALL WIRING AND DEVICES/EQUIPMENT WHICH ARE DISTURBED DURING DEMOLITION/CONSTRUCTION AT NO ADDITIONAL COST. ALSO REPAIR ANY AREA WHICH IS DAMAGED DURING CONSTRUCTION. MATCH COLOR AND TEXTURE, USE SIMILAR MATERIAL.
- NO STRUCTURAL MEMBERS SHALL BE CUT WITHOUT THE APPROVAL OF THE ENGINEER.
- DRAWINGS HAVE BEEN CREATED FROM AS-BUILT DOCUMENTS BELONGING TO THE OWNER. THE CONTRACT DOCUMENTS CREATED BY THIS OFFICE ARE DIAGRAMMATIC AND SHOW THE INTENTION OF THIS FACILITY TO RENOVATE AND INSTALL NEW EQUIPMENT AND ASSOCIATED MATERIALS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITION PRIOR TO BID.
- ANY ELECTRICAL CIRCUITS AND FIRE ALARM EQUIPMENT DISTURBED DURING DEMOLITION SHALL BE RESTORED SERVING EXISTING ITEMS TO REMAIN, EVEN IF NOT INDICATED ON DRAWING.
- CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING SPEAKERS, FIRE ALARM COMPONENT AND OTHER ITEMS ON THE CEILING AND WALLS AS REQUIRED TO BE REMOVED, STORE IN APPROVED STORAGE IN ORDER TO BE READY TO REINSTALL AT ORIGINAL LOCATION DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO PROVIDE NEW REPLACEMENT FOR ANY ITEM DAMAGED OR LOST.
- ANY CIRCUITS THAT ARE ABANDONED SHALL BE REMOVED BACK TO THE PANEL BOARD, REFLECT ALL CHANGES ON PANEL SCHEDULE.
- CONTRACTOR IS RESPONSIBLE TO REINSTALL, RECONNECT AND MAKE OPERATIONAL ANY ELECTRICAL AND FIRE ALARM EQUIPMENT WHICH WILL BE REMOVED DUE TO CONSTRUCTION.

ELECTRICAL LEGEND

LIGHT FIXTURES		POWER DEVICES	
X	CEILING MOUNTED FIXTURE "X" = FEATURE TYPE PER LIGHTING SCHEDULE		JUNCTION BOX REFER TO SPECIFICATION 26533
X	LINEAR WALL MOUNT FIXTURE "X" = FEATURE TYPE PER LIGHTING SCHEDULE		DISCONNECT SAFETY SWITCH REFER TO SPECIFICATION 26216
X	DOWNLIGHT FIXTURE "X" = FEATURE TYPE PER LIGHTING SCHEDULE	PANELBOARDS / TRANSFORMERS	
X	WALL MOUNT CYLINDER "X" = FEATURE TYPE PER LIGHTING SCHEDULE		PANELBOARD REFER TO SPECIFICATION 262416
X	WALL MOUNT RECTANGULAR "X" = FEATURE TYPE PER LIGHTING SCHEDULE		TRANSFORMER REFER TO SPECIFICATION 26220
X	WALL MOUNT EMERGENCY "X" = FEATURE TYPE PER LIGHTING SCHEDULE	TECHNOLOGY	
	ILLUMINATED EXIT SIGN "X" = FEATURE TYPE PER LIGHTING SCHEDULE		WALL DATA OUTLET 3/4" CONDUIT WITH PULL CORD
X	EMERGENCY CEILING FIXTURE "X" = FEATURE TYPE PER LIGHTING SCHEDULE		WALL COMBINATION OUTLET 3/4" CONDUIT WITH PULL CORD
X	EMERGENCY DOWNLIGHT "X" = FEATURE TYPE PER LIGHTING SCHEDULE		WALL COAXIAL CABLE OUTLET REFER TO DIVISION 27
RECEPTACLES		ELECTRICAL WIRING	
	DUPLEX RECEPTACLE REFER TO SPECIFICATION 262726		LOW VOLTAGE WIRING REFER TO PLANS FOR ROUTING
	QUADPLEX RECEPTACLE REFER TO SPECIFICATION 262726		CIRCUIT HOME RUN "XX" = PANEL DESIGNATION "##" = BRANCH CIRCUIT NUMBER
	SPECIAL RATED RECEPTACLE REFER TO SPECIFICATION 262726		
	G.F.I. RECEPTACLE REFER TO SPECIFICATION 262726		
LIGHTING CONTROL DEVICES			
	SINGLE WAY SWITCH REFER TO SPECIFICATION 262726		
	THREE WAY SWITCH REFER TO SPECIFICATION 262726		
	DIMMER SWITCH REFER TO SPECIFICATION 262726		
	OCCUPANCY SENSING SWITCH REFER TO SPECIFICATION 262923		
	CEILING OCCUPANCY SENSOR REFER TO SPECIFICATION 262923		
	PHOTOCELL REFER TO SPECIFICATION 262923		

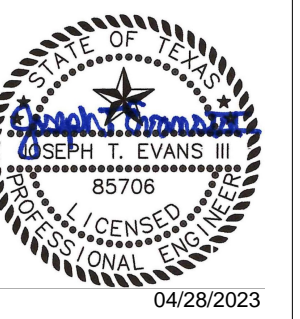
ELECTRICAL GENERAL NOTES

- THESE PLANS ARE DIAGRAMMATIC. DRAWINGS HAVE BEEN CREATED FROM AS-BUILT DOCUMENTS BELONGING TO THE OWNER. THE CONTRACT DOCUMENTS CREATED BY THIS OFFICE ARE DIAGRAMMATIC AND SHOW THE INTENTION OF THIS FACILITY TO RENOVATE AND INSTALL NEW EQUIPMENT AND ASSOCIATED MATERIALS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITION PRIOR TO BID
- ALL ELECTRICAL WORK IS REQUIRED TO BE PERFORMED BY A CERTIFIED ELECTRICAL CONTRACTOR. ALL WIRING, EQUIPMENT, DEVICES AND INSTALLATIONS SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
- PROVIDE ALL WIRING, CONDUIT, LABOR AND MATERIALS NOT SHOWN ON PLAN, BUT NECESSARY FOR COMPLETE AND PROPER OPERATION OF THE ELECTRICAL SYSTEM.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES AND PERMITS AS NECESSARY TO COMPLETE THIS JOB. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO ENSURE A COMPLETE WORKING SYSTEM.
- ALL ELECTRICAL WORK MUST COMPLY WITH THE REQUIREMENTS OF NFPA 70 (NATIONAL ELECTRICAL CODE), NFPA 70B, NFPA 70E, IECC, OSHA IN ADDITION TO OTHER REFERENCES REQUIRED BY CONTRACT.
- REFER TO MECHANICAL SHEETS FOR EXACT LOCATION OF ALL MECHANICAL EQUIPMENT. PROVIDE ALL LABOR AND MATERIALS REQUIRED TO CONNECT ELECTRICAL POWER TO ALL MECHANICAL EQUIPMENT.
- ALL ELECTRICAL EQUIPMENT, DEVICES AND CIRCUITS SHALL CONTAIN A GROUNDING CONDUCTOR. CONDUIT SYSTEM SHALL NOT BE USED AS GROUNDING NETWORK. ALL GROUNDING SHALL BE IN STRICT COMPLIANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
- CONTRACTOR IS RESPONSIBLE FOR NATIONAL ELECTRICAL CODE REQUIRED CLEARANCES AROUND AND ABOVE ALL ELECTRICAL EQUIPMENT AND DEVICES.
- SHORT CIRCUIT AMPERE INTERRUPTING CAPACITY (A.I.C.) RATING OF ALL ELECTRICAL PRODUCTS SHALL BE GREATER THAN THE MAXIMUM AVAILABLE SHORT CIRCUIT CURRENT.
- DO NOT RUN RACEWAYS ON BUILDING EXTERIOR WALLS.
- WIRE AND CONDUIT SIZES SHALL BE INSTALLED AND SIZED TO COMPENSATE FOR VOLTAGE DROP PER THE NATIONAL ELECTRICAL CODE.
- FLEXIBLE CONDUIT MAY BE USED ONLY FOR FINAL CONNECTION TO EQUIPMENT (MAXIMUM LENGTH 6'-0").
- WALL RECEPTACLE CONDUIT SHALL RUN VERTICALLY TO JUNCTION BOX ABOVE CEILING AND NOT HORIZONTALLY THROUGH STUD WALLS, IN ORDER TO FACILITATE FUTURE ACCESS.
- CONDUCTORS IN UNINSULATED CEILING SPACE AND OUTDOORS SHALL BE DERATED USING A 122 DEGREE (FAHRENHEIT) TEMPERATURE. CONTRACTOR IS RESPONSIBLE FOR REVISING CONDUCTOR SIZES BASED ON CONDUIT RATING.
- ALL OUTDOOR EQUIPMENT SHALL BE WEATHER PROTECTED, NEMA 3R UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE FIRE PROOFING FOR ANY PIPES OR CONDUITS THAT PENETRATE THROUGH ANY FIRE/SMOKE RATED FLOORS, WALLS, CEILINGS, ROOFS OR RUNS INSIDE OF CHASES. FIRE PROOFING METHODS AND MATERIALS SHALL BE AS REQUIRED TO MAINTAIN FIRE/SMOKE RATING OF PARTITION.
- IF A PROTECTIVE DEVICE RATING IS MARKED ON AN APPLIANCE OR EQUIPMENT, THE BRANCH-CIRCUIT OVERCURRENT DEVICE RATING SHALL NOT EXCEED THE PROTECTIVE DEVICE RATING MARKED ON THE APPLIANCE OR EQUIPMENT.
- ANY FIRE ALARM COMPONENTS SHOWN ON PLANS ARE FOR REFERENCE ONLY AND MAY BE MINIMAL. PROVIDE AND INSTALL ALL DEVICES AND MATERIALS NECESSARY FOR A COMPLETE FIRE ALARM SYSTEM AS REQUIRED BY THE LOCAL CODES, NFPA AND REGULATIONS. COORDINATE WITH MECHANICAL INSTALLER FOR ADDITIONAL REQUIRED DEVICES TO MATCH EXISTING DEVICES AND FIRE ALARM SYSTEM COMPONENTS.
- ALL MECHANICAL EQUIPMENT CONTROLS SHALL BE POWERED FROM UNIT.

ABBREVIATIONS

A	AMPERE	NEC	NATIONAL ELECTRICAL CODE
ACT	ABOVE COUNTER TOP	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
AFF	ABOVE FINISHED FLOOR	NF	NONFUSED
AIC	AMPERE INTERRUPTING CURRENT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE	NL	NIGHT LIGHT
C	CONDUIT	NTS	NOT TO SCALE
G, GND	GROUND	P	POLE
GFI	GROUND FAULT INTERRUPTER	PH	PHASE
KVA	KILOVOLT-AMPERE	TYP	TYPICAL
KW	KILOWATT	UL	UNDERWRITERS LABORATORIES, INC.
MCB	MAIN CIRCUIT BREAKER	V	VOLT
MLO	MAIN LUGS ONLY	VA	VOLT-AMPERE
N	NEUTRAL	W	WATT
		WP	WEATHER PROOF

ISSUE FOR BID



April 28, 2023
 Immanuel Lopez
 Joseph Evans
 31.00401

DATE
 DRAWN BY
 CHECKED BY
 PROJECT NUMBER

TC Green Bay Jail
 RTU Replacement
 Tarrant County
 2500 Urban Dr.
 Fort Worth, Texas 76106

NO.	REVISION	DATE

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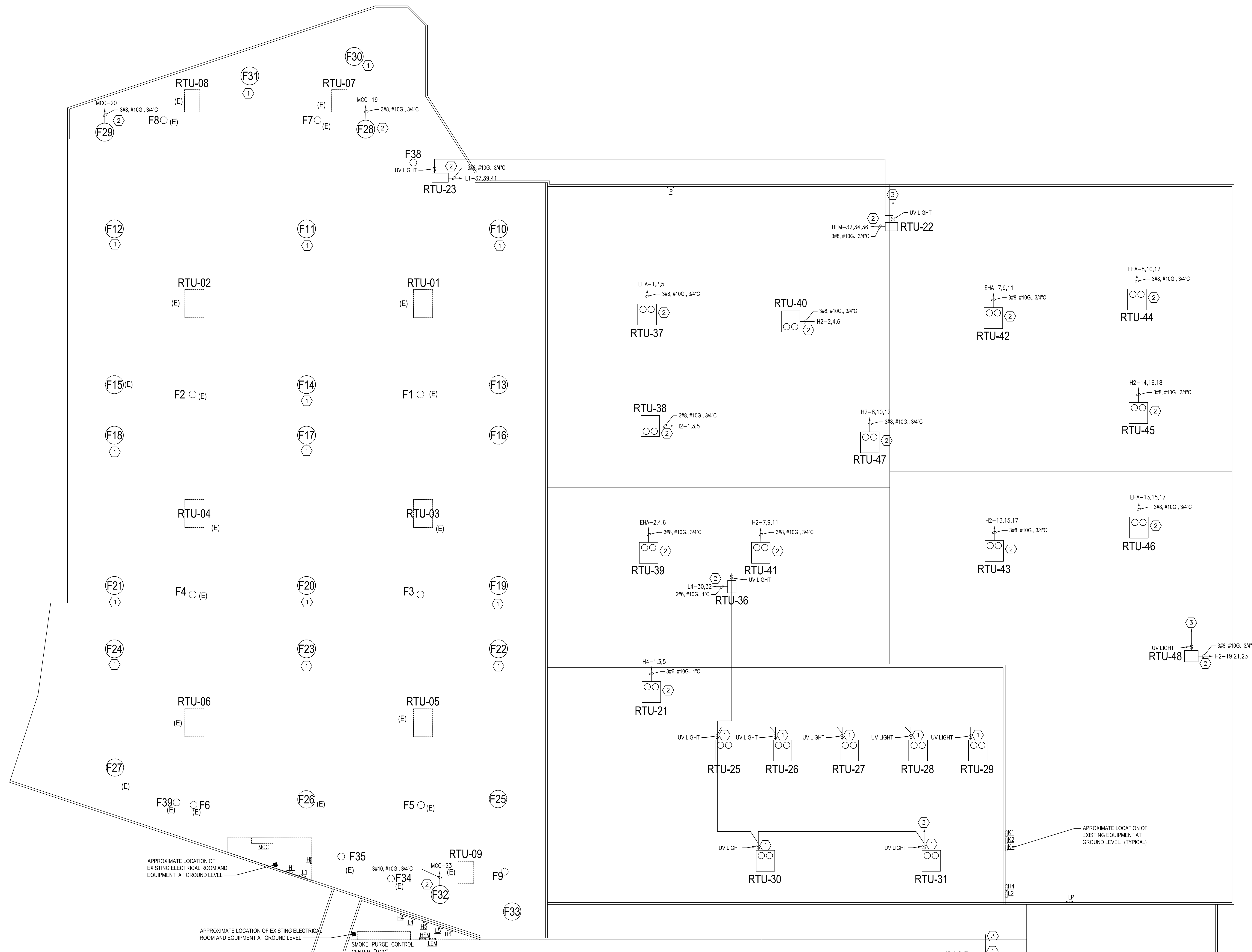
ELECTRICAL LEGEND

NOTES BY SYMBOL

1. DISCONNECT EXISTING EQUIPMENT. MODIFY AND EXTEND EXISTING CIRCUIT TO CONNECT NEW EQUIPMENT IN SAME PLACE. COORDINATE WORK WITH MECHANICAL INSTALLER.
2. REMOVE EXISTING CIRCUIT BACK TO THE POINT OF ORIGINATION, WHERE CONDUITS ARE INSTALLED IN SLAB. CUT CONDUIT FLUSH WITH SLAB AND FILL WITH CONCRETE. PROVIDE NEW CONNECTIONS TO EXISTING PANEL AS INDICATED. EXISTING CONDUIT MAY BE RE-USED IF IT MEETS THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, TABLE 1.
3. PROVIDE CONNECTIONS TO NEAREST AVAILABLE 120V, VIA SPARE 20A, 1P CIRCUIT BREAKER VIA 2#12, #10G, 34°C. IF REQUIRED, PROVIDE NEW CIRCUIT BREAKER THAT IS COMPATIBLE WITH EXISTING PANELBOARD AND IS RATED FOR MAXIMUM AIC RATING OF EXISTING PANELBOARD CIRCUIT BREAKERS.

GENERAL NOTES

1. DESIGNATION "EX" REPRESENTS EXISTING EQUIPMENT TO REMAIN AS CIRCUITED UNLESS NOTED OTHERWISE.
2. PROVIDE UPDATED, TYPE WRITTEN DIRECTORY OF ALL CORRECT CIRCUITS WITH LOAD DEFINITIONS FOR EACH PANEL BOARD. DIRECTORY SHALL BE LOCATED INSIDE PANEL DOOR.
3. INFORMATION PROVIDED ON THESE DRAWINGS HAVE BEEN TAKEN FROM DESIGN DRAWING AND FIELD OBSERVATIONS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PRICING AND COMMENCEMENT OF WORK.
4. IF DEMOLITION IS REQUIRED TO INSTALL AN ITEM, THE CONTRACTOR SHALL RESTORE THE AREA TO PREVIOUS CONDITION, OR REPLACE DAMAGED ITEMS WITH NEW ITEMS TO MATCH EXISTING.
5. IF DEMOLITION IS REQUIRED TO INSTALL AN ITEM, THE CONTRACTOR SHALL RESTORE THE AREA TO PREVIOUS CONDITION, OR REPLACE DAMAGED ITEMS WITH NEW ITEMS TO MATCH EXISTING.



SEE SHEET E3.02

SEE SHEET E3.02

1

NORTH ELECTRICAL ROOF PLAN

SCALE: 1/16" = 1' 0"

ISSUE FOR BID



April 28, 2023
 Drawn by: Imreel Lopez
 Checked by: Joseph Evans
 Project Number: 31.00401

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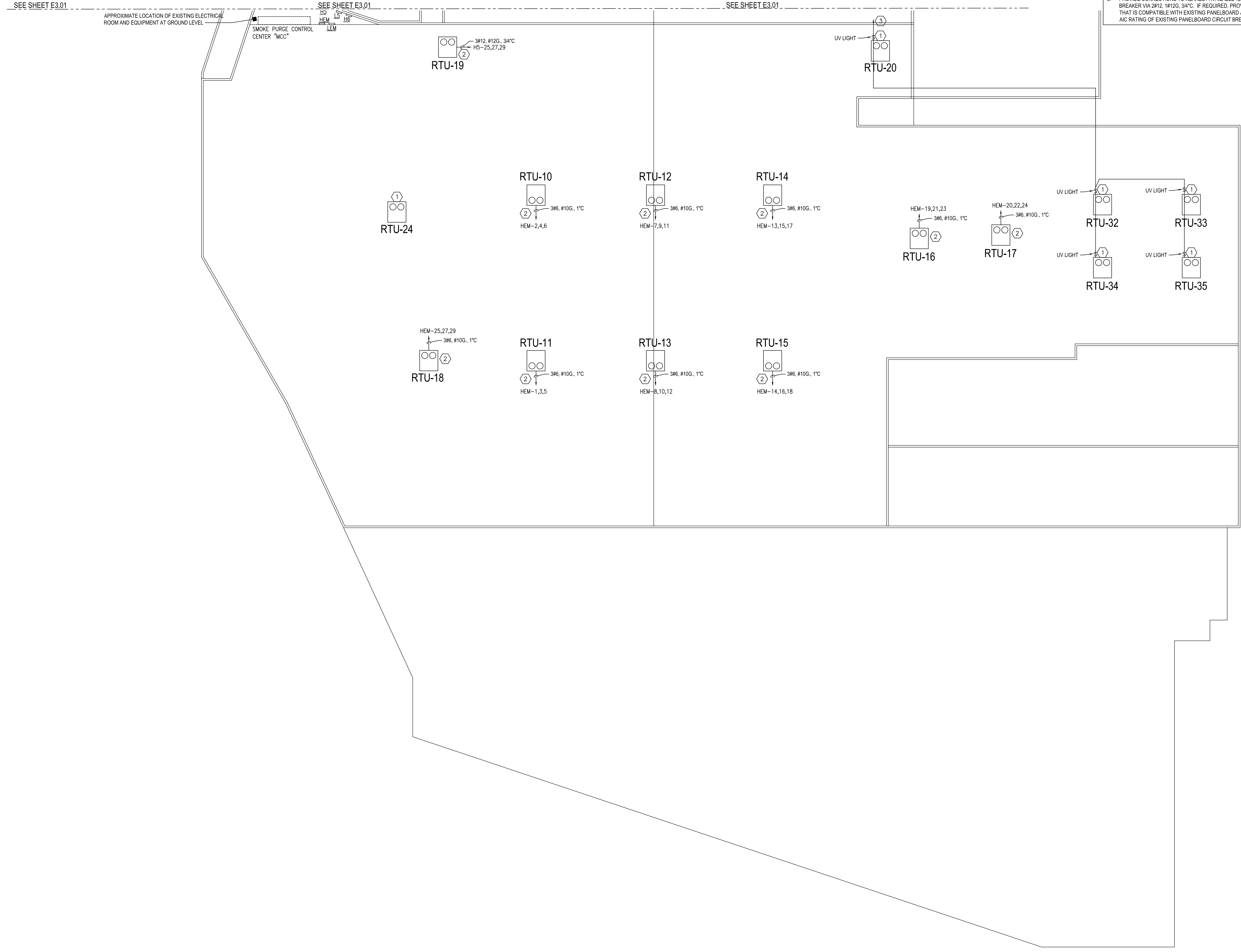
NO.	REVISION	DATE

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ELECTRICAL RTU ROOF PLAN - NORTH

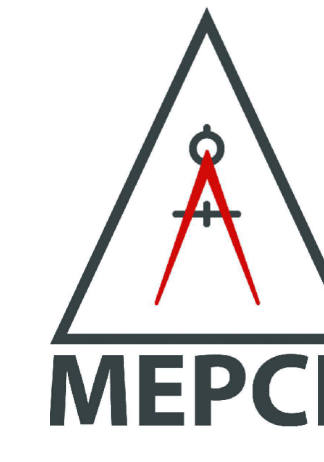
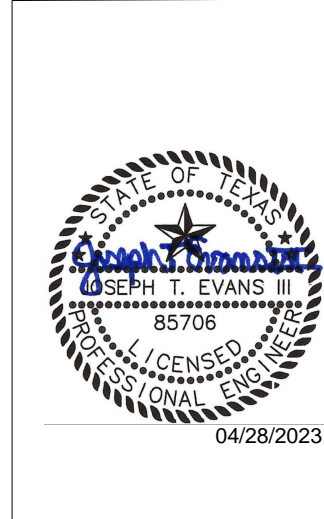
- NOTES BY SYMBOL**
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 - PROVIDE CONNECTIONS TO NEAREST AVAILABLE 120V, VIA SPARE 20A, 1P CIRCUIT BREAKER VIA 2#12, 1#12G, 3#4" C. IF REQUIRED, PROVIDE NEW CIRCUIT BREAKER THAT IS COMPATIBLE WITH EXISTING PANELBOARD AND IS RATED FOR MAXIMUM AIC RATING OF EXISTING PANELBOARD CIRCUIT BREAKERS.

- GENERAL NOTES**
- DESIGNATION "EX" REPRESENTS EXISTING EQUIPMENT TO REMAIN AS CIRCUITED UNLESS NOTED OTHERWISE.
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1 SOUTH ELECTRICAL ROOF PLAN
SCALE: 1/16" = 1' 0"

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 ELECTRICAL RTU
 ROOF PLAN - SOUTH

