



Addendum

DATE

11/7/2018

ADDENDUM NO.

1

11/07/2018

PROJECT 178007.000 | Starr County Memorial Hospital – MRI Addition and Renovation

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.

DRAWINGS

Item 01 Sheet M2.1 – Mechanical Plan – Area 1 – Base Bid

- A. Replace in its entirety.
- B. RTU's and AHU's have been reselected.

Item 02 Sheet M2.2 – Mechanical Plan – Add Alternates 1 and 3

- A. Replace in its entirety.
- B. RTU's and AHU's have been reselected.
- C. AHU-6 and AHU-7 have been relocated from above the ceiling to a mechanical closet.

Item 03 Sheet M2.3 – Mechanical Plan – Add Alternates 2 and 4

- A. Replace in its entirety.
- B. RTU's and AHU's have been reselected.
- C. Relocated AHU-10 from the ceiling down to a mechanical closet.
- D. AHU-10 shall be part of alternate #2.

Item 04 Sheet M5 – Mechanical Schedules

- A. Replace in its entirety.
- B. RTU's and AHU's have been rescheduled.

Item 05 Sheet EP-1 – Electrical Overall Plan

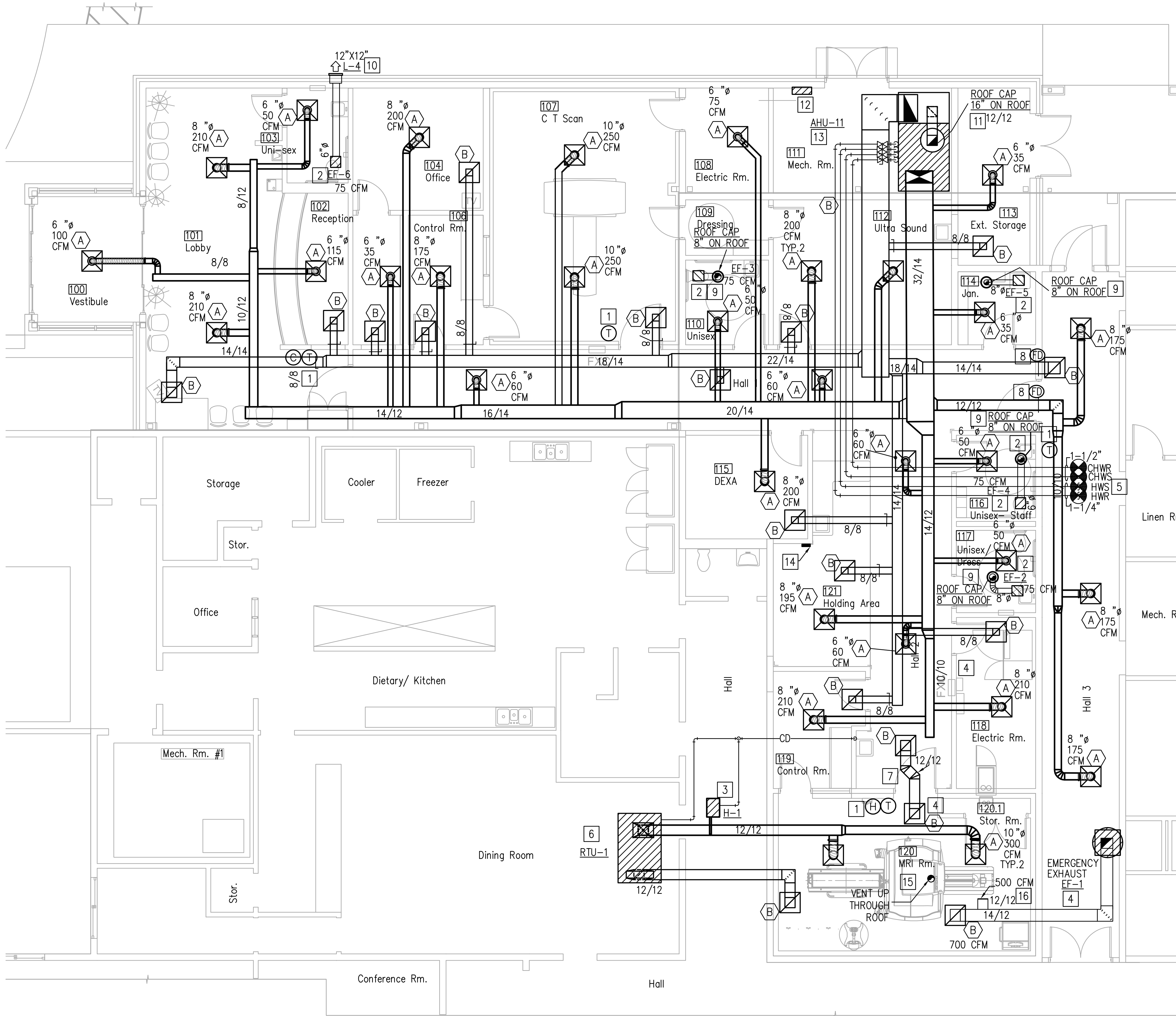
- A. Replace in its entirety.
- B. RTU's and AHU's have been reselected.

Item 06 Sheet EP-2 – Electrical Power Plan – Renovation Area 1

- A. Replace in its entirety.
- B. RTU's and AHU's have been reselected.

Addendum No.

END OF ADDENDUM



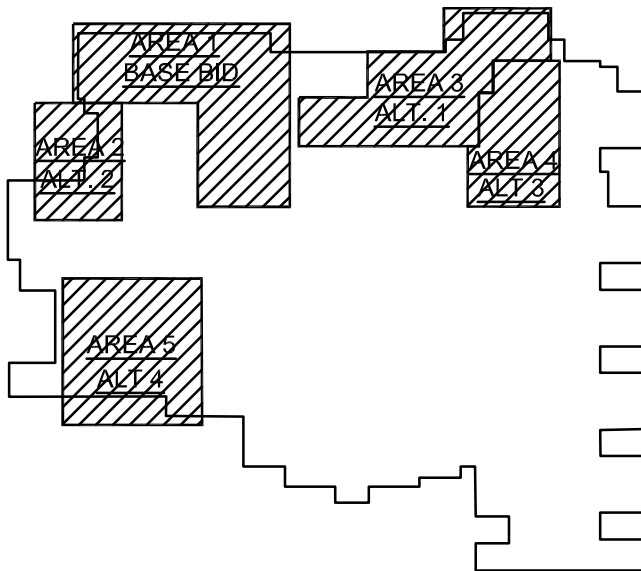
GENERAL MECHANICAL NOTES

- A. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED AND READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- B. DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
- C. ALL NEW A/C EQUIPMENT SHALL BE CLEANED AFTER THE FINISHING OF DRYWALL AND PRIOR TO THE RELEASE OF BUILDING TO OWNER. MECHANICAL CONTRACTOR TO PROVIDE DOCUMENTATION WITH DATE AND TIME OF UNIT CLEANING.
- D. PROVIDE DUCT-MOUNTED SMOKE DETECTOR IN SUPPLY AND RETURN DUCT FOR AIR HANDLING UNITS SUPPLYING 2000 CFM AND GREATER.
- E. ALL OUTSIDE AIR INTAKES SHALL BE 25 FEET MINIMUM FROM ALL VENTILATING SYSTEMS INCLUDING PLUMBING VENTS, EXHAUST SYSTEMS, AND COMBUSTION EQUIPMENT STACKS.

MECHANICAL KEYED NOTES

- 1. MOUNT TEMPERATURE SENSOR AT 48" A.F.F. COORDINATE WITH ARCHITECT AND ELECTRICAL CONTRACTOR. PROVIDE PROTECTIVE COVERING OVER TEMPERATURE SENSOR. TYPICAL.
- 2. PROVIDE CEILING MOUNTED EXHAUST FAN AS SCHEDULED. SUPPORT FAN FROM STRUCTURE ABOVE. INTERLOCK FAN WITH ASSOCIATED AIR HANDLING UNIT.
- 3. PROVIDE HUMIDIFIER AS SCHEDULED. COORDINATE POWER WITH ELECTRICAL CONTRACTOR. COORDINATE MAKE UP WATER LINE WITH PLUMBING CONTRACTOR. ROUTE CONDENSATE DRAIN LINE AS SHOWN ON PLAN. INSTALL AS PER MANUFACTURER RECOMMENDATIONS.
- 4. PROVIDE EMERGENCY EXHAUST FAN FOR PURGE. FAN IS FOR MRI ROOM AND NEEDS PANIC BUTTON IN CONTROL ROOM AND BY EXIT OF THE MAGNET ROOM. COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. PROVIDE WAVEGUIDE/DIELECTRIC ISOLATORS WHERE DUCTWORK PENETRATES THE RF SHIELD IN THE SPACE. COORDINATE WITH MRI EQUIPMENT FOR ANY AND ALL REQUIREMENTS PRIOR TO BIDDING AND INSTALLATION.
- 5. ROUTE NEW CHILLED WATER LINES AND HOT WATER LINES AS SHOWN. CONNECT TO EXISTING CHILLED WATER LINES IN CORRIDOR. FIELD VERIFY EXACT LOCATIONS OF THE CHILLED WATER LINES PRIOR TO BIDDING AND INSTALLATIONS.
- 6. PROVIDE PACKAGED DX ROOF TOP UNIT AS SCHEDULED. UNIT SERVES MRI SPACE ONLY. COORDINATE ANY REQUIREMENTS WITH MRI MANUFACTURER PRIOR TO INSTALLATION. COORDINATE FINAL LOCATION ON ROOF WITH ALL DISCIPLINES AND EXISTING EQUIPMENT ON ROOF. PROVIDE WAVEGUIDE/DIELECTRIC ISOLATORS WHERE DUCTWORK PENETRATES THE RF SHIELD IN THE SPACE.
- 7. PROVIDE 12"x12" TRANSFER DUCT FOR PURGE MODE. PROVIDE WAVEGUIDE/DIELECTRIC ISOLATORS WHERE DUCTWORK PENETRATES THE RF SHIELD IN THE SPACE.
- 8. PROVIDE FIRE DAMPER.
- 9. PROVIDE ROOF CAP FOR EXHAUST FANS. ROOF CAP SHALL BE SIMILAR TO COOK MODEL PR-8. PROVIDE ROOF CURB AND COORDINATE WITH ROOFING CONTRACTOR.
- 10. PROVIDE RUSKIN MODEL EME320DD. COORDINATE COLOR WITH ARCHITECT. SIZE ON PLAN. BOTTOM OF LOUVER TO BE 10'-0" A.F.F.
- 11. PROVIDE ROOF CAP AND CURB FOR OUTSIDE AIR INTAKE. ROOF CAP SHALL BE SIMILAR TO COOK MODEL PR-16. PROVIDE MOTORIZED DAMPER INTERLOCKED WITH AHU. PROVIDE AIR FLOW MONITORING STATION. EXTEND CURB AS REQUIRED TO LOCATE ROOF CAP INTAKE 3'-0" ABOVE THE ROOF LEVEL.
- 12. PROVIDE DDC CONTROL PANEL AND COORDINATE POWER WITH ELECTRICAL CONTRACTOR.
- 13. PROVIDE AIR HANDLING UNIT AS SCHEDULED. CHILLED WATER SUPPLY AND RETURN LINES SHALL BE 1.5" AND HOT WATER SUPPLY AND RETURNS SHALL BE 1.25". COORDINATE EXACT LOCATION TO TAP INTO EXISTING LINES. FIELD VERIFY PRIOR TO INSTALLATION. ROUTE CONDENSATE DRAIN TO NEAREST FLOOR DRAIN.
- 14. PROVIDE WALL-MOUNTED EMERGENCY SHUT DOWN SWITCH. SWITCH SHALL SHUT DOWN ALL AIR HANDLING UNITS/ROOF TOP UNITS.
- 15. ROUTE MRI VENT UP THROUGH ROOF FROM MRI EQUIPMENT. INSTALL AS PER MANUFACTURER RECOMMENDATIONS.
- 16. EXHAUST INTAKE DUCTWORK ABOVE CEILING AND BELOW RF SHIELD. DUCTWORK SHALL BE OPEN-ENDED. SIZE AS NOTED ON PLAN.

KEY PLAN



MECHANICAL PLAN - AREA 1 - BASE BID
M-2.1 3/16"=1'-0"

DBR
200 South 10th Street Suite 901
Mc Allen, Texas 78501
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TBPE Firm Registration No. 2234

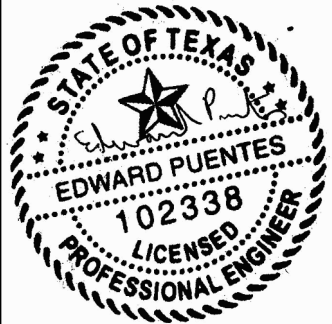
DBR Project Number 178007.000

AS MG JB TL

Starr County Memorial Hospital
MRI Addition and Renovation
128 N. FM Road 3167 Rio Grande City, Texas

PROJECT:

DESIGN GROUP INTERNATIONAL
DELFINO GARZA JR., • ARCHITECT • 1701 MIER STREET • LAREDO, TEXAS 78043 • (956) 724-6268

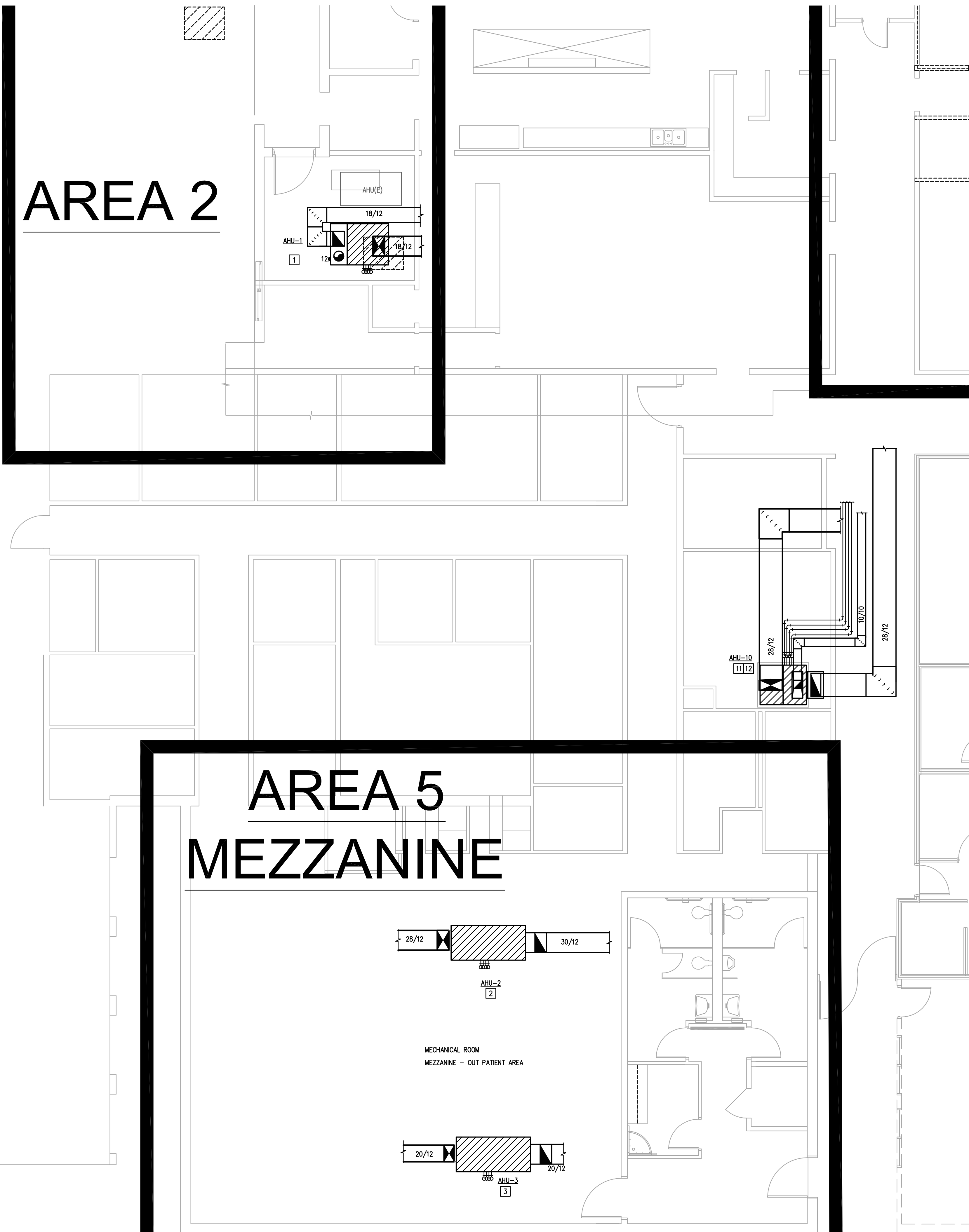


09/10/2018

SHEET
M-2.1



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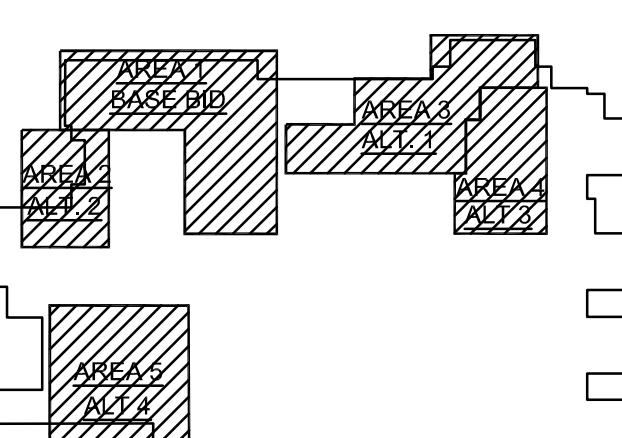
MECHANICAL GENERAL NOTES

- COORDINATE DEMOLITION WORK WITH ELECTRICAL AND OTHER DISCIPLINES AS REQUIRED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOISTS, CONDITIONS DURING THE BIDDING PERIOD SO THEY WILL HAVE DISCOVERED THE FULL SCOPE OF WORK INVOLVED WITH THE MODIFICATION OF THIS EXISTING SPACE. THE SCOPE OF THE WORK SHALL INCLUDE ALL MATERIALS FOR COMPLETE INSTALLATION INCLUDING DEVICES, EQUIPMENT, OR APPARATUS WHICH MUST BE REPOSITIONED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED TO ACCOMMODATE THE INDICATED REMODELING. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON THE DRAWINGS. ALL DRAWING SHOWS ARE TAKEN FROM AS-BUILT HANDCOPY AND MUST BE FIELD VERIFIED.
- WHEN AN EQUIPMENT IS IDENTIFIED TO BE REMOVED, THE OWNER HAS FIRST RIGHT OF RETENTION BEFORE REMOVAL OF THAT EQUIPMENT. PROVIDE DISTRIBUTE ONE WEEK NOTICE PRIOR TO DEMOLITION.
- PROVIDE ALL NECESSARY CLEAR PATH TO MOVE DEMOLISHED EQUIPMENT OUT OF THE FACILITY AS WELL TO REMOVE NEW EQUIPMENT INTO THE BUILDING. MAINTAIN EXISTING PIPING, DUCTWORK, CONDENSATES, AS REQUIRED TO COMPLETE THE DEMOLITION.
- ALL OUTSIDE AIR INTAKES SHALL BE 25 FEET MINIMUM FROM ALL VENTILATING SYSTEMS INCLUDING PLUMBING VENTS, EXHAUST SYSTEMS, AND COMBUSTION EQUIPMENT STACKS.

MECHANICAL KEYED NOTES

- PROVIDE NEW AIR HANDLING UNIT AS SCHEDULED. CONNECT TO EXISTING DUCTWORK AS SHOWN. SIZES ON PLAN. CONNECT OUTSIDE AIR DUCT TO RETURN PLenum BOX. SIZE OF OUTSIDE AIR DUCT ON PLAN. CONNECT 1.25" CHILLED WATER SUPPLY AND RETURN TO EXISTING CHILLED WATER LINES. PROVIDE NEW VALVES AND ACCESSORIES. CONNECT 1" HOT WATER SUPPLY AND RETURN TO EXISTING CHILLED WATER LINES. PROVIDE NEW VALVES AND ACCESSORIES. REUSE EXISTING OR PROVIDE NEW HOUSEKEEPING PAD. CONNECT TO NEW DDC CONTROLS AND REPLACE EXISTING TSTAT AND HUMIDISTAT. FIELD VERIFY EXISTING CONDITIONS.
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- PROVIDE NEW AIR HANDLING UNIT AS SCHEDULED. UNIT TO USE HEPA FILTERS FOR THE OPERATING ROOM. CONNECT TO EXISTING DUCTWORK AS SHOWN. SIZES ON PLAN. CONNECT OUTSIDE AIR DUCT TO RETURN PLenum BOX. SIZE OF OUTSIDE AIR DUCT ON PLAN. CONNECT 1" CHILLED WATER SUPPLY AND RETURN TO EXISTING CHILLED WATER LINES. PROVIDE NEW VALVES AND ACCESSORIES. CONNECT 1.25" HOT WATER SUPPLY AND RETURN TO EXISTING CHILLED WATER LINES. PROVIDE NEW VALVES AND ACCESSORIES. REUSE EXISTING OR PROVIDE NEW HOUSEKEEPING PAD. CONNECT TO NEW DDC CONTROLS AND REPLACE EXISTING TSTAT AND HUMIDISTAT. FIELD VERIFY EXISTING CONDITIONS. ROUTE CONDENSATE LINE TO NEAREST FLOOR DRAIN OR TAIL PIPE OF SINK. COORDINATE WITH PLUMBING CONTRACTOR. PROVIDE CONDENSATE PUMP.
- PROVIDE NEW AIR HANDLING UNIT AS SCHEDULED. CONNECT TO EXISTING DUCTWORK AS SHOWN. SIZES ON PLAN. EXTEND OUTSIDE AIR DUCT TO NEW LOCATION OF AIR HANDLING UNIT. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SUPPLY/RETURN AND OUTSIDE AIR DUCT. CONNECT 2" CHILLED WATER SUPPLY AND RETURN TO EXISTING CHILLED WATER LINES. PROVIDE NEW VALVES AND ACCESSORIES. CONNECT 1" HOT WATER SUPPLY AND RETURN TO EXISTING CHILLED WATER LINES. PROVIDE NEW VALVES AND ACCESSORIES. PROVIDE NEW HOUSEKEEPING PAD. CONNECT TO NEW DDC CONTROLS AND REPLACE EXISTING TSTAT AND HUMIDISTAT. FIELD VERIFY EXISTING CONDITIONS. ROUTE CONDENSATE LINE TO NEAREST FLOOR DRAIN OR TAIL PIPE OF SINK. COORDINATE WITH PLUMBING CONTRACTOR. PROVIDE CONDENSATE PUMP.
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- PROVIDE NEW DDC CONTROLS.
- RELOCATE EXISTING LOUVER AND CONNECT NEW OUTSIDE AIR DUCT TO UNITS. PROVIDE VOLUME DAMPERS AND AIR FLOW MONITORING STATIONS FOR EACH AIR HANDLER. COORDINATE LOUVER PENETRATION WITH ARCHITECT. SEAL EXISTING PENETRATION WHERE LOUVER WAS LOCATED AND MATCH AS BEST AS POSSIBLE WITH SIMILAR MATERIALS. MATCH COLORS. FIELD VERIFY EXISTING CONDITIONS.
- UNITS ABOVE CEILING WILL REQUIRE THAT THE CEILING BE REMOVED. COORDINATE PRIOR TO REMOVING OLD UNITS AND REPLACING WITH NEW UNITS. IF CEILING ARE HARD OPIUM CEILING, CONTRACTOR TO REPAIR AND LEAVE IN NEW CONDITIONS WITH SIMILAR MATERIALS THAT WERE EXISTING. MATCH COLORS. FIELD VERIFY EXISTING CONDITIONS.
- PROVIDE SINGLE DUCT VAV BOXES AS SCHEDULED. PROVIDE HOT WATER COILS FOR REHEAT. COIL CONNECTIONS SHALL BE ON THE BOTTOM OF THE VAV BOX FOR CLEARANCE. CONTROLS BOX SHALL BE ON THE UNDERSIDE OF THE VAV BOX FOR CLEARANCE. CONNECT TO EXISTING DUCTWORK AND TRANSMIT AS NEEDED. REPLACE EXISTING TSTAT AND HUMIDISTAT WITH NEW TSTATS AND HUMIDISTAT. PROVIDE NEW DDC CONTROLS FOR VAV BOXES TO REPLACE EXISTING PNEUMATIC CONTROLS. FIELD VERIFY EXISTING CONDITIONS.
- PROVIDE NEW CHILLED WATER PUMP. USE EXISTING HOUSEKEEPING PAD. PROVIDE NEW VALVES AND ISOLATION. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER. BALANCE QPM VALVES ONCE DONE.
- PROVIDE NEW HOT WATER PUMP. USE EXISTING HOUSEKEEPING PAD. PROVIDE NEW VALVES AND ISOLATION. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER. BALANCE QPM VALVES ONCE DONE.

KEY PLAN



1 MECHANICAL PLAN - ADD ALTERNATES 2 AND 4
M-2.3 3/16"=1'-0"

Starr County Memorial Hospital
MRI Addition and Renovation
128 N. FM Road 3167 Rio Grande City, Texas

PROJECT:

DESIGN GROUP INTERNATIONAL
DELFINO GARZA JR., • ARCHITECT • 1701 MIER STREET • LAREDO, TEXAS 78043 • (956) 724-6268



09/10/2018

SHEET
M-2.3

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TBPE Firm Registration No. 2234

DBR Project Number 178007.000

AS MG JB TL -

ELECTRIC HUMIDIFIER SCHEDULE	
MARK	H-1
SERVES	RTU-1
STEAM OUTPUT (LBS/HR)	3
KW	1
VOLTS/PHASE/HERTZ	120 / 1 / 60
SINGLE PHASE AMPERAGE	8.3
OPERATING WEIGHT (LBS)	70
MANUFACTURER	PURE HUMIDIFIER
MODEL NO.	ER-1
NOTES:	1, 2, 3, 4, 5
NOTES: 1. PROVIDE 3/4" INSULATION WITH FOIL FACE. 2. PROVIDE DISPERSION INJECTION TUBES AND FLEXIBLE HOSE. 3. PROVIDE SCR MODULATION CONTROL WITH HUMIDISTAT. 4. PROVIDE AIRFLOW PROVING SWITCH AND DUCT HIGH-LIMIT. 5. PROVIDE DRAIN TEMPERING KIT AND CONDENSATE PUMP. 6. SEE PLANS FOR DUCT SIZE.	

ROOFTOP UNIT SCHEDULE (ELECTRIC HEAT)		
FAN AND MOTOR DATA	MARK	RTU-1
	SERVES	MAGNET ROOM
	SUPPLY AIR (CFM)	600
	OUTSIDE AIR (CFM)	35
	EXT. SP. (IN W.G.)	2.0
FILTERS	PRE FILTER	2" MERV 8 30%
	FINAL FILTER	12" MERV 14 90%
COOLING	TOTAL COOLING (MBH)	20.1
	SENSIBLE COOLING (MBH)	17.5
	ENTERING AIR TEMP. DB/WB (F)	76.3/61.1
	LEAVING AIR TEMP. DB/WB (F)	48.9/48.4
	AMBIENT TEMP. (F)	105
HEATING	TOTAL HEATING (KW) / STAGES	7.5/SCR
ELECTRIC	VOLTS/PHASE/HERTZ	208/3/60
	MCA	35
	MOCP	35
GENERAL	MANUFACTURER	AAON
	MODEL	RQ002
	NOMINAL TONS	2
	SEER (AHR)	20.3
	WEIGHT (LBS)	626
NOTES		
NOTES:		
1. PROVIDE 2" DOUBLE WALL CONSTRUCTION WITH R-13 FOAM INSULATION.		
2. PROVIDE FACTORY MOUNTED CONDENSER COIL HAIL GUARD.		
3. PROVIDE MODULATING HOT GAS REHEAT.		
4. PROVIDE VARIABLE CAPACITY COMPRESSOR CAPABLE OF MODULATING FROM 10 TO 100% OF CAPACITY.		
5. PROVIDE UNITARY CONTROLLER, WALL MOUNTED LCD TOUCHSCREEN INTERFACE, SPACE TEMPERATURE AND HUMIDITY SENSOR.		
6. PROVIDE 36" TALL ROOF CURB WITH FINAL FILTER SECTION, COORDINATE WITH ROOFING CONTRACTOR.		
7. UNIT SHALL BE LISTED AS AN AHRI 210/240 CERTIFIED PRODUCT IN THE AHRI DIRECTORY.		
8. PROVIDE FILTER GUAGES FOR FINAL FILTERS, MOUNTED REMOTELY BY TOUCHSCREEN INTERFACE IN BUILDING SPACE.		
9. PROVIDE FACTORY INSTALLED AND POWERED UV LIGHT DOWNSTREAM OF THE COOLING COIL.		

FAN SCHEDULE							
MARK	EF-1	EF-2	EF-3	EF-4	EF-5	EF-6	
SERVES	MAGNET ROOM	MEN RR	WOMEN	UNISEX RR	JANITOR 110	UNISEX	
CFM	1,200	75	75	75	75	75	
E.S.P. (IN W.G.)	0.375	0.25	0.25	0.25	0.25	0.25	
TYPE	ROOF	CEILING	CEILING	CEILING	CEILING	CEILING	
DIRECT/BELT DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	
FAN RPM	1,300	900	900	900	900	900	
MOTOR HORSEPOWER	1/4	61W	61W	61W	61W	61W	
VOLTS/PHASE/HERTZ	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	
SONES	9.2	1.6	1.6	1.6	1.6	1.6	
MANUFACTURER	COOK	COOK	COOK	COOK	COOK	COOK	
MODEL NO.	120C13D	GC-124	GC-124	GC-124	GC-124	GC-124	
NOTES	1, 2, 3, 4, 5	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	
NOTES:							
1. PROVIDE FACTORY MOUNTED DISCONNECT.							
2. PROVIDE SPEED CONTROLLER.							
3. PROVIDE VIBRATION ISOLATION.							
4. PROVIDE ROOF CURB.							
5. INTERLOCK WITH PANIC BUTTON IN CONTROL ROOM AND BY EXIT OF THE MAGNET ROOM.							

SINGLE INLET COOLING ONLY VAV BOX SCHEDULE							
MARK	CFM		INLET SIZE	HOT WATER HEATING		VOLTS	MFR
	MAX	MIN.		BTUH	GPM		
VAV-1	775	235	10"Ø	20,925	2.1	24 VAC	TITUS
VAV-2	740	230	10"Ø	19,980	2.0	24 VAC	TITUS
VAV-3	300	90	6"Ø	8,100	0.8	24 VAC	TITUS
VAV-4	905	270	10"Ø	24,435	2.4	24 VAC	TITUS
VAV-5	400	145	8"Ø	10,800	1.1	24 VAC	TITUS
VAV-6	420	145	8"Ø	11,340	1.1	24 VAC	TITUS
VAV-7	420	145	8"Ø	113,410	1.1	24 VAC	TITUS
VAV-8	420	145	8"Ø	11,340	1.1	24 VAC	TITUS
		80	6"Ø			24 VAC	TITUS
		80	6"Ø			24 VAC	TITUS

NOTES:
1. 24 VOLTS AC SHALL BE PROVIDED BY CONTROLS CONTRACTOR.

AIR HANDLING UNIT SCHEDULE (4 - PIPE)													
GENERAL	MARK	AHU-1	AHU-2	AHU-3	AHU-4A	AHU-4B	AHU-5	AHU-6	AHU-7	AHU-8	AHU-9	AHU-10	AHU-11
	SERVES	CAFETERIA	OUTPATIENT 1	OUTPATIENT 2	ER	RADIOLOGY	OPERATING ROOM	PHARMACY	BAROMETRIC	ER-1	ER-2	CORRIDOR BY CAFETERIA	MRI ADDITION
	CONFIGURATION	HORIZONTAL Top discharge	HORIZONTAL	HORIZONTAL	VERTICAL	VERTICAL	HORIZONTAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL
	SUPPLY AIR (CFM)	1,330	2,600	1,600	2,050	1,000	4,440	1,550	600	1,600	2,000	2,400	3,870
	OUTSIDE AIR (CFM)	200	390	240	300	150	4,440	1,550	60	1,000	800	360	500
	EXT. SP. (IN. W.G.)	0.5	0.5	0.5	1.98	1.75	2.33	0.5	1.91	3.89	3.17	0.5	0.5
	FAN MOTOR HORSEPOWER	1/2	2	1/2	2	1	5	1.5	1	2	2	1	2
	VOLTS/PHASE/HERTZ	208/1/60	208/1/60	120/1/60	208/1/60	208/1/60	208/3/60	120/1/60	208/1/60	208/3/60	208/3/60	208/1/60	208/3/60
	MAX. FAN RPM	770	877	767	3431	3441	3450	793	1604	3450	3450	876	2026
	Pre/Final Filter (MERV)	8/-	8/-	8/-	8/HEPA	8/HEPA	8/HEPA	13/-	8/HEPA	8/HEPA	8/HEPA	8/-	8/-
	FAN TYPE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE
	VFD/STARTER BY CONTRACTOR	ECM FAN	ECM FAN	ECM FAN	ECM FAN	ECM FAN	VFD	ECM FAN	ECM FAN	ECM FAN	ECM FAN	ECM FAN	ECM FAN
COOLING COIL	TOTAL COOLING (MBH)	51.6	81.6	50.7	60.3	30.5	422.4	152.8	18.4	120.7	111.6	77.0	104.6
	SENSIBLE COOLING (MBH)	38.1	65.8	40.9	50.2	25.2	240.4	86.3	14.5	72.0	72.8	61.6	84.6
	ENTERING AIR TEMP. DB/WB (F)	77.66/64.62	77.66/64.62	77.64/64.61	77.54/64.53	77.65/64.61	104/81	104/81	76.1/63.44	92.38/74.49	85.4/70.08	77.65/64.61	77.6/64.58
	LEAVING AIR TEMP. DB/WB (F)	51.62/51.32	54.65/54.13	54.41/54.01	55.28/54.72	54.76/54.44	55/54.9	54.09/53.94	53.52/52.84	51.8/51.5	52.44/52.31	54.33/53.86	54.78/54.22
	MAX. COIL FACE VEL. (FPM)	342	416	329	422	257	453	399	375	320	400	384	441
	MAX. AIR PRESS. DROP (IN. W.G.)	0.502	0.446	0.306	0.45	0.201	0.775	0.711	-	0.495	0.709	0.394	0.445
	WATER FLOW (GPM)	10.3	16.3	10.1	12.0	4.1	84.2	30.5	3.8	24.1	22.2	15.4	20.8
	ENTERING WATER TEMP (F)	45	45	45	45	45	45	45	45	45	45	45	45
	LEAVING WATER TEMP (F)	55	55	55	55	55	55	55	55	55	55	55	55
	MIN. ROWS/MAX. FINS PER IN.	6/12	4/12	4/12	4/12	4/12	8/8	4/12	3/12	6/12	6/12	4/12	4/12
	MAX. WATER PRESS. DROP (FT.)	4.29	4.99	3.41	4.66	1.2	9.72	1.25	5.3	10.6	9.17	4.49	3.29
	HEAT IN PREHEAT/REHEAT POSITION	REHEAT	REHEAT	REHEAT	REHEAT	REHEAT	PREHEAT	PREHEAT	REHEAT	REHEAT	REHEAT	REHEAT	REHEAT
HEATING COIL	TOTAL HEATING (MBH)	71.6	132.9	91.8	104.1	61.6	238.6	77.3	8.0	91.8	102.8	127.7	154.3
	ENTERING AIR TEMP. DB (F)	40	40	40	40	40	40	40	60	40	40	40	40
	LEAVING AIR TEMP. DB (F)	89.64	87.14	92.9	86.82	96.84	90	86.01	72.63	92.9	87.41	89.06	87.22
	MAX. AIR PRESS. DROP (IN. W.G.)	0.076	0.106	0.071	0.109	0.047	0.127	0.099	-	0.071	0.104	0.093	0.121
	WATER FLOW (GPM)	4.8	8.9	6.1	6.9	4.1	15.9	5.2	0.5	6.1	6.9	8.5	10.3
	ENTERING WATER TEMP (F)	180	180	180	180	180	180	180	180	180	180	180	180
	LEAVING WATER TEMP (F)	150	150	150	150	150	150	150	150	150	150	150	150
	MIN. ROWS/MAX. FINS PER IN.	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/4	1/12	1/12	1/12	1/12
	MAX. WATER PRESS. DROP (FT.)	0.36	0.94	0.61	0.78	0.27	0.87	0.41	0.11	0.61	0.76	0.87	0.65
	HEAT IN PREHEAT/REHEAT POSITION	REHEAT	REHEAT	REHEAT	REHEAT	REHEAT	PREHEAT	PREHEAT	REHEAT	REHEAT	REHEAT	REHEAT	REHEAT
	MANUFACTURER	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
	MODEL	BCV054	BCVD090	BCVD072	TFLX	TFLX	CSAA010	BCVD054	TFLX	TFLX	TFLX	BCVD090	UCCA08
MCA/MOCP	5.33/15	9.66/15	5.33/15	16.5/25	11/15	36.5/60	9.66/15	11/15	8.5/15	8.5/15	9.66/15	8.5/15	
2-WAY/3WAY CONTROL VALVES	2-WAY	2-WAY	3-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	
WEIGHT (LBS)	260	319	263	373	233	772	313	140	400	400	319	652	
NOTES	1, 2, 4, 7	1, 2, 4, 7	1, 2, 4, 7	1, 2, 4, 5, 6, 7	1, 2, 4, 5, 6, 7	1, 2, 4, 5, 6, 7	1, 3, 4, 7	1, 2, 4, 5, 6, 7	1, 2, 4, 5, 6, 7	1, 2, 4, 5, 6, 7	1, 2, 4, 7	1, 2, 4, 7	
NOTES:													
1. PROVIDE WITH DIRECT DRIVE PLENUM FANS.													
2. PROVIDE WITH MIXING BOX AND ANGLED MERV 8 FILTER.													
3. PROVIDE WITH MIXING BOX AND ANGLED MERV 13 FILTER. PROVIDE DRAFT GAUGE FOR PRESSURE MONITORING.													
4. PROVIDE WITH DOUBLE WALL INSULATION.													
5. PROVIDE WITH MIXING BOX, ANGLED PRE FILTERS AND HEPA FILTERS AS SCHEDULED. PROVIDE DRAFT GAUGE FOR PRESSURE MONITORING.													
6. UNITS WITH HEPA FINAL FILTERS ARE SCHEDULED AT TOTAL STATIC PRESSURE.													
7. PROVIDE AIR HANDLING UNIT WITH UV LIGHT, 120V/1PH POWER.													

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ELECTRICAL KEYED NOTES

- EXISTING MECHANICAL UNIT TO BE REPLACED. PROVIDE NEW 120V, 30A/1P, N.F., NEMA 1 DISCONNECT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL.
- EXISTING MECHANICAL UNIT TO BE REPLACED. PROVIDE NEW 208V, 30A/2P, N.F., NEMA 1 DISCONNECT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL.
- EXISTING MECHANICAL UNIT TO BE REPLACED. PROVIDE NEW 208V, 30A/2P, N.F., NEMA 1 DISCONNECT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL.
- EXISTING MECHANICAL UNIT TO BE REPLACED. PROVIDE NEW 208V, 60A/3P, N.F., NEMA 1 DISCONNECT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL.
- NEW #12 WIRE IN EXISTING CONDUIT. EXTEND/REROUTE EXISTING CONDUIT FROM UNIT BEING REPLACED TO NEW UNIT LOCATION AS REQUIRED. REPLACE EXISTING BREAKER WITH NEW 20A/1P BREAKER.
- NEW #12 WIRE IN EXISTING CONDUIT. EXTEND/REROUTE EXISTING CONDUIT FROM UNIT BEING REPLACED TO NEW UNIT LOCATION AS REQUIRED. REPLACE EXISTING BREAKER WITH NEW 15A/2P BREAKER.
- NEW #10 WIRE IN EXISTING CONDUIT. EXTEND/REROUTE EXISTING CONDUIT FROM UNIT BEING REPLACED TO NEW UNIT LOCATION AS REQUIRED. REPLACE EXISTING BREAKER WITH NEW 25A/2P BREAKER.

- NEW #12 WIRE IN EXISTING CONDUIT. EXTEND/REROUTE EXISTING CONDUIT FROM UNIT BEING REPLACED TO NEW UNIT LOCATION AS REQUIRED. REPLACE EXISTING BREAKER WITH NEW 15A/3P BREAKER.
- NEW #6 WIRE IN NEW 3/4" CONDUIT. REPLACE EXISTING BREAKER WITH NEW 60A/3P BREAKER.
- 120V CONNECTION TO UNIT U.V. LIGHTS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL. PROVIDE 120V, 20A DISCONNECT SWITCH.

ELECTRICAL GENERAL NOTES

- FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATION OF EXISTING PANEL FOR ALL MECHANICAL UNITS BEING REPLACED.

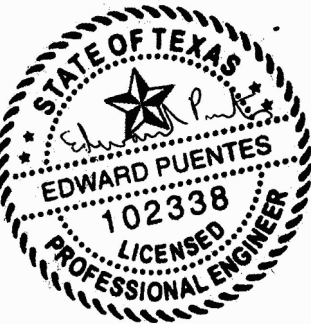
1 ELECTRICAL OVERALL PLAN

1/8"=1'-0"

KEY PLAN



DBR Project Number 178007.000				
AS	MG	JB	TL	-



09/10/2018

SHEET

EP-1

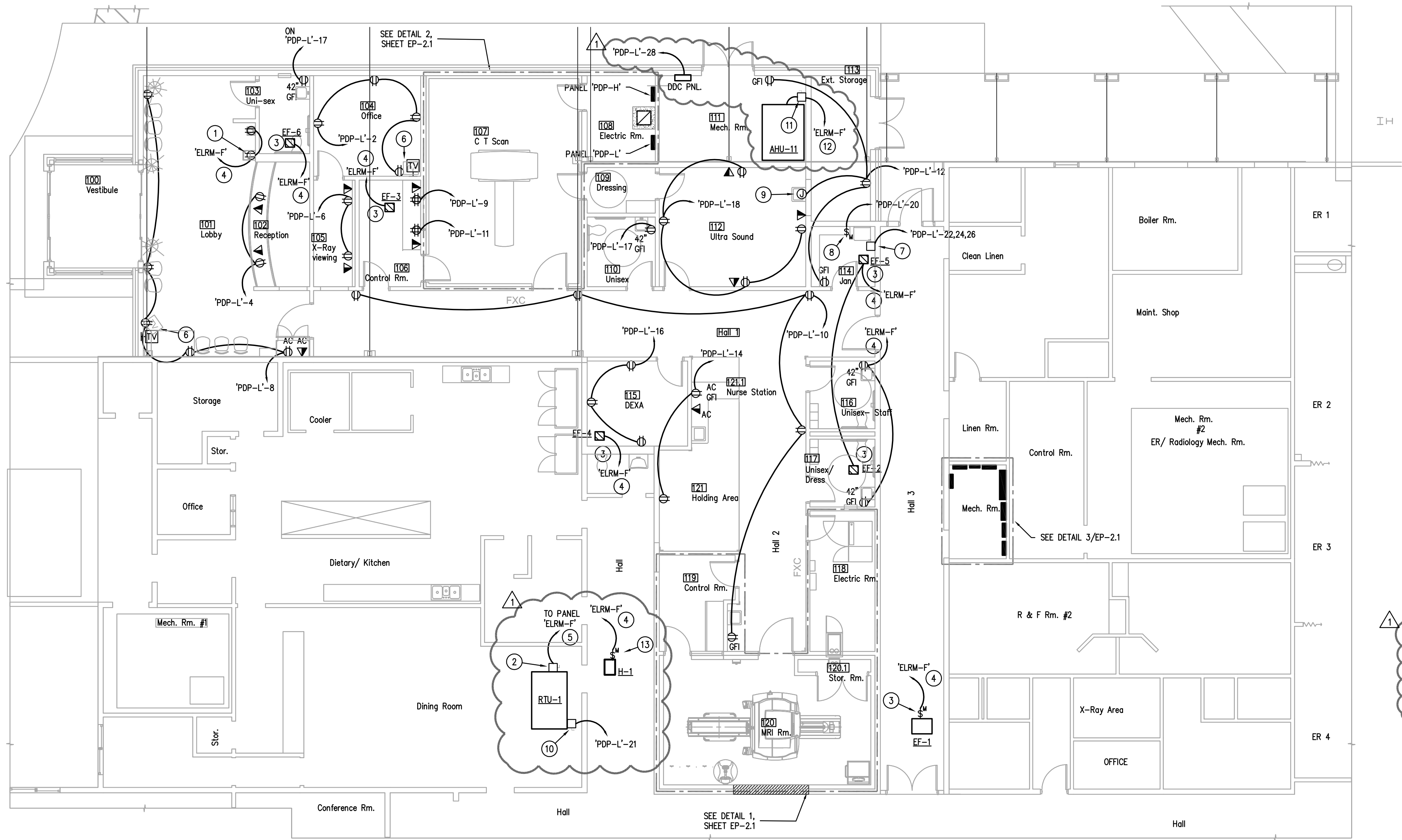
PROJECT:

Starr County Memorial Hospital
MRI Addition and Renovation
128 N. FM Road 3167 Rio Grande City, Texas



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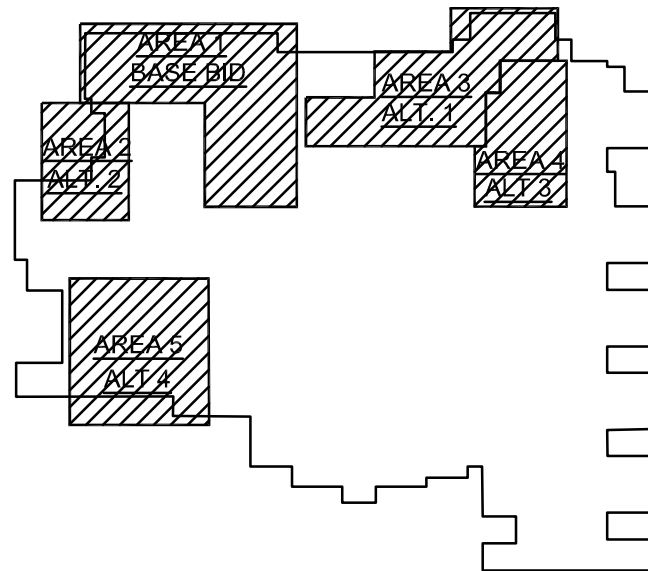


1 ELECTRICAL POWER PLAN - RENOVATION AREA 1
EP-2 1/8"=1'-0"

ELECTRICAL KEYED NOTES:

- 1 PROVIDE REMOTE GFI RESET BUTTON. SEE DETAIL 7, SHEET E-3.
- 2 208V, 60A/3P, NEMA 3R DISCONNECT SWITCH FUSED PER NAMEPLATE DATA OF FURNISHED EQUIPMENT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL.
- 3 PROVIDE POWER TO EXHAUST FAN. DISCONNECT SWITCH SHALL BE PROVIDED WITH EQUIPMENT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL.
- 4 PROVIDE 20A/1P BREAKER IN EXISTING PANEL AND CONNECT CIRCUIT. NOTE CIRCUIT NUMBER ON AS-BUILT DRAWINGS. SEE DETAIL 3, SHEET EP2.1 FOR PANEL LOCATION. CONNECT EF-2,3,4,5,6 TO SAME CIRCUIT.
- 5 PROVIDE 35A/3P BREAKER IN EXISTING PANEL AND CONNECT CIRCUIT. NOTE CIRCUIT NUMBER ON AS-BUILT DRAWINGS. SEE DETAIL 3, SHEET EP2.1 FOR PANEL LOCATION.
- 6 T.V. OUTLET AND DUPLEX RECEPTACLE MOUNTED AT 72" A.F.F. COORDINATE EXACT LOCATION WITH ARCH. IN FIELD PRIOR TO ROUGH-IN.
- 7 208V, 30A/3P, N.F., NEMA 1 DISCONNECT SWITCH FOR WATER HEATER. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH PLUMBING. MAKE CONNECTION TO EQUIPMENT AS REQUIRED.
- 8 120V, MOTOR RATED TOGGLE SWITCH FOR CIRC. PUMP. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH PLUMBING. MAKE CONNECTION TO EQUIPMENT AS REQUIRED. EXTEND CIRCUIT TO TIME SWITCH AND CONNECT.
- 9 PROVIDE POWER TO STEP-DOWN TRANSFORMER FOR SENSOR FAUCET. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH PLUMBING.
- 10 120V CONNECTION TO UNIT U.V. LIGHTS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL. PROVIDE 120V, 20A DISCONNECT SWITCH.
- 11 208V, 30A/3P, N.F., NEMA 1 DISCONNECT SWITCH. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL. MAKE CONNECTION TO EQUIPMENT AS REQUIRED.
- 12 PROVIDE 15A/3P BREAKER IN EXISTING PANEL AND CONNECT CIRCUIT. NOTE CIRCUIT NUMBER ON AS-BUILT DRAWINGS. SEE DETAIL 3, SHEET EP2.1 FOR PANEL LOCATION.
- 13 120V CONNECTION TO HUMIDIFIER. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL. PROVIDE 120V, 20A DISCONNECT SWITCH.

KEY PLAN



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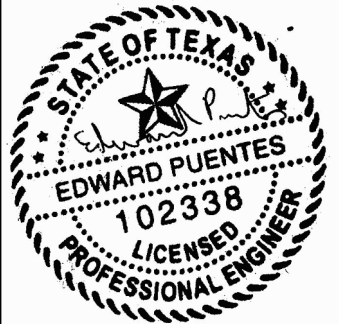
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SHEET

EP-2