			AIF	R CO	NDITIO	ONING	UNIT SCH	EDULE				
	MANUEACTURED/				LINIT		COOLING	ELEC	CTRICAL DA	ATA	TOTAL UNIT	
TAG	MANUFACTURER/ MODEL NUMBER	DESCRIPTION	SEER	TONS	UNIT SERVING	REFRIG.	(BTU-HR)	V / PH / Hz	M.C.A. [AMPS]	M.O.C.P. [AMPS]	WEIGHT [LBS.]	REMARKS
CU-1	TRANE/4TTR6060A	AIR CONDITIONER	16	5	F-1	R410A	60,000	208/1/60	41	60	275	1-5
CU-2	TRANE/4TTR6060A	AIR CONDITIONER	16	5	F-2	R410A	60,000	208/1/60	41	60	275	1-5
CU-3	TRANE/4TTR6060A	AIR CONDITIONER	16	5	F-3	R410A	60,000	208/1/60	41	60	275	1-5
CU-4	TRANE/4TTR6060A	AIR CONDITIONER	16	5	F-4	R410A	60,000	208/1/60	41	60	275	1-5

INSTALL PER MANUFACTURERS RECOMMENDATIONS

INSTALL PRESSURE RELIEF VALVE ON HIGH PRESSURE SIDE OF SYSTEM, UPSTREAM OF ANY INTERVENING VALVES.

MAINTAIN REQUIRED CLEARANCES FOR PROPER AIRFLOW AND MAINTENANCE. PROVIDE WITH NEW LINE SET TO AC COIL.

2-STAGE SCROLL COMPRESSOR

				G	AS FI	RED FU	RNA	CE SC	HED	ULE				
TAG	MANUFACTURER	AFUE	ESP				HEA	TING		ELECTRICAL DA	TA		TOTAL UNIT	DEMARKO
140	/MODEL#	(%)	(IN W.C.)	CFM	OA CFM	TYPE	MBH INPUT	MBH OUTPUT	HP	VOLT-PH-HZ	M.C.A.	MOCP	WEIGHT [LBS.]	REMARKS
F-1	TRANE S9X2C100D5PSAA	96.0	0.8	2000	400	DOWN FLOW	65/100	63/97	1.0	115-1-60	14.4	15	155	1-3
F-2	TRANE S9X2C100D5PSAA	96.0	0.8	2000	400	DOWN FLOW	65/100	63/97	1.0	115-1-60	14.4	15	155	1-3
F-3	TRANE S9X2C100U5PSAA	96.0	0.8	2000	400	UPFLOW	65/100	63/97	1.0	115-1-60	14.4	15	155	1-3
F-4	TRANE S9X2C100U5PSAA	96.0	0.8	2000	400	UPFLOW	65/100	63/97	1.0	115-1-60	14.4	15	155	1-3
	<u> </u>	· ·	· ·	<u> </u>			·	·			·			

UNITS TO HAVE PROGRAMMABLE SET-POINT LIMITING THERMOSTAT TO BE PROVIDED BY MANUFACTURER AND INSTALLED BY CONTRACTOR.

TWO-STAGE, VARIABLE SPEED, ECM MOTOR, CONDENSING GAS FURNACE. PROVIDE WITH HONEYWELL JADE ECONOMIZER CONTROLS INTERLOCKED WITH MOTORIZED DAMPERS ON INTAKE AND EXHAUST.

					EXHA	UST F	AN S	CHEDU	LE				
TAG	MANUFACTURER	MODEL#	TYPE	DDIVE		BLOWER	SECTION		ELECTRICA	L DATA		TOTAL UNIT	DEMARKS.
TAG	MANOFACTORER	MODEL#	TIPE	DRIVE	CFM	E.S.P (IN .WC.)	RPM	NOM.POWER [HP]	VOLT-PH-HZ	M.C.A. [AMPS]	SONES	WEIGHT [LBS.]	REMARKS
EF-1	"GREENHECK"	#SQ-90-VG	INLINE	DIRECT	550	0.25"	1550	1/4 HP	115-1-60		7.4	50	1,3-6
EF-2	"GREENHECK"	#SQ-85-VG	INLINE	DIRECT	400	0.25"	1550	1/4 HP	115-1-60		7.3	50	1,3-7
CEF-1	"GREENHECK"	#SP-A50	CEILING MOUNTED	DIRECT	50	0.25"	808	22 WATTS	115-1-60	0.3	0.7	12	1-6

INSTALL AS PER MANUFACTURER RECOMMENDATIONS

PROVIDE WITH GRILLE.

VERIFY EXACT VOLTAGE PRIOR TO ORDERING EQUIPMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH AND LINE WIRING.

PROVIDE BACK DRAFT DAMPER.

FAN TO BE CONTROLLED BY TIME CLOCK. PRICE SEPARATELY AS PART OF ALTERNATE BID.

		AIR DEVICE	SCHEDULE			
TAG	MAKE/ MODEL	DESCRIPTION	SERVICE	SIZE	MAX N.C.	REMARKS
А	"TITUS" #OMNI	24"x24" LAY-IN SQUARE PLAQUE 4-WAY DIFFUSER W/ ROUND NECK	SUPPLY/RETURN	24"x24"	25	1-3
В	"TITUS" #PAR	24"x24" PERFORATED RETURN/EXHAUST GRILLE	RETURN/EXHAUST	24"x24"	25	1-3
С	"TITUS" #PAR	12"x12" PERFORATED EXHAUST GRILLE	EXHAUST	12"x12"	25	1-3
D	"TITUS" #300FL	SURFACE MOUNTED DOUBLE DEFLECTION SUPPLY REGISTER, 3/4" BLADE SPACING	SUPPLY	SEE PLANS	25	1-3
E	"TITUS" #350FL	ALUMINUM RETURN GRILLE, 3/4" BLADE SPACING, 35 DEGREE DEFLECTION	RETURN	SEE PLANS	25	1-3

FINISH TO BE SELECTED BY ARCHITECT/OWNER.

LAY-IN FRAME, PROVIDE WITH DUCT COLLAR. PROVIDE SQUARE TO ROUND ADAPTER WHERE REQUIRED.

PROVIDE WITH TRIM FRAME FOR SURFACE MOUNTING. PROVIDE WITH DUCT COLLAR.

NOTE:

CONTRACTOR TO PROVIDE CORRECT FRAME FOR TYPE OF CEILING/SURFACE DIFFUSER/GRILLE IS MOUNTED IN.

DESIGN CRITERIA

BASED ON ASHRAE HANDBOOK - 2012 FUNDAMENTALS NAPERVILLE, ILLINOIS

OUTDOOR DESIGN CONDITION

1% COOLING: 88.4°/73.5°F DB/WB 99.6% HEATING: -2°F DB

INDOOR DESIGN CONDITION SUMMER: 75°F DB/50% RH WINTER: 70°F DB

MECHANICAL LECEND

MEC	HANIC	SAL LEGEND
EQUIPMENT	RTU #	MARK (SEE SCHEDULE) EQUIPMENT NUMBER
AIR DEVICE	S-200-A 8"ø NK	TYPE-CFM-DEVICE TAG NECK SIZE

GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL APPLICABLE CODES.
- ALL EQUIPMENT SHALL BE U.L., ETL, AND/OR AGA LABELED AS
- ALL DUCTWORK SHALL BE PRIME GRADE GALVANIZED SHEET METAL PER SMACNA STANDARDS.
- DUCTWORK SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING TEN (10) FEET OR BY OTHER APPROVED DUCT SUPPORT SYSTEMS DESIGNED IN ACCORDANCE WITH THE BUILDING CODE. FLEXIBLE AND OTHER FACTORY-MADE DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- MECHANICAL CONTRACTOR SHALL PROVIDE SPIN-IN COLLARS WITH DAMPERS AT ALL ROUND BRANCH TAKEOFFS TO DIFFUSERS.
- DUCTWORK CONSTRUCTION MATERIALS, INCLUDING COVERINGS, LININGS, AND ADHESIVES, EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E-84.
- PROVIDE FIRE DAMPERS BY "NAILOR" OR APPROVED EQUAL AT ALL PENETRATIONS THRU RATED ASSEMBLIES. REFER TO ARCHITECTURAL PLANS FOR ALL LOCATIONS AND RATINGS. ALL FIRE DAMPERS MAY NOT BE SHOWN ON THE PLANS. THIS CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND QUANTITIES.
- MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE CANVAS CONNECTIONS AT ALL EQUIPMENT.

SHALL BE 4'-6" A.F.F.

- MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE AIR CONNECTORS FOR ALL DIFFUSERS. FLEXIBLE CONNECTORS SHALL NOT EXCEED FIVE
- . FLEXIBLE AIR DUCTS AND FLEXIBLE AIR CONNECTORS, BOTH METALLIC AND NONMETALLIC, SHALL BE TESTED IN ACCORDANCE WITH UL 181. SUCH DUCTS SHALL BE LISTED AND LABELED AS CLASS 0 OR CLASS 1.
- OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF TEN (10) FEET FROM ANY EXHAUST VENT, FLUE VENT OR ANY OTHER MECHANICAL SOURCE OF CONTAMINATION AND TWELVE (12) FEET FROM ANY PLUMBING VENT.
- MECHANICAL CONTRACTOR SHALL PROVIDE BALANCING REPORTS BY A CERTIFIED BALANCER UPON COMPLETION OF PROJECT. PROVIDE INSPECTOR REPORTS PRIOR TO FINAL INSPECTION.
- ALL THERMOSTATS SHALL BE MOUNTED IN ACCORDANCE WITH ADA REQUIREMENTS. WHERE THE THERMOSTAT IS ACCESSIBLE BY FRONTAL APPROACH ONLY, THEN THE MOUNTING HEIGHT OF THE THERMOSTAT SHALL BE 4'-0" A.F.F. WHERE THE THERMOSTAT IS ACCESSIBLE FROM A SIDE APPROACH, THEN THE MOUNTING HEIGHT OF THE THERMOSTAT
- ELECTRICAL CONTRACTOR SHALL WIRE ALL EQUIPMENT AND SHALL PROVIDE DISCONNECT SWITCHES, STARTERS AND/OR RELAYS AS
- ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, UTILITY BOXES, AND WIRING FOR ALL THERMOSTATS. MECHANICAL CONTRACTOR SHALL FURNISH, MOUNT, AND TERMINATE THERMOSTATS ONLY.
- 16. ELECTRICAL CONTRACTOR SHALL PROVIDE RETURN SMOKE DETECTORS IN SYSTEMS WITH A DESIGN CAPACITY OF GREATER THAN 2,000 CFM AND SUPPLY SMOKE DETECTORS IN SYSTEMS GREATER THAN 15,000 CFM. WIRE PER LOCAL CODE.
- ELECTRICAL CONTRACTOR SHALL PROVIDE A 120 VOLT, 15 OR 20 AMP GFCI CONVENIENCE OUTLET FOR ALL ROOFTOP, ATTIC SPACE, OR CRAWL SPACE HVAC EQUIPMENT. CONVENIENCE OUTLET SHALL BE ON THE SAME LEVEL AND WITHIN 25'-0" OF HVAC EQUIPMENT.
- EQUIPMENT AND APPLIANCES SHALL BE INSTALLED AS REQUIRED BY THE TERMS OF THEIR APPROVAL, IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING, THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THIS CODE. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT TIME OF INSPECTION, INCLUDING LISTING FOR OUTSIDE INSTALLATION WHEN APPLICABLE.
- . SUBMIT UL LISTED FIRE STOPPING MATERIALS AND SYSTEMS WHERE FIRE RATED ASSEMBLIES ARE BREACHED.

INSULATION SCHEDULE

ALL EXPOSED DUCTWORK IN CONDITIONED SPACES NONE ALL EXTERIOR DUCTWORK

ALL CONCEALED SUPPLY AND RETURN DUCT ALL EXHAUST UP TO 10'-0" FROM DISCHARGE

ALL SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHEN LOCATED IN UNCONDITIONED SPACES AND WITH A MINIMUM OF R-12 INSULATION WHEN LOCATED OUTSIDE THE BUILDING ENVELOPE. WHEN LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF R-12 INSULATION. ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS, AND CONNECTIONS IN DUCTWORK SHALL BE SECURELY FASTENED AND SEALED WITH WELDS. GASKETS, MASTICS, MASTIC-PLUS-EMBEDDED-FABRIC SYSTEMS OR TAPES. TAPES AND MASTICS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A OR UL 181B. DUCT CONNECTIONS TO FLANGES OF AIR DISTRIBUTION SYSTEM EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED. DUCT

CONTRACTOR TO VERIFY FINAL TYPE, MODEL, AND QUANTITY OF ALL MECHANICAL EQUIPMENT PRIOR TO BID

MECHANICAL SYMBOLS ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE. SYMBOL DESCRIPTION ____H DUCT SUPPLY DIFFUSER RETURN OR EXHAUST GRILLE SLOT DIFFUSER FLEXIBLE DUCT CO2 SENSOR **THERMOSTAT** EMS SENSOR HUMIDISTAT STATIC PRESSURE SENSOR SMOKE DETECTOR 45° PRESSURE TAP WITH VOLUME DAMPER CONICAL TAP WITH VOLUME DAMPER CONICAL TAP WITHOUT VOLUME DAMPER MANUAL VOLUME DAMPER MOTORIZED DAMPER BAROMETRIC DAMPER FS | FIRE/SMOKE DAMPER F | FIRE DAMPER ■—— S SMOKE DAMPER CONDENSATE DRAIN DIRECTION OF SLOPE DIRECTION OF FLOW —▶◀ | GATE VALVE BALL VALVE TEMPERATURE AND PRESSURE RELIEF VALVE — ▼ PLUG VALVE/BALANCING COCK SOLENOID VALVE HYDRAULIC SHOCK ARRESTOR —₩ VALVE IN VERTICAL

MECHANICAL ABBREVIATIONS ABOVE CEILING EUH ELECTRIC UNIT

---|--- [

UNION

EMS ENERGY MANAGEMENT

SYSTEM

VACUUM BREAKER

GAS PRESSURE REGULATOR

ABOVE FINISHED HEATER FLOOR FPB FAN POWERED BOX ANALOG INPUT GC GENERAL ANALOG OUTPUT CONTRACTOR GUH GAS UNIT HEATER BELOW FLOOR BFC BELOW FINISHED LAT LEAVING AIR TEMPERATURE CEILING MVD MANUAL VOLUME BG BELOW GRADE CFPB CONSTANT VOLUME FAN DAMPER NEW POWERED BOX NTS NOT TO SCALE DRY BULB OBD OPPOSED BLADE DIGITAL INPUT DIGITAL OUTPUT RA RETURN AIR DISCONNECT SWITCH EAT SA SUPPLY AIR **ENTERING AIR** TEMPERATURE UNO UNLESS NOTED EDH ELECTRIC DUCT OTHERWISE VAV VARIABLE AIR VOLUME HEATER WH WATER HEATER EXHAUST FAN

ENERGY NOTES

MOTORIZED DAMPERS SHALL BE INSTALLED ON ALL INTAKES AND EXHAUST OPENINGS UNLESS NOTED OTHERWISE. MAXIMUM FAN NAMEPLATE HORSEPOWER SHALL NOT EXCEED 1.1

HP/1000CFM. LOAD CALCULATIONS WERE BASED ON ASHRAE 2012 FUNDAMENTALS

ALL PROGRAMMABLE THERMOSTATS SHALL HAVE 5 DEGREE DEADBAND AND SHALL HAVE 7-DAY CLOCK, 2-HOUR MANUAL OVERRIDE, 10 HOUR BACKUP AND SETBACK CAPABLE OF 55 DEGREES HEATING AND 85 DEGREES COOLING. (EXCEPT

DUCT INSULATION AS SPECIFIED WITH MINIMUM VALUES AS

CONTINUOUS OPERATING ZONES)

- FOLLOWS: R-6 SUPPLY AND RETURN DUCT INSULATION IN UNCONDITIONED SPACES.
- R-12 SUPPLY AND RETURN DUCT INSULATION FOR EXTERIOR
- R-3 SUPPLY AND RETURN DUCT INSULATION UNDERGROUND. ALL DUCTWORK SHALL BE SEALED PRESSURE SENSITIVE TAPE IS NOT USED AS THE PRIMARY SEALANT. LONGITUDINAL AND TRANSVERSE SEAMS FOR DUCTS IN UNCONDITIONED SPACES AND WALL PENETRATIONS. TRANSVERSE SEAMS ON BURIED DUCTS.

ELECTRIC HEATER SCHEDULE

MIN. R-12

MIN. R-6

1-1/2" WRAPPED

	"MANUFACTURER"/		HEATING	CAPACITY	ELECT	RICAL DATA		
TAG	MODEL NUMBER	DESCRIPTION	KW	BTU	AMPS	VOLTS/PH	WT. [LBS.]	REMARKS
EH-1	"QMARK" / CWH3404F	CWH3000 SERIES COMMERCIAL FAN FORCED WALL HEATER	3	10,350	14.5	208/1	22	1,2,3
EH-2	"QMARK" / CWH3404F	CWH3000 SERIES COMMERCIAL FAN FORCED WALL HEATER	3	10,350	14.5	208/1	22	1,2,3
			•		·	·		·

INSTALL PER MANUFACTURERS RECOMMENDATIONS

PROVIDE WITH INTEGRAL TAMPER PROOF THERMOSTAT. PROVIDE WITH NON-FUSED DISCONNECT SWITCH.

TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS.

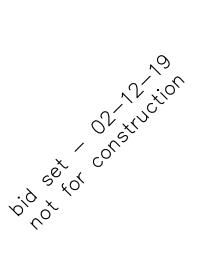


CONSULTANTS



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STATEMENT OF COMPLIANCE I HAVE PREPARED, OR CAUSED TO BE PREPARED UNDER MY DIRECT SUPERVISION, THE ATTACHED PLANS AND SPECIFICATIONS AND STATE THAT. TO THE BEST OF MY KNOW! EDGE AND BELIEF AND THE EXTENT OF MY CONTRACTUAL OBLIGATION, THEY ARE IN COMPLIANCE WITH ALL THE APPLICABLE CODES, INCLUDING THE ENVIRONMENTAL BARRIERS ACT (410 ILCS) AND THE 2010 AMERICAN WITH DISABILITIES ACT HAMMOND, INDIANA



ISSUE	DATE
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DATE

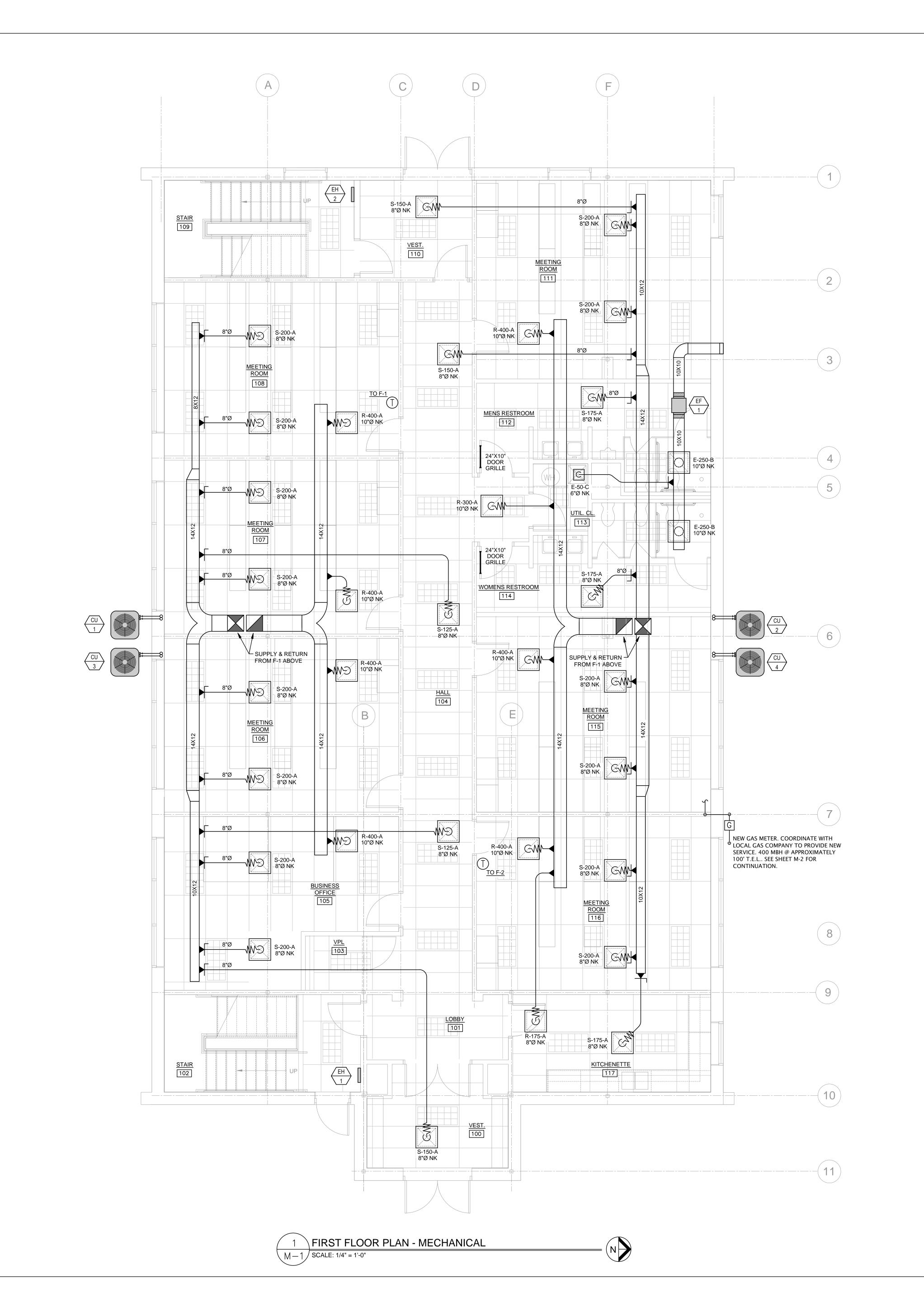
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SHEET DESCRIPTION MECHANICAL NOTES AND SCHEDULES

SHEET NUMBER

SHEET 1 of 3

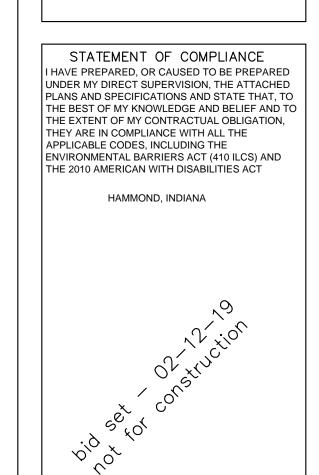




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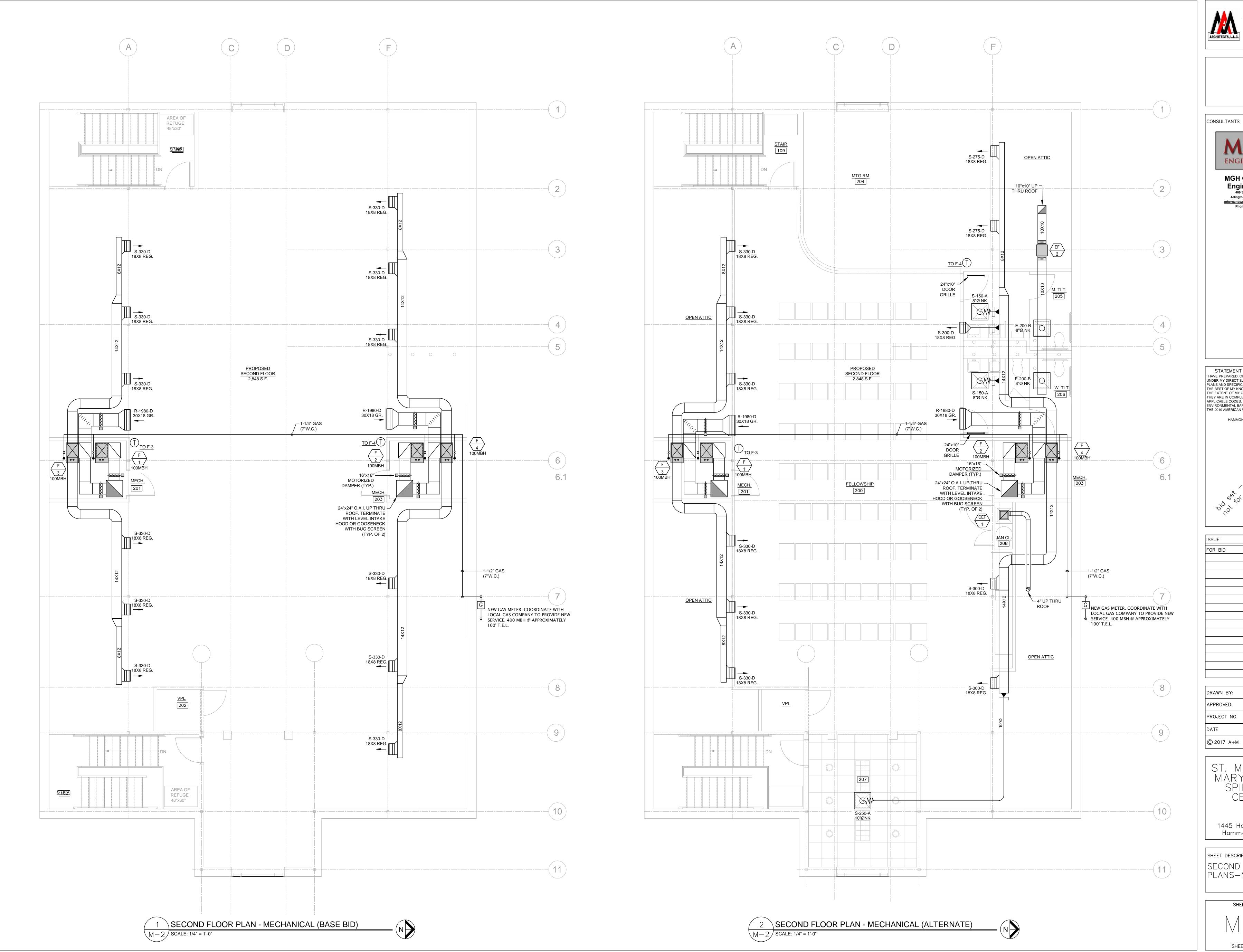
ST. MARGARET MARY PARISH SPIRITUAL CENTER

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SHEET DESCRIPTION
FIRST FLOOR PLANMECHANICAL

SHEET NUMBER

SHEET 2 of 3





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SHEET DESCRIPTION
SECOND FLOOR
PLANS—MECHANICAL

SHEET NUMBER

SHEET 3 of 3