

DEFINE

MECHANICAL ABBREVIATIONS

AD	ACCESS DOOR	HWS	HEATING HOT WATER SUPPLY
ADA	AMERICANS WITH DISABILITIES ACT	HWR	HEATING HOT WATER RETURN
AFF	ABOVE FINISHED FLOOR	KH	KITCHEN HOOD
AHU	AIR HANDLING UNIT	KW	KILOWATT
APD	AIR PRESSURE DROP	LAT	LEAVING AIR TEMPERATURE
BOD	BOTTOM OF DUCT	LWT	LEAVING WATER TEMPERATURE
BOP	BOTTOM OF PIPE	MBH	1000 BRITISH THERMAL UNITS PER HOUR
BTUH	BRITISH THERMAL UNITS PER HOUR	MVD	MANUAL VOLUME DAMPER
C	CONDENSATE	N.O.	NORMALLY OPEN
CFM	CUBIC FEET PER MINUTE	N.C.	NORMALLY CLOSED
CT	CHILLER	NTS	NOT TO SCALE
CHS	CHILLED WATER SUPPLY	NC	NOISE CRITERIA
CHR	CHILLED WATER RETURN	OA	OUTSIDE AIR
COP	COEFFICIENT OF PERFORMANCE	OBD	OPOSED BLADE DAMPER
CT	COOLING TOWER	PD	PRESSURE DROP
CU	CONDENSING UNIT	PHWR	PLANT HEATING HOT WATER RETURN
CV	CONSTANT VOLUME	PHWS	PLANT HEATING HOT WATER SUPPLY
CS	CONDENSER WATER SUPPLY	PRV	PRESSURE REDUCING VALVE
CR	CONDENSER WATER RETURN	PSIG	POUNDS PER SQUARE INCH GAGE
DB	DRY BULB	RA	RETURN AIR
DOAS	DEDICATED 100% OUTSIDE AIR UNIT	RH	RELATIVE HUMIDITY
EA	EXHAUST AIR	RHC	REHEAT COIL
EAT	ENTERING AIR TEMPERATURE	RPM	REVOLUTIONS PER MINUTE
ECO	EXTERIOR CLEANOUT	RTU	ROOFTOP A/C UNIT
EDH	ELECTRIC DUCT HEATER	SA	SUPPLY AIR
EER	ENERGY EFFICIENCY RATIO	SD	STORM DRAIN
EF	EXHAUST FAN	SEER	SEASONAL ENERGY EFFICIENCY RATIO
EMS	ENERGY MANAGEMENT SYSTEM	SF	SUPPLY FAN
ESP	EXTERNAL STATIC PRESSURE	SP	STATIC PRESSURE
EUH	ELECTRIC UNIT HEATER	SWR	SIDE WALL REGISTER
EWC	ELECTRIC WATER COOLER	TSP	TOTAL STATIC PRESSURE
EWH	ELECTRIC WATER HEATER	TYP	TYPICAL
EWT	ENTERING WATER TEMPERATURE	UNO	UNLESS NOTED OTHERWISE
F	FAHRENHEIT	VAV	VARIABLE AIR VOLUME
FCO	FLOOR CLEANOUT	VFD	VARIABLE FREQUENCY DRIVE
FD	FLOOR DRAIN	VRF	VARIABLE REFRIGERANT FLOW
FLA	FULL LOAD AMPS	WB	WET BULB
FFE	FINISHED FLOOR ELEVATION	WG	WATER GAGE
FPI	FINS PER INCH	WPD	WATER PRESSURE DROP
HP	HORSEPOWER		

DESIGN

MECHANICAL LEGEND

GRILLES, REGISTERS, DIFFUSERS, AND LOUVERS				EQUIPMENT			
EXISTING	DEMO	NEW	DESCRIPTION	EXISTING	DEMO	NEW	DESCRIPTION
		A100	GRILLE DESIGNATION AND CFM				MECHANICAL EQUIPMENT. REFER TO SCHEDULES
			SURFACE MOUNT				IONIZATION UNIT
							SMOKE DETECTOR
			LAY-IN SUPPLY CEILING DIFFUSER				MANUAL PULL STATION
CONTROLS							
EXISTING	DEMO	NEW	DESCRIPTION	EXISTING	DEMO	NEW	DESCRIPTION
			LINEAR SLOT DIFFUSER				THERMOSTAT
			RETURN/EXHAUST CEILING GRILLE				HUMIDISTAT
			RETURN/EXHAUST WALL GRILLE				SENSOR
			EXHAUST LOUVER				STATIC PRESSURE SENSOR
			EXHAUST WALL CAP				REMOTE TEMPERATURE SENSOR
			GRAVITY RELIEF HOOD				WALL SWITCH
			INTAKE LOUVER				CONTROL WIRING
			INTAKE WALL CAP				
			GRAVITY INTAKE HOOD				
DUCTWORK							
EXISTING	DEMO	NEW	DESCRIPTION	EXISTING	DEMO	NEW	DESCRIPTION
			RECTANGULAR DUCTWORK. REFER TO PLANS FOR SIZE.				ROUND DUCTWORK. REFER TO PLANS FOR SIZE.
			ROUND DUCTWORK DROP/RISE.				DUCT DROP/RISE
PIPING							
EXISTING	DEMO	NEW	DESCRIPTION	EXISTING	DEMO	NEW	DESCRIPTION
			CHILLED WATER SUPPLY PIPING				CHILLED WATER RETURN PIPING
			HOT WATER SUPPLY PIPING				HOT WATER RETURN PIPING
			CONDENSER WATER SUPPLY PIPING				CONDENSER WATER RETURN PIPING
DAMPERS							
EXISTING	DEMO	NEW	DESCRIPTION	EXISTING	DEMO	NEW	DESCRIPTION
			BALANCING DAMPER				MOTORIZED DAMPER
			FIRE DAMPER				SMOKE DAMPER
			FIRE & SMOKE DAMPER				

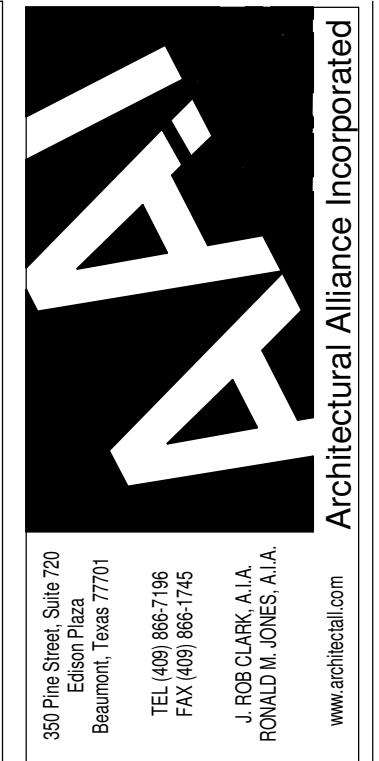
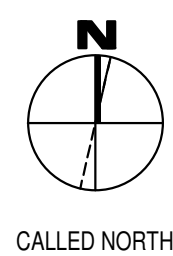
NOTES: 1. EXISTING ITEMS ON DEMO PLANS ARE "EXISTING TO REMAIN" UNLESS NOTED "EXISTING TO BE RELOCATED."
 2. ITEMS ON NEW CONSTRUCTION PLANS ARE NEW UNLESS NOTED "RELOCATED FROM PREVIOUS LOCATION".
 3. REFER TO SCHEDULES FOR GRILLE, REGISTER, DIFFUSER, AND LOUVER SIZES.
 4. REFER TO DRAWINGS FOR DIRECTION OF AIRFLOW FOR DIFFUSERS. IF DIRECTIONAL ARROWS ARE NOT INCLUDED, AIRFLOW IS IN FOUR DIRECTIONS. (4-WAY GRILLE)
 5. WALL MOUNTED CONTROL DEVICES SHALL BE MOUNTED AT 48" A.F.F.
 6. NOT ALL ITEMS SHOWN ON THIS LIST MAY BE APPLICABLE TO THIS PROJECT.

DELIVER

MECHANICAL GENERAL NOTES

- CONTRACTOR SHALL VISIT THE SITE AND DETERMINE THE EXTENT OF DEMOLITION WORK AND NEW WORK NEEDED FOR THIS PROJECT, PRIOR TO SUBMITTING BID.
- CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT SCOPE, CONSTRAINTS, UTILITY CONNECTIONS, AND BUILDING SERVICES, PRIOR TO SUBMITTING BID.
- CONTRACTOR SHALL GIVE FIRST RIGHT TO REFUSAL OF SALVAGE TO THE OWNER. IF THE OWNER ELECTS TO NOT KEEP SALVAGE, CONTRACTOR SHALL REMOVE SALVAGE BY LAWFUL MEANS.
- DRAWINGS ARE SCHEMATIC AND DIAGRAMMATIC IN NATURE. DRAWINGS SHALL NOT BE SCALED. COORDINATE ROUTING OF SERVICES WITH SITE CONDITIONS AND WITH WORK OF OTHER TRADES.
- FIELD VERIFY DIMENSIONS PRIOR TO ORDERING, FABRICATING, AND ERECTION OF MATERIAL AND/OR EQUIPMENT. NOTIFY THE ENGINEER OF DISCREPANCIES IN A TIMELY MANNER.
- VERIFY CLEARANCE REQUIREMENTS AND ROUTING OF DUCTWORK AND PIPING PRIOR TO FABRICATION, AS MINOR MODIFICATIONS SUCH AS DUCT AND/OR PIPING RISES AND DROP MAY BE REQUIRED DUE TO FIELD CONDITIONS. MAKE MINOR MODIFICATIONS TO THE BUILDING, PIPING, SPRINKLER, DUCTWORK, ELECTRICAL, ETC. AS SHOWN ON THE DRAWINGS OR REQUIRED TO COMPLETE THE INSTALLATION OF A COMPLETED WORKABLE SYSTEM.
- MAINTAIN WEATHER-TIGHT BARRIERS TO PREVENT DAMAGE FROM THE ELEMENTS DURING DEMOLITION AND NEW CONSTRUCTION PERIOD.
- SEAL PENETRATIONS THROUGH THE BUILDING ENVELOPE.
- PENETRATIONS THROUGH RATED WALLS, FLOORS, PARTITIONS AND ASSEMBLIES SHALL BE INSTALLED AND FIRESAFED TO MEET UL, FIRE RESISTANCE LISTING AND NFPA REQUIREMENTS FOR THE PENETRATION.
- COORDINATE DEVICES REQUIRING ACCESS PANELS WITH THE ARCHITECT AND OTHER TRADES.
- COORDINATE FINAL LOCATIONS AND ELEVATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
- COORDINATE FINAL FINISH COLORS OF MATERIALS, DEVICES, DIFFUSER, GRILLES, LOUVERS, AND/OR EQUIPMENT WITH THE ARCHITECT PRIOR TO ORDERING, FABRICATION AND INSTALLATION.
- SCHEDULE UTILITY SERVICES SHUTDOWNS WITH OWNER AND ARCHITECT. MINIMIZE DISRUPTIONS AND DOWNTIME TO THE OWNER.
- INSTALL DEVICES AND EQUIPMENT TO MEET ADA REQUIREMENTS.
- ROUTE DUCT AND PIPING CONCEALED IN INTERSTITIAL SPACE UNLESS NOTED OTHERWISE.
- DOCUMENT LOCATIONS OF DEVICES, DUCT, PIPING, AND EQUIPMENT ON "AS-BUILT" RECORD DRAWINGS AS PER THE SPECIFICATIONS.
- PAY FOR SERVICE DEPOSITS, INSPECTION, AND CONNECTION FEES REQUIRED FOR A COMPLETE INSTALLATION. COORDINATE WITH THE UTILITY SERVICE PROVIDER FOR THE REQUIREMENTS NEEDED FOR THIS PROJECT.
- HVAC SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NFPA 90A AND NFPA 101.
- WORK SHOWN IN THE DRAWINGS SHALL COMPLY WITH APPLICABLE NATIONAL, STATE, AND LOCAL ORDINANCES AND CODES.

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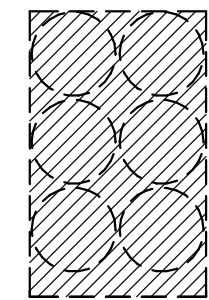
SMITH BUILDING RENOVATION
 SPINDLETOP CENTER
 655 S. 8TH STREET
 BEAUMONT, TX 77701

ISSUED FOR SCHEMATIC DESIGN
 DATE: _____
 DESIGN DEVELOPMENT
 DATE: 04-18-22
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 DATE: _____
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 REVISION: _____
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 DATE: _____

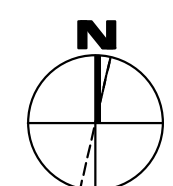
DRAWINGS SHEET TITLE
MECHANICAL LEGEND & GENERAL NOTES
 SHEET NUMBER
M000
 21032
 PROJECT NUMBER

1304 BERTRAND DRIVE SUITE F7
 LAFAYETTE, LOUISIANA 70506
 (337) 234-7474 • FAX (337) 234-7774
 Mechanical Contact: Hogan Guidry
 hogan@meconsulting.com
 Electrical Contact: David Carroll
 david@meconsulting.com
 PROJECT No.: 21198.00

REMOVE ALL HYDRONIC EQUIPMENT. CHILLER, AIR HANDLING UNITS, FAN COIL UNITS, DUCT WORK, GRILLES, ACCESSORIES, EXHAUST FANS, ETC.



REMOVE KITCHEN HOOD, EXHAUST FAN, AND MAKEUP AIR FAN



CALLED NORTH

1 Mechanical Plan - Demolition
1/8" = 1'-0" Refer to Architectural Drawings for All Dimensions

1304 BERTRAND DRIVE SUITE F7
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CONSULTING PROJECT No.: 21198.00

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SPINDLETOP CENTER
655 S. 8TH STREET
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DESIGN DEVELOPMENT	<input checked="" type="checkbox"/>
DATE: 04-18-22	
BIDS & CONSTRUCTION	<input type="checkbox"/>
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REVISION:	
DATE:	
REVISION:	
DATE:	
REVISION:	
DATE:	

DRAWINGS SHEET TITLE
MECHANICAL DEMOLITION PLAN

SHEET NUMBER
M100
21032
PROJECT NUMBER

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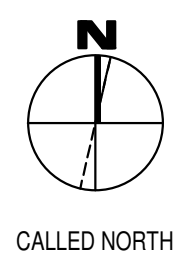
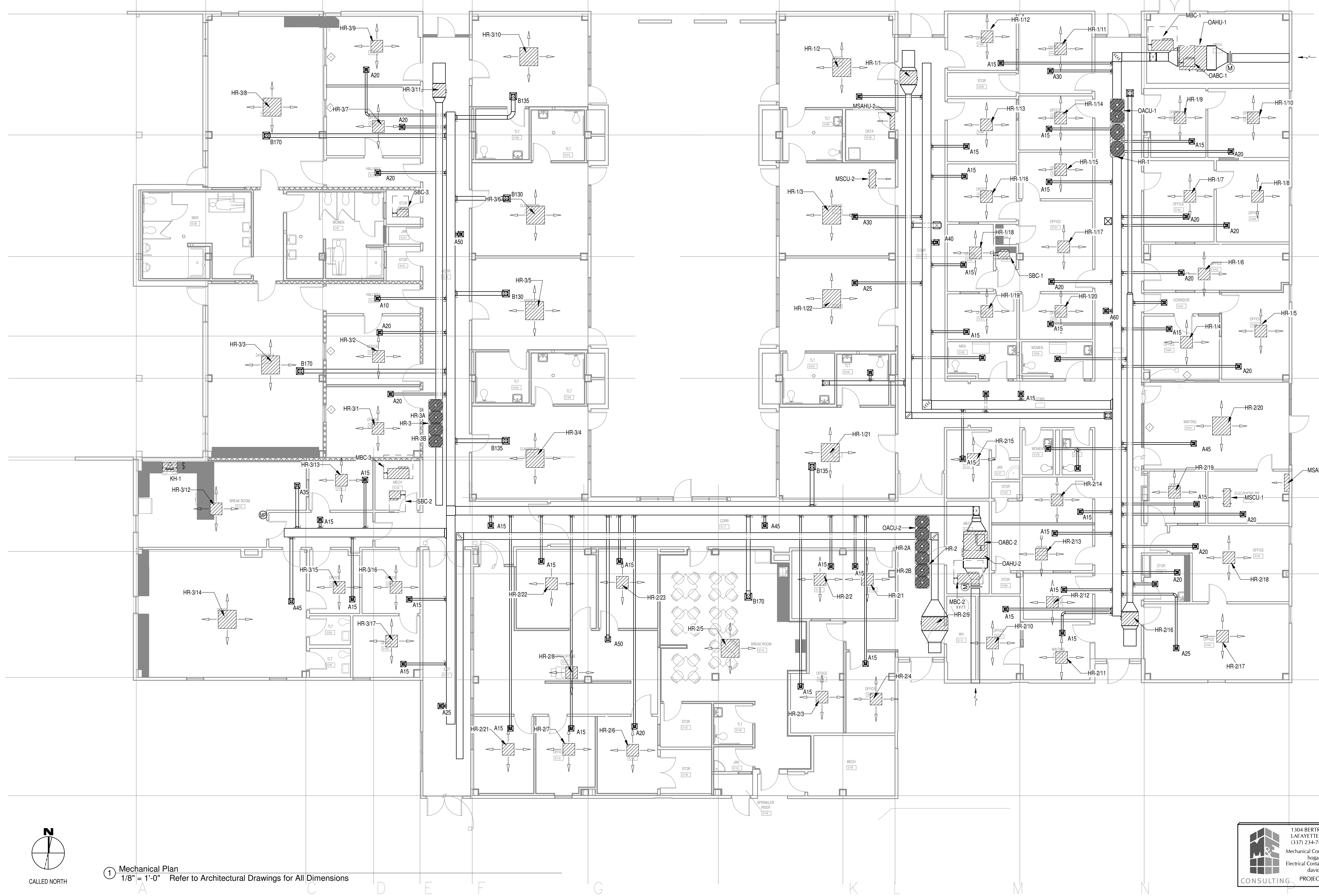
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DRAWINGS SHEET TITLE
MECHANICAL PLAN

SHEET NUMBER
M200
 21032
 PROJECT NUMBER

NEW ROOF MOUNTED EXHAUST FANS DUCTED TO EACH RESTROOM AND JANITOR CLOSET.
 ALL CONDENSING UNITS TO BE MOUNTED ON ROOF.



1 Mechanical Plan
 1/8" = 1'-0" Refer to Architectural Drawings for All Dimensions



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**MECHANICAL
DETAILS**

SHEET NUMBER


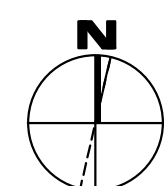
M300

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OPTION #1 - VARIABLE REFRIGERANT FLOW (VRF) - 100% OUTSIDE AIR - OUTDOOR UNIT SCHEDULE

UNIT NO.	SERVICE	COOLING		HEATING			ELECTRICAL					REFRIGERANT TYPE	SOUND LEVEL dB (A)	BASIS OF DESIGN	
		MIN. BTU/H OUTPUT	AMB. TEMP. (°F)	MIN. BTU/H OUTPUT	INDOOR TEMP. (°F)	OUTDOOR TEMP. (°F)	VOLTAGE	PHASE	MCA	MOC	EER				
OACU-1		120000	95	135000	70	47	43	208	3	43	70	12.1	R-410A	60	mitsubishi city-multi pury-p120tnu-a
OACU-2		120000	95	135000	70	47	43	208	3	43	70	12.1	R-410A	60	mitsubishi city-multi pury-p120tnu-a

OPTION #1 - VARIABLE REFRIGERANT FLOW (VRF) - 100% OUTSIDE AIR - INDOOR UNIT SCHEDULE

UNIT NO.	SERVICE	BC CONTROLLER	FAN		COOLING			HEATING			ELECTRICAL					SOUND LEVEL dB (A)		BASIS OF DESIGN	
			CFM	E.S.P.	MIN. BTU/H OUTPUT	E.A.T. (°F)	D.B.	W.B.	MIN. BTU/H OUTPUT	E.A.T.	L.A.T.	REHEAT MIN. BTU/H OUTPUT	VOLTAGE	PHASE	F.L.A.	M.C.A.	M.O.C.P.		LOW
OAHU-1		OABC-1	1200	0.8	112000	95	80	61400	20	67	24200	208	1	3.19	3.99	15	36	41	mitsubishi city multi pefy-af1200cfmr
OAHU-2		OABC-2	1200	0.8	112000	95	80	61400	20	67	24200	208	1	3.19	3.99	15	36	41	mitsubishi city multi pefy-af1200cfmr

DUCTLESS DX MINI-SPLIT - OUTDOOR UNIT SCHEDULE

UNIT NO.	SERVICE	MIN. BTU/H OUTPUT	AMB. TEMP. (°F)	VOLTAGE	PHASE	MCA	S.E.E.R.	BASIS OF DESIGN
MSCU-1		12000	95	208	1	13.0	20	mitsubishi puZ-A12NKA7, DAIKIN RZQ12PVJU9
MSCU-2		12000	95	208	1	13.0	20	mitsubishi puZ-A12NKA7, DAIKIN RZQ12PVJU9

DUCTLESS DX MINI-SPLIT - INDOOR UNIT SCHEDULE

UNIT NO.	SERVICE	FAN		COOLING			HEATING			BASIS OF DESIGN			
		FAN CFM	UNIT MCA	MIN. BTU/H OUTPUT	AMB. TEMP. (°F)	EAT (°F)	MIN. BTU/H OUTPUT	AMB. TEMP. (°F)					
MSAHU-1		425	320	1.00	208	1	12000	95	80	67	14000	47	mitsubishi pka-A12HA7
MSAHU-2		425	320	1.00	208	1	12000	95	80	67	14000	47	mitsubishi pka-A12HA7

FAN SCHEDULE

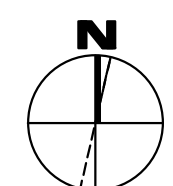
UNIT NO.	SERVICE	MIN. CFM	EXT SP	RPM	SONES	FAN H.P.	TYPE	DRIVE	VOLTAGE	PHASE	CONTROL	MANUFACTURER	MODEL
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DIFFUSER/GRILLE SCHEDULE

SYMBOL	SIZE	SERVICE	LOCATION	FINISH	O.B.D.	BASIS OF DESIGN
A						
B						

RELIEF / INTAKE VENTILATOR SCHEDULE

MARK	QTY.	LOCATION	SERVICE	CFM	THROAT SIZE	EXT. S.P. (IN WC)	MANUFACTURER	MODEL
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MECHANICAL SCHEDULES

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M401
21032
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