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MECHANICAL GENERAL DEMOLITION NOTES:

1. THE CONTRACTOR SHALL REMOVE OR ALTER AS NECESSARY ALL EXISTING PIPING, EQUIPMENT, EQUIPMENT FOUNDATIONS, AND APPURTENANCES THAT ARE NOT REQUIRED FOR THE EXISTING SYSTEM TO REMAIN. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE SCOPE OF THIS WORK AND VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. THESE DRAWINGS HAVE BEEN DEVELOPED FROM EXISTING DRAWINGS AND MAY NOT FULLY REFLECT ACTUAL FIELD CONDITIONS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND NOTIFY THE ARCHITECT IN WRITING OF ANY WORK DESCRIBED IN THE CONTRACT DOCUMENTS WHICH CANNOT BE PERFORMED DUE TO EXISTING CONDITIONS.
3. EXISTING EQUIPMENT SHALL BE TURNED OVER TO THE OWNER, UNLESS DIRECTED OTHERWISE AND LOCATED AS DIRECTED BY THE OWNER. ALL OTHER ITEMS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE PREMISES.
4. REMOVAL OF EXISTING FIXTURES AND EQUIPMENT MAY AFFECT ADJACENT SPACES NOT IN SCOPE. THE CONTRACTOR SHALL COORDINATE POTENTIAL SPACE INTERRUPTIONS WITH THE OWNER AND ARCHITECT PRIOR TO DEMOLITION.
5. DEMOLITION WORK INCLUDES, BUT IS NOT NECESSARILY LIMITED TO THOSE ITEMS NOTED. OTHER ITEMS OF A MINOR NATURE MAY EXIST WHICH ARE NOT SPECIFICALLY NOTED ON THE DRAWINGS ARE TO BE REMOVED AS REQUIRED, TO PROVIDE ACCESS AND ALLOW ALTERATION OR NEW WORK TO PROCEED.
6. INSULATION ON EXISTING PIPING OR DUCTWORK THAT IS DAMAGED OR REMOVED DUE TO THE DEMOLITION WORK SHALL BE REPLACED AND SEALED AS REQUIRED TO PROVIDE CONTINUOUS COVERAGE.
7. DEMOLITION WORK CREATING NOISE WHICH CAN BE HEARD OUTSIDE OF THE EXISTING SPACE MUST BE COORDINATED WITH THE OWNER SO AS NOT TO DISRUPT THE ADJOINING SPACES.
8. PORTIONS IF THE BUILDING WILL BE OCCUPIED DURING THIS RENOVATION, THE GENERAL CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROVIDE FOR THE PROTECTION AND SAFETY OF THE BUILDING OCCUPANTS.

MECHANICAL GENERAL NOTES:

1. ALL DRAWINGS DESIGNED PER 2021 IMC AND 2021 IECC. CONTRACTOR RESPONSIBLE FOR PERFORMING WORK IN ACCORDANCE WITH APPLICABLE STATUTES, ORDINANCES, CODES AND REGULATIONS OF GOVERNMENTAL AUTHORITIES HAVING JURISDICTION.
2. INSTRUCT THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF THE MECHANICAL SYSTEMS UNTIL THE OWNER IS FULLY PREPARED TO OPERATE AND MAINTAIN THE MECHANICAL SYSTEM. HOWEVER, LENGTH OF INSTRUCTION TIME SHALL BE LIMITED TO ONE DAY.
3. EQUIPMENT, MATERIALS AND LABOR REQUIRED BY THESE CONTRACT DRAWINGS SHALL BE GUARANTEED TO BE FREE FROM DEFECTIVE MATERIALS OR WORKMANSHIP FOR ONE YEAR AFTER FINAL ACCEPTANCE OF THE PROJECT UNLESS SPECIFIED OTHERWISE. DEFECTIVE MATERIALS OR WORKMANSHIP OCCURRING DURING THIS PERIOD SHALL BE CORRECTED AT NO ADDITIONAL COST.
4. GENERAL CONTRACTOR TO VERIFY THE FINAL LOCATION OF ALL THERMOSTATS, TEMPERATURE SENSORS, PANELS AND CONTROL INSTRUMENTS WITH THE ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
5. GENERAL CONTRACTOR TO VERIFY WALL OPENINGS WITH STRUCTURE, LOCATIONS OF NEW AND EXISTING EQUIPMENT, AIR TERMINALS, AND ROUTE OF DUCTWORK WITH EXISTING CONDITIONS PRIOR TO ROUGH-IN.
6. REFER TO ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS TO COORDINATE THE EXACT LOCATIONS OF DIFFUSERS, REGISTERS, GRILLES, PIPING AND OTHER MECHANICAL EQUIPMENT WITH CEILING GRID, LIGHTS, BEAMS AND OTHER BUILDING COMPONENTS.
7. CEILING GRID AND OTHER ITEMS SHALL NOT BE SUPPORTED FROM OR IN CONTACT WITH MECHANICAL EQUIPMENT. CONDUIT, WIRING, PIPING AND SUPPORTS SHALL NOT BE LOCATED IN FRONT OF FAN COIL ACCESS PANELS.
8. DUCTWORK AND PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL PANELS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING WITH ELECTRICAL PANELS WHEN SHOWN NEAR PANELS OR OVER ELECTRICAL ROOMS.
9. MATERIAL AND INSTALLATION SHALL COMPLY WITH LOCAL CODES, APPLICABLE PROVISIONS OF LATEST EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION, LOCAL UTILITY REGULATIONS AND GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.
10. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL SUPPORTS REQUIRED TO MOUNT MECHANICAL EQUIPMENT, PIPING AND DUCTWORK. EQUIPMENT SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
11. ALL DUCTWORK TRANSITIONS AND PIPING INCREASERS/REDUCERS SHALL BE PROVIDED AS REQUIRED FOR EQUIPMENT CONNECTIONS. SEE MANUFACTURERS DATA FOR ACTUAL DUCTWORK AND PIPING CONNECTION SIZES AND LOCATIONS.
12. DUCTWORK AND PIPING LAYOUTS ARE FOR DIAGRAMMATICAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEASURING AND COORDINATING ALL DUCTWORK AND PIPING PRIOR TO INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL OFFSETS AS REQUIRED TO MEET THE INTENT OF THE DESIGN DOCUMENTS AT NO ADDITIONAL COST TO THE OWNER.
13. THE GENERAL CONTRACTOR SHALL SEAL AND FLASH ALL WALL, ROOF, AND FLOOR PENETRATIONS AIRTIGHT AND WATERTIGHT AT EACH PIPE, DUCTWORK, AND CONDUIT PENETRATION. PROVIDE AIRTIGHT SEAL BETWEEN AT ALL FIRE PARTITION AND OR WALL PENETRATIONS WITH UL APPROVED FIRE-RESISTANT MATERIAL MATCHING OR EXCEEDING THE PENETRATED FIRE PARTITION AND OR WALLS RATING.
14. ALL CUTTING AND PATCHING FOR THE INSTALLATION OF NEW WORK IN EXISTING BUILDING SHALL BE DONE BY THE GENERAL CONTRACTOR.
15. ANY NEW ROOF WORK MUST BE COORDINATED WITH THE ACAA AND THE CONTRACTOR MUST BE APPROVED BY ACAA PRIOR TO CONSTRUCTION.
16. THE ROUTING OF LARGER SIZE SUPPLY AIR DUCTS SHALL TAKE PRECEDENCE OVER SMALLER DUCTS, AND OVER RETURN AND EXHAUST AIR DUCTS. PROVIDE DUCT OFFSETS, RISES, AND DROPS AS REQUIRED TO INSTALL DUCTWORK AS CLOSELY TO THE LAYOUT SHOWN ON THESE DOCUMENTS AS POSSIBLE.
17. THE CEILING SPACES ARE EXTREMELY CONGESTED AND WILL REQUIRE SIGNIFICANT ON-SITE FIELD COORDINATION BETWEEN THE CONSTRUCTION TRADES. PRIOR TO FABRICATION OF DUCTWORK THE CONTRACTOR SHALL GENERATE COORDINATION DRAWINGS AS REQUIRED FOR ALL SUCH AREAS AND SHOULD INDICATE STRUCTURE, CEILING FEATURES, LIGHT FIXTURES, PLUMBING AND FIRE SERVICE PIPING AND ALL MECHANICAL EQUIPMENT, PIPING AND DUCTWORK.

SYMBOL LEGEND

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
GENERAL	
(#)	KEY NOTE TAG
(#)	REVISION TAG
	NEW EQUIPMENT
DUCTWORK	
	SUPPLY AIR DUCTWORK
	RETURN AIR AND OUTSIDE AIR DUCTWORK
	EXHAUST AIR DUCTWORK
	FLEXIBLE DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	RETURN AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	MANUAL BALANCING DAMPER
	MOTORIZED DAMPER
SENSORS	
T	THERMOSTAT AND TEMPERATURE SENSOR
SE	SMOKE DETECTOR
H	HUMIDISTAT
AIR DEVICES	
-	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND)
	SUPPLY AIR GRILLE WITH FOUR-WAY THROW
	SUPPLY AIR GRILLE WITH THREE-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY CORNER THROW
	SUPPLY AIR GRILLE WITH ONE-WAY THROW
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	SUPPLY AIR SIDEWALL GRILLE
	RETURN AIR SIDEWALL GRILLE
PIPING	
CDS	CONDENSER WATER SUPPLY
CDR	CONDENSER WATER RETURN
D	CONDENSATE DRAIN LINE
	ELBOW UP
	ELBOW DOWN
	90° ELBOW
	45° ELBOW
	TEE
	TEE DOWN
	TEE UP
	TOP BRANCH CONNECTION
	BOTTOM BRANCH CONNECTION
	FLANGE
	CAP
	CONTINUATION
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	BUTTERFLY VALVE WITH OPERATOR
	PLUG VALVE
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	BALL VALVE
	STRAINER
	UNION
	THERMOMETER WELL
	PETE'S PLUG
	PRESSURE GAUGE
	TEMPERATURE SENSOR IN PIPE
	VENTURI FLOW METER
	FLOW SWITCH
FM	FLOW MEASURING STATION
	EXPANSION JOINT
	FLEXIBLE CONNECTION
G.C.	GAUGE COCK
	SITE GLASS
	DIFFERENTIAL PRESSURE SENSOR
	TURBINE FLOW METER
	ANCHOR
	PIPE GUIDE
RENOVATIONS	
	POINT OF CONNECTION FROM NEW TO EXISTING
	POINT OF DEMOLITION
	ITEM TO REMAIN
	ITEM TO BE REMOVED

SUBSCRIPTS AND ABBREVIATIONS	
AC	AIR CONDITIONING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
BOD	BOTTOM OF DUCT
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLED OR CHILLER
CO	CARBON MONOXIDE
DB	DRY BULB (TEMPERATURE)
DDC	DIRECT DIGITAL CONTROL
DIA	DIAMETER
DIM	DIMENSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
F	FAHRENHEIT
FA	FREE AREA OR FIRE ALARM
FC	FLEXIBLE CONNECTION
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FLEX	FLEXIBLE
FPM	FEET PER MINUTE
FT	FEET
G	GAS
GAL	GALLONS
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HZ	HERTZ (CYCLES PER SECOND)
ID	INSIDE DIAMETER
IN	INCHES
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
MBH	1000 BTUH
MCA	MINIMUM CIRCUIT AMPS
MD	MANUAL DAMPER
MOD	MOTORIZED OPERATED DAMPER
NC	NOISE CRITERIA OR NORMALLY CLOSED
OA	OUTSIDE AIR
PH	PHASE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
R	RADIUS
RA	RETURN AIR
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SD	SMOKE DETECTOR OR SMOKE DAMPER
SEN	SENSIBLE
SP	STATIC PRESSURE
SUP	SUPPLY
TON	12,000 BTUH (COOLING CAPACITY)
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TYP	TYPICAL
UC	UNDERCUT (DOOR)
V	VOLTS
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
WB	WET BULB TEMPERATURE
WC	WATER COLUMN

BASIS OF DESIGN

THE MANUFACTURER AND MODEL NUMBER LISTED IN THE DRAWINGS OR SPECIFICATIONS ARE THE BASIS OF DESIGN. WHEN PROVIDING EQUIPMENT THAT IS NOT THE BASIS OF DESIGN, THE CONTRACTOR SHALL PROVIDE AN ITEMIZED LIST OF ALL DEVIATIONS FROM THE INFORMATION DETAILED IN BOTH THE SPECIFICATION SECTION AND SCHEDULE. ADDITIONALLY, THE EQUIPMENT MUST MEET THE PHYSICAL CONSTRAINTS OF ROOM INCLUDING COORDINATION WITH OTHER TRADES AND ALL EQUIPMENT CLEARANCES, INCLUDING OTHER TRADES. FINALLY, THE CONTRACTOR SHALL PROVIDE AT THE CONTRACTOR'S COST ANY SCOPE INCREASE AND DEDUCTIONS BASED ON THE NON-BASIS OF DESIGN EQUIPMENT FOR THE FOLLOWING MINIMUM ITEMS:

- ELECTRICAL MODIFICATIONS, INCLUDING WIRING, CONDUIT, DISCONNECTS, OVERCURRENT PROTECTION, PANELS, ETC.
- STRUCTURAL MODIFICATIONS.
- CIVIL MODIFICATIONS.
- PLUMBING MODIFICATIONS.
- DUCT AND PIPE CONNECTIONS OR ARRANGEMENTS.
- SPACE HEATING AND COOLING REQUIREMENTS.
- EXHAUST OR VENTILATION MODIFICATIONS.
- VIBRATION ISOLATION REQUIREMENTS.
- **CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE EQUIPMENT MANUFACTURER FOR ANY CHANGES TO THE REFRIGERANTS REQUIRED PER NEW EPA GUIDELINES. CONTRACTOR SHALL COORDINATE WITH OTHER DISCIPLINES FOR CHANGES IN EQUIPMENT SIZE OR ELECTRICAL REQUIREMENTS.**

HVAC EQUIPMENT SIZES ARE BASED UPON ASHRAE 2021 WEATHER DATA AS LISTED BELOW.
HEATING AND COOLING DESIGN CONDITION LOCATION: ***NEW RIVER VALLEY, VA***
SUMMER:
- OUTDOOR CONDITIONS: ***90.4°F DB, 70.7 WB***
- INDOOR SETPOINTS: ***70°F DB 50% RH***

WINTER:
- OUTDOOR CONDITIONS: ***12.2F DB***
- INDOOR SETPOINTS: ***72°F DB 35% RH***

REVISIONS		
NO.	DESCRIPTION	DATE

04/10/2025
SAMUEL S. LOTT
Lic. No. 061900
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

FACILITY RENOVATION

PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

DUBLIN, VA

CONSTRUCTION DOCUMENTS

MECHANICAL GENERAL NOTES AND SYMBOLS

DRAWN	CHECKED
JCS	SSL
DATE	APR 10, 2025
COMM. NO.	24060

M001

4/8/2025 2:27:30 PM Autodesk Docs://2450-70822-00 Pulaski County Recreation Center Renovation Ph 1 - Dublin, VA/2450-70822-00 Pulaski County Recreation Center Renovation Ph 1_MEP R24.rvt

ENERGY RECOVERY UNIT

MARK	OUTSIDE AIR SUPPLY FAN			EXHAUST FAN			ELECTRICAL CONNECTION					ENERGY WHEEL RECOVERY								COOLING COIL			GAS HEATING SECTION				WEIGHT (LBS)	MANUFACTURER	MODEL	REMARKS
												SUMMER PERFORMANCE				WINTER PERFORMANCE														
												OUTSIDE AIR		EXHAUST AIR		OUTSIDE AIR		EXHAUST AIR												
	AIRFLOW CFM	EXT. SP (IN.W.C.)	HORSE POWER	AIRFLOW CFM	EXT. SP (IN.W.C.)	HORSE POWER	V	PH	F	MCA	MOCP	ENT DB	ENT WB	LAT DB	LAT WB	ENT DB	ENT WB	LAT DB	LAT WB	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ENT. AIR TEMP, DB	ENT. AIR TEMP, WB	LEAV. AIR TEMP, DB	LEAV. AIR TEMP, WB	HOT GAS REHEAT TOTAL CAPACITY(BTUH)	TOTAL CAPACITY (IN) (MBH)	TOTAL CAPACITY (OUT) (MBH)	AFUE%	ENT. AIR TEMP, DB	LEAV. AIR TEMP, DB				
ERV-1	9,375	1.5	5.0	9,130	1.0	5.0	460	3	60	73.3	90.0	90.4	70.7	75.4	62.2	70.0	58.8	85.3	67.8	12.2	54.9	72.0	55.7	271	229	75.4	62.2	51.8	51.8	184	600	486	81	55.1	102.9	7,819	GREENHECK	RVE-150-74C-25-1	ALL

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE VARIABLE FREQUENCY DRIVE FOR SUPPLY AND EXHAUST FAN.
2. GAS HEATER AND HOT GAS REHEAT SHALL BE MODULATING TYPE.
3. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH, AND FACTORY WIRED GFCI OUTLET.
4. PROVIDE UNIT WITH FACTORY MOUNTED CONTROLS WITH TEMPERATURE AND HUMIDITY SENSOR TO BE CONTROLLED AND MONITORED BY THE BMS.
5. UNIT TO BE CURB MOUNTED ON 14" ROOF CURB AND SLOPED TO MATCH ROOF PITCH. CONTRACTOR SHALL COORDINATE WITH UNIT MANUFACTURER TO VERIFY THAT THE CURB SHALL BE SIZED FOR DUCTWORK PENETRATIONS AS SHOWN ON THE DRAWINGS.
6. PROVIDE A WATER LEVEL SENSING DEVICE (FLOW SWITCH) IN THE PRIMARY DRAIN PAN. THIS DEVICE SHALL SHUT OFF THE APPLIANCE IN THE EVENT THE PRIMARY DRAIN LINE BECOMES RESTRICTED.
7. ELECTRICAL CONTRACTOR TO PROVIDE UNIT DUCT MOUNTED SMOKE DETECTOR IN BOTH THE SUPPLY AND RETURN DUCT.
8. PROVIDE UNIT WITH CONDENSER HAIL GUARDS.
9. PROVIDE GAS FURNACE SIZED FOR 60°F DELTA T, IN THE CASE OF WHEEL FAILURE.

FAN

MARK	EXHAUST AIRFLOW (CFM)	EXT. STATIC PRESSURE (IN. W.C.)	FAN RPM	HORSE POWER (HP)	ELECTRICAL CONNECTION					INTERLOCKED WITH	FAN TYPE	WEIGHT (LBS)	MANUFACTURER	MODEL	REMARKS
					V	PH	F	MCA	MOCP						
REF-1	2,500	0.50	1,098	0.50	460	3	60	2	20	BMS	ROOF MOUNTED	110.0	COOK	ACED	ALL
REF-2	1,930	0.50	934	0.50	460	3	60	2	20	BMS	ROOF MOUNTED	70.0	COOK	ACED	ALL
REF-3	1,930	0.50	934	0.50	460	3	60	2	20	BMS	ROOF MOUNTED	70.0	COOK	ACED	ALL

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES AND DAMPERS. UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE FAN WITH INTEGRAL DISCONNECT.
2. PROVIDE FAN WITH AUTOMATIC BACKDRAFT DAMPER.
3. PROVIDE 14" ROOF CURB TO MATCH SLOPE OF ROOF.
4. PROVIDE FAN WITH VARIABLE FREQUENCY DRIVE.
5. FAN TO BE INTERLOCKED AND MONITORED BY BUILDING MANAGEMENT SYSTEM.

ELECTRIC UNIT HEATER

MARK	CFM	KW	ELECTRICAL CONNECTION					MANUFACTURER	MODEL	REMARKS
			V	PH	F	MCA	MOCP			
EUH-1	175	1.00	120	1	60	9	20	MARKEL	E3322TD-RP	ALL

REMARKS:
1. REFER TO FLOOR PLANS FOR UNIT QUANTITIES.
2. PROVIDE FACTORY INSTALLED THERMAL OVERLOAD PROTECTION, BUILT-IN THERMOSTAT, AND DISCONNECT SWITCH.
3. PROVIDE ACCESSORIES NECESSARY FOR SURFACE MOUNTING UNIT ON FIRE RATED WALLS. ALL OTHER UNITS SHALL BE PROVIDED WITH THE NECESSARY ACCESSORIES TO BE RECESSED IN THE WALL.
4. UNITS SHALL BE MOUNTED 12" AFF UNLESS OTHERWISE NOTED.

GRILLES, REGISTERS AND DIFFUSERS

MARK	DESCRIPTION	MOUNTING TYPE	FACE WIDTH	FACE LENGTH	NECK SIZE	MAX AIRFLOW (CFM)	MAX AIR P.D., IN. H2O	MAX N.C.	MANUFACTURER	MODEL	REMARKS
A	SQUARE PLAQUE DIFFUSER	SURFACE MOUNTED	24.0	24.0	6"ø	175	0.1	25	PRICE	ASPD	1,2
B	SQUARE PLAQUE DIFFUSER	SURFACE MOUNTED	24.0	24.0	8"ø	300	0.1	25	PRICE	<varies>	<varies>
C	SQUARE PLAQUE DIFFUSER	LAY-IN DIFFUSER	24.0	24.0	10"ø	430	0.1	25	PRICE	ASPD	1,2
E	ROUND PLAQUE DIFFUSER	DUCT MOUNTED	8.0	8.0	8"ø	280	0.1	25	PRICE	RPD	1,2
F	45° DOUBLE DEFLECTION BLADES W/ 3/4" SPACING	SURFACE MOUNTED	8.0	8.0	8/8	320	0.1	25	PRICE	AMD	1,2
X	PERFORATED RETURN DIFFUSER	LAY-IN DIFFUSER	24.0	24.0	12/12	1000	0.05	20	PRICE	PDDR	3
Y	45° DOUBLE DEFLECTION BLADES W/ 3/4" SPACING	SURFACE MOUNTED	12.0	12.0	12/12	400	0.05	20	PRICE	630	3
Z	45° DOUBLE DEFLECTION BLADES W/ 3/4" SPACING	SURFACE MOUNTED	10.0	10.0	10/10	340	0.05	20	PRICE	630	3

GENERAL NOTES:
1. COORDINATE EXACT GRILLE AND DIFFUSER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS.
2. WHERE MULTIPLE WALL MOUNTED REGISTERS ARE INSTALLED IN A ROOM, THE REGISTERS SHALL BE ALIGNED ON THE CENTER POINT OF EACH REGISTER.
3. ALL CEILING DIFFUSERS SHALL BE 4-WAY THROW TYPE UNLESS NOTED OTHERWISE.

REMARKS:
1. DUCT MOUNTED BALANCING DAMPERS SHALL BE FURNISHED AND INSTALLED WHERE RUNOUT IS ABOVE AN ACCESSIBLE CEILING. IN LOCATIONS ABOVE HARD CEILINGS, DIFFUSERS SHALL BE FURNISHED WITH OPPOSED BLADE DAMPER OPERABLE THRU DIFFUSER FACE.
2. THE HARD DUCT TAP FITTING AND FLEXIBLE DUCT CONNECTION SHALL BE SIZED TO EQUAL THE DIAMETER FOR THE DIFFUSER CONNECTION.
3. REGISTERS SHALL BE FURNISHED WITH OPPOSED BLADE DAMPER OPERABLE THRU REGISTER FACE.

HVAC-KITCHEN HOOD SCHEDULE

TAG	SERVICE	EXHAUST FAN		ELECTRICAL CONNECTION					MANUFACTURER	MODEL	REMARKS
		AIRFLOW (CFM)	ESP (IN. W.C.)	V	PH	F	MCA	MOCP			
H-1	WARMING KITCHEN RANGE	500	0.4	120	1	60	5	15	DENLAR	D1036-RF	ALL

REMARKS:
1. UNIT TO WALL MOUNTED PER UNIT MANUFACTURERS RECOMMENDATIONS.
2. DENLAR ROOF MOUNTED FAN AND ROOF CURB ADAPTER TO BE PROVIDED WITH UNIT.
3. PROVIDE UNIT WITH INTEGRAL DISCONNECT.

PACKAGED ROOFTOP UNIT - GAS HEAT

MARK	SUPPLY FAN				EXHAUST FAN			ELECTRICAL CONNECTION					COOLING						HOT GAS REHEAT			HEATING					WEIGHT (LBS)	MANUFACTURER	MODEL	REMARKS
													AIR TEMPERATURE (°F)																	
	SUPPLY CFM	OUTSIDE AIR CFM	EXT STATIC PRESSURE (IN. W.C.)	HORSE POWER (HP)	EXHAUST CFM	EXT STATIC PRESSURE (IN. W.C.)	HORSE POWER (HP)	V	PH	F	MCA	MOCP	MIXED AIR DRY BULB	MIXED AIR WET BULB	LEAVING DRY BULB	LEAVING WET BULB	MIN. TOTAL CAPACITY (MBH)	MIN. SENS. CAPACITY (MBH)	MINIMUM EER / IEER	NUMBER OF STAGES	TOTAL CAPACITY (MBH)	LEAVING DRY BULB (°F)	LEAVING WET BULB (°F)	MIXED AIR TEMP.(°F)	LEAVING DRY BULB	INPUT (MBH)	OUTPUT (MBH)	AFUE %	NUMBER OF STAGES			
RTU-1A	13,405	4,020	1.50	7.0	2,558	0.5	2	460	3	60	103	125	79.6	64.8	51.4	50.8	527.9	405	9.99/13.23	4	328	74.3	60.0	55.5	105.3	900	729	81	4	7,016	AAON	RNA-040	ALL
RTU-1B	13,405	4,020	1.50	7.0	2,558	0.5	2	460	3	60	103	125	79.6	64.8	51.4	50.8	527.9	405	9.99/13.23	4	328	74.3	60.0	55.5	105.3	900	729	81	4	7,016	AAON	RNA-040	ALL
RTU-1C	13,405	4,020	1.50	7.0	2,558	0.5	2	460	3	60	103	125	79.6	64.8	51.4	50.8	527.9	405	9.99/13.23	4	328	74.3	60.0	55.5	105.3	900	729	81	4	7,016	AAON	RNA-040	ALL
RTU-1D	13,405	4,020	1.50	7.0	2,588	0.5	2	460	3	60	103	125	79.6	64.8	51.4	50.8	527.9	405	9.99/13.23	4	328	74.3	60.0	55.5	105.3	900	729	81	4	7,016	AAON	RNA-040	ALL
RTU-1E	13,405	4,020	1.50	7.0	2,588	0.5	2	460	3	60	103	125	79.6	64.8	51.4	50.8	527.9	405	9.99/13.23	4	328	74.3	60.0	55.5	105.3	900	729	81	4	7,016	AAON	RNA-040	ALL
RTU-1F	13,405	4,020	1.50	7.0	2,588	0.5	2	460	3	60	103	125	79.6	64.8	51.4	50.8	527.9	405	9.99/13.23	4	328	74.3	60.0	55.5	105.3	900	729	81	4	7,016	AAON	RNA-040	ALL

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE UNIT WITH DISCONNECT SWITCH, ROOF CURB AND MOTORIZED OUTSIDE AIR DAMPER.
2. PROVIDE UNIT WITH FACTORY MOUNTED GFCI RECEPTACLE FOR ELECTRICIAN TO WIRE TO SEPARATE CIRCUIT.
3. PROVIDE UNIT WITH BI-POLAR IONIZATION SIZED PER MANUFACTURER'S RECOMMENDATIONS.
4. PROVIDE UNIT WITH CO2 DETECTOR.
5. PROVIDE UNIT WITH LOW AMBIENT CONTROL.
6. UNIT TO BE INTERLOCKED AND MONITORED BY BUILDING MANAGEMENT SYSTEM.
7. PROVIDE A WATER LEVEL SENSING DEVICE (FLOW SWITCH) IN THE PRIMARY DRAIN PAN. THIS DEVICE SHALL SHUT OFF THE APPLIANCE IN THE EVENT THE PRIMARY DRAIN LINE BECOMES RESTRICTED.
8. PROVIDE LOW LEAK ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF DAMPER.
9. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL ELECTRICAL COSTS IF ALTERNATE UNIT IS PROVIDED WITH GREATER ELECTRICAL CHARACTERISTICS THAN SHOWN.
10. PROVIDE UNIT WITH 4 STAGE COMPRESSOR, MODULATING HOT GAS REHEAT, AND 4 STAGE GAS HEATER.
11. PROVIDE UNIT WITH MODULATING HOT GAS REHEAT SIZED PER MANUFACTURERS RECOMMENDATIONS.
12. ELECTRICAL CONTRACTOR TO PROVIDE UNIT DUCT MOUNTED SMOKE DETECTOR IN BOTH THE SUPPLY AND RETURN DUCT.
13. PROVIDE UNIT WITH DEMAND CONTROL VENTILATION.

AIR COOLED CONDENSING UNIT

MARK	MIN. TOTAL COOLING CAPACITY (BTU/H)	MIN. TOTAL HEATING CAPACITY (BTU/H)	EFFICIENCY		ELECTRICAL CONNECTION					RELATED UNIT MARK	MANUFACTURER	MODEL	REMARKS
			MINIMUM EER / SEER	HEATING EFFICIENCY (COP)	V	PH	F	MCA	MOCP				
ACC-1	12,000	13,600	13.2 / 25.2	4.4	208	1	60	12.3	15.0	DMS-1	DAIKIN	RMX12VVJU	ALL
ACC-2	21,600	24,000	12.5 / 22	3.54	208	1	60	19.8	20.0	DMS-2	DAIKIN	RMX24VVJU	ALL

GENERAL NOTES:
1. MINIMUM RECOMMENDED CLEARANCE AROUND ROOFTOP UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE FOR CONDENSER AIR FLOW AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH LOW AMBIENT CONTROL DOWN TO 20°F.
2. REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS.
3. PROVIDE WITH COIL GUARD.
4. UNIT TO BE INTERLOCKED AND MONITORED BY BUILDING MANAGEMENT SYSTEM.
5. UNIT TO BE MOUNTED ON ROOF RAILS SIZED PER MANUFACTURER'S RECOMMENDATIONS.
6. OUTDOOR UNIT TO POWER THE INDOOR UNIT.

DUCTLESS MINI-SPLIT - INDOOR UNIT

MARK	SUPPLY AIR CFM	ELECTRICAL CONNECTION					COOLING		HEATING		MANUFACTURER	MODEL	REMARKS
		V	PH	F	MCA	MOCP	RATED CAPACITY (BTU/H)	MIN. EER2 / SEER2	RATED CAPACITY (BTU/H)	EFFICIENCY (COP)			
DMS-1	557	208	1	60	12.3	15	12,000	13.2/25.2	13,600	4.4	DAIKIN	FTXM12VVJU	1,2,3,4,5
DMS-2	845	208	1	60	19.8	20	21,600	12.5/22	24,000	3.54	DAIKIN	FTXM24VVJU	ALL

REMARKS:
1. UNIT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. PROVIDE UNIT WITH TEMPERATURE SENSOR CONTROLLED BY THE BUILDING MANGEMENT SYSTEM.
3. REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS.
4. COOLING CAPACITY BASED ON AHRI CONDITIONS.
5. PROVIDE UNIT WITH CONDENSATE OVER FLOW SWITCH.
6. PROVIDE UNIT WITH WALL MOUNTED DRIP PAN UNDER UNIT.

HVAC-AIR SEPARATOR SCHEDULE

TAG	SERVICE	FLOW (GPM)	MAX PRESSURE (PSIG)	CONNECTION DIAMETER (INCHES)	HEIGHT (INCHES)	DIAMETER (INCHES)	WEIGHT (LBS)	MANUFACTURER	MODEL	REMARKS
AS-1	MECHANCIAL HYDRONIC PIPING	197	150.0	4	31.4	14.6	120	SPIROTHERM	VDT400	ALL

REMARKS:
1. PROVIDE UNIT WITH NECESSARY MOUNTING ACCESSORIES, SIZED PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE UNIT WITH THREADED INLET CONNECTION.
3. PROVIDE UNIT WITH LIFT RING FOR INSTILLATION.
4. PROVIDE UNIT WITH AUTOMATIC AIR VENT, BLOW DOWN VALVE, AND DRAIN CONNECTION.
5. PROVIDE UNIT WITH NECESSARY ACCESSORIES TO MOUNT PER MANUFACTURER'S RECOMMENDATIONS.

MECHANICAL BOILER SCHEDULE

TAG	TYPE	WATER				BURNER				BOILER PUMP			ELECTRICAL CONNECTION					MANUFACTURER	MODEL	REMARKS
		FLOW (GPM)	EWT (F)	LWT (F)	HEAD LOSS (FT)	PRIMARY FUEL	INPUT (MBH)	OUTPUT (MBH)	AFUE%	PUMP TYPE	PUMP HP	PUMP HEAD (FT)	V	PH	F	MCA	MOCP			
B-1	CONDENSING	78	75	85	30.50	NATURAL GAS	600	572	95	CIRCULATOR	2.0	40	460	2	60	6	15	NEOTHERM	NTH600	ALL
B-2	CONDENSING	78	75	85	30.50	NATURAL GAS	600	572	95	CIRCULATOR	2.0	40	460	3	60	6	15	NEOTHERM	NTH600	ALL

REMARKS:
1. UNIT TO BE VENTED PER BOILERS UNIT MANUFACTURES RECOMMENDATIONS.
2. PROVIDE UNIT WITH DIRECT IGNITION SYSTEM.
3. PROVIDE UNIT WITH MODULATING TURN DOWN CAPABILITIES.
4. PROVIDE BOILER WITH ACID NEUTRALIZATION KIT SIZED PER MANUFACTURERS RECOMMENDATIONS.
5. UNIT TO BE CONTROLLED AND MONITORED BY BUILDING MANAGEMENT SYSTEM.
6. UNIT TO BE MOUNTED ON 4" HOUSEKEEPING PAD.
7. PROVIDE UNIT WITH BOILER PUMP SIZED PER MANUFACTURER'S RECOMMENDATIONS. BASIS OF DESIGN: TACO MODEL 1911E2E11662223.

MECHANICAL EXPANSION TANK

MARK	MAXIMUM WORKING PRESSURE (PSI)	TANK VOLUME (GALLONS)	HEIGHT (INCHES)	DIAMETER (INCHES)	WEIGHT (LBS)	MANUFACTURER	MODEL	REMARKS
ET-1	125.0	115.0	66	24	325	ARMSTORNG	AX-200V	ALL

REMARKS:
1. PROVIDE ASME PRE-PRESSURIZED DIAPHRAGM TO SYSTEM FILL PRESSURE.
2. PROVIDE TANK WITH THE RING BASE, LIFT RING, AND NPT SYSTEM CONNECTION.
3. PROVIDE TANK WITH THREADED INLET AIR CHARGING VALVE CONNECTION.
4. MOUNT TANK ON THE FOOR ON A 4" THICK CONCRETE HOUSEKEEPING PAD SIZED PER UNIT MANUFACTURER'S RECOMMENDATIONS.
5. PROVIDE PRESSURE RELIEF VALVE, ISOLATION VALVE, AND DRAIN VALVE.

HVAC-COOLING TOWER SCHEDULE

TAG	TYPE	CAPACITY (TONS)	FLOW (GPM)	MAX WPD (PSI)	EWT (F)	LWT (F)	AMBIENT WET BULB (FWB)	FANS		ELECTRICAL CONNECTION			MANUFACTURER	MODEL	REMARKS
								NUMBER OF FANS	FAN MOTOR SIZE (HP)	V	PH	F			
CT-1	CLOSED LOOP	50	197	10.90	95	85	78	3	9	460	3	60	MARLEY	LWA048AE1	ALL

REMARKS:
1. UNIT TO BE MOUNTED ON COOLING TOWER SUPPORT STRUCTURE BY STRUCTURAL ENGINEER.SIZED PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE UNIT WITH FACTORY WIRED NEMA 3R DISCONNECTING MEANS.
3. PROVIDE UNIT WITH VARIABLE FREQUENCY DRIVE.
4. PROVIDE UNIT WITH ELECTRIC IMMERSION BASIN HEATER WITH THERMOSTAT FOR FREEZE PROTECTION.
5. PROVIDE UNIT WITH FACTORY MOUNTED GFCI RECEPTACLE FOR ELECTRICIAN TO WIRE TO SEPARATE CIRCUIT.
6. PROVIDE UNIT PUMP AND EXTERIOR PIPE WITH HEAT TRACE AND INSULATION.
7. UNIT TO BE INTERLOCKED AND MONITORED BY BUILDING MANAGEMENT SYSTEM.

HVAC-PUMP SCHEDULE

TAG	SERVICE	TYPE	MINIMUM FLOW (GPM)	DESIGN FLOW (GPM)	HEAD (FT)	EFFICIENCY (%)	SPEED (RPM)	BRAKE MOTOR SIZE (BHP)	MOTOR SIZE (HP)	ELECTRICAL CONNECTION			MANUFACTURER	MODEL	REMARKS
										V	PH	F			
P-1	M-CDS	END SUCTION	82.5	197	150.0	62.5	1,730	11.94	20	460	3	60	ARMSTRONG	SERIES 4030-3X2X13-4P-20	ALL
P-2	M-CDS	END SUCTION	82.5	197	150.0	62.5	1,730	11.94	20	460	3	60	ARMSTRONG	SERIES 4030-3X2X13-4P-20	ALL

REMARKS:
1. UNIT TO BE MOUNTED ON 4" CONCRETE HOUSEKEEPING PAD SIZED PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE UNIT WITH DISCONNECTING MEANS.
3. PROVIDE UNIT WITH VARIABLE FREQUENCY DRIVE.
4. PROVIDE UNIT WITH SUCTION GUIDE MODEL SG-151TF.
5. UNIT TO BE INTERLOCKED AND MONITORED BY BUILDING MANAGEMENT SYSTEM.
6. PUMPS ARE TO BE SIZED FOR 100% STAND BY OPERATIONS.
7. PROVIDE PUMP WITH NEOPRENE VIBRATION ISOLATION PADS.

Salas O'Brien
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COMMONWEALTH OF VIRGINIA
04/10/2025
SAMUEL S. LOTT
Lic. No. 061900
PROFESSIONAL ENGINEER

REVISIONS		
NO.	DESCRIPTION	DATE

FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA
CONSTRUCTION DOCUMENTS

MECHANICAL SCHEDULES

DRAWN	CHECKED
JCS	SSL
DATE	APR 10, 2025
COMM. NO.	24060

M002

HVAC-WATER SOURCE HEAT PUMP SCHEDULE

TAG	SIZE	FAN		COOLING								HEATING					CDW		ELECTRICAL CONNECTION						MANUFACTURER	MODEL	REMARKS
		SUPPLY AIRFLOW (CFM)	ESP (IN)	EAT (FDB)	EAT (FWB)	LAT (FDB)	LAT (FWB)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EWT (F)	LWT (F)	EFFICIENCY (EER)	EAT (FDB)	LAT (FDB)	CAPACITY (MBH)	EWT (F)	LWT (F)	FLOW (GPM)	WPD (FT)	V	P	F	MCA	MOCP	ELECTRICAL CAPACITY (KW)			
WSHP-1	024	796	0.25	78	63	56.4	53.4	22.9	18.1	85	98.9	12.6	68	100.9	31.1	70	58.2	4.20	2.30	265	1	60	16.0	25	1.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-2	015	542	0.30	76	63	57.4	53.9	13.5	10.9	85	100.0	12.6	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-3	015	542	0.30	78	63	57.4	53.9	13.5	10.9	85	100.0	12.6	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	6.1	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-4	015	542	0.30	76	64	57.4	53.9	13.5	10.9	85	100.0	12.6	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	6.1	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-5	015	542	0.30	77	63	57.4	53.9	13.5	10.9	85	100.0	12.6	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-6	024	796	0.25	76	63	56.1	53.2	22.8	18	85	98.9	12.5	68	100.9	31.1	70	58.2	4.20	3.40	265	1	60	16.0	25	1.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-7	015	542	0.30	76	63	57.4	53.9	13.5	10.9	85	100.0	12.6	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-8	015	542	0.30	76	63	57.4	53.9	13.5	10.9	85	100.0	12.6	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-9	015	542	0.30	76	63	57.4	53.9	13.5	10.9	85	100.0	12.6	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-10	015	542	0.30	76	63	57.4	53.9	13.5	10.9	85	100.0	12.6	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-11	018	677	0.30	77	63	56.9	54.0	17.9	14.9	85	98.0	12.9	68	98.7	22.4	70	59.8	3.50	8.20	265	1	60	10.0	15	1.33	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-12	012	332	0.30	77	63	57.4	52.3	10	6.9	85	97.5	11.3	68	105.7	15.3	70	58.6	2.10	6.50	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-13	015	542	0.30	77	63	58.0	54.3	13.6	11	85	100.1	12.7	68	106.1	17.4	70	58.0	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-14	012	332	0.30	78	64	58.1	52.8	10.2	7	85	96.8	11.7	68	106.1	15.5	70	59.2	2.25	7.30	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-15	012	332	0.30	78	64	58.1	52.8	10.2	7	85	96.8	11.7	68	94.5	15.5	70	59.2	2.25	7.30	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-16	015	542	0.30	77	63	58.0	54.3	13.6	11	85	100.1	12.7	68	105.7	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	11.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-17	012	332	0.30	77	63	57.4	52.3	10	6.9	85	97.5	11.3	68	105.7	15.3	70	58.6	2.10	6.50	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-18	009	259	0.30	77	63	55.8	53.0	7.3	5.8	85	99.9	11	68	108.4	11.4	70	56.5	1.30	3.00	265	1	60	6.8	15	0.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-19	009	259	0.30	77	63	55.7	52.8	7.3	5.8	85	98.0	11.3	68	109.3	11.5	70	58.1	1.50	3.70	265	1	60	6.8	15	0.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-20	018	677	0.30	78	64	57.7	54.6	18.1	15.1	85	98.1	13.1	68	98.7	22.4	70	59.8	3.50	8.20	265	1	60	10.0	15	1.33	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-21	009	259	0.30	78	64	56.7	55.9	7.4	5.9	85	100.6	11.0	68	108.6	11.3	70	56.0	1.25	2.80	265	1	60	6.8	15	0.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-22	012	310	0.30	75	62	57.6	52.9	9.7	7.1	85	102.3	10.3	68	108.6	14.5	70	55.1	1.50	3.50	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-23	012	310	0.30	75	62	57.6	52.9	9.7	7.1	85	102.3	10.3	68	108.6	14.5	70	55.1	1.50	3.50	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-24	012	310	0.30	75	62	57.6	52.9	9.7	7.1	85	102.3	10.3	68	108.6	14.5	70	55.1	1.50	3.50	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-25	012	310	0.30	75	62	57.6	52.9	9.7	7.1	85	102.3	10.3	68	108.6	14.5	70	55.1	1.50	3.50	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8,10
WSHP-26	009	225	0.30	75	62	57.4	54.4	7.4	6.5	85	100.8	10.7	68	108.4	11.3	70	56.0	1.25	2.80	265	1	60	6.8	15	0.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-27	009	170	0.30	75	62	57.4	54.4	7.4	6.5	85	100.8	10.7	68	108.4	11.3	70	56.0	1.25	2.80	265	1	60	6.8	15	0.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-28	012	355	0.30	75	62	57.6	52.9	9.7	7.1	85	102.3	10.3	68	108.6	14.5	70	55.1	1.50	3.50	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-29	009	70	0.30	75	62	57.4	54.4	7.4	6.5	85	100.8	10.7	68	108.4	11.3	70	56.0	1.25	2.80	265	1	60	6.8	15	0.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-30	015	465	0.30	75	62	56.4	53.3	13.4	10.9	85	99.9	12.4	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-31	030	980	0.25	75	62	55.0	55.9	25.1	21.1	85	101.9	11.2	68	98.8	33.6	70	56.5	3.90	2.30	265	1	60	18.1	25	2.20	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-32	030	980	0.25	75	62	55.0	52.9	25.1	21.1	85	101.9	11.2	68	98.8	33.6	70	56.5	3.90	2.30	265	1	60	18.1	25	2.20	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-33	030	310	0.30	75	62	56.4	53.3	13.4	10.9	85	99.9	12.4	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-34	015	220	0.30	75	62	56.4	53.3	13.4	10.9	85	99.9	12.4	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-35	015	310	0.30	75	62	56.1	53.1	13.7	11.1	85	97.0	13.3	68	95.2	18	70	60.1	2.90	4.70	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-36	015	542	0.30	75	62	56.1	53.1	13.7	11.1	85	97.0	13.3	68	95.2	18	70	60.1	2.90	4.70	265	1	60	7.6	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-37	036	260	0.25	75	62	54.3	52.8	31.7	27.5	85	97.2	12.7	68	101.9	45	70	59.3	6.60	3.30	265	1	60	18.0	25	2.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-38	030	795	0.25	75	62	55.0	52.9	25.1	21.1	85	101.9	11.2	68	99.8	33.6	70	56.5	3.90	2.30	265	1	60	18.1	25	2.20	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-39	030	795	0.25	75	62	55.0	52.9	25.1	21.1	85	101.9	11.2	68	99.8	33.6	70	56.5	3.90	2.30	265	1	60	18.1	25	2.20	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-40	036	1,230	0.25	75	62	54.3	52.8	31.7	27.5	85	97.2	12.7	68	101.9	45	70	59.3	6.60	3.30	265	1	60	18.1	25	2.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-41	015	542	0.30	75	62	56.4	53.3	13.4	10.9	85	99.9	12.4	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-42	015	542	0.30	75	62	56.4	53.3	13.4	10.9	85	99.9	12.4	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-43	030	980	0.25	75	62	55.0	52.9	25.1	21.1	85	101.9	11.2	68	99.8	33.6	70	56.5	3.90	2.30	265	1	60	18.1	25	2.20	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-44	030	980	0.25	75	62	55.0	52.9	25.1	21.1	85	101.9	11.2	68	99.8	33.6	70	56.5	3.90	2.30	265	1	60	18.1	25	2.22	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-45	015	542	0.30	75	62	56.4	53.3	13.4	10.9	85	99.9	12.4	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-46	015	542	0.30	75	62	56.4	53.3	13.4	10.9	85	99.9	12.4	68	94.5	17.5	70	57.9	2.30	3.40	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-47	006	205	0.25	75	62	55.6	52.9	5.1	4.1	85	98.4	11.3	68	105.0	8	70	57.4	1.00	0.60	265	1	60	5.6	15	0.50	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-48	015	285	0.25	75	62	56.5	53.4	13.7	11.3	85	97.7	13.1	68	97.2	17.8	70	59.6	2.75	4.40	265	1	60	6.8	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-49	060	1,855	0.25	75	62	48.3	48.3	52.8	52.8	85	98.5	13.2	68	102.2	67.4	70	59.4	10.00	7.30	460	3	60	14.7	20	4.20	CLIMATEMASTER	SY	1,2,3,4,5,6,7,9,10
WSHP-50	060	1,855	0.25	75	62	48.3	58.3	52.8	52.8	85	98.5	13.2	68	102.2	67.4	70	59.4	10.00	7.30	265	1	60	15.0	20	4.20	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9,10
WSHP-51	015	370	0.25	75	62	56.7	53.5	13.6	11.2	85	98.8	12.7	68	96.9	17.6	70	58.8	2.50	3.80	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,8
WSHP-52	024	905	0.25	75	62	57.1	53.8	22.6	18.7	85	99.5	12.0	68	100.7	30.9	70	57.7	4.00	2.10	265	1	60	16.8	25	2.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-53	036	1,080	0.25	75	62	54.6	53.1	31.8	27.7	85	98.5	12.5	68	101.1	44.8	70	58.2	6.00	2.80	265	1	60	17.6	25	2.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-54	015	515	0.25	75	62	56.7	53.5	13.6	11.2	85	98.8	12.7	68	96.9	17.6	70	58.8	2.50	3.80	265	1	60	8.2	15	1.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-55	024	780	0.25	75	62	54.3	52.0	22.2	17.8	85	99.3	12.1	68	103.6	30.6	70	57.9	4.00	2.10	265	1	60	16.6	25	1.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-56	036	1,235	0.25	75	62	54.3	52.9	31.5	27.4	85	98.5	12.5	68	101.7	44.7	70	58.3	6.00	2.80	265	1	60	18.0	25	2.80	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9
WSHP-57	042	1,320	0.25	75	62	46.8	46.8	39.7	39.7	85	99.5	13.2	68	104.0	50.7	70	58.7	7.00	4.10	460	3	60	13.0	15	3.20	CLIMATEMASTER	SY	1,2,3,4,5,6,7,9,10
WSHP-58	042	1,320	0.25	75	62	46.8	46.8	39.7	39.7	85	99.5	13.2	68	104.0	50.7	70	58.7	7.00	4.10	265	1	60	13.0	15	3.20	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9,10
WSHP-59	036	500	0.25	75	62	50.6	49.8	30.2	23.8	85	98.0	12.5	68	112.6	43.3	70	58.8	6.00	2.80	265	1	60	18.0	25	3.00	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9,10
WSHP-60	030	545	0.25	75	62	55.1	49.9	24.8	19	85	97.9	12.0	68	109.5	33.6	70	59.6	5.00	3.60	265	1	60	18.1	25	2.30	CLIMATEMASTER	SC	1,2,3,4,5,6,7,9,10

GENERAL NOTES:

1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.
3. UNIT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. COOLING AND HEATING CAPACITY BASED ON AHRI CONDITIONS.

REMARKS:

1. REFER TO FLOOR PLANS FOR UNIT QUANTITIES.
2. SUPPLY FAN SHALL OPERATE CONTINUOUSLY DURING OCCUPIED MODE.
3. PROVIDE WATER SOURCE HEAT PUMP WITH INTEGRAL ELECTRICAL DISCONNECTING MEANS.
4. WATER SOURCE HEAT PUMP MOTOR SHALL BE VARIABLE SPEED ECM TYPE.
5. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR HORIZONTAL MOUNTING.
6. PROVIDE UNIT WITH AUTOMATIC CONDENSATE OVER FLOW FLOAT SWITCH.
7. UNIT TO BE CONTROLLED AND MONITORED BY BUILDING MANAGEMENT SYSTEM.
8. PROVIDE UNIT WITH THREE WAY CONTROL VALVE.
9. PROVIDE UNIT WITH TWO WAY CONTROL VALVE.
10. PROVIDE HEAT PUMP WITH BI POLAR IONIZATION. INSTALL AND SIZE PER MANUFACTURER SPECIFICATIONS

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COMMONWEALTH OF VIRGINIA
04/10/2025
SAMUEL S. LOTT
Lic. No. 061900
PROFESSIONAL ENGINEER

REVISIONS

NO.	DESCRIPTION	DATE

FACILITY RENOVATION

PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

DUBLIN, VA

CONSTRUCTION DOCUMENTS

MECHANICAL SCHEDULES

DRAWN	CHECKED
JCS	SSL
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M003

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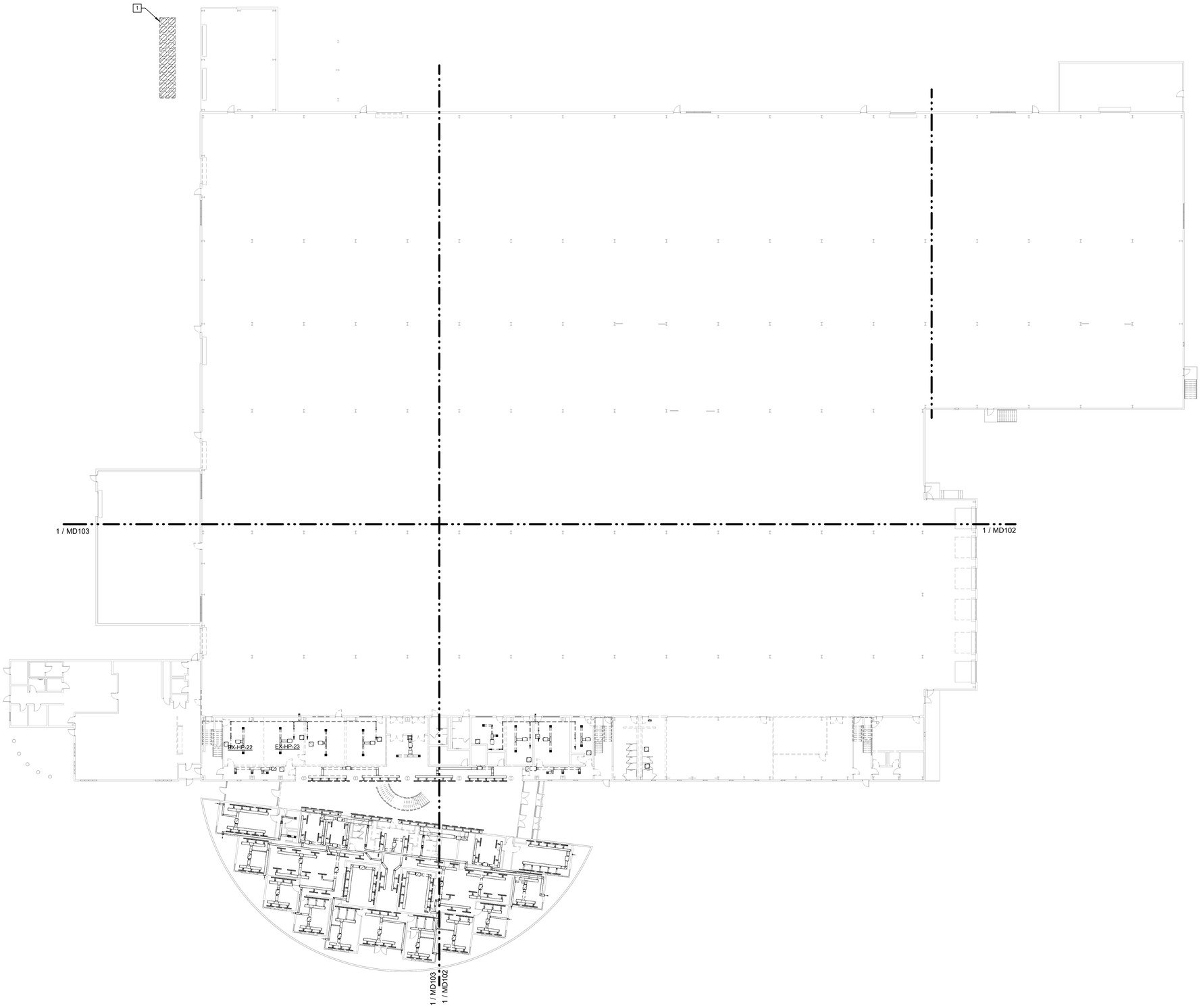


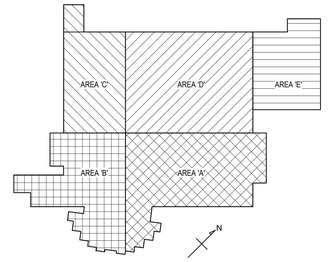
1 **FIRST FLOOR DEMOLITION PLAN - OVERALL - DUCTWORK**
Scale: 1" = 20'-0"

DEMOLITION GENERAL NOTES:

1. THERE IS EXISTING DUCTWORK CURRENTLY ABANDONED IN PLACE NOT SHOWN ON THE DRAWINGS. NO EXISTING DUCTWORK SHALL REMAIN AS ABANDONED IN PLACE. ALL EXISTING DUCTWORK NOT REQUIRED FOR NEW CONSTRUCTION SHALL BE DEMOLISHED.

DEMOLITION KEYED NOTES:

1. EXISTING CHILLER AND ALL EQUIPMENT AND ACCESSORIES ASSOCIATED WITH THE EXISTING CHILLER SHALL BE DEMOLISH. REFER TO PIPING DEMOLITION PLAN MD106 FOR PRECISE DETAILS ON THE REMOVAL OF EXISTING PIPING.



KEY PLAN
NOT TO SCALE

COMMONWEALTH OF VIRGINIA
04/10/2025
SAMUEL S. LOTT
Lic. No. 061900
PROFESSIONAL ENGINEER

REVISIONS NO.	DESCRIPTION	DATE

FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR DEMOLITION PLAN - OVERALL - DUCTWORK

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	DATE: APR 10, 2025
	COMM. NO.: 24060

MD101

4/8/2025 2:27:38 PM Autodesk Docs://2450-70822-00 Pulaski County Recreation Center Renovation Ph 1 - Dublin, VA/2450-70822-00 Pulaski County Recreation Center Renovation Ph 1_MEP R24.rvt

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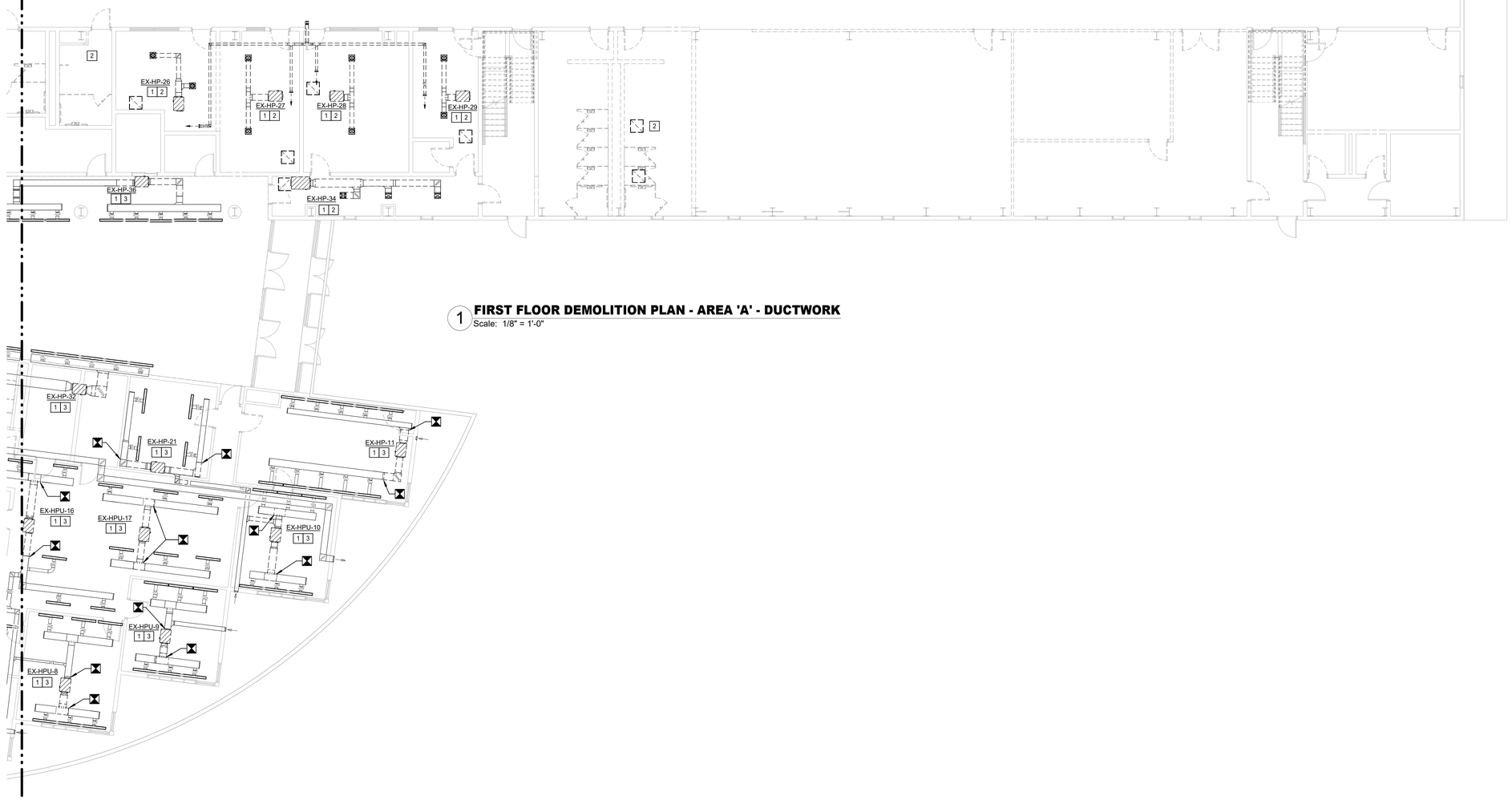
	REVISIONS	

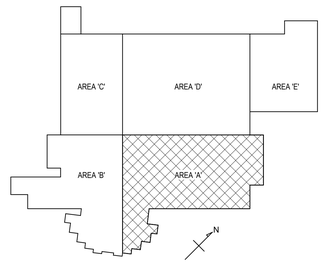
1 / MD103



1 **FIRST FLOOR DEMOLITION PLAN - AREA 'A' - DUCTWORK**
Scale: 1/8" = 1'-0"

DEMOLITION KEYED NOTES:

1. EXISTING HEAT PUMPS IN THIS AREA SHALL BE DEMOLISHED. ALL EXISTING DUCTWORK TO REMAIN SHALL BE COVERED AND PROTECTED UNTIL NEW DUCTWORK IS CONNECTED.
2. ALL EXISTING DUCTWORK, GRILLES, AND DIFFUSERS IN THIS AREA ARE TO BE DEMOLISHED.
3. ALL EXISTING DUCTWORK, GRILLES, AND DIFFUSERS IN THIS AREA REMAIN SHALL REMAIN. EXISTING GRILLES AND DIFFUSERS DAMAGED DURING DEMOLITION SHALL BE REPLACED IN KIND.
4. ALL EXISTING MECHANICAL EQUIPMENT & ASSOCIATED APPURTENANCES IN EXISTING WAREHOUSE AREA ARE TO BE REMOVED.



KEY PLAN
NOT TO SCALE

FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR DEMOLITION PLAN - AREA 'A' - DUCTWORK

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COMM. NO.	24060

MD102

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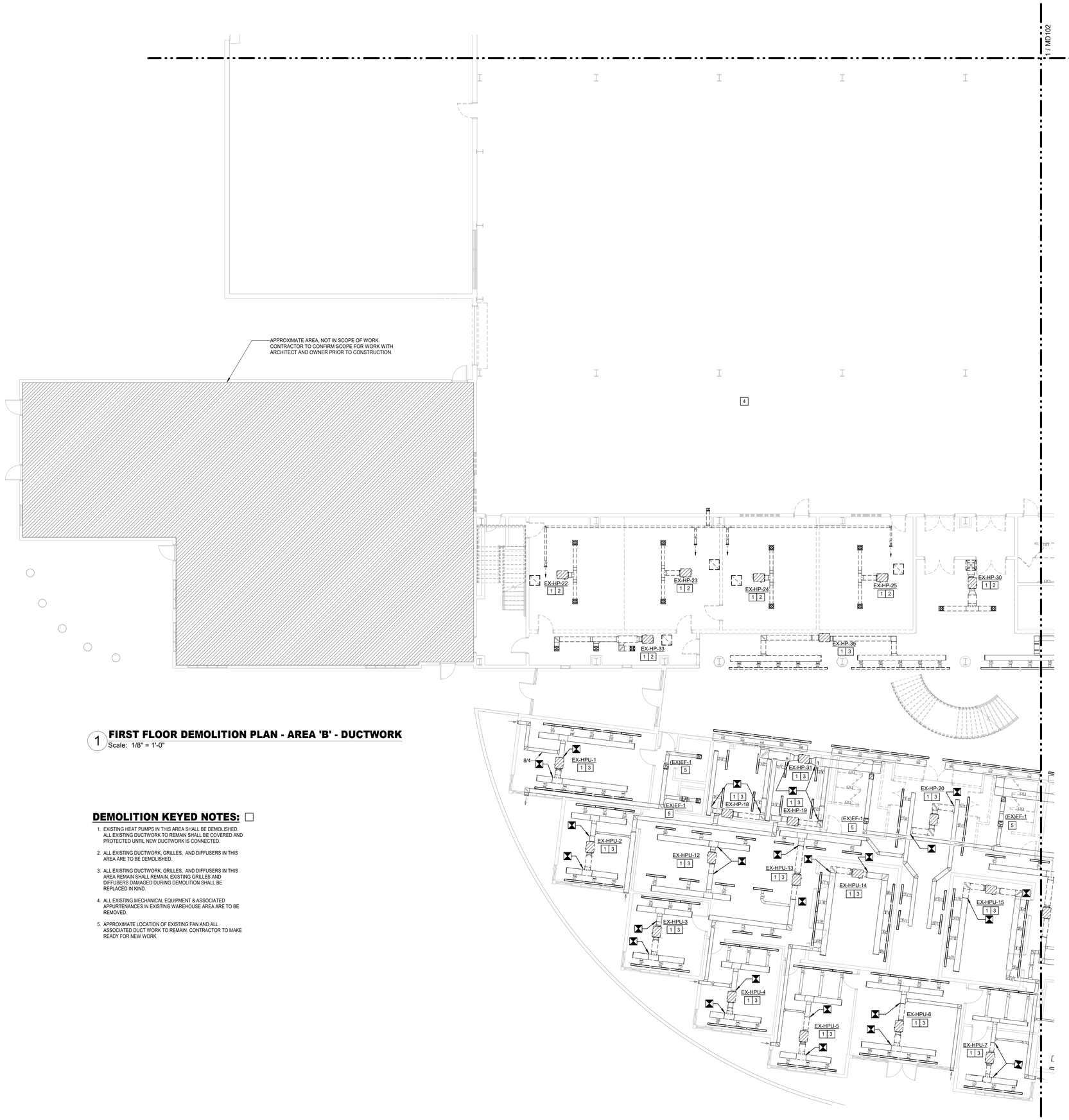
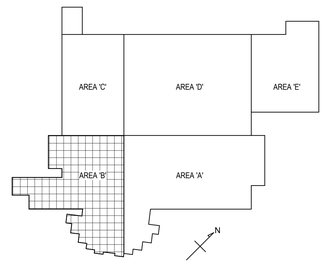


1 FIRST FLOOR DEMOLITION PLAN - AREA 'B' - DUCTWORK

Scale: 1/8" = 1'-0"

DEMOLITION KEYED NOTES:

1. EXISTING HEAT PUMPS IN THIS AREA SHALL BE DEMOLISHED. ALL EXISTING DUCTWORK TO REMAIN SHALL BE COVERED AND PROTECTED UNTIL NEW DUCTWORK IS CONNECTED.
2. ALL EXISTING DUCTWORK, GRILLES, AND DIFFUSERS IN THIS AREA ARE TO BE DEMOLISHED.
3. ALL EXISTING DUCTWORK, GRILLES, AND DIFFUSERS IN THIS AREA REMAIN SHALL REMAIN. EXISTING GRILLES AND DIFFUSERS DAMAGED DURING DEMOLITION SHALL BE REPLACED IN KIND.
4. ALL EXISTING MECHANICAL EQUIPMENT & ASSOCIATED APPURTENANCES IN EXISTING WAREHOUSE AREA ARE TO BE REMOVED.
5. APPROXIMATE LOCATION OF EXISTING FAN AND ALL ASSOCIATED DUCT WORK TO REMAIN. CONTRACTOR TO MAKE READY FOR NEW WORK.



KEY PLAN

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COMMONWEALTH OF VIRGINIA
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FACILITY RENOVATION

PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

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CONSTRUCTION DOCUMENTS

FIRST FLOOR DEMOLITION PLAN - AREA 'B' - DUCTWORK

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	DATE: APR 10, 2025
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MD103

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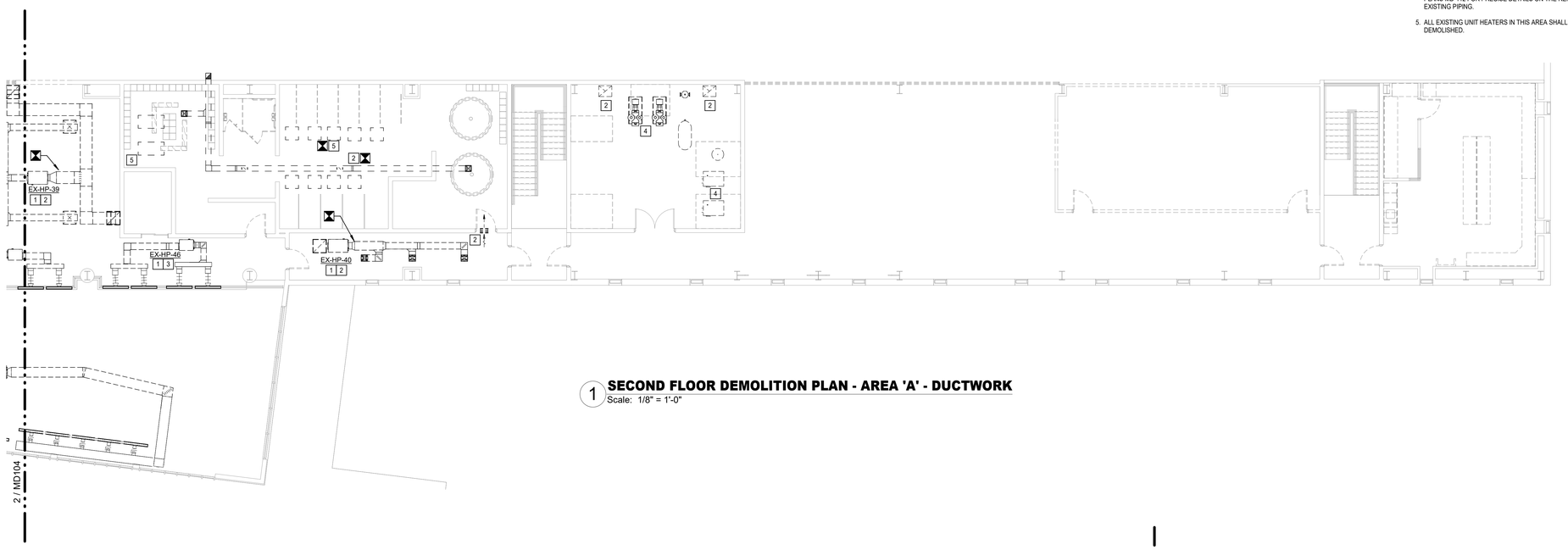
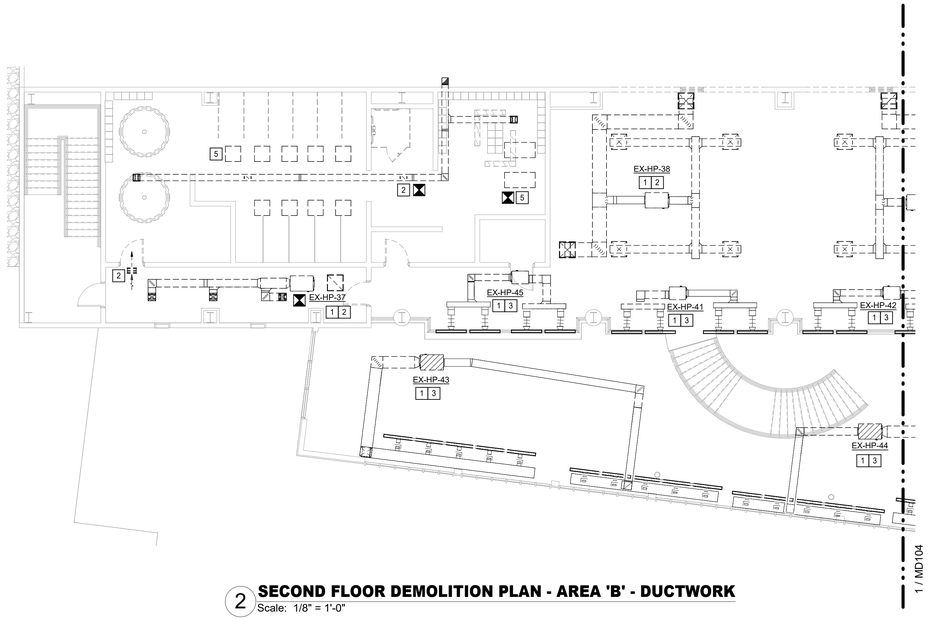
DEMOLITION KEYED NOTES:

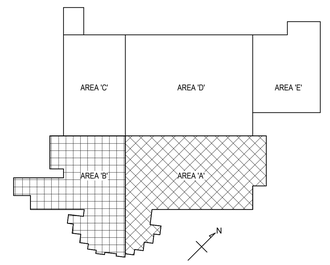
1. EXISTING HEAT PUMPS IN THIS AREA SHALL BE DEMOLISHED. ALL EXISTING DUCTWORK TO REMAIN SHALL BE COVERED AND PROTECTED UNTIL NEW DUCTWORK IS CONNECTED.
2. ALL EXISTING DUCTWORK, GRILLES, AND DIFFUSERS IN THIS AREA SHALL BE DEMOLISHED.
3. ALL EXISTING DUCTWORK, GRILLES, AND DIFFUSERS IN THIS AREA SHALL REMAIN. EXISTING GRILLES AND DIFFUSERS DAMAGED DURING DEMOLITION SHALL BE REPLACED IN KIND.
4. ALL EXISTING BOILERS, PUMPS, AND ALL EQUIPMENT AND ACCESSORIES ASSOCIATED WITH THE EXISTING CONDENSER LOOP SHALL BE DEMOLISHED. REFER TO PIPING DEMOLITION PLANS MD-112 FOR PRECISE DETAILS ON THE REMOVAL OF EXISTING PIPING.
5. ALL EXISTING UNIT HEATERS IN THIS AREA SHALL BE DEMOLISHED.



1 **SECOND FLOOR DEMOLITION PLAN - AREA 'A' - DUCTWORK**
Scale: 1/8" = 1'-0"



2 **SECOND FLOOR DEMOLITION PLAN - AREA 'B' - DUCTWORK**
Scale: 1/8" = 1'-0"



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COMMONWEALTH OF VIRGINIA
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FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
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CONSTRUCTION DOCUMENTS

SECOND FLOOR DEMOLITION PLAN - AREA 'A' & 'B' - DUCTWORK

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MD104

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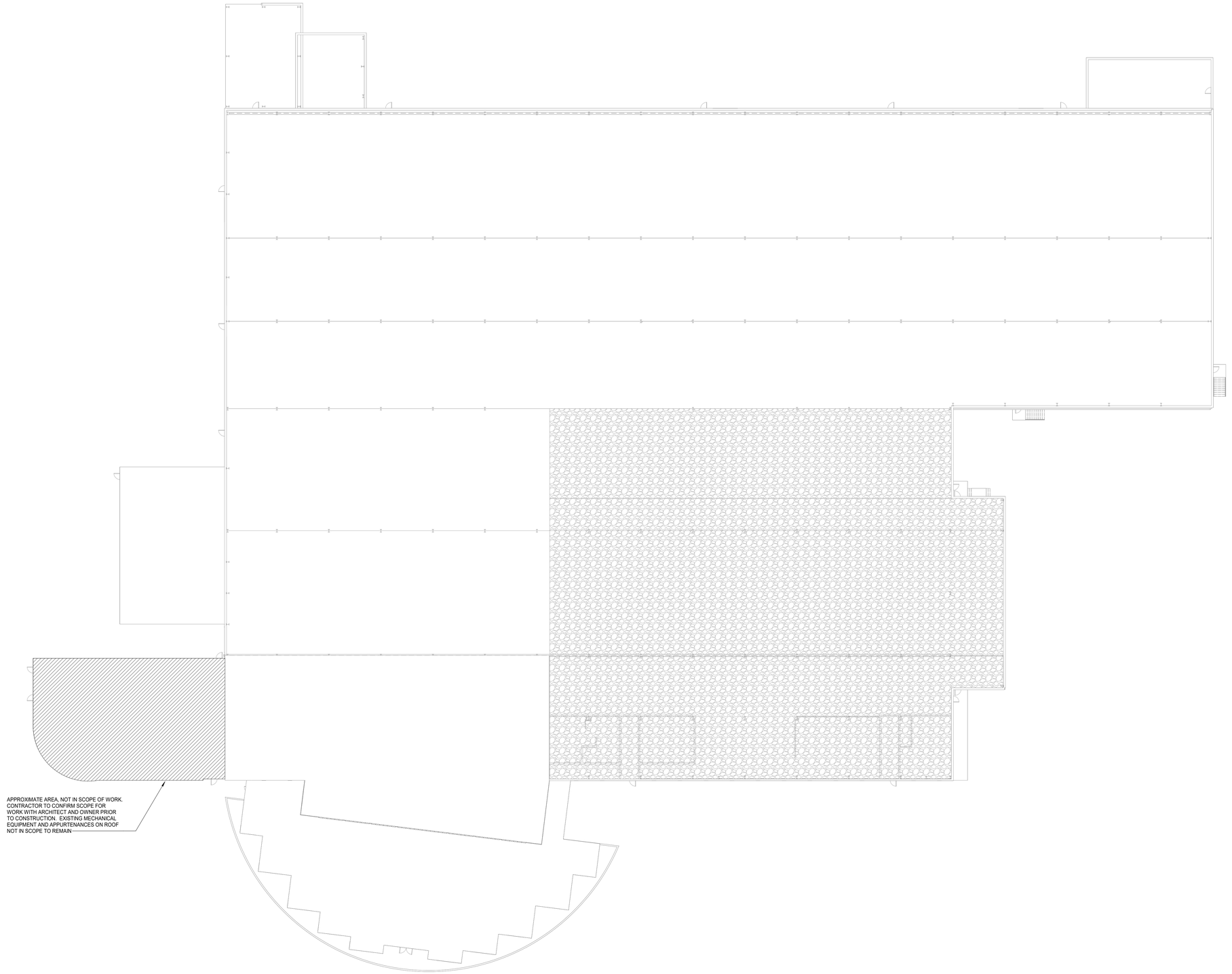
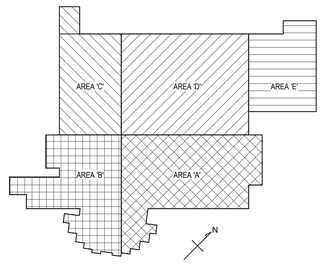
DEMOLITION GENERAL NOTES:

1. ALL EXISTING MECHANICAL EQUIPMENT AND RELATED APPURTENANCES MOUNTED ON THE ROOF SHALL BE DEMOLISHED. ALL EXISTING ROOF CURBS SHALL BE SEALED WEATHER TIGHT.



1 **ROOF DEMOLITION PLAN - OVERALL - DUCTWORK**
Scale: 1" = 20'-0"



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COMMONWEALTH OF VIRGINIA
04/10/2025
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FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
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ROOF DEMOLITION PLAN - OVERALL - DUCTWORK

DRAWN	CHECKED
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DATE	APR 10, 2025
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MD105

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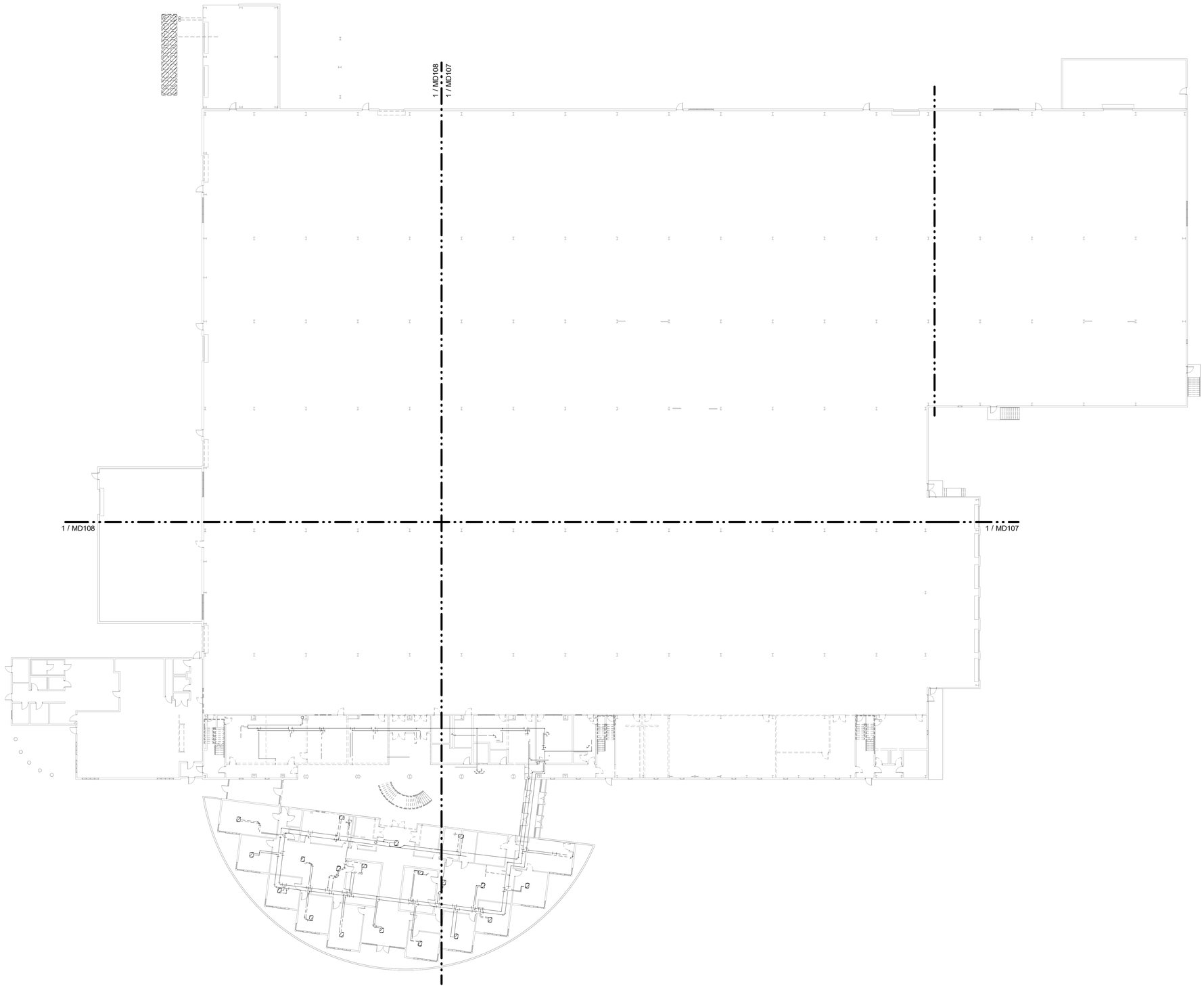
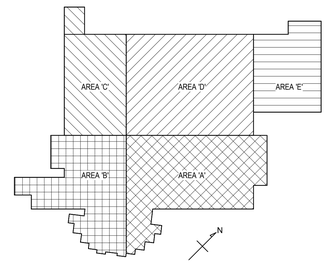
Roanoke
119 Norfolk Avenue, Suite 310
Roanoke, Virginia 24011

DEMOLITION GENERAL NOTES:

1. THERE IS EXISTING MECHANICAL PIPING CURRENTLY ABANDONED IN PLACE NOT SHOWN ON THE DRAWINGS. NO EXISTING MECHANICAL PIPING SHALL REMAIN AS ABANDONED IN PLACE. ALL EXISTING MECHANICAL PIPING NOT REQUIRED FOR NEW CONSTRUCTION SHALL BE DEMOLISHED.



1 **FIRST FLOOR DEMOLITION PLAN - OVERALL - PIPING**
Scale: 1" = 20'-0"



KEY PLAN
NOT TO SCALE

ZMM ARCHITECTS ENGINEERS
222 Lee Street, West
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COMMONWEALTH OF VIRGINIA
04/10/2025
SAMUEL S. LOTT
Lic. No. 061900
PROFESSIONAL ENGINEER

NO.	DESCRIPTION	DATE

REVISIONS

FACILITY RENOVATION

PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR DEMOLITION PLAN - OVERALL - PIPING

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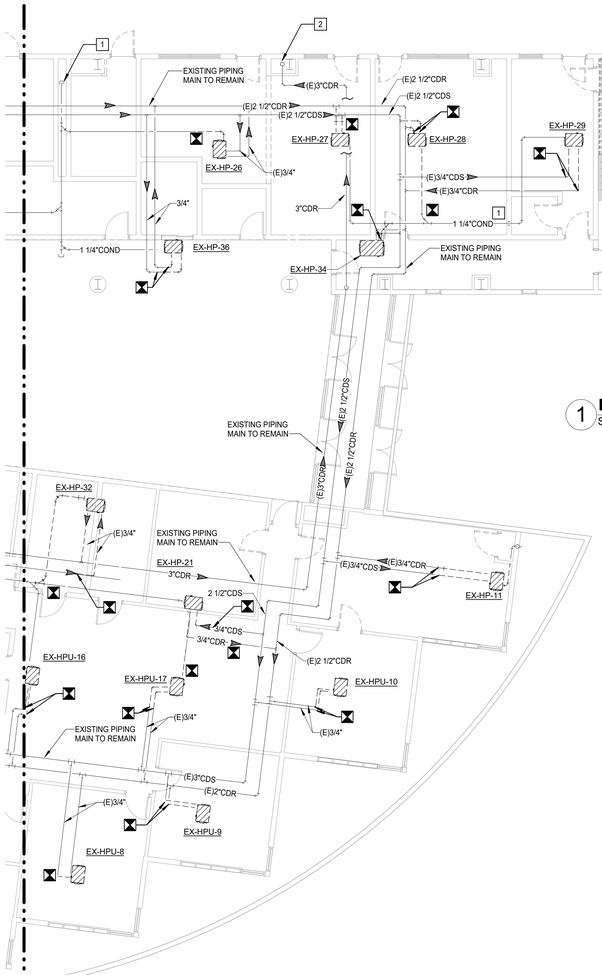


1 **FIRST FLOOR DEMOLITION PLAN - AREA 'A' - PIPING**
Scale: 1/8" = 1'-0"

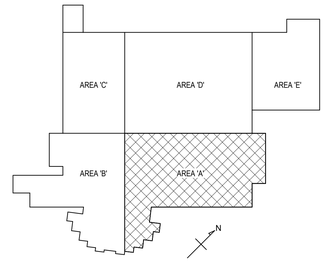
1 / MD108

DEMOLITION GENERAL NOTES:

1. ALL MECHANICAL PIPING ASSOCIATED WITH THE EXISTING TO BE DEMOLISHED WATER SOURCE HEAT PUMPS (WSHP) SHALL REMAIN. ALL EXISTING PIPING PACKAGES FOR THE WSHP'S SHALL BE DEMOLISHED.

DEMOLITION KEYED NOTES:

1. VENT STACK 1 1/4" DN. TO LAV.
2. EXISTING 3" CONDENSER RETURN WATER ROUTED UP TO ABOVE. REFER TO SECOND FLOOR DEMOLITION PIPING PLAN FOR CONTINUATION.



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PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
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DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR DEMOLITION PLAN - AREA 'A' - PIPING

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	COMM. NO.: 24060

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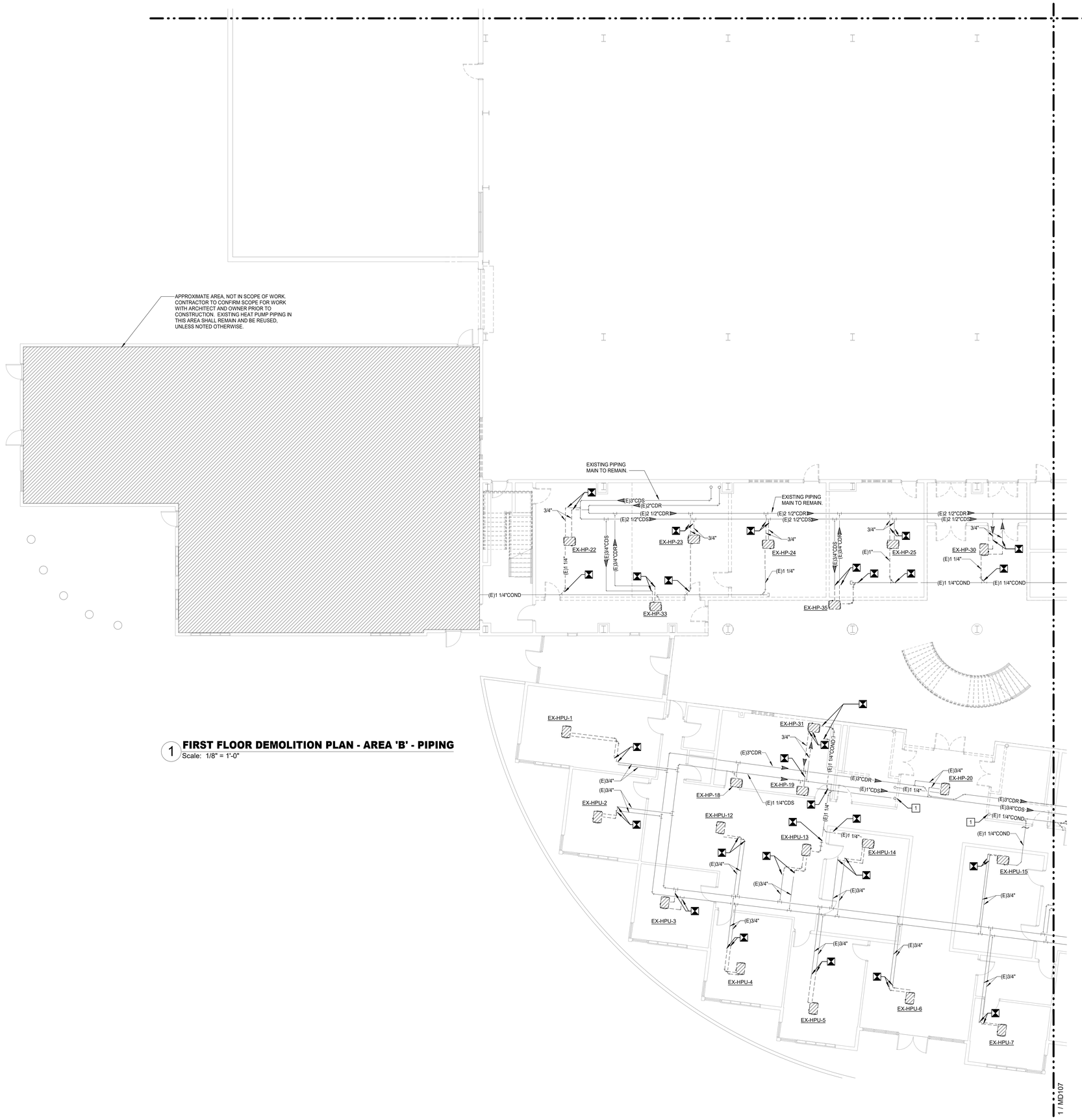
DEMOLITION GENERAL NOTES:

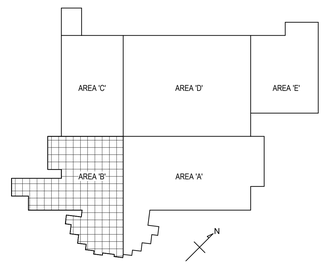
1. ALL MECHANICAL PIPING ASSOCIATED WITH THE EXISTING TO BE DEMOLISHED WATER SOURCE HEAT PUMPS (WSHP) SHALL REMAIN. ALL EXISTING PIPING PACKAGES FOR THE WSHP'S SHALL BE DEMOLISHED.

DEMOLITION KEYED NOTES: ☐

1. VENT STACK 1 1 /4" DN. TO LAV.



1 **FIRST FLOOR DEMOLITION PLAN - AREA 'B' - PIPING**
Scale: 1/8" = 1'-0"



KEY PLAN
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DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR DEMOLITION PLAN - AREA 'B' - PIPING

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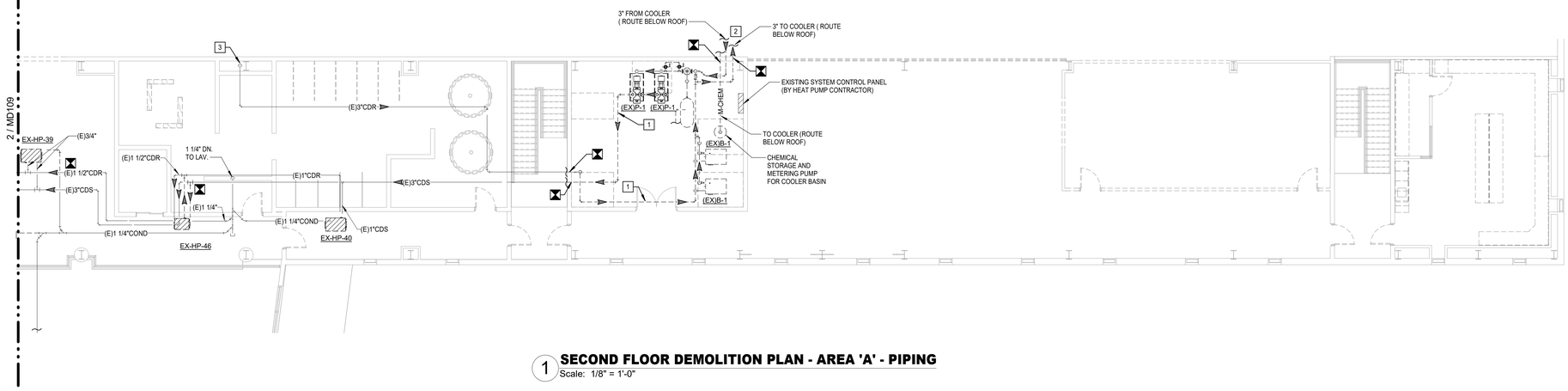


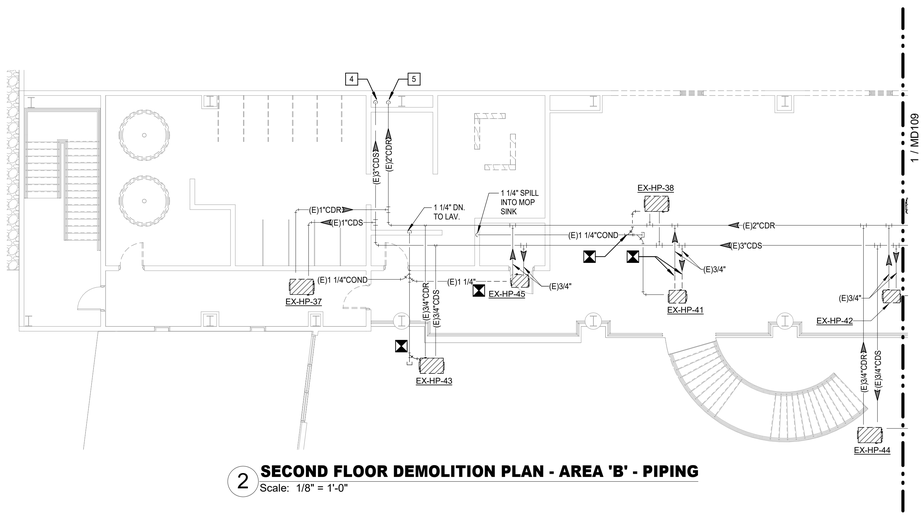
1 **SECOND FLOOR DEMOLITION PLAN - AREA 'A' - PIPING**
Scale: 1/8" = 1'-0"

DEMOLITION GENERAL NOTES:

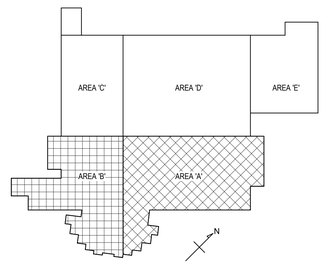
1. ALL MECHANICAL PIPING ASSOCIATED WITH THE EXISTING TO BE DEMOLISHED WATER SOURCE HEAT PUMPS (WSHP) SHALL REMAIN. ALL EXISTING PIPING PACKAGES FOR THE WSHP'S SHALL BE DEMOLISHED.

DEMOLITION KEYED NOTES: ☐

1. CONTRACTOR TO DEMOLISH ALL COLD AND HOT WATER PIPING IN SPACE BACK TO BOILER PUMP AND BOILERS.
2. DEMOLISH PIPING UP TO EXISTING COOLING TOWER.
3. EXISTING 3" CONDENSER RETURN WATER ROUTED UP FROM BELOW. REFER TO FIRST FLOOR DEMOLITION PIPING PLAN FOR CONTINUATION.
4. EXISTING 3" CONDENSER SUPPLY WATER ROUTED DOWN TO BELOW. REFER TO FIRST FLOOR DEMOLITION PIPING PLAN FOR CONTINUATION.
5. EXISTING 2" CONDENSER RETURN WATER ROUTED DOWN TO BELOW. REFER TO FIRST FLOOR DEMOLITION PIPING PLAN FOR CONTINUATION.



2 **SECOND FLOOR DEMOLITION PLAN - AREA 'B' - PIPING**
Scale: 1/8" = 1'-0"



KEY PLAN
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PROFESSIONAL ENGINEER

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FACILITY RENOVATION

PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

DUBLIN, VA

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SECOND FLOOR DEMOLITION PLAN - AREA 'A' & 'B' - PIPING

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	COMM. NO.: 24060

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COMMONWEALTH OF VIRGINIA
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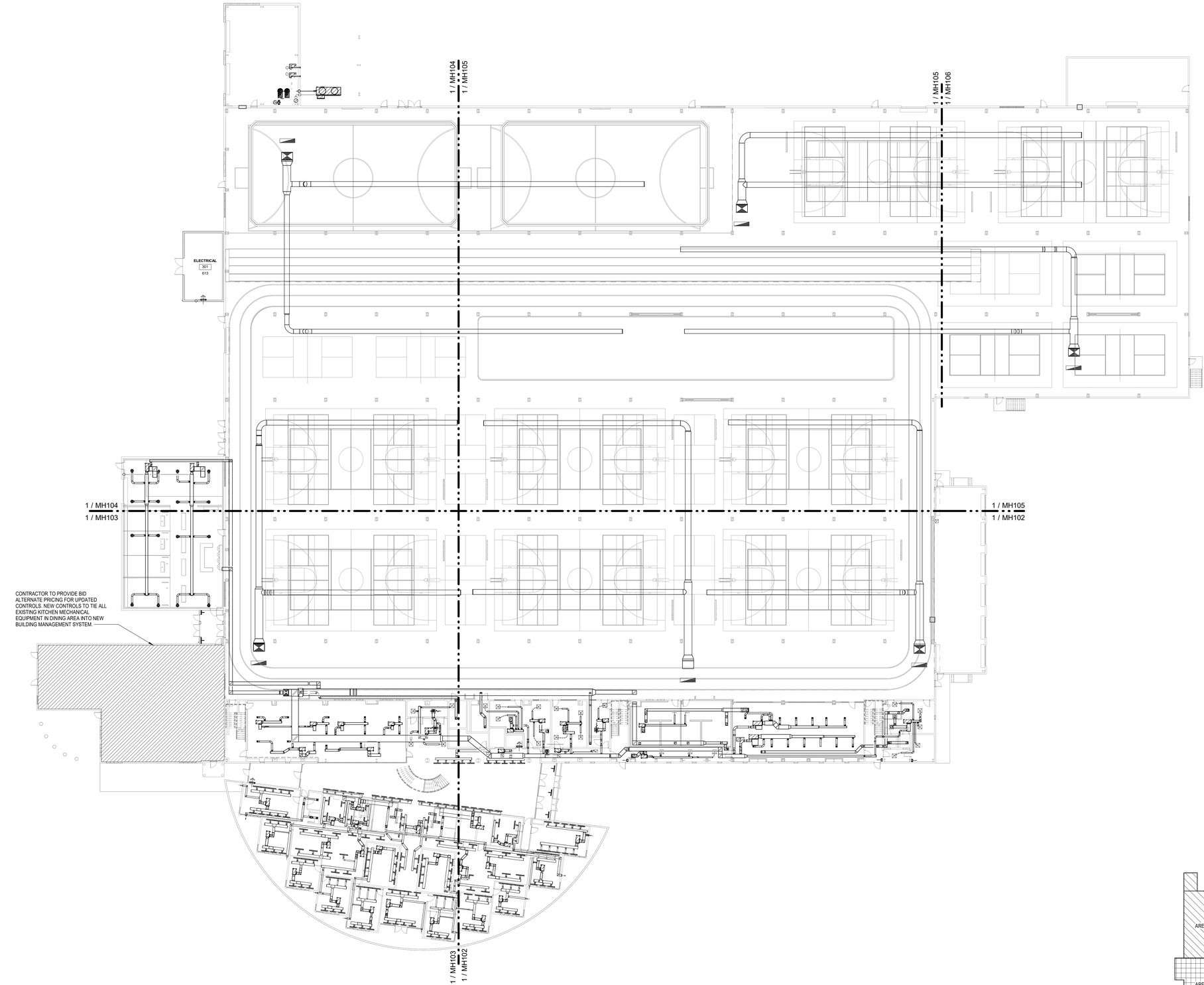
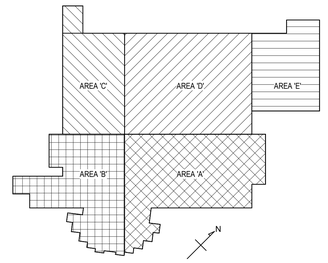


1 **FIRST FLOOR PLAN - OVERALL - DUCTWORK**
Scale: 1" = 20'-0"



KEY PLAN
NOT TO SCALE

FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
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CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN - OVERALL - DUCTWORK

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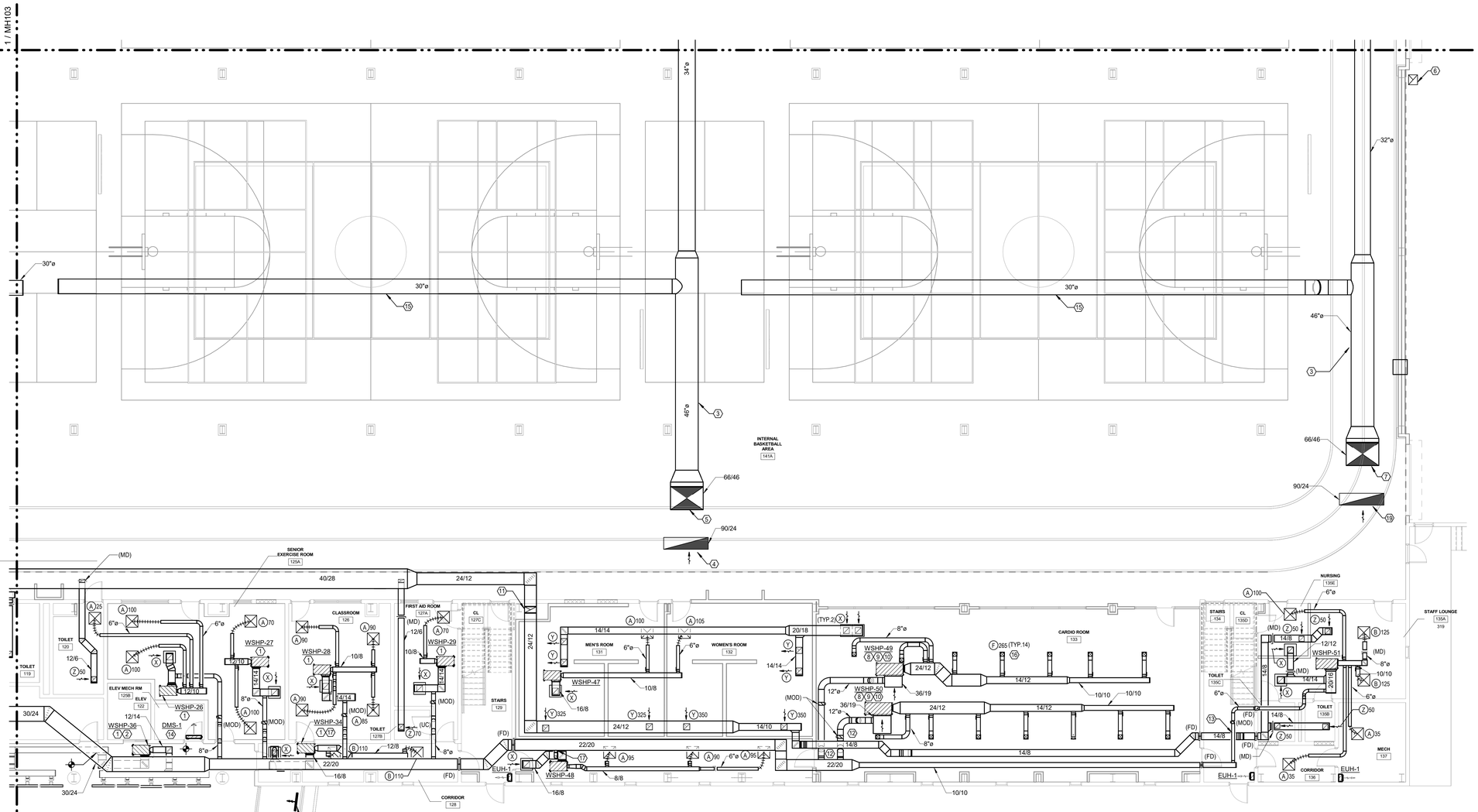
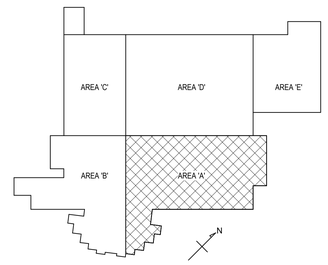


1 FIRST FLOOR PLAN - AREA 'A' - DUCTWORK
Scale: 1/8" = 1'-0"

BH-1 BASE BOARD HEATER: BASIS OF DESIGN: INDEECO MODEL 907IB042502018T. CONTRACTOR TO PROVIDE END CAPS AND PEDESTAL MOUNT. CONFIRM FINAL COLOR WITH ARCHITECT AND OWNER PRIOR TO CONSTRUCTION.

MECHANICAL KEYED NOTES:

1. APPROXIMATE LOCATION OF NEW WATER SOURCE HEAT PUMP. CONTRACTOR TO FIELD VERIFY CONNECTION TO EXISTING DUCTWORK PRIOR TO CONSTRUCTION AND DUCT WORK FABRICATION. CONTRACTOR TO TRANSITION NEW DUCTWORK AS REQUIRED TO CONNECT TO EXISTING.
2. THE TESTING AND BALANCING CONTRACTOR SHALL ENSURE THAT ALL SUPPLY AND RETURN AIR DEVICES ARE BALANCED EVENLY ACCORDING TO THE SCHEDULED SUPPLY AIR FLOW AS SPECIFIED IN THE EQUIPMENT SCHEDULE.
3. ALL ROUND DUCTWORK TO BE FABRIC AIR MICROFLOW NON-PERMEABLE FABRIC. PROVIDE FABRIC AIR WITH ALL IN ONE SUSPENSION SYSTEM AND ORIFICES TYPE DISPERSION. CONTRACTOR TO CONFIRM FINAL COLOR SELECTION WITH ARCHITECT OF RECORD.
4. ROUTE 90" X 24" RETURN DUCT UP TO AND THROUGH ROOF TO RTU-1B. CONTRACTOR TO TERMINATE RETURN DUCT INTO SPACE AND COVER TERMINATION WITH 1/4" WIRE MESH. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
5. ROUTE 66" x 46" SUPPLY DUCT DOWN THROUGH ROOF FROM RTU-1B. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
6. ROUTE 20" X 18" EXHAUST DUCT UP TO AND THOUGH ROOF TO REF-2. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION. CONTRACTOR TO COVER EXHAUST AIR TERMINATION WITH WIRE 1/4" WIRE MESH SCREEN.
7. ROUTE 66" x 46" SUPPLY DUCT DOWN THROUGH ROOF FROM RTU-1C. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
8. CONTRACTOR TO TERMINATE RETURN AIR DUCT ABOVE ARCHITECTURAL CEILING. CONTRACTOR TO COVER RETURN AIR TERMINATION WITH WIRE 1/4" WIRE MESH SCREEN.
9. CONTRACTOR TO CONFIRM EXACT MOUNTING LOCATION AND HEIGHT OF ARCHITECTURAL CEILING WITH ARCHITECT PRIOR TO CONSTRUCTION.
10. CEILING SPACE ABOVE ARCHITECTURAL CEILING IS EXTREMELY CONGESTED AND WILL REQUIRE SIGNIFICANT ON-SITE FIELD COORDINATION WITH THE EXISTING STRUCTURE.
11. ROUTE 24" X 12" EXHAUST DUCT UP TO AND THROUGH SECOND FLOOR. REFER TO SECOND FLOOR DUCTWORK PLAN FOR CONTINUATION.
12. ROUTE 14" X 8" EXHAUST DUCT ABOVE 12"ø OUTDOOR AIR DUCT.
13. ROUTE 14" X 8" EXHAUST DUCT BELOW 6"ø OUTDOOR AIR DUCT.
14. MOUNT DMS-1 8'-6" ABOVE FINISHED FLOORS.
15. CONTRACTOR TO COORDINATE FABRIC AIR DUCT ROUTING THROUGH EXISTING STRUCTURAL JOIST WEBBING WITH STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
16. CONTRACTOR TO CENTER GRILLE FLUSH WITH BOTTOM OF ARCHITECTURAL CEILING. CONTRACTOR TO PROVIDE OFFSETS AS NEEDED TO MOUNT GRILLES IN THE CENTER OF THE ARCHITECTURAL CEILING.
17. TAP 6"ø DUCT FROM 22" X 20" DUCT DOWN TO 16" X 8" DUCT. PROVIDE AN MOD IN THE VERTICAL.
18. ROUTE 90" X 24" RETURN DUCT UP TO AND THROUGH ROOF TO RTU-1C. CONTRACTOR TO TERMINATE RETURN DUCT INTO SPACE AND COVER TERMINATION WITH 1/4" WIRE MESH. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.



KEY PLAN
NOT TO SCALE

FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA
CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN - AREA 'A' - DUCTWORK

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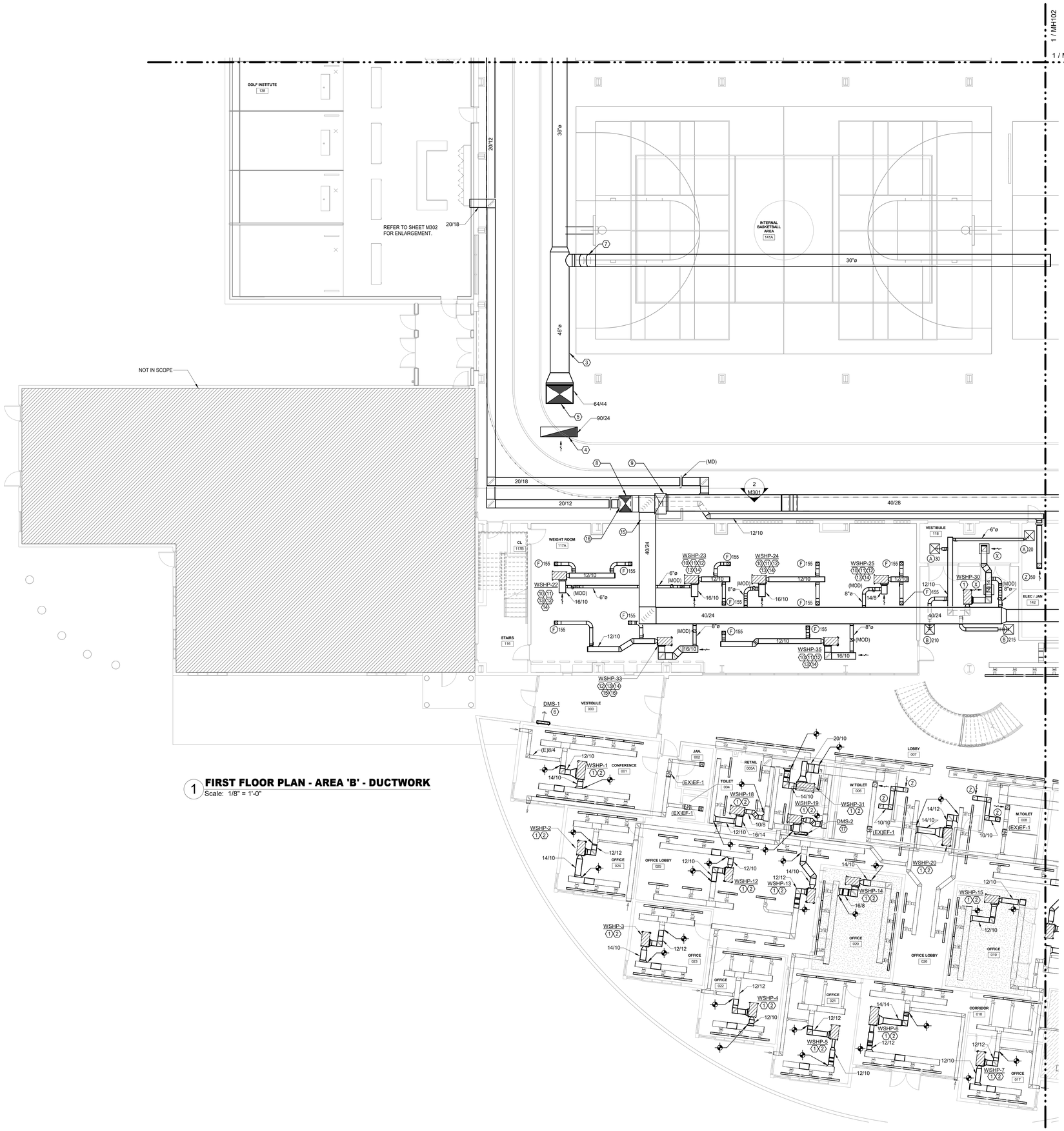
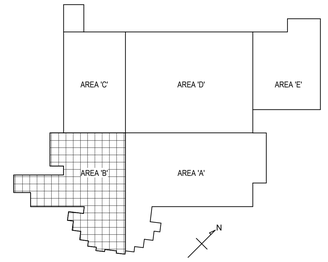


1 FIRST FLOOR PLAN - AREA 'B' - DUCTWORK

Scale: 1/8" = 1'-0"

MECHANICAL KEYED NOTES:

1. APPROXIMATE LOCATION OF NEW WATER SOURCE HEAT PUMP. CONTRACTOR TO FIELD VERIFY CONNECTION TO EXISTING DUCTWORK PRIOR TO CONSTRUCTION AND DUCT WORK FABRICATION. CONTRACTOR TO TRANSITION NEW DUCTWORK AS REQUIRED TO CONNECT TO EXISTING.
2. THE TESTING AND BALANCING CONTRACTOR SHALL ENSURE THAT ALL SUPPLY AND RETURN AIR DEVICES ARE BALANCED EVENLY ACCORDING TO THE SCHEDULED SUPPLY AIR FLOW AS SPECIFIED IN THE EQUIPMENT SCHEDULE.
3. ALL ROUND DUCTWORK TO BE FABRIC AIR MICROFLOW NON-PERMEABLE FABRIC. PROVIDE FABRIC AIR WITH ALL IN ONE SUSPENSION SYSTEM AND ORIFICES TYPE DISPERSION. CONTRACTOR TO CONFIRM FINAL COLOR SELECTION WITH ARCHITECT OF RECORD.
4. ROUTE 90" X 24" RETURN DUCT UP TO AND THROUGH ROOF TO RTU-1A. CONTRACTOR TO TERMINATE RETURN DUCT INTO SPACE AND COVER TERMINATION WITH 1/4" WIRE MESH SCREEN. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
5. ROUTE 66" x 46" SUPPLY DUCT DOWN THROUGH ROOF FROM RTU-1A. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
6. MOUNT DMS-1 8'-6" ABOVE FINISHED FLOOR.
7. CONTRACTOR TO COORDINATE FABRIC AIR DUCT ROUTING THROUGH EXISTING STRUCTURAL JOIST WEBBING WITH STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
8. ROUTE 32" X 40" OUTDOOR AIR DUCT DOWN THROUGH ROOF FROM ERV-1. CONTRACTOR TO TRANSITION DUCTWORK ROUTING AS REQUIRED TO MAKE CONNECTION.
9. ROUTE 50" X 28" EXHAUST AIR DUCT UP TO AND THROUGH ROOF TO ERV-1. CONTRACTOR TO TRANSITION DUCTWORK ROUTING AS REQUIRED TO MAKE CONNECTION.
10. CONTRACTOR TO TERMINATE RETURN AIR DUCT ABOVE ARCHITECTURAL CEILING. CONTRACTOR TO COVER RETURN AIR TERMINATION WITH 1/4" WIRE MESH SCREEN.
11. CONTRACTOR TO CENTER GRILLE FLUSH WITH BOTTOM OF ARCHITECTURAL CEILING. CONTRACTOR TO PROVIDE OFFSETS AS NEEDED TO MOUNT GRILLES IN THE CENTER OF THE ARCHITECTURAL CEILING.
12. CONTRACTOR TO CONFIRM EXACT MOUNTING LOCATION AND HEIGHT OF ARCHITECTURAL CEILING WITH ARCHITECT PRIOR TO CONSTRUCTION.
13. CEILING SPACE ABOVE ARCHITECTURAL CEILING IS EXTREMELY CONGESTED AND WILL REQUIRE SIGNIFICANT ON-SITE FIELD COORDINATION WITH THE EXISTING STRUCTURE.
14. APPROXIMATE LOCATION OF NEW WATER SOURCE HEAT PUMP. CONTRACTOR TO FIELD VERIFY CONNECTION TO EXISTING DUCTWORK PRIOR TO CONSTRUCTION AND DUCT WORK FABRICATION. CONTRACTOR TO TRANSITION NEW DUCTWORK AS REQUIRED TO CONNECT TO EXISTING.
15. ROUTE BOTTOM OF 34" X 14" OUTDOOR AIR DUCTWORK THOUGH WALL AT 10'-9" ABOVE FINISHED FLOOR.
16. CONTRACTOR TO TAP 20" X 12" OUTDOOR AIR DUCTWORK FROM 32" X 40" OUTDOOR AIR DUCTWORK.
17. MOUNT DMS-2 7'-0" ABOVE FINISHED FLOOR.



KEY PLAN

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PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN - AREA 'B' - DUCTWORK

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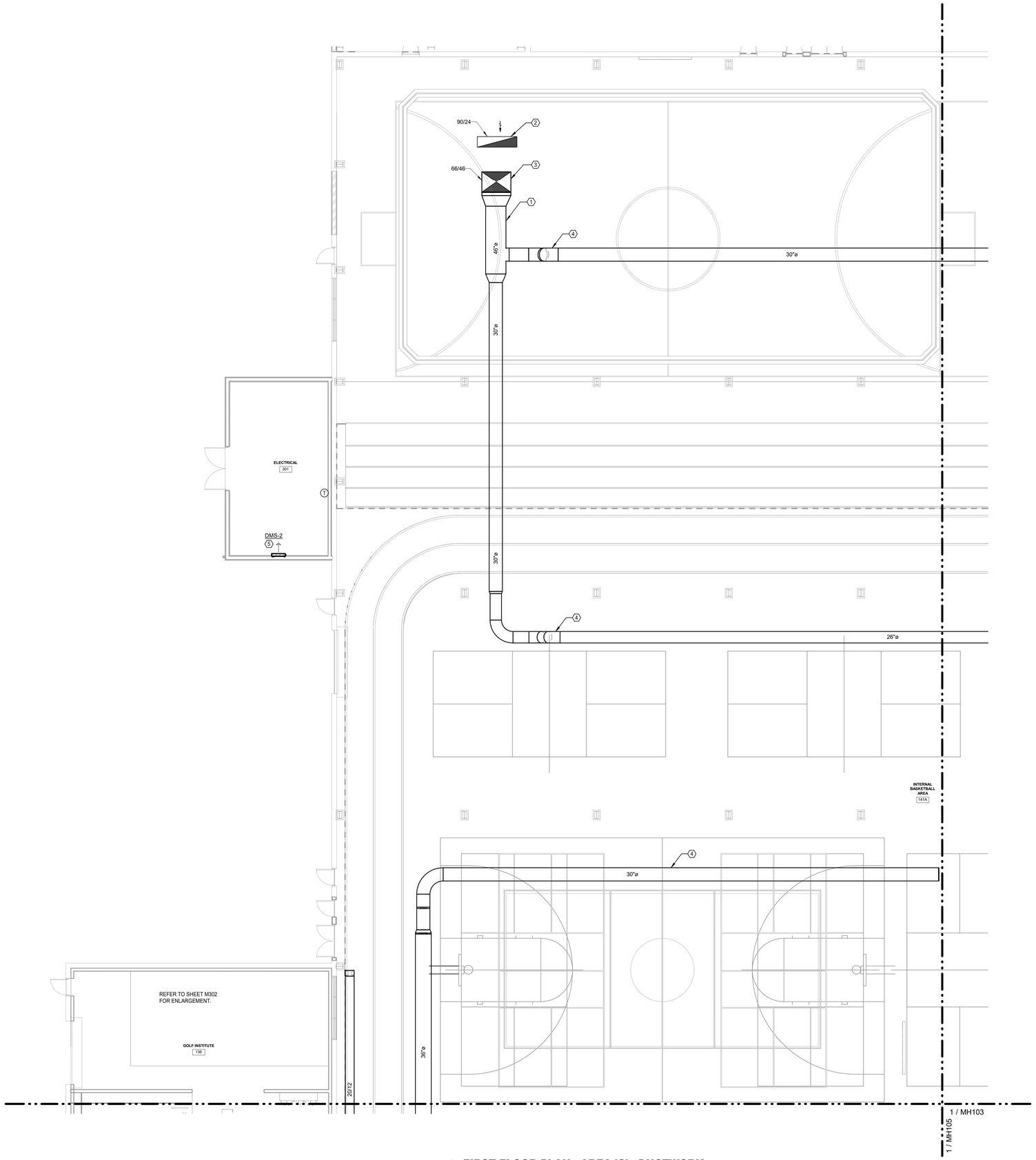
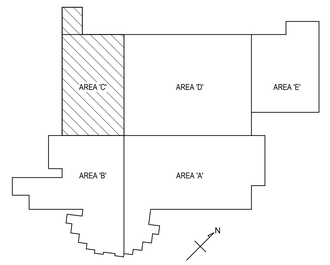


1 **FIRST FLOOR PLAN - AREA 'C' - DUCTWORK**
Scale: 1/8" = 1'-0"

MECHANICAL KEYED NOTES:

1. ALL ROUND DUCTWORK TO BE FABRIC AIR MICROFLOW NON-PERMEABLE FABRIC, PROVIDE FABRIC AIR WITH ALL IN ONE SUSPENSION SYSTEM AND ORIFICES TYPE DISPERSION. CONTRACTOR TO CONFIRM FINAL COLOR SELECTION WITH ARCHITECT OF RECORD.
2. ROUTE 90" X 24" RETURN DUCT UP TO AND THROUGH ROOF TO RTU-1F. CONTRACTOR TO TERMINATE RETURN DUCT INTO SPACE AND COVER TERMINATION WITH 1/4" WIRE MESH SCREEN. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
3. ROUTE 66" x 46" SUPPLY DUCT DOWN THROUGH ROOF FROM RTU-1F. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
4. CONTRACTOR TO COORDINATE FABRIC AIR DUCT ROUTING THROUGH EXISTING STRUCTURAL JOIST WEBBING WITH STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
5. MOUNT DMS-2 8'-0" ABOVE FINISHED FLOOR.



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FIRST FLOOR PLAN - AREA 'C' - DUCTWORK

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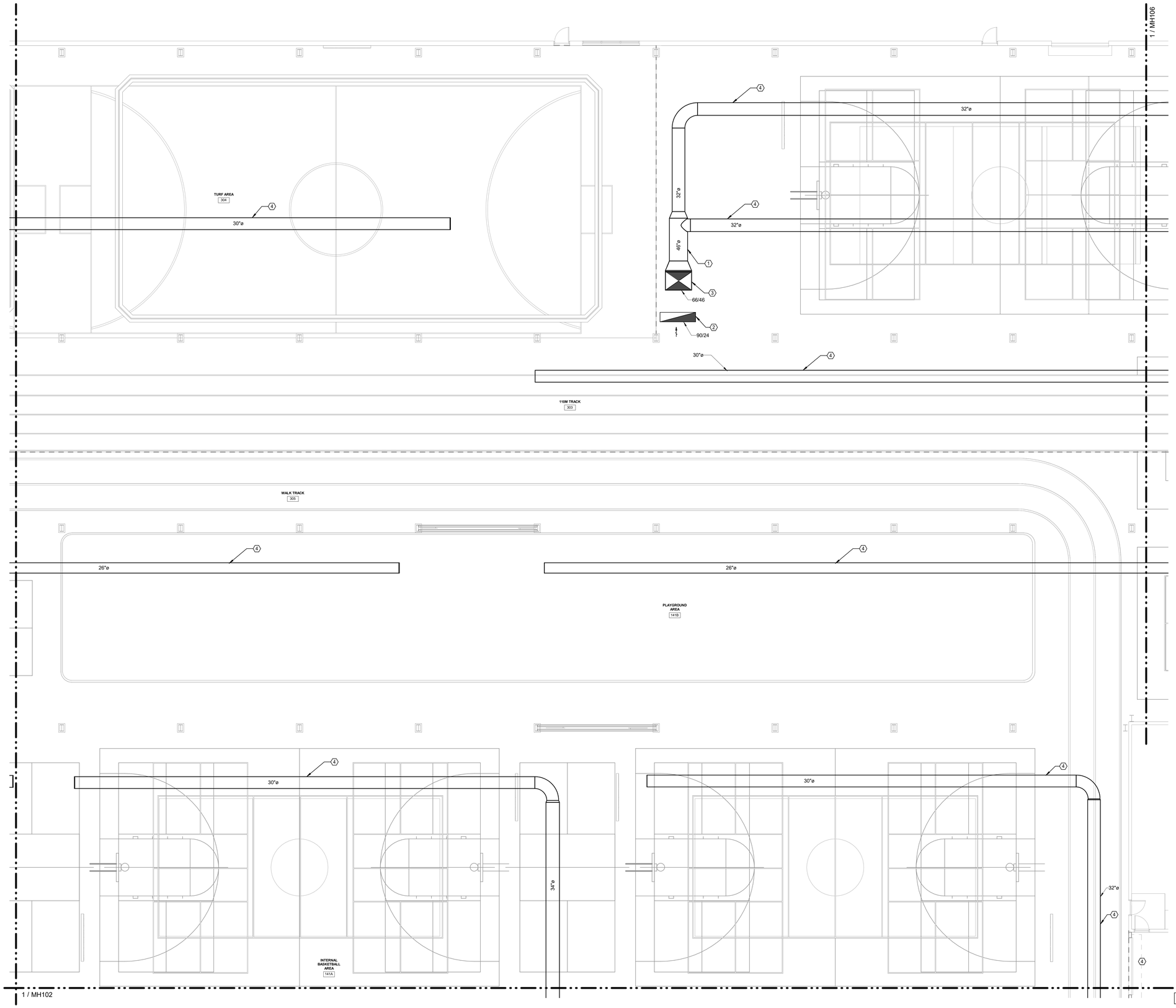
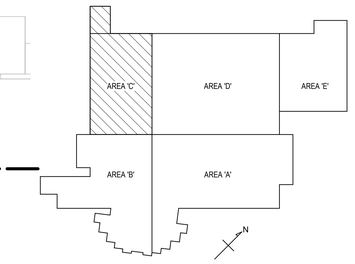


1 **FIRST FLOOR PLAN - AREA 'D' - DUCTWORK**
Scale: 1/8" = 1'-0"

MECHANICAL KEYED NOTES:

1. ALL ROUND DUCTWORK TO BE FABRIC AIR MICROFLOW NON-PERMEABLE FABRIC. PROVIDE FABRIC AIR WITH ALL IN ONE SUSPENSION SYSTEM AND ORIFICES TYPE DISPERSION. CONTRACTOR TO CONFIRM FINAL COLOR SELECTION WITH ARCHITECT OF RECORD.
2. ROUTE 90" X 24" RETURN DUCT UP TO AND THROUGH ROOF TO RTU-1E. CONTRACTOR TO TERMINATE RETURN DUCT INTO SPACE AND COVER TERMINATION WITH 1/4" WIRE MESH SCREEN. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
3. ROUTE 66" x 46" SUPPLY DUCT DOWN THROUGH ROOF FROM RTU-1E. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
4. CONTRACTOR TO COORDINATE FABRIC AIR DUCT ROUTING THROUGH EXISTING STRUCTURAL JOIST WEBBING WITH STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.



KEY PLAN
NOT TO SCALE

Salas O'Brien
salasobrien.com 540-952-9651
Project No: 2450-70822-00

Roanoke
119 Norfolk Avenue, Suite 310
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www.zmm.com

COMMONWEALTH OF VIRGINIA
04/10/2025
SAMUEL S. LOTT
Lic. No. 061900
PROFESSIONAL ENGINEER

NO.	DESCRIPTION	DATE

FACILITY RENOVATION

PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN - AREA 'D' - DUCTWORK

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	DATE: APR 10, 2025
	COMM. NO.: 24060

MH105

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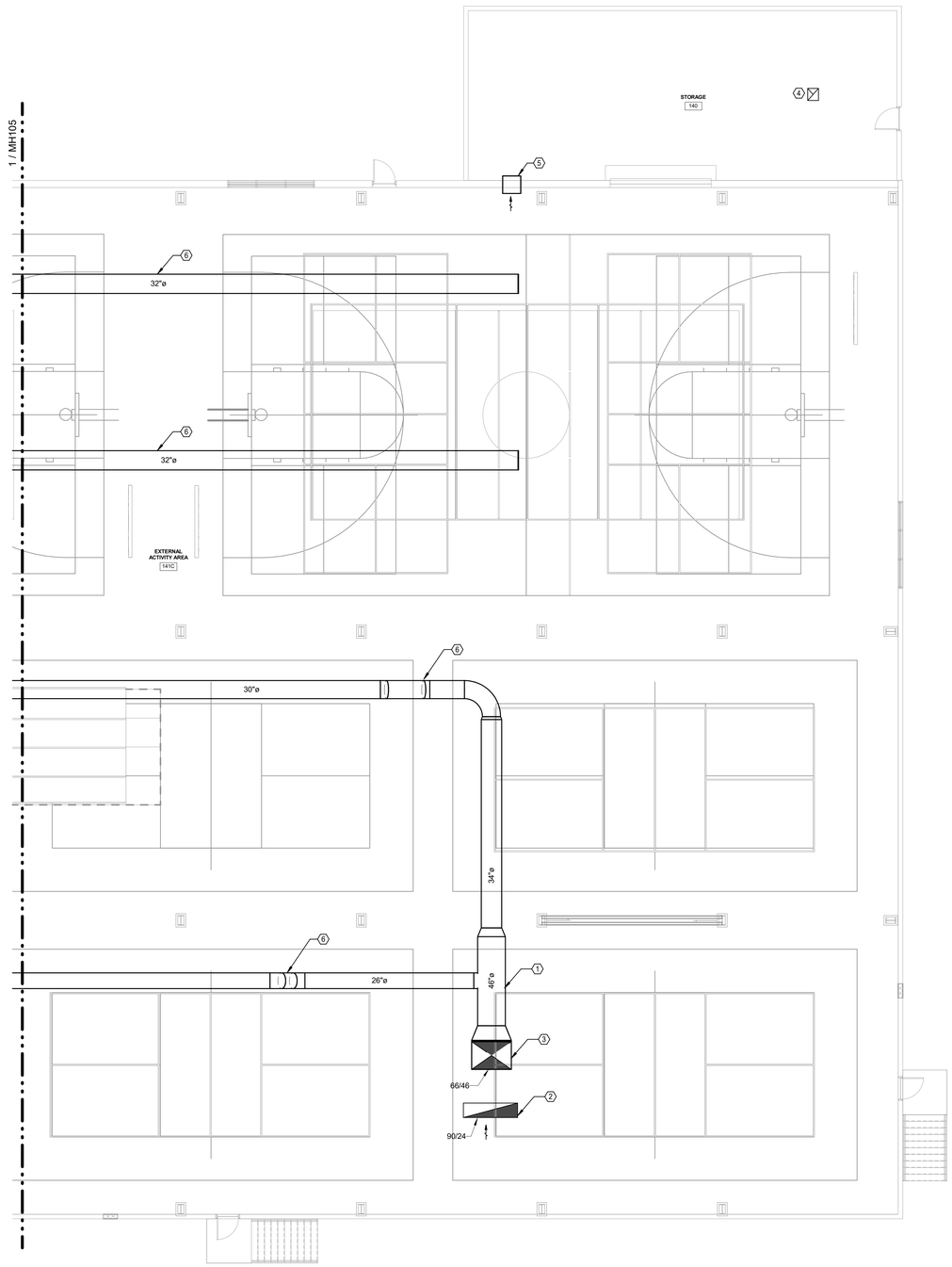
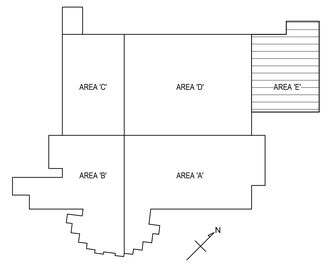


1 **FIRST FLOOR PLAN - AREA 'E' - DUCTWORK**
Scale: 1/8" = 1'-0"

MECHANICAL KEYED NOTES:

1. ALL ROUND DUCTWORK TO BE FABRIC AIR MICROFLOW NON-PERMEABLE FABRIC. PROVIDE FABRIC AIR WITH ALL IN ONE SUSPENSION SYSTEM AND ORIFICES TYPE DISPERSION. CONTRACTOR TO CONFIRM FINAL COLOR SELECTION WITH ARCHITECT OF RECORD.
2. ROUTE 90" X 24" RETURN DUCT UP TO AND THROUGH ROOF TO RTU-10. CONTRACTOR TO TERMINATE RETURN DUCT INTO SPACE AND COVER TERMINATION WITH 1/4" WIRE MESH SCREEN. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
3. ROUTE 66" x 46" SUPPLY DUCT DOWN THROUGH ROOF FROM RTU-10. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
4. ROUTE 20" X 18" EXHAUST DUCT UP TO AND THOUGH ROOF TO REF-3. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
5. L-2. BASIS OF DESIGN GREENHECK ESD-635-30X36. CONTRACTOR TO MOUNT BOTTOM OF LOUVER 9'-0" ABOVE FINISHED FLOOR.
6. CONTRACTOR TO COORDINATE FABRIC AIR DUCT ROUTING THROUGH EXISTING STRUCTURAL JOIST WEBBING WITH STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.



KEY PLAN
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COMMONWEALTH OF VIRGINIA
04/10/2025
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PROFESSIONAL ENGINEER

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FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA
CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN - AREA 'E' - DUCTWORK

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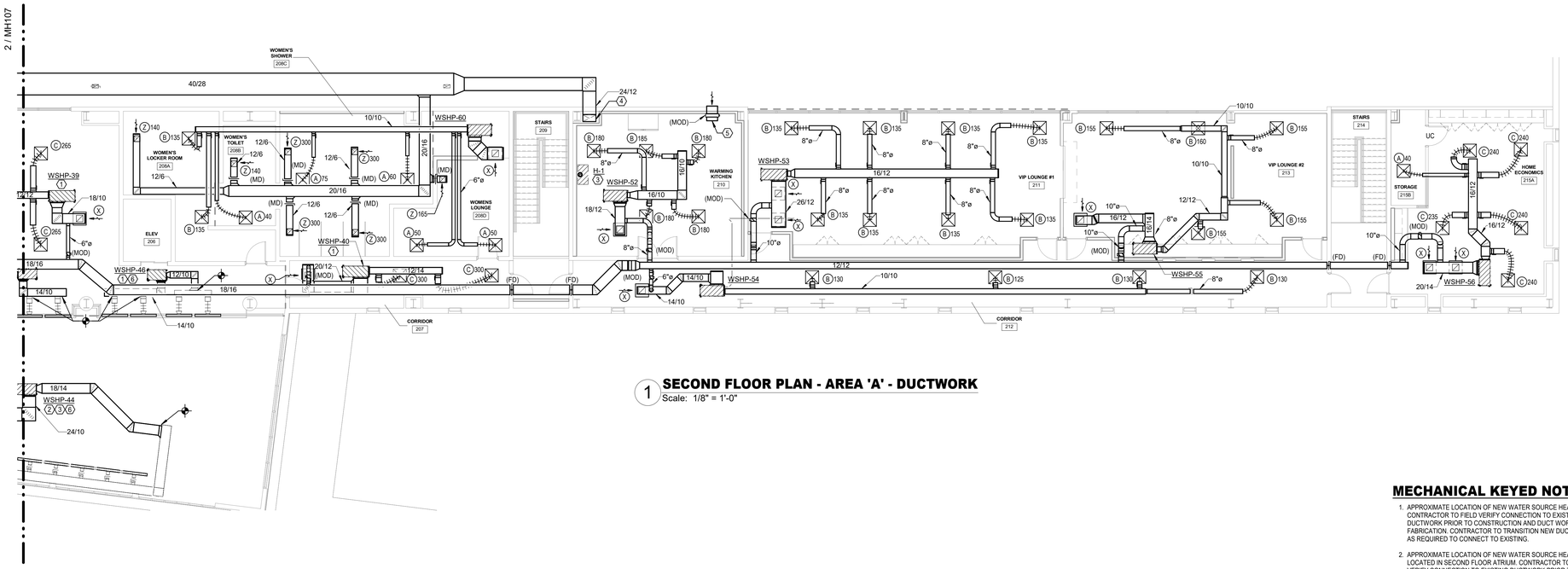
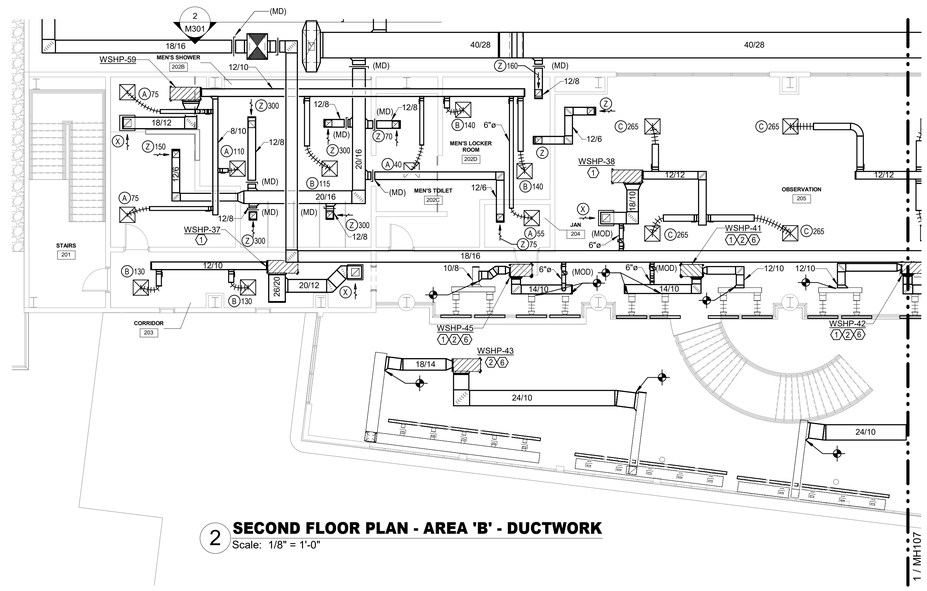


1 SECOND FLOOR PLAN - AREA 'A' - DUCTWORK

Scale: 1/8" = 1'-0"

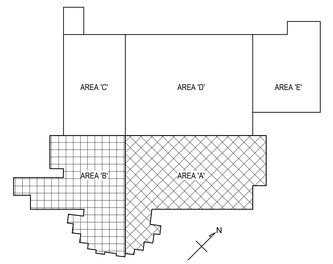


2 SECOND FLOOR PLAN - AREA 'B' - DUCTWORK

Scale: 1/8" = 1'-0"

MECHANICAL KEYED NOTES:

1. APPROXIMATE LOCATION OF NEW WATER SOURCE HEAT PUMP. CONTRACTOR TO FIELD VERIFY CONNECTION TO EXISTING DUCTWORK PRIOR TO CONSTRUCTION AND DUCT WORK FABRICATION. CONTRACTOR TO TRANSITION NEW DUCTWORK AS REQUIRED TO CONNECT TO EXISTING.
2. APPROXIMATE LOCATION OF NEW WATER SOURCE HEAT PUMP LOCATED IN SECOND FLOOR ATRIUM. CONTRACTOR TO FIELD VERIFY CONNECTION TO EXISTING DUCTWORK PRIOR TO CONSTRUCTION AND DUCT WORK FABRICATION. CONTRACTOR TO TRANSITION NEW DUCTWORK AS REQUIRED TO CONNECT TO EXISTING.
3. CONTRACTOR TO REFER TO MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION OF HOOD.
4. ROUTE 24" X 12" EXHAUST DUCT UP FROM BELOW. REFER TO FIRST FLOOR DUCTWORK PLAN FOR CONTINUATION.
5. L-3: BASIS OF DESIGN GREENHECK EAD-635-20X18. CONTRACTOR TO MOUNT BOTTOM OF LOUVER 8'-0" ABOVE FINISHED FLOOR. INTERLOCK MOD ON THE BACK OF LOUVER WITH H-1.
6. THE TESTING AND BALANCING CONTRACTOR SHALL ENSURE THAT ALL SUPPLY AND RETURN AIR DEVICES ARE BALANCED EVENLY ACCORDING TO THE SCHEDULED SUPPLY AIRFLOW AS SPECIFIED IN THE EQUIPMENT SCHEDULE.



KEY PLAN

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PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

DUBLIN, VA

CONSTRUCTION DOCUMENTS

SECOND FLOOR PLAN - AREA 'A' & 'B' - DUCTWORK

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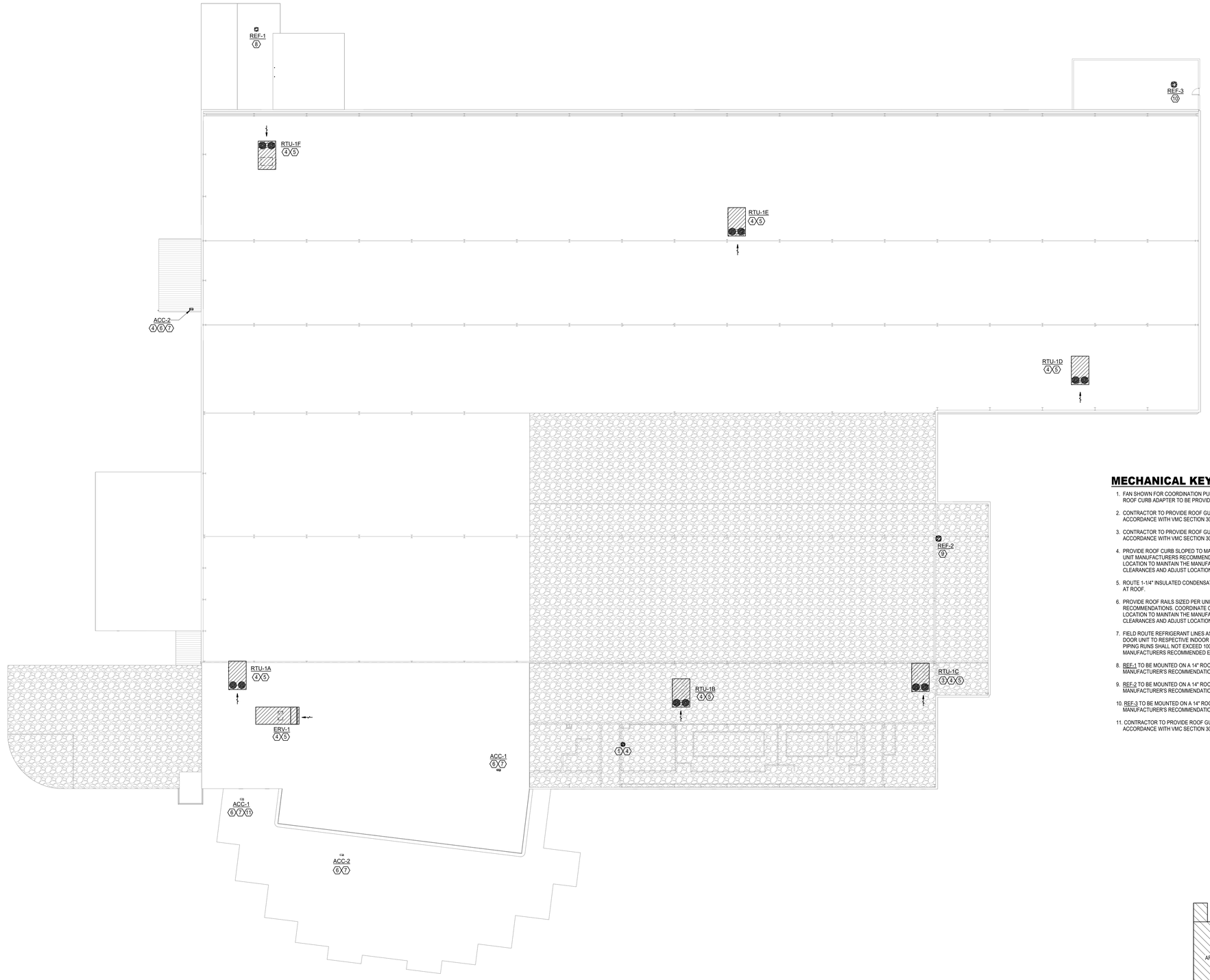
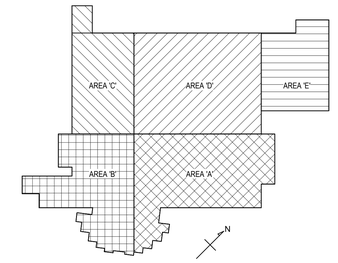


1 **ROOF PLAN - OVERALL - DUCTWORK**
Scale: 1" = 20'-0"

MECHANICAL KEYED NOTES:

1. FAN SHOWN FOR COORDINATION PURPOSES ONLY. FAN AND ROOF CURB ADAPTER TO BE PROVIDED BY DENLAR.
2. CONTRACTOR TO PROVIDE ROOF GUARD FOR ACC-2 IN ACCORDANCE WITH VMC SECTION 304.11.
3. CONTRACTOR TO PROVIDE ROOF GUARD FOR RTU-1C IN ACCORDANCE WITH VMC SECTION 304.11.
4. PROVIDE ROOF CURBS SLOPED TO MATCH ROOF AND SIZED PER UNIT MANUFACTURERS RECOMMENDATIONS. COORDINATE UNIT LOCATION TO MAINTAIN THE MANUFACTURERS REQUIRED CLEARANCES AND ADJUST LOCATION AS NECESSARY TO SUIT.
5. ROUTE 1-1/4" INSULATED CONDENSATE DRAIN AND DISCHARGE AT ROOF.
6. PROVIDE ROOF RAILS SIZED PER UNIT MANUFACTURERS RECOMMENDATIONS. COORDINATE CONDENSING UNIT LOCATION TO MAINTAIN THE MANUFACTURERS REQUIRED CLEARANCES AND ADJUST LOCATION AS NECESSARY TO SUIT. .
7. FIELD ROUTE REFRIGERANT LINES AS REQUIRED FROM OUT DOOR UNIT TO RESPECTIVE INDOOR UNITS. REFRIGERANT PIPING RUNS SHALL NOT EXCEED 100'-0" OR THE MANUFACTURERS RECOMMENDED EQUIVALENT LENGTH.
8. REF-1 TO BE MOUNTED ON A 14" ROOF CURB SIZED PER MANUFACTURER'S RECOMMENDATIONS.
9. REF-2 TO BE MOUNTED ON A 14" ROOF CURB SIZED PER MANUFACTURER'S RECOMMENDATIONS.
10. REF-3 TO BE MOUNTED ON A 14" ROOF CURB SIZED PER MANUFACTURER'S RECOMMENDATIONS.
11. CONTRACTOR TO PROVIDE ROOF GUARD FOR ACC-1 IN ACCORDANCE WITH VMC SECTION 304.11.



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PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA

CONSTRUCTION DOCUMENTS

ROOF PLAN - OVERALL - DUCTWORK

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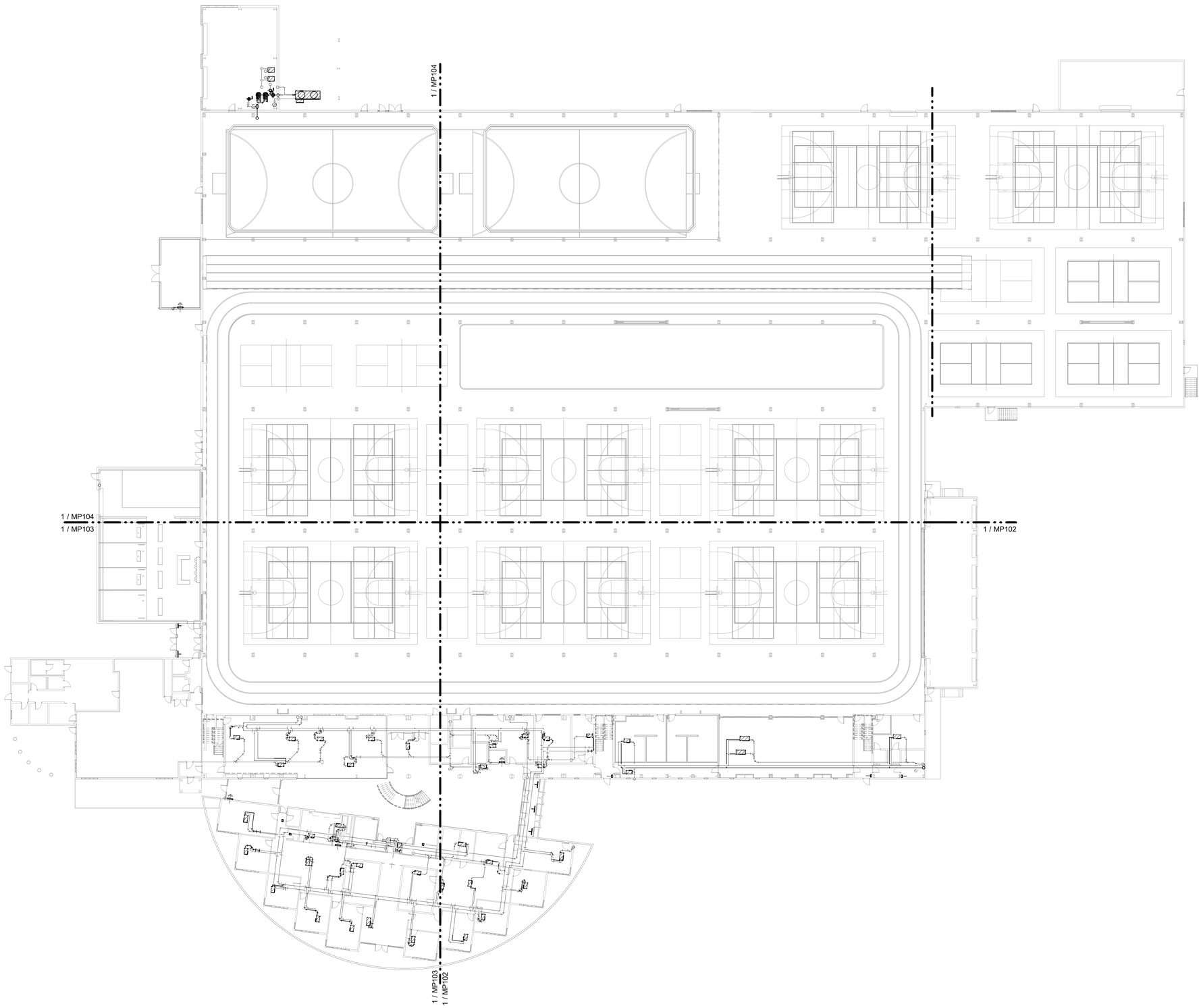
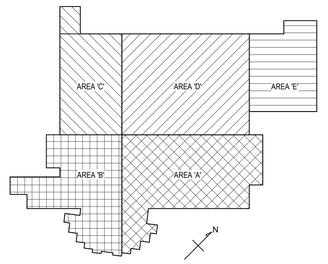


1 **FIRST FLOOR PLAN - OVERALL - PIPING**
Scale: 1" = 20'-0"



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PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN - OVERALL - PIPING

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MP101

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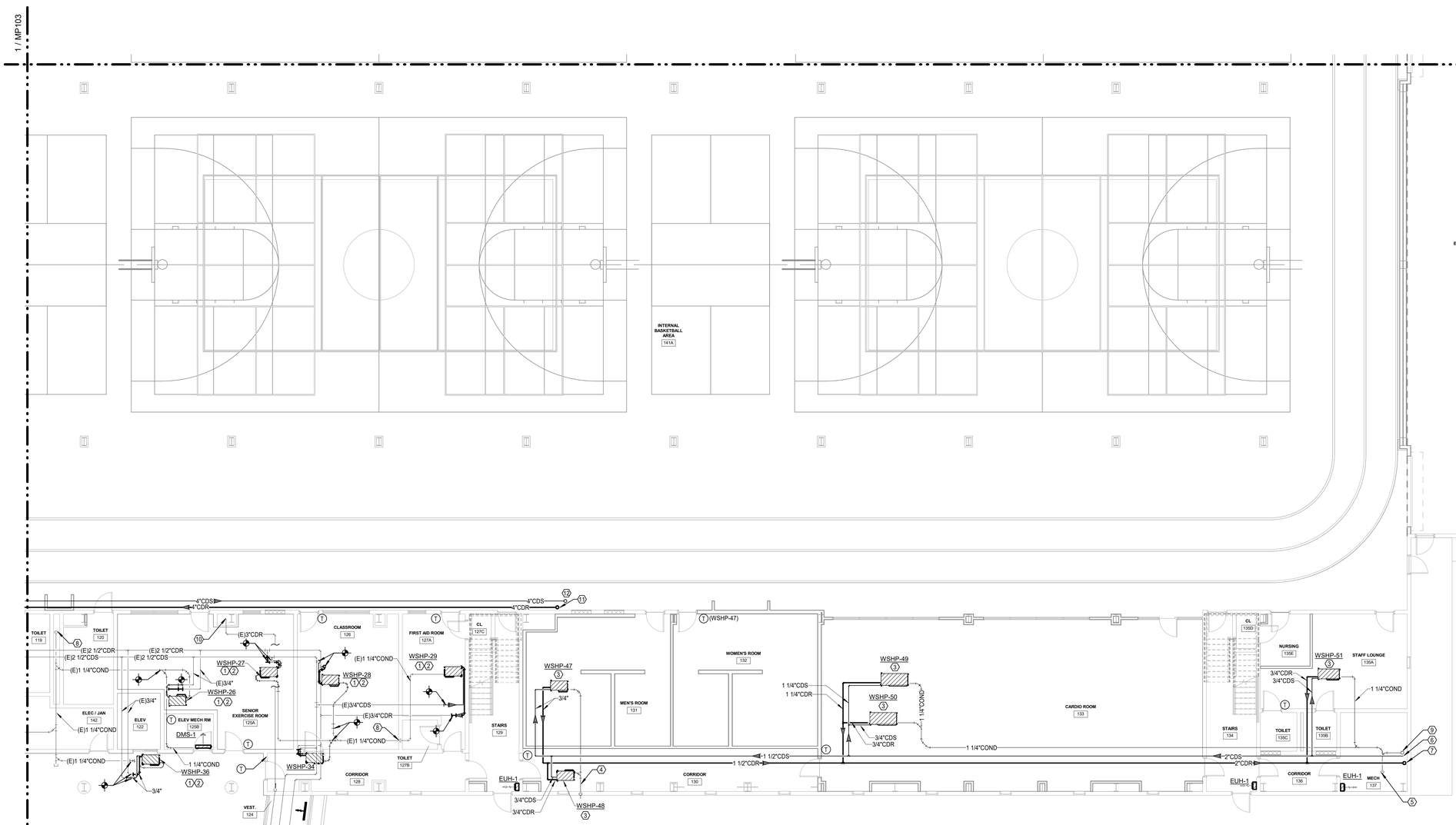
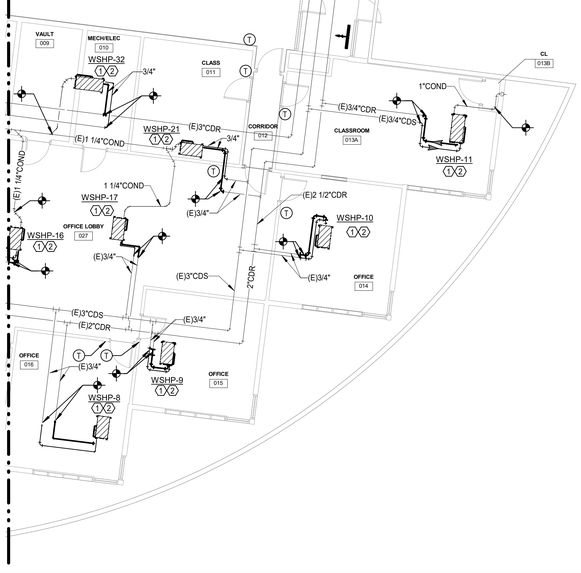
FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA
CONSTRUCTION DOCUMENTS

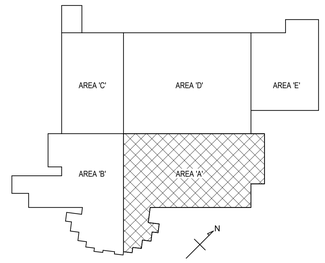


1 FIRST FLOOR PLAN - AREA 'A' - PIPING
Scale: 1/8" = 1'-0"



MECHANICAL KEYED NOTES:

1. APPROXIMATE LOCATION OF NEW WATER SOURCE HEAT PUMP. CONTRACTOR TO FIELD VERY EXACT LOCATION OF EXISTING WATER SOURCE HEAT PUMP PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO FIELD VERIFY CONNECTION FROM EXISTING MECHANICAL PIPING TO HEAT PUMP PRIOR TO CONSTRUCTION. CONTRACTOR TO TRANSITION PIPE AS REQUIRED TO MAKE CONNECTION TO NEW HEAT PUMP.
3. CONTRACTOR TO TRANSITION PIPE FROM MAIN AS REQUIRED TO MAKE CONNECTION TO NEW HEAT PUMP.
4. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN FROM HEAT PUMP TO EXTERIOR WALL. CONTRACTOR TO PENETRATE WALL AND DAYLIGHT AT 18" ABOVE FINISHED GRADE. CONDENSATE TO DISCHARGE OVER SPLASHBLOCK. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
5. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN FROM HEAT PUMP TO FLOOR DRAIN LOCATED IN MECHANICAL CLOSET. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES. CONTRACTOR TO REFER TO PLUMBING PLANS FOR EXACT FLOOR DRAIN LOCATION.
6. ROUTE 2" CONDENSER RETURN WATER RETURN UP TO ABOVE. REFER TO SECOND FLOOR PIPING PLAN FOR CONTINUATION.
7. ROUTE 2" CONDENSER SUPPLY WATER DOWN FROM ABOVE. REFER TO SECOND FLOOR PIPING PLAN FOR CONTINUATION.
8. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN TO EXISTING VENT STACK HUB DRAIN. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
9. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" ROUTED DOWN FROM ABOVE. REFER TO SECOND FLOOR PIPING PLAN FOR CONTINUATION. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
10. EXISTING 3" CONDENSER RETURN WATER ROUTED DOWN FROM ABOVE. REFER TO SECOND FLOOR PIPING PLAN FOR CONTINUATION.
11. ROUTE 4" CONDENSER RETURN WATER DOWN FROM ABOVE. REFER TO SECOND FLOOR PIPING PLAN FOR CONTINUATION.
12. ROUTE 4" CONDENSER SUPPLY WATER UP TO ABOVE. REFER TO SECOND FLOOR PIPING PLAN FOR CONTINUATION.



KEY PLAN
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FIRST FLOOR PLAN - AREA 'A' - PIPING

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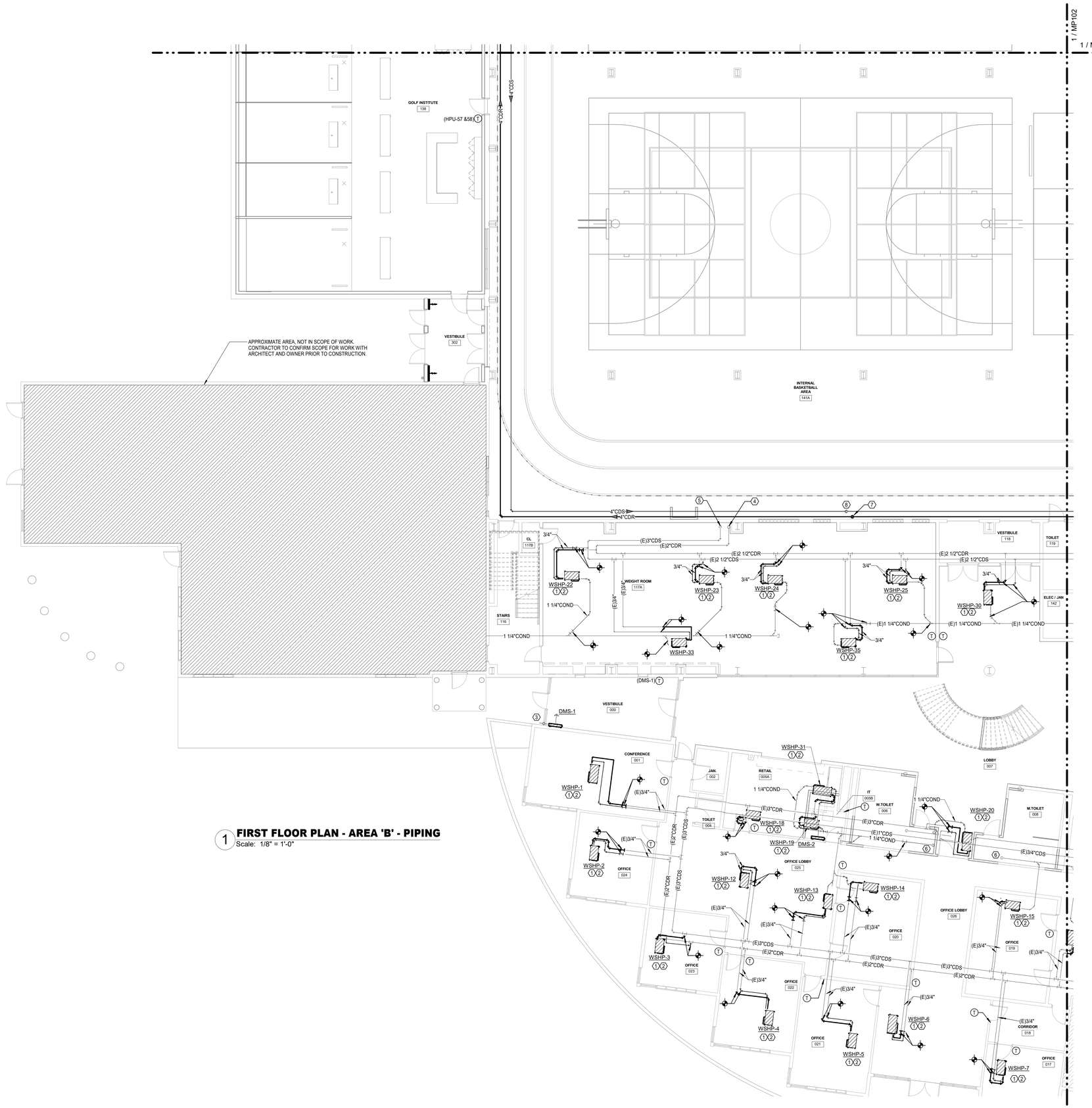
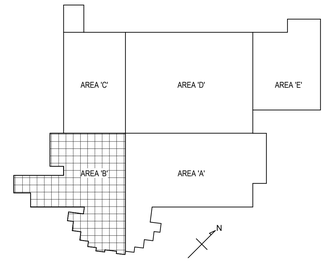
MP102



1 **FIRST FLOOR PLAN - AREA 'B' - PIPING**
Scale: 1/8" = 1'-0"

MECHANICAL KEYED NOTES:

1. APPROXIMATE LOCATION OF NEW WATER SOURCE HEAT PUMP. CONTRACTOR TO FIELD VERY EXACT LOCATION OF EXISTING WATER SOURCE HEAT PUMP PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO FIELD VERIFY CONNECTION FROM EXISTING MECHANICAL PIPING TO HEAT PUMP PRIOR TO CONSTRUCTION. CONTRACTOR TO TRANSITION PIPE AS REQUIRED TO MAKE CONNECTION TO NEW HEAT PUMP.
3. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN FROM HEAT PUMP TO EXTERIOR WALL. CONTRACTOR TO PENETRATE WALL AND DAYLIGHT AT 18" ABOVE FINISHED GRADE. CONDENSATE TO DISCHARGE OVER SPLASHBLOCK. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
4. EXISTING 2" CONDENSER RETURN WATER ROUTED UP TO ABOVE. REFER TO SECOND FLOOR PIPING PLAN FOR CONTINUATION.
5. EXISTING 3" CONDENSER SUPPLY WATER ROUTED DOWN FROM ABOVE. REFER TO SECOND FLOOR PIPING PLAN FOR CONTINUATION.
6. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN TO EXISTING VENT STACK HUB DRAIN. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
7. ROUTE 4" CONDENSER RETURN WATER UP AND OVER OBSERVATION DECK WINDOWS. CONTRACTOR TO REFER TO ARCHITECTURAL PLANS FOR EXACT WINDOW HEIGHTS.
8. ROUTE 4" CONDENSER SUPPLY WATER UP AND OVER OBSERVATION DECK WINDOWS. CONTRACTOR TO REFER TO ARCHITECTURAL PLANS FOR EXACT WINDOW HEIGHTS.



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FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA
CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN - AREA 'B' - PIPING

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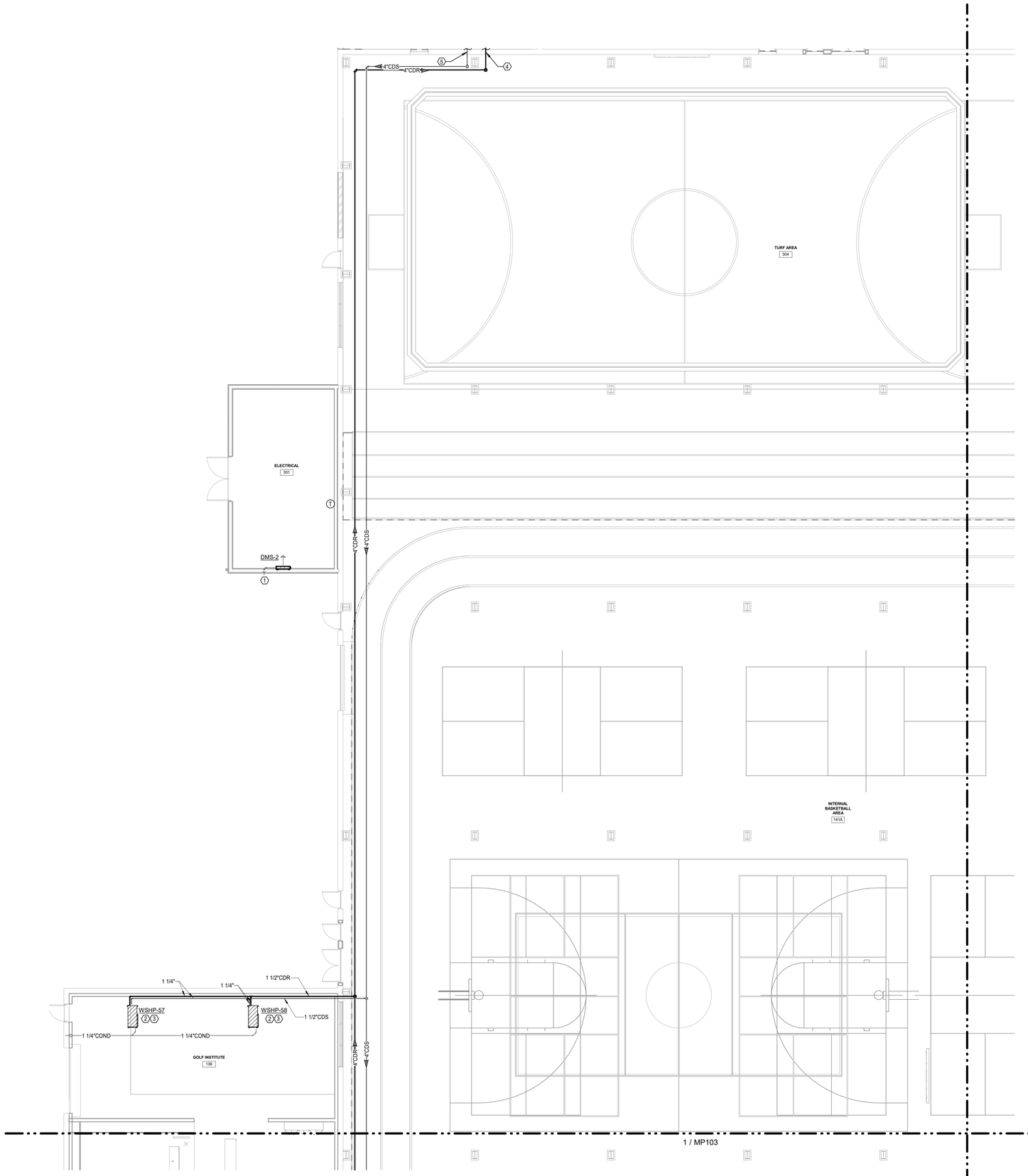
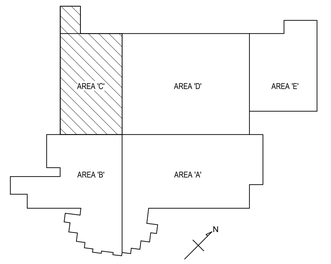
MP103



1 **FIRST FLOOR PLAN - AREA 'C' - PIPING**
Scale: 1/8" = 1'-0"

MECHANICAL KEYED NOTES:

1. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN FROM DUCTLESS MINI SPLIT TO EXTERIOR WALL. CONTRACTOR TO PENETRATE WALL AND DAYLIGHT AT 18" ABOVE FINISHED GRADE. CONDENSATE TO DISCHARGE OVER SPLASHBLOCK. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
2. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN FROM HEAT PUMP TO EXTERIOR WALL. CONTRACTOR TO PENETRATE WALL AND DAYLIGHT AT 18" ABOVE FINISHED GRADE. CONDENSATE TO DISCHARGE OVER SPLASHBLOCK. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
3. CONTRACTOR TO TRANSITION CONDENSER WATER SUPPLY AND RETURN WATER PIPE FROM MAIN AS REQUIRED TO MAKE CONNECTION TO NEW HEAT PUMP.
4. ROUTE CENTER OF 4" CONDENSER RETURN WATER PIPE THOUGH WALL AT 10'-0" ABOVE FINISHED FLOOR. REFER TO SHEET M301 FOR CONTINUATION.
5. ROUTE CENTER OF 4" CONDENSER SUPPLY PIPE THOUGH WALL AT 14'-0" ABOVE FINISHED FLOOR. REFER TO SHEET M301 FOR CONTINUATION.



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PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN - AREA 'C' - PIPING

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Charleston, West Virginia 25302
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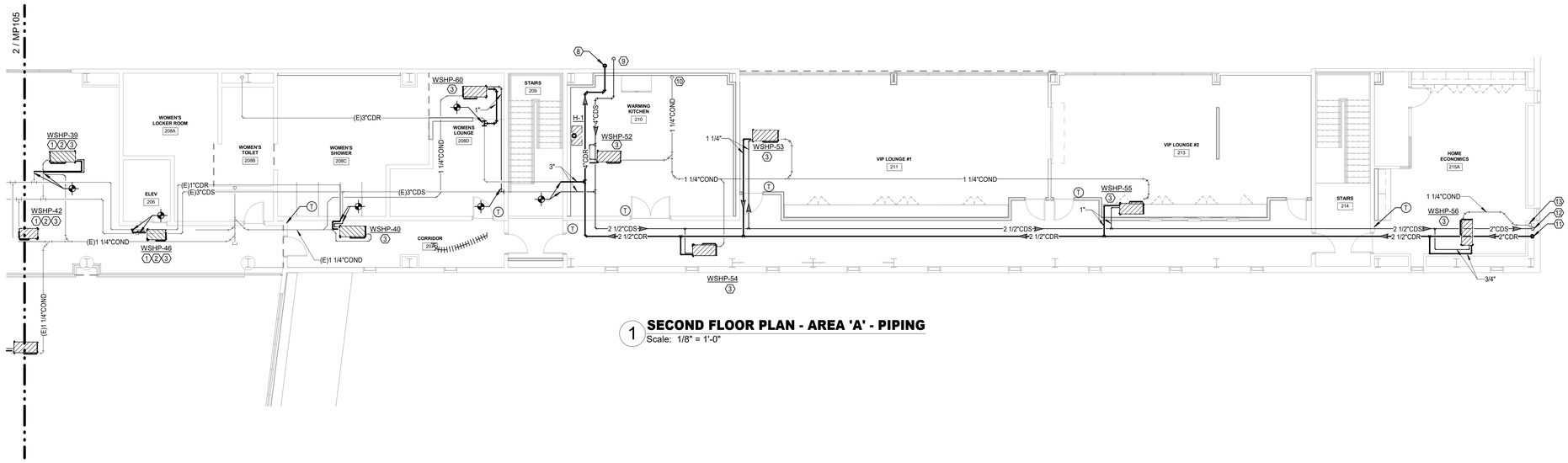
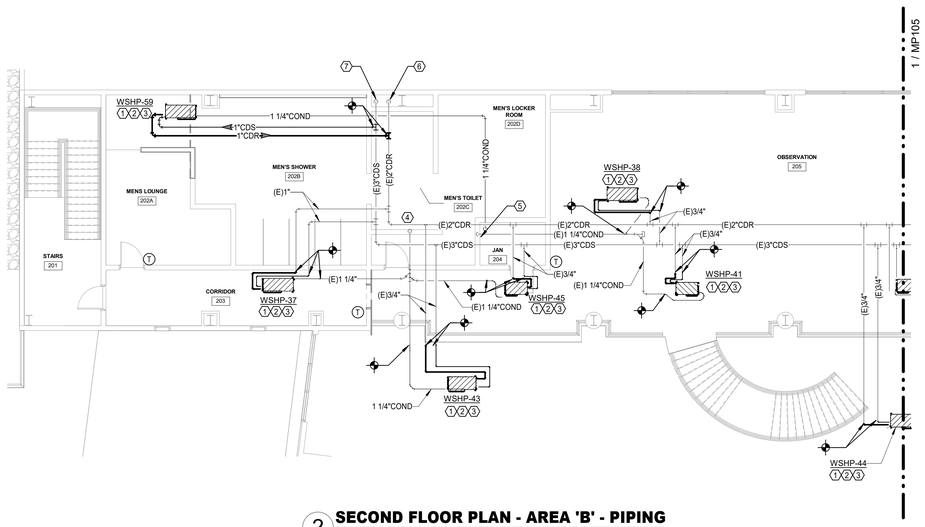
COMMONWEALTH OF VIRGINIA
04/10/2025
SAMUEL S. LOTT
Lic. No. 061900
PROFESSIONAL ENGINEER

NO.	DESCRIPTION	DATE



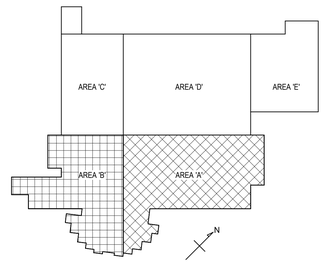
1 **SECOND FLOOR PLAN - AREA 'A' - PIPING**
Scale: 1/8" = 1'-0"



2 **SECOND FLOOR PLAN - AREA 'B' - PIPING**
Scale: 1/8" = 1'-0"

MECHANICAL KEYED NOTES:

1. APPROXIMATE LOCATION OF NEW WATER SOURCE HEAT PUMP. CONTRACTOR TO FIELD VERY EXACT LOCATION OF EXISTING WATER SOURCE HEAT PUMP PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO FIELD VERIFY CONNECTION FROM EXISTING MECHANICAL PIPING TO HEAT PUMP PRIOR TO CONSTRUCTION. CONTRACTOR TO TRANISITION PIPE AS REQUIRED TO MAKE CONNECTION TO NEW HEAT PUMP.
3. CONTRACTOR TO TRANSITION PIPE FROM MAIN AS REQUIRED TO MAKE CONNECTION TO NEW HEAT PUMP.
4. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN TO EXISTING VENT STACK HUB DRAIN. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
5. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN TO EXISTING MOP SINK IN JANITORS CLOSET. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
6. EXISTING 2" CONDENSER RETURN WATER ROUTED UP FROM FLOOR BELOW. REFER TO FIRST FLOOR PIPING PLAN FOR CONTINUATION.
7. EXISTING 3" CONDENSER SUPPLY WATER ROUTED DOWN TO FLOOR BELOW. REFER TO FIRST FLOOR PIPING PLAN FOR CONTINUATION.
8. ROUTE 4" CONDENSER WATER RETURN ROUTED DOWN TO FLOOR BELOW. REFER TO FIRST FLOOR PIPING PLAN FOR CONTINUATION.
9. ROUTE 4" CONDENSER SUPPLY WATER ROUTED UP FROM FLOOR BELOW. REFER TO FIRST FLOOR PIPING PLAN FOR CONTINUATION.
10. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN TO FLOOR DRAIN IN WARMING KITCHEN. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.
11. ROUTE 2" CONDENSER RETURN WATER UP FROM FLOOR BELOW. REFER TO FIRST FLOOR PIPING PLAN FOR CONTINUATION.
12. ROUTE " CONDENSER SUPPLY WATER DOWN TO FLOOR BELOW. REFER TO FIRST FLOOR PIPING PLAN FOR CONTINUATION.
13. ROUTE 1 1/4" CONDENSATE DRAIN LINE AT 1/8" PER 1'-0" DOWN TO FLOOR BELOW. PROVIDE CLEANOUTS IN DRAIN PIPING AT ALL CHANGES IN DIRECTION EXCEEDING 45 DEGREES.



KEY PLAN
NOT TO SCALE

FACILITY RENOVATION
PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA

CONSTRUCTION DOCUMENTS

SECOND FLOOR PLAN - AREA 'A' & 'B' - PIPING

DRAWN	CHECKED
JCS	SSL
DATE: APR 10, 2025	
COMM. NO.: 24060	

MP105

Salas O'Brien
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Project No: 2450-70822-00

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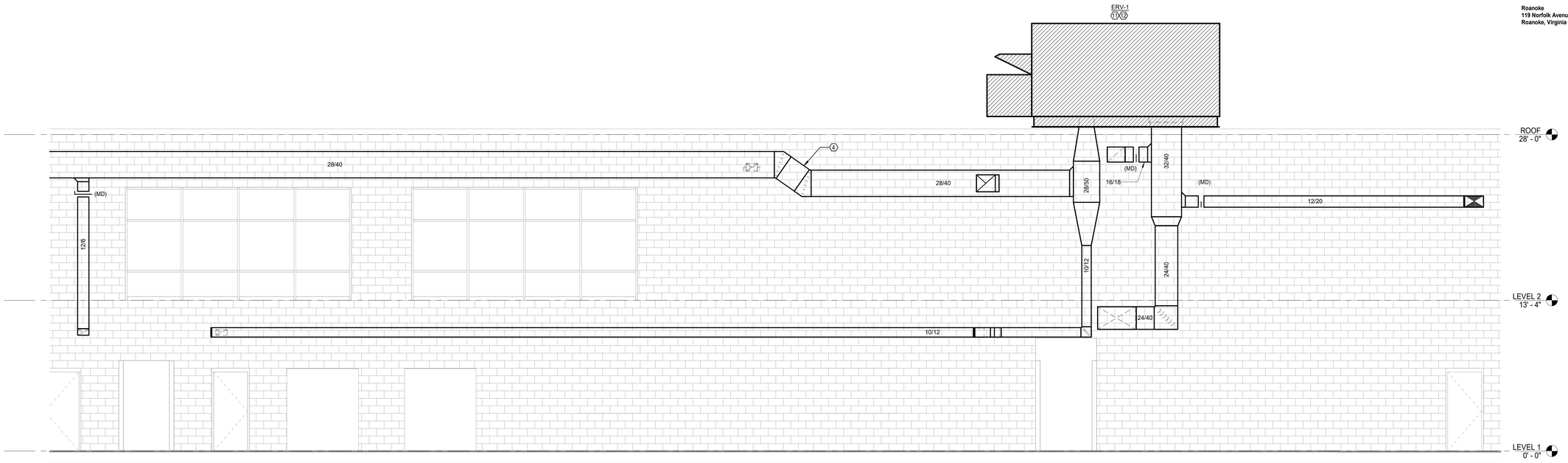
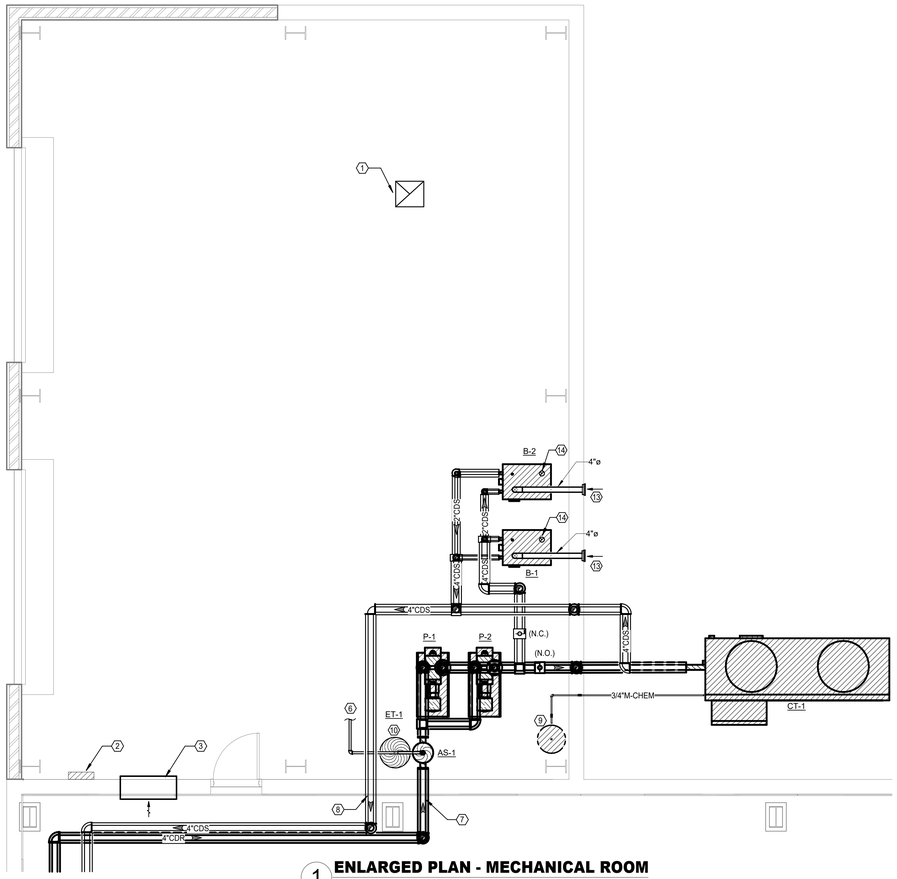


2 ELEVATION VIEW - ERV DUCTWORK CONNECTION
Scale: 1/4" = 1'-0"



1 ENLARGED PLAN - MECHANICAL ROOM
Scale: 1/4" = 1'-0"

MECHANICAL KEYED NOTES:

1. ROUTE 22" X 20" EXHAUST DUCT UP TO AND THOUGH ROOF TO REF-1. CONTRACTOR TO TERMINATE EXHAUST DUCT AT 19'-0" ABOVE FINISHED FLOOR AND COVER WITH 1/4" WIRE MESH SCREEN. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION.
2. APPROXIMATE LOCATION OF BUILDING MANAGEMENT SYSTEM PANEL. CONTRACTOR TO CONFIRM FINAL LOCATION WITH ELECTRICAL DRAWINGS PRIOR TO CONSTRUCTION.
3. L-1: BASIS OF DESIGN GREENHECK ESD-635-44X32. MOUNT BOTTOM OF LOUVER TO BE MOUNTED AT 8'-8" ABOVE FINISHED FLOOR.
4. ROUTE 28" X 40" EXHAUST DUCT UP AND OVER OBSERVATION DECK WINDOWS.
5. PROVIDE 4" THICK REINFORCED CONCRETE HOUSEKEEPING PAD. SIZE PAD PER UNIT MANUFACTURERS RECOMMENDATIONS. COORDINATE CONDENSING UNIT LOCATION TO MAINTAIN THE MANUFACTURER'S REQUIRED CLEARANCES AND ADJUST LOCATION AS NECESSARY TO SUIT. EXPOSED PIPING SHALL BE WEATHERPROOFED AND COVERED WITH PVC JACKETING. PIPING INSTALLED THROUGH WALL SHALL BE INSTALLED THOUGH A PIPE SLEEVE AND SEALED AIR AND WATER TIGHT.
6. EXTEND 1-1/2" DOMESTIC COLD WATER MAIN. REFER TO PLUMBING DRAWINGS FOR CONTINUATION.
7. ROUTE CENTER OF 4" CONDENSER RETURN WATER PIPE THOUGH WALL AT 10'-0" ABOVE FINISHED FLOOR.
8. ROUTE CENTER OF 4" CONDENSER SUPPLY PIPE THOUGH WALL AT 14'-0" ABOVE FINISHED FLOOR.
9. ROUTE 3/4" CHEMICAL PIPE UP FROM MCP-1 MECHANICAL CHEMICAL STORAGE AND PUP TO COOLING TOWER CT-1 BASIN. ROUTE DRAIN PIPE TO NEAREST FLOOR DRAIN. CONTRACTOR TO REFER TO EXISTING PLUMBING DRAWINGS FOR CONTINUATION.
10. MOUNT ET-1 TANK ON THE FLOOR ON A 4" THICK CONCRETE HOUSEKEEPING PAD SIZED PER UNIT MANUFACTURER'S RECOMMENDATIONS. ROUTE DRAIN PIPE TO NEAREST FLOOR DRAIN. CONTRACTOR TO REFER TO EXISTING PLUMBING DRAWINGS FOR CONTINUATION.
11. ROUTE 32" x 40" OUTDOOR AIR DUCTWORK DOWN FROM ERV-1 THROUGH ROOF. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION TO ERV-1.
12. ROUTE 28" x 50" EXHAUST DUCTWORK UP TO AND THROUGH ROOF TO ERV-1. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION TO ERV-1.
13. ROUTE 4" OUTDOOR AIR DUCTWORK FROM MANUFACTURER APPROVED OUTDOOR AIR INTAKE. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION WITH RESPECTIVE BOILER.
14. ROUTE 4" EXHAUST DUCTWORK UP TO AND THROUGH ROOF TO MANUFACTURER APPROVED VENT TERMINAL. CONTRACTOR TO TRANSITION AS REQUIRED TO MAKE CONNECTION WITH RESPECTIVE BOILER.

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PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
PULASKI COUNTY PARKS AND RECREATION
DUBLIN, VA

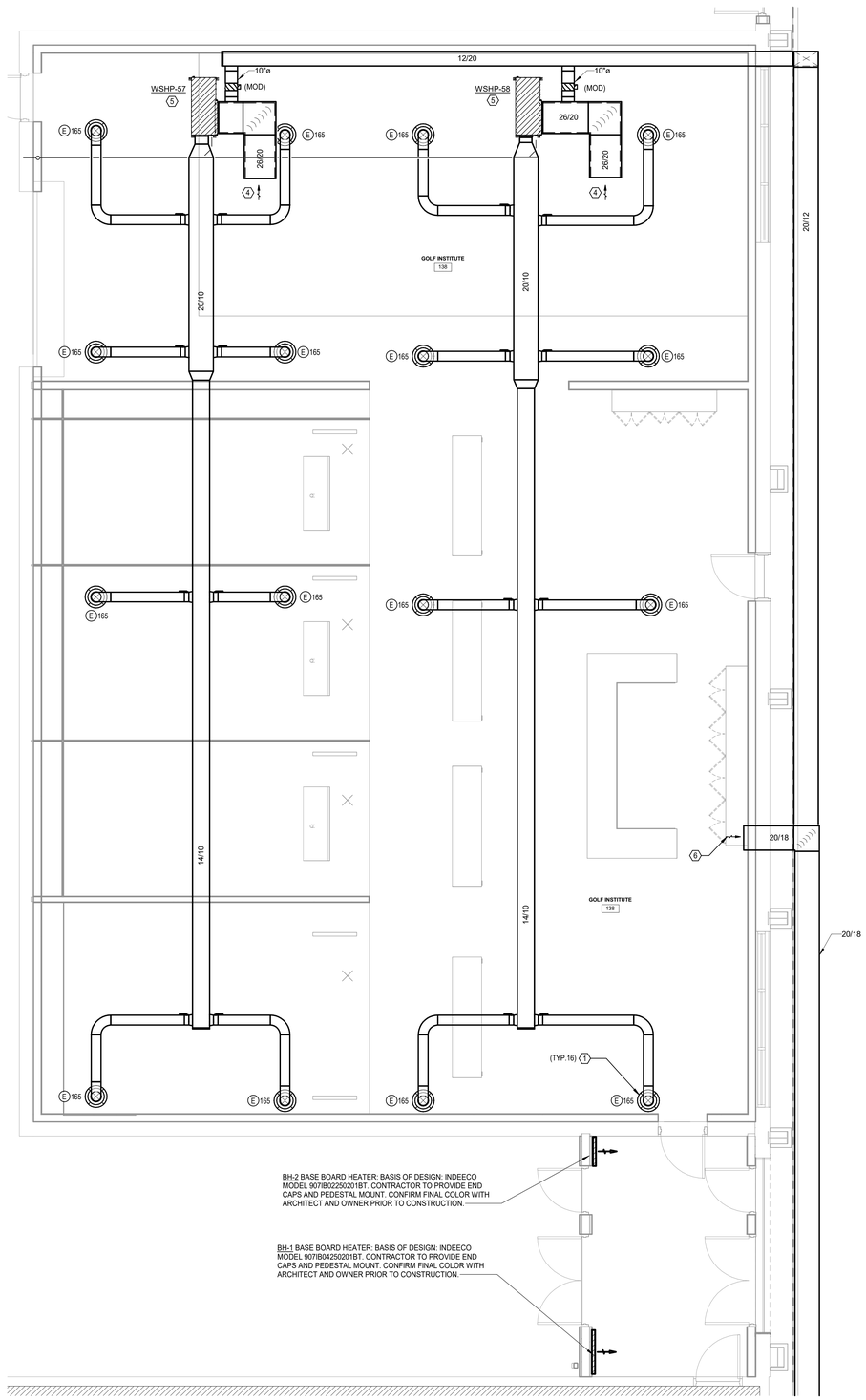
CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN ENLARGEMENTS - DUCTWORK

DRAWN	CHECKED
JCS	SSL
DATE	APR 10, 2025
COMM. NO.	24060

M301

4/8/2025 2:30:34 PM Autodesk Docs://2450-70822-00 Pulaski County Recreation Center Renovation Ph 1 - Dublin, VA/2450-70822-00 Pulaski County Recreation Center Renovation Ph 1_MEP R24.rvt



1 FIRST FLOOR PLAN - GOLF SIMULATOR ENLARGEMENT

Scale: 1/4" = 1'-0"

MECHANICAL KEYED NOTES:

1. CONTRACTOR TO COORDINATE FINAL GRILLE HEIGHT AND LOCATION WITH ACOUSTICAL CEILING IN THIS SPACE. CONTRACTOR TO PROVIDE OFFSETS AS NEEDED TO MOUNT GRILLES IN THE CENTER OF ACOUSTICAL CEILING.
2. CONTRACTOR TO CENTER GRILLE FLUSH WITH BOTTOM OF ARCHITECTURAL CEILING. CONTRACTOR TO PROVIDE OFFSETS AS NEEDED TO MOUNT GRILLES IN THE CENTER OF ACOUSTICAL CEILING.
3. CONTRACTOR TO TERMINATE EXHAUST AIR DUCT ABOVE ACOUSTICAL CEILING. CONTRACTOR TO COVER EXHAUST AIR TERMINATION WITH 1/4" WIRE MESH SCREEN.
4. CONTRACTOR TO TERMINATE RETURN AIR DUCT ABOVE ACOUSTICAL CEILING. CONTRACTOR TO COVER EXHAUST AIR TERMINATION WITH 1/4" WIRE MESH SCREEN. PROVIDE RETURN AIR DUCT WITH 1" DUCT LINER INSIDE OF RETURN DUCT.
5. CEILING SPACE ABOVE ACOUSTICAL CEILING IS EXTREMELY CONGESTED AND WILL REQUIRE SIGNIFICANT ON-SITE FIELD COORDINATION WITH THE EXISTING STRUCTURE.
6. CONTRACTOR TO TERMINATE RETURN AIR DUCT ABOVE ACOUSTICAL CEILING. CONTRACTOR TO COVER EXHAUST AIR TERMINATION WITH 1/4" WIRE MESH SCREEN.

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PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

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DUBLIN, VA

CONSTRUCTION DOCUMENTS

FIRST FLOOR PLAN ENLARGEMENTS - DUCTWORK

DRAWN	CHECKED
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M302

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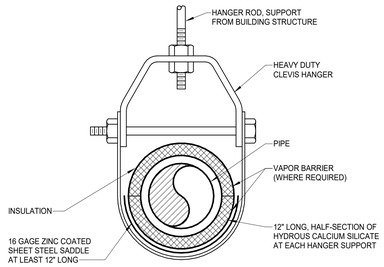
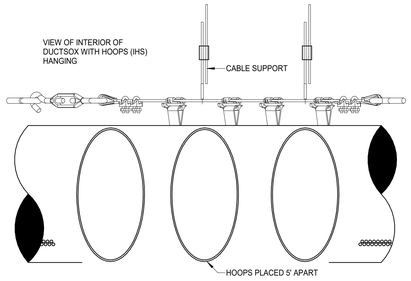


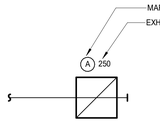
NOTE:
SADDLE AND HALF-SECTION OF HYDROUS CALCIUM SILICATE SHALL BE INSTALLED AT THE SAME TIME THAT THE PIPE AND PIPE HANGERS ARE INSTALLED.

SEE SPECIFICATIONS FOR LOCATIONS WHERE HYDROUS CALCIUM SILICATE SHALL BE REQUIRED.

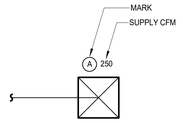
16 PIPE SUPPORT DETAIL
Scale: NONE



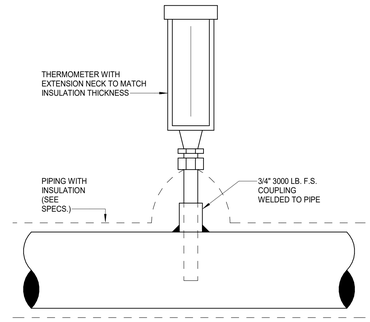
13 CUT AWAY VIEW OF HOOPS (IHS) DETAIL
Scale: NONE



9 REGISTER SIZING
Scale: NONE

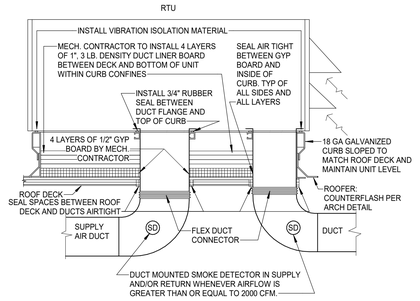


8 DIFFUSER SIZING
Scale: NONE



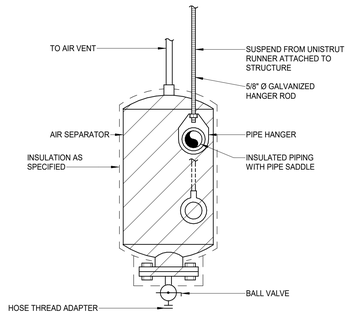
NOTES:
1. SEE TEMPERATURE TEST WELL DETAIL FOR MOUNTING ARRANGEMENTS AND CLEARANCES
2. MOUNT TO BE READABLE FROM FLOOR AT 5'-6" EYE LEVEL (7'-0" MAX.)

4 THERMOMETER INSTALLATION
Scale: NONE

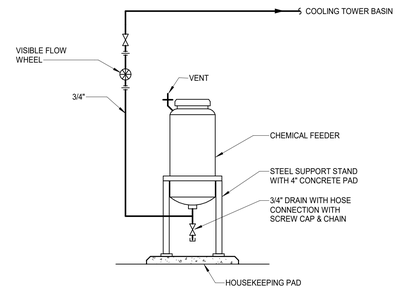


GENERAL NOTES:
1. ROUTE CONDENSATE DRAIN PIPE ON ROOF AT MIN. 1/8" SLOPE TO FLOOR SINK OR DRAIN. REFER TO PLUMBING PLAN FOR EXACT LOCATION.

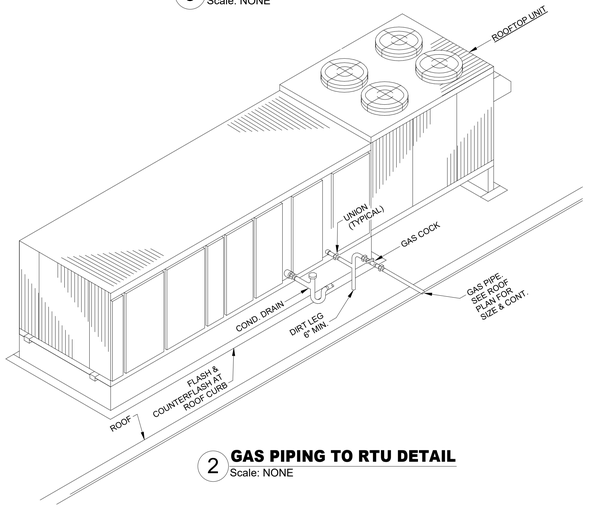
7 ROOFTOP UNIT ELEVATION
Scale: NONE



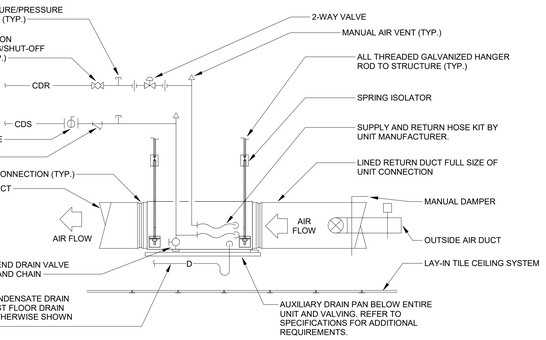
3 SUPPORT AT AIR SEPARATOR
Scale: NONE



6 CHEMICAL FEEDER PIPING DETAIL
Scale: NONE

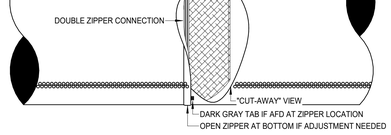


2 GAS PIPING TO RTU DETAIL
Scale: NONE

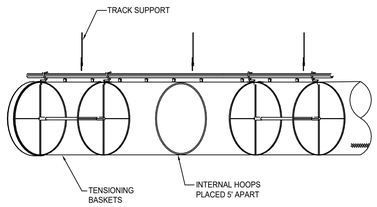


15 3-WAY WATER SOURCE HEAT PUMP DETAIL
Scale: NONE

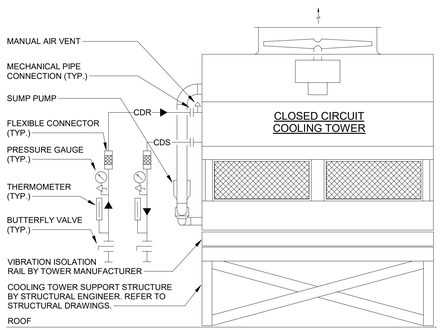
INSTALLED AT ZIPPER LOCATION AT INLET OR AS SPECIFIED IN OTHER LOCATIONS. ZIPPER TO ZIPPER CONNECTION AS SHOWN. EXTERNAL LABEL IDENTIFIES LOCATION.



12 ADJUSTABLE FLOW DEVICE (AFD) DETAIL
Scale: NONE

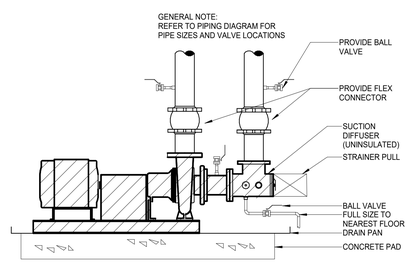


11 PULL-TIGHT WITH U-TRACK DETAIL
Scale: NONE



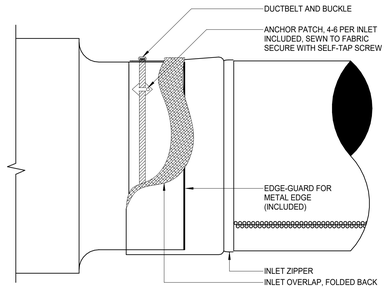
NOTES:
1. HVAC CONTRACTOR SHALL SUBMIT ANY DIMENTIONAL CHANGES TO ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.

5 CLOSED CIRCUIT COOLING TOWER PIPING
Scale: NONE



1 END SUCTION PUMP DETAIL
Scale: NONE

14 2-WAY WATER SOURCE HEAT PUMP DETAIL
Scale: NONE



10 FABRIC DUCT INLET DETAIL
Scale: NONE

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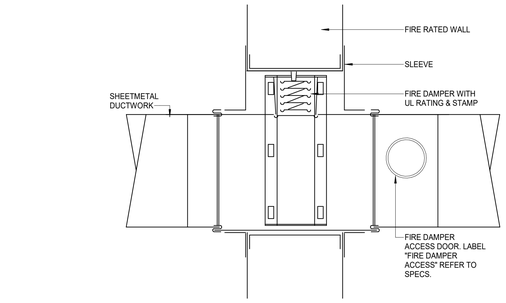
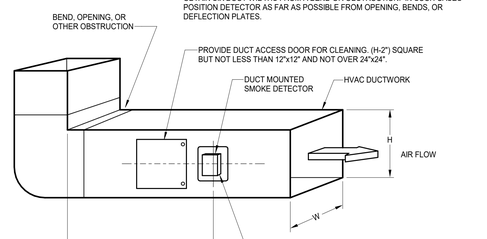


REFERENCE FIRE DAMPER MANUFACTURERS' INSTALLATION REQUIREMENTS AND LATEST SMACNA-FIRE, SMOKE, AND RADIATION DAMPER INSTALLATION GUIDE FOR HVAC SYSTEMS.

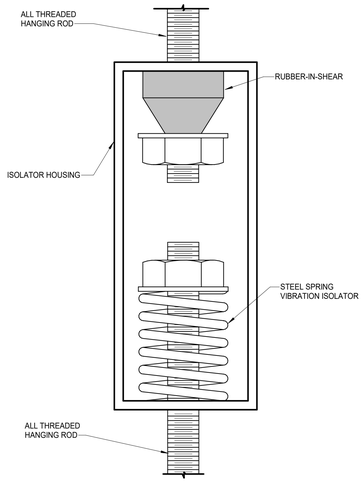
8 FIRE DAMPER
Scale: NONE

GENERAL NOTES:

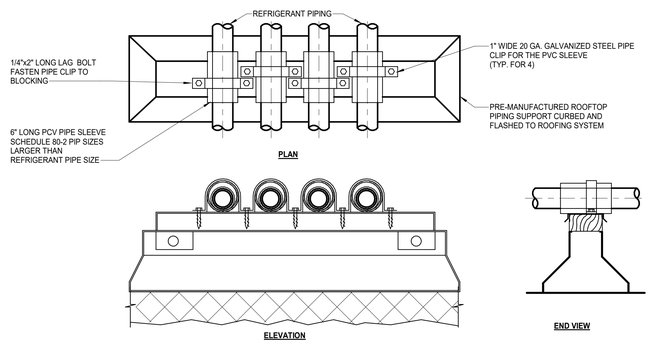
1. THIS DETAIL IS INTENDED TO PROVIDE GUIDANCE IN PROPER POSITIONING OF DUCT MOUNTED SMOKE DETECTORS. FOLLOW ANY MANUFACTURER'S INSTRUCTIONS SPECIFIC TO THE DEVICE BEING INSTALLED.
2. THIS DIMENSION MAY BE REDUCED IF IT IS PHYSICALLY IMPOSSIBLE TO OBTAIN SIX DUCT WIDTHS FROM A BEND OR OBSTRUCTION. IN SUCH CASES POSITION DETECTOR AS FAR AS POSSIBLE FROM OPENING, BENDS, OR DEFLECTION PLATES.



4 DUCT DETECTOR LOCATION DETAIL
Scale: NONE

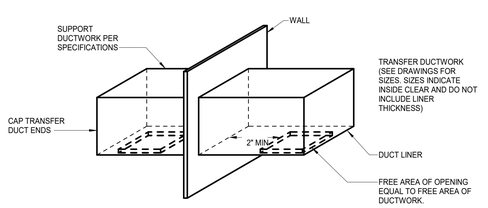


11 VIBRATION ISOLATOR DETAIL
Scale: NONE

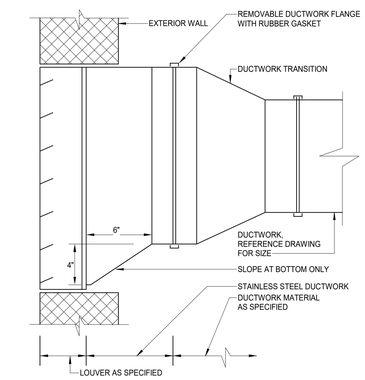


NOTES:
1. SUPPORT REQUIRED AT ALL CHANGES IN DIRECTION & AS SHOWN ON DRAWINGS.
2. INCREASE HEIGHT AS REQUIRED FOR ROUTING ABOVE ROOF MOUNTED ACCESSORIES SUCH AS EXPANSION JOINTS.

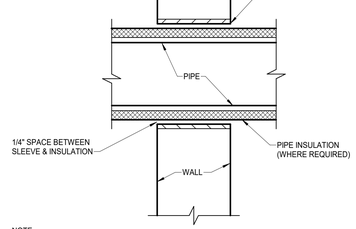
7 REFRIGERANT PIPING ROOF SUPPORT DETAIL
Scale: NONE



3 TRANSFER DUCT THRU NON-RATED WALL DETAIL
Scale: NONE

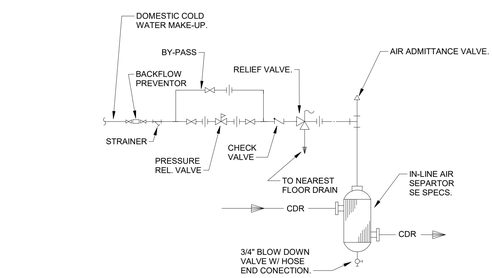


10 DUCTWORK AT LOUVER
Scale: NONE

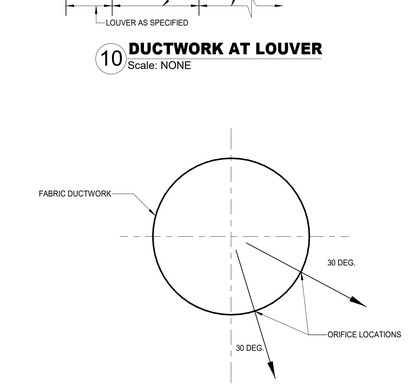


NOTE:
WHERE PIPES PENETRATE FIRE-RATED WALLS, FILL SPACE BETWEEN PIPE AND SLEEVE WITH A FIRE-RESISTANT MATERIAL WITH SUFFICIENT RATING TO MAINTAIN THE FIRE RATING OF THE WALL. WHERE PIPE PENETRATE EXTERIOR WALLS, FILL SPACE BETWEEN PIPE AND SLEEVE WITH FIBERGLASS INSULATION.

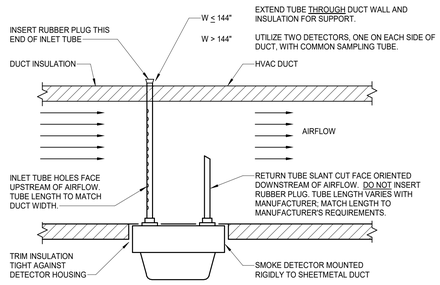
6 PIPING WALL SLEEVE DETAIL
Scale: NONE



2 AIR SEPERATOR PIPING CONNECTION DETAIL
Scale: NONE

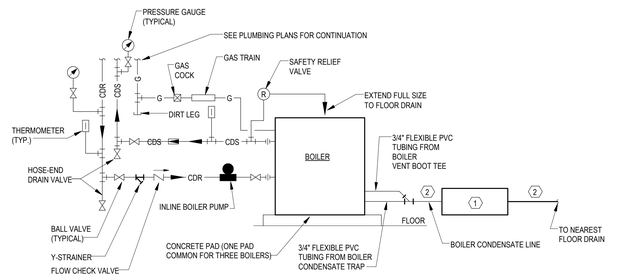


9 FABRIC DUCT VENT ORIFICE DETAIL
Scale: NONE



NOTE:
1. PROVIDE DUCT ACCESS TO SAMPLE/INLET TUBES VIA ACCESS DOOR.
2. COORDINATE EXACT LOCATION WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SUPPLIER.
3. DUCT DETECTOR CANNOT BE INSTALLED IN RETURN AIR OPENINGS.

5 DUCT DETECTOR MOUNTING DETAIL
Scale: NONE



NOTES:
1. CONDENSATE NEUTRALIZING KIT.PROVIDE ONE NUTRALIZING KIT FOR EACH BOILER.
2. PROVIDE ALL PIPE ACCESSORIES RECOMMENDED BY BOILER MANUFACTURER AND NEUTRALIZING KIT MANUFACTURER.

1 BOILER PIPING CONNECTION DETAIL
Scale: NONE

FACILITY RENOVATION

PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER

PULASKI COUNTY PARKS AND RECREATION

DUBLIN, VA

CONSTRUCTION DOCUMENTS

MECHANICAL DETAILS

DRAWN	CHECKED
JCS	SSL
DATE	APR 10, 2025
COMM. NO.	24060

M402

Salas O'Brien
salasobrien.com 540-952-9651
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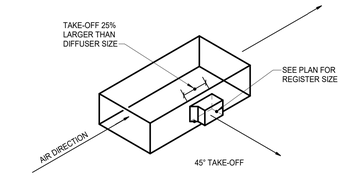
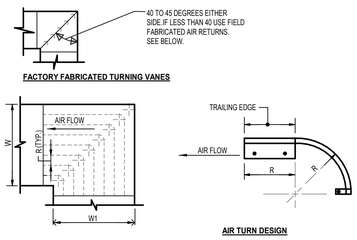
COMMONWEALTH OF VIRGINIA
04/10/2025
SAMUEL S. LOTT
Lic. No. 061900
PROFESSIONAL ENGINEER

NO.	DESCRIPTION	DATE
REVISIONS		



9 TYPICAL DUCT TAKE-OFF DETAIL
Scale: NONE

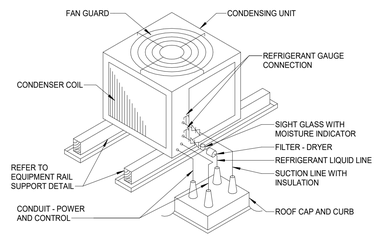


DIVIDE WIDTH OF DUCT W INTO EQUAL PARTS NOT EXCEEDING 3" SPACING IF W IS LESS THAN 24", AND NOT EXCEEDING 5" SPACING IF W IS 24" OR OVER. USE RESULTANT SPACING "R" AS RADIUS AND AS LENGTH OF TRAILING EDGE. DIVIDE DUCT W1 INTO SAME NUMBER OF EQUAL SPACES AND NOTE THAT THESE SPACES WILL BE GREATER THAN SPACES FOR DUCT WIDTH W.

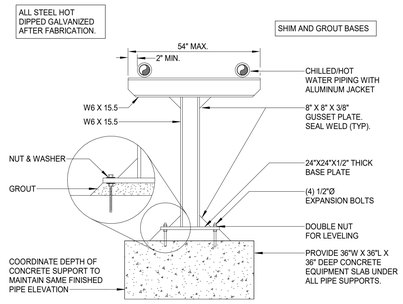
EXAMPLE:
DUCT WIDTH "W" = 40"
USE 8 SPACES; R = 5"
LENGTH OF TRAILING EDGE R = 5"

FIELD FABRICATED TURNING VANES

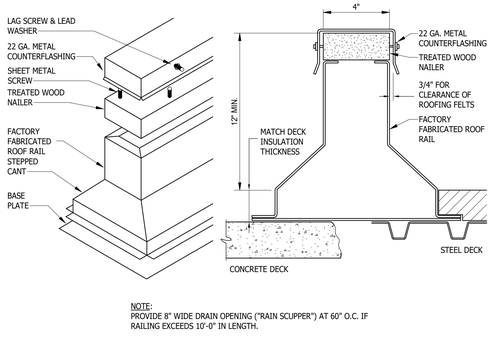
8 TEE-TURNING VANE DETAIL
Scale: NONE



7 AIR COOLED CONDENSING UNIT
Scale: NONE

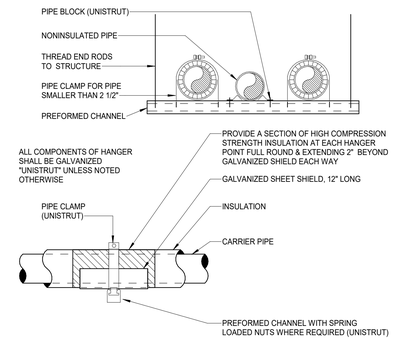


4 PIPE STAND DETAIL
Scale: NONE

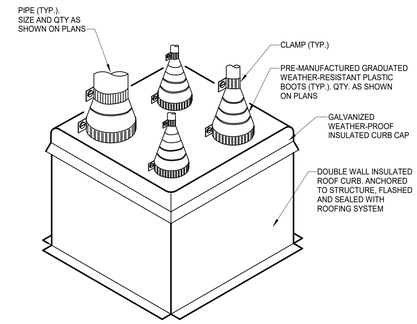


NOTE:
PROVIDE 8" WIDE DRAIN OPENING ("RAIN SCUPPER") AT 60" O.C. IF RAILING EXCEEDS 10'-0" IN LENGTH.

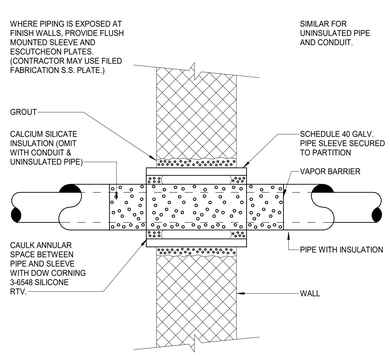
12 ROOF RAIL EQUIPMENT SUPPORT DETAIL
Scale: NONE



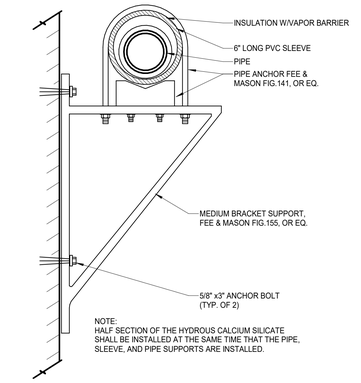
3 MULTI-PIPE TRAPEZE HANGER
Scale: NONE



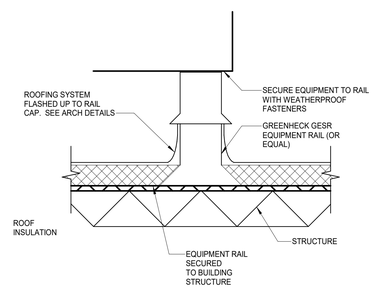
11 PIPE CURB CAP DETAIL
Scale: NONE



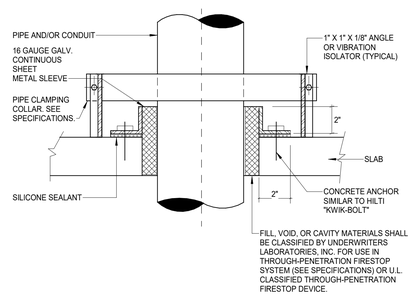
6 PIPE THRU FIRE RATED WALL
Scale: NONE



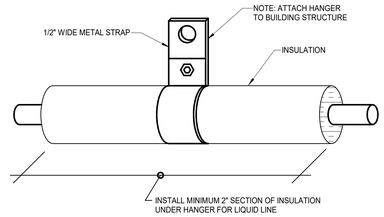
2 WALL PIPE SUPPORT DETAIL
Scale: NONE



10 EQUIPMENT RAIL SUPPORT DETAIL
Scale: NONE



5 PIPE THRU FLOOR DETIAL
Scale: NONE



1 REFRIGERANT PIPING HANGER DETAIL
Scale: NONE

PULASKI COUNTY INDOOR SPORTSPLEX AND EXPO CENTER
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DUBLIN, VA

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M403

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COMMONWEALTH OF VIRGINIA
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SAMUEL S. LOTT
Lic. No. 061900
PROFESSIONAL ENGINEER

REVISIONS		
NO.	DESCRIPTION	DATE

FACILITY RENOVATION

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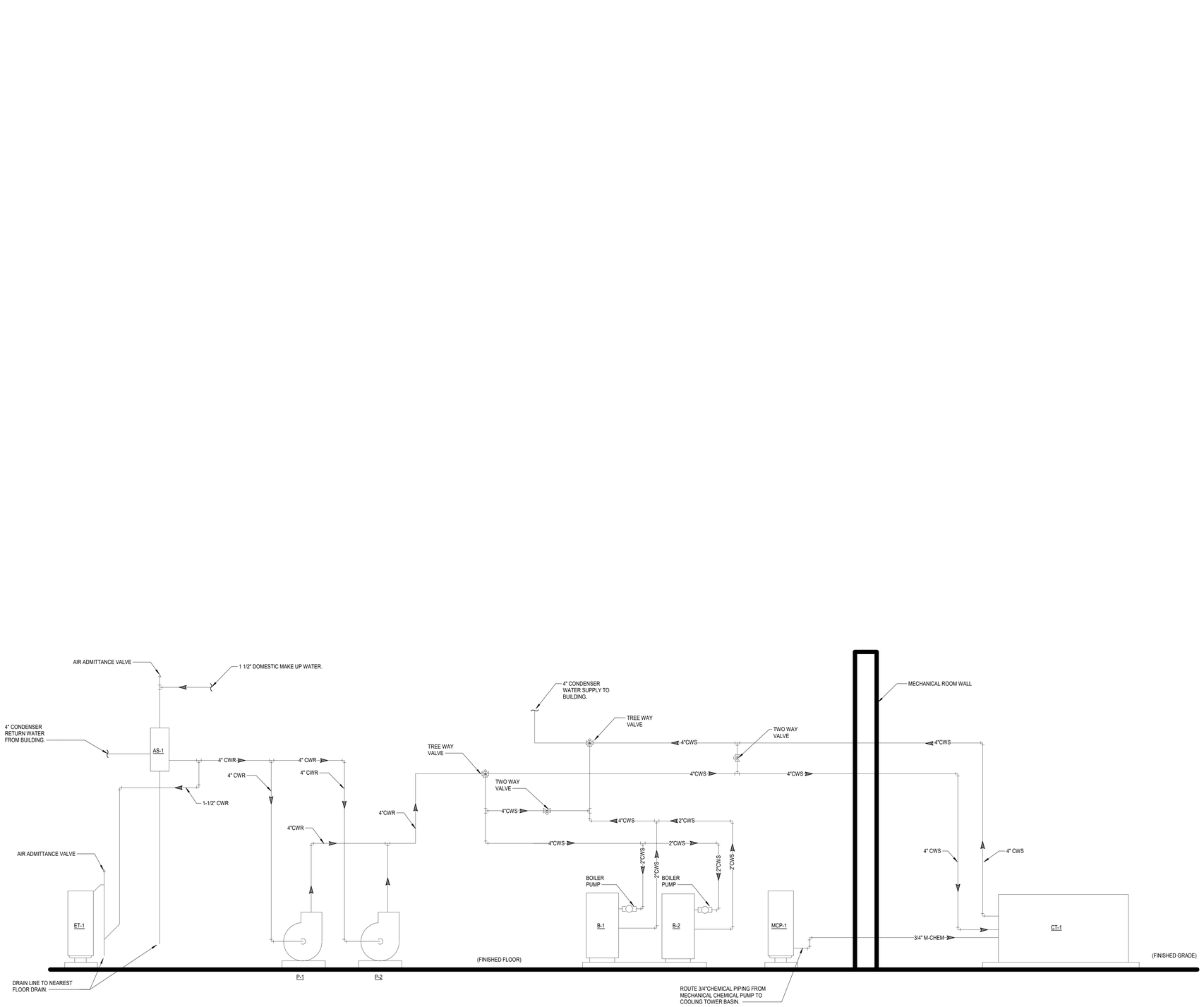

1 **MECHANICAL FLOW DIARGAM**
Scale: 12" = 1'-0"

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