

GENERAL DEMOLITION NOTES

- ALL DUCTWORK, EQUIPMENT, AND PIPING SHOWN WITH HATCHED LINES INDICATE ITEMS TO BE DEMOLISHED. SEE ARCHITECTURAL DRAWINGS AND CODED DEMOLITION NOTES FOR SPECIFIC INFORMATION. EXISTING DUCT TAKE-OFFS MAY BE REUSED IN NEW WORK IF CORRECT SIZE AND LOCATION. ALL DUCTWORK TO BE REUSED SHALL CONFORM TO VA DESIGN GUIDELINES.
- SHADED AREAS OF THIS PLAN SHOWN HATCHED ARE NOT WITHIN THE PROJECT SCOPE OF WORK AND ARE SHOWN FOR REFERENCE ONLY.
- LOCATION OF EXISTING EQUIPMENT, DUCTWORK, AIR OUTLETS, CONTROLS AND ALL CONCEALED WORKS, ETC. ARE APPROXIMATE. THE CONTRACTOR SHALL EXAMINE THE SITE PRIOR TO BUILDING AND AFTER DEMOLITION HAS EXPOSED "AS-BUILT" CONDITIONS TO VERIFY EACH AIR OUTLET, AND EQUIPMENT LOCATION. THE CONTRACTOR SHALL MAKE ADJUSTMENTS AND/OR ALTERATIONS AS NECESSARY TO INSTALL COMPLETE AND OPERABLE SYSTEMS IN ACCORDANCE WITH THE CODES HAVING JURISDICTION AT NO ADDITIONAL COST TO THE GOVERNMENT
- ALL OPENINGS AND SURFACES MADE BARE BY DEMOLITION AND/OR REMOVAL OF AIR OUTLETS, EQUIPMENT, CONTROLS, ETC. SHALL BE REPAIRED AND/OR PATCHED TO MATCH ADJACENT FINISH. PREPARE SURFACES TO RECEIVE NEW FINISH, SEE ARCHITECTURAL DRAWINGS FOR NEW FINISH SCHEDULE. ALL REPAIRS AND NEW FINISH SHALL BE BY TRADES SKILLED IN FINISH WORKS UNDER EMPLOYMENT OF THE GENERAL CONTRACTOR.
- DURING THE LIFE OF THE CONTRACT (CONSTRUCTION AND DEMOLITION TO POINT OF BENEFICIAL OCCUPANCY BY OWNER), THE CONTRACTOR SHALL PROTECT ALL SYSTEMS OR PORTIONS OF SYSTEMS TO REMAIN FOR REUSE FROM DAMAGE. ALL SYSTEMS SHALL BE TESTED IN SERVICE AFTER COMPLETION OF THE CONTRACT AND MADE COMPLETE AND OPERABLE AT NO ADDITIONAL COST TO THE GOVERNMENT.
- NOT ALL CONTROL CIRCUITS AND DEVICES ARE INDICATED. FOR EACH CONTROL AND, DEVICE THERE IS A CIRCUIT OR FEEDER BACK TO THE POINT OF ORIGIN. WHERE WALLS, FLOORS OR CEILING ARE TO BE DEMOLISHED ALL MATERIAL, SURFACE OR FLUSH MOUNTED THEREON SHALL BE REMOVED UNLESS INDICATED OR REQUIRED TO REMAIN TO SERVE A DEVICE.
- DEMOLISH CONTROLS AND DEVICES PERTAINING TO THE HVAC EQUIPMENT BEING DEMOLISHED, REPLACED OR RE-USED. PROVIDE NEW CONTROLS AND DEVICES FOR ALL RE-USED EQUIPMENT AND CONNECT INTO THE EXISTING LOCAL DDC SYSTEM.
- SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION FOR ADDITIONAL INFORMATION. COORDINATE ALL DEMOLITION WITH ALL TRADES INVOLVED.
- DEMOLISH ALL PIPING BACK TO THE MAIN AND CAP. LEAVE NO DEAD END BRANCHES. NO PIPING SHALL BE ABANDONED ABOVE THE CEILING OR BELOW THE FLOOR UNLESS NOTED OTHERWISE. PATCH FLOOR AND WALL PENETRATIONS LEFT BEHIND FROM DEMOLISHED PIPING TO MATCH EXISTING CONDITIONS .
- ALL WORK MUST BE ACCOMPLISHED IN PHASES AS SPECIFIED AND/OR INDICATED. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. THE BUILDING WILL BE OCCUPIED AND IN OPERATION DURING THE LIFE OF THE CONTRACT. WORK SHALL BE ACCOMPLISHED IN AREAS AND/OR PHASES SO AS TO PERMIT CONTINUOUS OPERATION OF THE FACILITIES. THESE FACILITIES ARE IN USE 24 HOURS PER DAY, 7 DAYS A WEEK. THE CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AS REQUIRED TO MAINTAIN SYSTEMS (INCLUDING FIRE DETECTION/ALARM,LIFE SAFETY, FIRE PROTECTION SYSTEMS, HVAC SYSTEMS, CONTROL SYSTEMS, ETC.)
- THE CONTRACTOR SHALL COORDINATE WITH THE COR FOR ACCESS TO AREAS OF THE BUILDING NOT IN CONTRACT WHICH WILL REMAIN OPERATIONAL DURING CONSTRUCTION. ANY BREAKS IN UTILITY OR HVAC SERVICE SHALL BE COORDINATED WITH THE COR PRIOR TO WORK COMMENCING.

GENERAL NOTES

- THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE MECHANICAL INSTALLATION W/ THE STRUCTURE AND OTHER TRADES AND SHALL PROVIDE ADDITIONAL OFFSETS AND FITTINGS AS NECESSARY.
- COORDINATE WORK WITH AUTHORITY HAVING JURISDICTION AND OBTAIN ALL PERMITS AND INSPECTIONS.
- THE HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS SHALL COMPLY WITH THE 2012 EDITION OF THE INTERNATIONAL MECHANICAL CODE, NFPA 90A, AND LOCAL CODE OFFICIAL REQUIREMENTS. IN THE EVENT OF A CONFLICT BETWEEN CODES, THE MOST STRINGENT SHALL ALWAYS GOVERN.
- DUCT DIMENSIONS ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
- THE CONTRACTOR SHALL CHECK AND VERIFY ALL CLEARANCES PRIOR TO FABRICATION OR INSTALLATION OF EQUIPMENT, DUCTWORK, AND PIPING SYSTEMS. WHERE CONDITIONS REQUIRE A CHANGE IN DUCT OR PIPE ROUTING, NOTIFY THE COR FOR AN ACCEPTABLE ALTERNATIVE METHOD. AVOID ROUTING DUCTWORK DIRECTLY OVER LIGHT FIXTURES, DIFFUSERS, AND OTHER CEILING MTD. DEVICES. LOCATE ALL MECHANICAL EQUIPMENT SO THAT FILTERS AND COMPONENTS REQUIRING ACCESS (SERVICE AND MAINTENANCE) ARE FULLY ACCESSIBLE.
- PROVIDE CURVED RADIUS ELBOW AT FIRST SUPPLY & RETURN FITTING FOR ALL HVAC UNITS. PROVIDE TURNING VANES IN ALL 90 DEGREE ELBOWS IN ALL RECTANGULAR SUPPLY/RETURN/EXHAUST DUCT SYSTEMS. ANY OFFSETS REQUIRED IN DUCT SYSTEMS SHALL BE INSTALLED PER SMACNA STANDARDS. SHARP ANGLED TRANSITIONS OR OFFSETS 'WILL NOT BE ALLOWED'. PROVIDE DUCT ACCESS DOORS AT LOCATIONS SPECIFIED.
- INSTALL ALL DUCT MOUNTED DEVICES (DAMPERS, ACCESS DOORS, ETC.) AND PIPING SPECIALTIES IN EASILY ACCESSIBLE LOCATIONS. ADVISE THE COR IN ADVANCE OF INSTALLATION IF ACCESS WILL BE HINDERED SO AN ALTERNATE LOCATION CAN BE SELECTED.
- ALL DUCT TAKE-OFFS SHALL BE INSTALLED AS SHOWN BY DETAILS ON THE PLANS WITH A MANUAL BALANCE DAMPER AT EVERY TAKE-OFF. WHERE DUCT RUN-OUT SIZE IS NOT SHOWN PROVIDE DUCT SAME SIZE AS GRILLE NECK SIZE. PRE-INSULATED FLEXIBLE DUCT MAY BE USED FOR FINAL CONNECTION TO SUPPLY/RETURN GRILLES (MAX. LENGTH 3')
- ALL ROTATING MECHANICAL EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATION. PROVIDE FLEXIBLE NEOPRENE DUCT CONNECTORS BETWEEN DUCTWORK AND ISOLATED MECHANICAL EQUIPMENT.
- THE CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS OF FIRE RATED WALLS/FLOORS/CEILINGS BY DUCTWORK, PIPING, ETC., WITH U.L. LISTED FIRE STOPPING MATERIAL TO MAINTAIN FIRE RATING OF THE BARRIER.
- SEISMIC PROTECTION OF EQUIPMENT, DUCTWORK, PIPING AND UTILITIES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16 OF THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE. ALL SEISMIC RESTRAINT AND BRACING SHALL BE SUBSTANTIATED BY MANUFACTURER'S SUBMITTALS PER THE SPECIFICATIONS.
- BALANCE ALL AIR DISTRIBUTION DEVICES, EXHAUST FANS, AND OUTSIDE AIR QUANTITIES AS SCHEDULED OR SHOWN ON THE DRAWINGS. PROVIDE MARKERS AT ALL DAMPER LOCATIONS SHOWING FULL OPEN/CLOSED POSITIONS AND DAMPER SETTING FOR REQUIRED AIRFLOW. PROVIDE FINAL TEST AND BALANCE REPORT ALONG W/ SCHEMATIC DRAWINGS SHOWING DIFFUSER LOCATION W/ DESIGN AND ACTUAL CFM. THE DIFFUSER TAGS ON THE DRAWINGS SHALL CORRESPOND TO THE DIFFUSER TAGS ON THE REPORT. THIS REPORT SHALL BE SUBMITTED BEFORE THE FINAL INSPECTION IS PERFORMED SEE THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

ABBREVIATIONS

BD	MANUAL BALANCING DAMPER
EA	EXHAUST AIR
(E)	EXISTING
EXH	EXHAUST
EXF	EXFILTRATION
FD	FIRE DAMPER
INF	INFILTRATION
NIC	NOT IN CONTRACT
RA	RETURN AIR
SA	SUPPLY AIR
TYP	TYPICAL

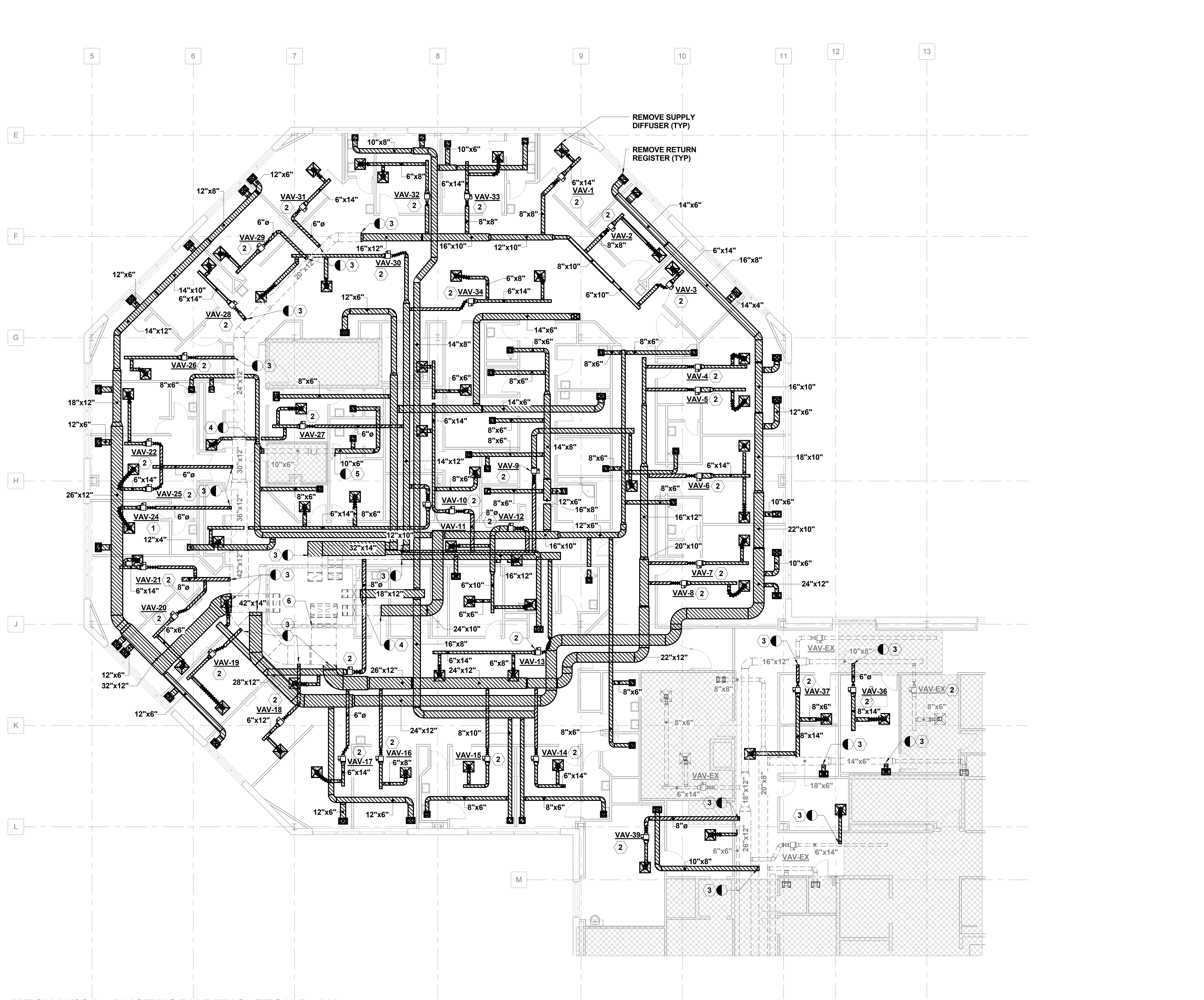
LEGEND

	SECTION NUMBER		SECTION TAG
	AIR DEVICE TAG		AREA NOT IN CONTRACT
	STATIC PRESSURE CLASS (IN OF WATER). SUPERScript "N" INDICATES NEGATIVE PRESSURE.		POINT OF DISCONNECTION (P.O.D.)
	POINT OF CONNECTION (P.O.C.)		NOTE NUMBER (SEE SCHEDULE)
	EXISTING TO REMAIN, (LIGHT AND DASHED)		NEW WORK, (CONTINUOUS AND DARK)
	WORK TO BE DEMOLISHED		THERMOSTAT, "1" INDICATES DEVICE CONTROLLED
	DIFFUSER, DIRECTION OF FLOW AS INDICATED		RETURN AIR OUTLET
	EXHAUST AIR OUTLET		VARIABLE AIR VOLUME, "X" INDICATES DEVICE NUMBER
	MANUAL BALANCING DAMPER (BD)		HOT WATER SUPPLY (NEW WORK)
	HOT WATER RETURN (NEW WORK)		SHUT-OFF VALVE
	CAPPED PIPING		RISE
	DROP		ECCENTRIC REDUCER

CONSTRUCTION DOCUMENTS  
FULLY SPRINKLERED

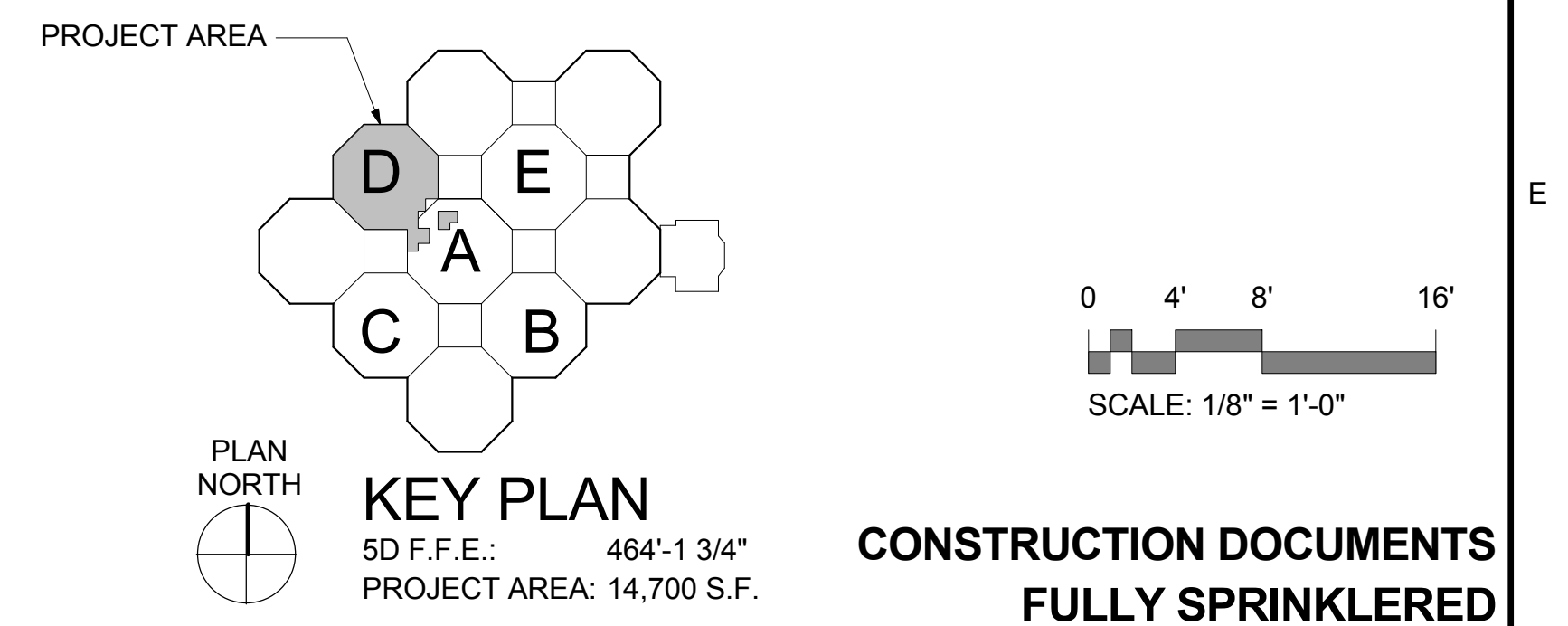
<div>Revisions:</div> <div>Date:</div>		CONSULTANTS:		<div></div>		ARCHITECT/ENGINEERS:		<div>Drawing Title <b>MECHANICAL LEGENDS AND ABBREVIATIONS</b></div> <div>Approved: Project Director <b>BT</b></div>		<div>Project Title <b>IMPROVE 5D DIALYSIS FUNCTIONAL DEFICIENCIES</b></div> <div>Location <b>4300 WEST 7TH STREET LITTLE ROCK, AR 72205</b></div> <div>Date <b>2014.10.31</b></div>		<div>Project Number <b>998-13-109</b></div> <div>Building Number <b>JLM</b></div> <div>Drawn <b>JDG</b></div>		<div>Checked <b>BT</b></div> <div><b>MH001</b> Dwg. 68 of 89</div>		<div><b>CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM</b></div> <div> Department of Veterans Affairs</div>	
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A  
three inches = one foot  
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one and one half inches = one foot  
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C  
one inch = one foot  
2  
D  
three quarters inch = one foot  
4  
E  
one half inch = one foot  
4  
F  
three eighths inch = one foot  
8  
G  
one quarter inch = one foot  
16  
H  
one eighth inch = one foot  
32  
I  
one sixteenth inch = one foot  
64  
J  
one thirty second inch = one foot  
128  
K  
one sixty fourth inch = one foot  
256  
L  
one one hundred twenty eighth inch = one foot  
512  
M  
one two hundred fifty sixth inch = one foot  
1024



- SHEET KEYNOTES**
- 1 REMOVE RETURN DUCTWORK BACK TO EXISTING CHASE WALL, CAP AND INSULATE TO MATCH EXISTING.
  - 2 EXISTING VARIABLE AIR VOLUME TERMINAL UNIT TO BE RELOCATED, SEE MH101 FOR LOCATION (TYP).
  - 3 REMOVE DUCTWORK BACK TO MAIN. PROVIDE PATCH AND SEAL, INSULATE TO MATCH EXISTING.
  - 4 REMOVE EXHAUST DUCTWORK BACK TO POINT OF DISCONNECTION. PROVIDE CAP AND SEAL.
  - 5 REMOVE EXHAUST DUCTWORK BACK TO POINT OF DISCONNECTION. PROVIDE TEMPORARY CAP IN PREPARATION FOR RECONNECTION. SEE MH101 FOR CONTINUATION.
  - 6 EXISTING FIRE DAMPER TO REMAIN (TYP).

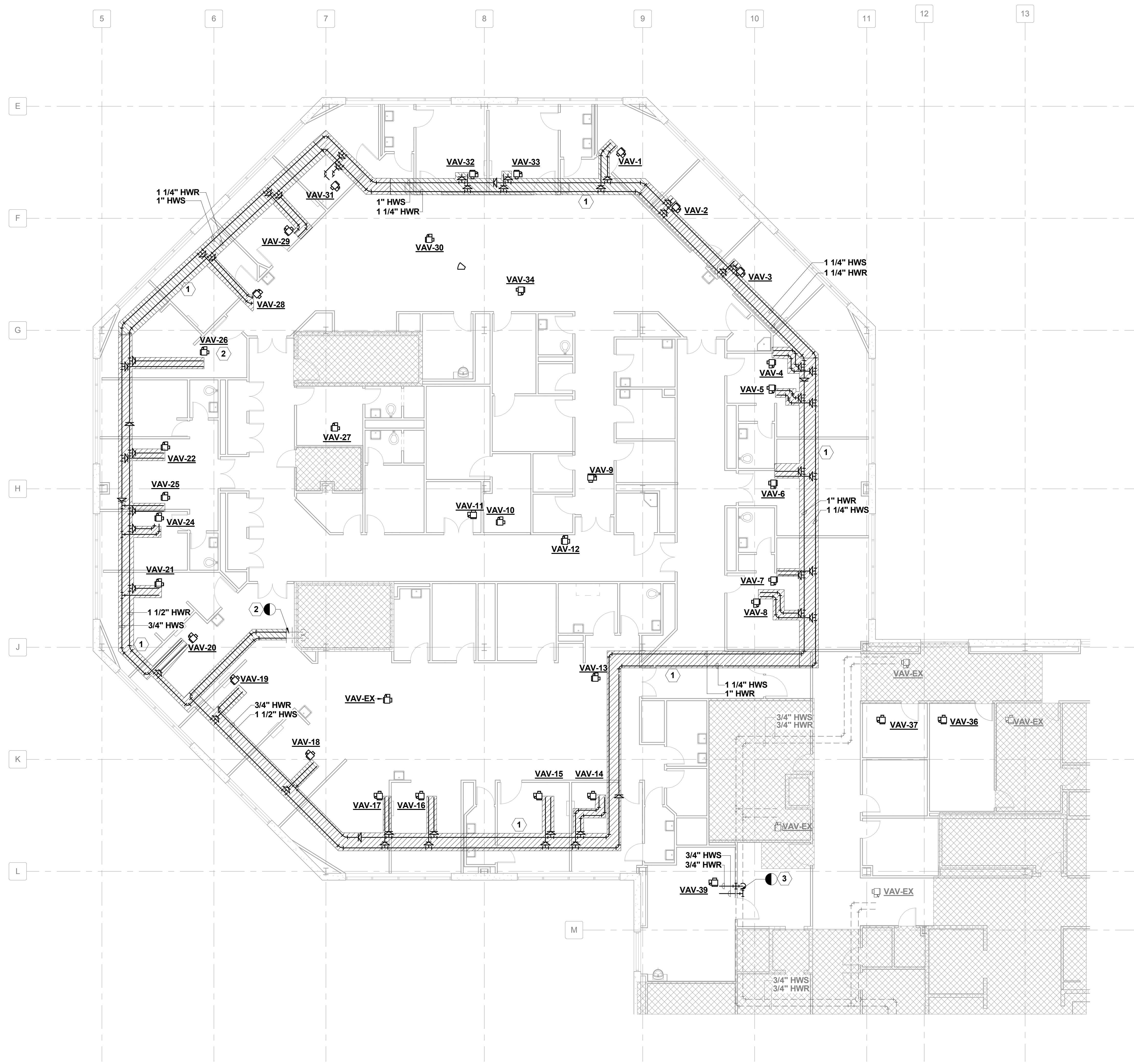
6E MECHANICAL DUCTWORK DEMOLITION PLAN  
1/8" = 1'-0"



		CONSULTANTS:				ARCHITECT/ENGINEERS:		 <div>BES DESIGN/BUILD 4300 WEST 7TH STREET LITTLE ROCK, AR 72205 Phone: 251.990.5778 Fax: 251.990.3716</div>		<div>Drawing Title <b>MECHANICAL DUCTWORK DEMOLITION PLAN</b></div> <div>Approved: Project Director</div>		<div>Project Title <b>IMPROVE 5D DIALYSIS FUNCTIONAL DEFICIENCIES</b></div> <div>Location <b>4300 WEST 7TH STREET LITTLE ROCK, AR 72205</b></div> <div>Date <b>2014.10.31</b></div>		<div>Project Number 598-13-109</div> <div>Building Number JLM</div> <div>Drawing Number <b>MD100</b> Dwg. 69 of 89</div>		<div>CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM</div> <div> Department of Veterans Affairs</div>	
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F  
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8  
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6"  
G  
one quarter inch = one foot  
16  
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6"  
H  
one eighth inch = one foot  
15  
0  
6"



- SHEET KEYNOTES**
- 1 REMOVE PIPING, INSULATION, VALVES, HANGERS AND ACCESSORIES IN THEIR ENTIRETY (TYP).
  - 2 REMOVE 1 1/2" HWS AND HWR BACK TO EXISTING CHASE WALL, PROVIDE VALVE AND CAP FOR FUTURE RECONNECTION.
  - 3 REMOVE 3/4" HWS AND HWR BACK TO EXISTING MAIN, PROVIDE VALVE AND CAP, INSULATE TO MATCH EXISTING.

6E MECHANICAL PIPING DEMOLITION PLAN  
1/8" = 1'-0"

PROJECT AREA

PLAN NORTH

0 4' 8' 16'  
SCALE: 1/8" = 1'-0"

**KEY PLAN**  
5D F.F.E.: 464'-1 3/4"  
PROJECT AREA: 14,700 S.F.

**CONSTRUCTION DOCUMENTS**  
**FULLY SPRINKLERED**

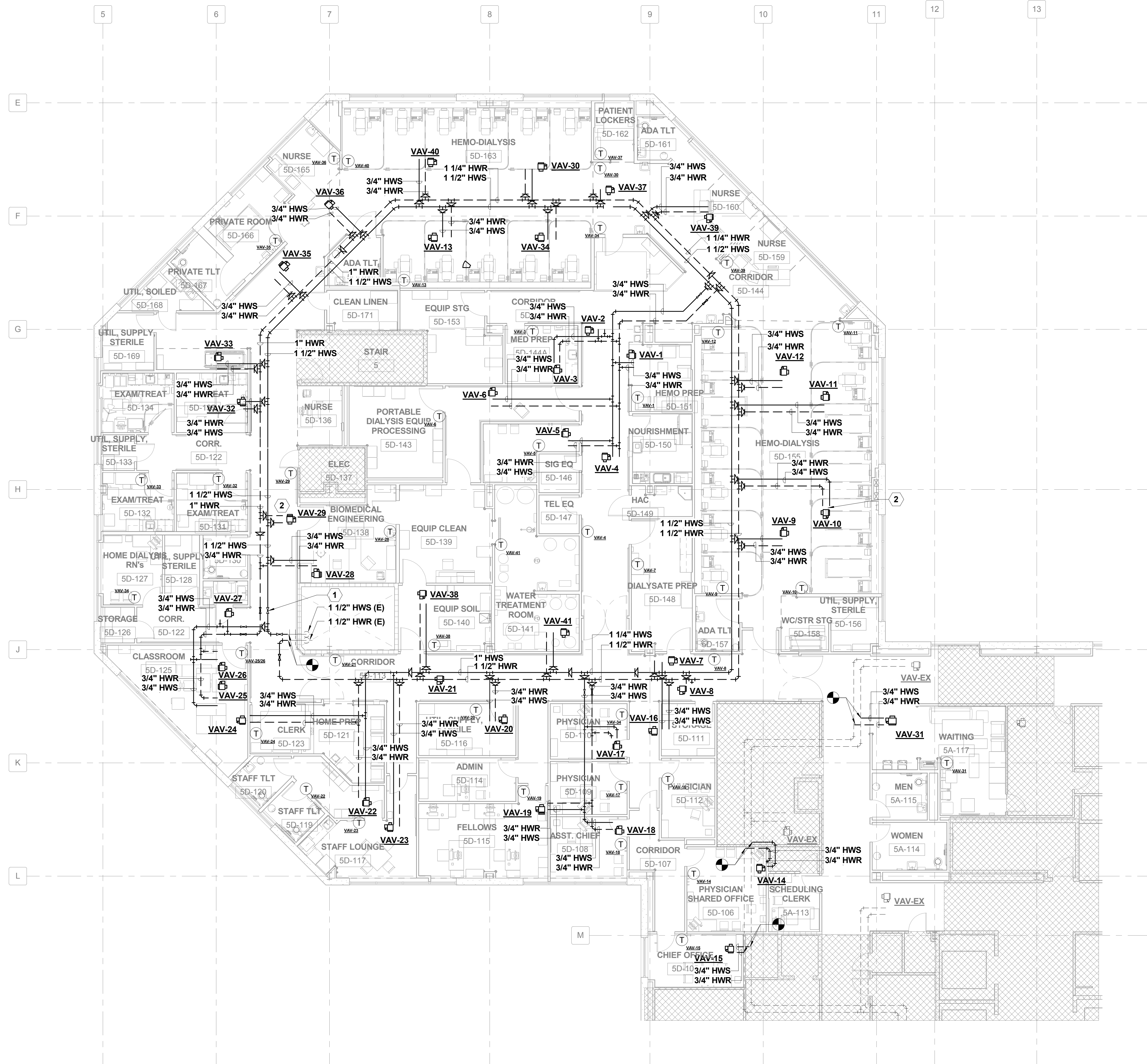
CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title <b>MECHANICAL PIPING DEMOLITION PLAN</b>	Project Title <b>IMPROVE 5D DIALYSIS FUNCTIONAL DEFICIENCIES</b>	Project Number 998-13-109	<b>CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM</b> 
Revisions:				Approved: Project Director	Location 4300 WEST 7TH STREET LITTLE ROCK, AR 72205	Building Number JLM	
Date				Approver	Date 2014.10.31	Drawn JDG	
10/29/2014 3:22:50 PM		BES DESIGN/BUILD, LLC 766 Middle St, Fairhope, AL 36532 Phone: 251.990.5778 Fax: 251.990.3716			Checked BT	Dwg. 70 of 89	





A  
three inches = one foot  
1  
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one and one half inches = one foot  
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6  
F  
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one eighth inch = one foot  
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M  
one eighth inch = one foot  
16  
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6

SHEET KEYNOTES	
1	SHUT-OFF VALVE (TYPICAL)
2	REFER TO 4B/MH501 FOR HOT WATER COIL PIPING DETAILS (TYPICAL).



6E MECHANICAL PIPING PLAN  
1/8" = 1'-0"

PROJECT AREA

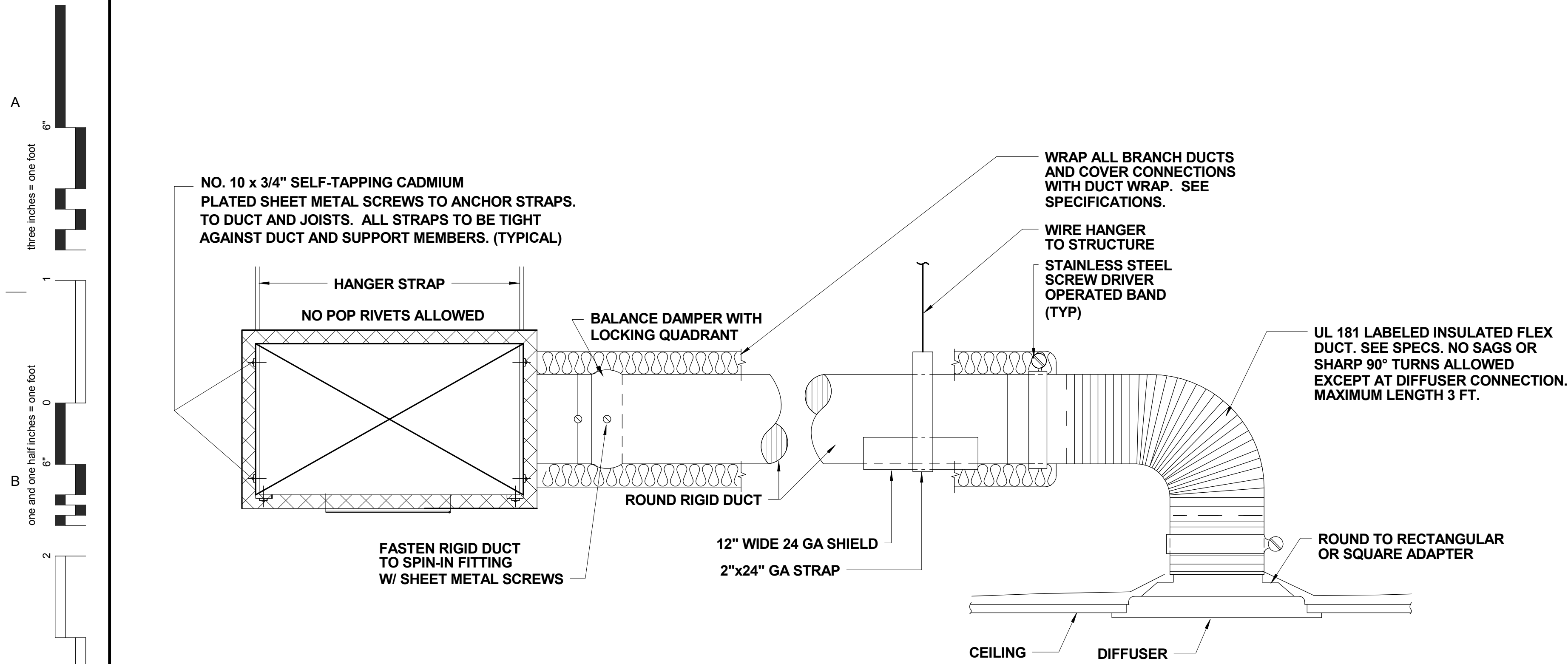
PLAN NORTH

0 4' 8' 16'  
SCALE: 1/8" = 1'-0"

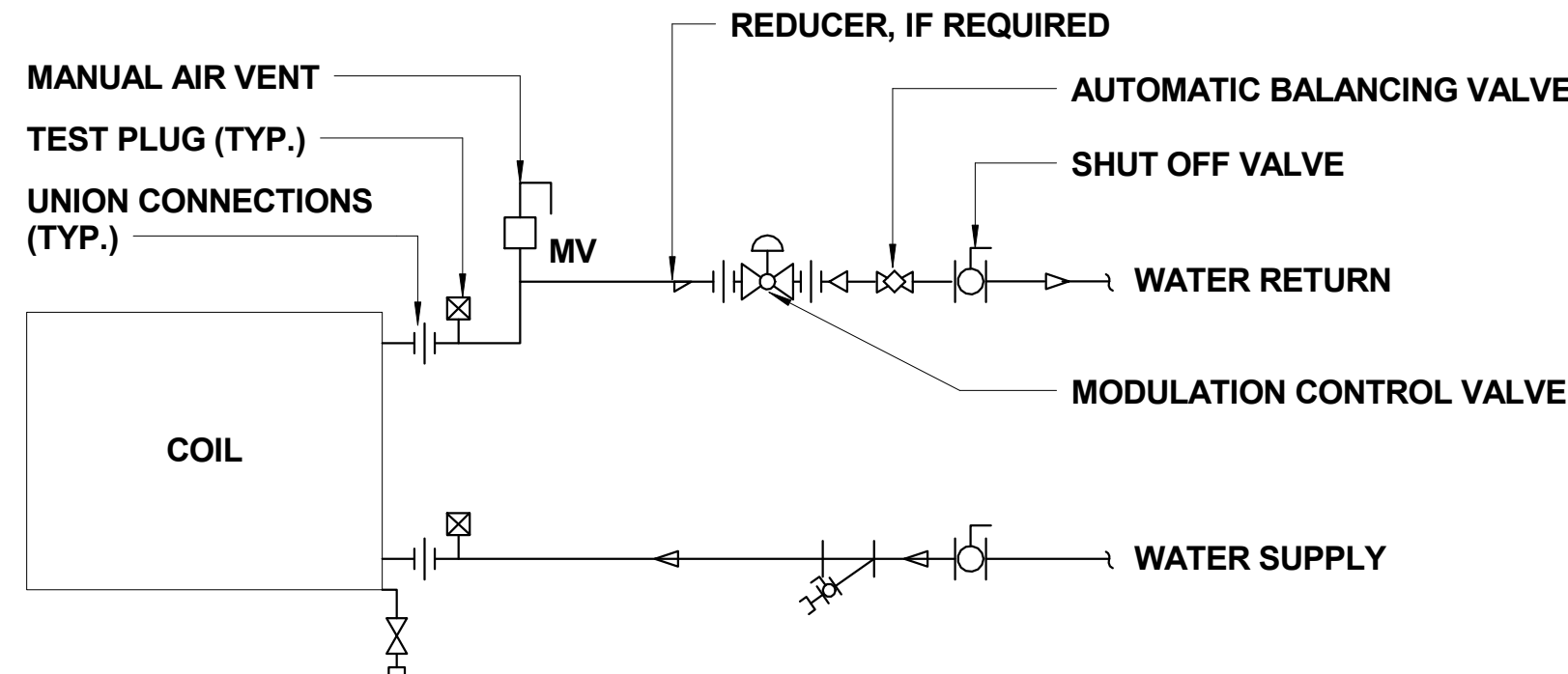
**KEY PLAN**  
5D F.F.E.: 464'-1 3/4"  
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**CONSTRUCTION DOCUMENTS**  
**FULLY SPRINKLERED**

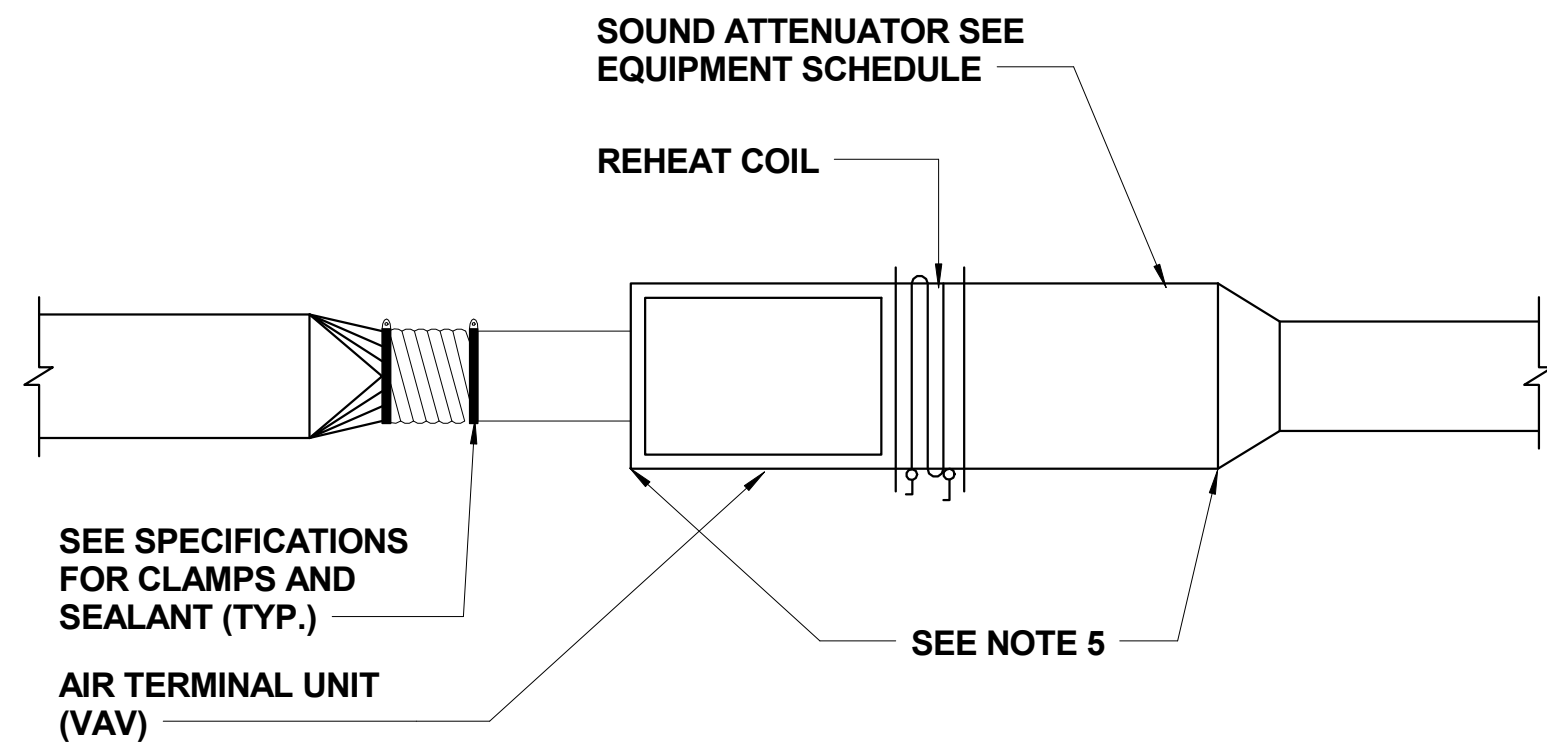
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Revisions:		Date:		Approved: Project Director	Location 4300 WEST 7TH STREET LITTLE ROCK, AR 72205	Building Number JLM		
					Date 2014.10.31	Drawn JDG		
						Checked BT		
							<b>MP101</b> Dwg. 72 of 89	



6B  
NTS  
DETAIL - TYPICAL DIFFUSER CONNECTION



4B  
NTS  
DETAIL - TYPICAL HOT WATER COIL CONNECTION

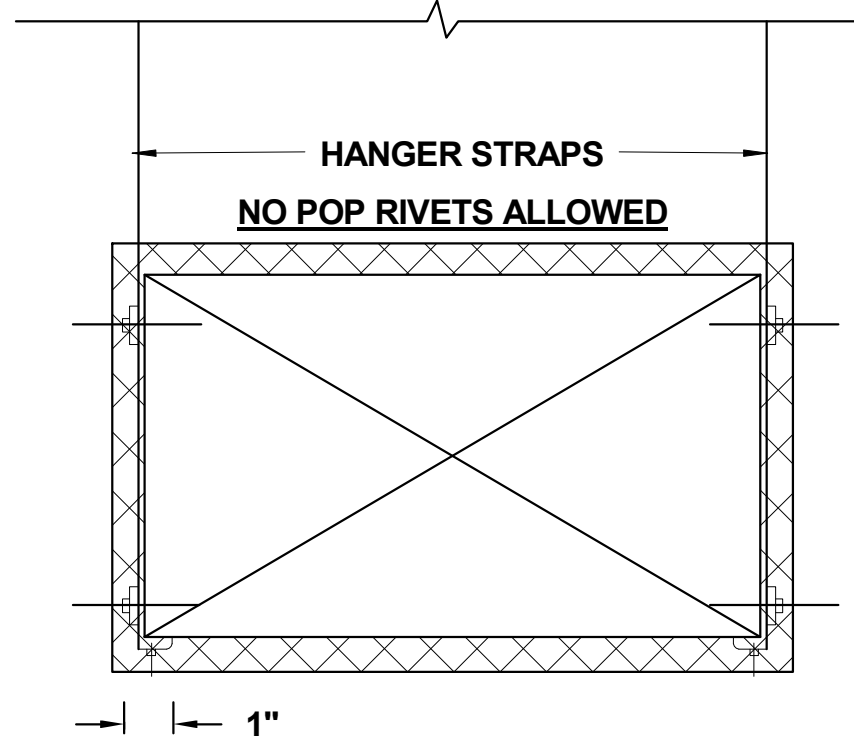


- NOTE:
1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET
  2. A FLEXIBLE AIR DUCT CONNECTOR IS NOT MANDATORY FOR INLET TO THIS BOX, BUT ALLOWED TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0" [900mm].
  3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET (3 METERS). FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.2"/100' [1.64Pa/m].
  4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, SHALL NOT EXCEED 3'-0" [1500mm]. USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
  5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.

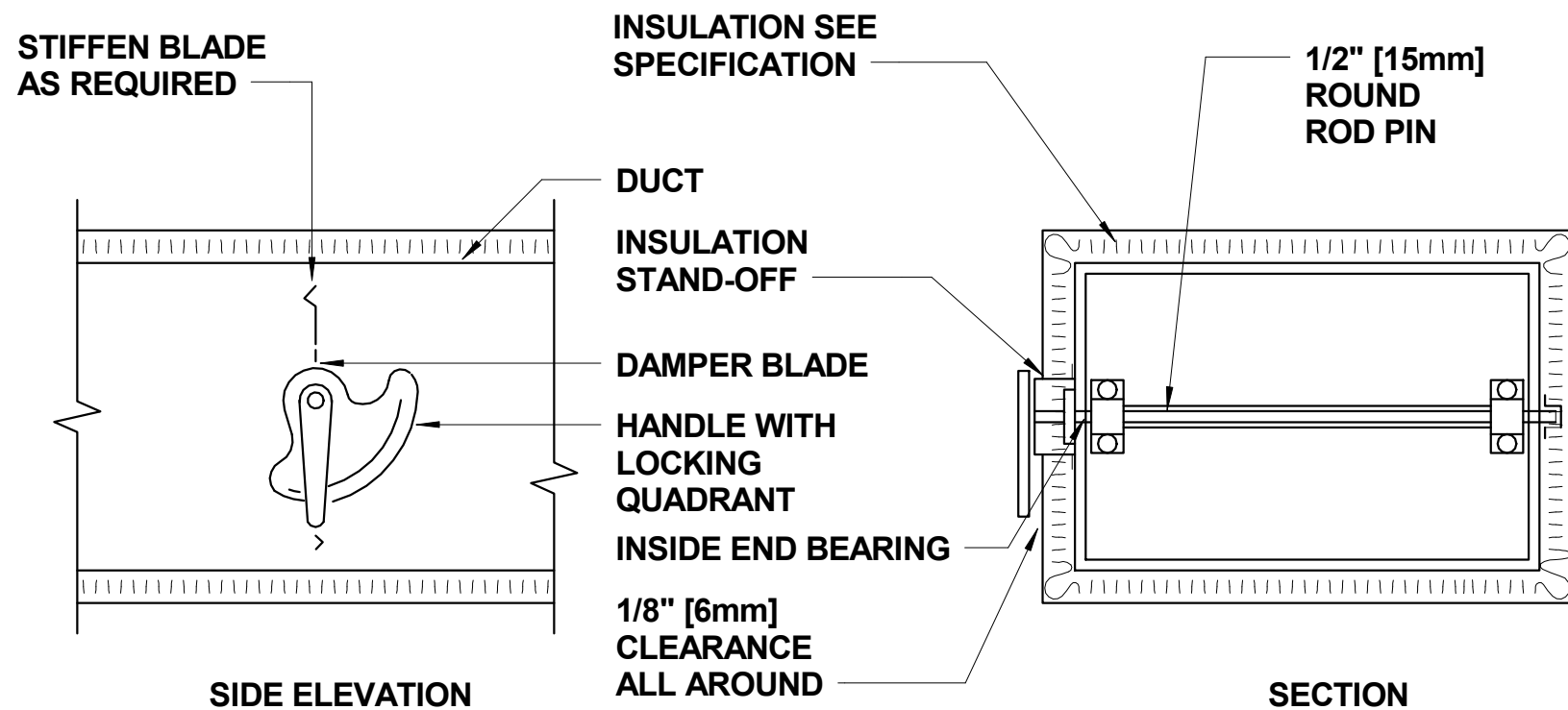
2B  
NTS  
DETAIL - TYPICAL DUCT CONNECTIONS AIR TERMINAL UNITS

NO. 10x3/4" SELF TAPPING CADMIUM PLATED SHEET METAL SCREWS TO ANCHOR STRAPS TO DUCT AND JOISTS. ALL STRAPS SHALL BE TIGHT AGAINST DUCT AND MEMBERS.

HANGER SIZES FOR RECTANGULAR DUCT			
MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
UP TO 34"	1" X 18 GAGE STRAP	NONE REQUIRED	8'-0"
34" TO 40"	1" X 18 GAGE STRAP	NONE REQUIRED	6'-0"

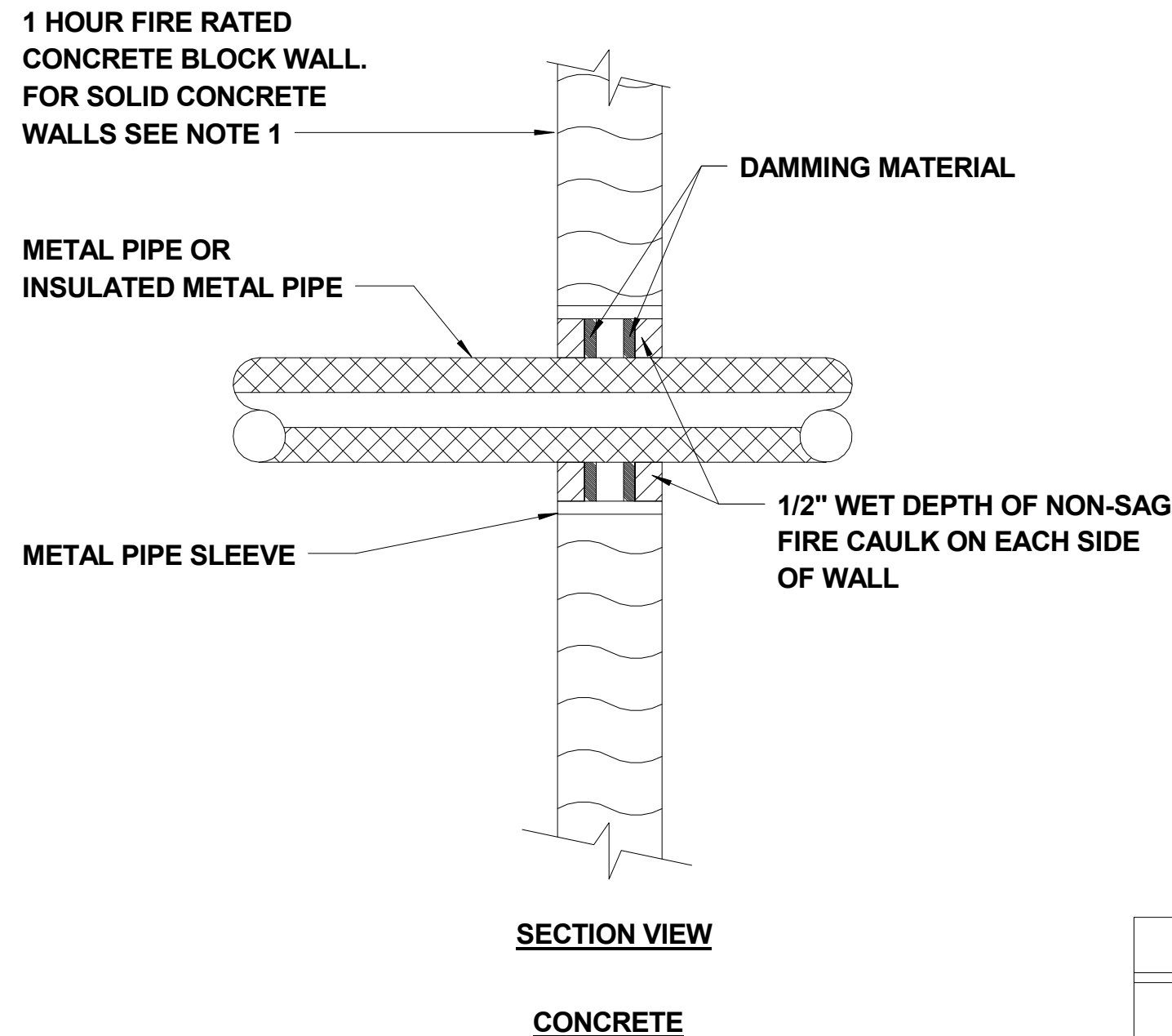


6E  
NTS  
DETAIL-DUCT STRAP HANGER



- NOTE:
1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
  2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

4E  
NTS  
DETAIL-VOLUME DAMPER



- A) FOR UNINSULATED METAL PIPE:
1. RECOMMENDATIONS BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL 1479) FIRE TEST AND UL CLASSIFICATION FIRE STOP SYSTEM 49.
  2. UP TO 40% SHRINKAGE OF NON-SAG OR SELF-LEVELING FIRE CAULK IS ACCEPTABLE AFTER INITIAL WET DEPTH INSTALLATION.
  3. MAXIMUM ANNULAR SPACE TO BE FILLED IS 2-1/2"
- B) FOR INSULATED METAL PIPE:
1. DEPTH OF FIRE CAULK DEPENDS ON INSULATION THICKNESS: 1" OF INSULATION - 1" DEPTH OF FIRE CAULK 2"-3" OF INSULATION - 2" DEPTH OF FIRE CAULK
  2. MINIMUM ANNULAR SPACE TO BE FILLED IS 3/4". MAXIMUM ANNULAR SPACE TO BE FILLED IS 2-1/2"
  3. RECOMMENDATIONS BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL 1479) TIME TEMPERATURE CURVE FIRE EXPOSURE. UL CLASSIFIED PER SYSTEM 91
  4. IT IS NOT NECESSARY TO REMOVE INSULATION AS IT PENETRATES THE WALL OR FLOOR.

NOTES	
1. FOR SOLID CONCRETE WALLS, CENTER NON-SAG FIRE CAULK WITHIN WALL WITH DAMMING MATERIAL ON ONE SIDE.	

2E  
NTS  
DETAIL-FIRE RATED PIPING PENETRATION

CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title <b>MECHANICAL DETAILS</b>	Project Title <b>IMPROVE 5D DIALYSIS FUNCTIONAL DEFICIENCIES</b>	Project Number <b>598-13-109</b>	<b>CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM</b> Department of Veterans Affairs
				Approved: Project Director	Location <b>4300 WEST 7TH STREET LITTLE ROCK, AR 72205</b>	Building Number <b>JLM</b>	
					Date <b>2014.10.31</b>	Drawn <b>JDG</b>	
					Checked <b>BT</b>	Dwg. 73 of 89	

three inches = one foot

one and one half inches = one foot

one inch = one foot

three quarters inch = one foot

one half inch = one foot

three eighths inch = one foot

one quarter inch = one foot

one eighth inch = one foot

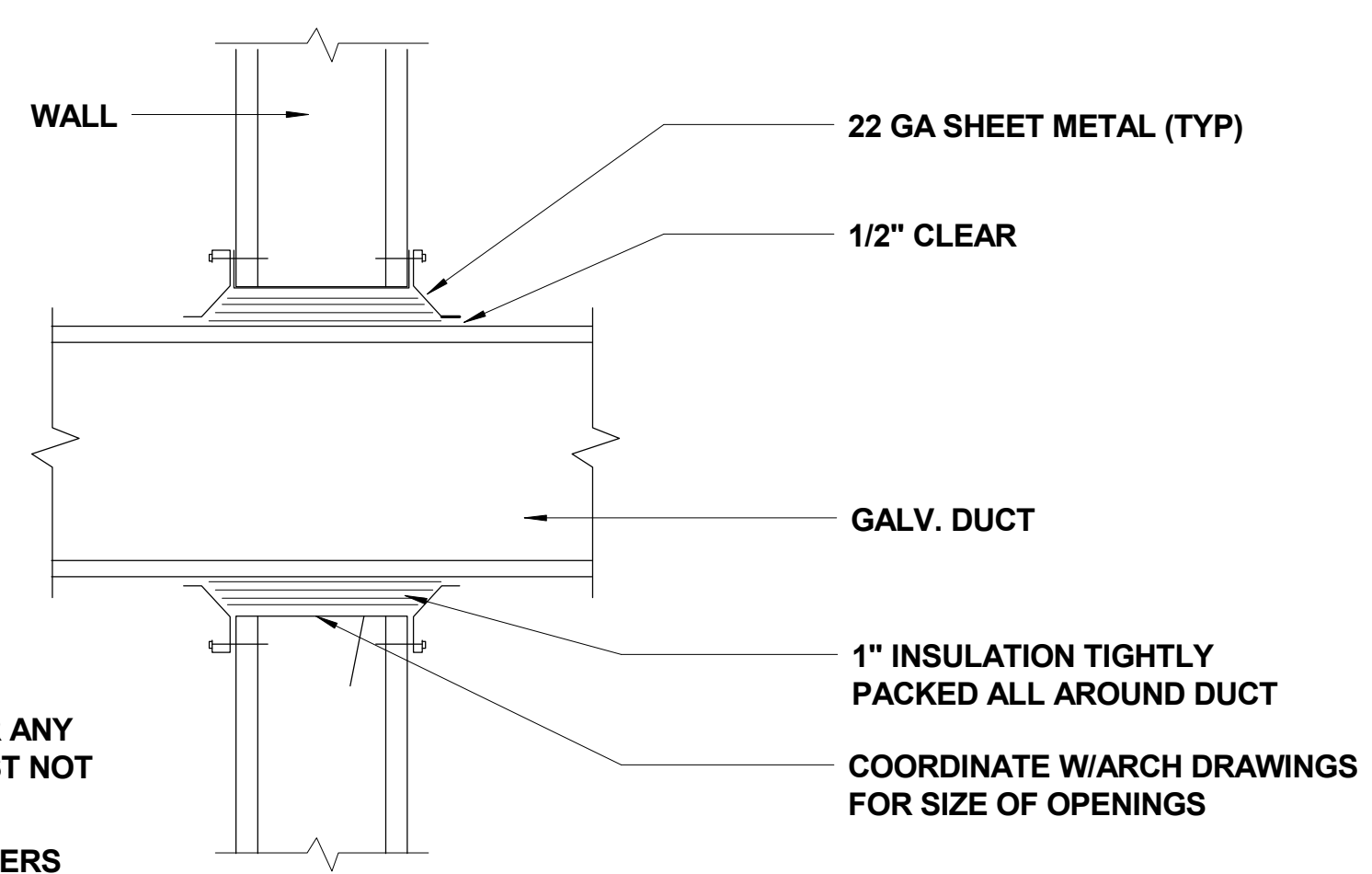
A

B

C

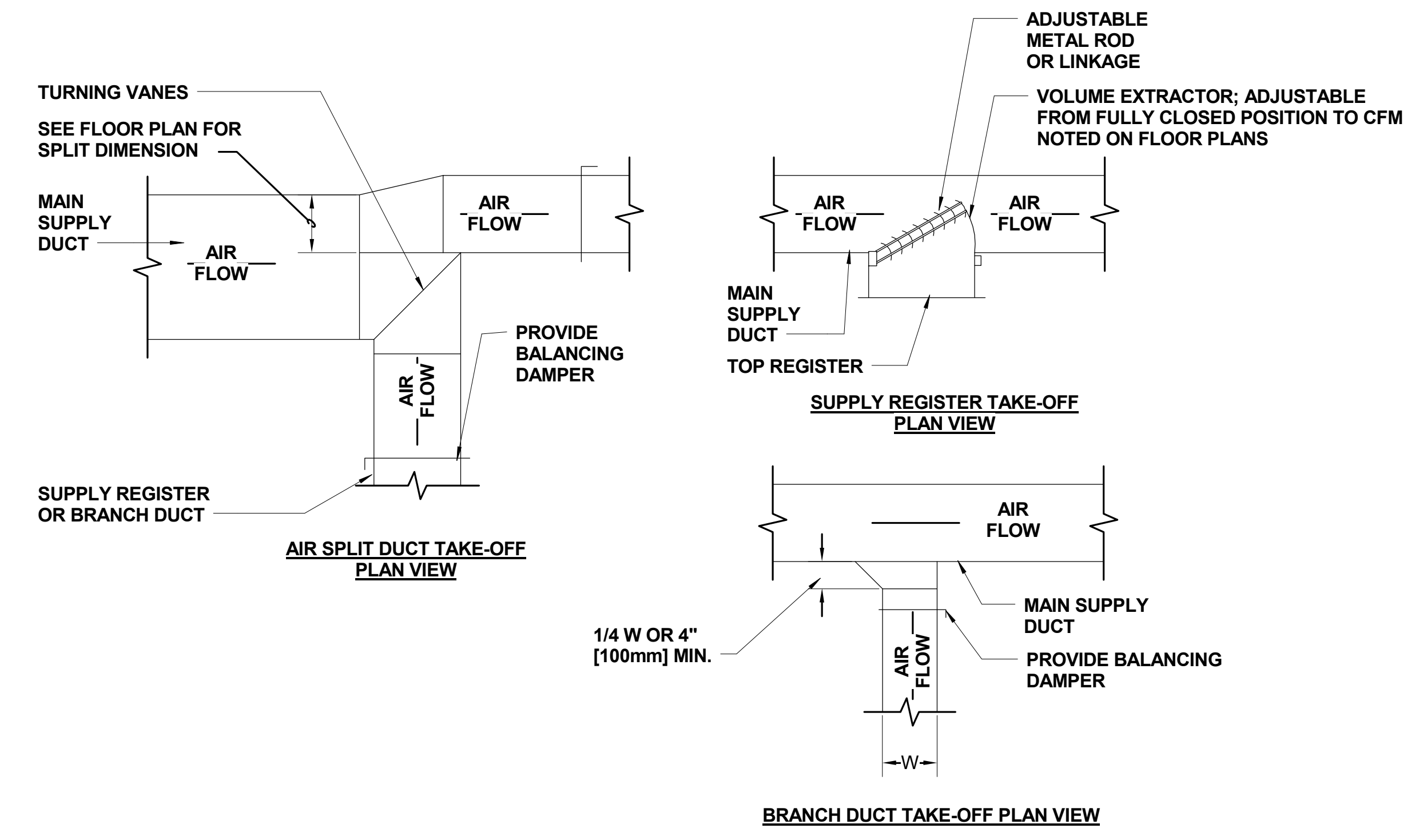
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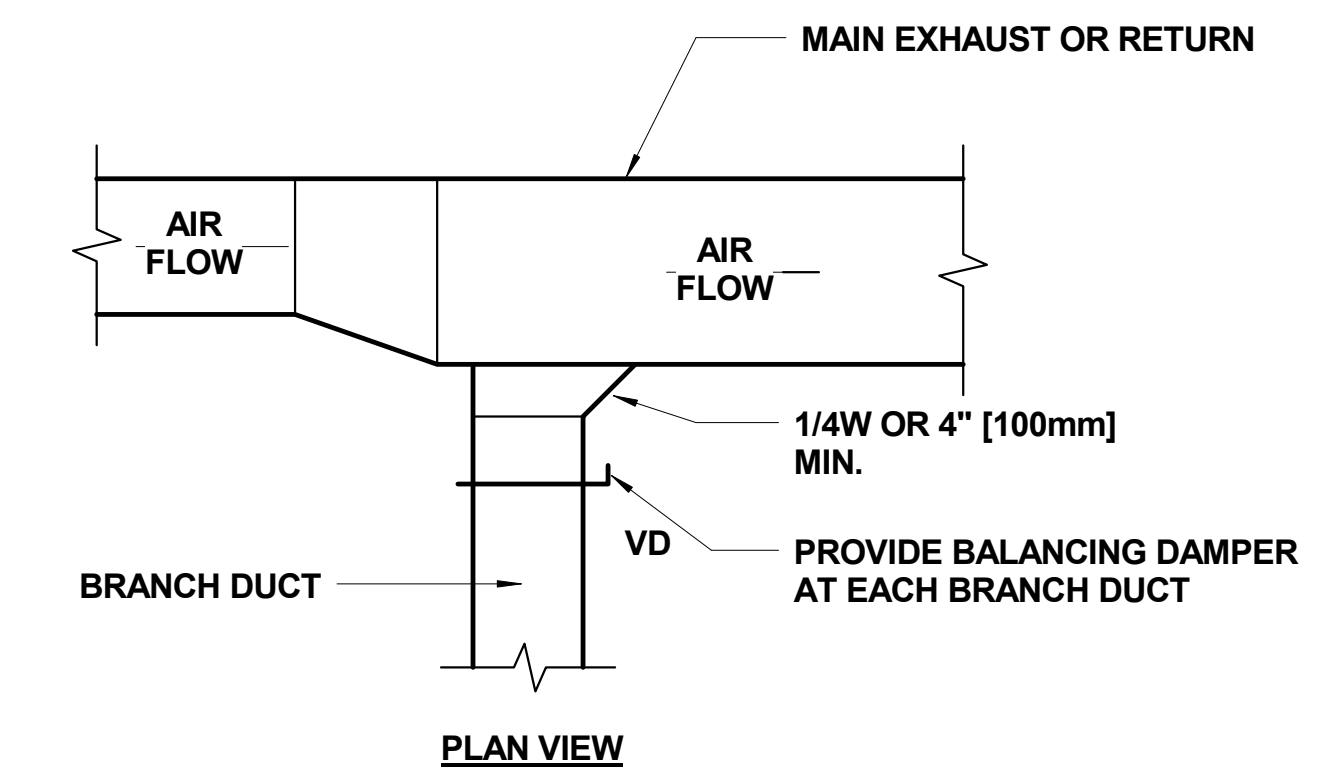


- NOTES:**
- 1 DRYWALL, METAL STUDS OR ANY OTHER RIGID MATERIAL MUST NOT TOUCH DUCT
  - 2 SUPPORT DUCT FROM HANGERS FOR ACOUSTICAL CONTROL
- COORDINATE W/ARCH DRAWINGS FOR SIZE OF OPENINGS

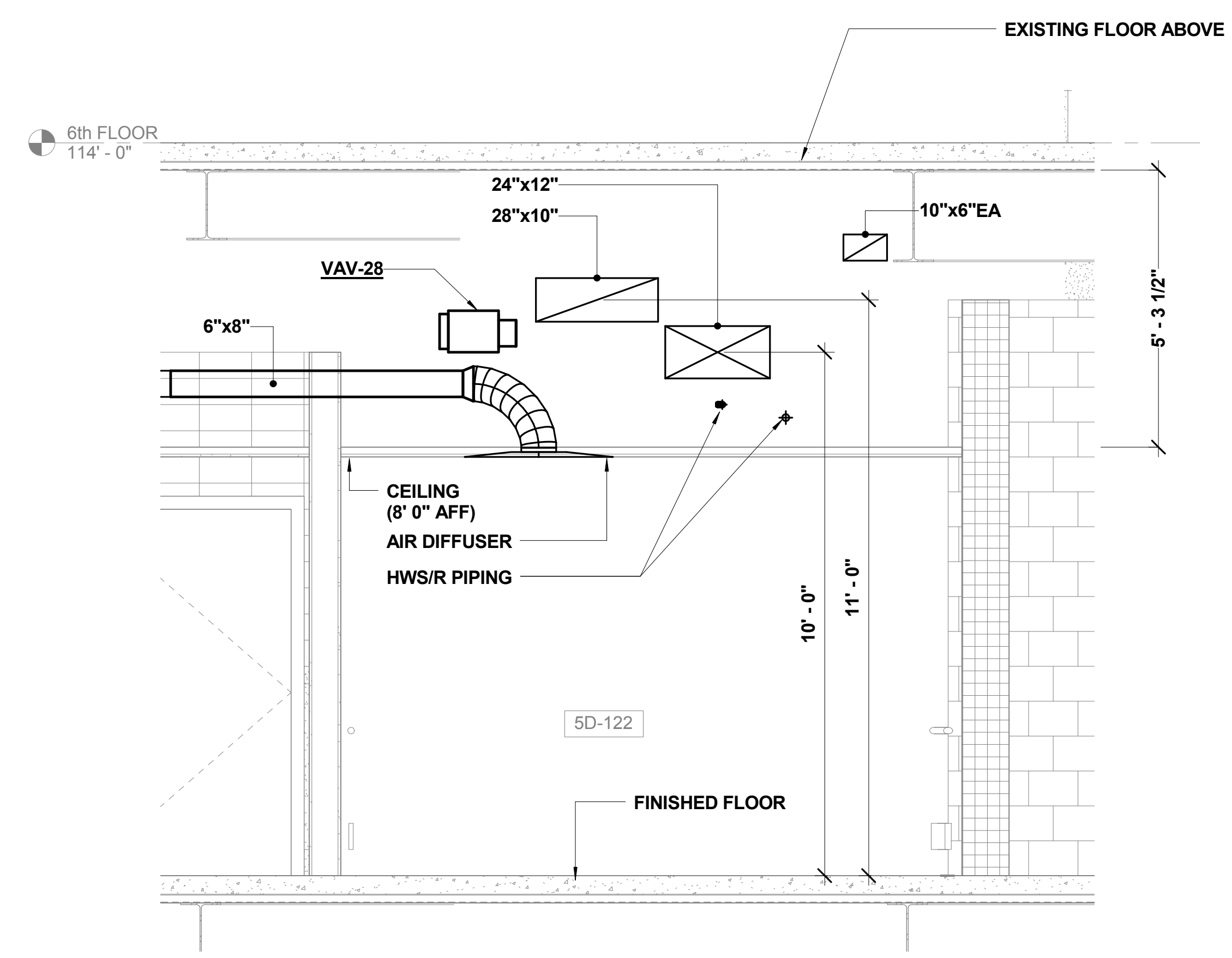
6C NTS **DETAIL - TYPICAL DUCTWORK PENETRATION - NON FIRE RATED WALL**



4C NTS **DETAIL-SUPPLY DUCTWORK TAKE OFFS**



2C NTS **DETAIL-EXHAUST OR RETURN BRANCH DUCTWORK**



6E **MECHANICAL SECTION - LEVEL 5**  
1/2" = 1'-0"

CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title <b>MECHANICAL DETAILS</b>	Project Title <b>IMPROVE 5D DIALYSIS FUNCTIONAL DEFICIENCIES</b>	Project Number 998-13-109	<b>CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM</b> Department of Veterans Affairs
		BES DESIGN/BUILD, LLC 766 Middle St, Fairhope, AL 36532 Phone: 251.990.5778 Fax: 251.990.3716		Approved: Project Director	Location 4300 WEST 7TH STREET LITTLE ROCK, AR 72205	Building Number JLM	
		[Professional Engineer Seal: State of Arkansas, Registered Professional Engineer, No. 15885, Allan Turral]		Date 2014.10.31	Drawn JDG	Checked BT	

Revisions:Date

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1

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VAV BOX CONTROL SEQUENCE

GENERAL:  
EACH VAV BOX IS CONTROLLED BY A LOCAL DEDICATED SPACE TEMPERATURE THERMOSTAT.

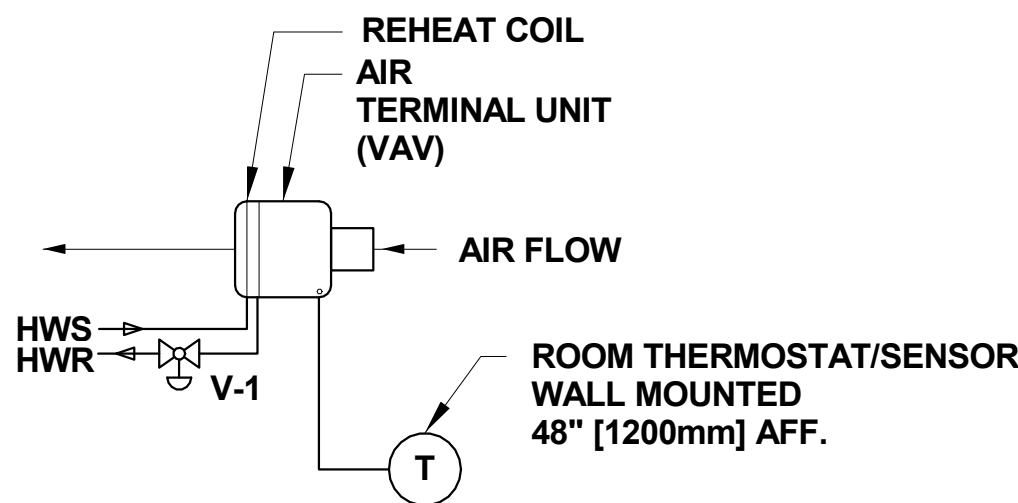
OCCUPIED:

COOLING:  
SHOULD THE SPACE TEMPERATURE RISE TO 75.0 DEG F (ADJ), THE VAV DAMPER SHALL OPEN TO THE MAXIMUM FLOW POSITION. WHEN THE SPACE TEMPERATURE FALLS TO 72.0 DEG F (ADJ) THE VAV DAMPER WILL MOVE TO THE MINIMUM FLOW POSITION.

HEATING:  
SHOULD THE SPACE TEMPERATURE FALL BELOW 72.0 DEG F (ADJ), THE VAV DAMPER WILL MOVE TO THE MINIMUM FLOW POSITION. SHOULD THE SPACE TEMPERATURE FALL TO 70.0 DEG F (ADJ), THE HEATING WATER MODULATING VALVE (V-1) SHALL OPEN FULLY UNTIL THE SPACE TEMPERATURE REACHES 74.0 DEG F (ADJ). THE HEATING WATER MODULATING VALVE SHALL CLOSE. SHOULD THE SPACE TEMPERATURE CONTINUE TO FALL THE AIRFLOW SHALL INCREASE UNTIL THE SPACE TEMPERATURE REACHES 74.0 DEG F (ADJ), THEN THE AIRFLOW SHALL RETURN TO THE MINIMUM FLOW POSITION.

UNOCCUPIED:

VAV TERMINAL UNITS SERVING INTERNAL ZONES WITH NO EXTERIOR ENVELOPE EXPOSURE SHALL SHUT-OFF THE VAV DAMPER COMPLETELY DURING THE UNOCCUPIED HEATING AND COOLING MODES. VAV TERMINAL UNITS SERVING EXTERIOR SPACES SHALL MODULATE TO THE MINIMUM FLOW SETPOINT AND MAINTAIN THE UNOCCUPIED TEMPERATURE SETPOINTS.



SHEET KEYNOTES

- 1 CONNECTED AIRFLOW OF 3,070 CFM AT 0.61" ESP.
- 2 CONNECTED AIRFLOW OF 4,050 CFM AT 1.52" ESP.
- 3 CONNECTED AIRFLOW OF 1,930 CFM AT 0.72" ESP.
- 4 CONNECTED AIRFLOW OF 5,720 CFM AT 0.48" ESP.
- 5 CONNECTED AIRFLOW OF 7,000 CFM AT 1.65" ESP.

6B VARIABLE AIR VOLUME UNIT SCHEMATIC AND CONTROL



6E AIRFLOW SCHEMATIC DIAGRAM

CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title <b>MECHANICAL SEQUENCE AND SCHEMATICS</b>		Project Title <b>IMPROVE 5D DIALYSIS FUNCTIONAL DEFICIENCIES</b>		Project Number 998-13-109		CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM	
Revisions:		BES DESIGN/BUILD, LLC 766 Middle St, Fairhope, AL 36532 Phone: 251.990.5778 Fax: 251.990.3716		Approved: Project Director		Location 4300 WEST 7TH STREET LITTLE ROCK, AR 72205		Building Number JLM		Department of Veterans Affairs	
Date		10/29/2014 3:23:02 PM		Date 2014.10.31		Drawn JDG		Checked BT		Drawing Number <b>MH601</b>	
								Dwg. 75 of 89			

CONSTRUCTION DOCUMENTS  
FULLY SPRINKLERED

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs





— — — — — EXHAUST / TRANSFER AIR  
 - - - - - RETURN AIR  
 \_\_\_\_\_ SUPPLY AIR  
 - - - - - EXISTING

\_\_\_\_\_ HOT WATER SUPPLY  
 - - - - - HOT WATER RETURN  
 - - - - - EXISTING



Department of  
Veterans Affairs



VAV TERMINAL UNIT SCHEDULE							
BOX NO.	CFM		INLET SIZE (DIA)	MAX PD (IN H2O)	HEATING COIL		REMARKS
	NOMINAL	HEATING			TOTAL (MBH)	GPM	
VAV-1	200	100	6	1.0	2.7	0.5	1
VAV-2	235	120	6	1.0	3.2	0.5	1
VAV-3	210	105	6	1.0	2.8	0.5	1
VAV-4	175	90	6	1.0	2.4	0.5	1
VAV-5	80	40	6	1.0	1.6	0.5	1
VAV-6	410	120	6	1.0	5.5	1.0	1
VAV-7	200	100	8	1.0	2.7	0.5	1
VAV-8	230	120	6	1.0	3.2	0.5	1
VAV-9	340	170	8	1.0	5.3	0.5	1
VAV-10	390	200	8	1.0	5.8	1.0	1
VAV-11	340	170	8	1.0	5.3	0.5	1
VAV-12	340	170	8	1.0	5.3	0.5	1
VAV-13	300	150	8	1.0	4.2	0.5	1
VAV-14	180	90	6	1.0	2.4	0.5	1
VAV-15	80	40	6	1.0	1.6	0.5	1
VAV-16	200	100	6	1.0	2.7	0.5	1
VAV-17	160	80	6	1.0	2.3	0.5	1
VAV-18	300	150	6	1.0	5.5	1.0	1
VAV-19	500	250	8	1.0	8.1	1.0	1
VAV-20	160	80	6	1.0	2.3	0.5	1
VAV-21	230	120	6	1.0	3.2	0.5	1
VAV-22	110	60	6	1.0	1.9	0.5	1
VAV-23	300	150	6	1.0	5.5	1.0	1
VAV-24	390	195	8	1.0	5.3	0.5	1
VAV-25	490	250	6	1.0	8.4	1.0	1
VAV-26	250	150	6	1.0	4.4	0.5	1
VAV-27	350	180	6	1.0	6.0	1.0	1
VAV-28	390	200	8	1.0	5.4	0.5	1
VAV-29	420	210	8	1.0	5.7	1.0	1
VAV-30	340	170	8	1.0	5.9	1.0	1
VAV-31	340	170	10	1.0	4.6	0.5	2,3
VAV-32	200	100	6	1.0	2.7	0.5	1
VAV-33	420	210	6	1.0	7.7	1.0	1
VAV-34	300	150	8	1.0	4.2	0.5	1
VAV-35	490	150	8	1.0	6.2	1.0	1
VAV-36	380	190	6	1.0	5.5	1.0	1
VAV-37	255	130	6	1.0	5.1	0.5	1
VAV-38	140	70	6	1.0	2.1	0.5	1
VAV-39	415	210	6	1.0	7.5	1.0	1
VAV-40	340	170	8	1.0	5.9	1.0	1
VAV-41	380	190	6	1.0	5.1	0.5	1

- NOTES:
1. RELOCATE EXISTING UNIT, REBALANCE AS INDICATED ON THE DRAWINGS.
  2. BASIS OF DESIGN SHALL BE KRUEGER LMHS.
  3. PROVIDE NEW VAV TERMINAL UNIT

AIR DEVICE SCHEDULE								
MARK	TYPE	SERVICE	PATTERN	MIN (CFM)	MAX (CFM)	NECK	BLOW	MANUFACTURE'S NUMBERS
D1	T-BAR LAY IN DIFFUSER	SUPPLY	LOUVER FACE	0	150	6"	4 WAY	METALAIRE MODEL "RHD" WITH OBD
D2	T-BAR LAY IN DIFFUSER	SUPPLY	LOUVER FACE	151	250	8"	4 WAY	METALAIRE MODEL "RHD" WITH OBD
D3	T-BAR LAY IN DIFFUSER	SUPPLY	LOUVER FACE	251	350	10"	4 WAY	METALAIRE MODEL "RHD" WITH OBD
D4	SURFACE MOUNT GRILLE	SUPPLY	HORIZONTAL LOUVERS	0	150	6"	N/A	METALAIRE SERIES S-5000-2 WITH OBD
E1	T-BAR-LAY IN GRILLE	EXHAUST	EGG CRATE	0	250	12x12	N/A	METALAIRE MODEL "CCS"
R1	T-BAR LAY IN GRILLE	RETURN	EGG CRATE	0	900	12x12	N/A	METALAIRE MODEL "CCS"
R2	SURFACE MOUNT GRILLE	RETURN	EGG CRATE	200	500	22"x10	N/A	METALAIRE MODEL "CCS"



Revisions:

Date

CONSULTANTS:

ARCHITECT/ENGINEERS:

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766 Middle St. Fairhope, AL 36532  
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Drawing Title  
MECHANICAL SCHEDULES

Approved: Project Director

Project Title  
IMPROVE 5D DIALYSIS FUNCTIONAL DEFICIENCIES

Location  
4300 WEST 7TH STREET  
LITTLE ROCK, AR 72205

Date  
2014.10.31

Project Number  
998-13-109

Building Number  
JLM

Drawing Number  
MH603

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CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs