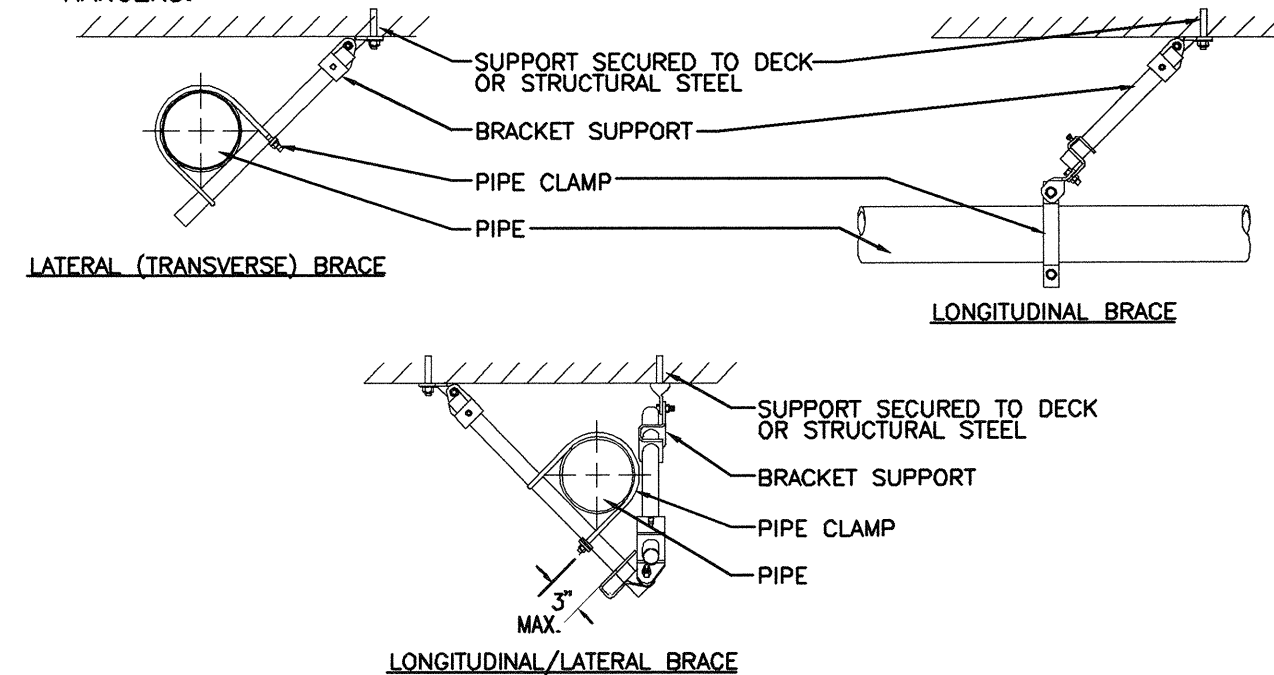


# NOTE

- ALL SUPPORTS MUST WITHSTAND THE FOLLOWING SEISMIC PERFORMANCE CRITERIA:
1. SITE CLASS AS DEFINED IN THE IBC: D
  2. ASSIGNED SEISMIC USE GROUP OR BUILDING CATEGORY AS DEFINED IN THE IBC: II
    - a. COMPONENT IMPORTANCE FACTOR: 1.5
  3. SDS DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS (0.2 SECOND): 0.50
  4. SD1 DESIGN SPECTRAL RESPONSE ACCELERATION AT 1-SECOND PERIOD: (0.55 SECOND)
  5. SEE STRUCTURAL DRAWING S5003 DETAIL C1 FOR SUPPLEMENTAL STEEL SUPPORT HANGERS.

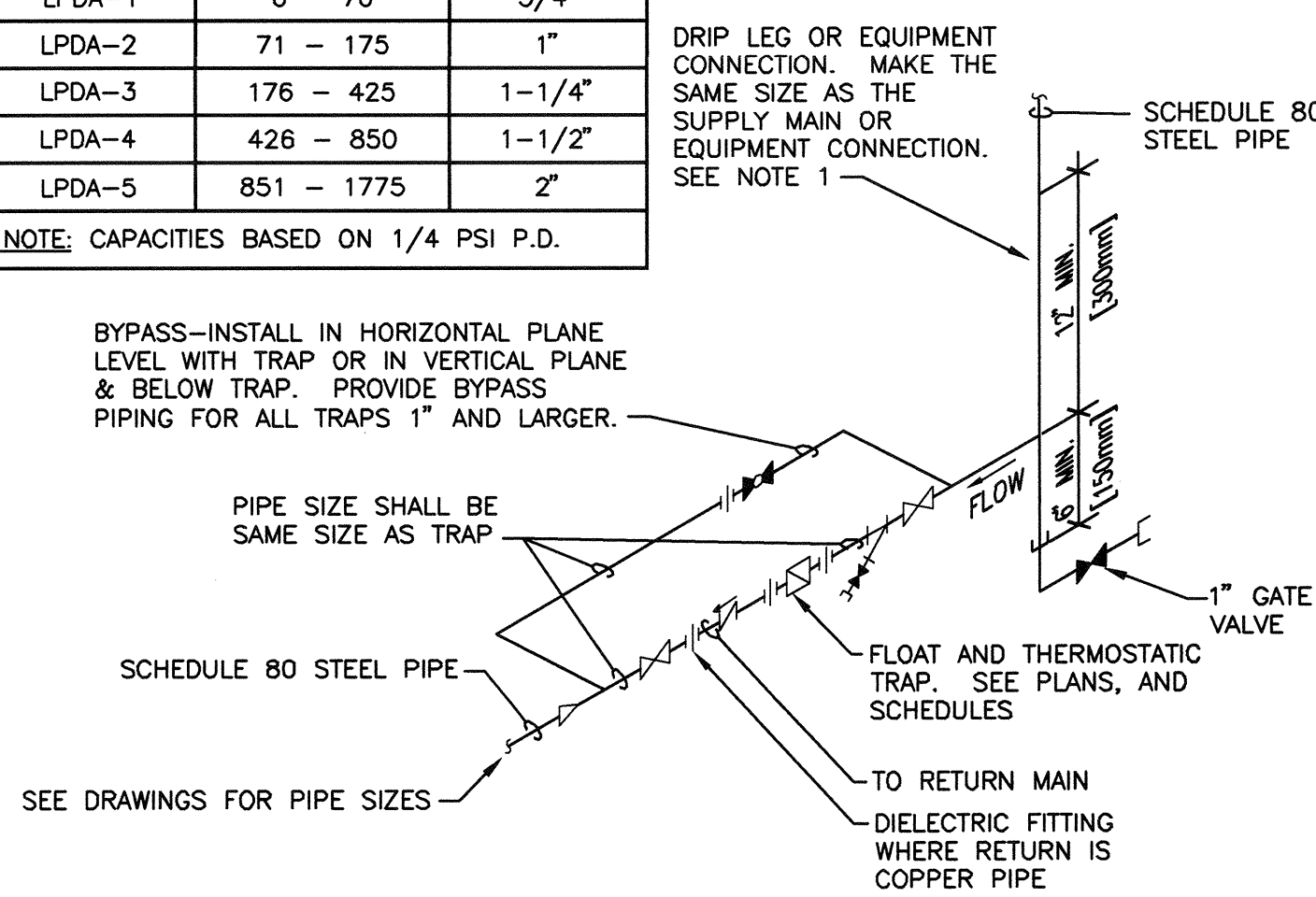


## B1 SEISMIC BRACING FOR PIPE

SCALE: NONE

DESIGNATION	LBS. PER HOUR	TRAP SIZE
LPDA-1	0 - 70	3/4"
LPDA-2	71 - 175	1"
LPDA-3	176 - 425	1-1/4"
LPDA-4	426 - 850	1-1/2"
LPDA-5	851 - 1775	2"

NOTE: CAPACITIES BASED ON 1/4 PSI P.O.



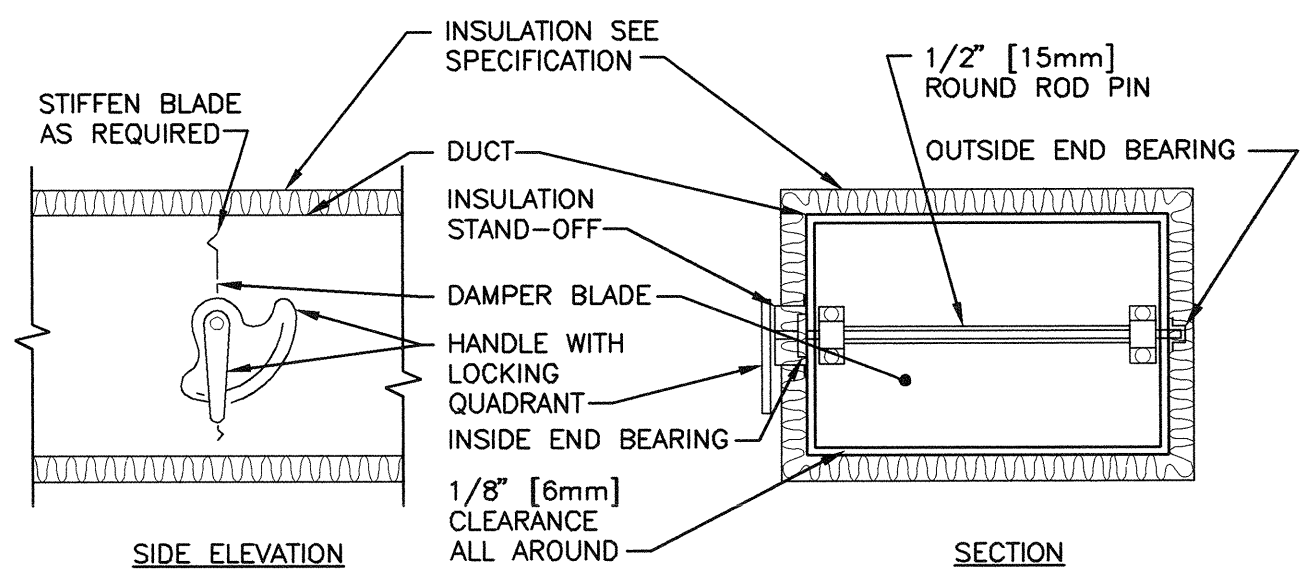
# NOTE:

1. ALL DRIP POINTS ON STEAM MAINS SHALL BE PROVIDED WITH A 12" MINIMUM HIGH DRIP LEG FROM BOTTOM OF STEAM MAIN TO TRAP INLET. DRIP LEG SHALL HAVE 6" SCALE POCKET BELOW TRAP INLET.

## E1 FLOAT AND THERMOSTATIC STEAM TRAP ASSEMBLY

SCALE: NONE

VA CAD DETAIL #: SD232213-03.DWG



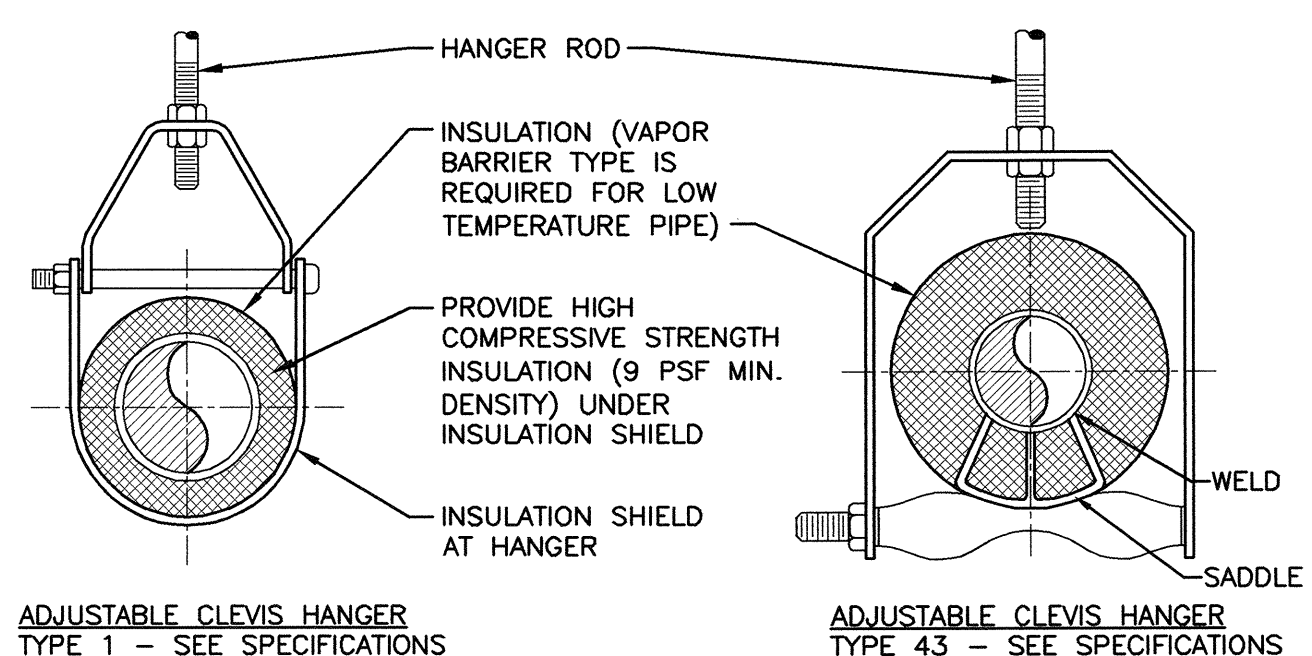
# NOTE:

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.

## F1 VOLUME DAMPER DETAIL

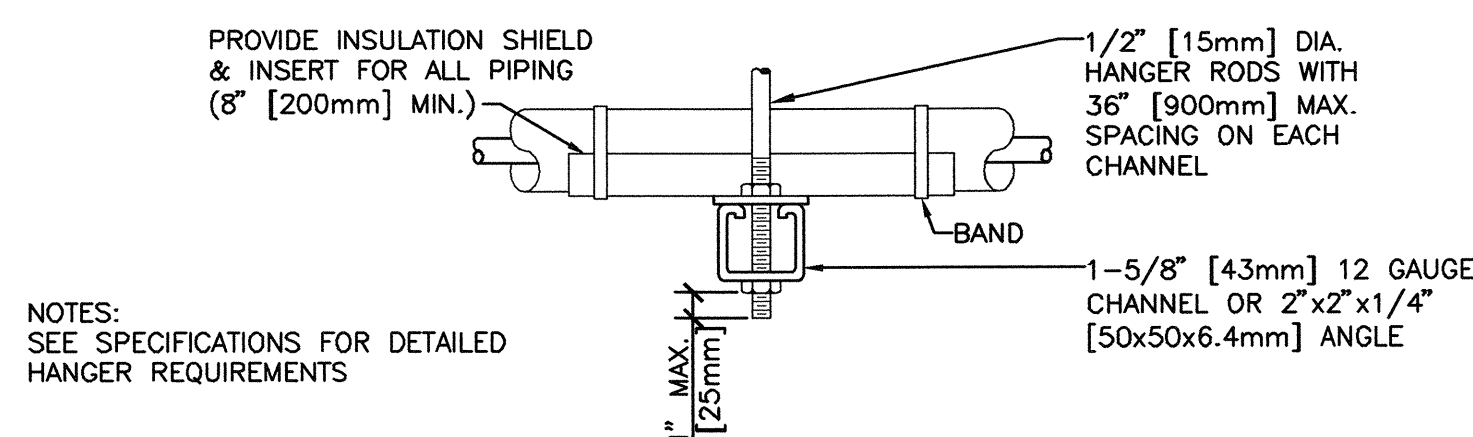
SCALE: NONE

VA CAD DETAIL #: SD233100-08.DWG



## ADJUSTABLE CLEVIS HANGER TYPE 1 - SEE SPECIFICATIONS

## ADJUSTABLE CLEVIS HANGER TYPE 43 - SEE SPECIFICATIONS



NOTES:  
SEE SPECIFICATIONS FOR DETAILED HANGER REQUIREMENTS

## SIDE VIEW TRAPEZE HANGER FOR UP TO 1000 LB. [453KG] UNIFORM LOAD

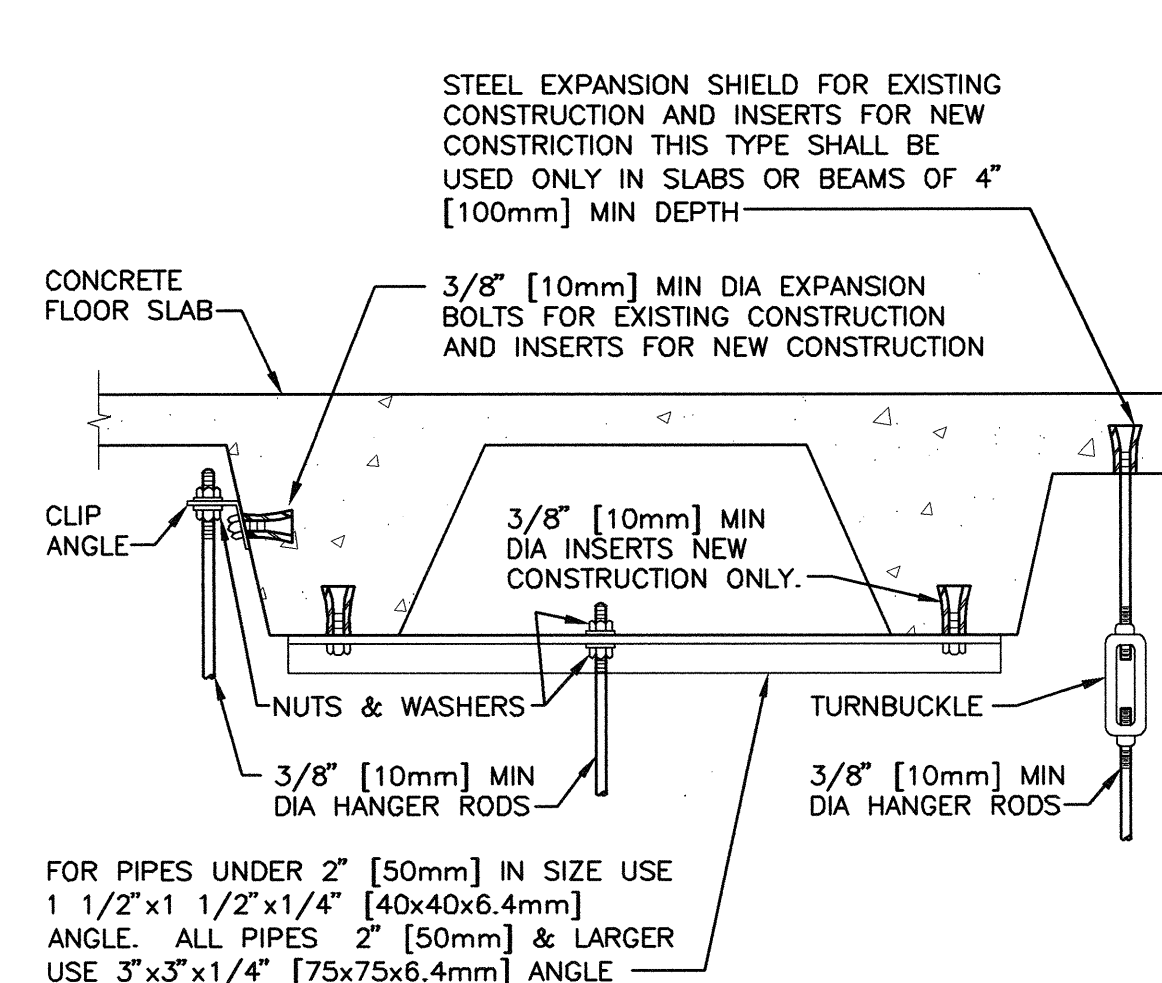
NOM. SIZE	IN. [mm]	THRU 3/4" [20]	1" [25]	1 1/4" [32]	1 1/2" [40]	2" [50]	2 1/2" [65]	3" [75]	4" [100]	5" [125]	6" [150]	8" [200]	10" [250]	12" [300]	14" [350]	16" [400]	18" [450]	20" [500]	24" [600]
PIPE	FT. [mm]	[2100]	[2100]	[2100]	[2700]	[3000]	[3400]	[3700]	[4100]	[4900]	[5200]	[5800]	[6700]	[7000]	[7600]	[8200]	[8500]	[9100]	[9600]
TUBING	FT. [mm]	[1500]	[1800]	[2100]	[2400]	[2400]	[2700]	[3000]	[3700]	[4000]	[4100]	[4900]	-	-	-	-	-	-	-

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.

## B3 PIPE HANGERS

SCALE: NONE

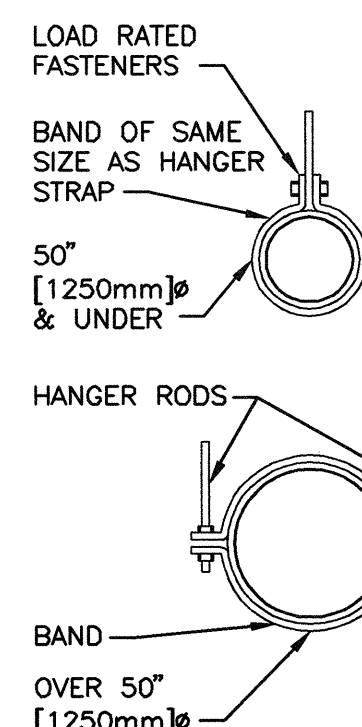
VA CAD DETAIL #: SD230511-21.DWG



## B6 SECURING HANGER RODS IN CONCRETE

SCALE: NONE

VA CAD DETAIL #: SD230541-05.DWG



MAX. DUCT # IN. [mm]	QUANTITY/SIZE	MAX. LOAD LBS. [kg]	MAX. SPACING IN. [mm]
26 [650]	ONE 1 [25] x 22 GA STRAP	260 [119]	144 [3600]
36 [900]	ONE 1 [25] x 18 GA STRAP	420 [190]	144 [3600]
50 [1250]	ONE 1 [25] x 16 GA STRAP	700 [317]	144 [3600]
60 [1500]	TWO 3/8 [10] RODS	1320 [598]	144 [3600]
84 [2100]	TWO 1/2 [13] RODS	2500 [1133]	144 [3600]

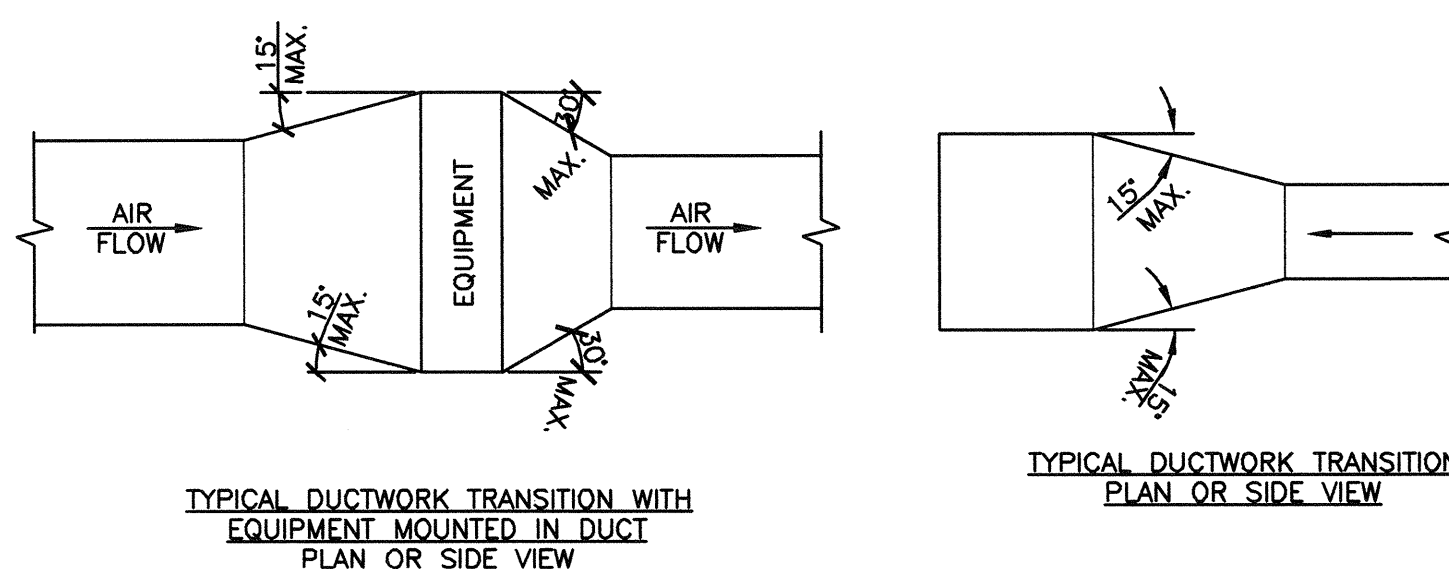
NOTE: TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD.

NOTE: FOR SUPPLY AND RETURN AIR DUCTS, INSULATE OVER BANDS AND INSULATE 12" UP HANGER RODS.

## C6 ROUND DUCT HANGERS

SCALE: NONE

VA CAD DETAIL #: SD233100-14.DWG



TYPICAL DUCTWORK TRANSITION WITH EQUIPMENT MOUNTED IN DUCT PLAN OR SIDE VIEW

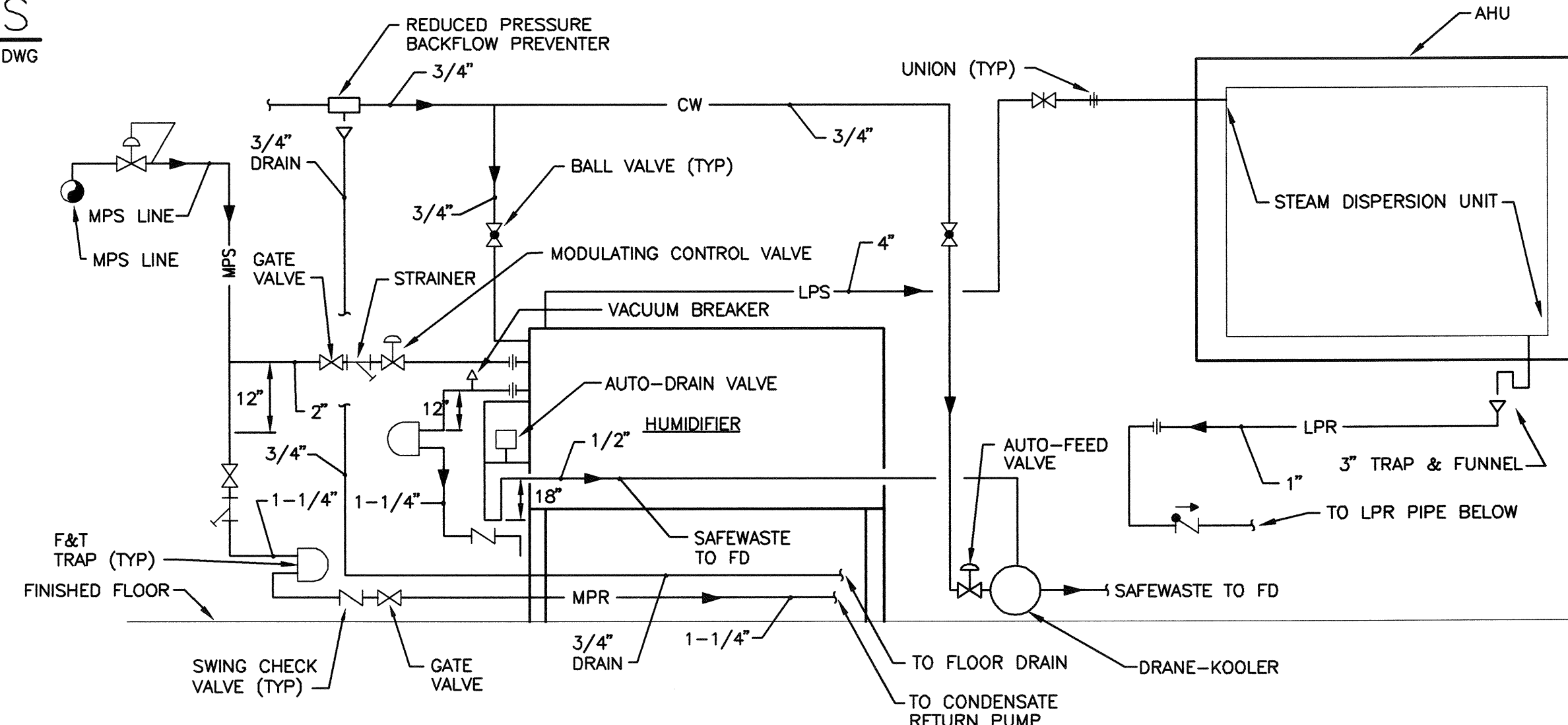
TYPICAL DUCTWORK TRANSITION PLAN OR SIDE VIEW

NOTE: UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.

## E5 DUCTWORK TRANSITIONS (WITH EQUIPMENT MOUNTED IN DUCT)

SCALE: NONE

VA CAD DETAIL #: SD233100-03.DWG

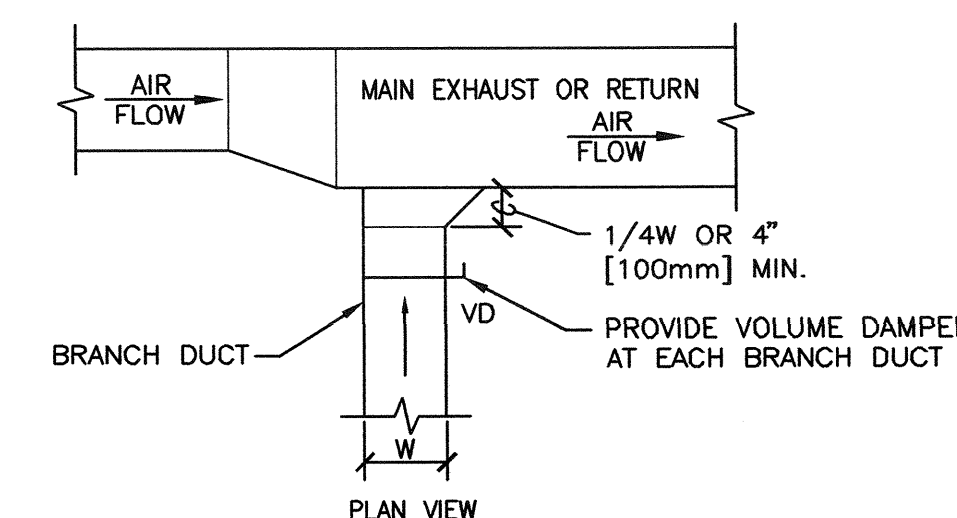


## E7 LPS STEAM TO STEAM UNIT MOUNTED DISPERSION HUMIDIFIER PIPING

SCALE: NONE

## PHASING

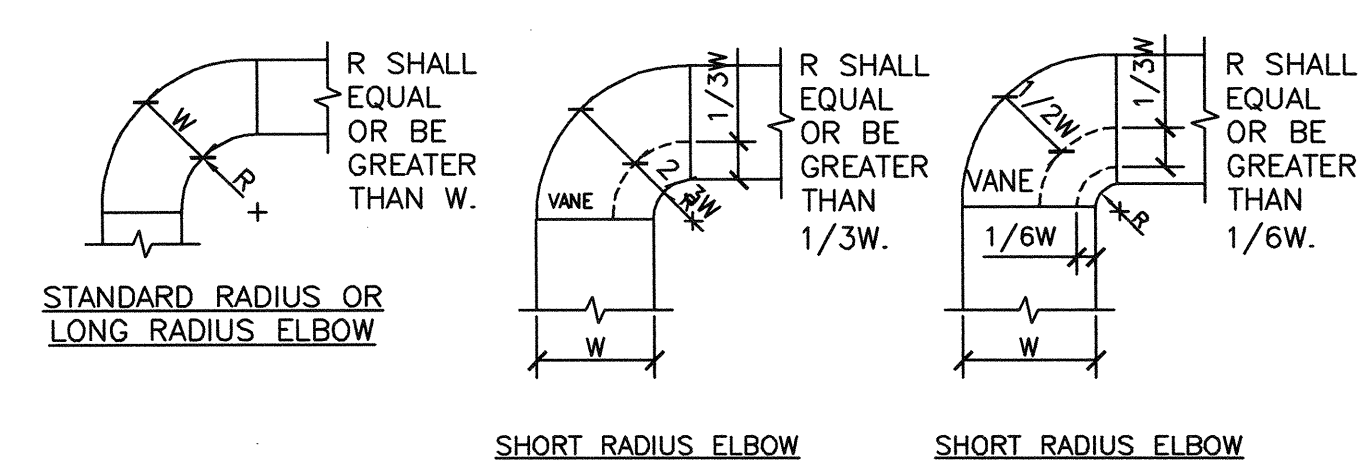
REFER TO DRAWING G102 FOR PHASING.



## F9 EXHAUST OR RETURN BRANCH DUCTWORK

SCALE: NONE

VA CAD DETAIL #: SD233100-07.DWG



STANDARD RADIUS OR LONG RADIUS ELBOW

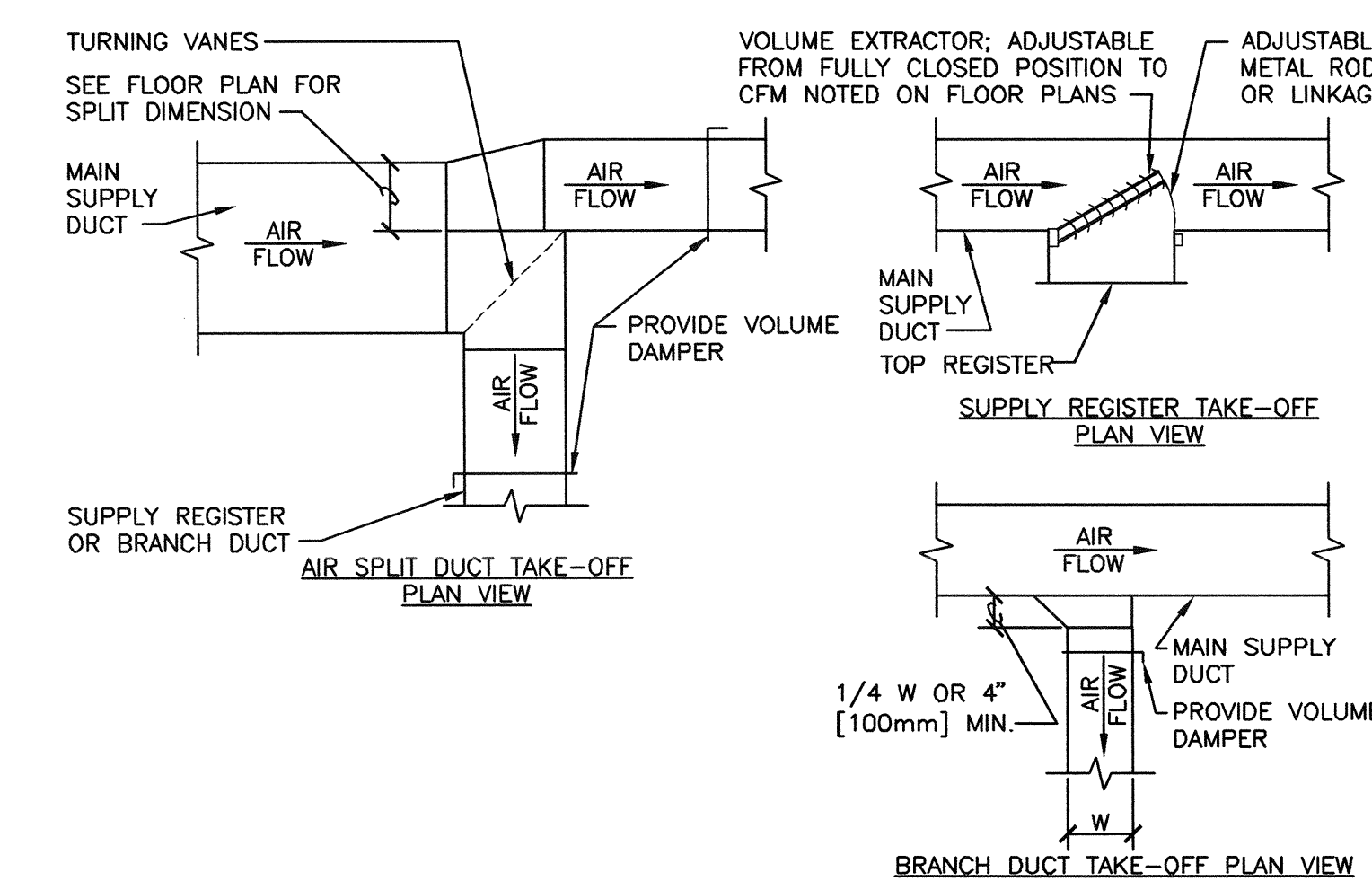
# NOTE:

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

## F5 DUCTWORK RADIUS ELBOWS

SCALE: NONE

VA CAD DETAIL #: SD233100-02.DWG



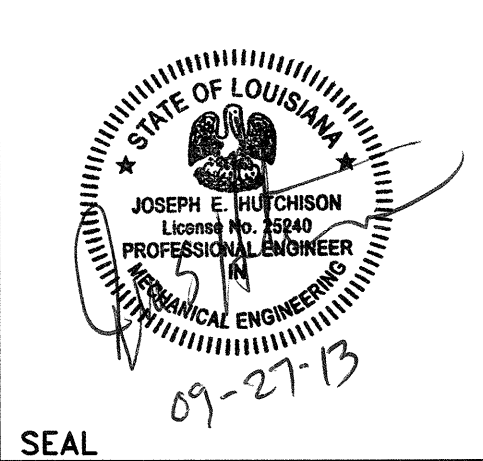
## F7 SUPPLY DUCTWORK TAKE-OFFS

SCALE: NONE

VA CAD DETAIL #: SD230541-05.DWG

REVISION NO.	REVISION DESCRIPTION
1	
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Alexandria VA Health Care System  
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Recommended Approvals:	
1. MEDICAL DIRECTOR	6. OPERATIONS SERVICE LINE MANAGER
2. ASSOCIATE DIRECTOR	7. INFECTION CONTROL MANAGER
3. CHIEF OF STAFF	8. SAFETY MANAGER
4. ASSOC. DIRECTOR	9. GENERAL ENGINEER
5. SERVICE LINE MGRS.	10. COR

Drawing Title <b>MECHANICAL DETAILS</b>	Project Title <b>DESIGN BUILDING 7 AIR HANDLER UPGRADE - PROJECT A: 7-AHU107 &amp; 7-AHU108</b>	Date <b>SEPT. 27, 2013</b>
FINAL BID DOCUMENTS	Building Number <b>7</b>	Project Number <b>502-12-201</b>
Checked <i>W/S</i>	Reviewed <i>W/S</i>	AutoCAD File Name <b>DRAWING No. M501</b>
	Const. Contract No.	

