

three inches = one foot

one and one-half inch = one foot

one inch = one foot

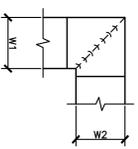
three-quarters inch = one foot

one-half inch = one foot

three-eighths inch = one foot

one-quarter inch = one foot

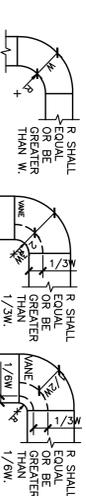
one-eighth inch = one foot



- NOTE:
1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
  2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.
  3. ALL SINGLE THICKNESS VANES SHALL HAVE 4" (100mm) RADIUS, 1/16" (40mm) MAXIMUM SPACE BETWEEN VANES AND 1/32" (80mm) TRAILING EDGE.
  4. WHEN W1 EQUALS W2 AND W1 IS GREATER THAN 20" (500mm) VANES SHALL BE DOUBLE VANE TYPE.

**1 DUCTWORK SQUARE VANE ELBOWS**

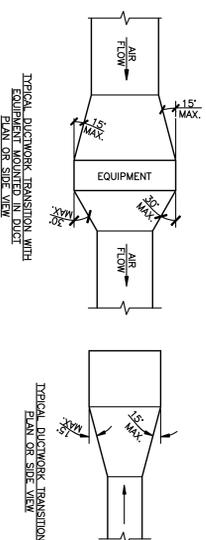
NIS



- 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.

**2 DUCTWORK RADIUS ELBOWS**

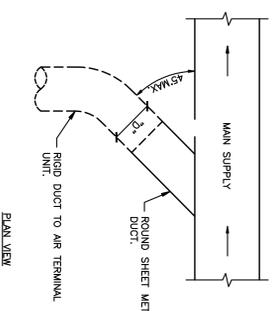
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NOTE: UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.

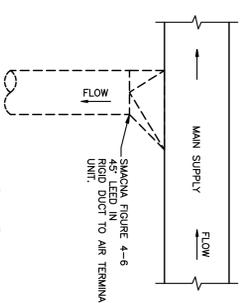
**3 DUCTWORK TRANSITIONS (WITH EQUIPMENT MOUNTED IN DUCT)**

NIS



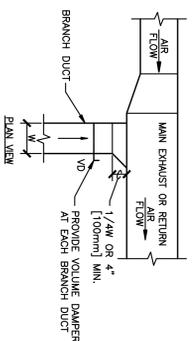
**4 SUPPLY DUCT TAKEOFF - AIR TERMINAL UNIT**

NIS



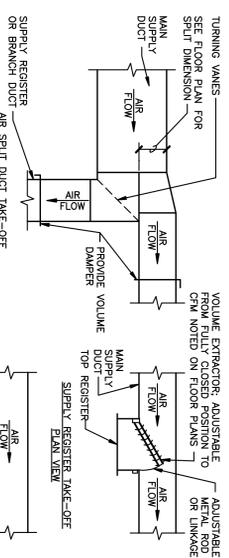
**5 ALTERNATE SUPPLY DUCT TAKEOFF - AIR TERMINAL UNITS**

NIS



**6 EXHAUST OR RETURN BRANCH DUCTWORK**

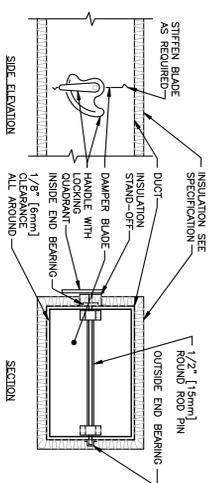
NIS



**8 SUPPLY DUCTWORK TAKE-OFFS**

NIS

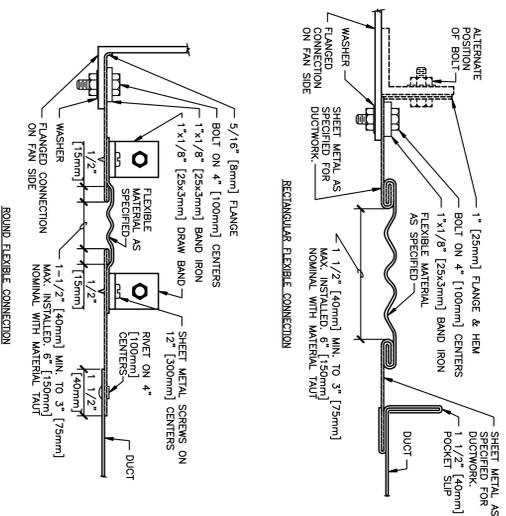
- DESIGNER'S NOTES:
1. THE SUPPLY REGISTER TAKE-OFF MAY BE USED FOR UP TO 25% OF THE MAIN DUCT CPK. THE BRANCH DUCT TAKE-OFF MAY BE USED FOR UP TO 15% OF THE MAIN DUCT CPK FROM AIRSIDE AND UP TO 40% WHEN THE MAIN DUCT VELOCITY IS 1000 FPM OR GREATER. TAKE-OFF SHALL BE USED IN ALL OTHER CASES AND MAY BE USED AT ANYTIME.
  2. SHOW ALL VOLUME DAMPERS ON FLOOR PLANS.



**9 VOLUME DAMPER DETAIL**

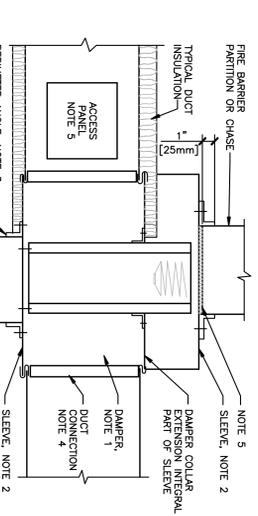
NIS

- 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.



**7 FLEXIBLE DUCT CONNECTIONS**

NIS



**10 SECTION THRU FIRE DAMPER INSTALLATION**

NIS

- NOTE:
1. A VERTICAL DAMPER IS SHOWN. HORIZONTAL DAMPER INSTALLATION IS SIMILAR. FOLLOW DAMPER MANUFACTURER'S INSTRUCTIONS, INCLUDING FASTENER OPTIONS AND GAGES PARTITION OR FLOOR AND NOT OUTSIDE THE PENETRATION.
  2. DAMPER FRAME AND 10 PERIMETER VANES.
  3. PERIMETER ANGLE: GALVANIZED STEEL, NOT LESS THAN 1/2"x1/2" (12.5x40mm). DAMPER FRAME AND 10 PERIMETER VANES.
  4. BREAKAWAY DUCT CONNECTION: CONTRACTOR'S OPTION OF TYPES SHOWN IN SMACNA LINKS.
  5. PROVIDE 1/4" TO 1/2" (6 TO 12.5mm) CLEARANCE ON HEIGHT AND WIDTH. TILL OPEN SPACE WITH ROCK WOOL FIBERSTOP FIBER.
  6. ALL DUCT WORK REGS WHICH ARE RUN, CROSS, SIGN AS THRU WITH FLOORS AND MECHANICAL ROOM FLOORS, SHALL BE PROVIDED WITH 3" (75mm) HIGH CONCRETE CURB AROUND OPENING FOR DUCT.

Revisions	Date
100% Submission	7/02/10
90% Submission	5/27/10
60% Submission	4/28/10

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Architect stamp

CARDIOLOGY	DATE	ENGINEERING MANAGER	DATE
INFECTION CONTROL	DATE	CARELINE MANAGER	DATE
SAFETY OFFICER	DATE	CHIEF OF STAFF	DATE

MECHANICAL DETAILS (SHEET 6 OF 8)	DATE
MEDICAL CENTER DIRECTOR	DATE
ASSOCIATE MEDICAL CENTER DIRECTOR	DATE

Project Title	Location
RENOVATION OF BLDG #1, 2ND FLOOR, B-WARD	VA M.C. BAYVIEW, NEW YORK

Date	Section No.
JULY 2, 2010 (UPDATED 10/07/10)	528

09-352 MH-607

Office of Facilities  
Department of Veterans Affairs