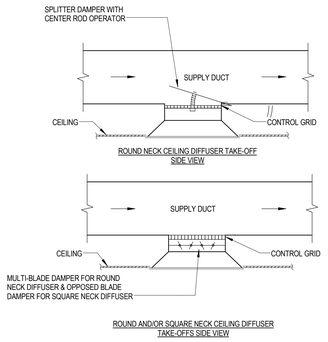
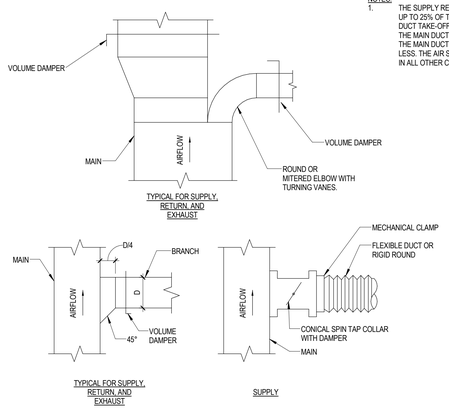
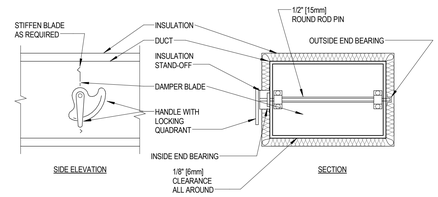


1 SUPPLY DIFFUSER TAKE-OFF DETAIL
NTS

NOTES:
1. THE SUPPLY REGISTER TAKE-OFF MAY BE USED FOR UP TO 25% OF THE MAIN DUCT CFM. THE BRANCH DUCT TAKE-OFF MAY BE USED FOR UP TO 15% OF THE MAIN DUCT CFM ANYTIME AND UP TO 40% WHEN THE MAIN DUCT VELOCITY IS 1000 FPM (5 M/S) OR LESS. THE AIR SPLIT DUCT TAKE-FF SHALL BE USED IN ALL OTHER CASES AND MAY BE USED AT ANYTIME.

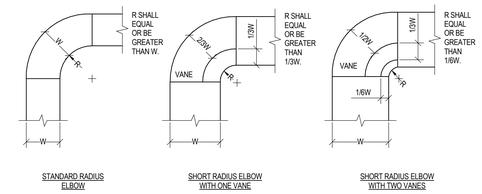


2 SUPPLY DUCTWORK TAKE-OFFS DETAIL
NTS



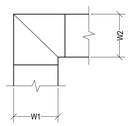
NOTE:
1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.
VOLUME DAMPER DETAIL

3 VOLUME DAMPER DETAIL
NTS



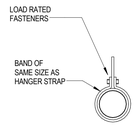
NOTES:
1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS SHOWN ON FLOOR PLANS MAY BE MADE SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

4 RADIUS ELBOW DETAIL
NTS



NOTES:
1. ALL VANED ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE VANE TYPE REGARDLESS OF W DIMENSION.
3. ALL SINGLE VANES SHALL HAVE A 2" [50mm] RADIUS, 1 1/2" [40mm] MAXIMUM SPACE BETWEEN VANES AND A 3/4" [20mm] TRAILING EDGE.
4. WHEN W EQUALS W2 AND W1 IS GREATER THAN 20" [500mm] VANES SHALL BE DOUBLE VANE TYPE.

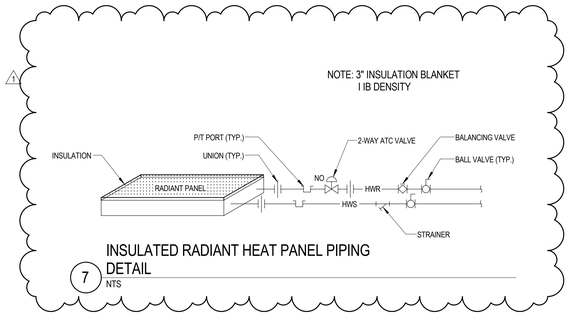
5 MITERED ELBOW DETAIL
NTS



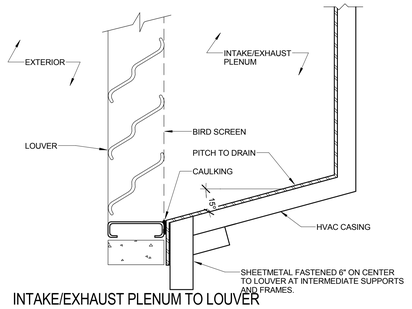
HANGER STRAPS OR RODS			
MAX. DUCT ◯ IN. [mm]	QUANTITY/SIZE IN. [mm]	MAX. LOAD LBS. [kg]	MAX. SPACING IN. [mm]
26 [650]	ONE 1 [25] x 22 GA STRAP	260 [119]	144 [3658]

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

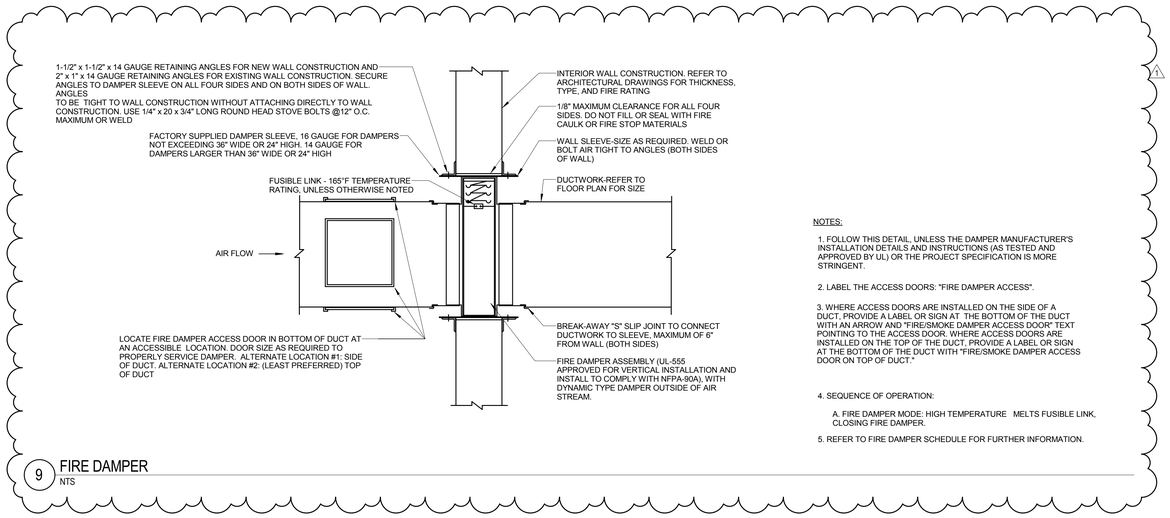
6 PIPE HANGER DETAIL
NTS



7 INSULATED RADIANT HEAT PANEL PIPING DETAIL
NTS

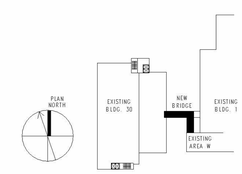


8 INTAKE/EXHAUST PLENUM TO LOUVER CONNECTION
NTS



NOTES:
1. FOLLOW THIS DETAIL, UNLESS THE DAMPER MANUFACTURER'S INSTALLATION DETAILS AND INSTRUCTIONS (AS TESTED AND APPROVED BY UL) OR THE PROJECT SPECIFICATION IS MORE STRINGENT.
2. LABEL THE ACCESS DOORS: "FIRE DAMPER ACCESS".
3. WHERE ACCESS DOORS ARE INSTALLED ON THE SIDE OF A DUCT, PROVIDE A LABEL OR SIGN AT THE BOTTOM OF THE DUCT WITH AN ARROW AND "FIRE/SMOKE DAMPER ACCESS DOOR" TEXT POINTING TO THE ACCESS DOOR. WHERE ACCESS DOORS ARE INSTALLED ON THE TOP OF THE DUCT, PROVIDE A LABEL OR SIGN AT THE BOTTOM OF THE DUCT WITH "FIRE/SMOKE DAMPER ACCESS DOOR ON TOP OF DUCT."
4. SEQUENCE OF OPERATION:
A. FIRE DAMPER MODE: HIGH TEMPERATURE MELTS FUSIBLE LINK, CLOSING FIRE DAMPER.
5. REFER TO FIRE DAMPER SCHEDULE FOR FURTHER INFORMATION.

9 FIRE DAMPER
NTS



KEY PLAN

PEER REVIEW DOCUMENTS - DECEMBER 21st, 2016

FULLY SPRINKLERED

Revisions:		Date
1	AMENDMENT 3	01-31-17

CONSULTANTS:

ARCHITECT/ENGINEERS:

ARCHITECTURE
ENGINEERING
INTERIOR DESIGN
DESIGN/BUILD
ASTORINO
227 Fort Pitt Boulevard Pittsburgh Pennsylvania 15222
TEL 412 765 1700 FAX 412 765 1711 www.astorino.com

Drawing Title: **HVAC DETAILS & SCHEDULES**

Approved: Project Director

Project Title: **VA CARES CONSOLIDATION VAMC, PITTSBURGH, PA CONNECTING BRIDGE**

Location: **VAPHS UNIVERSITY DRIVE**

Date | Checked: **Checker** | Drawn: **Author**

Project Number: **646CA2500B**

Building Number: **1 & 30**

Drawing Number: **MH0-701**

Dwg. of

Office of Facilities Management

Department of Veterans Affairs

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