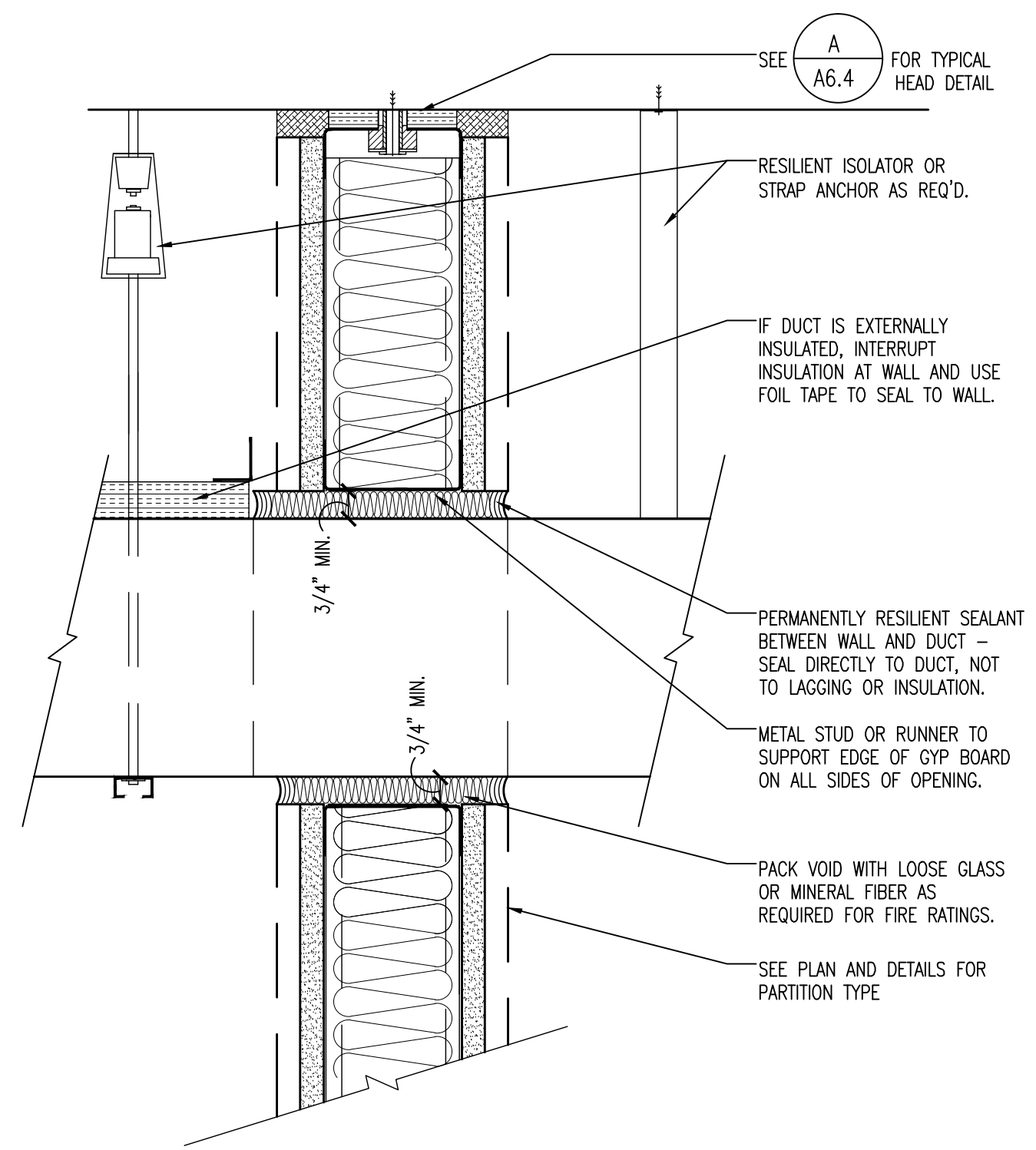
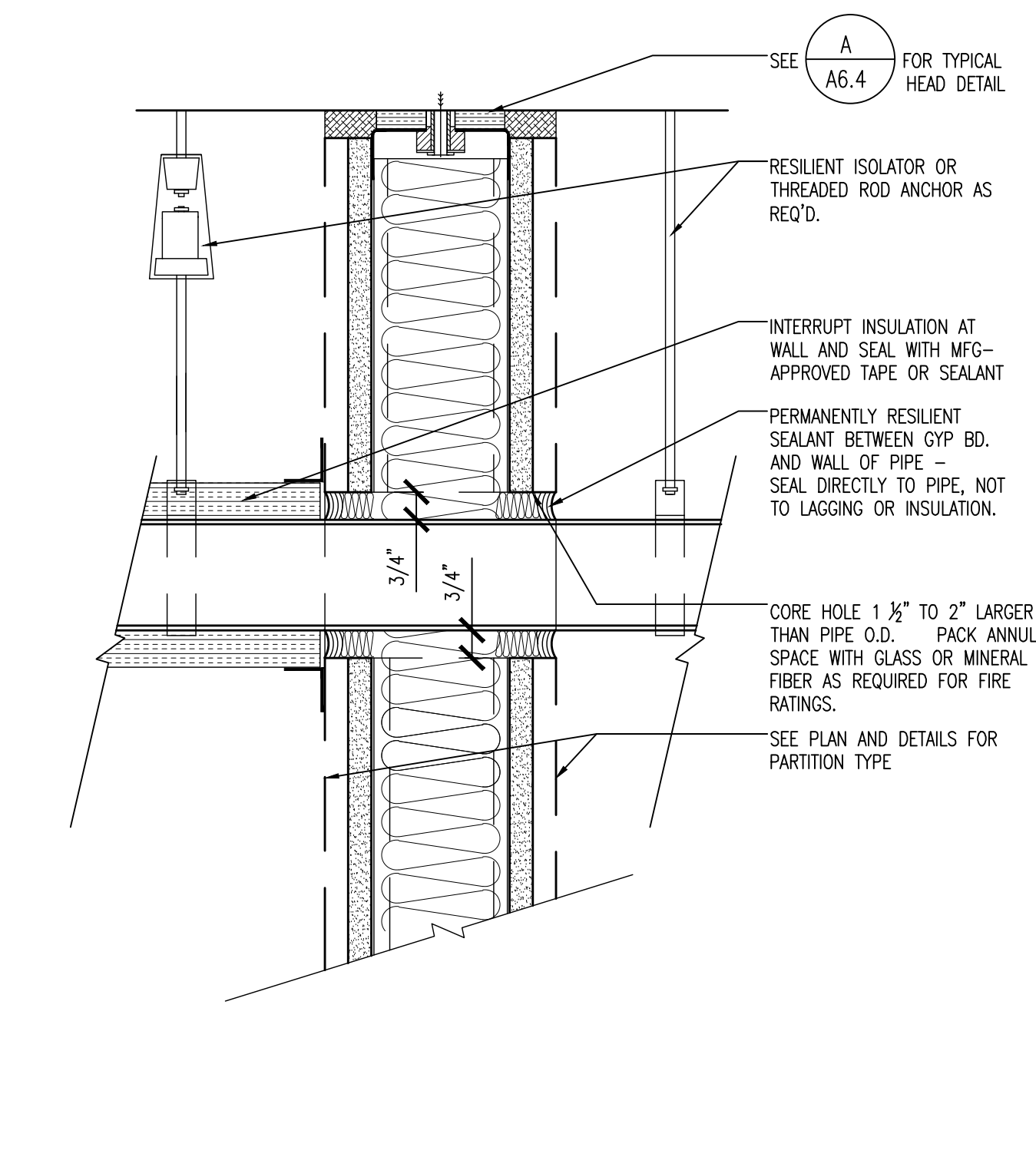


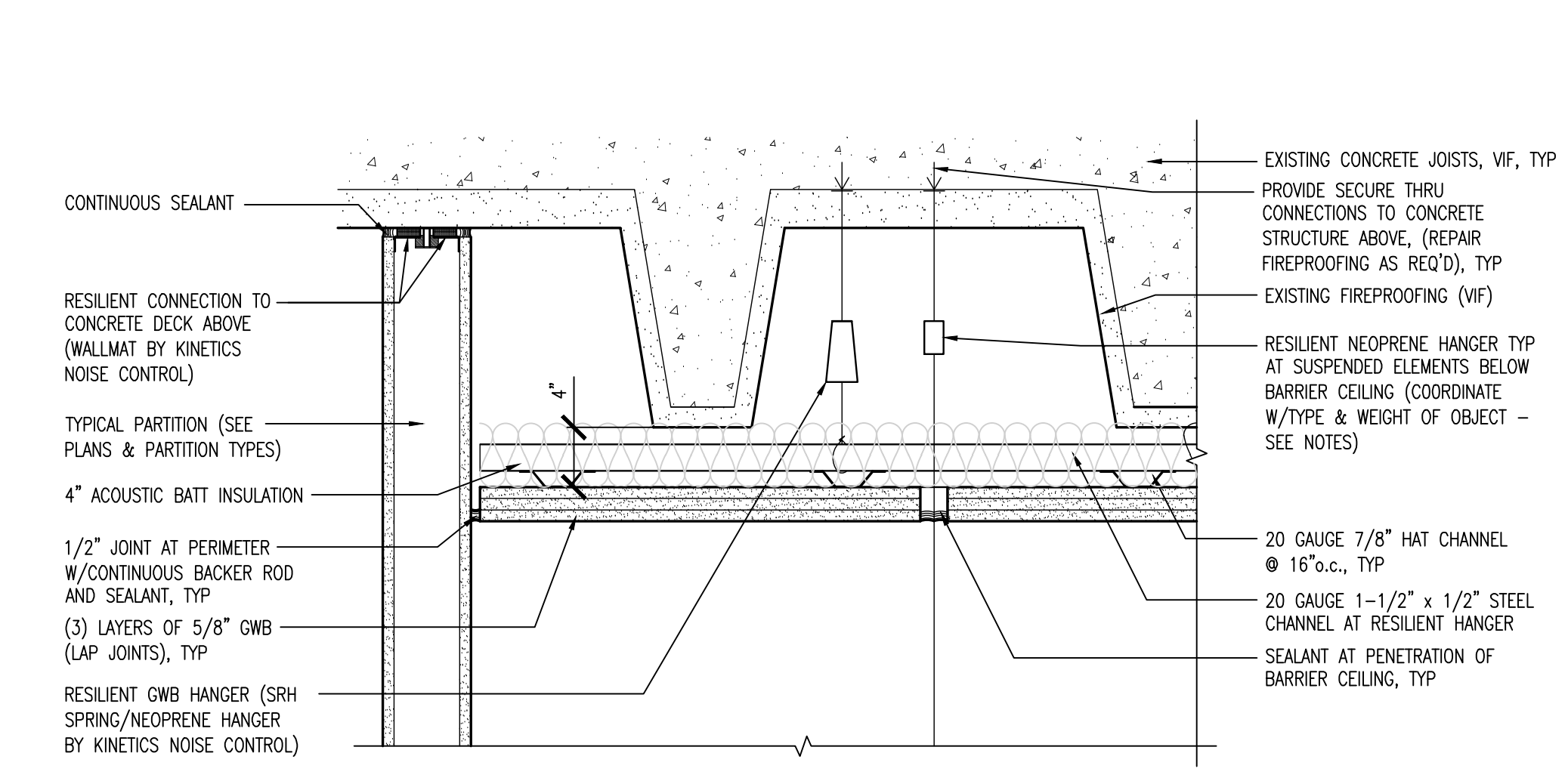
1 RESILIENT HEAD DETAIL
SCALE: 6" = 1'-0"



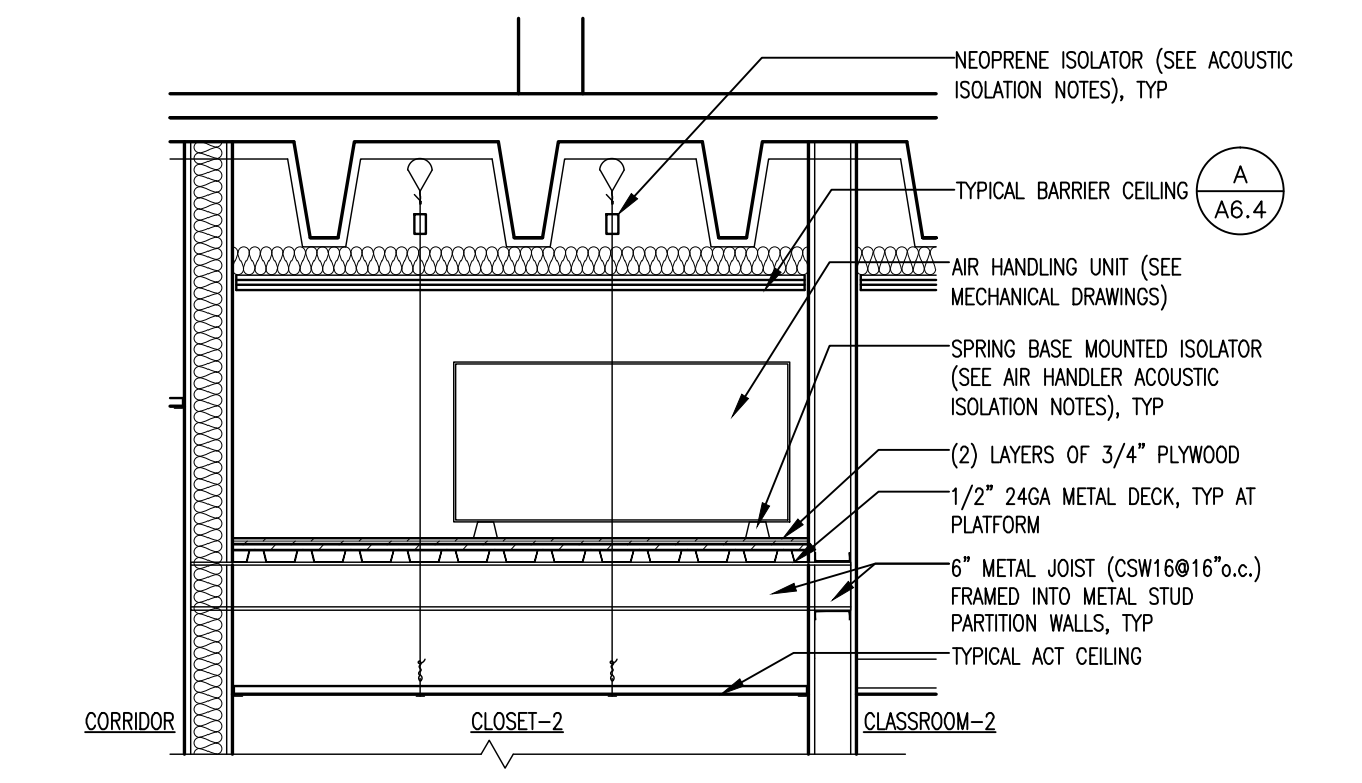
2 PENETRATION DETAIL - DUCT THROUGH SINGLE STUD GWB PARTITION
SCALE: 3" = 1'-0"



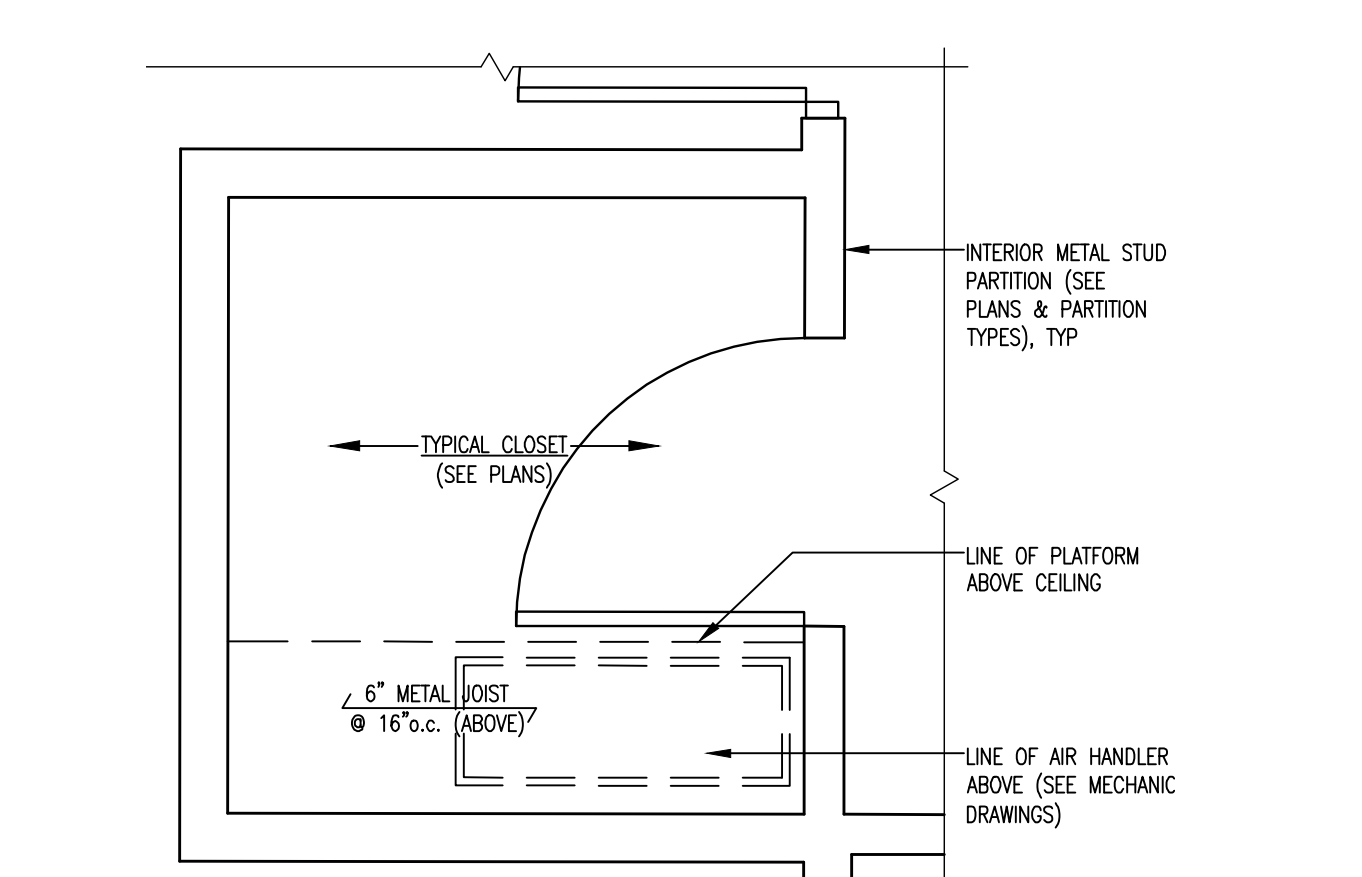
3 PENETRATION DETAIL - PIPE THROUGH SINGLE STUD GWB PARTITION
SCALE: 3" = 1'-0"



4 BARRIER CEILING DETAIL
SCALE: 1-1/2" = 1'-0"



5 SECTION @ CLOSET-2 (OTHER "AH" LOCATIONS SIMILAR)
SCALE: 1/2" = 1'-0"



6 PARTIAL PLAN @ TYPICAL CLOSET
SCALE: 1/2" = 1'-0"

ARCHITECTURAL ACOUSTIC SEPARATION SCOPE NOTES:

- PARTITIONS: PROVIDE GWB, INSULATION AND RESILIENT HEAD CONNECTIONS AT PARTITIONS AS INDICATED (SEE PARTITION TYPES).
- INTERIOR DOORS: DOORS AT CORRIDORS (CLASSROOMS, OFFICE & VESTIBULE) TO BE INSTALLED IN HOLLOW METAL FRAMES FILLED WITH INSULATION, SIDELITES AND DOOR LITES TO CONSIST OF LAMINATED GLASS. PROVIDE WOOD OR ALUMINUM RIM DOORS WITH PERIMETER SEALS AND 3/8" RAISED THRESHOLDS.
- EXTERIOR DOORS: DOORS TO BE INSTALLED IN HOLLOW METAL FRAMES FILLED WITH INSULATION. SIDELITES AND DOOR LITES TO CONSIST OF ASYMMETRIC LAMINATED GLASS (1/4" INSIDE LITE, 5/16" OUTSIDE LITE). PROVIDE WOOD OR ALUMINUM RIM DOORS WITH ACOUSTIC/WEATHER SEALS AND RAISED THRESHOLDS.
- EXTERIOR GLAZING: PROVIDE ASYMMETRIC LAMINATED GLASS (SEE ABOVE) AT CLASSROOM GLAZING (CLASSROOM-1, 2, 3 & MULTIPURPOSE).
- WALL FINISHES: PROVIDE ABSORPTIVE WALL PANELS AS INDICATED (SEE PLANS).
- CLASSROOM CEILINGS: ISOLATED BARRIER CEILING (SEE 4/A6.4) WITH ACOUSTIC TILE (NRC .90) CLOUDS SUSPENDED WITH NEOPRENE ISOLATORS. PROVIDE BARRIER CEILING AT STORAGE ROOMS AND CLOSETS CONTIGUOUS WITH CLASSROOM SPACES AS INDICATED ON REFLECTED CEILING PLANS (A7.1). PROVIDE 4" BATT INSULATION ABOVE BARRIER CEILING.
- CORRIDOR CEILINGS: ISOLATED SUSPENDED ACOUSTIC TILE (NRC .60-.70) CEILING WITH 2" BATT INSULATION ON TOP. PROVIDE NEOPRENE ISOLATOR AT EACH HANGER.

ISOLATOR TYPES:

- TYPE A: ELASTOMERIC PADS**
5/16" MINIMUM THICKNESS, WAFLED OR RIBBED NEOPRENE. WHERE MULTIPLE LAYERS ARE REQUIRED TO PROVIDE THE SPECIFIED DEFLECTIONS, INTERLEAVE LAYERS WITH 1/8" GAUGE STEEL SPAN PLATES. SIZE PADS FOR DEFLECTION EQUAL TO 10 TO 15 PERCENT OF UNLOADED HEIGHT AND PROVIDE PADS OF SUFFICIENT THICKNESS TO ACHIEVE THE SPECIFIED DEFLECTION. PROVIDE LOAD-DISTRIBUTING TOP PLATES IF REQUIRED FOR UNIFORM LOADING. ACCEPTABLE PRODUCTS INCLUDE:
1. MASON PDSB
A. MASON W/ SW AND SUPER W
B. KINETICS NP
C. AMBER-BOOTH NR
2. AMBER-BOOTH SR-3R STRALE E
- TYPE B: NEOPRENE-IN-SHEAR BASE-MOUNTED ISOLATORS**
DOUBLE-DEFLECTION ISOLATORS WITH STEEL BOTTOM PLATES WITH PRE-DRILLED BOLT HOLES FOR ATTACHMENT TO FLOOR OR BASE. A THREADED SPRING OR WASHER TO BE KEPT AT THE TOP OF THE ISOLATOR FOR ATTACHING THE EQUIPMENT, AND FRICTION SURFACES AT BOTH TOP AND BOTTOM. COAT ALL METAL SURFACES WITH NEOPRENE. DESIGN ISOLATORS FOR 0.25 TO 0.35 INCHES OF DEFLECTION. ACCEPTABLE PRODUCTS INCLUDE:
1. MASON SIF
2. KINETICS SR
3. AMBER-BOOTH SW
- TYPE C: OPEN SPRING BASE-MOUNTED ISOLATORS**
PRESTRESSING AND LATERALLY STABLE WITH NO HOUSING. FURNISHED WITH LEVEL-ADJUSTMENT BOLTS FOR ROOF CONNECTION TO THE ISOLATED EQUIPMENT. PROVIDE WITH MOLDED NEOPRENE CUP OR 1/4" INCH THICK TYPE A ELASTOMERIC FRICTION PAD BETWEEN ISOLATOR BASE AND ITS SUPPORT. SIZE THE PADS AND ASSOCIATED LOAD DISTRIBUTION PLATES FOR DEFLECTION OF 10 TO 20 PERCENT OF THE UNLOADED THICKNESS OF THE PADS. VARY SPRING SIZE AS REQUIRED FOR EQUAL DEFLECTION UNDER NON-UNIFORM DISTRIBUTED EQUIPMENT LOADS. ACCEPTABLE PRODUCTS INCLUDE:
1. MASON SIF
2. KINETICS SR
3. AMBER-BOOTH SW
- TYPE D: RESTRAINED OPEN SPRING BASE-MOUNTED ISOLATORS**
BUILT-IN ADJUSTABLE SPRING RESTRAINTS FOR EQUIPMENT WITH OPERATING WEIGHT GREATER THAN WEIGHT UPON INSTALLATION TO PREVENT EQUIPMENT FROM DEFLECTING (OR RISING) WHEN THE ADDITIONAL WEIGHT IS APPLIED (OR REMOVED) IN THE FUTURE. PROVIDE ISOLATORS AS SPECIFIED FOR TYPE C (BUT WITH RESTRAINT STUDS AND ADJUSTABLE NUTS). PROVIDE 1/2" MINIMUM CLEARANCE AROUND THE RESTRAINT STUDS. USE BRASS-BEARING QUALITY NEOPRENE FOR ELASTOMERIC FRICTION PADS AT CHILLERS AND COOLING TOWERS. ACCEPTABLE PRODUCTS INCLUDE:
1. MASON SIF
2. KINETICS FLS
3. AMBER-BOOTH CT
- TYPE E: ELASTOMERIC WASHERS**
NEOPRENE-IN-SHEAR ELEMENT MOUNTED IN A RIGID STEEL HANGER BOX. MOLD NEOPRENE ELEMENT WITH A RIGID ISOLATION BUSHING THAT PREVENTS RIDGE CONTACT BETWEEN HANGER ROD AND HOUSING FROM TOPICAL THROUGH AN ANGULAR DEFLECTION OF NOT LESS THAN 20 DEGREES IN ANY DIRECTION. DESIGN FOR .25" TO .35" MINIMUM STATIC DEFLECTION AT RATED LOAD. FOR OUTDOOR HANG BY STRAPS, PROVIDE WASHERS WITH EYES ON THE TOP AND BOTTOM TO ALLOW FOR BOLTING TO THE STRAPS. ACCEPTABLE PRODUCTS INCLUDE:
1. MASON SW
2. KINETICS RH
3. AMBER-BOOTH SW
- TYPE F: SPRING HANGERS**
SPRING IN A RIGID STEEL HANGER BOX. SEAT SPRING IN A MOLDED NEOPRENE CUP WITH STEEL WASHER REINFORCING MOLDED NEOPRENE ELEMENT WITH A RIGID ISOLATION BUSHING THAT PREVENTS RIDGE CONTACT BETWEEN HANGER ROD AND HOUSING FROM TOPICAL THROUGH AN ANGULAR DEFLECTION OF NOT LESS THAN 15 DEGREES IN ANY DIRECTION. DESIGN NEOPRENE FOR .25" TO .35" MINIMUM STATIC DEFLECTION AT RATED LOAD. DO NOT DIRECTLY STACK THE SPRING AND NEOPRENE. PROVIDE WASHERS WITH EYES ON THE TOP AND BOTTOM TO ALLOW FOR BOLTING TO THE STRAPS. PROVIDE WASHERS WITH EYES ON THE TOP AND BOTTOM TO ALLOW FOR BOLTING TO THE STRAPS. ACCEPTABLE PRODUCTS INCLUDE:
1. MASON SW
2. KINETICS SRH
3. AMBER-BOOTH BSRH
- TYPE G: PRE-COMRESSED SPRING/ELASTOMER-IN-SERIES HANGERS**
BUILT-IN ADJUSTABLE SPRING RESTRAINTS FOR EQUIPMENT WITH OPERATING WEIGHT GREATER THAN WEIGHT UPON INSTALLATION TO PREVENT EQUIPMENT FROM DEFLECTING (OR RISING) WHEN THE ADDITIONAL WEIGHT IS APPLIED (OR REMOVED) IN THE FUTURE. PROVIDE ISOLATORS AS SPECIFIED IN TYPE F (BUT PRE-COMRESSED WITH RESTRAINT MECHANISMS THAT CAN BE RELEASED TO FREE THE SPRING WHEN SUBJECTED TO ITS OPERATIONAL LOAD. PROVIDE AN INTERNAL SCALE TO INDICATE AMOUNT OF DEFLECTION. FOR OUTDOOR HANG BY STRAPS, PROVIDE WASHERS WITH EYES ON THE TOP AND BOTTOM TO ALLOW FOR BOLTING TO THE STRAPS. ACCEPTABLE PRODUCTS INCLUDE:
1. MASON PDSB
2. AMBER-BOOTH PDSB
- TYPE H: THRUST RESTRAINTS**
WHEN TOP AIR OR FLUID THRUST EXCEEDS 10 PERCENT OF THE ISOLATED WEIGHT, PROVIDE RESILIENT HORIZONTAL THRUST RESTRAINTS TO PREVENT EXCESSIVE HORIZONTAL MOVEMENT. PROVIDE SPRING ISOLATORS SIMILAR TO TYPE F WITH THE SAME DEFLECTION AS THE ISOLATOR SPRINGS. PRESET THRUST RESTRAINT ISOLATORS IN THE FACTORY AND PRE-TUNE IN THE FIELD TO ALLOW FOR A MAXIMUM OF 1/4" DEFLECTION BETWEEN AT REST AND MAXIMUM THRUST CONDITIONS. FURNISH WITH APPROPRIATE BRACKETS TO ATTACH TO EQUIPMENT AND THE STRUCTURE. INSTALL RESTRAINTS ON CENTERLINE OF THRUST AND SYMMETRICALLY ON BOTH SIDES OF THE EQUIPMENT. ACCEPTABLE PRODUCTS INCLUDE:
MASON WB
- TYPE I: FLEXIBLE NEOPRENE PIPING CONNECTORS**
PROVIDE FLANGED THIN-SPHERE OR THREADED SINGLE-SPHERE ISOLATORS WITH NEOLAR CORD AND PEROXIDE-CURED EPDM BODY WITH STEEL RINGS EMBEDDED IN FLANGES TO PREVENT PULL-OUT. CONNECTORS MUST ACCEPT ELONGATION, COMPRESSION, TENSILE, AND TRANSVERSE MOTION. SELECT MATERIALS TO SUIT SYSTEM TEMPERATURE, PRESSURE, AND FLUID TYPE. DO NOT USE CONTROL ROUS OR CABLES TO LIMIT EXTENSION OF THE ISOLATOR. USE THIN-SPHERE ISOLATORS FOR PIPES 2" TO 14" IN DIAMETER. SINGLE-SPHERE CONNECTORS MAY BE USED FOR PIPES LESS THAN 2" AND GREATER THAN 14" IN DIAMETER. STRAIGHT-WALL FLEXIBLE CONNECTORS ARE NOT ACCEPTABLE. ACCEPTABLE PRODUCTS INCLUDE:
MASON TYPES SP02L, SP02S, AND SP0
- TYPE J: FLEXIBLE DUCT CONNECTIONS**
PROVIDE HYPOAL-KOATED, WOVEN FIBERGLASS, FLAMEPROOF FABRIC (24 OZ PER SQUARE YARD), SCHEDULED FROM -40T TO 250T. ACCEPTABLE PRODUCTS INCLUDE:
DUCOWITE PRO-FLEX
- TYPE K: ELASTOMERIC ISOLATORS FOR MOUNTING BOLTS**
PROVIDE NEOPRENE GRONKETS, BUSHINGS, AND WASHERS FOR ALL BOLTS USED TO SECURE ISOLATORS TO FLOOR AND HOUSING/CEILING SLABS AND FOR ALL SUBROCKS, SIZE BOLT HOLES AND WASHERS TO ACCOMMODATE GRONKETS, SLEEVES, AND BUSHINGS AND TO PRECLUDE CONTACT BETWEEN ROD COMPONENTS THAT WOULD CAUSE BRIDGING BETWEEN ISOLATED ELEMENTS AND THE BUILDING STRUCTURE. BUSHINGS FOR NEOPRENE PADS MAY BE RIGIDLY BOLTED TO THE FLOOR OR HOUSING/CEILING SLAB IF THE BOLTS SECURE THE BRACKETS ONLY AND DO NOT CONTINUE THROUGH THE NEOPRENE TO MEET ANY OTHER ROOM MATERIALS. DO NOT EXCEED 40 DIAMETER, SHAPE A HARNESSES. ACCEPTABLE PRODUCTS INCLUDE:
1. GRONKETS (WASHER BUSHINGS):
A. MASON HG
B. ELAR, GSDAMP AND C-1000
2. BUSHINGS:
A. MASON HUB
B. WASHERS:
C. MASON HFW

ACOUSTIC ISOLATION SCOPE NOTES:

- PROVIDE ENGINEERING & ISOLATOR SELECTION BY MANUFACTURER'S PERSONNEL WHO SHALL PROVIDE THESE SERVICES DIRECTLY.
- DO NOT USED HOUSED SPRING MOUNTS ON THIS PROJECT.
- SUBMIT MANUFACTURER'S DATA, SHOP DRAWINGS, AND PRODUCT PERFORMANCE CERTIFICATIONS.
- DO NOT RIGIDLY MOUNT ANY EQUIPMENT HAVING ROTATING OR RECIPROCATING COMPONENTS, INCLUDING AIR HANDLING UNIT HOUSINGS WITH WHICH FANS ARE SPRING-ISOLATED.
- ISOLATE HANGER RODS PASSING THROUGH BARRIER CEILING WITH ELASTOMERIC SLEEVES OR GRONKETS OR TRUST RESTRAINT RESTRAINTS IN ACCORDANCE WITH THE TYPICAL BARRIER CEILING DETAIL (4/A6.4). UNLESS NOTED OTHERWISE, LOCATE EQUIPMENT, PIPING, AND DUCTWORK BELOW BARRIER CEILING.
ACCEPTABLE PRODUCTS INCLUDE:
1. MASON PDSB
2. AMBER-BOOTH PDSB
- SPRING REQUIREMENTS
A. PROVIDE STEEL SPRINGS WITH STATIC DEFLECTIONS EQUAL TO OR GREATER THAN THOSE SHOWN ON THE CONSTRUCTION DOCUMENTS. SUBMITTALS BASED ON RATED DEFLECTIONS WILL BE REJECTED.
B. UNLESS OTHERWISE NOTED, SIZE SPRINGS TO PROVIDE A NATURAL FREQUENCY OF NOT MORE THAN 3 HERTZ, WHERE SPRING DEFLECTIONS CALLED OUT IN THE CONSTRUCTION DOCUMENTS EXCEED THOSE PROVIDED TO ACHIEVE A NATURAL FREQUENCY OF 3 HZ OR LESS. THE GREATER DEFLECTION WILL GOVERN.
C. SIZE SPRINGS TO PROVIDE NOT LESS THAN 50 PERCENT ADDITIONAL TRAVEL TO SOLID, COIL-BIND CONDITION BEYOND THE DEFLECTION UNDER OPERATING LOAD.
D. SIZE SPRINGS SO THAT DIAMETER IS NOT LESS THAN 80 PERCENT OF THE HEIGHT OF THE SPRING AT OPERATING LOAD.
E. PROVIDE SPRINGS THAT DO NOT PERMANENTLY DEFLECT AFTER LOADING TO A SOLID, COIL-BIND CONDITION.
F. DO NOT WELD SPRINGS TO OTHER COMPONENTS OF THE ISOLATOR ASSEMBLY UNLESS SPECIFICALLY NOTED IN THE SUBMITTALS AND ACCEPTED BY THE ACOUSTICS CONSULTANT.
G. COLOR CODE SPRINGS TO ALLOW PROPER IDENTIFICATION AFTER INSTALLATION.
- ELASTOMER REQUIREMENTS
A. PROVIDE ELASTOMERIC ELEMENTS WITH STATIC DEFLECTIONS EQUAL TO OR GREATER THAN THOSE SHOWN ON THE CONSTRUCTION DOCUMENTS.
B. SUBMITTALS BASED ON RATED DEFLECTIONS WILL BE REJECTED.
C. PROVIDE ELASTOMERIC ELEMENTS WITH A MAXIMUM HARNESSES OF 40 DIAMETER, SHAPE A RATING, WHERE POSSIBLE, BUT IN NO CASE EXCEEDING 50 DIAMETER, WHERE DEFLECTIONS CALLED OUT IN THE CONSTRUCTION DOCUMENTS EXCEED THOSE REQUIRED TO ACHIEVE THE SPECIFIED NATURAL FREQUENCIES. THE GREATER DEFLECTION WILL GOVERN.
D. MEET ALL OTHER HIRING REQUIREMENTS SPECIFIED FOR ALL NEOPRENE PRODUCTS INSTALLED IN PREFERABLE LOCATIONS AND AS REQUIRED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS.
- MOUNTS AND HANGERS
A. ALIGN MOUNTS AND HANGERS SQUARELY ABOVE OR BELOW THE EQUIPMENT MOUNTING HOLES TO AVOID INTRODUCING LATERAL LOADS AND DEFLECTION.
B. DEFLECTION REQUIREMENTS
1. VERIFY INSTALLED ISOLATORS HAVE DEFLECTIONS EQUAL TO OR GREATER THAN DEFLECTIONS SPECIFIED ON THE SUBMITTALS.
2. WHERE MULTIPLE DEFLECTIONS APPLY TO A SINGLE ISOLATOR (WHERE A SINGLE ISOLATOR SUPPORTS MULTIPLE ISOLATED ELEMENTS), THE LARGEST DEFLECTION GOVERNS.
3. VARY THE SIZE AND/OR HARNESSES OF ISOLATORS AS REQUIRED TO YIELD EQUAL DEFLECTION TO WHICH THE DUCTWORK CONNECTS.
C. SUPPORT EQUIPMENT, DUCTWORK, CONDUIT AND PIPING INDEPENDENTLY. DO NOT HANG EQUIPMENT, DUCTWORK, PIPING, OR CONDUIT FROM OTHER ISOLATED EQUIPMENT, DUCTWORK, PIPING, OR CONDUIT.
D. MAINTAIN 2" OF CLEARANCE BETWEEN ISOLATED ELEMENTS AND WALLS, CEILING, AND OTHER NON-ISOLATED BUILDING COMPONENTS.
E. ISOLATE FROM PIPING ATTACHED TO NON-ISOLATED EQUIPMENT FROM RIGID COMPONENTS OF THE BUILDING, IF APPLICABLE.
F. LIMIT STOPS MUST BE INACTIVE AND OUT OF CONTACT WITH THE ISOLATOR DURING EQUIPMENT OPERATION.
G. AVOID EMBEDDING BOLTS AND WASHER ROD LENGTHS SO THAT EQUIPMENT IS LEVEL AND IN ALIGNMENT WITH CONNECTING DUCTWORK AND PIPING.
H. RESTRAINED ISOLATORS MAY BE SUBSTITUTED FOR UNRESTRAINED ISOLATORS AT INSTALLER'S OPTION TO SIMPLY INSTALLATION.
- AIR HANDLER ISOLATION (SEE MECHANICAL DRAWINGS FOR FURTHER INFORMATION REGARDING EQUIPMENT, DUCTWORK, ETC.)
A. MOUNT ON TYPE 'C' OR TYPE 'F' OF OPEN SPRING BASE-MOUNTED ISOLATORS.
B. PROVIDE TYPE 'S' SLEEVES, BUSHINGS, GRONKETS, AND WASHERS AS RECOMMENDED BY THE ISOLATOR MANUFACTURER TO HOLD ISOLATORS IN PLACE WHILE PREVENTING ROD SHORT-CIRCUITS OF THE ISOLATION SYSTEM.
C. CONNECT DUCTWORK WITH TYPE 'F' FLEXIBLE DUCT CONNECTIONS AT INLET AND DISCHARGE. CONNECT FAN COIL PIPING WITH TYPE 'F' FLEXIBLE PIPING CONNECTORS.
D. PROVIDE FLEXIBLE ELECTRICAL CONNECTIONS.
E. ISOLATE PIPING AND DUCTWORK CONNECTED TO THE UNITS FOR THE FIRST 4 DUCT LENGTHS.
- PIPING AND CONDUIT
A. ISOLATE ALL PIPING 1-1/2" AND LARGER IN DIAMETER THAT IS CONNECTED TO ROTATING OR RECIPROCATING EQUIPMENT, WASTE, VENT, FAN/WATER, AND FIRE PROTECTION PIPING DO NOT REQUIRE ISOLATION UNLESS NOTED OTHERWISE.
B. SELECT AND INSTALL ISOLATORS IN A MANNER THAT DOES NOT INDUCE STRESSES IN PIPING CONNECTIONS AND DOES NOT RESULT IN MISALIGNMENT OF SHAKES AND BEARINGS. MAXIMUM EQUIPMENT AND PIPING IN RIGID CONDITION DURING INSTALLATION DO NOT TRANSFER LOADS TO THE ISOLATORS UNTIL THE INSTALLATION IS COMPLETE AND UNDER FULL OPERATIONAL LOAD.
C. ISOLATOR TYPES:
1. EQUIPMENT ISOLATED WITH SUPPORTS AND MOUNTS CONTAINING SPRINGS: PROVIDE TYPE 'C' OR 'F' SPRING/ELASTOMER-IN-SERIES ISOLATORS FOR THE FIRST 4 HORIZONTAL PIPING HARNESSES AND ASSOCIATED VERTICAL PIPING. SIZE THESE HANGERS TO PROVIDE THE SAME STATIC DEFLECTION AS THE ISOLATORS FOR THE EQUIPMENT.
2. BEYOND THE 4 HANGERS NEAREST THE EQUIPMENT, WITHIN THE ROOMS HOUSING THE EQUIPMENT AND FOR A DISTANCE OF NOT LESS THAN 50 FEET FROM THE EQUIPMENT, PROVIDE TYPE 'F' ELASTOMERIC HANGERS, AND PROVIDE TYPE 'F' HANGERS FOR ALL PIPING OF 2" AND SMALLER DIAMETER AND FLOW RATES OF GREATER THAN 4 FEET PER SECOND.
3. FOR ALL SPRING HANGERS FROM CONSTRUCTION BENEATH ACOUSTIC BARRIER CEILING (SEE A7.1), PROVIDE TYPE 'C' SPRING/ELASTOMER-IN-SERIES ISOLATORS WITH MINIMUM DEFLECTIONS AS FOLLOWS:
+ PIPE DIAMETERS UP TO AND INCLUDING 3", 3/4" DEFLECTION.
+ PIPE DIAMETERS LARGER THAN 3" UP TO AND INCLUDING 6", 1-1/2" DEFLECTION.
+ PIPE DIAMETERS LARGER THAN 6" UP TO AND INCLUDING 12", 2-1/2" DEFLECTION.
D. POSITION ISOLATORS AS HIGH AS POSSIBLE IN THE HANGER ROD OR STRAP ASSEMBLY BUT NOT IN DIRECT CONTACT WITH THE BUILDING STRUCTURE. WITHOUT MANUFACTURER'S WRITTEN APPROVAL, PROVIDE 1" MINIMUM CLEARANCE BETWEEN ISOLATOR HOUSING AND STRUCTURE ABOVE. PROVIDE SIZE CLEARANCE FOR HANGERS TO ALLOW FULL 360-DEGREE ROTATION ABOUT THE ROD AXIS WITHOUT CONTACTING ANY SURFACE.
E. PARALLEL PIPES CAN BE HUNG TOGETHER ON A TRAPEZOID THAT IS ISOLATED FROM THE STRUCTURE. ISOLATOR DEFLECTIONS MUST BE EQUAL TO OR GREATER THAN:
1. THE GREATEST DEFLECTION REQUIRED FOR THE PIPES IF ISOLATED INDIVIDUALLY. DO NOT MIX ISOLATED AND NON-ISOLATED PIPING ON THE SAME TRAFFIC.
2. THE LARGEST DEFLECTION REQUIRED FOR THE PIPES IF ISOLATED INDIVIDUALLY. DO NOT MIX ISOLATED AND NON-ISOLATED PIPING ON THE SAME TRAFFIC.
3. THE LARGEST DEFLECTION REQUIRED FOR THE PIPES IF ISOLATED INDIVIDUALLY. DO NOT MIX ISOLATED AND NON-ISOLATED PIPING ON THE SAME TRAFFIC.
F. THE GREATEST DEFLECTION REQUIRED FOR THE PIPES IF ISOLATED INDIVIDUALLY. DO NOT MIX ISOLATED AND NON-ISOLATED PIPING ON THE SAME TRAFFIC.
G. MOUNT FLEXIBLE CONNECTIONS FOR PIPING TO EQUIPMENT ON THE EQUIPMENT SIDE OF SHUT-OFF VALVES.
H. PROVIDE ISOLATION OF EXHAUST TANKS, AIR SEPARATORS, AND OTHER DEVICES SIMILAR TO THAT PROVIDED FOR THE ATTACHED PIPING.
I. DUCTWORK
1. CONNECT DUCTWORK TO EQUIPMENT USING TYPE 'F' FLEXIBLE DUCT CONNECTIONS. GRASP FABRIC INTO DUCT FLANGES AND SEAL AIRTIGHT. PROVIDE MINIMUM SEPARATION OF 6" BETWEEN DUCT AND EQUIPMENT.
2. SUBMITTALS BASED ON RATED DEFLECTIONS WILL BE REJECTED.
3. PROVIDE ELASTOMERIC ELEMENTS WITH A MAXIMUM HARNESSES OF 40 DIAMETER, SHAPE A RATING, WHERE POSSIBLE, BUT IN NO CASE EXCEEDING 50 DIAMETER, WHERE DEFLECTIONS CALLED OUT IN THE CONSTRUCTION DOCUMENTS EXCEED THOSE REQUIRED TO ACHIEVE THE SPECIFIED NATURAL FREQUENCIES. THE GREATER DEFLECTION WILL GOVERN.
4. MEET ALL OTHER HIRING REQUIREMENTS SPECIFIED FOR ALL NEOPRENE PRODUCTS INSTALLED IN PREFERABLE LOCATIONS AND AS REQUIRED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS.
5. DUCT CONNECTIONS AT RIGIDLY-MOUNTED FIRE DAMPERS: PROVIDE TYPE 'F' FLEXIBLE DUCT CONNECTIONS AT EACH SIDE OF ALL FIRE DAMPERS RIGIDLY CONNECTED TO THE ASSOCIATED PARTITION CONSTRUCTION.
6. DUCTWORK TYPES:
a. PROVIDE TYPE 'F' SPRING/ELASTOMER-IN-SERIES HANGERS FOR THE FIRST 3 DUCT HANGERS FROM THE EQUIPMENT. PROVIDE HANGERS WITH MINIMUM STATIC DEFLECTION EQUAL TO THAT OF THE ISOLATORS SUPPORTING THE EQUIPMENT.
b. BEYOND THE FIRST 3 HANGERS, SUPPORT ALL DUCTWORK WITH SHORT-SEE DIMENSION LESS THAN 24" IN THE FOLLOWING MANNER:
+ SUPPORT WITH TYPE 'F' ELASTOMERIC HANGERS, TYPE 'F' NEOPRENE-IN-SHEAR BASE MOUNTS, OR TYPE A ELASTOMERIC PADS AT ALL POINTS OF SUPPORT WITHIN 50 FEET OF THE EQUIPMENT.
+ BEYOND 50 FEET FROM THE EQUIPMENT, NO ISOLATION IS REQUIRED UNLESS THE DUCTWORK IS SUPPORTED FROM CONSTRUCTION INCLUDING ACCIDENTALLY SUSTAINING OR CRITICAL ROOMS, IN WHICH CASE THE FOLLOWING HANGERS:
- SUPPORT WITH TYPE 'F' PRE-COMRESSED SPRING/ELASTOMER-IN-SERIES HANGERS OR TYPE 'F' RESTRAINED OPEN SPRING BASE MOUNT ISOLATORS FOR A MINIMUM OF 50 FEET FROM THE EQUIPMENT.
- IF AIR VELOCITIES EXCEED 800 FEET PER MINUTE, CONTINUE THE ISOLATION FOR AN ADDITIONAL 50 FEET.
c. IN ADDITION TO THE REQUIREMENTS OF (a) AND (b), PROVIDE ISOLATORS FOR ALL DUCTWORK WITH VELOCITIES EXCEEDING 800 FEET PER MINUTE THAT IS SUPPORTED FROM ACCIDENTALLY SUSTAINING OR ACOUSTICALLY CRITICAL ROOMS OR THAT IS OTHERWISE INDICATED ON THE DRAWINGS TO RECEIVE ISOLATION.
7. VERTICAL DUCTWORK:
a. SUPPORT VERTICAL DUCTWORK FOR THE 3 SUPPORTS NEAREST THE EQUIPMENT WITH TYPE 'F' OPEN SPRING ISOLATORS WITH MINIMUM DEFLECTIONS EQUAL TO OR GREATER THAN THE ISOLATORS SUPPORTING THE EQUIPMENT. THEREAFTER, SUPPORT ALL VERTICAL DUCTWORK WITH SHORT-SEE DIMENSION LESS THAN 24" WITH TYPE 'F' NEOPRENE-IN-SHEAR ISOLATORS FOR NOT LESS THAN 50 FEET FROM THE EQUIPMENT.
b. SUPPORT VERTICAL DUCTWORK WITH SHORT-SEE DIMENSION EQUAL TO OR GREATER THAN 24" AND ALL OTHER DUCTWORK INDICATED ON THE DRAWINGS TO RECEIVE ISOLATION ON TYPE 'F' OPEN SPRING BASE MOUNT ISOLATORS.

NOTES

5/9/11 ISSUED FOR PERMIT

NO.	DATE	DESCRIPTION
xx/xx/xx		Issued for Construction
5/9/11		Issued for Permit
5/3/11		Issued for Bid

Preschool Renovation for
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ACOUSTIC
DETAILS & NOTES

Scale:
AS NOTED

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