MECHANICAL SYMBOLS LEGEND
(AS APPLICABLE)

PIPING AND SPECIALTIES

SYMBOL	DESCRIPTION
RD	REFRIGERANT DISCHARGE
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
CD	COIL CONDENSATE DRAIN
LPS (XX)	LOW PRESSURE STEAM (PRESSURE)
MPS (XX)	MEDIUM PRESSURE STEAM (PRESSURE)
HPS (XX)	HIGH PRESSURE STEAM (PRESSURE)
LPC	LOW PRESSURE CONDENSATE
MPC	MEDIUM PRESSURE CONDENSATE
HPC	HIGH PRESSURE CONDENSATE
PC	PUMPED CONDENSATE
MU	MAKE-UP WATER
HCR	HOT/CHILLED WATER RETURN
HCS	HOT/CHILLED WATER SUPPLY
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
EGR	ETHYLENE GLYCOL RETURN
EGS	ETHYLENE GLYCOL SUPPLY
PGR	PROPYLENE GLYCOL RETURN
PGS	PROPYLENE GLYCOL SUPPLY
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
HPWR	HEAT PUMP WATER RETURN
HPWS	HEAT PUMP WATER SUPPLY
D / R	PITCH OF PIPE, RISE (R) OR DROP (D)
	PIPE ANCHOR - MAIN
	PIPE ANCHOR - INTERMEDIATE
H	HANGER - ROD
H	HANGER - SPRING
	ALIGNMENT GUIDE
	FLEX CONNECTOR
	EXPANSION - LOOP
	EXPANSION - JOINT
MV	AIR VENT - MANUAL
A	AIR VENT - AUTOMATIC
FS	FLOW SWITCH
PS	PRESSURE SWITCH
AS	AIR SEPARATOR
	THERMOMETER
TW	THERMOMETER WELL
	BALL JOINT
PSD	PUMP SUCTION DIFFUSER
	FLOAT THERMOSTATIC TRAP
	FLOWMETER - ORIFICE
	FLOWMETER - VENTURI
	DUPLEX STRAINER

DUCTWORK

	SUPPLY, OUTSIDE OR MIXED AIR DUCT (UP)
	SUPPLY, OUTSIDE OR MIXED AIR DUCT (DOWN)
	SUPPLY, OUTSIDE OR MIXED AIR DUCT (SECTION)
	RETURN AIR DUCT (UP)
	RETURN AIR DUCT (DOWN)
	RETURN AIR DUCT (SECTION)
	RELIEF OR EXHAUST AIR DUCT (UP)
	RELIEF OR EXHAUST AIR DUCT (DOWN)
	RELIEF OR EXHAUST AIR DUCT (SECTION)
	ROUND DUCT (UP)
	ROUND DUCT (DOWN)
	ROUND DUCT (SECTION)
10/6	RECTANGLE DUCT (WIDTH/HEIGHT)
10Ø	ROUND DUCT (DIAMETER)
10/6Ø	FLAT OVAL DUCT (WIDTH/HEIGHT)
	FLEXIBLE DUCTWORK TO EQUIPMENT
	INSULATED FLEXIBLE DUCTWORK
R	ELEVATION CHANGE (RISE OR DROP)
	HIGH EFF. TAKE OFF FITTING WITH VOLUME DAMPER
BD	BACKDRAFT DAMPER
	TURNING VANES
VD	VOLUME CONTROL DAMPER
	VOLUME CONTROL DAMPER
CAP	DUCT END CAP
	OPPOSED BLADE DAMPER
	PARALLEL BLADE DAMPER
FD	FIRE DAMPER (IN HORIZONTAL DUCT)
SD	SMOKE DAMPER (IN HORIZONTAL DUCT)
FD	FIRE DAMPER (IN VERTICAL DUCT)
SD	SMOKE DAMPER (IN VERTICAL DUCT)
FSD	FIRE/SMOKE DAMPER (IN HORIZONTAL DUCT)
FSD	FIRE/SMOKE DAMPER (IN VERTICAL DUCT)
AD	DUCT ACCESS PANEL
RP	RELIEF PANEL

H.V.A.C.

	SUPPLY DIFFUSER
	SUPPLY REGISTER
	SUPPLY SLOT DIFFUSER
	RETURN REGISTER
	RETURN GRILLE
	EXHAUST REGISTER
	EXHAUST GRILLE
	DUAL DUCT TERMINAL UNIT
	TERMINAL UNIT
	FAN POWERED VAV TERMINAL UNIT
	SIDE WALL DIFFUSER
	ROUND DIFFUSER
	EXTERIOR LOUVER
X / CFM	SUPPLY IDENTIFICATION TAG X DENOTES TYPE
X / CFM	RETURN/ EXHAUST/LOUVER IDENTIFICATION TAG X DENOTES TYPE
M	MOTORIZED ACTUATOR
	PNEUMATIC ACTUATOR
T	THERMOSTAT
TG	THERMOSTAT WITH GUARD
XX-X	TEMPERATURE SENSOR - XX-X DENOTES SERVED
CO	CARBON MONOXIDE SENSOR
CO2	CARBON DIOXIDE SENSOR
NOX	NITROGEN DIOXIDE SENSOR
H	HUMIDITY SENSOR
P	PRESSURE SENSOR
TG	TEMPERATURE SENSOR WITH GUARD
H	HUMIDISTAT
	EMERGENCY SHUTDOWN SWITCH

PLUMBING

	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER SUPPLY
	DOMESTIC HOT WATER RECIRC.
	PIPE REMOVAL
SAN	SANITARY BELOW FLOOR OR GRADE
SAN	EXISTING SANITARY BELOW FLOOR/GRADE
SAN	SANITARY ABOVE FLOOR OR GRADE
ST	STORM BELOW FLOOR OR GRADE
ST	EXISTING STORM BELOW FLOOR/GRADE
ST	STORM ABOVE FLOOR OR GRADE
SO	STORM OVERFLOW BELOW FLOOR/GRADE
SO	EXIST. STORM OVERFLOW BELOW FLOOR/GRADE
SO	STORM OVERFLOW ABOVE FLOOR/GRADE
AW	ACID WASTE BELOW FLOOR OR GRADE
AW	EXIST ACID WASTE BELOW FLOOR/GRADE
AR	ACID WASTE ABOVE FLOOR OR GRADE
GW	GREASE WASTE BELOW FLOOR OR GRADE
GW	EXIST GREASE WASTE BELOW FLOOR/GRADE
GW	GREASE WASTE ABOVE FLOOR OR GRADE
OSW	OIL/SAND BELOW FLOOR OR GRADE
OSW	EXISTING OIL/SAND BELOW FLOOR/GRADE
OSW	OIL/SAND ABOVE FLOOR OR GRADE
SCW	SOFTENED COLD WATER PIPING
PD	PUMPED DISCHARGE
V	VENT PIPING
AV	ACID VENT PIPING
CA	COMPRESSED AIR
PA	PROCESSED AIR
IR	IRRIGATION PIPING
P	TRAP PRIMER
G (XX)	NATURAL GAS PIPING (PSIG)
HB	HOSE BIBB
WH	WALL HYDRANT
CO	CLEAN OUT
FCO	FLOOR CLEAN OUT
	FLOOR DRAIN
VTR	VENT THRU ROOF (X DENOTES IDENTIFICATION)
RD	ROOF DRAIN
ORD	OVERFLOW ROOF DRAIN
DSN	DOWNSPOUT NOZZLE

VALVES

	GATE VALVE
	ANGLE GATE VALVE
	BALL VALVE
	LOCKABLE BALL VALVE
	BUTTERFLY VALVE
	GLOBE VALVE
	ANGLE GLOBE VALVE
	PLUG VALVE
	DIAPHRAGM VALVE
	DIAPHRAGM ACTUATED VALVE
	VALVE IN VERTICAL LINE
	HOSE GATE VALVE
	HOSE GLOBE VALVE
	HOSE ANGLE VALVE
	SOLENOID VALVE
PRV	POST INDICATOR VALVE
	STOP/CHECK GATE VALVE (ARROW IND. FLOW)
	SPRING GATE CHECK VALVE (ARROW IND. FLOW)
	SWING GATE CHECK VALVE (ARROW IND. FLOW)
	ANGLE STOP/CHECK VALVE
	2-WAY ELECTROMOTOR VALVE
	2-WAY AIRMOTOR VALVE
	2-WAY MANUAL VALVE
	3-WAY ELECTROMOTOR VALVE
	3-WAY AIRMOTOR VALVE
	3-WAY MANUAL VALVE
	SAFETY PRESSURE RELIEF VALVE
	PRESSURE RELIEF VALVE
	TEMPERATURE MIXING VALVE
	AUTO FLOW VALVE
	FLOAT VALVE
	LOCK SHIELD
	CIRCUIT SETTER
	MULTIPURPOSE VALVE
PRV	PRESSURE REDUCING VALVE
PRPV	PRESSURE REDUCING PILOT VALVE
RPDA	REDUCED PRESS. BACKFLOW ASSY.
DC	DOUBLE CHK VALVE BACKFLOW ASSY.
DDC	DOUBLE DETECTOR CHECK VALVE
	OUTSIDE STEM & YOKE VALVE
	QUICK CLOSING FUSIBLE LINK VALVE
	QUICK OPENING VALVE
	PRESSURE GAUGE & BALL VALVE
	GATE VALVE WITH GLOBE VALVE BY-PASS
	GLOBE VALVE WITH GLOBE VALVE BY-PASS

FITTINGS

	ELBOW
	LONG RADIUS ELBOW
SR	SHORT RADIUS ELBOW
	45° ELBOW
	TEE
	CROSS
	LATERAL
	TEE - SINGLE SWEEP
	ELBOW - DOUBLE BRANCH
	ELBOW - SIDE OUTLET UP
	ELBOW - SIDE OUTLET DOWN
	ELBOW - OUTLET DOWN
	ELBOW - OUTLET UP
	TEE - OUTLET DOWN
	TEE - OUTLET UP
	TEE - SIDE OUTLET DOWN
	TEE - SIDE OUTLET UP
	SIAMESE CONNECTION
	REDUCER - CONCENTRIC
	REDUCER - ECCENTRIC STRAIGHT INVERT
	REDUCER - ECCENTRIC STRAIGHT CROWN
	CAPPED CONNECTION
	THREADED CONNECTION
	FLANGED CONNECTION
	STRAINER
	STRAINER WITH BALL VALVE DRAIN
	STRAINER WITH COUPLER
	BUSHING
	FLOW DIRECTION

MISCELLANEOUS

X / XX	EQUIPMENT IDENTIFICATION TAG (ELECTRICAL CONNECTION REQUIRED)
X / XX	DETAIL REFERENCE. SHEET REFERENCE
X XX X XX	SECTION CUT REFERENCE. SHEET REFERENCE
	ELECTRICAL PANEL - SHOWN FOR COORDINATION PURPOSES ONLY
	ELECTRICAL PANEL - SHOWN FOR COORDINATION PURPOSES ONLY
	ELECTRICAL PANEL - SHOWN FOR COORDINATION PURPOSES ONLY
T	ELECTRICAL TRANSFORMER - SHOWN FOR COORDINATION PURPOSES ONLY
	NEW CONNECTION POINT
	POINT OF DISCONNECT
OA	OUTSIDE AIR
VA	VENTILATION AIR
EA	EXHAUST AIR
RA	RELIEF OR RETURN AIR
SA	SUPPLY AIR
MA	MIXED AIR
RF	RELIEF OR RETURN FAN
EF	EXHAUST FAN
TYP	TYPICAL
WC	WATER CLOSET
UR	URINAL
L	LAVATORY
S	SINK
DF	DRINKING FOUNTAIN
EWC	ELECTRIC WATER COOLER
SS	SERVICE SINK
SH	SHOWER
DWH	DOMESTIC WATER HEATER
MSB	MOP SINK BASIN
	LIGHT LINEWORK = EXISTING OR DEMOLITION
	DARK LINEWORK = NEW

GENERAL MECHANICAL PIPING NOTES

(APPLICABLE FOR ALL MECHANICAL PIPING SHEETS)

A. LIGHT LINE WEIGHT INDICATES EXISTING PIPING, COMPONENTS AND EQUIPMENT TO REMAIN. BOLD LINE WEIGHT INDICATES NEW WORK TO BE INSTALLED.

B. REPAIR PIPE INSULATION DAMAGED BY NEW CONNECTION. REPAIR WORK SAME AS NEW.

C. CORE DRILL OR SAW CUT, FULL DEPTH OPENINGS IN WALLS AND FLOORS, AS REQUIRED.

D. INDICATED ARE APPROXIMATE LOCATION OF MECHANICAL EQUIPMENT AND PIPING AND NOT INDICATED ARE ALL OFFSETS, FITTINGS AND VALVES. COORDINATE WITH OTHER TRADES BEFORE PROCEEDING WITH WORK AND PROVIDE OFFSETS TO AVOID CONFLICTS.

E. AVOID LOCATING PIPING, COMPONENTS AND EQUIPMENT THROUGH AND OVER ELECTRICAL, DATA, TELEPHONE EQUIPMENT ROOMS AND PANELS.

F. SUPPORT PIPING, COMPONENTS AND EQUIPMENT FROM BUILDING STRUCTURAL MEMBERS. HOLD PIPING TIGHT TO BOTTOM OF STRUCTURAL MEMBERS OR RUN THROUGH JOIST WEBS. DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING. DO NOT SUPPORT PIPING FROM OTHER PIPING, DUCTWORK OR CONDUITS. DO NOT SUPPORT FROM METAL ROOF DECK.

G. LOCATE PIPING ABOVE CEILINGS, IN PIPE CHASE OR OTHER CONCEALED ACCESSIBLE LOCATIONS. LOCATE AND ARRANGE VALVES AND DRAIN FITTINGS TO BE ACCESSIBLE THROUGH LAY–IN CEILINGS. PROVIDE AN ACCESS PANEL AND DOOR FOR NON–ACCESSIBLE INSTALLATIONS.

H. INSTALL SECTIONAL VALVES ON EACH BRANCH AND RISER SERVING TWO OR MORE HYDRONIC TERMINALS, EQUIPMENT CONNECTIONS AND WHERE INDICATED. INSTALL VALVES CLOSE TO MAINS.

I. INSTALL SHUTOFF VALVES ON INLET AND OUTLET OF EACH HYDRONIC TERMINAL, EQUIPMENT ITEM AND WHERE INDICATED. INSTALL VALVES CLOSE TO MAINS.

J. PITCH PIPING TOWARD LOW POINT DRAIN VALVES. PROVIDE MANUAL AIR VENTS AT TOP OF RISERS AND AT HIGH POINTS.

K. CAULK PIPE OPENINGS THROUGH FIRE RATED WALLS WITH APPROVED FIRE RATED MATERIALS.

L. LOCATE PIPING IN EXTERIOR BUILDING WALLS ON THE WARM SIDE OF BUILDING AND VAPOR BARRIER. COORDINATE INSTALLATION OF BUILDING INSULATION TO RUN CONTINUOUS BETWEEN PIPING AND BUILDING WALL.

GENERAL PLUMBING NOTES

(APPLICABLE FOR ALL PLUMBING SHEETS)

A. LIGHT LINE WEIGHT INDICATES EXISTING PIPING, COMPONENTS AND EQUIPMENT TO REMAIN. BOLD LINE WEIGHT INDICATES NEW WORK TO BE INSTALLED.

B. INDICATED ARE APPROXIMATE LOCATIONS OF PIPING. NOT INDICATED ARE ALL OFFSETS, FITTINGS AND VALVES. FIELD VERIFY EXISTING PIPE SIZES AND SERVICES PRIOR TO FINAL CONNECTION. COORDINATE LOCATIONS WITH OTHER TRADES AND PROVIDE OFFSETS AND RELOCATE TO AVOID CONFLICTS.

C. AVOID LOCATING PIPING, COMPONENTS AND EQUIPMENT THROUGH AND OVER ELECTRICAL, DATA, TELEPHONE EQUIPMENT ROOMS AND PANELS.

D. SUPPORT PIPING, COMPONENTS AND EQUIPMENT FROM BUILDING STRUCTURAL MEMBERS. HOLD PIPING TIGHT TO BOTTOM OF STRUCTURAL MEMBERS OR RUN THROUGH JOIST WEBS. DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING. DO NOT SUPPORT PIPING FROM OTHER PIPING, DUCTWORK AND CONDUITS. DO NOT SUPPORT FROM METAL ROOF DECK.

E. LOCATE PLUMBING WORK ABOVE CEILINGS, IN PIPE CHASES, OR OTHER CONCEALED ACCESSIBLE LOCATIONS UNLESS NOTED OTHERWISE. LOCATE AND ARRANGE VALVES AND DRAIN FITTINGS TO BE ACCESSIBLE THROUGH LAY–IN CEILINGS. PROVIDE ACCESS PANEL AND DOOR FOR ALL NON–ACCESSIBLE INSTALLATIONS.

F. COORDINATE EXACT LOCATION OF FLOOR DRAINS AND FLOOR SINKS. TOP OF STRAINER SHALL BE 1/8" BELOW FINISHED FLOOR ELEVATION AND FLOOR SHALL SLOPE TOWARD FLOOR DRAIN.

G. COMPLY WITH LOCAL UTILITIES, RULES AND REGULATIONS FOR ALL GAS PIPING. COORDINATE EXACT LOCATION OF GAS OUTLETS WITH EQUIPMENT.

H. INSTALL SECTIONAL VALVES ON EACH BRANCH AND RISER SERVING TWO OR MORE PLUMBING FIXTURES, EQUIPMENT CONNECTIONS AND WHERE INDICATED.

I. PIPING LOCATED ABOVE GRADE SHALL BE TYPE "L" COPPER; PIPING LOCATED BELOW GRADE SHALL BE TYPE "K" CONTINUOUS COPPER WITHOUT JOINTS BELOW GRADE. TYPE "M" COPPER SHALL NOT BE USED ON DOMESTIC WATER PIPING SYSTEMS

J. LOCATE PIPING IN EXTERIOR BUILDING WALLS ON THE WARM SIDE OF BUILDING INSULATION AND VAPOR BARRIER. COORDINATE INSTALLATION OF BUILDING INSULATION TO RUN CONTINUOUS BETWEEN PIPING AND BUILDING WALL.

K. CORE DRILL OR SAW CUT, FULL DEPTH OPENINGS IN WALLS AND FLOORS FOR PIPING.

L. CAULK PIPE OPENINGS THROUGH FIRE RATED WALLS WITH APPROVED FIRE RATED MATERIALS.

M. ROUTE DRAINAGE PIPING AS HIGH AS POSSIBLE AND PITCH IN THE DIRECTION OF FLOW. COORDINATE WITH OTHER TRADES. DRAINAGE PIPING 3 INCHES AND SMALLER SHALL SLOPE NO LESS THAN 1/4 INCH PER FOOT. DRAINAGE PIPING 4 INCHES AND LARGER SHALL SLOPE NO LESS THAN 1/8 INCH PER FOOT.

N. REPAIR PIPE INSULATION DAMAGED BY NEW CONNECTION PROCESS. REPAIR WORK SAME AS NEW.

O. POUR ONE GALLON OF MINERAL OIL IN EACH FLOOR DRAIN.

P. INSTALL VENT PIPING FOR ALL PLUMBING FIXTURES PER LOCAL CODE.

Q. PROVIDE RPZ BACKFLOW PREVENTERS IN ACCORDANCE WITH LOCAL CODES. PROVIDE AIR GAP FITTINGS AND ROUTE TO NEAREST FLOOR DRAIN OR FLOOR SINK.

R. TEE PULL CONNECTIONS ARE APPROVED IN COPPER PIPE 1–1/2" AND LARGER IN LIEU OF COPPER FITTINGS AS LONG AS SILVER BRAZING IS USED RATHER THAN REGULAR SOLDER.

S. REMOVE, REPAIR AND REPLACE WALLS, FLOORS, ROOFS AND CEILINGS TO MATCH EXISTING, WHERE NECESSARY FOR PIPING AND FIXTURE REMOVAL & INSTALLATION. FLOOR CUTTING AND PATCHING BY GENERAL CONTRACTOR.

GENERAL MECHANICAL DEMOLITION NOTES

(APPLICABLE FOR ALL PLUMBING AND MECHANICAL DEMOLITION SHEETS)

A. CROSSHATCHING INDICATES EXISTING PIPING, DUCTWORK, COMPONENTS AND EQUIPMENT TO BE REMOVED.

B. INDICATED IS APPROXIMATE ROUTING OF PIPING, DUCTWORK, COMPONENTS AND EQUIPMENT. NOT INDICATED ARE ALL OFFSETS, FITTINGS AND VALVES. FIELD VERIFY EXACT SIZE, ROUTING AND SERVICE PRIOR TO REMOVAL OR RELOCATION. REMOVE MISCELLANEOUS PIPING, COMPONENTS AND EQUIPMENT LOCATED ON OR IN WALLS.

C. REPAIR INSULATION DAMAGED DURING REMOVAL. REPAIR WORK SAME AS NEW.

D. PATCH OPENINGS THROUGH WALLS AND FLOOR SLABS NOT BEING REUSED WITH LIKE MATERIALS AND PAINT TO MATCH EXISTING.

E. PATCH OPENINGS THROUGH ROOF NOT BEING REUSED WITH LIKE MATERIALS AND SEAL WATERTIGHT.

GENERAL MECHANICAL HVAC NOTES

(APPLICABLE FOR ALL MECHANICAL DUCTWORK SHEETS)

A. LIGHT LINE WEIGHT INDICATES EXISTING DUCTWORK, COMPONENTS AND EQUIPMENT TO REMAIN. BOLD LINE WEIGHT INDICATES NEW WORK TO BE INSTALLED.

B. INDICATED ARE APPROXIMATE LOCATIONS OF MECHANICAL EQUIPMENT AND DUCTWORK AND NOT INDICATED ARE ALL OFFSETS AND FITTINGS. COORDINATE WITH OTHER TRADES BEFORE PROCEEDING WITH WORK AND PROVIDE OFFSETS TO AVOID CONFLICTS.

C. AVOID LOCATING DUCTWORK, COMPONENTS AND EQUIPMENT THROUGH AND OVER ELECTRICAL, DATA, TELEPHONE EQUIPMENT ROOMS AND PANELS.

D. SUPPORT DUCTWORK, COMPONENTS AND EQUIPMENT FROM BUILDING STRUCTURE.

E. DUCTWORK DIMENSIONS ON PLANS AND DETAILS INDICATE THE SIDE OF DUCT SEEN FIRST. ALL DIMENSIONS GIVEN IN INCHES AND INDICATE INSIDE CLEAR DIMENSIONS.

F. CONSTRUCT ELBOWS WITH CENTERLINE RADIUS OF 1–1/2 TIMES THE WIDTH OF DUCT. WHERE SPACE CONDITIONS DO NOT PERMIT AND WHERE INDICATED ON DRAWINGS USE SQUARE ELBOWS WITH TURNING VANES.

G. SIZE TRANSITIONS WITH A MINIMUM SLOPE OF 1:4. USE 45° ENTRY FITTINGS FOR BRANCH DUCT TAPS. SEAL SHEET METAL CONNECTIONS AND JOINTS.

H. FLEXIBLE DUCTS SHALL BE FACTORY INSULATED. PROVIDE DRAWBANDS AND DUCT TAPE ON ALL ROUND FLEXIBLE CONNECTIONS. MAXIMUM LENGTH OF FLEXIBLE DUCTS SHALL BE THREE FEET.

I. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY SEALING ANY PENETRATION MADE OR REQUIRED THROUGH A FIRE RATED, A SMOKE RATED OR COMBINATION FIRE & SMOKE RATED WALL. SEE SPECIFICATIONS FOR FIRE & SMOKE RATED SEALANTS. SEE ARCHITECTURAL PLANS FOR RATED WALLS (TYPICAL ALL AREAS).

J. COORDINATE ALL GRILLE, REGISTER AND DIFFUSER LOCATIONS WITH REFLECTED CEILING PLAN AND LIGHTING.

K. PROVIDE VOLUME DAMPER ON ALL MAIN SUPPLY DUCTWORK BEFORE ANY BRANCHES.

L. ALL DUCTWORK UPSTREAM OF TERMINAL UNITS SHALL BE CONSTRUCTED FOR 3" PRESSURE CLASSIFICATION.

M. ALL TRANSVERSE SPIRAL AND ROUND DUCT JOINTS FOR ALL EXPOSED DUCTWORK SHALL BE MADE WITH WARD KEATING CONNECTOR CENTER–BEADED SLIP COUPLING OR APPROVED EQUAL ROUND DUCT CONNECTOR WITH CLEAR SEALANT. WIPE CLEAN REMAINING SEALANT.

N. INSTALL ESCUTCHEON PLATES ON ALL SPIRAL AND ROUND DUCT WALL PENETRATIONS. FABRICATE ESCUTCHEON PLATES WITH FLAT SHEET METAL 2" TO 3" WIDTH AROUND DUCT.

O. THOROUGHLY CLEAN ALL DUCTWORK, REMOVING ALL SHIPPING LABELS AND OTHER IDENTIFICATION TAGS. PROVIDE MILL–PHOSPHATIZED FINISH FOR EXPOSED SURFACE OF ALL DUCTS EXPOSED TO VIEW. DUCTWORK AND INSTALLATION SHALL BE OF THE HIGHEST QUALITY.

P. FIRE DAMPER (FD), SMOKE DAMPER (SD) OR FIRE/SMOKE DAMPER (FSD), PROVIDE DUCT ACCESS DOOR AT FIRE DAMPER, SMOKE DAMPER OR COMBINATION FIRE/SMOKE DAMPER TO ALLOW MAINTENANCE AND VISUAL INSPECTION PER NFPA REQUIREMENTS. IF ACCESS DOOR IS NOT POSSIBLE PROVIDE REMOVABLE SECTION OF DUCTWORK TO ALLOW FOR MAINTENANCE AND VISUAL INSPECTION PER NFPA REQUIREMENTS.

Q. WHERE DUCTWORK PENETRATES FULL HEIGHT PARTITIONS (EXTENDING UP TO UNDERSIDE OF TRUSSES AND GYPSUM WALLBOARD CEILING) THE MECHANICAL CONTRACTOR SHALL FABRICATE STEEL ANGLE SLEEVES BETWEEN WALL OPENINGS AND DUCT EDGE, EXCEPT FOR FIRE RATED WALLS, WHICH SHALL BE FIRE CAULKED AS SPECIFIED.

R. VOLUME DAMPERS ABOVE PLASTER OR GYPBOARD CEILINGS SHALL HAVE EXTENSION RODS AND ESCUTCHEON PLATES. PAINT TO MATCH CEILING (TYPICAL FOR ALL PLASTER OR GYPBOARD CEILINGS). ALL BRANCH DUCTS (EXHAUST, RETURN AND SUPPLY) SHALL HAVE A VOLUME DAMPER AT BRANCH DUCT TAKE–OFF UNLESS DAMPER IS PROVIDED AT GRILLE, REGISTER OR DIFFUSER AT THE END OF THE DUCT.

Revisions:	Date

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Drawing Title: MECHANICAL SYMBOLS LEGEND AND GENERAL NOTES

Approved: Project Director: KEVIN HUTSELL

CONSTRUCTION DOCUMENTS (CD-3) FINAL SUBMITTAL (100%)
APRIL 6, 2012

Project Title: CORRECT NWIHCS SPD DEFICIENCIES

Location: VAMC Grand Island, Nebraska

Date: APRIL 6, 2012 | Checked: PMS | Drawn: MJS

Project Number: 636-12-105A

Building Number: ONE

Drawing Number: MG1.1

Dwg. 5 of 19

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

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
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