






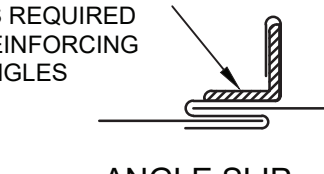

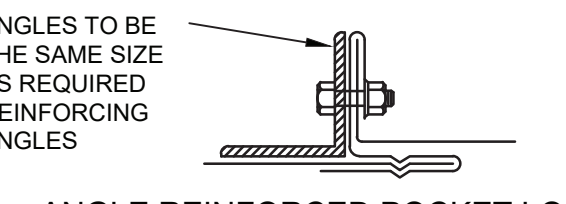
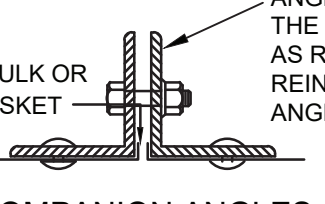


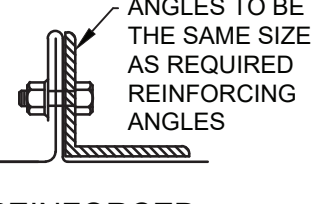
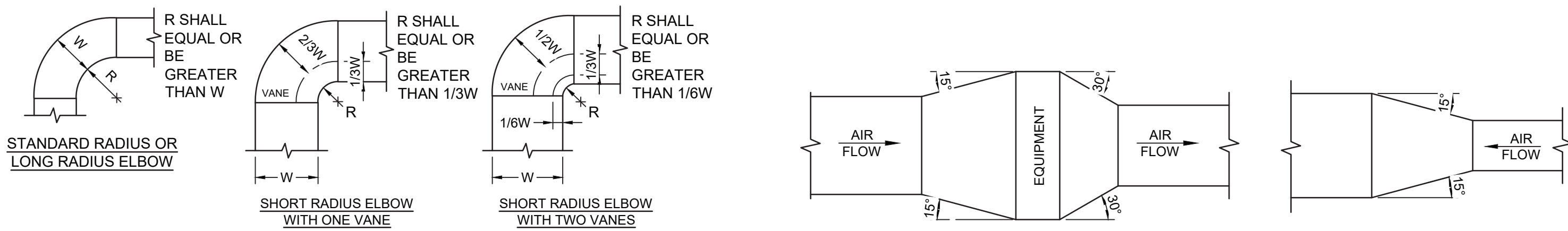


C:\Users\public\Documents\174-2101 CAMPUS WIDE WINDOW SILL REPLACEMENT_1704041235038.rvt

THICKNESS & REINFORCING SCHEDULE - * LOW PRESSURE DUCTWORK						
* NOTE: LOW PRESSURE DUCTWORK SHALL BE DUCTWORK IN WHICH THE PRESSURE DOES NOT EXCEED 2" WATER GAUGE.						
GREATEST DUCT DIMENSION	STEEL DUCTS U.S. STANDARD GAUGE	ALUMINUM DUCTS B & S GAUGE	LONGITUDINAL SEAM	TRANSVERSE JOINT SMALLEST DIMENSION	TRANSVERSE JOINT GREATEST DIMENSION	REINFORCING (ALL DUCTS 18" THRU 54" SHALL BE CROSSBROKEN)
12" OR LESS	26	24(0.020")	PITTSBURGH OR ACME LOCK	DRIVE SLIP OR POCKET LOCK OR BAR SLIP	PLAIN "S" SLIP OR POCKET LOCK OR BAR SLIP	NONE REQUIRED
13" THRU 18"	24	22(0.025")	PITTSBURGH OR ACME LOCK	DRIVE SLIP OR POCKET LOCK OR BAR SLIP	PLAIN "S" SLIP OR POCKET LOCK OR BAR SLIP	NONE REQUIRED
19" THRU 30"	24	22(0.025")	PITTSBURGH OR ACME LOCK	HEMMED "S" SLIP OR BAR SLIP OR DRIVE SLIP OR 1" POCKET LOCK	HEMMED "S" SLIP OR BAR SLIP OR 1" POCKET LOCK	IF TRANSVERSE JOINTS ARE LOCATED 4'-0" OR LESS ON CENTER NO REINFORCING IF ON 8'-0" CENTERS REINFORCE WITH 1"x1"x1/8" ANGLES AT 4 FT. O.C. FASTENED ON 8" CENTERS
31" THRU 42"	22	20(0.032")	PITTSBURGH OR ACME LOCK	DRIVE SLIP 18" OR LESS BAR SLIP OR REINFORCED BAR SLIP OR POCKET LOCK	BAR SLIP OR REINFORCED BAR SLIP OR POCKET LOCK	IF TRANSVERSE JOINTS ARE LOCATED 4'-0" OR LESS ON CENTER NO REINFORCING IF ON 8'-0" CENTERS REINFORCE WITH 1"x1"x1/8" ANGLES AT 4 FT. O.C. FASTENED ON 8" CENTERS
43" THRU 54"	22	20(0.032")	PITTSBURGH LOCK	1 1/4" BAR SLIP, OR REINFORCED BAR SLIP, OR 1 1/2" POCKET LOCK	1 1/4" BAR SLIP, OR REINFORCED BAR SLIP, OR 1 1/2" POCKET LOCK	IF TRANSVERSE JOINTS ARE LOCATED 4'-0" OR LESS ON CENTER NO REINFORCING IF ON 8'-0" CENTERS REINFORCE WITH 1"x1"x1/8" ANGLES AT 4 FT. O.C. FASTENED ON 8" CENTERS
55" THRU 60"	20	18(0.040")	PITTSBURGH LOCK	1 1/4" BAR SLIP, OR REINFORCED BAR SLIP, OR 1 1/2" POCKET LOCK	1 1/4" BAR SLIP, OR REINFORCED BAR SLIP, OR 1 1/2" POCKET LOCK	IF TRANSVERSE JOINTS ARE LOCATED 4'-0" OR LESS ON CENTER NO REINFORCING IF ON 8'-0" CENTERS REINFORCE WITH 1"x1"x1/8" ANGLES AT 4 FT. O.C. FASTENED ON 8" CENTERS
61" THRU 84"	20	18(0.040")	PITTSBURGH LOCK	REINFORCED BAR SLIP, OR ANGLE SLIP, ALTERNATE BAR SLIP, OR ANGLE REINFORCED POCKET LOCK	REINFORCED BAR SLIP, OR ANGLE SLIP, ALTERNATE BAR SLIP, OR ANGLE REINFORCED POCKET LOCK	REINFORCE ALL SIDES OVER 60" WITH 1 1/2"x1 1/2"x3/16" ANGLES ON 2'-0" CENTERS. SIDES 61" THRU 84" REINFORCE WITH 1 1/2"x1 1/2"x1/8" ANGLES ON 2'-0" CENTERS. IF JOINTS ARE ON 8'-0" CENTERS REINFORCE WITH 1 1/2"x1 1/2"x1/8" ANGLES ON 4'-0" CENTERS.
85" THRU 96"	18	16(0.051") (LONGITUDINAL SEAM MAY BE STANDING SEAM)	PITTSBURGH LOCK	1 1/2" COMPANION ANGLES, OR ANGLE REINFORCED POCKET LOCK, OR 1 1/2" ANGLE SLIP OR REINFORCED BAR SLIP	1 1/2" COMPANION ANGLES, OR ANGLE REINFORCED POCKET LOCK, OR 1 1/2" ANGLE SLIP OR REINFORCED BAR SLIP	REINFORCE ALL SIDES OVER 84" WITH 1 1/2"x1 1/2"x3/16" ANGLES ON 2'-0" CENTERS. SIDES 81" THRU 84" REINFORCE WITH 1 1/2"x1 1/2"x1/8" ANGLES ON 2'-0" CENTERS. SIDES 60" OR LESS NEED NO REINFORCING IF JOINTS ARE ON 4'-0" CENTERS. IF JOINTS ARE ON 8'-0" CENTERS REINFORCE WITH 1 1/2"x1 1/2"x1/8" ANGLES ON 4'-0" CENTERS.
OVER 96"	18	16(0.051") (LONGITUDINAL SEAM MAY BE STANDING SEAM)	PITTSBURGH LOCK	2" COMPANION ANGLE, OR 2"x2"x1/4" ANGLE SLIP, OR 2"x2"x1/4" ANGLE REINFORCED POCKET LOCK OR REINFORCED BAR SLIP	2" COMPANION ANGLE, OR 2"x2"x1/4" ANGLE SLIP, OR 2"x2"x1/4" ANGLE REINFORCED POCKET LOCK OR REINFORCED BAR SLIP	REINFORCE ALL SIDES OVER 96" WITH 2"x2"x1/4" ANGLES ON 2'-0" CENTERS. REINFORCE ALL SIDES 61" THRU 84" WITH 1 1/2"x1 1/2"x1/8" ANGLES ON 2'-0" CENTERS. REINFORCE ALL SIDES UNDER 60" WITH 1 1/2"x1 1/2"x1/8" ANGLES IF JOINTS ARE 6'-0" ON CENTER. NO REINFORCING IF JOINTS ARE 4'-0" ON CENTER.
<div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>ANGLES TO BE THE SAME SIZE AS REQUIRED REINFORCING ANGLES</div><div>ANGLES TO BE THE SAME SIZE AS REQUIRED REINFORCING ANGLES</div><div>CAULK OR GASKET</div><div>ANGLES TO BE THE SAME SIZE AS REQUIRED REINFORCING ANGLES</div><div>ANGLES TO BE THE SAME SIZE AS REQUIRED REINFORCING ANGLES</div></div>						

AIR GRILLE/DIFFUSER SCHEDULE													
EQUIPMENT TAG	MANUFACTURER (OR ACCEPT. EQUAL)	MODEL	AIR DEVICE TYPE	AIRFLOW (CFM)		MAX AIR PRESS. DROP (IN. W.C.)	MOUNTING	PANEL/FRAME SIZE (IN.)	NECK SIZE (IN.)	MAX NC	DAMPER	FINISH	NOTES
				MIN.	MAX.								
D-1	TITUS	300RL	DOUBLE DEFLECTION SUPPLY GRILLE	0	2000	0.10	SURFACE MTD.	38"x18"	36"x16"	25	-	WHITE	-

DUST COLLECTOR SCHEDULE											
EQUIPMENT TAG	MANUFACTURER	MODEL	SERVICE	FAN C.F.M.	R.P.M.	EXTERNAL STATIC PRESSURE INCH H ₂ O	MOTOR				REMARKS
							POWER	VOLT.	PHASE	HZ.	
DC-1	STERNVENT	VIBRA CLEAN DKPD 36007	WOODSHOP DUST COLLECTION	3,500	3,450	7.8	7-1/2 HP	208	3	60	W/ FACTORY WIRED NEMA 4 CONTROLLER W/ MAGNETIC STARTERS FOR BLOWER & SHAKER; W/ (2) 55 GALLON DRUMS; W/ 1/3 HP SHAKER MOTOR



- NOTE:
- THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
 - 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.

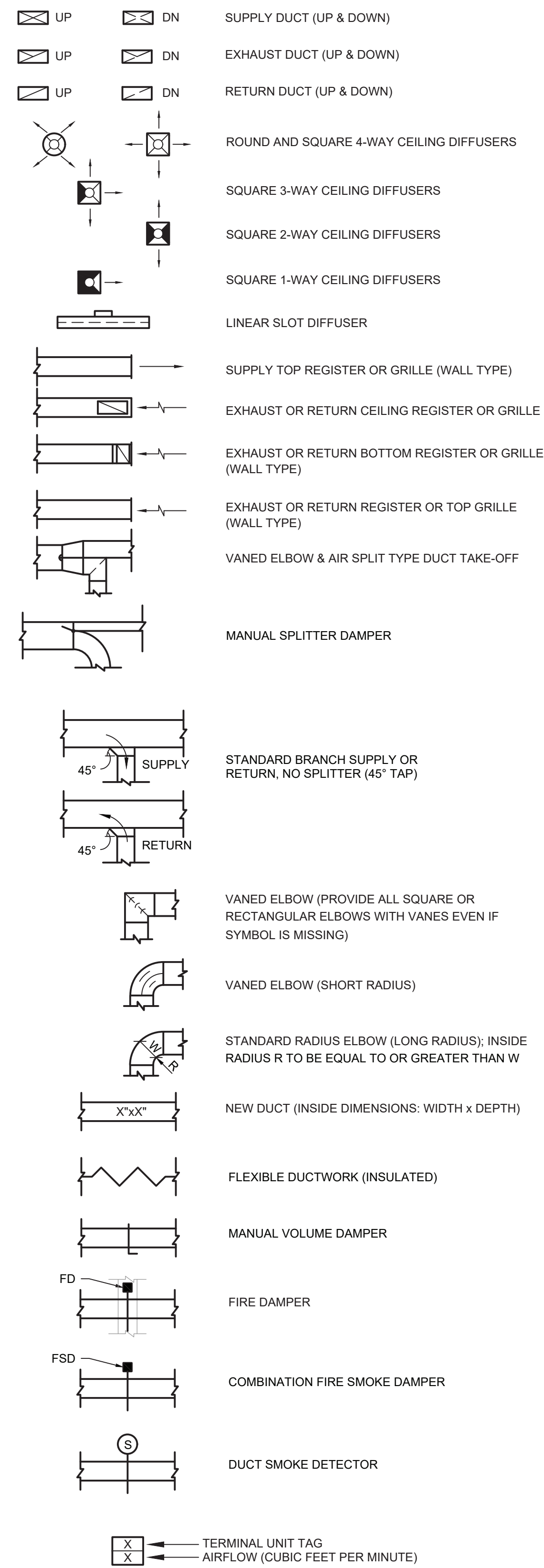
1 Ductwork Radius Elbow Detail
MG001 N.T.S.

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

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

2 Ductwork Transition Detail
MG001 N.T.S.

Mechanical Legend :



Mechanical Notes:

- ALL MATERIALS AND EQUIPMENT ARE TO BE NEW, UNUSED, AND FREE FROM DEFECTS OF ANY KIND. THE BASIS OF QUALITY SHALL BE THE LATEST REVISION OF ASTM, ANSI, OR OTHER ACCEPTABLE STANDARDS.
- THESE DRAWINGS ARE DIAGRAMMATIC, AND INDICATE GENERAL ARRANGEMENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE REVIEWED THE SITE FOR HIS WORK PRIOR TO HAVING SUBMITTED HIS PROPOSAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CONDITIONS FOUND DURING THE COURSE OF THE CONTRACT.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES.
- ALL WORK INCLUDING LABOR AND MATERIALS SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM THE DATE OF PAYMENT AND FINAL ACCEPTANCE BY THE OWNER AND ENGINEER.
- ALL CUTTING, PATCHING, FIRE-STOPPING, AND SURFACE RESTORATION IN CONNECTION WITH THIS TRADE SHALL BE COMPLETED BY THIS CONTRACTOR.
- A MINIMUM OF FOUR (4) COPIES OF SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING AND INSTALLATION OF THE EQUIPMENT AND/OR MATERIALS. BY SUBMITTING SHOP DRAWINGS, THE CONTRACTOR REPRESENTS THAT ACTUAL FIELD CONDITIONS ARE VERIFIED BY HIM AND ARE REFLECTED ON HIS SUBMITTALS.
- THIS CONTRACTOR SHALL PAY ALL FEES, GIVE ALL NOTICES, FILE ALL NECESSARY DRAWINGS, AND OBTAIN ALL PERMITS, INSPECTIONS AND CERTIFICATES OF APPROVAL REQUIRED IN CONNECTION WITH WORK UNDER THIS CONTRACT.
- ALL WORK IN ASSOCIATION WITH THIS CONTRACT SHALL BE COMPLETED IN STRICT COMPLIANCE WITH THE 2020 BUILDING CODE OF NEW YORK STATE, 2020 MECHANICAL CODE OF NEW YORK STATE & 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE.
- ALL HYDRONIC HOT WATER PIPING AND FITTINGS ARE TO BE INSULATED WITH A MINIMUM OF R-3 INSULATION. ALL JOINTS ARE TO BE COMPLETELY SEALED A MINIMUM OF 8" BEYOND JOINT ENDS.
- ALL PIPING SHALL BE PROPERLY SUPPORTED AND ROUTED PARALLEL OR PERPENDICULAR TO BUILDING WALLS. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL SUPPORT HANGERS AND MISCELLANEOUS METALS REQUIRED FOR PROPER INSTALLATION OF WORK.
- ALL PIPING SHALL BE PITCHED SUCH THAT AIR IN THE SYSTEM CAN BE VENTED THROUGH MANUAL AIR VENTS.
- TEST PIPING AND PROVE TIGHT FOR AT LEAST TWO HOURS TO TWICE THE SYSTEM WORKING PRESSURE. TEST SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER AND LOCAL INSPECTOR. TEST SHALL BE REPEATED IF NECESSARY UNTIL FINAL APPROVAL OF SYSTEM IS OBTAINED.
- SUPPORT HORIZONTAL PIPING UTILIZING A SPACING PER PIPING MANUFACTURER'S REQUIREMENTS.
- INSTALL VALVES ON THE ENTIRE DISTRIBUTION SYSTEM, SO LOCATED AS TO GIVE COMPLETE CONTROL TO ALL FIXTURES AND EQUIPMENT.
- INSTALL DRAIN VALVES AT BASE OF ALL RISERS AND AT LOW POINTS OF PIPING SYSTEM. INSTALL MANUAL AIR VENT VALVE FACILITIES AT THE TOP OF ALL RISERS AND AT HIGH POINTS OF THE PIPING SYSTEM.
- INSTALL ALL HYDRONIC PIPING AS HIGH AS POSSIBLE PROVIDING RISERS, DROPS AND OFFSETS TO CLEAR STRUCTURAL MEMBERS, LIGHT FIXTURES, OTHER PIPING, AND OTHER OBSTRUCTIONS. WHERE CONFLICTS ARISE, IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO PROCEEDING.
- THE ENTIRE HYDRONIC SYSTEM IS TO BE BALANCED TO WITHIN 10% OF THE SPECIFIED WATER FLOWRATE REQUIREMENTS. A CERTIFIED BALANCING REPORT AND VERIFICATION IS TO BE SUBMITTED TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE.
- ALL DUCTWORK IS TO BE CONSTRUCTED OF GALVANIZED SHEET STEEL (EXCEPT WHERE OTHERWISE SPECIFIED) WITH GAUGES, BRACING AND CONSTRUCTION IN ACCORDANCE WITH THE LATEST SMACNA DUCT MANUAL STANDARDS AND ALL OTHER AUTHORITIES HAVING JURISDICTION.
- PROVIDE MANUAL DAMPERS AT EACH SPLIT OR TAP CONNECTION TO TRUNK DUCTS FOR BALANCING PURPOSES WHETHER OR NOT SPECIFICALLY SHOWN ON DRAWINGS. EACH DAMPER SHALL BE OF THE OPPOSED BLADE DAMPER TYPE INSTALLED WITH AN OPERATOR AND LOCKING DEVICE. ALL DAMPERS LOCATED ABOVE HARD OR INACCESSIBLE CEILINGS SHALL BE INSTALLED WITH REMOTE GEAR OPERATORS.
- FURNISH & INSTALL FUSIBLE LINK FIRE DAMPERS AT ALL LOCATIONS WHERE DUCT PENETRATES FIRE-RATED FLOOR OR CEILING ASSEMBLY WHETHER OR NOT SPECIFICALLY SHOWN. INSTALL DUCTWORK CASING ACCESS DOORS AND FRAMES AHEAD OF EACH FIRE DAMPER FOR INSPECTION AND MAINTENANCE. DOORS SHALL BE A MINIMUM OF 20 GA. DOUBLE PANEL INSULATED TYPE.
- INSTALL TURNING VANES ON ALL RECTANGULAR TURNS. TURNING VANES SHALL BE DOUBLE THICKNESS TYPE CONSTRUCTED IN ACCORDANCE WITH SMACNA MANUAL.
- ROUND SHEET STEEL ELBOWS ARE TO BE INSTALLED AT THE DUCT CONNECTION TO ALL SUPPLY AIR DIFFUSERS. SHEET STEEL PLENUM BOXES ARE TO BE INSTALLED AT THE DUCT CONNECTION TO ALL RETURN AND EXHAUST AIR GRILLES. THE CONTRACTOR IS TO PAINT THE INSIDE OF THE SHEET STEEL PLENUM BOXES FLAT BLACK.
- ALL SUPPLY AND RETURN DUCTWORK LOCATED IN UNCONDITIONED SPACES OR ABOVE CEILINGS SHALL BE INSULATED WITH A MINIMUM OF R-5 INSULATION. ALL DUCTWORK LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL BE INSULATED WITH A MINIMUM OF R-8 INSULATION. INSULATION SHALL BE FIBERGLASS DUCT WRAP WITH VAPOR SEAL SECURELY TAPPED AROUND DUCT. IF DUCT LINING IS TO BE USED, ALL DUCT SIZES SHOWN SHALL BE CONSIDERED TO BE INSIDE CLEAR DIMENSIONS.
- INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE PROVIDING RISERS, DROPS AND OFFSETS TO CLEAR STRUCTURAL MEMBERS, LIGHT FIXTURES, OTHER PIPING, AND OTHER OBSTRUCTIONS. WHERE CONFLICTS ARISE, IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO PROCEEDING.
- THE ENTIRE AIR DISTRIBUTION SYSTEM IS TO BE BALANCED TO WITHIN 10% OF THE SPECIFIED AIRFLOW REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE TO TEST ALL EQUIPMENT, PIPING, FIXTURES, AND SYSTEMS INSTALLED UNDER THIS CONTRACT TO ENSURE PROPER OPERATION PRIOR TO FINAL ACCEPTANCE BY THE OWNER AND ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE TO DETERMINE WHETHER SPECIAL LICENSING IS REQUIRED IN ORDER TO PERFORM THE REQUIRED WORK IN THE MUNICIPALITY WHERE THE PROJECT IS LOCATED. IF THE CONTRACTOR CANNOT OBTAIN THE REQUIRED LICENSING TO COMPLETE THE WORK WITHIN THE PROJECT SCHEDULE, THEN THE CONTRACTOR SHALL NOT BE PERMITTED TO BID ON THIS PROJECT.
- CONTRACTOR IS RESPONSIBLE TO CREATE AND SUBMIT RED-LINE "AS-BUILT" PLANS TO THE ENGINEER AT THE END OF THE PROJECT. AS-BUILT PLANS SHALL ACCURATELY REPRESENT THE SYSTEMS AS THEY WERE INSTALLED.

VALLEY CENTRAL SCHOOL DISTRICT
VALLEY CENTRAL HIGH SCHOOL
ART AND WOODSHOP ALTERATIONS

Project Title



#	DATE	DESCRIPTION

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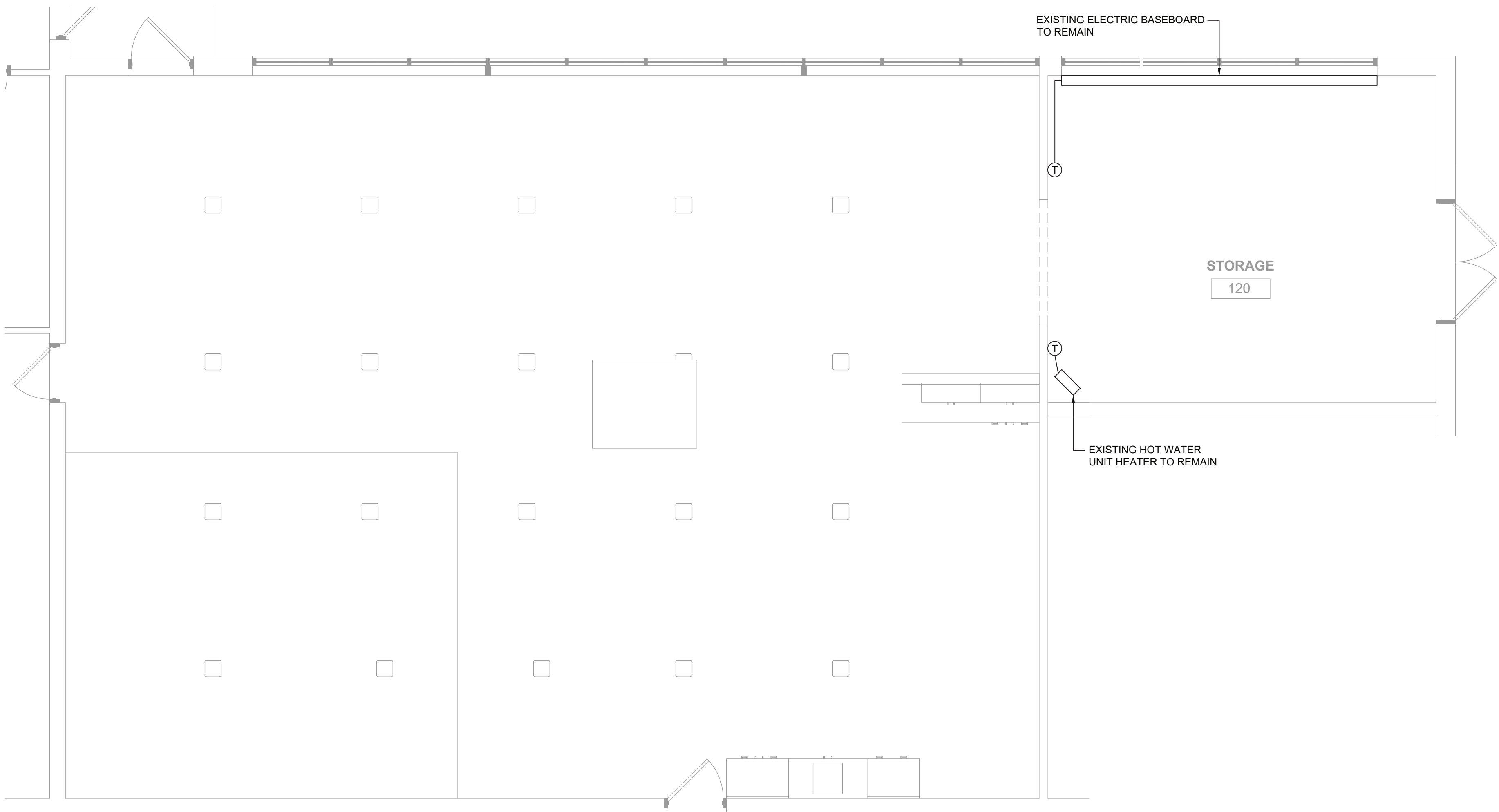
Sheet Title

MECHANICAL
NOTES, LEGEND,
SCHEDULE &
DETAILS

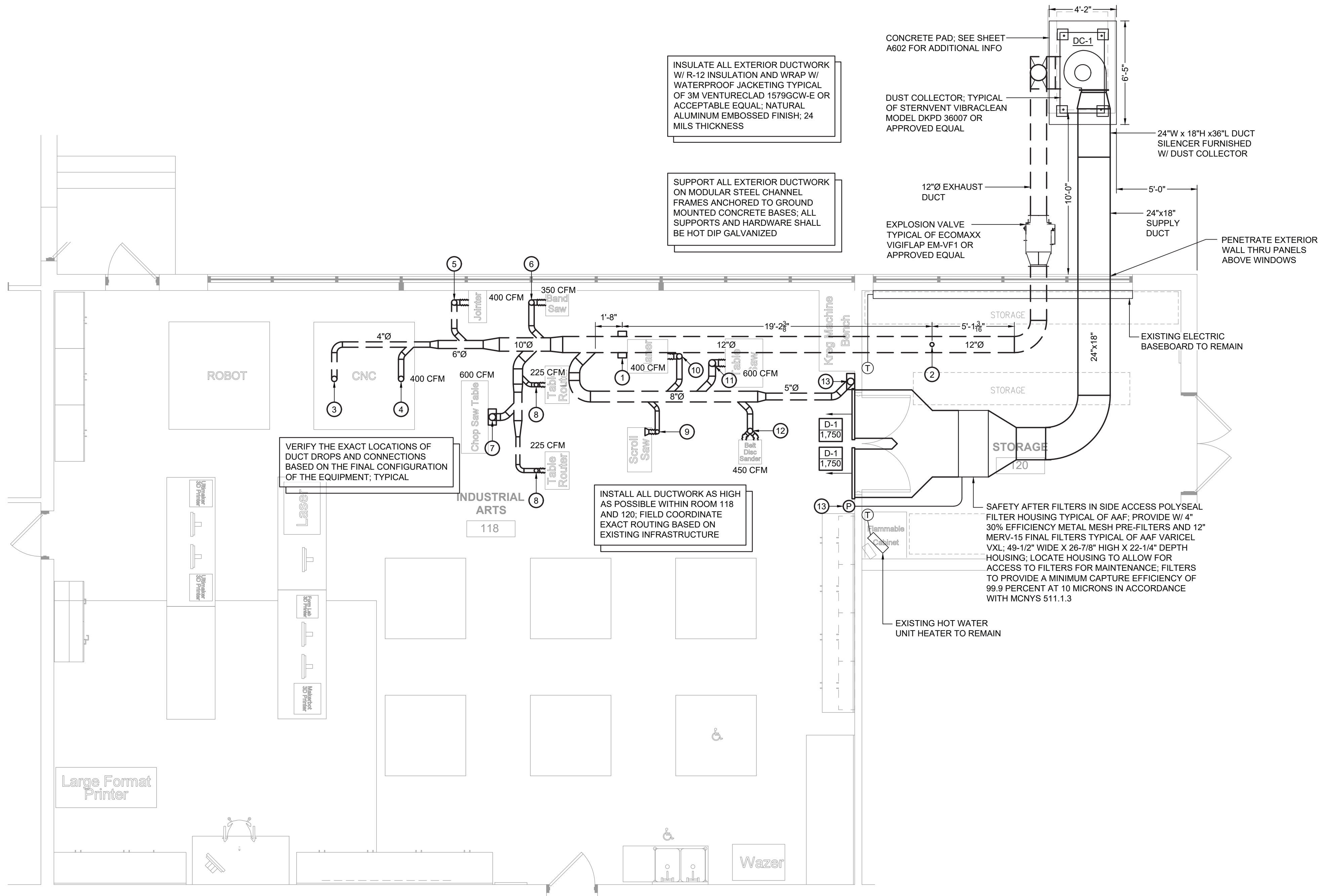
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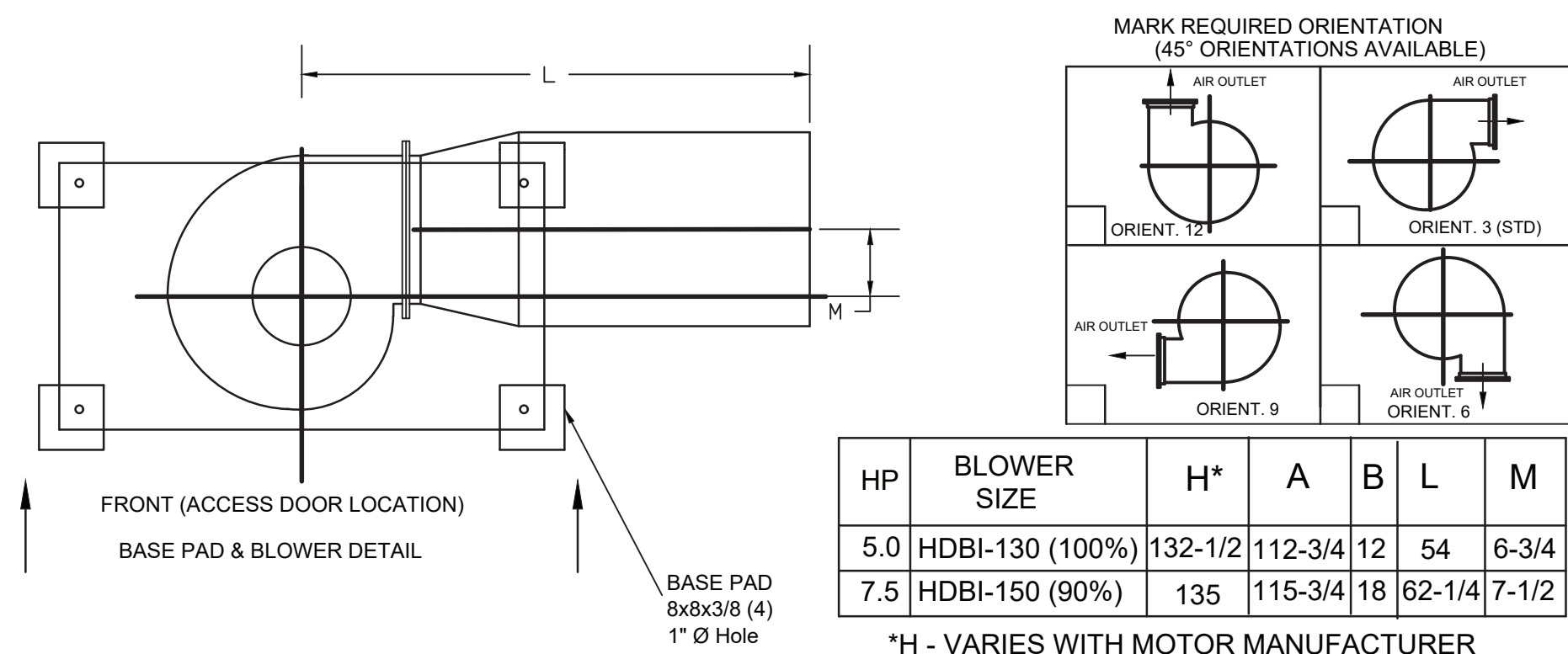
CONSTRUCTION DOCUMENTS



1 Mechanical Demolition Plan
Scale: 1/4" = 1'-0"



2 Mechanical Plan
Scale: 1/4" = 1'-0"



3 Dust Collector Details
Scale: 1/4" = 1'-0"

Key Notes:

- 1 INFRARED SPARK DETECTORS TYPICAL OF HANSENTEK MODEL 120-1 OR APPROVED EQUAL; INSTALL ON BOTH SIDES OF THE DUCTWORK PER MANUFACTURER REQUIREMENTS
- 2 NOZZLE/VALVE SPRAY ASSEMBLY TYPICAL OF HANSENTEK MODEL 901-13 OR APPROVED EQUAL; INSTALL ON TOP OF DUCTWORK PER MANUFACTURER REQUIREMENTS
- 3 4"Ø DUCT DROP TO CNC MACHINE VACUUM CLEANING HEAD; PROVIDE 4"Ø FLEXIBLE HOSE TO ALLOW FOR FULL RANGE OF MOVEMENT
- 4 4"Ø DUCT DROP TO CNC MACHINE VACUUM CONNECTION; PROVIDE 4"Ø FLEXIBLE HOSE TO ALLOW FOR FULL RANGE OF MOVEMENT; BALANCE TO 400 CFM
- 5 4"Ø DUCT DROP TO JOINTER; PROVIDE 4"Ø FLEXIBLE HOSE TO CONNECTION ON THE SIDE OF THE UNIT; BALANCE TO 400 CFM
- 6 4"Ø DUCT DROP TO BAND SAW; PROVIDE 4"Ø FLEXIBLE HOSE TO CONNECTION ON THE SIDE OF THE UNIT; BALANCE TO 350 CFM
- 7 5"Ø DUCT DROP TO CHOP SAW; PROVIDE DUCTED HOOD AT SAWDUST DISCHARGE LOCATION ON SAW; BALANCE TO 600 CFM
- 8 3"Ø DUCT DROP TO ROUTER; PROVIDE 2.5"Ø FLEXIBLE HOSE TO CONNECTION ON THE REAR OF THE CABINET; BALANCE TO 225 CFM
- 9 3"Ø DUCT DROP TO SCROLL SAW; PROVIDE 3"Ø FLEX ARM FOR MANUAL SAWDUST REMOVAL AT SAW
- 10 4"Ø DUCT DROP TO PLANER; PROVIDE 4"Ø FLEXIBLE HOSE TO CONNECTION ON THE SIDE OF THE UNIT; BALANCE TO 400 CFM
- 11 5"Ø DUCT DROP TO TABLE SAW; PROVIDE 5"Ø FLEXIBLE HOSE TO CONNECTION ON THE SIDE OF THE UNIT; BALANCE TO 600 CFM
- 12 4"Ø DUCT DROP TO COMBINATION SANDER; PROVIDE (2) 3"Ø FLEXIBLE HOSE TO CONNECTIONS ON THE SIDE OF THE UNIT; BALANCE TO 450 CFM
- 13 5"Ø DUCT DROP TO FLOOR SWEEP
- 14 PROVIDE WALL MOUNT PRESSURE GAUGE TO MONITOR PRESSURE DROP ACROSS FILTERS; PROVIDE PNEUMATIC TUBING TO FITTINGS AT FILTER HOUSING

VALLEY CENTRAL SCHOOL DISTRICT VALLEY CENTRAL HIGH SCHOOL ART AND WOODSHOP ALTERATIONS

Project Title

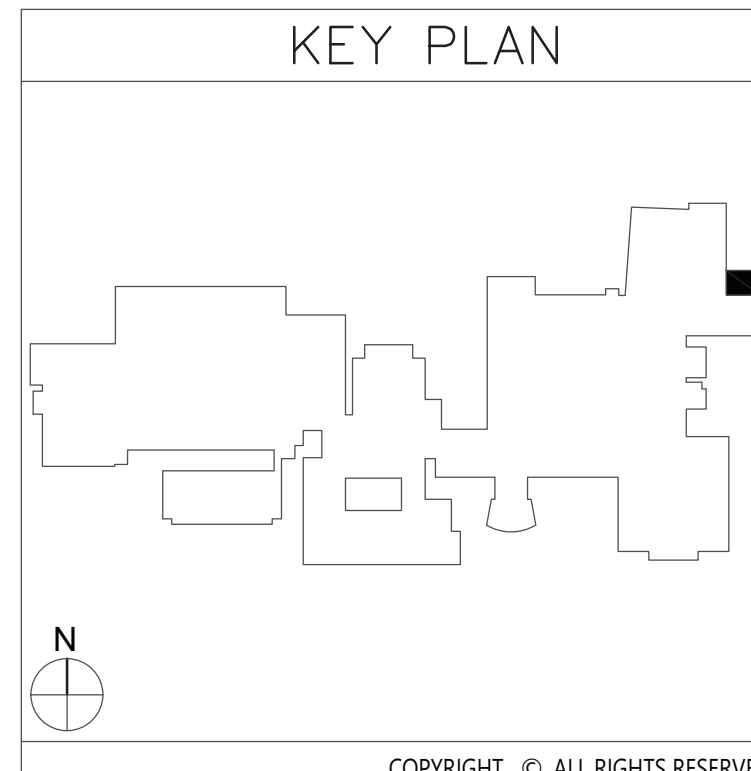


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INDUSTRIAL
ARTS
MECHANICAL
PLANS

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M102

CONSTRUCTION DOCUMENTS



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