

GENERAL NOTES - HVAC

- THESE CONTRACT DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE HVAC SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, APPURTENANCES, AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL PARAMETERS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH ALL ITEMS AND LABOR REQUIRED FOR A COMPLETE HVAC SYSTEM IN ACCORDANCE WITH ALL APPLICABLE STANDARDS AND LATEST STATE AND LOCAL CODES AND THIS PACKAGE OF CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE CONTRACTOR. CONTRACTOR SHALL CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS, AND COMMENCING ANY WORK.
- SUBMISSION OF BID FOR THE MECHANICAL WORK INDICATES THAT THE MECHANICAL CONTRACTOR IS FAMILIAR WITH THE DESIGN INTENT, THE REQUIREMENTS OF PROJECT, REQUIREMENTS OF LOCAL UTILITIES AND LOCAL APPLICABLE CODES AND ORDINANCES.
- ALL MECHANICAL WORK SHALL CONFORM TO THE LATEST EDITION OF MECHANICAL CODE ACCEPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SHOW THE RELATIONSHIP BETWEEN EQUIPMENT AND CONNECTIONS. DO NOT SCALE THE DRAWINGS FOR EXACT SIZE OR LOCATIONS. BUILDING DIMENSIONS SHALL BE TAKEN FROM ARCH. PLANS AND EQUIPMENT DIMENSIONS SHALL BE TAKEN FROM CERTIFIED EQUIPMENT DATA.
- OBTAINING ALL REQUIRED PERMITS AND PAYING ALL ASSOCIATED FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- SOME ASPECTS OF MECHANICAL DESIGN ARE COMMONLY EXPRESSED IN NOTES AND/OR SCHEMATIC FORM. IT IS THE RESPONSIBILITY OF MECHANICAL CONTRACTOR TO INTERPRET THEM ACCURATELY AND CARRY OUT THE CONSTRUCTION AND/OR INSTALLATION SATISFACTORY TO THE CONSULTANT, THE TENANT AND THE OWNER. IN CASE OF ANY UNCERTAINTIES OR AMBIGUITIES PROMPTLY CONSULT WITH THE PROJECT MANAGER FOR CLARIFICATION.
- SCHEDULE AND COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION OF EQUIPMENT TO AVOID CONFLICT DURING AND AFTER THE INSTALLATION.
- COORDINATE DUCTWORK AND PIPING WITH ARCHITECTURAL, STRUCTURAL, PLUMBING AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
- LOCATION OF ALL PENETRATIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL SEAL ANY PIPE AND/OR DUCT RUNNING THROUGH THE ROOF AND EXTERIOR WALLS.
- INSULATE ALL SUPPLY AND RETURN DUCT WITH SEMI RIGID BONDED FIBERGLASS HAVING A MINIMUM INSULATION VALUE IN ACCORDANCE WITH ASHRAE 90.1 2010. INSTALL IN ACCORDANCE WITH SMACNA DUCT WRAP APPLICATIONS STANDARDS. INSTALL DUCT LINER TO THE FIRST TEN FEET OF RETURN AND SUPPLY DUCTS OR THE FIRST ELBOW. ALL DUCTWORK ELBOWS SHALL BE INSTALLED WITH DOUBLE THICK TURNING VANES.
- TRANSITION RECTANGULAR DUCTWORK ON THE BOTTOM AND THE SIDES. MAINTAIN DUCTWORK LEVEL AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE.
- FLEXIBLE DUCT RUNOUTS SHALL BE INSTALLED FREE OF KINKS AND SAGS. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 7'-0".
- ALL DUCTWORK TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS.
- DUCT SIZES ARE SHOWN AS INSIDE CLEAR DIMENSIONS, WHERE INTERNAL INSULATION AND/OR LINING IS CALLED FOR, DIMENSIONS SHALL BE INCREASED BY THE THICKNESS OF THE INSULATION AND/OR LINING.
- MECHANICAL CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR AND ALL ELECTRICAL CONTRACT DOCUMENTS PRIOR TO ORDERING.
- ALL RUNOUTS TO DIFFUSERS SHALL BE THE SAME SIZE AS THE DIFFUSER NECK SIZE UNLESS NOTED OTHERWISE.
- REFER TO THE REFLECTED CEILING PLANS (RCPs) FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES IF AVAILABLE. COORDINATE EXACT LOCATION OF GRILLES, REGISTERS AND DIFFUSERS WITH THE RCPs.
- PROVIDE FLEXIBLE CONNECTIONS WHERE DUCT CONNECT TO UNIT.
- INSTALL HVAC EQUIPMENT PER UNIT MANUFACTURER'S RECOMMENDATION. PROVIDE SERVICE AND MAINTENANCE CLEARANCE RECOMMENDED BY UNIT MANUFACTURER. INSTALL ROOFTOP HVAC UNIT ON ROOF CURB UNLESS INDICATED OTHERWISE.
- CONTRACTOR TO COORDINATE ALL CLEARANCES PRIOR TO INSTALLATION OF EQUIPMENT.
- ALL CONTROL WIRING SHALL BE RUN INSIDE WALLS OR ABOVE CEILINGS. IN UNFINISHED AREAS, ROUTE CONTROL WIRING INSIDE CONDUIT IN JOIST SPACE. ALL WALL MOUNTED PROGRAMMABLE THERMOSTATS SHALL BE INSTALLED 5'-0" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.
- DUCTWORK:
 - DUCTS SHALL BE CONSTRUCTED OF GALVANIZED SHEET STEEL IN COMPLIANCE WITH ASTM A527, COATING G90.
 - DUCTWORK CONSTRUCTION, SEALANTS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
 - ALL DUCT CONNECTIONS & JOINTS SHALL BE SEALED AIR TIGHT AND IN ACCORDANCE WITH SMACNA STANDARDS PARTS 1.8 AND S1.9.
 - DUCT HANGERS AND SUPPORTS SHALL IN ACCORDANCE WITH IMC AND SMACNA RECOMMENDATIONS.
 - FLEXIBLE DUCTS SHALL BE FACTORY INSULATED TYPE AND SHALL COMPLY WITH UL 181. FLEXIBLE DUCT INSULATION SHALL HAVE MAXIMUM C-FACTOR OF 0.25 AT MEAN TEMPERATURE OF 75°F.
 - SPIN-IN TAKE-OFF SHALL BE MADE WITH GENFLEX MODEL SM-1 DEL OR EQUIVALENT.

MECHANICAL SPECIFICATIONS

MECHANICAL GENERAL REQUIREMENTS

EXAMINE THE SITE CONDITIONS VERY CAREFULLY AND THE SCOPE OF PROPOSED WORK TOGETHER WITH THE WORK OF ALL OTHER TRADES AND INCLUDE IN THE BID PRICE ALL COSTS FOR WORK SUCH AS EQUIPMENT, DUCTWORK AND PIPING NECESSARY TO ACCOMMODATE THE MECHANICAL SYSTEMS SHOWN AND SYSTEMS OF OTHER TRADES. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.

PROVIDE ALL LABOR, MATERIAL, TOOLS, EQUIPMENT, INSURANCE AND SERVICES TO COMPLETE THIS PROJECT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND PRESENT IT AS FULLY OPERATIONAL TO THE SATISFACTION OF THE OWNER.

CARRY OUT WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A. OBTAIN ALL PERMITS, PAY ASSOCIATED FEES AND SCHEDULE INSPECTIONS.

PRIOR TO BEGINNING WORK COORDINATE ALL WORK WITH THE BUILDING OWNER AS IT MAY APPLY TO THIS SITE. ALL WORK TO COMPLY WITH THE RULES AND REGULATIONS OF THE BUILDING OWNER INVOLVED.

PERFORM DETAILED VERIFICATION OF WORK PRIOR TO ORDERING THE MECHANICAL EQUIPMENT AND COMMENCING CONSTRUCTION. ISSUE A WRITTEN NOTICE TO THE CONSULTANT OF ANY DISCREPANCIES.

SUBMIT SHOP DRAWINGS, PRODUCT DATA AND SAMPLES TO THE ENGINEER FOR REVIEW PRIOR TO RELEASE OF THE MATERIAL FOR MANUFACTURE. PROVIDE SUBMITTALS FOR MECHANICAL EQUIPMENT, DUCTWORK AND ITS ACCESSORIES, PIPING AND ITS ACCESSORIES, AIR DISTRIBUTION DEVICES, INSULATION, SUPPORT AND ANCHORAGE, AND OTHER ITEMS AS REQUIRED. INDICATE DETAILS OF CONSTRUCTION, DIMENSIONS, CAPACITIES, WEIGHTS, MECHANICAL PERFORMANCE CHARACTERISTICS AND ELECTRICAL REQUIREMENTS OF EQUIPMENT OR MATERIAL WHERE APPLICABLE INCLUDE UNIT POWER WIRING DIAGRAMS. ADVERTISING OR SALES LITERATURE WILL NOT BE ACCEPTABLE AS SHOP DRAWINGS.

COORDINATE THE MECHANICAL WORK WITH ALL EQUIPMENT BEING INSTALLED PRIOR TO ROUGH IN. PROVIDE SHUT SUPPORT AND ANCHORAGE. UNIT INSTALLATION, ELECTRICAL POWER REQUIREMENT, MAINTENANCE CLEARANCE, ETC. AS SUPPLIED AND/OR RECOMMENDED BY THE MANUFACTURER.

PROVIDE ALL CUTTING AND PATCHING NECESSARY FOR THE INSTALLATION OF THE MECHANICAL WORK. ANY DAMAGE DONE TO THE WORK ALREADY IN PLACE BY REASON OF THIS WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE BY A QUALIFIED MECHANIC EXPERIENCED IN SUCH WORK. PATCHING SHALL BE UNIFORM IN APPEARANCE AND SHALL MATCH THE SURROUNDING SURFACE. DO NOT CUT STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ENGINEER. WHERE PENETRATIONS ARE NECESSARY THROUGH THE ROOF, PROVIDE ALL NECESSARY CURBS, SLEEVES, SHIELDS, FLASHING, FITTINGS, AND CAULKING TO MAKE THE PENETRATIONS ABSOLUTELY WATER TIGHT.

WHERE DUCTWORK OR PIPING PASS THROUGH FLOORS AND FIRE RATED WALLS, SEAL OPENINGS AROUND DUCTWORK OR PIPING USING UL LISTED FIRE-STOPPING SYSTEM APPROVED FOR THE PENETRATION AS REQUIRED.

CORE DRILLING THROUGH ROOFS, WALLS AND FLOORS FOR DUCTWORK AND PIPING INSTALLATION IS TO BE PROVIDED BY THE GENERAL CONTRACTOR AT LOCATIONS DETERMINED BY THE STRUCTURAL ENGINEER. REFER TO STRUCTURAL DRAWINGS AND COORDINATE WITH GENERAL CONTRACTOR FOR INSTALLATION OF DUCTWORK AND PIPING THROUGH ROOFS, WALLS AND FLOORS.

ENSURE THAT ALL AIR CONDITIONING, HEAT, WATER, SEWAGE, FUEL, LIGHT, POWER, TELEPHONE AND OTHER MECHANICAL AND ELECTRICAL SYSTEMS AND SERVICES IN THE BUILDING REMAIN OPERATIONAL DURING THE COURSE OF THIS PROJECT. REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC. NOT BEING REUSED UNDER NEW SCHEMES, WHETHER SHOWN ON DRAWINGS OR NOT.

DURING PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF THE MECHANICAL SYSTEMS, LOCATING AND DIMENSIONING EACH EQUIPMENT, DUCTWORK AND PIPING PRECISELY. UPON COMPLETION OF THE INSTALLATION, TRANSFER ALL RECORD DATA TO BLACK LINE PRINTS OF THE ORIGINAL DRAWINGS AND SUBMIT THESE DRAWINGS AS RECORD DRAWINGS TO THE CONSULTANT.

AT THE COMPLETION OF THE PROJECT PROVIDE THREE SETS OF OPERATION AND MAINTENANCE MANUALS, BOUND IN 3-RING BINDERS, DULY LABELED, AND CONTAINING COMPLETE LIST OF REPLACEMENT PARTS, SHOP DRAWINGS AND CATALOG INFORMATION OF ALL MAJOR EQUIPMENT, SUCH AS, AC UNITS, DAMPER AND ACTUATORS, ETC.

COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF TIME OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.

METAL DUCT

SHEET METAL MATERIALS SHALL BE GALVANIZED SHEET STEEL IN LOCK-FORMING QUALITY. SHEET METAL SHALL COMPLY WITH ASTM A 653/A 653M. FABRICATE DUCTS, ELBOWS, TRANSITIONS, OFFSETS, BRANCH CONNECTIONS, AND OTHER CONSTRUCTION ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE" FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESS, REINFORCING TYPES AND INTERVALS, THE ROOF JOINTS, JOINT TYPES AND INTERVAL, AND OTHER DUCT CONSTRUCTION METHODS, UNLESS OTHERWISE INDICATED. STATIC-PRESSURE CLASSIFICATION FOR SUPPLY DUCT SHALL BE RATED AT 1 IN. WG AND FOR EXHAUST DUCT SHALL BE RATED AT 1/2 IN. WG. PROVIDE GALVANIZED STEEL REINFORCEMENT AND GALVANIZED STEEL TIE RODS FOR INSTALLATION.

GREASE EXHAUST DUCT SHALL BE CONSTRUCTION OF STEEL NOT LESS THAN 16 GAGE THICKNESS. JOINTS, SEAMS AND PENETRATIONS OF GREASE DUCT SHALL BE MADE WITH A CLEAN JOBS LIQUID-TIGHT WELD OR BRAZE MODE ON THE EXTERNAL SURFACE OF THE DUCT. DUCT JOINTS SHALL BE BUTT JOINTS OR OVERLAPPING DUCT JOINTS OF EITHER THE TELESCOPING OR BELL TYPE. DUCT EXHAUST AIR CONNECTIONS SHALL BE FLANGED AND GASKETED AT THE BASE OF THE FAN. INSTALL HORIZONTAL GREASE DUCT WITH NOT LESS THAN 2 PERCENT SLOPE TOWARD THE KITCHEN HOOD.

INSULATE ALL SUPPLY AIR AND RETURN AIR DUCT WITH 1-1/2" THICK, 0.75 LB/CUBIC FEET FIBERGLASS BLANKET.

PROVIDE FIBROUS GLASS DUCT LINING TO MEET ASTM C 1071, STANDARD SPECIFICATION FOR THERMAL AND ACOUSTICAL INSULATION, AS INDICATED IN DRAWING. APPLY ADHESIVES COMPLYING WITH ASTM C 916 AND HARDENED STEEL FASTENERS TO SECURE DUCT LINERS FOR INSTALLATION.

PROVIDE GALVANIZED SHEET STEEL OR THREADED STEEL ROD HANGER. SIZES SHALL BE COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE" FOR STEEL SHEET WIDTH AND THICKNESS AND FOR STEEL ROD DIAMETERS. DUCT ATTACHMENTS SHALL BE SHEET METAL SCREWS, BLIND RIVETS OR SELF-TAPPING METAL SCREWS COMPATIBLE WITH DUCT MATERIALS. PROVIDE GALVANIZED STEEL TRAPEZE AND RISER SUPPORTS COMPLYING WITH ASTM A 36/A 36M.

INSTALL DUCTS VERTICALLY AND HORIZONTALLY AND PARALLEL AND PERPENDICULAR TO BUILDING LINES. SEAL ALL JOINTS AND SEAMS WITH WATER-BASED JOINT AND SEAM SEALANT COMPLY WITH NFPA REQUIREMENTS FOR CLASS 1 DUCTS AND UL 723 LISTED.

AIR DUCT ACCESSORIES

PROVIDE GALVANIZED STEEL MANUAL VOLUME DAMPER W/STANDARD LEAKAGE RATING AND LINKAGE OUTSIDE OF AIRSTREAM. DAMPER SHALL BE SUITABLE FOR HORIZONTAL APPLICATIONS. DAMPER FRAME SHALL BE HAT-SHAPED, MIN. 0.064 INCH THICKNESS, GALVANIZED STEEL CHANNELS WITH MITERED AND WELDED CORNERS, AND FLANGELESS FRAMES FOR INSTALLING IN DUCTS. DAMPER BLADE SHALL BE SINGLE GALVANIZED STEEL BLADE, STIFFENED FOR STABILITY AND WITH 0.064 IN THICK. BLADE AXLES SHALL BE GALVANIZED STEEL AND BEARINGS SHALL BE AT BOTH ENDS OF OPERATING SHAFT. DAMPER JACKSHAFT SHALL BE GALVANIZED-STEEL PIPE ROTATING WITHIN PIPE-BEARING ASSEMBLY MOUNTED ON SUPPORTS AT EACH MULLION, AND WITH 1 INCH DIAMETER. DAMPER HARDWARE SHALL INCLUDE ZINC-PLATED, DIE-CAST CORE WITH DIAL AND HANDLE MADE OF 3/32-INCH THICK ZINC-PLATED STEEL, AND A 3/4-INCH HEXAGON LOCKING NUT, CENTER HOLE TO SUIT DAMPER OPERATING-ROD SIZE, AND ELEVATED PLATFORM FOR INSULATED DUCT MOUNTING.

PROVIDE GRAVITY BALANCED TYPE BACKDRAFT DAMPERS. DAMPER FRAME SHALL BE 0.052 IN THICK, GALVANIZED SHEET STEEL, WITH WELDED CORNERS AND MOUNTING FLANGE. DAMPER BLADES SHALL BE 0.025-IN THICK ROLL-FORMED ALUMINUM, MULTIPLE SINGLE-PIECE PARALLEL ACTION BLADES, MAXIMUM 6-IN. WIDTH, WITH EXTRUDED VINYL, MECHANICALLY LOCKED SEALED EDGES. BLADE AXLES SHALL BE 0.2 IN. DIAMETER PLATED STEEL. SLEEVE SHALL BE MINIMUM 20 GAUGE THICKNESS WITH SYNTHETIC PILOT BUSHING BEARINGS. DAMPER SHALL HAVE A MAXIMUM RATING FOR AIR VELOCITY OF 2500 FPM AND MAXIMUM SYSTEM PRESSURE RATING OF 1 IN. WG.

INSTALL DUCT ACCESSORIES OF MATERIALS SUITED TO DUCT MATERIALS. SET DAMPERS TO FULLY OPEN POSITION BEFORE TESTING, ADJUSTING, AND BALANCING. INSTALL FIRE DAMPERS ACCORDING TO UL LISTING. INSTALL DUCT ACCESS DOORS ON SIDES OF DUCT TO ALLOW FOR INSPECTING, ADJUSTING, AND MAINTAINING ACCESSORIES AND EQUIPMENT. ACCESS DOOR WITH SWING SHALL BE INSTALLED AGAINST DUCT STATIC PRESSURE.

HANGERS AND SUPPORTS FOR DUCTWORK, PIPING AND EQUIPMENT

TRAPEZE SUPPORTS FOR DUCTWORK SHALL BE GALVANIZED-STEEL SHAPES AND PLATES COMPLYING WITH ASTM A 36/A 36M. PROVIDE SHEET METAL SCREWS, BLIND RIVETS, OR SELF-TAPPING METAL SCREWS; COMPATIBLE WITH DUCT MATERIALS FOR DUCTWORK ATTACHMENT. SUPPORT HORIZONTAL DUCTS WITHIN 24 INCHES OF EACH ELBOW. INSTALL UPPER ATTACHMENTS TO STRUCTURES WITH AN ALLOWABLE LOAD NOT EXCEEDING ONE-FOURTH OF FAILURE (PROOF-TEST) LOAD.

EQUIPMENT SUPPORTS SHALL BE WELDED, SHOP- OR FIELD-FABRICATED EQUIPMENT SUPPORT MADE FROM STRUCTURAL-STEEL SHAPES. FABRICATE STRUCTURAL-STEEL STANDS TO SUSPEND EQUIPMENT FROM STRUCTURE OVERHEAD. PROVIDE LATERAL BRACING TO PREVENT SWAYING FOR EQUIPMENT SUPPORTS.

HVAC ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
A/C	ABOVE CEILING
BOD	BOTTOM OF DUCT
BOU	BOTTOM OF UNIT
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CONN	CONNECT/CONNECTION
CU	CONDENSING UNIT
DB	DRY BULB
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
'F	DEGREE FAHRENHEIT
FPM	FEET PER MINUTE
FT	FEET
GR	GRAIN
HP	HORSEPOWER
HR	HOUR
HZ	HERTZ
IN	INCHES
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LVG	LEAVING
MAX	MAXIMUM
MIN	MINIMUM
MBH	BTU X 1000 PER HOUR
MVD	MANUAL VOLUME DAMPER
NO.	NUMBER
O.A.	OUTSIDE AIR
OPNG	OPENING
PD	PRESSURE DROP
RA	RETURN AIR
SA	SUPPLY AIR
TSP	TOTAL STATIC PRESSURE
TYP.	TYPICAL
VD	VOLUME DAMPER
WB	WET BULB
WC	WATER COLUMN

HVAC LEGEND

SYMBOLS	DESCRIPTION
	AIR FLOW DIRECTION ARROW
	FLEXIBLE DUCTWORK (INSULATED)
	ROUND DUCT
	RECTANGULAR DUCT WIDTH X DEPTH
	MANUAL VOLUME DAMPER
	DUCT SECTION OR EXHAUST OR RETURN GRILLE
	SUPPLY DIFFUSER
	LINEAR SLOT DIFFUSER
	THERMOSTAT
	PIPING ELBOW DOWN
	PIPING ELBOW UP
	CONTROL DAMPER
	FIRE DAMPER WITH ACCESS DOOR (FD)

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NOTES:

REVISION #	DATE	REMARKS

ISSUE DATE	ISSUED TO:	ISSUED FOR:
10-22-2014	COUNTY	PERMITS

PROJECT ADDRESS:
MASJID AL-MOMINEEN
837 NORTH INDIAN CREEK DRIVE
CLARKSTON, DEKALB COUNTY
GEORGIA, 30021

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LAYOUT:
MECHANICAL GENERAL
NOTE AND LEGEND

PAPER SIZE: 24X36 (ARCH D)
SCALE: AS NOTED

SHEET NUMBER:
M001

