

## SYMBOLS, VALVES, DUCTWORK, AND SPECIALTIES

<p>EXHAUST GRILLE OR RETURN AIR GRILLE</p> <p>SUPPLY REGISTER</p> <p>SUPPLY DIFFUSER</p> <p>EXHAUST FAN</p> <p>RELIEF OR INTAKE AIR VENT</p> <p>SUPPLY DUCT RISER</p> <p>LINEAR DIFFUSER</p> <p>FLEXIBLE CONNECTION</p> <p>DUCT DIMENSION IN INCHES (FIRST DIMENSION IS SIDE SHOWN)</p> <p>16 X 8</p> <p>10</p> <p>SIGNIFIES ROUND DUCT (SIZE IN INCHES)</p> <p>16 X 8</p> <p>RECTANGULAR DUCT WITH INSIDE LINING</p> <p>10</p> <p>ROUND DUCT WITH INSIDE LINING</p> <p>RECTANGULAR DUCT WITH TURNING VANES</p> <p>SOUND ATTENUATOR LOCATED INSIDE DUCTWORK</p> <p>BRANCH TAKEOFF</p> <p>FLEXIBLE ROUND DUCT</p> <p>RETURN AIR BAFFLE (SEE SCHEDULE FOR SIZE)</p> <p>TRANSFER BAFFLE (SEE SCHEDULE FOR SIZE)</p> <p>MOTORIZED DAMPER</p> <p>BALANCE DAMPER</p> <p>MULTI-BLADE BALANCE DAMPER</p> <p>FIRE DAMPER</p> <p>8X8</p> <p>RECTANGULAR DUCT</p> <p>8"</p> <p>ROUND DUCT</p> <p>8"</p> <p>FLAT OVAL DUCT</p> <p>8X8 8X8</p> <p>DUCT TRANSITION</p> <p>RECTANGULAR ELBOW</p> <p>RIGID DUCT TERMINATION</p> <p>ROUND DUCT ELBOW</p>	<p>PIPE TURNED UP</p> <p>PIPE TURNED DOWN</p> <p>PIPE OUT TOP</p> <p>PIPE OUT BOTTOM</p> <p>INDICATES DIRECTION OF DOWNWARD PITCH</p> <p>INDICATES EXPANSION LOOP</p> <p>PIPE ANCHOR</p> <p>PIPE ALIGNMENT GUIDE</p> <p>PIPE EXPANSION JOINT</p> <p>SHUTOFF VALVE</p> <p>UNION</p> <p>STRAINER</p> <p>FLEXIBLE CONNECTION</p> <p>TEMPERATURE SENSOR</p> <p>ECCENTRIC REDUCER</p> <p>THERMOMETER</p> <p>PRESSURE GAUGE</p> <p>CHECK VALVE</p> <p>AIR RELIEF VENT</p> <p>THERMOSTAT</p> <p>TEMPERATURE SENSOR</p>	<p>GAS SHUT-OFF COCK</p> <p>SOLENOID VALVE</p> <p>WATER PRESSURE RELIEF VALVE</p> <p>WATER PRESSURE REDUCING / REGULATING VALVE</p> <p>STEAM TRAP</p> <p>REDUCED PRESSURE BACKFLOW PREVENTOR</p> <p>ATMOSPHERIC VACUUM BREAKER</p> <p>GAS PRESSURE REDUCING / REGULATING VALVE</p> <p>CONNECT NEW TO EXISTING, VERIFY EXACT SIZE AND LOCATION</p> <p>REMOVE EXISTING TO THIS POINT, VERIFY EXACT SIZE AND LOCATION</p> <p>TWO-WAY TEMPERATURE CONTROL VALVE</p> <p>THREE-WAY TEMPERATURE CONTROL VALVE</p> <p>DOMESTIC HOT WATER TEMPERATURE REGULATING VALVE</p> <p>BALANCE VALVE</p> <p>AUTOMATIC FLOW CONTROL VALVE</p> <p>FLOW SWITCH</p> <p>THERMOSTAT</p> <p>NIGHT THERMOSTAT</p> <p>THERMOSTAT WITH GUARD</p> <p>ASPIRATING THERMOSTAT</p> <p>PILOT THERMOSTAT</p>
---	---	---

### EQUIPMENT DESIGNATIONS

<p>AC AIR COMPRESSOR</p> <p>AD ACCESS DOOR</p> <p>AHU AIR HANDLING UNIT</p> <p>AS AIR SEPARATOR</p> <p>B EXHAUST</p> <p>BFP REDUCED PRESSURE BACKFLOW PREVENTOR</p> <p>BT BATH TUB</p> <p>C CHILLER</p> <p>CD AIR COOLED CONDENSING UNIT</p> <p>CH CABINET UNIT HEATER</p> <p>CO CLEAN OUT</p> <p>CP CONDENSATE PUMP</p> <p>CJ AIR COOLED CONDENSER</p> <p>CWP CHILLED WATER PUMP</p> <p>E EXHAUST GRILLE OR REGISTER</p> <p>EF EXHAUST FAN</p> <p>ET EXPANSION TANK</p> <p>EWG ELECTRIC WATER COOLER</p> <p>FC FAN COIL UNIT</p> <p>FGD FLOOR CLEAN OUT</p> <p>FD FIRE DAMPER OR FLOOR DRAIN</p> <p>FPD FREEZE PROOF HOSE BIBB</p> <p>GV GRAVITY VENTILATOR</p> <p>HC HEATING COIL</p> <p>HWP HEATING WATER PUMP</p> <p>HX HEAT EXCHANGER</p> <p>IB INTEGRAL FACE AND BYPASS COIL</p>	<p>IM ICE MACHINE</p> <p>IRV INTAKE OR RELIEF VENT</p> <p>L LAVATORY</p> <p>MB MOP BASIN</p> <p>ORD OVERFLOW ROOF DRAIN</p> <p>P CIRCULATING PUMP</p> <p>RH REHEAT COIL</p> <p>RAB RETURN AIR BAFFLE</p> <p>R RETURN AIR GRILLE OR REGISTER</p> <p>RD ROOF DRAIN</p> <p>S SINK OR SUPPLY DIFFUSER</p> <p>SA SOUND ATTENUATOR</p> <p>SD SMOKE DAMPER</p> <p>SP SLUMP PUMP</p> <p>SS SERVICE SINK</p> <p>SU SHOWER UNIT</p> <p>TB TRANSFER BAFFLE</p> <p>TWV THERMOSTATIC MIXING VALVE</p> <p>UH UNIT HEATER</p> <p>UR URINAL</p> <p>UN UNIT VENTILATOR</p> <p>VW VOLUME VOLUME BOX</p> <p>VB VACUUM BREAKER</p> <p>VD VOLUME DAMPER</p> <p>WASH WASHER</p> <p>WC WATER CLOSET</p> <p>WH WATER HEATER</p> <p>WHA WATER HAMMER ARRESTER</p>
--	--

### ABBREVIATIONS

<p>AFF ABOVE FINISHED FLOOR</p> <p>BTUH BRITISH THERMAL UNIT PER HOUR</p> <p>CFM CUBIC FEET PER MINUTE</p> <p>CIC CEILING</p> <p>CONT CONTINUATION</p> <p>CWS-R CHILLED WATER SUPPLY &amp; RETURN</p> <p>DB DRY BULB</p> <p>DN DOWN</p> <p>DWG DRAWING</p> <p>EQP EQUIPMENT</p> <p>EAT ENTERING AIR TEMPERATURE</p> <p>ELEV ELEVATION</p> <p>EWI ENTERING WATER TEMPERATURE</p> <p>F DEGREES FAHRENHEIT</p> <p>GAL GALLON</p> <p>GALV GALVANIZED</p> <p>GPH GALLONS PER HOUR</p> <p>GPM GALLONS PER MINUTE</p> <p>HD HEAD</p> <p>HG INCHES OF MERCURY</p> <p>HP HORSEPOWER</p>	<p>HZ HERTZ (CYCLES PER SECOND)</p> <p>HWS-R HOT WATER SUPPLY &amp; RETURN</p> <p>INV INVERT</p> <p>KW KILOWATT</p> <p>LAT LEAVING AIR TEMPERATURE</p> <p>LWT LEAVING WATER TEMPERATURE</p> <p>MEZZ MEZZANINE</p> <p>MFR MANUFACTURER</p> <p>PD PRESSURE DROP</p> <p>PH PHASE #</p> <p>PSI(P) POUNDS PER SQUARE INCH (GUAGE)</p> <p>PSIA POUNDS PER SQUARE INCH (ABSOLUTE)</p> <p>RPM REVOLUTIONS PER MINUTE</p> <p>SPEC SPECIFICATION</p> <p>TD TEMPERATURE DROP OR DIFFERENCE</p> <p>TEMP TEMPERATURE</p> <p>TYP TYPICAL</p> <p>V VENT, VOLTS</p> <p>VTR VENT THRU ROOF</p> <p>W/ WITH</p> <p>Ø ROUND OR DIAMETER</p> <p>○ OVAL</p>
--	---

### NOTE DESIGNATION

<p>PLAN NOTE:</p> <p>GENERAL PLAN NOTE:</p> <p>GENERAL NOTE:</p>	<p>SPECIFIC INFORMATION AS INDICATED ON A DRAWING</p> <p>LEADER LINE OF PLAN NOTE REFERENCED DIRECTED TO ITEM OF PLAN NOTE REFERENCED</p> <p>CIRCLE WITH NUMBER INDICATES A PLAN NOTE REFERENCED, WITH THE NUMBER INDICATING THE ITEM NUMBER OF THE PLAN NOTE REFERENCED.</p> <p>GENERAL INFORMATION AS IT PERTAINS ONLY TO THE DRAWING IT IS ON.</p> <p>GENERAL INFORMATION PERTAINING TO ALL THE DRAWINGS OF THE DISCIPLINE IT IS ON.</p>
--	---

### PIPING SYMBOLS

<p>HWAC HOT WATER SUPPLY</p> <p>HWAC HOT WATER RETURN</p> <p>CONDENSER SUPPLY</p> <p>CONDENSER RETURN</p> <p>CHILLED WATER SUPPLY</p> <p>CHILLED WATER RETURN</p> <p>HEAT PUMP SUPPLY</p> <p>HEAT PUMP RETURN</p> <p>CONDENSATE DRAIN LINE</p> <p>DOMESTIC HOT WATER</p> <p>DOMESTIC COLD WATER</p> <p>DOMESTIC HOT WATER RETURN</p> <p>SANITARY PIPING</p> <p>STORM PIPING</p> <p>VENT</p> <p>DIRECTION OF FLOW</p> <p>EXISTING PIPING</p> <p>MULTIPLE PIPING IN CHASE</p>	<p>HWAC</p> <p>HWAC</p> <p>CS</p> <p>CR</p> <p>CWS</p> <p>CWR</p> <p>HPS</p> <p>HPR</p> <p>○</p> <p>S</p>
---	---

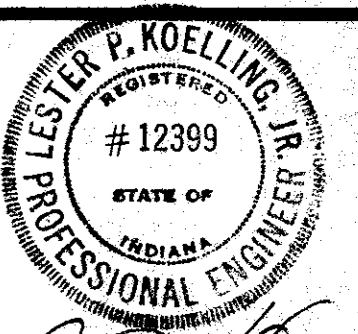
### DRAWING SYMBOLS

<p>DENOTES MECHANICAL DETAIL</p> <p>SECTION DIRECTION</p> <p>DENOTES MECHANICAL SECTION</p>	<p>DETAIL NUMBER</p> <p>M.D. 1</p> <p>M.S. 2</p> <p>SHEET WHERE DETAIL IS DRAWN</p> <p>SECTION NUMBER</p> <p>M.S. 1</p> <p>M.S. 2</p> <p>SHEET WHERE SECTION IS DRAWN</p>
---	---

**The InterDesign Group, Inc.**  
 141 East Ohio Street  
 Indianapolis, Indiana 46204  
 317/263-9655 Fax 317/263-9644

**Goshen Public Library**  
**Addition & Renovation**  
 601 South Fifth Street Goshen, Indiana  
**Details & Symbols-Abbreviations**

Mark	Revision



Dwn By **MJH** Chkd By **LPK**

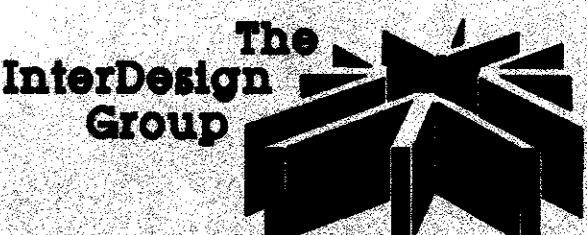
Date **AUGUST 19, 1993**

These drawings are the property of the Architect and are not to be reused or reproduced without his written permission.

Project Number **921030**

Sheet Number

M  
3.3



Total Architectural Development