

MECHANICAL SYMBOLS	
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RETURN
	TEMPERED WATER
	CHILLED DRINKING WATER
	WASTE PIPING - ABOVE FLOOR
	WASTE PIPING - BELOW FLOOR
	ROOF DRAIN - ABOVE FLOOR
	ROOF DRAIN - BELOW FLOOR
	ACID WASTE - ABOVE FLOOR
	ACID WASTE - BELOW FLOOR
	GREASE WASTE - ABOVE FLOOR
	GREASE WASTE - BELOW FLOOR
	ACID VENT
	VENT PIPING
	DRAIN
	COMPRESSED AIR
	NATURAL GAS
	VACUUM
	OXYGEN
	LIQUEFIED PETROLEUM GAS
	NITROUS OXIDE
	WATER SERVICE
	FIRE SERVICE
	STANDPIPE
	FIRE SPRINKLER
	HIGH PRESSURE STEAM SUPPLY
	HIGH PRESSURE STEAM RETURN
	MEDIUM PRESSURE STEAM SUPPLY
	MEDIUM PRESSURE STEAM RETURN
	LOW PRESSURE STEAM SUPPLY
	LOW PRESSURE STEAM RETURN
	CONDENSATE PUMP DISCHARGE
	FEEDWATER PUMP DISCHARGE
	HOT WATER HEATING SUPPLY
	HOT WATER HEATING RETURN
	FUEL OIL RETURN
	FUEL OIL GAGE LINE
	FUEL OIL SUPPLY
	FUEL OIL VENT
	HIGH TEMPERATURE WATER SUPPLY
	HIGH TEMPERATURE WATER RETURN
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	CHILLED / HOT WATER SUPPLY
	CHILLED / HOT WATER RETURN
	CONDENSER WATER SUPPLY
	CONDENSER WATER RETURN
	HEAT PUMP SUPPLY
	HEAT PUMP RETURN
	REFRIGERANT LIQUID
	REFRIGERANT DISCHARGE (HOT GAS)
	REFRIGERANT SUCTION
	REFRIGERANT DISCHARGE BYPASS
	INTAKE PIPING
	EXHAUST PIPING
	SHUT-OFF VALVE
	CHECK VALVE
	BALANCING VALVE W/ PRESSURE PORTS
	TRIPLE DUTY VALVE W/ PRESSURE PORTS
	STRAINER
	RELIEF VALVE
	AUTOMATIC FLOW CONTROL VALVE
	MOTORIZED VALVES
	TEMPERATURE REGULATING VALVE
	SOLENOID VALVE
	PRESSURE REDUCING VALVE
	PIPE ANCHOR
	SLIDING EXPANSION JOINT
	BELLOWS EXPANSION JOINT
	SPRINKLER HEAD
	REDUCER
	PIPE GUIDE
	ROOF PIPING SUPPORT
	F & T TRAP
	BUCKET TRAP
	IMPULSE TRAP
	THERMOSTATIC TRAP
	FLOAT TRAP
	PRESSURE GAUGE
	THERMOMETER
	UNION
	BACKFLOW PREVENTER
	DOMESTIC WATER MIXING VALVE
	METER

MECHANICAL SYMBOLS	
	HOSE BIBB
	WALL HYDRANT
	FLUSH FLOOR CLEANOUT
	FLUSH GRADE CLEANOUT
	CLEANOUT
	ELBOW UP WITH SHUT-OFF VALVE
	ELBOW DOWN WITH SHUT-OFF VALVE
	TEE UP WITH SHUT-OFF VALVE
	TEE DOWN WITH SHUT-OFF VALVE
	CAP
	SHOCK ABSORBER
	TEMPERATURE SENSOR
	FLOW SWITCH
	FLOOR SINK, TYPE & SIZE
	FLOOR DRAIN, TYPE & SIZE
	FLOOR TROUGH, TYPE & SIZE
	ROOF DRAIN, TYPE & SIZE
	WATER CLOSET & TYPE
	WATER CLOSET & TYPE
	WATER CLOSET & TYPE
	URINAL & TYPE
	WALL MOUNTED LAVATORY & TYPE
	COUNTER TOP LAVATORY & TYPE
	SINK & TYPE
	BATHTUB & TYPE
	SHOWER & TYPE
	DRINKING FOUNTAIN & TYPE
	JANITORS BASIN & TYPE
	SHOWER HEADS & TYPE
	LINEAR SLOT DIFFUSER
	INSULATED FLEXIBLE DUCT
	VOLUME DAMPER WITH LOCKING QUADRANT
	BRANCH DUCT WITH 45° BOOT FITTING
	ELBOW WITH TURNING VANES
	BRANCH DUCT WITH BELLMOUTH SPIN-IN FITTING WITH MANUAL VOLUME DAMPER
	EQUIP. WITH FLEXIBLE DUCT CONNECTION
	RETURN, EXHAUST OR FRESH AIR DUCT UP
	RETURN, EXHAUST OR FRESH AIR DUCT DOWN
	SUPPLY AIR DUCT UP
	SUPPLY AIR DUCT DOWN
	REGISTER, SIZE, TYPE & CFM
	REGISTER, SIZE, TYPE & CFM
	REGISTER, SIZE, TYPE & CFM
	FIRE DAMPER
	SMOKE DAMPER
	FIRE/SMOKE DAMPER
	MOTORIZED DAMPER
	CONTROL DAMPER
	RELIEF DAMPER
	BALANCE DAMPER
	TEMPERATURE SENSOR-MOUNT AT 4'-0" A.F.F.
	TEMPERATURE SENSOR WITH ADJUSTABLE SETPOINT AND OVER RIDE BUTTON - MOUNT AT 4'-0" A.F.F.
	HUMIDITY SENSOR-MOUNT AT 4'-0" A.F.F.
	PNEUMATIC THERMOSTAT - MOUNT AT 4'-0" A.F.F. UNLESS NOTED OTHERWISE
	PNEUMATIC NIGHT THERMOSTAT-MOUNT AT 4'-0" A.F.F.
	CARBON DIOXIDE SENSOR-MOUNT AT 4'-0" A.F.F.
	AVERAGING TEMPERATURE SENSOR-MOUNT AT 4'-0" A.F.F.
	CARBON DIOXIDE SENSOR-PLENUM MOUNTED

ELECTRICAL SYMBOLS	
	LIGHT FIXTURE & TYPE
	EMERGENCY LIGHT FIXTURE
	NIGHT LIGHT - UNSWITCHED
	EMERGENCY LIGHT FIXTURE & TYPE (CEILING OR WALL MOUNTED)
	LIGHT FIXTURE & TYPE (CEILING OR WALL MOUNTED)
	EXIT LIGHT & TYPE (CEILING OR WALL MOUNTED)
	COMBINATION EXIT/EMERGENCY LIGHT & TYPE (CEILING OR WALL MOUNTED)
	ARROW INDICATES CHEVRON DIRECTION(S) FILLED SEGMENT SHOWS FACE DIRECTION(S)
	LIGHT TRACK WITH LIGHT TYPES AS INDICATED
	EMERGENCY LIGHT & TYPE
	JUNCTION BOX 4" SQUARE UNLESS NOTED OTHERWISE
	JUNCTION BOX - CEILING MOUNTED
	JUNCTION BOX ON STUBBED UP CONDUIT
	ELECTRIC THERMOSTAT UP 4'-0" UNLESS NOTED OTHERWISE
	ELECTRIC NIGHT THERMOSTAT UP 4'-0" UNLESS NOTED OTHERWISE
	ELECTRIC HUMIDISTAT
	MOTOR - USE INDICATED
	15AMP, SINGLE POLE 120/277V SWITCH
	15AMP, THREE-WAY 120/277V SWITCH
	15AMP, FOUR-WAY 120/277V SWITCH
	15AMP, SINGLE POLE 120/277V SWITCH WITH PILOT LAMP
	20AMP, SINGLE POLE 120/277V SWITCH
	20AMP, THREE-WAY 120/277V SWITCH
	20AMP, FOUR-WAY 120/277V SWITCH
	20AMP, SINGLE POLE 120/277V SWITCH WITH PILOT LAMP
	20AMP, MOMENTARY CONTACT 120/277V SWITCH
	20AMP, SINGLE POLE 120/277V SWITCH - KEY OPERATED
	30AMP, DOUBLE POLE 120/277V SWITCH
	30AMP, DOUBLE POLE 120/277V SWITCH DIMMER SWITCH - 120V
	"HAND-OFF-AUTO" SELECTOR SWITCH
	MANUAL STARTER WITH THERMAL OVERLOADS
	120V SPRING WOUND TIMER
	120V ELECTRONIC TIMER
	LOW VOLTAGE SWITCH
	NARROW SWITCH
	WALL SWITCH OCCUPANCY SENSOR AND TYPE PER SCHEDULE
	WALL SWITCH VACANCY SENSOR AND TYPE PER SCHEDULE
	WALL MOUNT OCCUPANCY SENSOR AND TYPE PER SCHEDULE
	CEILING MOUNT OCCUPANCY SENSOR AND TYPE PER SCHEDULE
	WALL MOUNT VACANCY SENSOR AND TYPE PER SCHEDULE
	CEILING MOUNT VACANCY SENSOR AND TYPE PER SCHEDULE
	DIMMING SYSTEM CONTROL STATION - SECOND LETTER DENOTES STATION DESIGNATION IN SCHEDULE
	DIMMING SYSTEM REMOTE STATION - SECOND LETTER DENOTES STATION DESIGNATION IN SCHEDULE
	EXPOSED METAL RACEWAY - WIREMOLD
	CONDUIT CONCEALED IN ROOF INSULATION
	CONDUIT CONCEALED IN CEILING OR WALL
	CONDUIT CONCEALED IN FLOOR SLAB
	EXPOSED CONDUIT
	HOME RUN - DIAGONAL LINES INDICATE NUMBER OF WIRES, ARROWS INDICATE NUMBER OF CIRCUITS
	#18 WIRE
	#16 WIRE
	#14 WIRE
	#12 WIRE
	SHEATHED CABLE
	BRANCH CIRCUIT OR FEEDER - SEE SCHEDULE FOR CONDUCTOR & CONDUIT QUANTITY & SIZE
	FLEXIBLE CONDUIT
	GROUND WIRE

ELECTRICAL SYMBOLS	
	SWITCHED RECEPTACLE WITH APPROPRIATE RECEPTACLE(S)
	DUPLEX 15AMP, 125V, 2P, 3W GROUNDING TYPE RECEPTACLE
	DUPLEX 20AMP, 125V, 2P, 3W GROUNDING TYPE RECEPTACLE
	4-PLEX 20AMP, 125V, 2P, 3W GROUNDING TYPE RECEPTACLE
	DUPLEX 15AMP, 250V, 2P, 3W GROUNDING TYPE RECEPTACLE
	DUPLEX 20AMP, 250V, 2P, 3W GROUNDING TYPE RECEPTACLE
	DUPLEX 20AMP, 125V, 2P, 3W GROUNDING TYPE RECEPTACLE MOUNTED ABOVE CEILING
	RECESS MOUNTED FLOOR BOX WITH APPROPRIATE RECEPTACLE(S)
	TWO RECESS MOUNTED FLOOR BOXES WITH APPROPRIATE RECEPTACLE(S) INSTALLED TOGETHER
	STUBBED UP CONDUIT WITH APPROPRIATE RECEPTACLE(S) OUTLET BOX TO BE FS BOX
	SINGLE 15AMP, 125V, 2P, 3W GROUNDING TYPE RECEPTACLE
	SINGLE 20AMP, 125V, 2P, 3W GROUNDING TYPE RECEPTACLE
	SINGLE 20AMP, 250V, 2P, 3W GROUNDING TYPE RECEPTACLE
	SINGLE 50AMP, 250V, 2P, 3W GROUNDING TYPE RECEPTACLE
	SINGLE 20AMP, 125/250V, 3P, 4W GROUNDING TYPE RECEPTACLE
	SINGLE 30AMP, 125V, 2P, 3W GROUNDING TYPE RECEPTACLE
	SINGLE 30AMP, 250V, 2P, 3W GROUNDING TYPE RECEPTACLE
	SINGLE 30AMP, 125/250V, 3P, 4W GROUNDING TYPE RECEPTACLE
	SINGLE 60AMP, 120/208V, 3 PHASE, 4P, 4W GROUNDING TYPE RECEPTACLE
	PLUGMOLD - OUTLETS AT 12" O.C. UNLESS NOTED OTHERWISE
	CLOCK OUTLET (RECEPTACLE)
	TELEPHONE OUTLET
	RECESS MOUNTED FLOOR TELEPHONE OUTLET
	SURFACE MOUNTED FLOOR TELEPHONE OUTLET
	COMPUTER DATA OUTLET
	FLOOR MOUNTED COMPUTER DATA OUTLET
	TELEVISION OUTLET - WALL MOUNT
	TELEVISION OUTLET - TABLE/CABINET MOUNT
	UNLESS NOTED OTHERWISE ELSEWHERE ON THE DRAWINGS OR IN THE SPECIFICATIONS, THESE OUTLETS REQUIRE 4"x4"x2.5" JUNCTION BOX WITH SINGLE GANG PLASTER RING AND 1" CONDUIT WITH 90° SWEEP AND DE-BURRED ENDS (MIN.) TO ABOVE THE NEAREST ACCESSIBLE LAY-IN CEILING
	CEILING FAN
	LIGHTING & APPLIANCE PANEL
	DISTRIBUTION, FEEDER OR POWER PANEL
	TELEPHONE TERMINAL CABINET ("TTC")
	PULL BOX
	MAGNETIC MOTOR CONTROLLER
	COMBINATION MAGNETIC MOTOR CONTROLLER
	DISCONNECT SWITCH
	MANUAL MOTOR CONTROLLER
	TIME SWITCH
	LIGHTING CONTACTOR
	PHOTOCELL
	TP - POWER POLE
	PP - POWER POLE
	UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC
	UNDERGROUND TELEPHONE
	OVERHEAD TELEPHONE
	SMOKE DAMPER
	FIRE/SMOKE DAMPER

ELECTRICAL SYMBOLS	
	END OF LINE RELAY
	WATER FLOW SWITCH
	VALVE TAMPER SWITCH
	FAN SHUTDOWN RELAY
	MANUAL FIRE ALARM STATION - MOUNTING HEIGHT SHALL BE AS REQUIRED BY THE INTERNATIONAL BUILDING CODE. COORDINATE WITH EQUIPMENT MANUFACTURER BASED ON ACTUALLY PROVIDED EQUIPMENT.
	FIRE ALARM RELAY
	END OF LINE RESISTOR
	FIRE ALARM STROBE - MOUNTING HEIGHT SHALL BE AS REQUIRED BY THE LATEST EDITION OF NFPA 72. COORDINATE WITH EQUIPMENT MANUFACTURER BASED ON ACTUALLY PROVIDED EQUIPMENT.
	FIRE ALARM BELL
	BELL
	FIRE AUDIBLE AND VISUAL ALARM - MOUNTING HEIGHT SHALL BE AS REQUIRED BY THE LATEST EDITION OF NFPA 72. COORDINATE WITH EQUIPMENT MANUFACTURER BASED ON ACTUALLY PROVIDED EQUIPMENT.
	HORN
	FIRE ALARM CONTROL CABINET
	FIRE ALARM ANNUNCIATOR PANEL
	CARBON MONOXIDE SENSOR
	DUCT THERMOSTAT
	DUCT SMOKE DETECTOR
	CEILING SMOKE DETECTOR CENTRAL SYSTEM THERMAL DETECTOR (HEAT)
	CEILING SMOKE DETECTOR - STAND ALONE 120V, BATTERY BACKUP, UNLESS NOTED OR SHOWN DIFFERENTLY ON THE PLANS OR SPECIFICATIONS, PROVIDE 120V POWER FROM THE NEAREST RECEPTACLE CIRCUIT WHETHER SPECIFICALLY INDICATED OR NOT.
	ELECTRIC DOOR HOLDER
	FIREMAN'S TELEPHONE OUTLET
	NURSE CALL MASTER STATION
	NURSE CALL ANNUNCIATION PANEL
	NURSE CALL SYSTEM POWER SUPPLY
	NURSE CALL STATUS LIGHT ANNUNCIATION PANEL
	NURSE CALL SWITCH PANEL
	NURSE CALL ROOM STATUS CORRIDOR LIGHT - WALL MOUNT
	NURSE CALL ROOM STATUS CORRIDOR LIGHT - CEILING MOUNT
	NURSE CALL CORRIDOR LIGHT - WALL MOUNT
	NURSE CALL CORRIDOR LIGHT - CEILING MOUNT
	NURSE CALL PATIENT STATION - SINGLE CALL CORD
	NURSE CALL PATIENT STATION - DOUBLE CALL CORD
	NURSE CALL DUTY STATION
	NURSE CALL EMERGENCY STATION - PULL CORD
	NURSE CALL EMERGENCY STATION - PUSH BUTTON
	NURSE CALL CODE BLUE STATION
	DOOR ALARM CONTACT
	DOOR ALARM ANNUNCIATOR
	MONITOR JUNCTION BOX
	CLOSED CIRCUIT TELEVISION MONITOR
	CLOSED CIRCUIT TELEVISION CAMERA
	MASTER CLOCK
	SECONDARY CLOCK
	INTERCOM ADMINISTRATIVE CONTROL UNIT
	MUSIC SYSTEM AMP
	PAGING SYSTEM AMP
	WALL SPEAKER
	COMBINATION CLOCK SPEAKER
	CEILING SPEAKER
	COLUMN SPEAKER
	HORN TYPE SPEAKER
	MICROPHONE OUTLET - WALL
	MICROPHONE OUTLET - FLOOR
	LOCAL AMPLIFIER
	REMOTE VOLUME CONTROL
	CALL-IN STATION
	MOTION DETECTOR
	CLOSED CIRCUIT TELEVISION OUTLET
	PUSHBUTTON STATION
	PILOT LIGHT BANK
	RELAY CABINET
	AMPLIFIER
	LOW VOLTAGE CONTROL TRANSFORMER
	SOLENOID VALVE
	FREEZE STAT

PLAN NOTATIONS:	
	INDICATES DIRECTION OF NORTH
	DETAIL REFERENCE - UPPER NUMBER
	INDICATES DETAIL NUMBER, LOWER NUMBER INDICATES SHEET NUMBER.
	PLAN NOTE REFERENCE
	ROOM NUMBER REFERENCE
	INDICATES CONNECTION TO EXISTING SYSTEM

ABBREVIATIONS:	
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CW	DOMESTIC COLD WATER
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
DF	DRINKING FOUNTAIN
DN	DOWN
EF	EXHAUST FAN
EWC	ELECTRIC WATER COOLER
E/M	EQUIPMENT MANUFACTURER
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FFCO	FINISHED FLOOR CLEANOUT
FGCO	FINISHED GRADE CLEANOUT
FTR	FINNED TUBE RADIATION
FWCO	FINISHED WALL CLEANOUT
HHP	HYDRONIC HEAT PUMP
HW	DOMESTIC HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR
UH	UNIT HEATER
UV	UNIT VENTILATOR
V	VENT
VTR	VENT THRU ROOF
W	WASTE

ELECTRICAL NOTATIONS:	
"Ac" or "x"	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES DEVICE BOTTOM TO BE MOUNTED 4" ABOVE COUNTERTOP BACKSPLASH
"GF"	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES GROUND FAULT INTERRUPTER
"IG"	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES ISOLATED GROUND DEVICE
"SS"	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES SURGE SUPPRESSION DEVICE
"TL"	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES LOCKING OR TWIST-LOCK TYPE DEVICE
"WP"	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES WEATHER-PROOF ENCLOSURE
"WPI"	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES WEATHER-PROOF IN-USE ENCLOSURE
"XP"	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES EXPLOSION-PROOF ENCLOSURE
"TR"	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES TAMPER RESISTANT DEVICE
60"	DIMENSIONS ADJACENT TO ANY SYMBOL INDICATES MOUNTING HEIGHT TO CENTERLINE OF DEVICE
(TIE)	INDICATES HOMERUNS WITH SAME CIRCUIT NUMBER TO BE WIRED TOGETHER ON SAME CIRCUIT.