

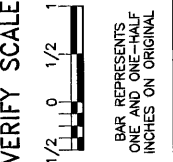
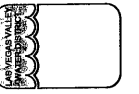
ABBREVIATIONS

A	ALARM, COMPRESSED AIR OUTLET	D	DIRECT DRIVE, DRAW-THRU DRY BULB	G	GAS OUTLET GAUGE	NC	NORMALLY CLOSED	SP	STATIC PRESSURE (INCHES OF WATER)
AC	AIR COMPRESSOR	DB	DIRECT DIGITAL CONTROL	GA	GALVANIZED	NO	NORMALLY OPEN, NUMBER	SPS	STATIC PRESSURE SENSOR
AD	ACCESS DOOR, AIR DRYER	DDC	DIRECT DIGITAL CONTROL	GALV	GALVANIZED	NPSHR	NET POSITIVE SUCTION HEAD REQUIRED	SR	SUPPLY REGISTER
AE	AVERAGING ELEMENT	DEH	DEHUMIDIFIER	GCO	GRADE CLEANOUT	NFW	NON-POTABLE WATER	SRP	SCRUBBER RECIRCULATION PUMP
AF	AIR FLOW, AIRFOIL	DF	DRINKING FOUNTAIN, DUCT FAN	GD	GARBAGE DISPOSER	NT	NEUTRALIZATION TANK	SS	STAINLESS STEEL
AFD	ADJUSTABLE FREQUENCY DRIVE	DIA	DIAMETER	GIH	GAS INFRARED HEATER			SSK	SERVICE SINK
AFF	ABOVE FINISH FLOOR	DM	DUCT MOUNTED	GPM	GALLONS PER MINUTE			SSP	SUBMERSIBLE SUMP PUMP
AFM	AIR FLOW MONITOR	DN	DOWN	GUH	GAS UNIT HEATER			STD	STANDARD
AHU	AIR HANDLING UNIT	DSN	DOWNSPOUT NOZZLE	GV	GATE VALVE			SV	SERVICE VALVE, SHUTOFF VALVE, SUPPLY VALVE, SOLENOID VALVE
ALUM	ALUMINUM	DX	DIRECT EXPANSION	CW	GLASS WASHER				
AP	ACCESS PANEL			GWH	GLASS WATER HEATER				
APPROX	APPROXIMATE	E	ELECTRIC, ELECTRIC OPERATOR, EXHAUST	H	HAND OPERATOR, HEATING, HEATING (MAKE ON FALL), HEIGHT, HORIZONTAL, HUMIDISTAT			T	THERMOSTAT
AR	AIR RECEIVER	EA	EACH, EXHAUST AIR	HC	HEATING COIL			TCP	TEMPERATURE CONTROL PANEL
AS	AIR SEPARATOR	EAT	ENTERING AIR TEMPERATURE	HCH	HEATING WATER CABINET HEATER			TCV	TEMPERATURE CONTROL VALVE
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	EC	ECONOMIZER, EVAPORATIVE COOLER	HE	HEAT EXCHANGER, HELIUM			TD	TRENCH DRAIN
ATU	AIR TERMINAL UNIT	ECH	ELECTRIC CABINET HEATER	HF	HOSE FAUCET			TE	TEMPERATURE ELEMENT
AUTO	AUTOMATIC	EDH	ELECTRIC DUCT HEATER	HO	HAND-OFF			TEMP	TEMPERATURE
AVG	AVERAGE	EEW	EMERGENCY EYE WASH	HOA	HAND-OFF-AUTO			TI	TEMPERATURE INDICATOR
AVS	AUTOMATIC VALVE STATION	EF	EXHAUST FAN	HP	HEAT PUMP, HORSEPOWER			TL	TOP LEVEL
		EFF	EFFICIENCY	HR	HEAT RECOVERY UNIT, HOUR, HOSE REEL			TS	TIP SPEED, TAMPER SWITCH
B	BELT DRIVE, BLOW THROUGH	EGS	EMERGENCY GAS SCRUBBER	HU	HEATING WATER UNIT HEATER	P	PNEUMATIC	TYP	TYPICAL
BDD	BACKDRAFT DAMPER	EIH	ELECTRIC INFRARED HEATER	HUM	HUMIDIFIER	PD	PRESSURE DROP (INCHES OF WATER FOR AIR, FEET OF WATER FOR FLUIDS)	UR	URINAL
BF	BELOW FINISH FLOOR	EL	ELEVATION	HV	HOSE VALVE	PAC	PACKAGED AIR CONDITIONING UNIT		
BFP	BACKFLOW PREVENTER	EQUIP	EQUIPMENT	HWB	HEATING WATER BOILER	PDI	PLUMBING AND DRAINAGE INSTITUTE	V	VERTICAL OR VENT
BH	BASEBOARD HEATER	ES	EMERGENCY SHOWER, EMERGENCY SWITCH	HWP	HEATING WATER PUMP	PDS	PRESSURE DIFFERENTIAL SWITCH	VAC	VACUUM OUTLET
BI	BACKWARD INCLINED, BUILT-IN THERMOSTAT	ES/EEW	EMERGENCY SHOWER AND EYEWASH	HZ	HERTZ	PF	PROPPELLER FAN	VANE	VANEAXIAL
BL	BOTTOM LEVEL	ESP	EXTERNAL STATIC PRESSURE	I	INTAKE	PL	PLATE	VAV	VARIABLE AIR VOLUME
BLDG	BUILDING	ET	EXPANSION TANK	IBR	INSTITUTE OF BOILER AND RADIATOR MANUFACTURERS	POS	POSITION	VB	VACUUM BREAKER
BLR	BLOWER	EUH	ELECTRIC UNIT HEATER	ID	INSIDE DIAMETER	PPM	PARTS PER MILLION	VCD	VOLUME CONTROL DAMPER
BOD	BOTTOM OF DUCT	EV	EXHAUST VALVE	IN	INCHES	PROP	PROPPELLER	VF	VANEAXIAL FAN
BOT	BOTTOM	EVS	EMERGENCY VENTILATION SHUT OFF SWITCH	INV	INVERT	PRS	PRESSURE REDUCING STATION	VP	VACUUM PUMP
BTUH	BRITISH THERMAL UNITS PER HOUR	EWC	ELECTRIC WATER COOLER	JS	JANITOR'S SINK	PRV	PRESSURE REDUCING VALVE	VSP	VERTICAL COLUMN SUMP PUMP
BU	BELL-UP	EWI	ELECTRIC WATER HEATER			PS	PRESSURE SWITCH	VTR	VENT THRU ROOF
		EWT	ENTERING WATER TEMPERATURE			PSI	POUNDS PER SQUARE INCH	W	WIDE FLANGE, WIDTH
C	CHANNEL, CONVECTOR, COOLING, COOLING (MAKE ON RISE)	EX	EXISTING			PSIA	POUNDS PER SQUARE INCH ABSOLUTE	WB	WET BULB
CAU	CARBON ADSORPTION UNIT	EXIST	EXISTING			PSIG	POUNDS PER SQUARE INCH GAUGE	WBP	WATER BOOSTER PUMP
CB	CENTRIFUGAL BLOWER					PTAC	PACKAGED TERMINAL AIR CONDITIONER	WC	WATER CHILLER, WATER CLOSET
CBD	COUNTERBALANCE BACKDRAFT DAMPER	F	DEGREES FAHRENHEIT	KS	KITCHEN SINK	RA	REACTIVATION AIR, RETURN AIR	WCO	WATER COLUMN
CC	COOLING COIL	FA	FOUL AIR	KW	KILOWATT	RAC	ROOM AIR CONDITIONER	WF	WALL FAN
CCU	CARBON CANNISTER UNIT	FABR	FABRICATED	L	LINEAL	RCS	REMOTE CONTROL STATION	WG	WATER GAUGE
CD	CONTROL DAMPER	FBD	FACE AND BYPASS DAMPER	LAT	LEAVING AIR TEMPERATURE	RD	ROOF DRAIN	WH	WALL HEATER, WALL HYDRANT
CDWP	CONDENSER WATER PUMP	FCO	FLOOR CLEANOUT	LAV	LAVATORY	REQD	REQUIRED	WHA	WATER HAMMER ARRESTOR WITH PDI DESIGNATION
CE	CENTRIFUGAL	FCU	FAN COIL UNIT	LBS	POUNDS	RG	RETURN GRILLE	WM	WALL MOUNTED
CF	CABINET FAN	FD	FIRE DAMPER, FLOOR DRAIN	LD	COMBINATION LOUVER/DAMPER	RH	RELATIVE HUMIDITY, ROOF HOOD	WS	WATER STORAGE TANK
CFM	CUBIC FEET PER MINUTE	FDB	DEGREES FAHRENHEIT DRY BULB	LI	LEVEL INDICATOR			WT	WEIGHT
CH	CONVECTION HEATER	FEF	FUME EXHAUST FAN	LS	LABORATORY SINK, LEVEL SWITCH	SA	SUPPLY AIR	WV	WATER CONTROL VALVE
CO	CLEANOUT	FLEX	FLEXIBLE	LWT	LEAVING WATER TEMPERATURE	SAN	SANITARY	ZD	ZONE DAMPER
COC	CONCRETE	FR	FUNNEL RECEPTOR	MAU	MAKE UP AIR UNIT	SCD	SMOKE CONTROL DAMPER		
CONN	CONNECTION	FRP	FIBERGLASS REINFORCED PLASTIC	MAX	MAXIMUM	SCFM	STANDARD CUBIC FEET PER MINUTE		
CONT	CONTINUATION	FRM	FIBERGLASS REINFORCED PLASTIC	MCA	MINIMUM CIRCUIT AMPS	SCP	SCRUBBER CONTROL PANEL		
CP	CIRCULATING PUMP	FRP	FIBERGLASS REINFORCED PLASTIC	MOCP	MAXIMUM OVERCURRENT PROTECTION	SD	SUPPLY DAMPER		
CS	CUP SINK	FS	FLOOR SINK, FLOW SWITCH	MFR	MANUFACTURER	SP	SQUARE FEET SUPPLY FAN		
CT	COOLING TOWER	FSW	FILTER SURFACE WASH	MIN	MINIMUM	SH	SHEET, SHOWER		
CU	CONDENSING UNIT	FT	FEET, FIN TUBE HEATER, FLOW TUBE	MOD	MODULATING	SIM	SIMILAR		
CV	CHECK VALVE, CONTROL VALVE	FWB	DEGREES FAHRENHEIT WET BULB	MS	MOP SINK	SMD	SMOKE DETECTOR		
CWP	CHILLED WATER PUMP								

GENERAL MECHANICAL NOTES:

- THIS IS A GENERAL LEGEND AND ABBREVIATION SHEET FOR MECHANICAL DRAWINGS. SOME ITEMS CONTAINED ON THIS SHEET MAY NOT BE USED ON THIS SPECIFIC PROJECT.
- SEE CIVIL DRAWINGS FOR EQUIPMENT BASE DETAILS.
- ALL HANGERS, BRACKETS, OR BRACES FOR DUCTWORK, EQUIPMENT, AND PIPING ARE NOT INDICATED ON THE DRAWINGS. REFER TO THE SPECIFICATIONS FOR SUPPORT REQUIREMENTS NOT SHOWN ON THE PLANS.
- ALL EQUIPMENT, PIPING, AND DUCTWORK SHALL BE ROUTED TO AVOID INTERFERENCES WITH STRUCTURE, OTHER PIPING, EQUIPMENT, DUCTWORK, AND CONDUIT. UNLESS SPECIFICALLY DIMENSIONED, THE PIPE AND DUCTWORK ROUTING SHOWN IS INTENDED TO INDICATE GENERAL LOCATION ONLY.
- ALL RELIEF VALVES SHALL BE PIPED TO FLOOR DRAINS OR FUNNEL RECEPTORS.
- THE LOCATION OF PIPING AND VALVES TO THE AIR HANDLING EQUIPMENT SHALL NOT INTERFERE WITH FILTER REMOVAL OR AIR HANDLING EQUIPMENT SERVICING.

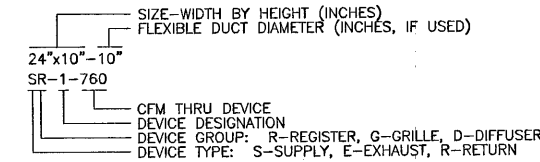
LAS VEGAS VALLEY WATER DISTRICT
 1001 S. VALLEY VIEW BOULEVARD
 LAS VEGAS, NEVADA 89163
 (702) 870-2011



LEGEND

PIPING SPECIALTIES	PIPE FITTINGS	VALVES	CONTROLS AND INSTRUMENTATION
AUTOMATIC VALVE STATION	BLIND FLANGE	ANGLE VALVE	DIAL TYPE THERMOMETER
COMBINATION PUMP DISCHARGE VALVE	CAP	BACKFLOW PREVENTER (2" & SMALLER)	DRAFT GAUGE
FLEXIBLE CONNECTION	DRAIN OR BELL-UP (SCHEMATIC)	BACKFLOW PREVENTER	ELECTRIC OPERATOR - EXPLOSIONPROOF
FLOW CONTROL VALVE	REDUCER	BACKWATER VALVE	ELECTRIC OPERATOR - MODULATING
FLOW SENSOR METER	SLEEVE	BALL VALVE	ELECTRIC OPERATOR - 2 POSITION
HOSE FAUCET	TEST PLUG	BUTTERFLY VALVE	ENTHALPY CONTROLLER
HOSE FAUCET W/VACUUM BREAKER	UNION	CHECK VALVE	GAUGE ACTIVATOR/ISOLATOR
HOSE VALVE W/HOSE NIPPLE		GATE VALVE	HUMIDISTAT WITH NUMBER
AIR VENT		GLOBE VALVE	INSTRUMENT TEST OPENING
PRESSURE REDUCING STATION		PLUG VALVE	LEVEL SWITCH
PRESSURE RELIEF VALVE		PRESSURE REDUCING VALVE	PRESSURE DIFFERENTIAL SWITCH WITH NUMBER
PRESSURE/TEMPERATURE RELIEF VALVE		THREE WAY VALVE	PRESSURE GAUGE W/SHUTOFF VALVE
QUICK COUPLING		FLAP VALVE	PRESSURE SWITCH
ROTAMETER			REMOTE BULB THERMOSTAT WITH NUMBER
SIGHT FLOW INDICATOR			SMOKE DETECTOR WITH NUMBER
SUCTION DIFFUSER (SCHEMATIC)			SOLENOID OPERATOR
WALL HYDRANT			STEM TYPE THERMOMETER
WALL HYDRANT W/VACUUM BREAKER			TEMPERATURE ELEMENT
METER			THERMOSTAT WITH NUMBER
WYE STRAINER			VACUUM GAUGE W/SHUTOFF VALVE
BASKET STRAINER			EMERGENCY VENTILATION SHUT OFF SWITCH

AIR INLET AND OUTLET IDENTIFICATION

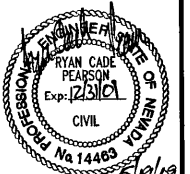


RECYCLED WATER DISTRIBUTION SYSTEM VALVE IMPROVEMENTS

LEGEND, ABBREVIATIONS AND GENERAL NOTES

SCALE: NONE

DRAWN BY: M. E. NOLAN	02/26/09	DATE: _____
CHECKED BY: C. M. LUQUETTE	02/26/09	DATE: _____
RECOMMENDED BY: RYAN PEARSON		DATE: _____
ACCEPTED BY: PETER J. JAUCH		DATE: _____



CONTRACT NUMBER

C1281
 DRAWING NUMBER M1
 SHEET 22 OF 32

Call before you Dig
 811

CLV DWG. No. 565-473
 H # 33698

117557