

ELECTRICAL ABBREVIATIONS

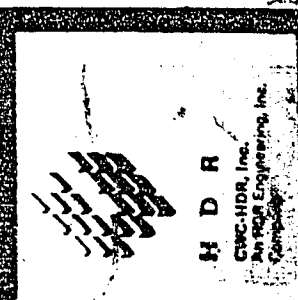
a	
A	AMPERE OR AMBER INDICATING LIGHT
AC	ALTERNATING CURRENT
AE	ANALYSIS ELEMENT
AICS	AMPERES INTERRUPTING SYMMETRICAL
AM	AMMETER
AS	AMMETER SWITCH
AT	ANALYSIS TRANSMITTER
b	
B	BLUE INDICATING LIGHT OR TELEPHONE BELL OUTLET
c	
C	CONTACTOR OR CLOSED
4-CC	4 CONDUCTOR CABLE
CF	CENTRIFUGAL FAN
CL	CLOCK OR CLUTCH
CO	CONDUIT ONLY
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CS	CONTROL STATION
CT	CYCLE TIMER
3-CT	3 CURRENT TRANSFORMERS
d	
D	DIMMER
DM	DAMPER MOTOR
DS	DISCONNECT SWITCH
DT	DUST TIGHT
e	
E	EXISTING
EHH	ELECTRICAL HAND HOLE
EP	EXPLOSION-PROOF
EM	EMERGENCY
EUH	ELECTRICAL UNIT HEATER
f	
F	FAST CONTACTOR
FE	FLOW ELEMENT
FM	FREQUENCY METER
FO	FLOW INTEGRATOR
FU	FUSE UNIT
FVNR	FULL VOLTAGE NON REVERSING
FVR	FULL VOLTAGE REVERSING
g	
G	GREEN INDICATING LIGHT
GF	GROUND FAULT
GFI	GROUND FAULT INTERRUPTER
CLS	GEARED LIMIT SWITCH
GND	GROUND
G ROD	GROUND ROD
h	
H	HANDLE CLIP OR HIGH
HV	HIGH VOLTAGE
HZ	HERTZ
i	
IC	INSTANTANEOUS CLOSING
IO	INSTANTANEOUS OPENING
INST	INSTRUMENTATION
j	
J OR JB	JUNCTION BOX
k	
KC	TIME CONTROL
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KW	KILOWATT
l	
L	LOW
LS	LEVEL SENSING ELEMENT
LL	LOW LOCKOUT
LOS	LOCK OUT STOP
LP	LOCAL CONTROL PANEL
LS	LEVEL SWITCH
LSW	LIMIT SWITCH
LT	LEVEL TRANSMITTER
LTG	LIGHTING
LV	LOW VOLTAGE

m	
M	MAGNETIC MOTOR STARTER OR MANUAL RESET
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MH	MANHOLE
MS	MANUAL MOTOR STARTER
MTR	MOTOR
MX	MOTOR STARTER AUXILIARY RELAY
n	
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
o	
O	OPEN
OL	OVERLOAD
OLX	OVERLOAD AUXILIARY RELAY
p	
2P	2 POLE
PE	PHOTOELECTRIC CELL
PMT	PAD MOUNTED TRANSFORMER
POS	POSITIVE
PR	PAIR
PS	PRESSURE SWITCH
PT	PRESSURE TRANSMITTER OR PERCENTAGE TIMER
Ø	PHASE
r	
R	RED INDICATING LIGHT
RTM	RUNNING TIME METER
RVNR	REDUCED VOLTAGE NON REVERSING
s	
S	START CONTACTOR
S3	SIZE 3 STARTER OR CONTACTOR
SS	SELECTOR SWITCH
ST	SHUNT TRIP
SV	SOLENOID VALVE
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
t	
TC	TIMED CLOSING
TDOE	TIME DELAY ON ENERGIZATION
TDODE	TIME DELAY ON DEENERGIZATION
TEL OR T	TELEPHONE OUTLET
TH	HEATING THERMOSTAT
TO	TIMED OPENING
TR	TIME DELAY RELAY
TS	TEMPERATURE SWITCH
TU	CIRCUIT BREAKER TRIP UNIT
u	
UG	UNDERGROUND
UH	UNIT HEATER
v	
V	VOLT
VM	VOLTMETER
VS	VARIABLE SPEED
VT	VAPORTIGHT
w	
W	WHITE
WHH	WATT-HOUR METER
WM	WATTMETER
WP	WEATHERPROOF
WS	TORQUE SWITCH
WT	WATERTIGHT
z	
ZC	POSITION CONTROLLER
ZI	POSITION INDICATOR
ZS	POSITION SWITCH

ELECTRICAL SYMBOLS

	S	LIGHT SWITCH
	S3	3-WAY LIGHT SWITCH
	S4	4-WAY LIGHT SWITCH
	SØ	DIMMER SWITCH, 600 W.
	SWP	WEATHERPROOF LIGHT SWITCH
	SEP	EXPLOSIONPROOF LIGHT SWITCH
	SM	TOGGLE SWITCH TYPE MANUAL MOTOR STARTER
		DUPLEX 120 V., 20 A RECEPTACLE
		DUPLEX 120 V., 20 A RECEPTACLE SPLIT-WIRED
		240 V., RECEPTACLE, AMPERAGE SHOWN
		3-PHASE RECEPTACLE, VOLTAGE AND AMPERAGE SHOWN
		WEATHERPROOF OUTLET
		GROUND FAULT OUTLET
		CLOCK OUTLET, 7'-0" UP
		TELEPHONE OUTLET
		MOTOR
	ES	PEDESTAL-MOUNTED DEVICE
		WIRING RUN, 3/4" - 3 #12 UNLESS INDICATED OTHERWISE
		WIRING RUN, 3/4" CONDUIT WITH NUMBER OF #12 WIRES SHOWN (IF OVER 3)
		UNDERGROUND ELECTRICAL DUCT BANK
		EXIST UNDERGROUND ELECTRICAL DUCT BANK
		WIRING TURNED DOWN
		WIRING TURNED UP
		WIRING HOME RUN
		DISCONNECT SWITCH
		OVERLOAD HEATER
		FUSE UNIT
		CIRCUIT BREAKER, NUMBER OF POLES AND TRIP AMPERAGE INDICATED
		PRESSURE SWITCH
		FLOAT SWITCH
		TEMPERATURE-ACTIVATED SWITCH
		CONTACTS, NORMALLY OPEN & NORMALLY CLOSED
		PUSH BUTTONS, NORMALLY OPEN & NORMALLY CLOSED
		3-POSITION SELECTOR SWITCH
		SPECIAL CONNECTION, USE SHOWN
		TRANSFORMER, TYPE, VOLTAGES, AND RATING SHOWN
		METERING, PER UTILITY REQUIREMENTS

CULP-WESNER-CULP
CONSULTING ENGINEERS
CAMERON PARK, CA
SANTA ANA, CA
DENVER, CO



Job No. 74015	Designed WFE
Drawn TDB	Checked RBK
Approved JDB	Date 4/24/89

CONNECTIONS TO EXISTING UTILITIES	12/89	Revision Description	Date

City of Las Vegas
WASTEWATER TREATMENT PLANT
Maintenance & Storage Buildings
Contract No. 5

ELECTRICAL LEGEND AND ABBREVIATIONS