VICINITY MAP





Drawings For

City of Hailey Woodside Wastewater Reclamation Facility



VOLUME 3 -UV INSTALLATION DRAWINGS

ISSUE FOR BID HDR Project No. 000000010162649 October 2022







- CITY OF HAILEY WOODSIDE WASTEWATER RECLAMATION FACILITY

INDEX OF DRAWINGS			
SHEET NUMBER	SHEET NAME		
GENERAL			
G-00	COVER SHEET		
G-01	GENERAL LEGENDS AND SYMBOLS		
G-02	GENERAL ABBREVIATIONS AND NOTES		
G-03	PROCESS AND MECHANICAL LEGENDS AND SYMBOLS		
G-04	CONTROLS LEGEND		
G-05	ELECTRICAL LEGEND		
PROCESS MECHANICAL			
D-00	ISOMETRIC		
D-01	UV INSTALLATION PLAN		
D-02	UV INSTALLATION SECTIONS		
D-03	UV INSTALLATION DETAILS		
ELECTRICAL			
E-001	ELECTRICAL COVER SHEET		
E-002	ONE-LINE & NETWORK DIAGRAMS		
E-003	UV SYSTEM PLAN		
PROCESS AND INSTRUMENTATION DIA	AGRAMS		
Y-01	UV SYSTEM		

SITE PLAN SYMBOLOGY

EMBANKMENT SLOPE

VEGETATION (SIZE)

MONITORING WELL

STORM DRAIN CATCH BASIN

CLEANOUT

MANHOLE

PIEZOMETER

UTILITY VAULT

POWER POLE

FIRE HYDRANT

YARD HYDRANT

BENCHMARK

DOWNGUY

EXISTING SPOT ELEVATION

FINISHED SPOT ELEVATION

HORIZONTAL CONTROL POINT

LOCATION OF SOIL TEST HOLE

IDENTIFICATION AND APPROXIMATE

POLE - MOUNTED TRANSFORMER

- MHX OR HHX, WHERE X INDICATES

SEQUENCE NUMBER

1. UTILITIES THAT ARE SUSPENDED ABOVE GRADE ARE DESIGNATED BY THE PREFIX "OH" (OVERHEAD).

------T TELEPHONE LINE

FIBER OPTIC

PIPELINE

→ → → DRAINAGE FLOW

-----→ NATURAL WATERWAY

——X———X——— CHAIN LINK FENCE

--X --X -- FIELD FENCE

— — — CENTERLINE

--- SILT FENCE

—————— EASEMENT

_____ – – – _ ____ RIGHT OF WAY

— — — LIMITS OF CONSTRUCTION

----- PROPERTY LINE

—E——— ELECTRIC LINE

--------COMMUNICATION

------ HANDRAIL AND GUARDRAIL

—————— UTILITY BENEATH STRUCTURE

RAILROAD

EXTERIOR PAD MOUNTED TRANSFORMER

ELECTRICAL HANDHOLE OR MANHOLE Y

TELEPHONE POLE

• CO

MH

() MW

🔵 PZ

СВ

🗩 _{ТР}

YH-X

imes 75.5

75.8

🙆 CP-X

⊕_{TH-"X"}

NOTES:

MATERIALS IN PLAN/SECTION

 $\langle \langle \rangle$

ACOUSTICAL CEILING TILE (SECTION)

ASPHALT (PLAN OR SMALL-SCALE SECTION)

3

ASPHALT (LARGE-SCALE SECTION)

BATT INSULATION (SECTION)

BRICK MASONRY (PLAN AND/OR SECTION)

CHECKERED PLATE (PLAN)

CONCRETE (PLAN AND/OR SECTION)

CONCRETE MASONRY (PLAN AND/OR SECTION)

DEMOLITION (PLAN AND/OR SECTION)

EARTH (SECTION)



FINISHED WOOD (SECTION)

GLULAM LUMBER (SECTION)

GRANULAR FILL (SECTION)

GRATING (SECTION)

GRATING (PLAN)

GROUT (SECTION)

GYPSUM BOARD (SECTION)

METAL (SECTION)

ORIENTED STRAND BOARD (SECTION)

PARTICLE BOARD (SECTION)

PLYWOOD (LARGE-SCALE SECTION)

PLYWOOD (SMALL-SCALE SECTION)

PRECAST CONCRETE (PLAN AND/OR SECTION)

RIGID INSULATION (SECTION)

RIPRAP (PLAN AND/OR SECTION)

SAND (SECTION)

SOD (SECTION)

WEEP JOINT MORTAR PROTECTION SYSTEM (SECTION)

 \searrow

WOOD - CONTINUOUS (SECTION) WOOD BLOCKING (SECTION)

5 DC ENGINEERING

Careful listening. Dynamic solutions. www.dcengineering.net Phone: 208.288.2181 Project: 19HDR24



412 E. PARKCENTER BLVD BOISE, ID 83706 208.387.7000

10/03/2022 ISSUE DATE

ISSUE FOR BID DESCRIPTION



PROJECT NUMBER	10162649

CHECKED BY P. URSILLO





UV INSTALLATION DRAWINGS

7 D GENERAL NOTES: 1. THIS IS A STANDARD SHEET SHOWING COMMON SYMBOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT. 2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

GENERAL LEGENDS AND SYMBOLS



FILENAME	G-01.dwg
----------	----------

SCALE NONE

G-01

A/C					
	AIR CONDITIONING	CLKG	CAULKING	F TO F	FACE TO FACE
A/E	ARCHITECT/ENGINEER	CLR	CLEAR	F&B	FACE AND BYPASS
4		CMH			FABRICATE
ABC	AGGREGATE BASE COURSE		CLEANOUT CONCRETE OPENING	FBG	FIBERGLASS
ABT	ABOUT	COL	COLUMN	FBM	BOARD FOOT MEASURE
AC	ALTERNATING CURRENT	COM	COMMON	FBO	FURNISHED BY OWNER
ACK	ACKNOWLEDGE	COMB	COMBINATION	FC	FLUSHING CONNECTION
ACP	ACOUSTIC CEILING PANEL,	COMM	COMMUNICATION	FCA	FLANGED COUPLING ADAPTER
1.00T	ASPHALTIC CONCRETE PAVEMENT	COMP	COMPOSITION, COMPRESSIBLE, COMPOSITE	FD	FLOOR DRAIN
ACSI		CON	CONCENTRIC		FLEXIBLE DUCT CONNECTION
		CONC			
	ADHESIVE	CONST	CONSTRUCTION	FF	FLANGED END
ADJ	ADJUSTABLE, ADJACENT	CONT	CONTINUOUS	FEC	FIRE EXTINGUISHER CABINET
AF	AMP FRAME, AMP FUSE	COOR	COORDINATE	FES	FLARED END SECTION
AFF	ABOVE FINISH FLOOR	CORR	CORROSIVE, CORRUGATED	FEXT	FIRE EXTINGUISHER
AFG	ABOVE FINISH GRADE	CP	CHECKER PLATE, CONTROL POINT	FF	FAR FACE, FACTORY FINISH, F
AGGR		CPLG		FG	
			COMPRESSION SLEEVE COUPLING		
ALIG	ALIGNMENT	CSK	COUNTERSINK	FIN	FINISH
ALT	ALTERNATE, ALTITUDE	CSS	CLINIC SERVICE SINK	FJT	FLUSH JOINT
ALUM	ALUMINUM	СТ	CERAMIC TILE	FL	FLOW, FLOW LINE
AM	ACOUSTICAL MATERIAL	CTJ	CONTRACTION JOINT	FLEX	FLEXIBLE
AMB	AMBIENT	CTR	CENTER	FLG	FLANGE
					FLOORESCENT
AD	ACCESS PANEL		COPPER CUBIC	FLS	FLASHING FLUSH
APRX	APPROXIMATE	CW	CLOCKWISE	FN	FENCE
APVD	APPROVED	CY	CUBIC YARD	FO	FINISHED OPENING, FIBER OP
ARCH	ARCHITECTURAL	_		FOB	FLAT ON BOTTOM
ASSY	ASSEMBLY	d	PENNY (NAIL MEASURE)	FOC	FACE OF CONCRETE, FACE OF
ATM			DEFORMED RAR ANCHOR		FACE OF IVIAGUNKY FACE OF STUDS
AUTO	AUTOMATIC	DBL	DOUBLE	FOT	FLAT ON TOP
AUX	AUXILIARY	DC	DIRECT CURRENT	FPT	FEMALE PIPE THREAD
AVE	AVENUE	DEG	DEGREE	FR	FRAME
AVG	AVERAGE	DEG C	DEGREE CENTIGRADE	FRP	FIBERGLASS REINFORCED PL
AWG		DEG F	DEGREE FAHRENHEIT	FRTM	FIRE RETARDANT TREATED M
AVVI	ACOUSTICAL WALL TILE				FLOOR SINK, FAR SIDE
B TO B	ВАСК ТО ВАСК		DEPARTMENT	FTG	FOOTING FITTING
BAL	BALANCE	DET	DETAIL	FUR	FURRED, FURRING
BBD	BULLETIN BOARD	DI	DROP INLET, DUCTILE IRON, DIGITAL INPUT	FURN	FURNITURE, FURNISH
BC	BASE CABINET, BOTTOM CHORD,	DIA	DIAMETER	FUT	FUTURE
	BOLT CENTER, BOLT CIRCLE	DIAG	DIAGONAL, DIAGRAM	FV	FACE VELOCITY
BD	BOARD	DIFF		FW	FIELD WELD, FIRE WALL
BE	BOTH ENDS, BELL END BOTH FACES BOTTOM FACE				
Ы	BLIND FLANGE, BOARD FEET	DISCIT	DISTANCE, DISTRIBUTION	FXTR	FIXTURE
BITUM	BITUMINOUS	DIV	DIVISION		
BKG	BACKING	DL	DEAD LOAD	G	GRILLE, GROUND
BL	BASE LINE	DMJ	DOUBLE MECHANICAL JOINT	GA	GAGE (METAL THICKNESS)
BLDG	BUILDING	DMPF	DAMP PROOFING	GAL	GALLON
BLK	BLOCK	DN		GALV	
	BLUCKING RENCHMARK REAM		DISSOLVED OXYGEN, DIGITAL OUTPUT, DITTO	GB	
BOC	BACK OF CURB			GD	GUARD
BOD	BOTTOM OF DUCT	DPST	DOUBLE POLE, SINGLE THROW	GEN	GENERAL
BOG	BOTTOM OF GRILLE	DS	DOWN SPOUT	GFCI	GROUND FAULT CIRCUIT INTE
BOL	BOTTOM OF LOUVER, BOLLARD	DT	DOUBLE TEE, DRIP TRAP ASSEMBLY	GFMU	GROUND FACE MASONRY UNI
BOP	BOTTOM OF PIPE	DUP	DUPLICATE	GG	GUTTER GRADE
BOR	BOTTOM OF REGISTER	DWG	DRAWING	GJ	GROOVED JOINT
				GL	GLASS BLOCK CLULAM BEAM
	BOTTOM OF UNIT BASE PLATE	DVVK	DRAWER	GLD	GROUND
3RG	BEARING	F	FAST	GP	GUY POLE
BRGP	BEARING PLATE	EA	EACH, EXHAUST AIR	GR	GRADE
BRKT	BRACKET	EC	ELECTRICAL CONTRACTOR	GRTG	GRATING
BS .	BOTH SIDES	ECC	ECCENTRIC	GSB	GYPSUM SHEATHING BOARD
DT11	BRITISH THERMAL UNIT	ED		GT	GREASE TRAP
		FDR	ELECTRICAL DUCT BANK	GVL	GRAVEL
BTU BTW BTWLD BU	BETWEEN BUTT WELD BELL UP BUILT-UP	EE FF	EACH END EACH FACF	GW	GUY WIRE GYPSUM WALLROARD
BTU BTW BTWLD BU BUR	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING	EE EF EFF	EACH END EACH FACE EFFLUENT, EFFICIENCY	GW GWB GYP	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD
BTU BTW BTWLD BU BUR BW	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS	EE EF EFF EHH	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE	GW GWB GYP	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD
BTU BTW BTWLD BU BUR BW BYP	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS	EE EF EFF EHH EIFS	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM	GW GWB GYP H	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH
BTU BTW BTWLD BU BUR BUR BYP	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS	EE EF EFF EHH EIFS EJ	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT	GW GWB GYP H HB	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB
BTU BTW BTWLD BU BUR BW BYP C TO C	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER	EE EF EHH EIFS EJ EL	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION	GW GWB GYP H HB HBD	GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD
BTU BTW BTWLD BU BUR BW BYP C TO C C&G	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE CENTICEADE CONDUIT	EE EF EHH EIFS EJ EL ELEC	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL	GW GWB GYP H HB HBD HC	GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C CAB	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET	EE EFF EHH EIFS EJ EL ELEC EMBD FMFR	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY	GW GWB GYP H HB HBD HC HD	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD HOT DIP
BTU BTW BTWLD BUR BW BYP C TO C C&G C CAB CAL	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMH	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE	GW GWB GYP H HB HBD HC HD HDR	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER
BTU BTW BTWLD BUR BW BYP C TO C C&G C CAB CAB CAL CAP	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMER EMH ENCL	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE	GW GWB GYP H HB HBD HC HD HDR HDR HDW	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER HARDWARE
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C CAB CAL CAP CAT	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER	GW GWB GYP H HB HBD HC HD HDR HDW HEX	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER HARDWARE HEXAGONAL
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C C CAB CAL CAP CAT CAV	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE	GW GWB GYP H HB HBD HC HD HDR HDR HDW HEX HGR	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HARDWARE HEXAGONAL HANGER
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C C CAB CAB CAL CAP CAT CAV CB CCP	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EO	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EOUAL	GW GWB GYP H HB HBD HC HD HDR HDR HDW HEX HGR HH	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HARDWARE HANDER HANDHOLE
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C C CAB CAL CAP CAT CAV CB CCB CCW	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQ	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUAL EQUIPMENT	GW GWB GYP H HB HBD HC HD HDR HDR HDW HEX HGR HH HID HM	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C C CAB CAL CAP CAT CAV CB CCB CCB CCW CDF	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIP EQUIV	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENGLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUAL EQUIPMENT EQUIVALENT	GW GWB GYP H HB HBD HC HD HDR HDR HDW HEX HGR HH HID HM HORI7	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C C CAB CAB CAL CAP CAT CAV CB CCB CCB CCW CDF CE	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR EOP EQ EQUIP EQUIV ERP	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUAL EQUIPMENT EQUIVALENT EAST REUSE POND	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HID HM HORIZ HP	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C C CAB CAL CAP CAT CAV CB CCB CCB CCCB CCCB CCCB CCCB CCCB	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIV EQUIV ERP ES	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUIPMENT EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE,	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HID HM HORIZ HP HPC	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURVA
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C CAB CAL CAP CAT CAV CB CCB CCB CCB CCCB CCCB CCCB CCCB	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT)	EE EF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIP EQUIV ERP ES	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENGLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUIPMENT EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HID HM HORIZ HP HPC HPS	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURVA
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C C CAB CAB CAL CAP CAT CAV CB CCB CCB CCB CCB CCB CCB CCCW CDF CE CER CF CFL	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIP EQUIV ERP ES	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUAL EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER AND EYE WASH	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HID HMR HORIZ HP HPC HPS HPT	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURVA HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C TO C C&G C AB C AB C AB C AB C AB C AB C AB C AB	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING CHALKBOARD	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIV EQUIV ERP ES ESEW EST	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUAL EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH ESTIMATE	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HID HM HORIZ HP HPC HPS HPT HR	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURV/ HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE HOSE REEL, HOUR
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C C CAB CAL CAP CAL CAP CAT CAV CB CCB CCB CCB CCB CCB CCB CCCB CCC	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING CHALKBOARD CHORD	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EQUIV EQUIV ERP ES ESEW EST EW	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUIPMENT EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH ESTIMATE EACH WAY, EMERGENCY, EYE/FACE WASH ELECTRIC WATER COOLED	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HID HM HORIZ HP HPC HPS HPT HR HS LSS	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURVA HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE HOSE REEL, HOUR HEADED STUD, HIGH STRENG
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C C CAB CAL CAP CAT CAV CB CCB CCB CCB CCB CCB CCB CCCB CCC	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING CHALKBOARD CHORD CHAMFER COMMUNICATION HANDLIGUE	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIP EQUIV ERP ES ESEW EST EW EWC	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUIALENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH ESTIMATE EACH WAY, EMERGENCY, EYE/FACE WASH ELECTRIC WATER COOLER EACH WAY, EACH EACE	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HDW HEX HGR HH HD HM R HPC HPS HPT HR HS HSS HT	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURVA HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE HOSE REEL, HOUR HEADED STUD, HIGH STRENG HOLLOW STRUCTURAL SHAPE
STU STW STWLD SUR SUR SW SYP C TO C C&G CAB CAB CAB CAB CAB CAB CAB CAB	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING CHALKBOARD CHORD CHAMFER COMMUNICATION HANDHOLE CUBIN IFT	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIP EQUIV ERP ES ESEW EST ESEW EST EW EWC EWEF EWTB	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUIPMENT EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH ESTIMATE EACH WAY, EMERGENCY, EYE/FACE WASH ELECTRIC WATER COOLER EACH WAY, EACH FACE EACH WAY, EACH FACE	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HID HM HORIZ HP HPC HPS HPT HR S S HT HTG	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURV/ HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE HOSE REEL, HOUR HEADED STUD, HIGH STRENG HOLLOW STRUCTURAL SHAPE HEIGHT HEATING
STU STW STWLD SUR SUR SW SYP C TO C C&G C AB C CB C C CB C C	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING CHALKBOARD CHORD CHAMFER COMMUNICATION HANDHOLE CURB INLET CAST-IN-PLACE	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIV ERP EQ EQUIV ERP ES ESEW EST EW EST EW EWC EWEF EWTB EXC	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUAL EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH ESTIMATE EACH WAY, EMERGENCY, EYE/FACE WASH ELECTRIC WATER COOLER EACH WAY, EACH FACE EACH WAY, TOP AND BOTTOM EXCAVATION	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HID HMRIZ HP HPC HPS HPT HR HSS HT HTG HV	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURV/ HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE HOSE REEL, HOUR HEADED STUD, HIGH STRENG HOLLOW STRUCTURAL SHAPE HEIGHT HEATING HIGH VOI TAGE
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C CAB CAL CAP CAT CAV CB CCB CCB CCB CCB CCB CCB CCB CCB CCB	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING CHALKBOARD CHORD CHAMFER COMMUNICATION HANDHOLE CURB INLET CAST-IN-PLACE CONCRETE INTERLOCKING PAVER BALLAST	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIV ERP ES ESEW EST EW EWC EWCF EWC EXC EXH	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUAL EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH ESTIMATE EACH WAY, EMERGENCY, EYE/FACE WASH ELECTRIC WATER COOLER EACH WAY, EACH FACE EACH WAY, TOP AND BOTTOM EXCAVATION EXCAVATION EXHAUST	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HDW HEX HGR HH HID HM HORIZ HP HPC HPS HPT HR HS S HT HTG HV HVAC	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURV/ HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE HOSE REEL, HOUR HEADED STUD, HIGH STRENG ^T HOLLOW STRUCTURAL SHAPE HEIGHT HEATING HIGH VOLTAGE HEATING, VENTILATING AND A
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C CAB CAL CAP CAT CAV CB CCB CCB CCB CCB CCB CCB CCB CCB CCB	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING CHALKBOARD CHORD CHAMFER COMMUNICATION HANDHOLE CURB INLET CAST-IN-PLACE CONCRETE INTERLOCKING PAVER BALLAST CIRCULATION, CIRCULAR	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIP EQUIV ERP ES ESEW EST EW EWC EWEF EWTB EXC EXH EXP	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUAL EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH ESTIMATE EACH WAY, EMERGENCY, EYE/FACE WASH ELECTRIC WATER COOLER EACH WAY, EACH FACE EACH WAY, TOP AND BOTTOM EXCAVATION EXCAVATION EXHAUST EXPANSION, EXPOSED	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HDW HEX HGR HH HID HMRIZ HP HPC HPS HPT HR S S HT HTG HV HVAC HWD	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTER HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURV/ HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE HOSE REEL, HOUR HEADED STUD, HIGH STRENG HOLLOW STRUCTURAL SHAPE HEIGHT HEATING HIGH VOLTAGE HEATING, VENTILATING AND A HARDWOOD
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C CAB CAL CAP CAT CAV CB CCB CCB CCB CCB CCB CCB CCB CCB CCB	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING CHALKBOARD CHORD CHAMFER COMMUNICATION HANDHOLE CURB INLET CAST-IN-PLACE CONCRETE INTERLOCKING PAVER BALLAST CIRCULATION, CIRCULAR CONSTRUCTION JOINT	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EOP EQ EQUIP EQUIV ERP ES ESEW EST ESEW EST EW EST EW EST EXC EXH EXP EXST	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUIPMENT EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH ESTIMATE EACH WAY, EMERGENCY, EYE/FACE WASH ELECTRIC WATER COOLER EACH WAY, TOP AND BOTTOM EXCAVATION EXCAVATION EXHAUST EXPANSION, EXPOSED EXISTING	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HID HM HORIZ HP HPC HPS HPT HR HSS HT HTG HV HVAC HWD HWL	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURV/ HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE HOSE REEL, HOUR HEADED STUD, HIGH STRENGT HOLLOW STRUCTURAL SHAPE HEIGHT HEATING HIGH VOLTAGE HEATING, VENTILATING AND A HARDWOOD HIGH WATER LEVEL
BTU BTW BTWLD BU BUR BW BYP C TO C C&G C CAB CAL CAP CAT CAV CB CCB CCB CCB CCB CCB CCB CCB CCB CCB	BETWEEN BUTT WELD BELL UP, BUILT-UP BUILT-UP ROOFING BOTH WAYS BYPASS CENTER TO CENTER CURB AND GUTTER CHANNEL SHAPE, CENTIGRADE, CONDUIT CABINET COVERED ANAEROBIC LAGOON CAPACITY CATALOG, CATEGORY CAVITY CATCH BASIN CONCRETE BLOCK COUNTER CLOCKWISE CONTROLLED-DENSITY FILL CONCRETE EDGE CERAMIC CUBIC FEET (FOOT) COUNTER FLASHING CHALKBOARD CHORD CHAMFER COMMUNICATION HANDHOLE CURB INLET CAST-IN-PLACE CONCRETE INTERLOCKING PAVER BALLAST CIRCULATION, CIRCULAR CONSTRUCTION JOINT CIRCUIT	EE EF EFF EHH EIFS EJ EL ELEC EMBD EMER EMH ENCL ENGR ENTR EQUIV ERP EQUIV ERP ES ESEW EST EW EST EW EWC EWEF EWTB EXC EXH EXP EXST EXT	EACH END EACH FACE EFFLUENT, EFFICIENCY ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM EXPANSION JOINT ELBOW, ELEVATION ELECTRICAL EMBEDDED EMERGENCY ELECTRICAL MANHOLE ENCLOSURE ENGINEER ENTRANCE EDGE OF PAVEMENT EQUAL EQUIPMENT EQUIVALENT EAST REUSE POND EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH ESTIMATE EACH WAY, EMERGENCY, EYE/FACE WASH ELECTRIC WATER COOLER EACH WAY, TOP AND BOTTOM EXCAVATION EXCAVATION EXHAUST EXPANSION, EXPOSED EXISTING EXTERIOR, EXTERNAL, EXTENSION	GW GWB GYP H HB HBD HC HD HDR HDW HEX HGR HH HDW HEX HGR HH HID HM HORIZ HP HPC HPS HPT HR HS S HT HTG HV HVAC HWD HWL HYD	GUY WIRE GYPSUM WALLBOARD GYPSUM HARDBOARD HIGH HOSE BIBB HARDBOARD HANDICAPPED, HOLLOW CORI CURVE, HORIZONTAL CENTEF HEAD, HOT DIP HEADER HARDWARE HEXAGONAL HANGER HANDHOLE HIGH-INTENSITY DISCHARGE HOLLOW METAL HORIZONTAL HIGH POINT, HORSEPOWER HORIZONTAL POINT OF CURV/ HIGH-PRESSURE SODIUM HORIZONTAL POINT OF TANGE HOSE REEL, HOUR HEADED STUD, HIGH STRENG ^T HOLLOW STRUCTURAL SHAPE HEIGHT HEATING HIGH VOLTAGE HEATING, VENTILATING AND A HARDWOOD HIGH WATER LEVEL HYDRAULIC

| 2

1



412 E. PARKCENTER BLVD BOISE, ID 83706

208.387.7000

10/03/2022 **ISSUE DATE** **ISSUE FOR BID** DESCRIPTION

3

	4	5		6	
E TO FACE	ID	INSIDE DIAMETER, INTERIOR DIMENSION	N	NORTH, NEUTRAL	R&R
E AND BYPASS	IE	INVERT ELEVATION, FOR EXAMPLE	NA	NOT APPLICABLE	R&S
RICATE DR BEAM		INSIDE FACE	NAT NC	NATURAL, NATIONAL	R R
RBOARD	IMP	IMPACT	NEG	NEGATIVE	RB
	IN		NF	NEAR FACE, NON-FUSED	RCPT
NISHED BY OWNER	INC	INCLUDE, INCANDESCENT INFLUENT	NIC	NOT IN CONTRACT NORMALLY OPEN, NUMBER	REC
SHING CONNECTION	INSTR	INSTRUMENTATION	NOM	NOMINAL	RECD
IGED COUPLING ADAPTER		INSULATION		NOMINAL PIPE SIZE	
(IBLE DUCT CONNECTION	INTR	INTERNEDIATE, INTERIOR	NS	NEAR SIDE	REF
DER	INV	INVERT	NTS	NOT TO SCALE	REINF
NDATION IGED END	IPS IPT	IRON PIPE SIZE INTERNAL PIPE THREAD	NVVL	NORMAL WATER LEVEL	
EXTINGUISHER CABINET	IR	INSIDE RADIUS, IRON ROD	О ТО О	OUT TO OUT	RESIL
	IRR	IRRIGATION	OA OC		RET
FACE, FACTORY FINISH, FLAT FACE	150	SOMETRIC	OCPD	OVER CURRENT PROTECTION DEVICE	RF
SHED GRADE	JB	JUNCTION BOX	OD		RFG
RE	JE	JOINT FILLER	OF	OPEN END DUCT OUTSIDE FACE, OFFICE FURNISHING	
SH	JST	JOIST	OFCI	OWNER FURNISHED CONTRACTOR	RGS
	JT	JOINT		INSTALLED	RH
(IBLE	к	KIP	OG	ORIGINAL GROUND	RL
	KB		OH	OVERHEAD	RLFA
DR	KCIVIL	KNOCK DOWN	OPP	OPPOSITE	RND
HING, FLUSH	КО	KNOCK OUT	OPT	OPTIONAL	RO
CE SHED OPENING, FIBER OPTIC	KSI KW	KIPS PER SQUARE INCH		OUTSIDE RADIUS OVERELOW ROOF DRAIN	ROW
ON BOTTOM			ORIG	ORIGINAL	RR
		ANGLE, LENGTH, LAVATORY, LINTEL		OVERFLOW	RSP
E OF FINISH E OF MASONRY	LAD	LAMINATE	OVIG	OUNCE	RVT
E OF STUDS	LATL			DANT	RY
ON TOP ALE PIPE THREAD	LB LCTB	LIQUID CHALK AND TACK BOARD		PAINT PUBLIC ADDRESS	s
ME	LDG	LANDING	PAR	PARALLEL, PARAPET	SA
RGLASS REINFORCED PLASTIC	LDR			PANIC BAR, PULL BOX PARTICI E BOARD	SAMU
DR SINK, FAR SIDE	LF	LINEAR FOOT	PC	POINT OF CURVE, PIECE, PRECAST	SB
	LG		PCC		SC SCH
RED, FURRING	LIN	LINEAR	PCT	PERCENT	SCHEM
NITURE, FURNISH	LIQ		PE		SCN
JRE E VELOCITY		LONG LEG HORIZONTAL LONG LEG VERTICAL	PED	PEDESTAL PENETRATION	SE
D WELD, FIRE WALL	LMLU	LIQUID MARKER LECTURE UNIT	PERF	PERFORATED	SECT
WARD NISHED WITH EQUIPMENT	LNG	LONGITUDINAL		PERMANENT PERPENDICULAR	SEP SE
URE	LP	LOW POINT	PF	POWER FACTOR	SG
			PFMU	PREFACED MASONRY UNIT	SH SHT
E (METAL THICKNESS)		LEFT	PI	POINT OF INTERSECTION	SHTG
	LTD		PKG		SIL
B BAR, GRADE BREAK	LTL	LINTEL		PRECAST LINTEL	SIM
OVED COUPLING	LTNG		PLAS	PLASTER	SL
RD ERAL		LOW VOLTAGE LAMINATED VENEER LUMBER	PLAT	PLUMBING	SLID
UND FAULT CIRCUIT INTERRUPTER	LVR	LOUVER	PLF	POUNDS PER LINEAR FOOT	SMLS
UND FACE MASONRY UNIT		LIGHTWEIGHT LIGHTWEIGHT CONCRETE	PNEU	POLISH	SOG
OVED JOINT	LWL	LOW WATER LEVEL	POS	POSITIVE, POSITION	SPA
SS SS BLOCK, GLULAM BEAM	MA		PP	POLYPROPYLENE, POWER POLE	
UND	MACH	MACHINED	PREF	PREFINISHED	SPST
POLE	MAINT	MAINTENANCE	PREFAB	PREFABRICATED	SPT
DE TING	MATL	MANUAL MATERIAL		PREPARE	SQ
SUM SHEATHING BOARD	MAX	MAXIMUM	PRES	PRESSURE	SS
ASE TRAP VEL	MB MBR	MACHINE BOLI MEMBER		PRIMARY PROPERTY PROPOSED	
WIRE	MC	MECHANICAL CONTRACTOR,	PROT	PROTECTION	STA
		MECHANICAL COUPLING,	PS PSF	PIPE SUPPORT	STD
	МСВ	METAL CORNER BEAD	PSI	POUNDS PER SQUARE INCH	STIR
			PSIA	POUNDS PER SQUARE INCH ABSOLUTE	STL
DBOARD	MECH	MECHANICAL	PST	PRESTRESSED	STR
DICAPPED, HOLLOW CORE, HORIZONTAL,	MED	MEDIUM	PT	POINT, POINT OF TANGENCY	SUB
VE, HORIZONTAL CENTERLINE	MFR MH	MANUFACIURER MANHOLE METAL HALIDE	PIN PVC	PARTITION POLYVINYL CHLORIDE POINT OF	SUC
DER	MIN	MINIMUM		VERTICAL CURVE	SY
DWARE AGONAI	MIR MISC	MIRROR MISCELLANEOUS	PVC-RGS	PVC COATED RGS PAVEMENT	SYM SYMM
GER	MJ	MECHANICAL JOINT	PWD	PLYWOOD	SYN
DHOLE LINTENSITY DISCHARGE	ML	MASONRY LINTEL	PWJ P7	PLYWOOD WEB JOIST	SYS
LOW METAL	MMB	MEMBRANE			T&B
	MOD				T&G T
IZONTAL POINT OF CURVATURE	MON	MONUMENT	QTR	QUARTER	TA
I-PRESSURE SODIUM	MPT			QUANTITY	
E REEL, HOUR	MS	MOP SINK		QUALITY	
DED STUD, HIGH STRENGTH	MSL	MEAN SEA LEVEL			TEF
LOW STRUCTURAL SHAPE	MU	MOUNT MASONRY UNIT			
	MULL	MULLION			THK
I VOLTAGE FING, VENTILATING AND AIR CONDITIONING	™V MW	MEDIUM VOLTAGE MONITORING WELL			TKBD
DWOOD					
I WATER LEVEL RAULIC					
TZ, CYCLES PER SECOND					

PROJECT MANAGER	BRAD BJERKE
DESIGN BY	B. BJERKE
DRAWN BY	E. SJOBERG
CHECKED BY	P. URSILLO
PROJECT NUMBER	10162649
	1





UV INSTALLATION DRAWINGS

7		8
REMOVE AND REPLACE	ТОВ	TOP OF BOLT, TOP OF BANK,
RADIUS, REGISTER, RISER	TOC	TOP OF BEAM, TOP OF BERM TOP OF CURB, TOP OF CONCRETE
RESILIENT BASE, ROCK BERM	TOF	
ROOF DRAIN	TOL	TOLERANCE, TOP OF LEDGER
RECEIVED RECTANGULAR	TOP	
REDUCER	TOS	TOP OF SLAB, TOP OF STEEL,
REINFORCING	TOW TP	TOP OF WALL
REQUIRED		TOE PLATE, TRAP PRIMER
RETAINING, RETURN REVISION, REVERSE	TPG TR	TOPPING, THROUGH PLATE GIRDER TRANSOM
RESILIENT FLOORING ROOFING	TRANS TRD	TRANSITION TRENCH DRAIN
REFLECTED, REFLECTOR ROUGH	TYP	TYPICAL
RIGID GALVANIZED STEEL RELIEF HOOD, RIGHT HAND,	U UG	URINAL UNDERGROUND
RELATIVE HUMIDITY REQUIRED LAP	ULT UNFN	ULTIMATE UNFINISHED
RELIEF AIR ROUND	UNO UTIL	UNLESS NOTED OTHERWISE UTILITY
RUNNING ROUGH OPENING	V	VENT, VELOCITY, VOLT
RIGHT-OF-WAY REVOLUTIONS PER MINUTE	VA VAC	VOLT AMPERE VACUUM
RAILROAD ROCK SLOPE PROTECTION	VAR	VARNISH, VARIABLE, VOLT AMPERES REACTIVE
RIGHT RESILIENT VINYL TILE	VB	VAPOR BARRIER, VINYL BASE, VALVE BOX
	VC VCP	VERTICAL CURVE VITRIFIED CLAY PIPE
SUPPLY AIR		VERTICAL CENTERLINE
SOUND-ABSORBING MASONRY UNIT SANITARY	VEL VENT	VENTILATION
SOLID CORE	VERTS	
SCHEDOLL SCHEMATIC SCREEN	VIF	VERIFY IN FIELD
STEEL/ALUMINUM EDGE	VOL VPC	VOLUME VERTICAL POINT OF CURVATURE
SECTION	VPI VPT	VERTICAL POINT OF INTERSECTION
SQUARE FOOT, SILT FENCE SHEET GLASS, SEALANT GROOVE	VS VTR	VERSUS, VAPOR SEAL VENT THROUGH ROOF
SHOWER SHEET	VWC	VINYL WALL COVERING
SHEATHING SILENCE	W/ W/O	WITH WITHOUT
SIMILAR SLAB JOINT	W	WATT, WEST, WIDE, WINDOW, WIRE, WIDE FLANGE BEAM
SLOPE, STEEL LINTEL SLOTTED	WB WC	WOOD BASE WATER CLOSET, WATER COLUMN
SLEEVE SEAMLESS	WD WF	WOOD, WIDTH WIDE FLANGE, WASH FOUNTAIN
SLAB ON GRADE SOUNDPROOF, STANDPIPE	WG WH	WIRE GLASS, WATER GAGE WALL HYDRANT, WEEP HOLE
SPACING SPECIFICATION	WI WL	WROUGHT IRON WATER LEVEL
SUPPLY SINGLE POLE SINGLE THROW	WD	WELDED WIRE MESH
	WRP WS	
SERVICE SINK	WSCT WT	WAINSCOT WEIGHT WATER TIGHT
STREET	WTHP WWF	WATERPROOF, WORKING POINT WEI DED WIRE FABRIC
STANDARD STIFFENER	XP	EXPLOSION-PROOF
STIRRUP STEEL	XS XSECT	EXTRA STRONG CROSS SECTION
STORAGE STRUCTURAL, STRAIGHT	XXS	DOUBLE EXTRA STRONG
SUBSTITUTE SUCTION	YH YS	YARD HYDRANT YIELD STRENGTH
SUSPENDED SQUARE YARD		
SYMBOL SYMMETRICAL		
SYNTHETIC SYSTEM		VIES.
TOP AND BOTTOM	OF CONTRACT	DRAWINGS.
TOINGUE AND GROOVE TILE, TREAD TOILET ACCESSORY, TEMPERED AIR TANGENT	2. LISTING OF AB ALL ABBREVIA DRAWINGS.	BREVIATIONS DOES NOT IMPLY THAT TIONS ARE USED IN THE CONTRACT
TEMPORARY BENCHMARK TEMPORARY CONSTRUCTION EASEMENT	3. ABBREVIATION	NS SHOWN ON THIS SHEET INCLUDE
TEMPORARY, TEMPERATURE		
THICK	MEAN EITHER	REINFORCE OR REINFORCING.
TACK BOARD	4. SEE INSTRUM	ENTATION LEGEND SHEET FOR CIFIC EQUIPMENT SYMBOLS.
	EQUIPMENT AN ABBREVIATION	BBREVIATIONS, AND PIPING SYSTEM

GENERAL ABBREVIATIONS AND NOTES



FILENAME G-02.dwg

SCALE NONE

G-02

А

В

D

С

	\/۵۱ \/۶	ES THING OT N		MISCELLANFOUS
NGLE LINE	DOUBLE LINE	ISOLATION		PIPE JOINT (SEE SPECS FOR
		BALL VALVE		REQUIREMENTS)
		BUTTERFLY VALVE		COMPRESSION SLEEVE TYPE COUPLING
		DIAPHRAGM VALVE		FLANGED COUPLING ADAPTER (FCA)
		GATE VALVE		FLEXIBLE CONNECTION
		GLOBE VALVE	(<u>=</u>	HARNESSED MECHANICAL COUPLING
		KNIFE GATE VALVE		
		NEEDLE VALVE	L X	PRESSURE GAGE (W/COCK)
		PINCH VALVE		
		PLUG VALVE		TRAP
->		THREE-WAY BALL VALVE	E	QUICK DISCONNECT CAM & GROOVE COUPLING
	h .			CAP OR PLUG
-×	╞══╡╬╞══╾	THREE-WAY PLUG VALVE	Oco	INTERIOR CLEANOUT
			HB-X	HOSE VALVE, HOSE BIBB, OR
		CONTROL	HR-X	FLUSHING CONNECTION
-ko		BALL CHECK VALVE	<i>7777777</i> ED-X	HOSE RACK
		CHECK VALVE		FLOOR DRAIN
$+\vec{\mathbf{A}}$		DOUBLE-DISK CHECK VALVE	X = TYPE DESIGNA	TED IN SPECIFICATIONS
		CONE VALVE	S	PIPE IN SECTION
		PRESSURE RELIEF VALVE	OBU	BELL UP (PLAN)
			₩вυ	BELL UP (SECTION OR SCHEMATIC)
		PRESSURE-REDUCING VALVE		DRAIN (SECTION OR SCHEMATIC)
Ϋ́́Υx	Ϋ́́Υx	AIR RELEASE VACUUM VALVE		
X		A = AIR RELEASE VAC = VACUUM		AIR TOOL ASSEMBLY
Ŕ	Ŕ		AVS	AUTOMATIC VALVE STATION
		PRESSURE-REGULATING VALVE		PRESSURE-REDUCING STATION
		TWO-WAY CONTROL VALVE		HOSE BIBB
\square				HOSE REEL
	MISCELL	ANEOUS	PLUM	BING SYMBOLOGY
M	— WATER METER		VT	– VENT (VT)
	— VARIABLE ARE	A METER		 POTABLE WATER, COLD (PWC)
	— UNION			POTABLE WATER, HOT (PWH)
-	- PENETRATION	THROUGH STRUCTURE		- WASTE, ABOVE GRADE (D)
,9,	- FLEXIBLE HOS	E OR TUBING		 WASTE, BELOW GRADE (D)
		IG CONNECTION	GENERAL NOTE	-S:
	- LINE SIZE CHA	NGE (CONCENTRIC REDUCER)	1. THIS IS A STANDA	RD PROCESS, MECHANICAL AND PLUMBING
	- LINE SIZE CHA	NGE (ECCENTRIC REDUCER)	SYMBOLOGY SHE USED ON THIS PR	ET. ALL SYMBOLS ARE NOT NECESSARILY
G+	- LINE TURNING	DOWN	2. SCREENING OR S	
⊙+	- LINE TURNING	UP		TO HIGHLIGHT SELECTED TRADE WORK.
	H BLIND FLANGE		3. SEE INSTRUMENT	ATION LEGEND SHEET FOR
	S PIPE BREAK		PROJECT-SPECIF ABBREVIATIONS,	IC EQUIPMENT SYMBOLS, EQUIPMENT AND PIPING SYSTEM ABBREVIATIONS.
			,	





412 E. PARKCENTER BLVD BOISE, ID 83706 208.387.7000

10/03/2022 ISSUE DATE

ISSUE FOR BID DESCRIPTION

		4		5	6	
BIM DEF	RIVED VAL	VE SYMBOLOGY	HVAC CON	NTROL SYMBOLOGY		
LAN VIEW	VALVE SECTION VIEW	CONTROL	ТС	TEMPERATURE CONTROLLER	24x18	SI U
	- 0 -		ТТ	TEMPERATURE TRANSMITTER		DI S
		FULL PORT BALL VALVE, LEVER OPERATOR	TS	TEMPERATURE SWITCH		RI
		BALL VALVE,		THERMOSTAT		R
		HANDWHEEL OPERATOR		TEMPERATURE SENSOR		S E
		THREE WAY BALL		TEMPERATURE INDICATOR		C E
	HH	VALVE, LEVER OPERATOR				S
		AWWA BUTTERFLY VALVE,		HAND-OFF-AUTO		R
		HAND WHEEL OPERATOR		MOTOR STARTER		Т
		AWWA BUTTERFLY VALVE, LEVER OPERATOR		MOTOROTARTER		-
b		AWWA BUTTERFLY VALVE,	М	DAMPER ACTUATOR		י ו די
-		NUT OPERATOR	PI	PRESSURE INDICATOR		R
			FRZ	FREEZE STAT		F(R
	I −−1	HANDWHEEL OPERATOR				EI (F
				FIRE STAT		
		HANDWHEEL OPERATOR	DPS	DIFFERENTIAL PRESSURE SWITCH		EI (F
ÔI		PRESSURE RELIEF VALVE	s	SMOKE DETECTOR		G
			FS	FLOW SWITCH		R
		DIAPHRAGM VALVE, HANDWHEEL OPERATOR	PS	PRESSURE SWITCH	↓ 18x24 ↓	S S
			M	MINIMUM POSITION RELAY	- 18"Ø -	R
		BASKET STRAINER	S	SIGNAL		R R TI
	\square	WYE STRAINER	AO	ANALOG OUTPUT		R O
Ð	Ţ	AIR VENT VALVE	AI	ANALOG INPUT	18x24	н
				DIGITAL OUTPUT	T 9'-10" B 9'-0"	
P		SWING CHECK VALVE		DIGITAL INPUT	- 18x10	D A
U	д		C S	COMMON PORT SIGNAL PORT		P (F
		PRESSURE REGULATING	NO NC	NORMALLY OPEN NORMALLY CLOSED	VD, BDD	V B
		VALVE	↓ ↓	BALANCING VALVE		
		AWWA BUTTERFLY VALVE,	RHC	RESISTANCE HEATING CONTACTOR		
<u>Gran</u>	ы	MOTOR OPERATED	ТА	TEST-AUTO		
		BALL VALVE,	ТОА	TEST-OFF-AUTO		
		ELECTRIC OPERATOR		ELECTRIC SIGNAL		
r				PIPING		
	* ` L* [#]	JULENUID VALVE				
				CARRON MONOVIDE SENSOR		

BRAD BJERKE
B. BJERKE
E. SJOBERG
P. URSILLO
10162649





UV INSTALLATION DRAWINGS



PROCESS AND MECHANICAL LEGENDS AND SYMBOLS

0 1"

FILENAME SCALE D

С

В

	Z		0
PRIMARY ELEMENT SYMBOLOGY	INST	RUMENT SYMBOLOGY	MISCE
THERMAL MASS FLOWMETER	(xxx) xxxx xxx	FIELD MOUNTED	D
DOPPLER ULTRASONIC FLOWMETER	XXX XXX	MOUNTED ON PANEL FACE	
MAGNETIC FLOWMETER		MOUNTED BEHIND PANEL	Ď-
PROPELLER OR TURBINE METER	XXX XXX		
		MOUNTED ON AUXILIART PANEL	
WEIR		MOUNTED BEHIND AUXILIARY PANEL	
FLOAT SWITCH	XXX XXX XXX	INDICATOR LIGHT	
ULTRASONIC LEVEL SENSOR	$\langle \mathbf{x} \rangle$	INTERLOCK, SEE CONTROL DIAGRAMS OR	
DIAPHRAGM SEAL			
INSITU ANALYTICAL PROBE	xxxx	FIELD MOUNTED	
PRESSURE GAUGE	XXX XXXX XXXX	SHARED DISPLAY, SHARED CONTROL, PRIMARY LOCATION - NORMALLY ACCESSIBLE TO OPERATOR	VFD
SUBMERGED LEVEL SENSOR		PROGRAMMABLE LOGIC CONTROL	
ACTUATOR SYMBOLS		SCADA SYSTEM	~~~~
M OPERATOR ABBREVIATIONS: M = MOTOR P = PNEUMATIC (SINGLE OR DOUBLE) S = SOLENOID H = HYDRAULIC	PUM	IP AND COMPRESSOR SYMBOLS	
XX: FO = FAIL OPEN FC = FAIL CLOSE FLP = FAIL TO LAST POSITION		CENTRIFUGAL PUMP	
FLOAT OPERATOR			
LINE TYPES		RUTART LOBE BLOWER	L L
		SUBMERSIBLE PUMP	
SECONDARY PROCESS LINE		CHEMICAL FEED PUMP	
AUXILIARY PROCESS LINE			Š
EXISTING PROCESS LINE		PISTON PUMP	
PROCESS OPEN CHANNEL		PROGRESSIVE CAVITY PUMP	
		ROTARY LOBE PUMP	Ύ
— — — — — ELECTRIC SIGNAL, ANALOG		VERTICAL TURBINE OR PROPELLER PUMP	
ELECTRIC SIGNAL, DISCRETE			
		COMPRESSOR	
		HOSE PUMP	
		CENTRIFUGAI	(SP)
CROSSOVER - NO CONNECTION		BLOWER OR FAN	
⁺ X CAPILLARY TUBE			
——————————————————————————————————————			
C ETHERNET COMMS LINE	8	PROPELLER PUMP	
		AIR DIAPHRAGM PUMP	





10/03/2022 ISSUE DATE ISSUE FOR BID DESCRIPTION



 PROJECT NUMBER
 10162649





	7	1		8	
	INSTRUMEN	T IDENTIFICAT	ION LETTERS		
FIRST I	_ETTER	SUC	CEEDING LETTERS	3	
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER	
ANALYSIS		ALARM			
BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE	
JSERS CHOICE			CONTROL	CLOSED	
JSERS CHOICE	DIFFERENTIAL				
/OLTAGE		SENSOR (PRIMARY ELEMENT)			
FLOW, FLOW RATE	RATIO (FRACTION)				
JSER'S CHOICE		GLASS, VIEWING DEVICE			
HAND				HIGH	
CURRENT ELECTRICAL)		INDICATE			
POWER	SCAN				
ΓΙΜΕ, ΓΙΜΕ SCHEDULE	TIME; RATE OF CHANGE		CONTROL STATION		
_EVEL		LIGHT		LOW	
JSER'S CHOICE	MOMENTARY			MIDDLE, INTERMEDIATE	
JSER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE	
JSER'S CHOICE		ORIFICE, RESTRICTION			
PRESSURE, /ACUUM		POINT (TEST) CONNECTION			
QUANTITY	INTEGRATE, TOTALIZE				
RADIATION		RECORD			
SPEED, FREQUENCY	SAFETY		SWITCH		
TEMPERATURE			TRANSMIT		
MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION	
/IBRATION, MECH. ANALYSIS			VALVE, DAMPER, LOUVER		
WEIGHT, FORCE		WELL			
JNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	
EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT		
POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT		

MISCELLANEOUS INSTRUMENTATION ABBREVIATIONS

ANALOG INPUT ANALOG OUTPUT CHLORINE (ANALYZER MODIFIER) CARBON MONOXIDE (ANALYZER MODIFIER) CARBON DIOXIDE (ANALYZER MODIFIER) COMBUSTIBLES (ANALYZER MODIFIER) CONDUCTIVITY (ANALYZER MODIFIER) DENSITY (ANALYZER MODIFIER) DIGITAL INPUT DIGITAL OUTPUT DISSOLVED OXYGEN (ANALYZER MODIFIER) VOLTAGE TO PNEUMATIC HYDROGEN SULFIDE (ANALYZER MODIFIER) HYDROGEN CHLORIDE (ANALYZER MODIFIER) INPUT/OUTPUT CURRENT TO PNEUMATIC LOWER EXPLOSION LIMIT NITROGEN OXIDE (ANALYZER MODIFIER) POWER DISTRIBUTION CENTER PHOSPHATE OPERATOR INTERFACE	O2 P&ID RST SS TSS TURB UVT UVSC WAN	OXYGEN (ANALYZER MODIFIER) PROCESS AND INSTRUMENTATION DIAGRAM ROTARY SCREEN THICKENER SUSPENDED SOLIDS (ANALYZER MODIFIER) TOTAL SUSPENDED SOLIDS TURBIDITY (ANALYZER MODIFIER) ULTRA VIOLET TRANSMITTANCE UV SYSTEM CONTROLLER WIDE AREA NETWORK	
--	--	--	--



Φ	SIMPLEX OUTLET. +18" AFF UNO.		
Φ	DUPLEX OUTLET. +18" AFF UNO.	\bigotimes	SINGLE FACE EXIT SIGN. CEILING MOUNTED.
 ∰	FOURPLEX OUTLET. +18" AFF UNO.		DOUBLE FACE EXIT SIGN. CEILING MOUNTED.
Ŷ	SPECIAL PURPOSE OUTLET. VERIFY SIZE AND TYPE WITH	$\mathbf{\nabla}$	SINGLE FACE EXIT SIGN. WALL MOUNTED.
	EQUIPMENT SUPPLIER. CONNECTION POINT TO EQUIPMENT SPECIFIED, FURNISHED		DOUBLE FACE EXIT SIGN. WALL MOUNTED.
•	AND INSTALLED UNDER OTHER SECTIONS. ELECTRICAL CONTRACTOR TO SUPPLY RACEWAY, CONDUCTORS AND		SINGLE FACE COMBO EXIT SIGN/EMERGENCY LUMINAIRE
	MAKE FINAL CONNECTION TO EQUIPMENT UNDER THIS SECTION, UNO.		ARROW INDICATES DIRECTION TO BE SHOWN ON SIGN.
Ф	DUPLEX OUTLET. FLUSH, FLOOR MOUNTED.		
₩	FOURPLEX OUTLET. FLUSH, FLOOR MOUNTED.		
\bigcirc	SPECIAL PURPOSE OUTLET. FLUSH, FLOOR MOUNTED.		LIGHT FIXTURE.
(M)/	MOTOR CONNECTION. RE: MECHANCIAL EQUIPMENT		LIGHT FIXTURE.
✓		••	SUSPENDED LIGHT FIXTURE.
_	SINGLE GANG MUDRING. LOCATED AT 18" AFF UNO.		WALL MOUNTED FIXTURE.
V	TELEPHONE/DATA OUTLET, FOUR-SQUARE DEEP TYPE BOX WITH SINGLE GANG MUDRING, LOCATED AT +18" AFF UNO	Q	WALL SCONCE FIXTURE.
		\Box	WALL PACK FIXTURE.
∇	DATA OUTLET, FOUR-SQUARE DEEP TYPE BOX WITH SINGLE GANG MUDRING. LOCATED AT 18" AFF UNO.	\odot	PENDANT LIGHT FIXTURE.
	TELEPHONE OUTLET. FLUSH, FLOOR MOUNTED.	0	RECESSED LIGHT FIXTURE.
\mathbf{V}	TELEPHONE/DATA OUTLET. FLUSH, FLOOR MOUNTED.	•	POLE LIGHT 1 HEAD ROUND WITH POLE.
\bigtriangledown	DATA OUTLET. FLUSH, FLOOR MOUNTED.	0-•-0	POLE LIGHT 2 HEAD ROUND WITH POLE.
J	JUNCTION BOX.	•-	POLE LIGHT 1 HEAD SQUARE WITH POLE.
\bigcirc	JUNCTION BOX, WALL MOUNTED.		POLE LIGHT 2 HEAD SQUARE WITH POLE.
Фx	THERMOSTAT. +56" AFF UNO. UNIT CONTROLLED INDICATED.	$\langle \rangle$	BOLLARD LIGHT
⊕×	HUMIDISTAT. +56" AFF UNO. UNIT CONTROLLED INDICATED.	\otimes	BOLLAND LIGHT.
	SURFACE MOUNTED PANELBOARD/ENCLOSURE. SEE	(DECORATIVE POST-TOP LIGHT.
	FLUSH MOUNTED PANELBOARD/ENCLOSURE. SEE SCHEDULE	•(<u>{</u> -	SPOT/FLOOD LIGHT.
	FOR TYPE.		EMERGENCY EGRESS LIGHT. WALL MOUNTED.
0	SINGLE BUTTON, WALL MOUNTED PUSHBUTTON. MOUNT AT SWITCH HEIGHT UNO.		EMERGENCY EGRESS LIGHT. CEILING MOUNTED.
\boxtimes	MOTOR STARTER/CONTACTOR.	S#	SWITCH. TYPE AS INDICATED. +46"AFF, UNO.
	COMBINATION STARTER AND DISCONNECT		2 DOUBLE POLE 3 3-WAY
	NON-FUSED DISCONNECT SWITCH. SIZE AS INDICATED, NEMA 1		4 4-WAY D DIMMER
	UNO, 3 POLE UNO.		HP HORSEPOWER RATED K KEYED
ĒĽ×	FUSED DISCONNECT SWITCH. SIZE AS INDICATED, NEMA 1 UNO, 3 POLE UNO.		LV LOW VOLTAGE M MOMENTARY CONTACT
			MM MANUAL MOTOR STARTER OS OCCUPANCY SENSOR
	CONDUIT STUBBED, CAPPED, AND MARKED WITH		P PILOT LIGHT T TIMER
0	PULL CORD. CONDUIT UP		TO THERMAL OVERLOAD V VOLUME CONTROL
\longrightarrow	CONDUIT DOWN.		VS VACANCY SENSOR a SUPERSCRIPT INDICATES LIGHTS TO BE SWITCHE
	X-# HOMERUN. PANEL AND CIRCUIT AS INDICATED.	~	TOGETHER
		SS	MULTI-LEVEL SWITCHING, TO MEET LIGHT REDUCTION LEVELS PER ENERGY CODE AS SHOWN. PROVIDE
			ADDITIONAL OR STEP- DIMMING BALLASTS WHERE REQUIRED.
	UNDERGROUND. 3/4"-2#12,1#12G UNO.	Ś	OCCUPANCY SENSOR. CEILING MOUNTED.
			PHOTOCELL. WALL MOUNTED.
		$\langle P \rangle$	PHOTOCELL. CEILING MOUNTED.
	x"-x#x,x#xG	$\langle \gamma \rangle$	TIMECLOCK. WALL MOUNTED.
RACEW			
	MECHANICAL EQUIPMENT SYMBOL (RE: MECHANICAL DRAWINGS FOR EXACT LOCATION OF UNITS).		
<u>``</u> /	NDICATES FIXTURE TYPE REFER TO LUMINIARE SCHEDUILE		
###			





412 E. PARKCENTER BLVD BOISE, ID 83706 208.387.7000

10/03/2022 ISSUE DATE ISSUE FOR BID DESCRIPTION

	4		5	6
PROJECT.)			ABBREVIATIONS	
BRANCH PANEL ******	BRANCH PANEL.	A AC AFF AFG AF AF	AMPERES ABOVE COUNTER ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AMPERE FRAME ARC FAULT CIRCUIT INTERRUPT	
$^{\circ})\frac{400A}{3P}$	CIRCUIT BREAKER. SIZE AND TYPE AS SPECIFIED.	AHJ AT AWG	AUTHORITY HAVING JURISDICTION AMP TRIP AMERICAN WIRE GAUGE	
15A	FUSE. SIZE AND TYPE AS SPECIFIED, PROVIDE FUSE FOR EACH POLE, 3 POLE, UNO.	CB CKT	CIRCUIT BREAKER CIRCUIT	
M	METER.	CO	CONDUIT ONLY, PROVIDE PULL-LINE	
		DC DC		
		E	EMERGENCY	
	VOLIMETER.	(E) EF	EXISTING EXHAUST FAN	
	KIRK KEY LOCK.	EL EWC	ELECTRIC WATER COOLER	
GFP	GROUND FAULT PROTECTION.	EWH F	ELECTRIC WATER HEATER FUSE	
TVSS	TRANSIENT VOLTAGE SURGE SUPRESSION.	FACP FVNR	FIRE ALARM CONTROL PANEL FULL VOLTAGE NON-REVERSING	
ST	SHUNT TRIP COIL.	G/GND GFI	GROUND GROUND FAULT INTERRUPTION	
КМН	KILOWATT HOUR METER.	GFP H	GROUND FAULT PROTECTION HEAT	
KVAR	KILOVAR DEMAND METER.	HH HID		
TEST	TEST BLOCK.	HOA	HAND OFF AUTO	
VFD	VARIABLE FREQUENCY DRIVE.	ID IC	IN-DUCT INTERRUPTING CAPACITY	
	TRANSFORMER	IG J/JB	ISOLATED GROUND JUNCTION BOX	
	TRANSFORMER	KW KWH	KILOWATT KILOWATT HOUR	
	GROUND	M MCB MCC	MAGNETIC CONTACTOR COIL MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER	
		MLO MS	MAIN LUGS ONLY MOTOR STARTER	
(7.5HP)	MOTOR	MH	MANHOLE	
	STARTER	NC NCL NEC NIC NO NTS OL OS OFCI PC PVC RCPT (R) (RE) SER SPST TC TDR TJB TSP TTB TVSS TYP UH UNO V VA WG WP XFMR	NORMALLY CLOSED NON CRITICAL LOAD NATIONAL ELECTRICAL CODE NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE OVERLOAD OCCUPANCY SENSOR OWNER FURNISHED CONTRACTOR INSTALLED PHOTOCELL POLYVINYL CHLORIDE RECEPTACLE RELOCATED REPLACED SERVICE ENTRANCE RATED SINGLE POLE SINGLE THROW TIME CLOCK TIME DELAY RELAY TERMINAL JUNCTION BOX TWISTED SHIELDED PAIR TELEPHONE TERMINAL BOARD TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNIT HEATER UNLESS NOTED OTHERWISE VOLT VOLT AMPERE PROVIDE PROTECTIVE WIRE GUARD WEATHER PROOF/NEMA 3R TRANSFORMER	
		PANEL		
			K S _# − − − − − − − − − − − − − − − − − − −	

PROJECT MANAGER	BRAD BJERKE
DESIGN BY	B. BJERKE
DRAWN BY	E. SJOBERG
CHECKED BY	P. URSILLO
PROJECT NUMBER	10162649



FINISH FLOOR

៲៙⊭⊯⊭⊲−



18"

UV INSTALLATION DRAWINGS

PANEL SCHEDULES



FILENAME SCALE

G-05



/ Chann :44 AM 26\UV 11:54: 2

	4	5	6

PROJECT MANAGER	BRAD BJERKE
DESIGN BY	B. BJERKE
DRAWN BY	E. SJOBERG
CHECKED BY	P. URSILLO
PROJECT NUMBER	10162649

CITY OF HAILEY UV INSTALLATION

С	ION ISOMETRIC	TALLA	UV INS		
, sheet D-0(HDRE_ALL_DISCIPLINES.rte	FILENAME SCALE	2"	1"	0

А

С

D

В



R:\d1706426\UV Channels.r 9/30/2022 11:54:46 AM



PROJECT MANAGER	BRAD BJERKE
DESIGN BY	B. BJERKE
DRAWN BY	E. SJOBERG
CHECKED BY	P. URSILLO
PROJECT NUMBER	10162649
	•



CITY OF HAILEY UV INSTALLATION

GENERAL NOTES:

1. SEE 05C104 FOR YARD PIPING CONTINUATION.

<u>KEY NOTES:</u> $\langle X \rangle$

- OWNER SUPPLIED EQUIPMENT. SEE MANUFACTURERS SHOP DRAWINGS FOR DETAILED INSTALLATION REQUIREMENTS.
- 2. REMOVE MANUAL HANDWHEEL FROM EXISTING SLIDE GATES AND REPLACE WITH NEW ELECTRICALLY ACUTATED OPERATOR. TYP OF 2.
- 3. REMOVE EXISTING 6" MUD VALVE AND RETURN TO OWNER. PLUG EXISTING 6" C.I. PIPE AT BOTH ENDS OF AND ABANDON IN PLACE.
- 4. REMOVE EXISTING GRATING FOR INSTALLATION OF UV EQUIPMENT. MODIFY ACCORDINGLY. ADD 1/8" THICK CHECKER PLATE OVER UV BANKS (NOT FUTURE BANKS).
- 5. 3/8" AIR TUBING FROM COMPRESSOR CONNECTION UP TO CABLE TRAY. ROUTE IN CABLE TRAY TO UV JUCTION BOX. USE COMPRESSION FITTINGS.



Α

В

7

D

С



706426\UV Channe 2022 11:54:46 AM

PROJECT MANAGER	BRAD BJERKE
DESIGN BY	B. BJERKE
DRAWN BY	E. SJOBERG
CHECKED BY	P. URSILLO
PROJECT NUMBER	10162649

	7	8	
L <u>E/LIT - 101</u> MOUNTED OI UNISTRUT FF 	RAMEFIRST FLOOR 34.79	 GENERAL NOTES: 1. SEE 05C104 FOR YARD PIPING CONTINUATION. KEY NOTES: X 1. OWNER SUPPLIED EQUIPMENT. SEE MANUFACTURERS SHOP DRAWINGS FOR DETAILED INSTALLATION REQUIREMENTS. 2. REMOVE MANUAL HANDWHEEL FROM EXISTING GATE AND REPLACE WITH NEW ELECTRICALLY ACUTATED OPERATOR. 	Λ
3" FLANG EXTENSI NOTCH E OPERATO	SEE DETAIL 1 ON SHEET D-03 SED STAINLESS STEEL BALL VALVE WITH OPERATO ON UP TO GRATING. EXISTING GRATING FOR OR ACCESS, TYP OF 2 CHANNELS	OR	

А

В

UV INSTALLATION SECTIONS

FILENAME HDRE_ALL_DISCIPLINES.rte SHEET

SCALE 3/8" = 1'-0"

D-02



R:\d1706426\UV Channels.rvt 9/30/2022 11:54:46 AM

PROJECT MANAGER	BRAD BJERKE
DESIGN BY	B. BJERKE
DRAWN BY	E. SJOBERG
CHECKED BY	P. URSILLO
PROJECT NUMBER	10162649



CITY OF HAILEY UV INSTALLATION















7

1. SEE 05C104 FOR YARD PIPING CONTINUATION.

<u>KEY NOTES:</u> X

- SEE MANUFACTURERS SHOP DRAWINGS FOR DETAILED INSTALLATION REQUIREMENTS.
- 2. NEW THICKENED WALL AND FLOOR TO BE TROWELED SMOOTH SURFACE. GROUT AND GRIND SMOOTH ANY BUG HOLES.

REINFORCING PLAN VIEW

THICKENED FLOOR DETAIL

D

С

В

UV INSTALLATION DETAILS 0 1" 2" FILENAME HDRE_ALL_DISCIPLINES.rte SHEET D-03

1	2	3		4		5	6
		ONE LINE, PO	OWER AND	LIGHTING SYMBOLOGY			
SFP	LOW - VOLTAGE CIRCUIT BREAKER (CB). RATING AND NO. OF POLES AS SHOWN. WHEN SPECIFIED TYPE, OTHER THAN MCCB, IS REQUIRED, X INDICATES TYPE. <u>TYPES:</u> MCCB - MOLDED CASE (BLANK) ICCB - INSULATED CASE LVP - LOW VOLTAGE POWER MCP - MOTOR CIRCUIT PROTECTOR (RATING PER CONNECTED LOAD) GROUND FAULT PROTECTION		CONNECTION POINT TO AND INSTALLED UNDER CONTRACTOR TO SUPP FINAL CONNECTION TO UNLESS NOTED OTHER QUAD-DUPLEX RECEPT COMMON COVER PLAT GROUND UNLESS NOTI DUPLEX RECEPTACLE, AND 1#12 GROUND UNI	2 EQUIPMENT SPECIFIED, FURNISHED 2 OTHER SECTIONS. ELECTRICAL 2 LY RACEWAY, CONDUCTORS AND MAKE EQUIPMENT UNDER THIS SECTION, WISE. ACLE, TWO NEMA 5-20R UNDER E. 3/4" CONDUIT WITH 2#12 AND 1#12 ED OTHERWISE. NEMA 5-20R. 3/4" CONDUIT WITH 2#12 LESS NOTED OTHERWISE.		SINGLE FACE EXIT SIGN. CEILING DOUBLE FACE EXIT SIGN. CEILING SINGLE FACE EXIT SIGN. WALL MC DOUBLE FACE EXIT SIGN. WALL M SINGLE FACE COMBO EXIT SIGN/E MOUNTED.	MOUNTED. MOUNTED. DUNTED. OUNTED. MERGENCY LUMINAIRE. WALL
		<u>8</u>	<u>SUBSCRIPTS:</u> X - INDICATES TYP	Ξ	-	ARROW INDICATES DIRECTION TO) BE SHOWN ON SIGN.
	FUSIBLE SWITCH, CURRENT RATING, FUSE SIZE, AND		GFCI - GROUND Y - INDICATES CIR(FAULT CIRCUIT INTERRUPTER CUIT NUMBER FROM PANELBOARD		LIGHT FIXTURE.	
	QUANTITY AS NOTED	O (CONDUIT TURNING UP			WALL MOUNTED FIXTURE.	
~	NON-FUSED SWITCH, CURRENT RATING, AND NUMBER OF POLES AS NOTED	(CONDUIT TURNING DO	VN		WALL PACK FIXTURE.	
	DISCONNECT OR DRAWOUT CONNECTION		HOME RUN TO PANEL, 2 OTHERWISE NOTED	2 #12, 1 #12G IN 3/4"C UNLESS	0	RECESSED LIGHT FIXTURE.	
⊠'	SEPARATELY MOUNTED COMBINATION MOTOR STARTER OR CONTROLLER; SEE ELECTRICAL ONE - LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION	(C	CIRCUIT RUN BETWEEN	I DEVICES EXPOSED IN Y FINISHED AREAS; CONCEALED IN ISHED AREAS, CONDUIT AND		POLE LIGHT 1 HEAD SQUARE WITH	HPOLE.
	SEPERATELY MOUNTED MOTOR STARTER OR CONTROLLER; SEE ELECTRICAL ONE-LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION		CONDUCTOR SIZES SH THE CIRCUIT. CONDUIT RUN BETWEE	ALL BE THE SAME AS THE HOMERUN FOR		POLE LIGHT 2 HEAD SQUARE WITH	HPOLE.
	DISCONNECT OR SAFETY SWITCH, 30A, 3P, NON-FUSED		NON-ARCHITECTURALL SLAB. CONDUIT AND CO AS THE HOMERUN FOR	Y FINISHED AREAS OR UNDER FLOOR ONDUCTOR SIZES SHALL BE THE SAME THE CIRCUIT.		EMERGENCY EGRESS LIGHT. WAL	L MOUNTED.
∠ [×]	FUSED DISCONNECT OR SAFETY SWITCH, 3P, X INDICATES AMP RATING GREATER THAN 30A, Y INDICATES FUSE SIZE		CIRCUIT HASH MARKS SINGLE DOT, AND DOU EQUIPMENT GROUND, RESPECTIVELY. #12 IN INDICATED. IF NO HAS	(WHEN INDICATED); LONG, SHORT, BLE DOT REPRESENT PHASE, NEUTRAL, AND ISOLATED EQUIPMENT GROUND, 3/4" CONDUIT UNLESS OTHERWISE H MARKS SHOWN, 2#12 AND 1#12	S#	SWITCH. TYPE AS INDICATED. +46 2 DOUBLE POLE	"AFF, UNO.
СВ	SEPARATELY MOUNTED CIRCUIT BREAKER; SEE ELECTRICAL ONE - LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION		GROUND UNLESS OTH	ERWISE NOTED.		3 3-WAY 4 4-WAY D DIMMER HP HORSEPOWER RATED K KEYED	
7 1/2	MOTOR WITH DESIGN HORSEPOWER (WHEN INDICATED)		CONDUIT STUBBED OU	T AND CAPPED		LV LOW VOLTAGE M MOMENTARY CONTACT MM MANUAL MOTOR STARTEI OS OCCUPANCY SENSOR P PILOT LIGHT T TIMER	२
	TRANSFORMER 3-PHASE, 3-WIRE DELTA CONNECTION 3-PHASE, 4-WIRE GROUNDED WYE CONNECTION	· · · · · · · · · · · · · · · · · · ·	GROUND CABLE GROUND ROD			TO THERMAL OVERLOAD V VOLUME CONTROL VS VACANCY SENSOR a SUPERSCRIPT INDICATES TOGETHER	LIGHTS TO BE SWITCHED
LP100 208/ 20V 3Ø, 4W	SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED	X"-X#X,	GROUNDING C ,X#XG CONDUCTOR SIZE -CONDUCTOR QUANTIT	ONDUCTOR SIZE	SS SS	MULTI-LEVEL SWITCHING, TO MEE PER ENERGY CODE AS SHOWN. F DIMMING BALLASTS WHERE REQU OCCUPANCY SENSOR. CEILING M	T LIGHT REDUCTION LEVELS PROVIDE ADDITIONAL OR STEP- JIRED. OUNTED.
100 KVA	NON-MOTOR LOAD WITH DESIGN KVA, KW, OR AMP	GENERAL NOTES				PHOTOCELL. WALL MOUNTED. PHOTOCELL. CEILING MOUNTED.	
36	VOLTAGE TRANSFORMER (VT OR PT)	1. THIS IS A STANDARD ELEC THIS PROJECT.	TRICAL SYMBOLOGY S	HEET. NOT ALL SYMBOLS MAY BE USED ON	\Diamond	TIMECLOCK. WALL MOUNTED.	
€	CURRENT TRANSFORMER (CT)	2. SCREENING OR SHADING O DE-EMPHASIZE PROPOSED TO CONTEXT OF EACH SHE	OF WORK IS USED TO I D IMPROVEMENTS TO H EET FOR USAGE.	NDICATE EXISTING COMPONENTS OR TO IGHLIGHT SELECTED TRADE WORK. REFER	모	SINGLE BUTTON, WALL MOUNTED SWITCH HEIGHT UNO.	PUSHBUTTON. MOUNT AT
	GROUND	3. SEE P&ID LEGEND SHEET F ABBREVIATIONS, AND PIPIN	FOR PROJECT-SPECIFI NG SYSTEM ABBREVIA	C EQUIPMENT SYMBOLS, EQUIPMENT TIONS.			
SPD	LOW VOLTAGE SURGE PROTECTIVE DEVICE						
	ELECTRICAL AND/OR CONTROL PANEL INTEGRAL OR PROVIDED WITH ASSOCIATED EQUIPMENT. SEE PLANS FOR PHYSICAL SIZING AS APPLICABLE.						
Ю	JUNCTION OR PULL BOX						
O Y 30	SPECIAL PURPOSE OUTLET. VERIFY SIZE AND TYPE WITH EQUIPMENT SUPPLIER. AMPACITY AS INDICATED OR AS NOTED OTHERWISE.						





412 E. PARKCENTER BLVD BOISE, ID 83706 208.387.7000

10/03/2022 ISSUE DATE ISSUE FOR BID DESCRIPTION

PROJECT MANAGER	BRAD BJERKE
DESIGNED BY	JOHN BARRUTIA
DRAWN BY	CALVIN BURTON
CHECKED BY	JOHN BARRUTIA
PROJECT NUMBER	10162649





UV INSTALLATION DRAWINGS

ELECTRICAL SHEET INDEX

8

E-001 ELECTRICAL COVER SHEET E-002 ONE-LINE AND NETWORK DIAGRAMS E-003 UV SYSTEM PLAN

7

ABBREVIATIONS

٨	
AFE	
AFG	
C 200	
CB	
00	CRASH CART
CKT	CIRCUIT
CI	
CM	
CO	CONDUIT ONLY PROVIDE PULL-LINE
CP	CONTROL PANEL
D	MECHANICAL DUCT-MOUNTED DEVICE
DC	DIRECT CURRENT
DET	DETAIL
(E)	EXISTING
ÈÉ	EXHAUST FAN
EL	EMERGENCY LIGHT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
F	FUSE
FACP	FIRE ALARM CONTROL PANEL
FVNR	FULL VOLTAGE NON-REVERSING
G/GND	GROUND
GFI	GROUND FAULT INTERRUPTION
GFP	GROUND FAULT PROTECTION
HH	HANDHOLE
HOA	HAND OFF AUTO
HVAC	HEATING, VENTILATING, & AIR CONDITIONING
ID	IN-DUCT
IC	INTERRUPTING CAPACITY
IG	ISOLATED GROUND
INT	INTERCOM
J/JB	JUNCTION BOX
KW	KILOWATT
KWH	KILOWATT HOUR
M	MAGNETIC CONTACTOR COIL
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MLO	MAIN LUGS ONLY
MS	MOTOR STARTER
MSB	
MIS	MANUAL TRANSFER SWITCH
N	
NEC	
NIC	
	OCCUPANCY SENSOR
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
PC	PHOTOCELL
PVC	POLYVINYL CHLORIDE
RCPT	RECEPTACLE
(R)	RELOCATED
(RE)	REPLACED
SEŔ	SERVICE ENTRANCE RATED
SF	SUPPLY FAN
SPST	SINGLE POLE SINGLE THROW
ТС	TIME CLOCK
TDR	TIME DELAY RELAY
TJB	TERMINAL JUNCTION BOX
TSP	TWISTED SHIELDED PAIR
TTB	TELEPHONE TERMINAL BOARD
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
VA	VOLT AMPERE
VFD	VARIABLE FREQUENCY DRIVE
WG	PROVIDE PROTECTIVE WIRE GUARD
WP	WEATHER PROOF/NEMA 3R
XFMR	IRANSFORMER

D

С

В

А

ELECTRICAL COVER SHEET

FILENAME SCALE







10/03/2022 **ISSUE DATE**

ISSUE FOR BID DESCRIPTION

4

6

PROJECT MANAGER	BRAD BJERKE
DESIGNED BY	JOHN BARRUTIA
DRAWN BY	CALVIN BURTON
CHECKED BY	JOHN BARRUTIA
PROJECT NUMBER	10162649





UV INSTALLATION DRAWINGS

(#)

KEY NOTES:

- 1. FURNISH AND INSTALL NEW CIRCUIT BREAKERS SIZED AS SHOWN IN EXISTING SQUARE D MODEL 6 MOTOR CONTROL CENTER, 'MCC-D'. MODIFY MCC SPACES AS NEEDED FOR INSTALLATION. PROVIDE NEW DOOR COVER AND NAMEPLATE FOR EACH NEW CIRCUIT BREAKER.
- 2. SIGNALS BETWEEN EXISTING UV PANEL AND FILTER PLC ARE ANALOG AND DIGITAL, HARD-WIRED CONNECTIONS CONSISTING OF UV WEIR TOTALIZATION, UV BANK 1A ON, UV BANK 1B ON, UV BANK 1C ON, AND UV MAJOR ALARM.
- 3. TRANSFORMER SHALL BE 480V DELTA 480Y/277V ISOLATION TRANSFORMER IN NEMA 3R ENCLOSURE WITH FULL CAPACITY 2.5% VOLTAGE TAPS, WITH 2 ABOVE, 2 BELOW NORMAL VOLTAGE RATING. PROVIDE WITH WALL BRACKETS AND VIBRATION ISOLATORS TO MINIMIZE AND ISOLATE SOUND TRANSMISSION.
- 4. ENCLOSED MOLDED CASE THERMAL MAGNETIC CIRCUIT BREAKER. SHALL BE 480 VOLTS, 3-PHASE, MINIMUM SCCR OF 42kA, AND BE SUITABLE FOR 75°C RATED CONDUCTORS WITHOUT DERATING BREAKER OR CONDUCTOR AMPACITY. PROVIDE IN NEMA TYPE 1 ENCLOSURE BELOW TRANSFORMER MOUNTED ON THE WALL.

D

Α

В

ONE-LINE & NETWORK DIAGRAMS

FILENAME SCALE







208.387.7000

10/03/2022 **ISSUE DATE**

ISSUE FOR BID DESCRIPTION

PROJECT NUMBER	10162649

JOHN BARRUTIA

CHECKED BY





GENERAL NOTES:

- 1. NUMBER ADJACENT TO HOME RUN INDICATES POLE POSITION WITHIN PANEL TO WHICH DEVICES SHALL BE CIRCUITED.
- 2. INSTALL ALL OWNER-SUPPLIED UV EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS.

KEY NOTES:

D

#

- 1. EXISTING UV CONTROL PANEL TO BE DEMOLISHED AFTER NEW UV SYSTEM IS OPERATIONAL.
- 2. ROUTE CABLE TRAY DOWN TO FLOOR TO PROVIDE COMPLETE RACEWAY BETWEEN LCP-01 AND ALL UV JUNCTION BOXES FOR OWNER-FURNISHED UV LAMP CABLES. CABLE TRAY TO BE INSTALLED A MINIMUM OF 10' AFF BEFORE HORIZONTAL TRAVEL.
- 3. UTILIZE SPARE 15A/1P BREAKER IN EXISTING PANEL LPD.
- 4. LEVEL TRANSMITTER SHALL BE E&H PROSONIC S FMU90-R21CB212AA1A TRANSMITTER OR APPROVED EQUAL. LEVEL SENSOR SHALL BE E&H PROSONIC S FDU90-2W00/0 OR APPROVED EQUAL.
- 5. FURNISH AND INSTALL 24VDC POWER BLOCK AS REQUIRED FOR LEVEL TRANSMITTER POWER SUPPLY. SEE CABLE SCHEDULE.
- 6. MOUNT TRANSFORMER ABOVE AIR COMPRESSOR ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
- 7. ENCLOSED CIRCUIT BREAKER, SEE ONE-LINE DIAGRAM.

HAILEY UV CABLE SCHEDULE				
SERVICE	CONNECTION TO	CONDUCTORS / CABLE IN 3/4"C (MIN)		
JV CHANNELS A AND B ULTRASONIC FLOW MEASUREMENT				
CHANNEL FLOWS	(E) FILTER UV PLC	2#18 TSP		
24VDC POWER	(E) FILTER UV PLC	2#14, 1#14G		
JV CHANNEL A HIGH/LOW LEVEL PROBE				
EVEL ALARMS	LCP-01	2#14, 1#14G		
JV CHANNEL B HIGH/LOW LEVEL PROBE				
EVEL ALARMS	LCP-01	2#14, 1#14G		
JV CHANNEL A ACTUATED SLIDE GATE				
STATUS/CONTROL	LCP-01	9#14, 1#14G		
JV CHANNEL B ACTUATED SLIDE GATE				
STATUS/CONTROL	LCP-01	9#14, 1#14G		
SYSTEM COMMUNICATION				
ALARMS	LCP-01	1"C - 20#14, 1#14G		
FLOW	LCP-01	1#18 TSP		
COMMUNICATION	LCP-01	1#CAT6A		
JVT MONITOR				
JV TRANSMITTANCE	LCP-01	1#18 TSP		
ALARM	LCP-01	2#14, 1#14G		
JV CHANNEL A JUNCTION BOX				
STATUS/CONTROL	LCP-01	9#14, 1#14G		
WIPER SOLENOID	LCP-01	OWNER-FURNISHED		
JV SENSOR	LCP-01	OWNER-FURNISHED		
AIR PRESSURE SIGNAL	LCP-01	OWNER-FURNISHED		
		OWNER-FURNISHED VIA		
AMP CABLES & MODULE GROUNDING	LCP-01	CABLE TRAY		
JV CHANNEL B JUNCTION BOX				
STATUS/CONTROL	LCP-01	9#14, 1#14G		
NIPER SOLENOID	LCP-01	OWNER-FURNISHED		
JV SENSOR	LCP-01	OWNER-FURNISHED		
AIR PRESSURE SIGNAL	LCP-01	OWNER-FURNISHED		
		OWNER-FURNISHED VIA		
AMP CABLES & MODULE GROUNDING	LCP-01	CABLE TRAY		

UV INSTALLATION DRAWINGS

E-003

UV SYSTEM PLAN

FILENAME

SCALE





412 E. PARKCENTER BLVD BOISE, ID 83706

208.387.7000

10/03/2022

ISSUE DATE

ISSUE FOR BID DESCRIPTION

	4		5			6	
US							
FAILURE							
ALARM ALARM ALARM ALARM							FI
							0
							0
							FI
ccc - + - + - + - + - + - + - + - + - + - +		◄ ─── 480V					
 ۲ ۱ ۲			+-+-+			МА	
	FUTURE JUNCTION E	ox—		LSH/LSL-101 1		<u> </u>	C
	FUTURE UV BANK			FINGER WEIR ASS	EMBLY 1		LE-
		- — ¬ 	 + +			SQUA	ARE WEIR
	EXISTING UV CHANNEL	<u>A</u>	+ + 	3" DRAIN LINE			
			। + ! 				
			+ 		г — І		
	FUTURE JUNCTION E	ox—		LSH/LSL-102 1)	
	FUTURE UV BANK —					LE-102	
		 				SQUA	ARE WEIF
			→				
	EXISTING UV CHANNEL	<u>B</u>		3" DRAIN LINE			

PROJECT MANAGER	BRAD BJERKE
DESIGN BY	B. BJERKE
DRAWN BY	E. SJOBERG
CHECKED BY	P. URSILLO
PROJECT NUMBER	10162649
	-





UV INSTALLATION DRAWINGS



8

7

 \rightarrow plant effluent

PROCESS AND INSTRUMENTATION DIAGRAM UV SYSTEM

FILENAME SCALE

Y-01

А