CITY OF FORT BRAGG WATER TREATMENT PLANT REHABILITATION PROJECT



ISSUED FOR BID NOVEMBER 2023











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			PROJECT MANAGER	ARASHDEEP SINGH
			DESIGNED	A. SINGH
			DESIGNED	
			CHECKED	T. KONTONICKAS
			DRAWN	P. VAN MEURS
	1.57		DATE	08/2023
0	08/2023	ISSUED FOR BID		
ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	10276484





City of Fort Bragg Water Treatment Plant Rehabilitation Project

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SCALE NONE

10276484 0G01.dw

GENERAL

COVER SHEET AND LOCATION MAPS

SHEET

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FILE: C:\pwworking\west DATE: 08/10/23 02:20:2

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SHEET LIST

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13.	X08	REACTOR CLARIFIER SECTIONS AND PHOTOS	ELECT	RICAL		
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28.	C12	DETAILS 2				
						
BUILDI	<u>NG</u>					

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29.	B01	WATER TREATMENT BUILDING ROOF REPLACEMENT PLAN AND ELEVATION
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33.	B05	CONTROL BUILDING ROOF AND FOUNDATION PLANS, SECTIONS AND DETAILS
34.	B06	WOOD FRAMING DETAILS

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CHECKED	T. KONTONICKAS
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City of Fort Bragg Water Treatment Plant Rehabilitation Project

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GENERAL SHEET LIST SHEET FILENAME 0G02.dwg G02 SCALE NONE

	1		2	3		4
A/C		CLJ		F&B	FACE & BYPASS	Г
A/E	ARCHITECT/ENGINEER	CLKG	CAULKING	F TO F	FACE TO FACE	i
A AB	AMP or ARCHITECTURAL (DWG DISCIPLINE)	CLR CLSM	CLEAR CONTROLLED LOW STRENGTH MATERIAL	FAB FB	FABRICATE FLOOR BEAM	
ABC	AGGREGATE BASE COURSE	CMH	COMMUNICATION MANHOLE	FBD	FIBERBOARD	i
ABAN		CMU		FBG		
AC	CURRENT	COL	COLUMN	FBO	FURNISHED BY OWNER	
ACK	ACKNOWLEDGE	COM	COMMON	FC	FLUSHING CONNECTION	11
ACP	ACOUSTIC CEILING PANEL or ASBESTOS CEMENT PIPE			FCA	FLANGED COUPLING ADAPTER	
ACST	ACOUSTIC	COMP	COMPOSITION or COMPOSITE	FD	FLOOR DRAIN	i ii
AD	AREA DRAIN or ADDENDUM	CONC		FDC	FLEXIBLE DUCT CONNECTION	
ADDL	ADHESIVE	CONN	CONNECTION	FDIN	FOUNDATION FLANGED END	
ADJ	ADJUSTABLE or ADJACENT	CONT	CONTINUATION or CONTINUOUS	FEC	FIRE EXTINGUISHER CABINET	II
	AMP FRAME OF AMP FUSE ABOVE FINISH FLOOR	CONTR	CONTRACTOR	FES FFXT	FLARED END SECTION FIRE EXTINGUISHER	
AFG	ABOVE FINISH GRADE	COR	CORNER	FF	FAR FACE or FACTORY FINISH or	
AGGR		CORR		FFF		
AIC	AREA INLET AMPS INTERRUPTING CAPACITY	CPLG	COUPLING	FG	FINISH FLOOR ELEVATION FINISHED GRADE	J
ALIG	ALIGNMENT	CPRSR	COMPRESSOR	FIG	FIGURE	J
ALUM ALT	ALUMINUM ALTERNATE or ALTITUDE	CRL CSC	CORROSION RESISTANT LINING COMPRESSION SEFEVE COUPLING	FH	FIRE HYDRANT FINISH	J
AM	ACOUSTICAL MATERIAL	CSK	COUNTERSINK	FJT	FLUSH JOINT	J
		CSS		FL	FLOW or FLOW LINE	J
AP	ACCESS PANEL	CTR	CENTER	FLG	FLANGE	
APRX	APPROXIMATE	CTRL	CONTROL	FLOR	FLUORESCENT	K
APVD	APPROVED ARCHITECTURAL	CV	CONTROL VALVE COPPER or CUBIC	FLR	FLOOR FLOW METER	
ASSY	ASSEMBLY	CW	CLOCKWISE	FN	FENCE	ĸ
AT ATC	AMP TRIP ACOUSTICAL THE CEILING	CY	CUBIC YARD	FO	FINISHED OPENING FLAT ON BOTTOM	
ATM	ATMOSPHERE			FOC	FACE OF CONCRETE or FACE OF CURB	
AUTO		d		FOF	FACE OF FINISH	Ι.
AVE	AVENUE	DB	DUCT BANK or DECIBEL or DRY BULB	FON	FACE OF MASONRY FACE OF STUDS	
AVG	AVERAGE	DBA	DEFORMED BAR ANCHOR	FOT	FLAT ON TOP	Ļ
AWG AWT	AMERICAN WIRE GAGE ACOUSTICAL WALL THE	DBL	DOUBLE DIRECT CURRENT	FP1 FR	FEMALE PIPE THREAD FRAME	
		DEG	DEGREE	FRP	FIBERGLASS REINFORCED PLASTIC	Ī
B TO B	ΒΑCΚ ΤΟ ΒΑCΚ	DEG C		FRTM	FIRE RETARDANT TREATED MATERIAL	
BAL	BALANCE	DEG P	DEGREE FARENHEIT	FT	FEET or FOOT	
BBD	BULLETIN BOARD	DEP	DEPRESSED	FTG	FOOTING OF FITTING	L
ВС	BOLT CENTER or BOLT CIRCLE	DEPT	DEPARIMENT	FTW	FILTER TO WASTE	
BD	BOARD	DF	DOUGLAS FIR	FURN	FURNITURE or FURNISH	L
BF	BOTH FACES OF BOTTOM FACE OF BLIND FLANGE OF BOARD FEET		DROP INLET OR DUCTILE IRON	FUT FW	FUTURE FIELD WELD or FIRE WALL	
BFLY	BUTTERFLY	DIAG	DIAGONAL or DIAGRAM	FWD	FORWARD	Ĺ
BFV	BUTTERFLY VALVE	DIFF		FWE		
BL	BASE LINE	DIM	DIMENSION DISCHARGE	FAIR	FIATORE	
BLDG	BUILDING	DIST	DISTANCE or DISTRIBUTION			L
BLKG	BLOCK		DIVISION DEAD LOAD	G	GENERAL (DWG DISCIPLINE)	
BM	BENCHMARK or BEAM	DMJ	DOUBLE MECHANICAL JOINT	GA	GAGE (METAL THICKNESS)	Ĺ
BOC	BACK OF CURB BOTTOM OF DUCT	DN		GAL GALV	GALLON GALVANIZED	
BOG	BOTTOM OF GRILLE	DP	DEPTH	GB	GRAB BAR or GRADE BREAK	ι
BOL	BOTTOM OF LOUVER	DPDT	DOUBLE POLE, DOUBLE THROW	GC	GROOVED COUPLING	
BOR	BOTTOM OF PIPE BOTTOM OF REGISTER	DPST	DOUBLE POLE, SINGLE THROW DOWN SPOUT	GEN	GENERAL	
BOT	BOTTOM	DT	DOUBLE TEE or DRIP TRAP ASSEMBLY	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	L
BDU	BOTTOM OF UNIT BASE PLATE	DUP		GFMU GG	GROUND FACE MASONRY UNIT GUTTER GRADE	
BRG	BEARING	DWL	DOWEL	GJ	GROOVED JOINT	Ī
BRGP BRKT	BEARING PLATE	DWR	DRAWER	GL GLB	GLASS GLASS BLOCK	
BS	BOTH SIDES			GND	GROUND	N
BTU	BRITISH THERMAL UNIT	E	EAST or ELECTRICAL (DWG DISCIPLINE)	GP	GUY POLE	N
BTWLD	BUTT WELD	EA EC	EACH OF EXHAUST AIR ELECTRICAL CONTRACTOR	GRTG	GRADE	N
BU	BELL UP or BUILT UP	ECC	ECCENTRIC	GSP	GALVANIZED STEEL PIPE	N
BW	BOILT-OP ROOFING BOTH WAYS	ED EDB	EQUIPMENT DRAIN FLECTRICAL DUCT BANK	GVL	GREASE TRAP GRAVEL	N
BYP	BYPASS	EE	EACH END	GWB	GYPSUM WALLBOARD	N
			EACH FACE EFFLUENT or EFFICIENCY	GTP	GTFOUNI MAKUBUAKU	
C TO C		EHH	ELECTRICAL HANDHOLE			
C&G C	CURD & GUITER CHANNEL (SHAPE) or CENTIGRADE or	EIFS	EXTERIOR INSULATION & FINISH SYSTEM	H HB	HIGH HOSE BIB	
C	CONDUIT or CIVIL (DRAWING DISCIPLINE)	EJ	EXPANSION JOINT	HBD	HARDBOARD	N
CAB		EL		HC		N N
CAT	CATALOG	ELEC	EMBEDDED	НС	HOSE CONNECTION	N
CAV	CAVITY	EMER	EMERGENCY	HDR	HEADER	N
CB CCB	CONCRETE BLOCK	EMH ENCI	ELECTRICAL MANHOLE	HDW	HARDWARE HEXAGONAL	N N
CCW	COUNTER CLOCKWISE	ENGR	ENGINEER	HGR	HANGER	N
CDF CF	CONTROLLED DENSITY FILL CONCRETE EDGE	ENTR	ENTRANCE EDGE OF RAVEMENT	HH HID	HANDHOLE HIGH INTENSITY DISCHARGE	
CER	CERAMIC	EQ	EQUAL	HM	HOLLOW METAL	N
CF	CUBIC FEET (FOOT)	EQUIP		HORIZ	HORIZONTAL HIGH POINT of HORSEPOWER	N ∧
CHFR	CHAMFER	EQUIV	EACH SIDE or EQUAL SPACE or	HPC	HORIZONTAL POINT OF CURVATURE	N N
	CHALKBOARD	FOEM	EMERGENCY SHOWER	HPS		N
СНИ		ESEW EST	EMERGENCY SHOWER AND EYE WASH ESTIMATE	HR	HORIZONTAL POINT OF TANGENCY HOSE REEL or HOUR	N N
CI	CURB INLET	EW	EACH WAY or EMERGENCY	HS	HEADED STUD or HIGH STRENGTH	
CIP CIPR	CAST-IN-PLACE	EWC		HSS HT	HOLLOW STRUCTURAL SHAPE HEIGHT	
	PAVER BALLAST	EWEF	EACH WAY, EACH FACE	HTG	HEATING	N
CIRC		EWTB	EACH WAY, TOP AND BOTTOM	HV		N N
CKT	CIRCUIT	EXC EXH	EXCAVATION EXHAUST	TVAC	AIR CONDITIONING	N N
CL	CENTERLINE or CLASS or CLOSE	EXIST	EXISTING			Ν
ULG	CEILING	EXP EXT	EXPANSION or EXPOSED EXTERIOR or EXTERNAL or EXTENSION	HYD	HIGH WATER LEVEL HYDRAULIC	
				HZ	HERTZ, CYCLES PER SECOND	
		U		1	PROJECT MANAGER ARASHDEEP SI	NGH

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FJS

DESIGNED	A. SINGH
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INSTRUMENTATION (DWG DISCIPLINE) INSIDE DIAMETER or INTERIOR DIMENSION INVERT ELEVATION INSIDE FACE INTAKE HOOD IMPACT INCH INCLUDE or INCANDESCENT INFLUENT INSTRUMENTATION INSULATION INTERIOR or INTERSECTION INTERIOR or INTERSECTION INTERMEDIATE or INTERIOR INVERT IRON PIPE SIZE	N NA NC NEG NF NIC NO NOM NPS NPT NS NTS NWL
INTERNAL PIPE THREAD INSIDE RADIUS IRRIGATION ISOMETRIC JUNCTION BOX JUNCTION BOX JUNCTION JOINT FILLER JUNCTION MANHOLE JOIST JOINT KIP KNEE BRACE THOUSAND CIRCULAR MILS KNOCK DOWN KNOCK OUT KIPS PER SQUARE INCH	O TO O OA OC OCPD OE OF OF OF OP OP OP OP OP OR ORD ORIG OVFL OVHG OZ
ANGLE (SHAPE) or LENGTH or LAVATORY LADDER LAMINATE LATERAL LAGE BOLT or POUND LIQUID CHALK AND TACK BOARD LANDING LEADER LIFTING EYE LARGE END MECHANICAL JOINT LINEAR FOOT LONG LEFT HAND LINEAR LIQUID LONG LEG HORIZONTAL LONG LEG HORIZONTAL LONG LEG VERTICAL LIQUID MARKER LECTURE UNIT LONGITUDINAL LOCATION LOW POINT LOW PRESSURE SODIUM LONG RADIUS LEFT LIMITED LIGHTING LOVER LIGHTING LOVVER LIGHTWEIGHT COVVER LIGHTWEIGHT COVVER LIGHTWEIGHT COVVER LIGHTWEIGHT LIGHTWEIGHT CONCRETE LOW WATER LEVEL MECHANICAL (DWG DISCIPLINE) MIXED AIR MANUAL MATERIAL MAXIMUM MACHINE BOLT MEMBER MECHANICAL COUPLING (RESTRAINED UNO) METAL CORNER BEAD MASONRY CONTROL JOINT MODIFIED DOUBLE MECHANICAL JOINT MECHANICAL MANUAC MANUFACTURER MANUACE MANUAL MANUFACTURER MANHOLE OT METAL HALIDE MINIMUM MIRROR MISCELLANEOUS	P PAR PBD PCC PCF PEDN F PERR PF PF PERR PF PF PF PF PF PF PF PF PF PF PF PF PF
MECHANICAL JOINT MECHANICAL JOINT AND PLAIN END MAIN LUGS ONLY MEMBRANE MASONRY OPENING MODULAR or MODIFY MONUMENT MALE PIPE THREAD MOISTURE RESISTANT GYPSUM WALLBOARD MOP SINK MEAN SEA LEVEL MOUNT MASONRY UNIT MULLION MEDIUM VOLTAGE MONITORING WELL	QUAL R&R R&S R RA RB RCPT RD REC RECD RECT RED

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ID

IE IF IH IMP

IN INC INF INSUL INT INTR INV IPS IPT IR IRR ISO

JB JCT JF JMH JST JT

k Kb Kcmil Kd Ko Ksi

L

LAD LAM LATL LB LCTB LDG LDR LEMJ LF LG LH LIQ LUP LPS LR LT LTD LTG LV LVR LWC LWL

M MACH MAINT MAN MATL MAX MB MBR MC

MCB MCJ MECH MED MFR MH MIN MIR MISC MJ MJ&PE MLO MMB MO MOD MOD MON MPT MRGWB

MS MSL MU MULL MV MW





City of Fort Bragg Water Treatment Plant Rehabilitation Project

NORTH or NEUTRAL NOT APPLICABLE NATURAL NORMALLY CLOSED NEGATIVE NEAR FACE or NON-FUSED NOT IN CONTRACT NORMALLY OPEN or NUMBER NOMINAL NOMINAL PIPE SIZE NATIONAL PIPE THREAD NEAR SIDE NOT TO SCALE NORMAL WATER LEVEL	REF REINF REQD RESIL RET REV RF RFCA RFL RGH RGS RGS-PVC RH
OUT-TO-OUT OUTSIDE AIR or OVERALL ON CENTER OVER CURRENT PROTECTION DEVICE OUTSIDE DIAMETER OPEN END DUCT OUTSIDE FACE or OFFICE FURNISHING ORIGINAL GROUND OVERHEAD OPENING OPPOSITE OPTIONAL	RL RLFA RND RNG RO ROW RPM RR RSP RT RVT RY
OUTSIDE RADIUS OVERFLOW ROOF DRAIN ORIGINAL OVERFLOW OVERHANG OUNCE	S SA SAMU SAN SB
PAINT or PROCESS (DWG DISCIPLINE) PUBLIC ADDRESS PARALLEL or PARAPET PULL BOX or PANIC BAR PARTICLE BOARD POINT OF CURVE or PIECE or PRECAST POINT OF COMPOUND CURVATURE POUNDS PER CUBIC FOOT PERCENT PLAIN END PEDESTAL PENETRATION PERFORATED PERMANENT PERPENDICULAR POWER FACTOR PREFACED MASONRY UNIT PHASE POINT OF INTERSECTION PACKAGE PLATE or PROPERTY LINE PLASTER	SC SCH SCHEM SCN SDMH SE SEC SECT SEMJ SEP SF SG SH SHT SHTG SIL SIM SL SLTD SLV SMLS SOG SP
PLATFORM PLUMBING POUNDS PER LINEAR FOOT PNEUMATIC POLISH POSITIVE or POSITION POWER POLE or POLYPROPYLENE POINT OF REVERSE CURVATURE PREFINISHED PREFABRICATED PRELIMINARY PREPARE PRESSURE PRIMARY PROPERTY PROTECTION PIPE SUPPORT POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH POUNDS PER SQUARE INCH ABSOLUTE POUNDS PER SQUARE INCH GAGE PRESTRESSED POINT or POINT OF TANGENCY PARTITION POLYVINYL CHLORIDE PAVEMENT PLYWOOD	SPA SPEC SPLY SPST SPT SQ SR SS SST STA STD STIF STIR STL STOR STR SUB SUC SUSP SY SYM SYM SYN SYS
PLYWOOD PLYWOOD WEB JOIST PIEZOMETER RATE OF FLOW QUARRY TILE QUARTER QUANTITY QUALITY REMOVE AND REPLACE REMOVE AND SALVAGE RADIUS or REGISTER or RISER	T&B T&G T TA TAN TBM TCE TEF TEMP THD THR THRESH THRU
RETURN AIR RESILIENT BASE or ROCK BERM RECEPTACLE ROOF DRAIN RECESS RECEIVED RECTANGULAR REDUCER	TOB TOC TOD TOF TOG TOL

6

TOC TOD TOF TOL TOM TOP TOPO TOS TOW

7		8	
REFERENCE	TP	TOILET PARTITION or TELEPHONE POLE	
REINFORCING REMOVE	TPD	or TOE PLATE or TRAP PRIMER TOILET PAPER DISPENSER	
REQUIRED	TPG	TOPPING	
	TRANS	TRANSOM TRANSITION or TRANSVERSE	
REVISION or REVERSE RESILIENT ELOORING	TRD TYP	TRENCH DRAIN	
RESTRAINED FCA			
REFLECTED of REFLECTOR ROUGH	U	URINAL	
RIGID GALVANIZED STEEL	UG		
RELIEF HOOD or RIGHT HAND or	UNFN	UNFINISHED	D
RELATIVE HUMIDITY REQUIRED LAP	UNO UTIL	UNLESS NOTED OTHERWISE UTILITY	
RUNNING	V	VENT or VELOCITY or VOLT	
ROUGH OPENING RIGHT OF WAY	VA VAC	VOLT AMPERE VACUUM	
REVOLUTIONS PER MINUTE	VAR		
ROCK SLOPE PROTECTION	VB	VAPOR BARRIER or VINYL BASE or	
RIGHT RESILIENT VINYL TILE	VC	VALVE BOX VERTICAL CURVE	
READY	VCP	VENTILATION CONTROL PANEL	
	VCI	VERTICAL CENTERLINE	
SOUTH or SINK or STRUCTURAL (DWG DISCIPLINE)	VEL VENT	VELOCITY VENTILATION	
SUPPLY AIR	VERT	VERTICAL	
SOUND ABSORBING MASONRY UNIT SANITARY	VG VIF	VERTICAL GRAIN VERIFY IN FIELD	
SPLASH BLOCK	VIN	VINYL	
SCHEDULE	VOL	VOLUME	
SCREEN	VPC VPI	VERTICAL POINT OF CURVATURE VERTICAL POINT OF INTERSECTION	
STORM DRAIN MANHOLE STEEL/ALUMINUM EDGE	VPT	VERTICAL POINT OF TANGENCY	
SECONDARY or SECONDS	VWC	VINYL WALL COVERING	С
SECTION SMALL END MECHANICAL JOINT			
SEPARATE SQUARE FOOT	W/	WITH	
SHEET GLASS or SEALANT GROOVE	W	WATT or WEST or WIDE or WINDOW or	
SHOWER SHEET	WB	WIRE or WIDE FLANGE BEAM WOOD BASE	
SHEATHING SILENCE	WC	WATER CLOSET or WATER COLUMN	
SIMILAR	WF	WIDE FLANGE or WASH FOUNTAIN	
SLOPE SLOTTED	WG WH	WIRE GLASS or WATER GAGE	
SLEEVE SEAMLESS	WI	WROUGHT IRON	
SLAB ON GRADE	WLD	WATER LEVEL WELDED	
SOUNDPROOF of STANDPIPE STRUCTURAL/PROCESS (DWG DISCIPLINE)	WM WP	WIRE MESH WATERPROOF or WORKING POINT	
SPACING	WPCP	WATER POLLUTION CONTROL PLANT	
SUPPLY	WIHP	WATERSTOP or WATER SURFACE	
SINGLE POLE, SINGLE THROW SET POINT	WSCT WSP	WAINSCOT WEI DED STEEL PIPE	
SQUARE SHORT RADIUS	WT		
SERVICE SINK		WELDED WIRE FADRIC	
STAINLESS STEEL STREET	XFMR	TRANSFORMER	
STATION STANDARD	XP	EXPLOSION PROOF	В
STIFFENER	XXS	DOUBLE EXTRA STRONG	
STEEL	XSECT	CROSS SECTION	
STORAGE STRUCTURAL or STRAIGHT	VLI		
SUBSTITUTE	YS	YIELD STRENGTH	
SUSPENDED			
SQUARE YARD SYMBOL			
SYMMETRICAL			
SYSTEM	GENE	RAL NOTES:	
	1 -		
TOP AND BOTTOM TONGUE AND GROOVE	I. II SI	ET OF CONTRACT DRAWINGS.	
TILE OF TREAD	2. LI	STING OF ABBREVATIONS DOES NOT IMPLY	
TANGENT	A	LL ABBREVIATIONS ARE USED IN THE	
TEMPORARY BENCHMARK TEMPORARY CONSTRUCTION EASEMENT		UNTRACT DRAWINGS.	
	3. Al IN	BBREVIATIONS SHOWN ON THIS DRAWING ICLUDE VARIATIONS OF THE WORD, FOR	
THREAD	E	XAMPLE, "MOD" MAY MEAN MODIFY OR	
THICK THRESHOLD	IN IN	ICLUDING; "REINF" MAY MEAN EITHER	
THROUGH TACK BOARD	R	EINFORCE OR REINFORCING.	Α
TOP OF BOLT or TOP OF BANK or	4. <u>S</u>	CREENING OR SHADING OF WORK IS USED	
TOP OF BEAM TOP OF CURB or TOP OF CONCRETE		E-EMPHASIZE PROPOSED IMPROVEMENTS TO	
	H	IGHLIGHT SELECTED TRADE WORK. REFER TO	
TOP OF GRATING			
TOLERANCE or TOP OF LEDGER TOP OF MASONRY	э. S S	YSTEMS DRAWING FOR SYMBOLS AND	
	A	BBREVIATIONS SPECIFIC TO THE PROJECT.	
TOP OF SLAB or TOP OF STEEL			
TOP OF WALL			

GENERAL

ABBREVIATIONS

FILENAME 0G03.dwg SCALE NONE

SHEET

G03

1	2 3	4	5	6
SITE PLAN SYMBOLOGY	PIPING SY	YMBOLOGY	GENERAL SYMBOLOGY	
	NOTES:	MISCELLANEOUS (CONTINUED)	ARROW INDICATES	EQUIPMENT TAG NUMB
EMBANKMENT SLOPE	1. VALVE TYPES FOR VALVES 4" AND LARGER ARE INDICATED BY SYMBOLOGY SHOWN BELOW. VALVES 3-1/2" AND SMALLER		DIRECTION OF N PLAN NORTH	
			PLAN	SERVICE ABBREVIATION
VEGETATION	FOR REQUIREMENTS.		1/4" = 1'-0"	EQUIPMENT
	2. SYMBOLOGY SHOWN IS FOR SINGLE LINE PIPING. DOUBLE LINE PIPING SYMBOLS ARE SIMILAR.	C QUICK DISCONNECT CAM & GROOVE COUPLING	SECTION LETTER	
	VALVES	CAP or PLUG	FLAG INDICATES DIRECTION OF SECTION CUT	NUMBER
	GATE VALVE	OCO INTERIOR CLEANOUT		EQUIPMENT ABBREVIA
	GLOBE VALVE	HB-X HOSE VALVE, HOSE BIBB OR	SECTION VIEW IS LOCATED	
		FLUSHING CONNECTION	SECTION CUT MARKER	ABSP AERATION BAS AC AIR COMPRES
		HOSE RACK	SECTION LETTER	B BLOWER BLR BOILER
		FD-X FLOOR DRAIN		CBSG CONTACT BAS
		X = TYPE DESIGNATED IN SPECIFICATIONS	* SHEET WHERE	CBSLG CONTACT BAS
		PIPE IN SECTION	FIRST CUT	CST CONDENSATE
FH FIRE HYDRANT		O ^{BU} BELL UP (PLAN)	DETAIL <u>NUMBER</u>	DMXP DIGESTER MIX
YH-X YARD HYDRANT		BU BELL UP (SECTION OR SCHEMATIC)	* SHEET WHERE	EC EVAPORATIVE EF EXHAUST FAN
X 75.5 EXISTING SPOT ELEVATION			DETAIL IS LOCATED	EXPT EXPANSION TA
75.8 FINISHED SPOT ELEVATION			DETAIL MARKER	FE FLOW ELEMEN
CONTROL POINT		ATA AIR TOOL ASSEMBLY		FM FLOW METER FS FLOW SWITCH
BENCHMARK		AVS AUTOMATIC VALVE STATION	$\frac{\pi}{XXX} 1" = 1'-0"$	FZ FREEZE STAT
		PRS PRESSURE REDUCING STATION	* SHEET WHERE DETAIL WAS TAKEN	GUH GAS UNIT HEA
TH-"X" LOCATION OF SOIL TEST HOLE		PLUMBING PIPING:	ELEVATION LETTER	HC HEATING COIL HEX HEAT EXCHAN
		VT VENT (VT)	ARROW INDICATES	HOA HAND OFF AU
NOTES:	∇X AIR RELIEF / VACUUM VALVE A = AIR RELIEF			HWBP HOT WATER B HWLP HOT WATER L
1. UTILITIES THAT ARE SUSPENDED ABOVE GRADE ARE DESIGNATED BY THE PREFIX "OH".			* SHEET WHERE	HWP HOT WATER P
	PRESSURE REGULATING VALVE			HWUH HOT WATER U
TELEPHONE LINE		MATERIALS IN PLAN/SECTION	SINGLE ELEVATION OR PHOTO MARKER	L LOUVER MAU MAKE-UP AIR
ELECTRIC LINE			ELEVATION LETTER	MOV MOTOR OPER
F-F-F-FIBER OPTIC			ARROW INDICATES POINT OF VIEW ELEVATION	P PUMP
COMMUNICATION		CONCRETE	INDICATES SHEET WHERE	PF POLYMER FEE PI PRESSURE IN
	MISCELLANEOUS	CONCRETE FILL	A-11 ELEVATION IS LOCATED	PRV PRESSURE RE
PIPELINE		MASONRY (CMU)	MULTIPLE ELEVATION OR PHOTO MARKER	SEP SEPARATOR (
		BRICK (SECTION)		SF SUPPLY FAN SG SLIDE GATE
— — — — — — PIPELINE BENEATH CONCRETE OR STRUCTURE	PROPELLOR FLOW METER			SMP SUMP PUMP
			$\frac{x'}{xxx} = \frac{1}{1} = 1$	TC TEMPERATUR
	WYE-STRAINER	GRANULAR FILL		TCV TEMPERATUR
DRAINAGE FLOW		SAND	POINT OF VIEW MARKER CAN BE FOUND	TI TEMPERATUR
NATURAL WATERWAY	LINE SIZE CHANGE (CONCENTRIC REDUCER)	EARTH	* IF PLAN AND SECTION, OR DETAIL CALL-OUT AND	TT TEMPERATUR
——————————————————————————————————————	LINE SIZE CHANGE (ECCENTRIC REDUCER)	METAL (SECTION)	DETAIL ARE SHOWN ON SAME SHEET, DRAWING NUMBER IS REPLACED BY A LINE (-).	
— — X— — – X— — FIELD FENCE	C+ LINE TURNING DOWN	GRATING (PLAN)		
PROPERTY LINE	⊙+ LINE TURNING UP		KEYNOTE NUMBER	
CENTERLINE	BLIND FLANGE			
	PIPE JOINT (SEE SPECS FOR REQUIREMENTS)			
	GROOVED COUPLING (VICTAULIC OR EQUAL)			
		BATT INSULATION		
		WOOD - CONTINUOUS		
		WOOD - NON CONTINUOUS		
		PLYWOOD		

3/2023	ISSUED FOR BID		
-			

FJS

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	
CHECKED	T. KONTONICKAS
DRAWN	P. VAN MEURS
DATE	08/2023
PROJECT NUMBER	10276484





City of Fort Bragg Water Treatment Plant Rehabilitation Project

7		8		
IDENTIFICATIO	N SYMB	OLOGY]
IUMBERS:	PIPING:			
NPWP-23 INDICATES NON POTABLE WATER INDICATES PUMP	FIGURE		EXAMPLE — 30" DIAMETER — SECONDARY	
PUMP 23			INFLUENT	
EVIATIONS:	PIPE SER	RVICES:		
ON BASIN STOP PLATE MPRESSOR R CT BASIN STOP GATE	AS BWS BWW CD CLS	AIR SCOUR BACKWASH SUPPLY BACKWASH WASTE CLARIFIER DRAIN CHLORINE SOLUTION		
CT BASIN SLUICE GATE CT BASIN WEIR GATE NSATE & SEDIMENT TRAP R MOTOR R MOTOR ER MIXING PUMP RATIVE COOLER ST FAN SION TANK ARRESTER ELEMENT METER SWITCH E STAT RESSURE REGULATOR NIT HEATER IG COIL EXCHANGER OFF AUTO ATER BOOSTER PUMP ATER DOUP PUMP	D FTW FW G HPA HWR HWS LPA NaOCI NG NPW OF PW RR RW SAM SD SS TW V	DRAIN FILTER-TO-WASTE FINISH WATER NATURAL GAS HIGH PRESSURE AIR HOT WATER RETURN HOT WATER SUPPLY LOW PRESSURE AIR SODIUM HYPOCHLORITE NATURAL GAS NON-POTABLE WATER OVERFLOW POTABLE WATER RECLAIM RETURN RAW WATER SAMPLE STORM DRAIN SANITARY SEWER TREATED WATER VENT WATER MAIN		С
ATER PUMP ATER BOILER RECIRCULATION PUMP ATER UNIT HEATER R JP AIR UNIT COPERATED VALVE STARTER ER FEED UNIT URE INDICATOR URE REDUCING VALVE DETECTOR ATOR (AIR) Y FAN GATE PUMP IOSTAT or TANK RATURE CONTROLLER RATURE CONTROL VALVE	v	WATER MAIN		в
FER FAN RATURE INDICATOR FER PUMP RATURE TRANSMITTER		CTURAL: ROOM NUMBER X DOOR NUMBER X COLUMN GRID LINE L XX	WALL TYPE WINDOW TYPE LOUVER	
	GENERAL NOTES: 1. THIS IS / SYMBOL ON THIS 2. SCREEN EXISTING IMPROVI	NOTES: A STANDARD DRAWING SHOWING O .OGY. ALL SYMBOLS ARE NOT NECH PROJECT. IING OR SHADING OF WORK IS USE G COMPONENTS OR TO DEEMPHAS EMENTS TO HIGHLIGHT SELECTED	COMMON ESSARILY USED D TO INDICATE SIZE PROPOSED TRADE WORK.	
	REFER T		DR USAGE.	



SYMBOLS LEGEND



FILENAME0G04.dwgSCALENONE

SHEET

G04



	2

FILE: C:\pwworking\west DATE: 08/10/23 02:21:2

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
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City of Fort Bragg Water Treatment Plant Rehabilitation Project

BWS	BACKWASH SUPPLY
BWW	BACKWASH WASTE
CL2	CHLORINE SOLUTION
COAG	COAGULANT
FTW	FILTER-TO-WASTE
FW	FINISH WATER
RR	RECLAIM RETURN
RW	RAW WATER
TW	TREATED WATER (FILTERED)



R



0	08/2023	ISSUED FOR BID	
ISSUE	DATE	DESCRIPTION	

PROJECT NUMBER 10276484

DRAWN

DATE

P. VAN MEURS

08/2023





City of Fort Bragg Water Treatment Plant Rehabilitation Project

FILENAME

2X01.dwg **SCALE** 1" = 40'

SHEET

X01



/d/ 80 FILE: C DATE:

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	
CHECKED	T. KONTONICKAS
DRAWN	P. VAN MEURS
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City of Fort Bragg Water Treatment Plant Rehabilitation Project

NOTES:

- 1. CONTRACTOR SHALL PERFORM SURVEYING, AS NECESSARY, TO PROVIDE RELEVANT AS-BUILT INFORMATION TO POND LINER MANUFACTURER. COORDINATE WITH LINER MANUFACTURER TO UNDERSTAND THEIR SURVEYING NEEDS.
- 2. CONTRACTOR IS RESPONSIBLE FOR DRAINING THE LAST 12-INCHES OF WATER AND PREPARING THE SUBGRADE AS NECESSARY TO FACILITATE LINER INSTALLATION.
- 3. CONTRACTOR SHALL EXPECT WATER SEEPAGE IN THE EMBANKMENT AND POND BOTTOM. CONTRACTOR IS RESPONSIBLE FOR MAKING NECESSARY ACCOMMODATIONS FOR SATISFACTORY LINER INSTALLATION, WHICH MAY INCLUDE DEWATERING APPARATUS AND SUBSURFACE DRAINAGE SUCH AS WRAPPED CRUSHED ROCK TO CONVEY WATER AWAY FROM THE LINER SURFACE.

⁵ PHOTOGRAPH

DEMOLITION

SITE PHOTOS

SCALE AS NOTED

SHEET

X02

D

FILE: DATE

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	
CHECKED	T. KONTONICKAS
DRAWN	P. VAN MEURS
DATE	08/2023
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0 ISSUE	08/2023 DATE	ISSUED FOR BID	

FILE: C:\pwworkin DATE: 08/10/23

1

2

PROJECT MANAGER	ARASHDEEP SINGH
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City of Fort Bragg Water Treatment Plant Rehabilitation Project

WATER TREATMENT BUILDING PLAN AND PHOTOS SHEET FILENAME 2X04.dwg X04 **SCALE** 1/4" = 1'-0"

4

DEMOLITION

PHOTOGRAPH

PHOTOGRAPH

<u>GENERAL NOTE:</u> PHOTOGRAPHS ARE INCLUDED FOR INFORMATIONAL PURPOSES ONLY. THEY DO NOT

SHOW DEMOLITION. REFER TO PIPING SHEET P01 FOR PLAN AND SECTION SHOWING CONNECTIONS TO EXISTING PIPING.

NO SCALE

DEMOLISH SURFACE WASH PUMP & RELATED PIPING -

PHOTOGRAPH

PHOTOGRAPH

NO SCALE

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City of Fort Bragg Water Treatment Plant Rehabilitation Project

DEMOLITION

WATER TREATMENT BUILDING **SECTIONS AND PHOTOS**

FILENAME 2X05.dwg

SCALE 1/4" = 1'-0"

SHEET

X05

94/2X FILE: C:\pwworking\west01 DATE: 08/10/23 02:23:07p

	ISSUE	DATE	DESCRIPTION	
-	0	08/2023	ISSUED FOR BID	

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City of Fort Bragg Water Treatment Plant Rehabilitation Project

DEMOLITION

WATER TREATMENT BUILDING PHOTOS

FILENAME 2X06.dwg

SCALE AS NOTED

SHEET

X06

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	0 ISSUE	08/2023 DATE	ISSUED FOR BID	

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SCALE AS NOTED

SHEET

X07

E: C:\pwworking\west01\d2043094\2X08	E: 08/10/23 02:23:45pm, JKAMBOJ	
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ISSUED FOR BID 0 08/2023 ISSUE DATE

PROJECT NUMBER 10276484

SCALE AS NOTED

X08

wd/: 08/1 FILE: C

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	
CHECKED	T. KONTONICKAS
DRAWN	P. VAN MEURS
DATE	08/2023
PROJECT NUMBER	10276484

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2

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	
CHECKED	T. KONTONICKAS
DRAWN	P. VAN MEURS
DATE	08/2023
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ISSUED FOR BID

DESCRIPTION

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08/2023

ISSUE DATE

City of Fort Bragg Water Treatment Plant Rehabilitation Project

CONTROL BUILDING PHOTOS I SHEET FILENAME 2X10.dwg X10 SCALE AS NOTED

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	08/2023 DATE	ISSUED FOR BID	

13

X09

PHOTOGRAPH

NO SCALE

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MAINTAIN CONTINUOUS ELECTRICAL FEED TO THESE PUMPS & CONTROLS

SALVAGE FILTRATION

2

PHOTOGRAPH

8

X09 NO SCALE

- TEMPORARILY SUPPORT ELECTRICAL PANELS & ASSOCIATED CONDUITS WITHOUT PINK MARKS WHICH SHALL REMAIN IN CONTINUOUS SERVICE THROUGHOUT THE

- EX FW PUMP (TYP OF 2) TO BE MODIFIED PER SHEET P02 AND AS PER SPEC SECTION 43 24 27

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City of Fort Bragg Water Treatment Plant Rehabilitation Project

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NOTES:

1. OWNER WILL MARK ALL PANELS AND CONDUITS TO BE REMOVED WITH PINK MARKINGS. REMOVE ALL MARKED EQUIPMENT, CONDUIT, ACCESSORIES, FITTINGS, AND ASSOCIATED SUPPORTS. UNMARKED EQUIPMENT AND CONDUIT TO REMAIN IN SERVICE AND BE TEMPORARILY SUPPORTED THROUGHOUT DEMOLITION.

FILE: C

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City of Fort Bragg Water Treatment Plant Rehabilitation Project

GENERAL NOTES:

- THE TYPES, LOCATIONS, SIZES, AND DEPTHS OF EXISTING UNDERGROUND FACILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN JNDERGROUND FACILITIES. HOWEVER, THE OWNER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UNDERGROUND FACILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED DBJECTS OR FACILITIES WHICH MAY BE ENCOUNTERED BUT VHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF THOSE FACILITIES SHOWN AND ANY WHICH MAY EXIST AND ARE NOT SHOWN PRIOR TO COMMENCEMENT OF ANY WORK. THE CONTRACTOR SHALL EXPOSE ALL UNDERGROUND FACILITIES THAT ARE TO BE CONNECTED TO OR THAT ARE IN THE PATH OF THE PROPOSED IMPROVEMENTS FOR VERIFICATION OF LOCATION AND ELEVATION. THE CONTRACTOR SHALL DETERMINE LOCATION OF CONFLICTS, IF ANY, PRIOR TO COMMENCING CONSTRUCTION OF THAT PORTION OF THE WORK THAT WOULD BE AFFECTED BY A CONFLICT WITH THE EXISTING FACILITIES. MINOR CHANGES, (< 5 FEET HORIZONTAL < 1 FEET VERTICAL), IN THE ACTUAL LOCATION, DEPTH AND CONFIGURATION OF EXISTING PIPING SYSTEMS DO NOT CONSTITUTE A CHANGED SITE CONDITION, AND THEREFORE NO EXTRA PAYMENT WILL BE ALLOWED.
- LOCATIONS SHOWN FOR ALL YARD PIPING ARE APPROXIMATE AND DEPEND ON LOCATION AND DEPTH OF EXISTING PIPING AND OTHER IMPROVEMENTS. THE CONTRACTOR IS REQUIRED TO FOLLOW THE ALIGNMENT SHOWN AS CLOSELY AS POSSIBLE AFTER DETERMINING EXACT LOCATION OF EXISTING FACILITIES.
- COORDINATE ALL YARD PIPING WITH SITE ELECTRICAL WORK, (SEE ELECTRICAL "RECORD" DRAWINGS). DO NOT START YARD PIPING UNTIL YARD EXISTING ELECTRICAL CONDUITS ARE LOCATED.
- SMALL DIAMETER (<4") WATER, IRRIGATION AND OTHER MISCELLANEOUS PIPING EXIST THROUGHOUT THE PLANT AREA. THE CONTRACTOR IS REQUIRED TO REPAIR PIPING DAMAGED BY CONSTRUCTION AND/OR REALIGN PIPING AS REQUIRED TO CONSTRUCT THE IMPROVEMENTS UNDER THIS CONTRACT. NO ADDITIONAL COMPENSATION WILL BE GRANTED TO THE CONTRACTOR FOR THE REPAIR OF THIS SMALL DIAMETER PIPING.
- ALL PAVING, LANDSCAPING, PIPING, AND OTHER EXISTING FACILITIES NOT DESIGNATED FOR REMOVAL/DEMOLITION DURING CONSTRUCTION OF FACILITIES TO BE PROTECTED IN PLACE OR REPLACED IN KIND AT COMPLETION OF CONSTRUCTION.
- ALL PAVING TO BE REMOVED SHALL BE SAWCUT PRIOR TO REMOVAL. MATCH EXISTING PAVEMENT ELEVATIONS AT SAWCUT LINES. SLOPE PAVEMENT TO DRAIN IN DIRECTION SHOWN (). MINIMUM SLOPE = 0.5%.
- EXISTING SPOT ELEVATION INFORMATION SHOWN ON THESE PLANS WAS DETERMINED USING PHOTOGRAMMETRIC METHODS. IT IS ACCURATE TO WITHIN ±0.3 FEET OF ELEVATION SHOWN.
- CONTRACTOR TO VERIFY BENCHMARKS PRIOR TO BEGINNING 8. WORK.
- THIS WATER TREATMENT PLANT IS A CONTINUOUSLY 9. OPERATING FACILITY. THERE IS NO ABILITY TO BYPASS OR INTERRUPT ANY PROCESS. ANY NEEDED SHUTDOWNS TO BE COORDINATED WITH OWNER.
- 10. MAINTAIN 3'-0" MINIMUM COVER ON ALL PIPING UNLESS SPECIFICALLY SHOWN OTHERWISE.

CIVIL

OVERALL SITE AND PIPING PLAN

FILENAME 3C01.dwg **SCALE** | 1" = 40'

SHEET

C01

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ROJECT MANAGER	ARASHDEEP SINGH
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ESIGNED	
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RAWN	P. VAN MEURS
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- **STORAGE TANK NO. 2 SITE PLAN**

CIVIL

ORGANIC TESTING.

APPURTENANCES PER AWWA C652.

FILENAME 3C02.dwg SCALE AS NOTED SHEET

C02

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FILE: C:\pwworl DATE: 11/13/2:

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	
CHECKED	T. KONTONICKAS
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City of Fort Bragg Water Treatment Plant Rehabilitation Project

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Α

PIPING PLAN

SCALE AS NOTED

SHEET

C04

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2

0	08/2023	ISSUED FOR BID

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3+80

<u>STA 3+60.05</u> INV EL 86.68

3+60

DESCRIPTION

4+00

STA 4+15.81 INV EL 86.62 (VERIFY)

4+20

85

75

70

PIPING PROFILE HORIZ: 1" = 20'; VERT: 1" = 5'

ARASHDEEP SINGH
A. SINGH
T. KONTONICKAS
P. VAN MEURS
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10276484

3+00

3+20

3+40

City of Fort Bragg Water Treatment Plant Rehabilitation Project

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DESCRIPTION

PROJECT NUMBER

10276484

NG PIPING AS CCOMODATE	6" OVERFLO
STING ECTRICAL BOX STING CATHODIC DTECTION NTROL PANEL B CO7 CESS LADDER MOVE EXISTING COATING ECOAT ENTIRE EXTERIOR RFACE OF TANK	± 80'-0" DIAMETER REMOVE EXISTING COATING & RECOAT ENTIRE INTERIOR SURFACE OF TANK INCLUDING FLOOR PLATING, COLUMNS, AND ROOF STRUCTURAL SUPPORTS PROVIDE 3/8" THK STEEL PL FULL SEAL WELD TO TANK F SEE NOTE 3.
EX 16"-PW	12" INLET PIPE S BELOW TANK TO GROUT-FILLED F TYPICAL TANK NO. 2 CROSS 1" = 10"
CONNECT 16" OUTLET PIPING TO EXISTING BURIED GATE VALVE \overrightarrow{C}_{C07}	UNLESS OTHERWISE APPROVED TANK OPENNING SHALL NOT BE OVERSIZED BY MORE THAN 1" OF PIPE O.D. FLARE END OD SHALL BE 19" HIT-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" 1'-0" PL, SEAL WELD ALL AROUND FROM INSIDE AND OUTSIDE OF THE TANK, SEE NOTE 3. CUPLING ADAPTER "A"
90° GSP ELL, SIZE PER MFR ROUTE TO FLOOR DRAIN SST 30-MESH SCREEN NPT FEMALE BALL VALVE	EXISTING TANK NO. 2
UUM RELEASE VALVE	$\underbrace{122.83}_{t}$
ROJECT MANAGER ARASHDEEP SINGH SIGNED A. SINGH SIGNED T. KONTONICKAS ECKED T. KONTONICKAS AWN P. VAN MEURS TE 08/2023 ICLIECT NUMBER 10276484	City of Fort Bragg Water Treatment Plan Rehabilitation Project

- ROOF VENT

FILE: C:\pwworking\v DATE: 08/10/23 02:2

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	
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City of Fort Bragg Water Treatment Plant Rehabilitation Project

NOTES:

- 1. PROVIDE COUPLING WHERE NOTED ON DRAWINGS.
- 2. DESIGN HARNESS IN ACCORDANCE WITH AWWA M-11 MANUAL FOR STEEL PIPE.
- 3. LUGS FOR PIPE < 14" AND HARNESS RINGS FOR PIPE > 14". EXISTING PIPES MAY UTILIZE BOLT-ON HARNESSING RINGS WITH ENGINEERS APPROVAL

MECHANICAL JOINT SCHEDULE				
PIPE SIZE	NO. OF TIE RODS	A TIE ROD DIA.	B SPACER NOM. SIZE	C SPACER LENGTH
4"-10"	2	3/4"	1"	2 1/2"

PIPE SIZE	NO. OF TIE RODS	A TIE ROD DIA.	B SPACER NOM. SIZE	C SPACER LENGTH
4"-10"	2	3/4"	1"	2 1/2"
12"-24"	4	3/4"	1"	3 1/2"

CIVIL

TANK 2 PHOTOGRAPHS AND DETAILS

FILENAME 3C07.dwg

SHEET

SCALE AS NOTED

C07

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wd/: 08/1

FILE: C

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·	0	08/2023	ISSUED FOR BID	
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City of Fort Bragg Water Treatment Plant Rehabilitation Project

OVERALL PONDS IMPROVEMENTS PLAN

FILENAME 3C08.dwg **SCALE** 1" = 20'

SHEET

C08

FILE: C:\pwworkin DATE: 08/11/23 (

1

FILE: C:\pwworkin DATE: 08/11/23 (

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	
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DATE	08/2023
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FILE: C

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DESCRIPTION

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08/2023

ISSUE DATE

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FILE: C:\pwworkir DATE: 08/10/23 (

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1. EXISTING METAL BUILDING WAS SUPPLIED

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	C. OLSON
CHECKED	T. KONTONICKAS
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PROJECT NUMBER	10276484

City of Fort Bragg Water Treatment Plant Rehabilitation Project

FILENAME 4B01.dwg

SHEET

B01

FILE: C:\pwworki DATE: 08/10/23

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DESCRIPTION

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City of Fort Bragg Water Treatment Plant Rehabilitation Project

LABORATORY REPLACEMENT PLAN AND ELEVATIONS

FILENAME 4B02.dwg

SCALE AS NOTED

SHEET

B02

FILE: C

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
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DATE	08/2023
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FILE: C:\pwwc DATE: 08/10/

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FILE: C: DATE:

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PROJECT NUMBER	10276484

CONTROL BUILDING ROOF AND FOUNDATION PLANS, SECTIONS AND DETAILS
SHEET

∿d/: 08/1 FILE: C

A. SINGH
C. OLSON
T. KONTONICKAS
P. VAN MEURS
08/2023
10276484

7		8		
LID BLOCKING SHALL BE 3X UNLESS OTHERWISE NOTED. OCKING SHALL BE FULL DEPTH OF MEMBERS, STUDS JOIST, ETC.				
⁻ OR FLOOR PLY SHALL BE NAILED TO ALL BLOCKS WITH - NAIL SIZE AND SPACING TO BE PER DIAPHRAGM SCHEE	4 NAILS DULE			
NAILING OF WALL, FLOOR OR ROOF SHEATHING IS ONLY NG CONDITIONS ARE SATISFIED:	PERMITTED IF THE			
PMT IS CALIBRATED SO THAT NAILS ARE FULLY DRIVEN B E FACE OF PLYWOOD BY DEMONSTRATION ON TEST PAN	UT DO NOT PENETRATE EL.			
VIMON WIRE NAILS OF REQUIRED SIZE & SPACING (W/ HE/ E ONLY) PROVIDING REQUIRED PENETRATION INTO SUPF E USED.	AD CLIPPED ON ONE PORTING MEMBER(S)			
LS ARE PLACED NO CLOSER THAN 3/8" FROM EDGE OF PI	_YWOOD SHEETS.			
WBERS SUPPORTING PLYWOOD PANELS AT JOINTS ARE 3 WBERS ARE 2x THEN ADJUST EQPMT SO THAT NAIL HEAD DSER THAN 1/8 INCH FROM FACE OF PLY BY MACHINE AN! NAIL BY HAND.	3x OR WIDER. IF SUCH S ARE DRIVEN NO D COMPLETE DRIVING			
CHINE NAILING ON ONE SIDE ONLY WITH PLYWOOD ON BO JDS. OTHER SIDE TO BE HAND-NAILED.	OTH SIDES OF			
ERE ANY OF THE ABOVE ARE NOT FULLY SATISFIED, WOF CEPTED AND SHALL BE REMOVED AND REPLACED AT NO E OWNER.	RK WILL NOT BE COST OR DELAY TO			
RIDGING SHALL BE 1x3 WOOD CROSS BRIDGING OR FULL 3 OR SIMPSON TB METAL BRIDGING. ROWS OF CROSS BF AN 8'-0" APART NOR MORE THAN 8'-0" FROM EACH END O 3 SHALL BE USED AT ALL ROOF AND FLOOR JOISTS EVEN WINGS, EXCEPT THAT ROOF JOISTS 8" DEEP OR LESS NE CROSS BRIDGING OR METAL BRIDGING IS USED, THE LOW 3 SHALL BE DRIVEN UP AND NAILED AFTER THE FLOOR O N NAILED. PROVIDE 1/2" CLEARANCE BTWN CROSS-BRID	DEPTH SOLID 2x RIDGING SHALL BE NOT F THE JOISTS. THOUGH NOT SHOWN ED NOT BE BRIDGED. 'ER ENDS OF SUCH R ROOF PLY ABOVE GE PIECES.			
OISTS AND PURLINS SHALL ONLY BE CUT AS SHOWN ON ED BY THE ENGINEER-OF-RECORD. HOLES THROUGH THE 1/6 THE DEPTH OF THE MEMBER IN SIZE AND SHALL BE LO 1/3 OF THE MEMBER DEPTH. NOTCHES SHALL BE NO GRE. MEMBER DEPTH AND SHALL NOT BE LOCATED IN THE MID SPAN. HOLES OR NOTCHES ARE NOT PERMITTED WITHIN ROM ANY MEMBER SUPPORT. ADJACENT HOLES OR NOT TANCE NOT LESS THAN 1 1/2 X MEMBER DEPTH	THE DRAWINGS OR AS EMEMBER SHALL NOT OCATED IN THE ATER THAN 1/10 DLE THIRD OF THE N 2 TIMES THE MEMBER CHES SHALL BE SPACED			
	OCKING SHALL BE 3X UNLESS OTHERWISE NOTED. G SHALL BE FULL DEPTH OF MEMBERS, STUDS JOIST, ETG FOR FLOOR PLY SHALL BE NAILED TO ALL BLOCKS WITH - NAIL SIZE AND SPACING TO BE PER DIAPHRAGM SCHEE NAILING OF WALL, FLOOR OR ROOF SHEATHING IS ONLY NG CONDITIONS ARE SATISFIED: PMT IS CALIBRATED SO THAT NAILS ARE FULLY DRIVEN B FACE OF PLYWOOD BY DEMONSTRATION ON TEST PANE MMON WIRE NAILS OF REQUIRED SIZE & SPACING (W/ HE/ E ONLY) PROVIDING REQUIRED PENETRATION INTO SUPF E USED. IS ARE PLACED NO CLOSER THAN 3/8" FROM EDGE OF PL MBERS SUPPORTING PLYWOOD PANELS AT JOINTS ARE 3 MBERS ARE 2x THEN ADJUST EQPMT SO THAT NAIL HEAD DSER THAN 1/8 INCH FROM FACE OF PLY BY MACHINE ANI NAIL BY HAND. CHINE NAILING ON ONE SIDE ONLY WITH PLYWOOD ON B4 JDS. OTHER SIDE TO BE HAND-NAILED. ERE ANY OF THE ABOVE ARE NOT FULLY SATISFIED, WOF CEPTED AND SHALL BE 1x3 WOOD CROSS BRIDGING OR FULL G OR SIMPSON TB METAL BRIDGING. ROWS OF CROSS BF AN 8-0" APART NOR MORE THAN 8'-0" FROM EACH END O S SHALL BE USED AT ALL ROOF AND FLOOR JOISTS EVEN WINGS, EXCEPT THAT ROOF JOISTS 8" DEEP OR LESS NE GROSS BRIDGING OR METAL BRIDGING IS USED, THE LOW S SHALL BE DRIVEN UP AND NAILED AFTER THE FLOOR O N NAILED. PROVIDE 1/2" CLEARANCE BTWN CROSS-BRIDGING OR METAL BRIDGING IS USED, THE LOW S SHALL BE DRIVEN UP AND NAILED AFTER THE FLOOR O N NAILED. PROVIDE 1/2" CLEARANCE BTWN CROSS-BRIDGING OR METAL BRIDGING IS USED, THE LOW S SHALL BE DRIVEN UP AND NAILED AFTER THE FLOOR O N NAILED. PROVIDE 1/2" CLEARANCE BTWN CROSS-BRIDGING OR STHE ENGINEER-OF-RECORD. HOLES THROUGH THE THE DEPTH OF THE MEMBER IN SIZE AND SHALL BE LO ('3 OF THE MEMBER DEPTH. NOTCHES SHALL BE NO GRE. MEMBER DEPTH AND SHALL NOT BE LOCATED IN THE MID SPAN. HOLES OR NOTCHES ARE NOT PERMITTED WITHIT ROM ANY MEMBER SUPPORT. ADJACENT HOLES OR NOTO YANE MEMBER SUPPORT. ADJACENT HOLES OR NOTO YANE MEMBER SUPPORT. ADJACENT HOLES OR NOTO	OCKING SHALL BE 3X UNLESS OTHERWISE NOTED. G SHALL BE FULL DEPTH OF MEMBERS, STUDS JOIST, ETC. F OR FLOOR PLY SHALL BE NAILED TO ALL BLOCKS WITH 4 NAILS - NAIL SIZE AND SPACING TO BE PER DIAPHRAGM SCHEDULE NAILING OF WALL, FLOOR OR ROOF SHEATHING IS ONLY PERMITTED IF THE NG CONDITIONS ARE SATISFIED: PMT IS CALIBRATED SO THAT NAILS ARE FULLY DRIVEN BUT DO NOT PENETRATE F ACE OF PLYWOOD BY DEMONSTRATION ON TEST PANEL. MMON WIRE NAILS OF REQUIRED SIZE & SPACING (W/ HEAD CLIPPED ON ONE E ONLY) PROVIDING REQUIRED SIZE & SPACING (W/ HEAD CLIPPED ON ONE E ONLY) PROVIDING REQUIRED PENETRATION INTO SUPPORTING MEMBER(S) E USED. LS ARE PLACED NO CLOSER THAN 3/8" FROM EDGE OF PLYWOOD SHEETS. MBERS SUPPORTING PLYWOOD PANELS AT JOINTS ARE 3x OR WIDER. IF SUCH WBERS ARE 2x THEN ADJUST EQPMT SO THAT NAIL HEADS ARE DRIVEN NO SER THAN 1/8 INCH FROM FACE OF PLY BY MACHINE AND COMPLETE DRIVING NAIL BY HAND. CHINE NAILING ON ONE SIDE ONLY WITH PLYWOOD ON BOTH SIDES OF JDS. OTHER SIDE TO BE HAND-NAILED. ERE ANY OF THE ABOVE ARE NOT FULLY SATISFIED, WORK WILL NOT BE CEPTED AND SHALL BE REMOVED AND REPLACED AT NO COST OR DELAY TO E OWNER. RIDGING SHALL BE 1X3 WOOD CROSS BRIDGING OR FULL DEPTH SOLID 2x G OR SIMPSON TB METAL BRIDGING. ROWS OF CROSS BRIDGING SHALL BE NOT AN 8-0" APART NOR MORE THAN 8-0" FROM EACH END OF THE JOISTS. S SHALL BE USED AT ALL ROOF JOISTS 8" DEEP OR LESS NEED NOT BE BRIDGED. RROSS BRIDGING OR METAL BRIDGING. IS USED, THE LOWER ENDS OF SUCH A 8-00" APART NOR MORE THAN 8-0" FROM EACH END OF THE JOISTS. S SHALL BE URIVEN UP AND NAILED AFTER THE FLOOR OR ROOF PLY ABOVE N NAILED. PROVIDE 1/2" CLEARANCE BTWN CROSS-BRIDGE PIECES. ISTS AND PURLINS SHALL ONLY BE CUT AS SHOWN ON THE DRAWINGS OR AS ED BY THE ENGINEER-OF-RECORD. HOLES THROUGH THE MEMBER SHALL NOT 1/0 THE DEPTH OF THE MEEDRER IN SIZE AND SHALL BE LOCATED IN THE I/0 THE DEPTH OF THE MEEDRER IN SIZE AND SHALL BE LOCATED IN THE I/0 THE DEPTH OF THE MEEDRER NISZE AND SHALL BE LOCATED IN THE I/0 ADY MEMBER SUPPORT. ADJACACENT		

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TYPICAL WOOD FRAMING NOTES

7

NOMINAL STRUCT I PLYWD THICKNESS	NAIL SIZE (1)	NAIL SPACING			DEMADKS
		@ DIAPH BOUND.	@ CONT. EDGES	IN FIELD/ OTHER EDGES	(SEE NOTES BELOW)
15/32" CDX	10d	4"	4"	6"	SEE NOTE 2
19/32" CDX	10d	4"	4"	6"	SEE NOTE 2
1/2" ACX	10d	6"	6"	6"	SEE NOTE 2

1. FOR PLY LAYOUT & ADD'L NAILING SEE ROOF PLAN.

2. 10d SHALL HAVE 1 1/2" MIN PENETRATION INTO FRAMING & BLOCKING.

3. WHERE NAIL SPACING 3" OR LESS O.C., FRAMING & BLOCKING AT THOSE PANEL EDGES

4. USE A 3X FOR ALL FLAT BLOCKING RECEIVING 10d NAILS.

ROOF/WALL DIAPHRAGM SCHEDULE

NOTES: ALL PLATES, STRAPS, BOLTS AND FASTENERS TO BE 316 SST UNLESS NOTED OTHERWISE.

BUILDING

2

WOOD FRAMING DETAILS

FILENAME 4B06.dwg SCALE AS NOTED SHEET

B06

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ISSUE	DATE	DESCRIPTION	

PROJECT MANAGER	ARASHDEEP SINGH			
DESIGNED				
DESIGNED				
CHECKED	T. KONTONICKAS			
DRAWN	P. VAN MEURS			
DATE	08/2023			
PROJECT NUMBER	10276484			

City of Fort Bragg Water Treatment Plant Rehabilitation Project

FILENAME 6P01.dwg SCALE AS NOTED

SHEET

P01

FILE: C:\pwworking\v DATE: 08/10/23 02:5

PROJECT MANAGER	ARASHDEEP SINGH			
DESIGNED				
DESIGNED				
CHECKED	T. KONTONICKAS			
DRAWN	P. VAN MEURS			
DATE	08/2023			
PROJECT NUMBER	10276484			

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FILE: C

FJS 0 ISSUE DATE

ISSUED FOR BID	
DESCRIPTION	

08/2023

- 1. FOR EQUIPMENT PADS ON EXISTING SLABS, DRILL INTO EXISTING SLAB AT 12" CENTERS AROUND PERIMETER OF EQUIPMENT PADS AND SET #5 HOOKED DOWELS IN EPOXY GROUT.
- 2. FOR EQUIPMENT PADS ON NEW SLABS, PROVIDE #5 DOWELS AT 12" CENTERS AROUND PERIMETER OF EQUIPMENT BASE.
- 3. EQUIPMENT DIMENSIONS SHALL BE AS INDICATED ON THE DRAWINGS OR AS DETERMINED BY THE EQUIPMENT MANUFACTURER AND APPROVED BY THE ENGINEER.
- 4. EQUIPMENT BASES SHALL BE INSTALLED LEVEL. TOLERANCE IS 1/16".
- 5. WHERE CONCRETE SLAB THICKNESS WILL NOT PROVIDE MINIMUM COVER AS SPECIFIED ON DWGS, PROVIDE EXTRA THICKNESS OF CONCRETE.

UMP
IANUFACTURER TO
ROVIDE PUMP SOL
ין ATE

INSTALL RAW WATER TRANSFER PUMP, SEE NOTE 1

CONCRETE EQUIPMENT BASE

CORE DRILL EXIST CONC FLOOR SLAB; DIA AS REQD TO PASS PUMP BOWL ASSEMBLY w/ 1" MIN CLEAR ALL AROUND

ADD JOINT TO SPLIT SHAFT AND COLUMN PIPE, SEE NOTE 2 -

PROJECT MANAGER	ARASHDEEP SINGH		
DESIGNED			
DESIGNED			
CHECKED	T. KONTONICKAS		
DRAWN	P. VAN MEURS		
DATE	08/2023		
PROJECT NUMBER	10276484		

City of Fort Bragg Water Treatment Plant Rehabilitation Project

FILENAME 6P03.dwg SCALE AS NOTED SHEET

P03

ARASHDEEP SINGH			
A. SINGH			
T. KONTONICKAS			
S. LARI			
08/2023			
10276484			

FILE: C:\pwworkir DATE: 08/10/23

PROJECT MANAGER	ARASHDEEP SINGH			
DESIGNED	A. SINGH			
DESIGNED				
CHECKED	T. KONTONICKAS			
DRAWN	S. LARI			
DATE	08/2023			
PROJECT NUMBER	10276484			

FILE: C:\pwworkin DATE: 08/10/23 (

FILE: C:\pwworkir DATE: 08/10/23

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NOTES:

- 1. ALL BOLTS AND NUTS SHALL BE INSTALLED WITH A FLAT WASHER AGAINST PAINTED SURFACES. ALL FASTENERS SHALL BE TIGHTENED TO PROVIDE A SNUG FIT. DO NOT OVER TIGHTEN.
- 2. ALL ELEMENTS OF THE FILTER TREATMENT REHABILITATION TO BE ASSEMBLED AND INSTALLED IN THE FIELD.
- REMOVE ALL FOREIGN MATERIAL 3. FROM TANK INTERIOR PRIOR TO MEDIA INSTALLATION.
- REPLACEMENT MEDIA SHOULD BE 4 PLACED IN ADSORPTION CLARIFIER AFTER ALL AIR WASH LATERALS AND SUPPORTS HAVE BEEN ASSEMBLED AND PRIOR TO INSTALLATION OF MEDIA RETAINER COVER. THERE SHALL BE NO UNSCREENED OPENINGS IN MEDIA RETAINING COVER. FOLLOW MANUFACTURERS INSTRUCTIONS.
- INSTALL GASKET BETWEEN MEDIA 5. RETAINER SCREENS AND UNDER EDGES OF THE SCREENS.
- ALL AIR NOZZLES MUST BE COMPLETELY LEVEL.
- 7. APPLY ADHESIVE, 3M ADHESIVE #77, ON ONE EDGE OF GRATING PRIOR TO ATTACHING GASKET MATERIAL.
- 8. INSTALL REPLACEMENT FILTER MEDIA AFTER ALL UPGRADE AND REHABILITATION WORK IS COMPILED. FILTER MEDIA NOT SHOWN.

REHABILITATION

FILTER TREATMENT UNITS NO. 1 AND NO. 2 **REHAB AND IMPROVEMENTS PLANS AND SECTIONS 2**

7R05.dwg

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1	2		3	4	5		6
	LOW - VOLTAGE CIRCUIT BREAKER (CB).		NON-MOTOR LOAD WITH DESIGN KVA, KW, OR		NORMALLY OPEN CONTACT (N.O.)	PC	PHOTOCELL
0 3P 0 80AT 3P	RATINGS AND NO. OF POLES AS SHOWN. WHEN SPECIFIC TYPE IS REQUIRED, X INDICATES TYPE			- N -	NORMALLY CLOSED CONTACT (N.C.)	s ^v	TOGGLE SWITCH
	TYPES:		CONTROL POWER TRANSFORMER (CPT)	<u> </u>	FIELD WIRING EXTERNAL TO CONTROL PANEL	Υ×	SUBSCRIPTS:
	MCCB - MOLDED CASE ICCB - INSULATED CASE				INTERLOCK; X INDICATES TYPE		NONE - SINGLE POLE 3 - THREE-WAY
	MCP - MOTOR CIRCUIT PROTECTOR (RATING PER CONNECTED LOAD)	36	VOLTAGE TRANSFORMER (VT OR PT)		<u>TYPES:</u> E - ELECTRICAL		4 - FOUR-WAY HP - TOGGLE SWITCH, HORSEPOWER F
СВЧ	SEPARATELY MOUNTED CIRCUIT BREAKER; SEE			OFF	M - MECHANICAL K - KEY		K - KEY SWITCH TE - MANUAL MOTOR STARTER W/ THE P - PILOT LIGHT
	ELECTRICAL ONE - LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION	Ϋ́ Ι Ϋ́	CURRENT TRANSFORMER (CT)		3 POSITION SELECTOR SWITCH, MAINTAINED CONTACTS;		L - LIGHTED HANDLE Y - INDICATES CONTROLLING SWITCH (
GFP	GROUND FAULT PROTECTION	DMP	DIGITAL METERING PACKAGE		UNLESS OTHERWISE NOTED, 2-POSITION SIMILAR	Т	TRANSFORMER
52	MEDIUM - VOLTAGE CIRCUIT BREAKER				NORMALLY OPEN PUSHBUTTON, MOMENTARY	CS	CONTROL STATION
	FUSE, SIZE, AND NUMBER OF FUSES AS NOTED				NORMALLY CLOSED PUSHBUTTON, MOMENTARY	HS	HAND SWITCH
_\$	FUSED CUTOUT CURRENT RATING FUSE SIZE AND		GROUND		CONTACT UNLESS OTHERWISE NOTED	SS	SELECTOR SWITCH
	NUMBER OF POLES AS NOTED	Ļ				РВ	PUSHBUTTON
	QUANTITY AS NOTED		LIGHTNING ARRESTER		COLOR		INSTRUMENTATION/CONTROL DEVICE
	NON-FUSED SWITCH, CURRENT RATING, AND NUMBER OF POLES AS NOTED	SPD	LOW VOLTAGE SURGE PROTECTIVE DEVICE		LENS COLORS: R - RED Y - YELLOW W	S S	
	DISCONNECT OR DRAWOUT CONNECTION				G - GREEN - WHITE A - B - BLUE AMBER	so	NETWORK SWITCH/OCCUPANCY SENSC
	MAGNETIC MOTOR STARTER AND		ELECTRICAL CONNECTION	Z	ELECTRICAL MONITORING DEVICE		CEILING MOUNTED NETWORK OCCUPA
	MOTOR STARTER				<u>TYPES</u> : WHM - UTILITY WATT-HOUR METER PER UTILITY		CEILING MOUNTED NETWORK DIMMING
	MOTOR CONTROLLER AND		NO ELECTRICAL CONNECTION		REQUIREMENTS AS - CURRENT SENSOR AM - AMP METER	⊢¶ I	SPECIAL-PURPOSE RECEPTACLE AS DE
	SHORT CIRCUIT PROTECTION AND DISCONNECT		SOLENOID VALVE		WM - WATT METER VS - VOLT SENSOR		PLUG-IN RECEPTACLE STRIP, QUANTITY
	MOTOR STARTER AND CONTROLLER SUBSCRIPTS: A - MAGNETIC STARTER NEMA SIZE				VM - VOLT METER		RECEPTACLES AS NOTED OR SPECIFIED
		$\begin{pmatrix} X \\ Y \end{pmatrix}$	Y INDICATES LOOP NO. WHEN USED		CONTROL PANEL INTEGRAL OR PROVIDED WITH ASSOCIA EQUIPMENT	TED	TELECOMMUNICATIONS OUTLET JUNCT
	FVR - FULL VOLTAGE REVERSING (FVNR) FVR - FULL VOLTAGE REVERSING 2S - TWO SPEED		<u>TYPES:</u> CR - CONTROL RELAY DP - DEFINITE PURPOSE RELAY		CONTROL PANEL WITH DISCONNECT SWITCH INTEGRAL O	R	COMMUNICATIONS BACKBOARD
	RVAT - REDUCED VOLTAGE AUTO TRANSFORMER		LC - LIGHTING CONTACTOR M - MOTOR STARTER		JUNCTION OR PULL BOX		FLOOR MOUNTED TELECOMMUNICATION
	C - CONTROL DIAGRAM OR CONTROLS SCHEDULE NUMBER (IF REQUIRED)		PC - PHOTO CELL TC - TIME CLOCK		PANELBOARD (250V TO 600V)	t⊕ [×]	QUAD-DUPLEX RECEPTACLE, TWO NEM
	D - CONTROLLER TYPE VFD - VARIABLE FREQUENCY DRIVE		TR - TIMING RELAY		PANELBOARD (LESS THAN 250V)	щ	UNDER COMMON COVER PLATE
	SS - SOLID STATE	\sim	NORMALLY OPEN TIME DELAY RELAY CONTAC TIME DELAY ON CLOSING AFTER COIL IS ENER	RGIZED	ELECTRICAL EQUIPMENT ENCLOSURE: SWITCHBOARD		DOI LEXTREOLI TROLL, NEWRO-ZOR
	MOTOR CONTROLLER	010	NORMALLY CLOSED TIME DELAY RELAY CONT		MOTOR CONTROL CENTER, CONTROL PANEL, OR OTHER EQUIPMENT AS INDICATED		FLOOR MOUNTED DUPLEX RECEPTACLE
			ENERGIZED	γ×	CEILING/PENDANT-MOUNTED LED LUMINAIRE	ю _v	SIMPLEX RECEPTACLE, NEMA 5-20R
	THERMAL OVERLOAD ELEMENT	\sim	TIME DELAY OPEN TIME DELAY RELAY CONTAC TIME DELAY ON OPENING AFTER COIL IS DE-ENERGIZED				X - INDICATES TYPE
	THERMAL OVERLOAD RELAY CONTACT	0_0	NORMALLY CLOSED TIME DELAY RELAY CONT	\mathcal{H}_{z}^{r}	WALL-MOUNTED LED LUMINAIRE		Y - INDICATES CIRCUIT NUMBER FROM I
	DISCONNECT OR SAFETY SWITCH, 30A, 3P,	Ť	DE-ENERGIZED	Z O X Z O Y	CEILING/PENDANT-MOUNTED LED FIXTURE		PEDESTAL
	NON-FUSED UNLESS OTHERWISE NOTED		NORMALLY OPEN TEMPERATURE SWITCH; CLOSE ON RISING TEMPERATURE	<u>צס</u> א א	WALL-MOUNTED LED FIXTURE		CONDUIT TURNING UP
(7 1/2) OR (HP		م ک و	NORMALLY CLOSED TEMPERATURE SWITCH;	z X Y	CEILING/PENDANT-MOUNTED LED FIXTURE		CONDUIT TURNING DOWN
	(WHEN INDICATED)		OPEN ON RISING TEMPERATURE	×	NORMAL/EMERGENCY WALL-MOUNTED LED FIXTURE		HOME RUN TO PANEL, 2 #12, 1 #12G IN 3 OTHERWISE NOTED
			NORMALLY OPEN FLOW SWITCH; CLOSE ON INCREASING FLOW	Z Y Y	NORMAL/EMERGENCY		
G	GENERATOR	°T°	NORMALLY CLOSED FLOW SWITCH; OPEN ON INCREASING FLOW		DOUBLE-FACED CEILING OR WALL-MOUNTED EXIT LIGHT; DIRECTIONAL ARROWS (IF REQUIRED) AS		CIRCUIT RUN BETWEEN DEVICES EXPO NON-ARCHITECTURALLY FINISHED ARE
	TRANSFER SWITCH, CURRENT RATING, AND	\sim	NORMALLY OPEN LEVEL SWITCH,		INDICATED ON PLANS SINGLE-FACED CEILING OR WALL-MOUNTED EXIT		CONDUIT AND CONDUCTOR SIZES SHAL SAME AS THE HOMERUN FOR THE CIRC
	NUMBER OF POLES AS NOTED	0			LIGHT; DIRECTIONAL ARROWS (IF REQUIRED) AS INDICATED ON PLANS		
	MTS - MANUAL	6	OPEN ON RISING LEVEL	► Q [×] _Y	AREA OR ROADWAY LIGHT - POLE-MOUNTED		NON-ARCHITECTURALLY FINISHED ARE FLOOR SLAB. CONDUIT AND CONDUCTO
	TRANSFORMER	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	NORMALLY OPEN PRESSURE SWITCH, CLOSE ON INCREASING PRESSURE		LIGHTING FIXTURE SUBSCRIPTS: X - INDICATES FIXTURE TYPE PER LIGHTING		SHALL BE THE SAME AS THE HOMERUN CIRCUIT.
	\triangle 3-PHASE, 3-WIRE DELTA CONNECTION	oTo	NORMALLY CLOSED PRESSURE SWITCH,		FIXTURE SCHEDULE Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD z - INDICATES CONTROL LING SWITCH (IF REOUIRED)	—— Е ———	UNDERGROUND ELECTRICAL DUCT BAN
	Ti_ 3-PHASE, 4-WIRE GROUNDED WYE CONNECTION			▼_ ×	EMERGENCY LIGHT FIXTURE. 2 ATTACHED HEADS AS		DETAILS SHEETS C11 AND E08.
LP100 208/120\/	SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED		CLOSE ON REACHING LIMIT		SHOWN		
3Ø, 4W		0 ~7 0	NORMALLY CLOSED LIMIT SWITCH, OPEN ON REACHING LIMIT	Ϋ́	EMERGENCY LIGHT, REMOTE MOUNTED HEAD		
L	·		PROJECT M/	ANAGER ARASHDEEP SINGH	· · · ·		
			DESIGNED	A SINGH	SED PROFESSIONAL	FORTS	
			DESIGNED	W. ETTLICH			City of Fort Bragg
			DRAWN	P. VAN MEURS	NO. 7625 EXP. 09/30/24		Water Treatment Plant
		08/2023 ISSUED FOR BID	DATE	08/2023	allin 7 Sterrich	CORDER S	
				IMBER 10276484	4/E OF CALIFOR 11/10/2023	LIFOR	

PROJECT NUMBER

10276484

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SENSOR

- CUPANCY SENSOR
- IMING PHOTOCELL
- AS DEFINED ON PLANS
- ANTITY AND SPACING OF ECIFIED
- UNCTION BOX, NUMBER OF BER OF CAT 6 CABLES TO
- CATIONS OUTLET
- D NEMA 5-20R
- PTACLE, NEMA 5-20R
- INTERRUPTER ROM PANELBOARD
- 12G IN 3/4"C UNLESS
- EXPOSED IN D AREAS; LY FINISHED AREAS. S SHALL BE THE E CIRCUIT.
- S CONCEALED IN D AREAS OR UNDER DUCTOR SIZES IERUN FOR THE
- CT BANK, SEE

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GENERAL NOTES:

- 1. THIS IS A STANDARD ELECTRICAL SYMBOLS SHEET. ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT.
- 2. IN GENERAL CONDUIT ROUTING IS NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CONDUITS INCLUDING THOSE SHOWN ON ONE-LINES AND HOME RUNS. SEE SPECIFICATIONS FOR CONDUIT INSTALLATION REQUIREMENTS. CONDUIT ROUTINGS AND STUB-UP LOCATIONS THAT ARE SHOWN ARE APPROXIMATE, EXACT ROUTINGS SHALL BE AS REQUIRED FOR EQUIPMENT FURNISHED, FREE OF ANY INTERFERENCES.
- 3. WHEN BRANCH CIRCUITS ARE NOT SHOWN ON THE PLANS THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS AND CONDUCTORS REQUIRED. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE BRANCH CIRCUIT.
- 4. 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 DRAWING FOR USAGE.
- 5. SEE PROJECT EQUIPMENT AND PIPING SYSTEMS DRAWING FOR SYMBOLS AND ABBREVIATIONS SPECIFIC TO THE PROJECT.

ELECTRICAL

SYMBOLS LEGEND

FILENAME 8E01.dwg SCALE NONE

SHEET

E01

LOADS

MCC-1

	kVA		
LOAD	CONNECTED	DEMAND	
AIR COMPRESSOR 1	7	7	
FINISH WATER PUMP 1	15	15	
FINISH WATER PUMP 2	15	15	
RAW WATER PUMP 1	5	5	
RAW WATER PUMP 2	5	5	
15 kVA TRANSFORMER (LPB)	15	10	
TOTAL	62	57	
AMPS @ 480V	75	69	

MCC-2

	kVA		
LOAD	CONNECTED	DEMAND	
IN LINE MIXER	3	3	
30 kVA TRANSFORMER (LPA)	30	15	
60 AMP OUTLET	25	0	
BACKWASH RECYCLE PUMP 1	3	3	
BACKWASH RECYCLE PUMP 2	3	0	
TOTAL	64	21	
AMPS @ 480V	77	25	

DP-1 AND SERVICE SWBD

	kVA		
LUAD	CONNECTED	DEMAND	
MCC-1	62	57	
MCC-2	64	21	
RAW WATER TRANSFER PUMP	50	50	
BLOWER 1	15	15	
BLOWER 2	15	0	
TOTAL	206	143	
AMPS @ 480V	247	173	

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FILTER TREATMENT UNIT CONTROL WIRING SINGLE LINE DIAGRAM

PROJECT MANAGER	ARASHDEEP SINGH	
DESIGNED	A. SINGH	
DESIGNED	W. ETTLICH	
CHECKED	T. KONTONICKAS	
DRAWN	P. VAN MEURS	
DATE	08/2023	
PROJECT NUMBER	10276484	

City of Fort Bragg Water Treatment Plant Rehabilitation Project

NOTES:

1. DISCONNECT EXISTING DEVICE AND RE-CONNECT CONDUIT AND WIRE TO EXISTING OR REPLACEMENT DEVICE. FOR TANK PAINTING, SEE "R" SHEETS.

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2. SEE SHEET P01 FOR EQUIPMENT LOCATIONS.

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6. CONNECT DESAL PLANT FEEDER FROM DP-1 TO EXISTING WIRING TO DESAL PLANT - INSTALL JB.

- 7. THIS AREA INSIDE BUILDING CLASSIFIED DRY

ELECTRICAL

CONTROL BUILDING ELECTRICAL FLOOR PLAN

FILENAME 8E05.dwg

SCALE AS NOTED

SHEET

E05

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94/8E ABOJ FILE: C:\pwworking\west DATE: 08/11/23 10:05:1

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	W. ETTLICH
CHECKED	T. KONTONICKAS
DRAWN	P. VAN MEURS
DATE	08/2023
PROJECT NUMBER	10276484

HANUAL TRANSFER OPERATION FROM LCP I. PLACE TRANSFER VALVE TO TRANSFER POSITION 3. START TRANSFER VALVE TO TRANSFER FORMUM 1. DO STORT TRANSFER VALVE TO NORMAL POSITION 3. PLACE TRANSFER VALVE TO NORMAL POSITION 3. PLACE TRANSFER VALVE TO NORMAL POSITION 4. PLACE TRANSFER 4. PLACE TRANSFER 5.	7	8	
 I. PLACE MODE ENVITOR IN LOCAL POSITION. I. PLACE MODE ENVITOR IN ADVANCE TO TRANSPER POSITION. START TRANSPER VALUE TO TRANSPER POSITION. I. TO STOP TRANSPER VALUE TO TRANSPER POSITION. PLACE TRANSPER VALUE TO NORMAL POSITION. PLACE TRANSPER VALUE TO NORMAL POSITION. PLACE MODE SWITCH IN COP DOTTON POSITION SECTION SECTION WITH SECTION VERY DAVE TO SECTION VERY DE DE NORMAL POSITION. POSITION FOR THIS OPERATION POSITION COM (START TRANSFER) 		MANUAL TRANSFER OPERATION FROM LCP	
PLACE TRANSPER VALVE TO TRANSPER PUMP. TO STOP TRANSPER PUMP. I TO STOP TRANSPER PUMP. PLACE MODE SWITCH IN OF POSITION. PLACE MODE SWITCH IN SCIENCIAL SCIENCE SWITCH MUST BE IN POP POSITION FOR THIS OFERATION. I FOR POSITION FOR THIS OFERATION. I FOR POSITION OND (LOCAL MODE) FER POSITION CMD (LOCAL MODE) FER POSITION CMD (LOCAL MODE) FER POSITION CMD (STOP TRANSPER) FER POSITION CMD (STOP TRANSPER) FER POSITION CMD (STOP TRANSPER) FER POSITION CMD (STAPT TRANSPER) SPEED TO SPEED TO SPEED CMD SPEED TO SPEED TO SPEED TO SPEED TO SPEED CMD		1. PLACE MODE SWITCH IN LOCAL POSITION.	
 START TRANSFER PUMP: TO STOP TRANSFER VIVE TO NORMAL POSITION PLACE MODE SITTOR TO NORMAL POSITION PLACE MODE SITTOR NORTONING COPRISION IN SECTION DEPENDENT IN STATE IN POSITION PLACE MODE SITTOR NORTONING SITE IN SITE IN POP POSITION FOR THIS OFENATION IN SECTION DEPENDENT IN STATE IN POP POSITION FOR THIS OFENATION PLOCAL MODE; NIROL L POSITION CMD (LOCAL MODE) FER POSITION CMD (START TRANSFER) SEED TO SECTION SEED TO SECTION SEED TO SECTION 		2. PLACE TRANSFER VALVE TO TRANSFER POSITION.	
 TO STOP TRANSFER STOP TRANSFER PUMP. PLACE TRANSFER VAUE TO NORMAL POSITION. PLACE TRANSFER VAUE TO NORMAL POSITION ACCION ACTION ACTION ACTION ACCION ACTION ACTI		3. START TRANSFER PUMP.	
 PLACE TRANSFER VALVE TO NORMAL POSITION. PLACE MODE SWITCH IN OF POSITION. PLACE MODE SWITCH IN OF POSITION. PLACE MODE SWITCH IN OF POSITION SECTION 400 00 00 CONTROL LOOP DESERTION SECTION 400 00 00 CONTROL LOOP DESERTION. POP POSITION FOR THIS OPERATION. 		4. TO STOP TRANSFER, STOP TRANSFER PUMP.	
		5. PLACE TRANSFER VALVE TO NORMAL POSITION.	
 POR AUTOMATIC OPERATION FROM WESTEED OPERATOR INTERACE. SEE SPECIFICITION SECTION 49 00 BD CONTROL LOOP DESCRIPTIONS. MODE SWITCH MUST BE IN PCP POSITION FOR THIS OPERATION. TER POSITION L POSITION L POSITION L POSITION CALL MODE) IFER POSITION CALL MODE (STOP TRANSFER) IFER POSITION CALL MODE) IFER POSITION CALL MODE (STOP TRANSFER) IFER POSITION CALL MODE (STOP TRANSFER) IFER POSITION CALL (STOP TRANSFER) IFER POSITION CALL MODE (STOP TRANSFER) IFER POSITION CALL (STOP TRANSFER)		6. PLACE MODE SWITCH IN OFF POSITION.	
FER POSITION AL POSITION D (LOCAL MODE) INTROL AL POSITION CMD (LOCAL MODE) SFER POSITION CMD (LOCAL MODE) AL POSITION CMD (STOP TRANSFER) SFER POSITION CMD (STOP TRANSFER) SFER POSITION CMD (START TRANSFER)		 FOR AUTOMATIC OPERATION FROM WESTECH OPERATOR INTERFACE, SEE SPECIFICATION SECTION 40 90 05 CONTROL LOOP DESCRIPTIONS. MODE SWITCH MUST BE IN PCP POSITION FOR THIS OPERATION. 	
FER POSITION L POSITION D (L CCAL MODE) NTROL AL POSITION CMD (LOCAL MODE) SFER POSITION CMD (LOCAL MODE) L POSITION CMD (START TRANSFER) SFER POSITION CMD (START TRANSFER)			
TER POSITION			
L POSITION L POSITION D (LOCAL MODE) NTROL AL POSITION CMD (LOCAL MODE) FER POSITION CMD (LOCAL MODE) FER POSITION CMD (LOCAL MODE) AL POSITION CMD (LOCAL MODE) FER POSITION CMD (START TRANSFER) FER POSITION CMD (START TRANSFER)			
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D (LOCAL MODE) NTROL AL POSITION CMD (LOCAL MODE) FER POSITION CMD (LOCAL MODE) AL POSITION CMD (STOP TRANSFER) FER POSITION CMD (START TRANSFER) FER POSITION CMD (START TRANSFER) SPEED TO PCP SPEED TO FROM PCP			
D (LOCAL MODE) NTROL AL POSITION CMD (LOCAL MODE) FER POSITION CMD (LOCAL MODE) AL POSITION CMD (STOP TRANSFER) FER POSITION CMD (START TRANSFER) FER POSITION CMD (START TRANSFER) FER POSITION CMD (START TRANSFER) SPEED TO PCP SPEED TO PCP			
NTROL AL POSITION CMD (LOCAL MODE) FER POSITION CMD (LOCAL MODE) AL POSITION CMD (STOP TRANSFER) FER POSITION CMD (START TRANSFER) INTERFACE MODULE SPEED TO PCP SPEED TO PCP	D (LOCAL MODE)		
AL POSITION CMD (LOCAL MODE) SFER POSITION CMD (LOCAL MODE) AL POSITION CMD (STOP TRANSFER) SFER POSITION CMD (START TRANSFER) UNTERFACE MODULE SPEED TO PCP SPEED TO PCP SPEED CMD FROM PCP	NTROL		
SFER POSITION CMD (LOCAL MODE) AL POSITION CMD (STOP TRANSFER) SFER POSITION CMD (START TRANSFER)	AL POSITION CMD (LOCAL MODE)		
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FER POSITION CMD (START TRANSFER)	AL POSITION CMD (STOP TRANSFER)		
SPEED TO PCP SPEED CMD FROM PCP	FER POSITION CMD (START TRANSFER)		
SPEED TO PCP SPEED CMD FROM PCP	INTERFACE MODULE		
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SPEED CMD FROM PCP			
	SPEED CMD FROM PCP		

ELECTRICAL **CONTROL DIAGRAMS 2**

FILENAME 8E07.dwg SCALE NONE

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FILE: C:\pwworkii DATE: 09/25/23

FJS ISSUED FOR BID 0 08/2023 DESCRIPTION ISSUE DATE

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ELECTRICAL SITE PLAN

PROJECT MANAGER	ARASHDEEP SINGH	
DESIGNED	A. SINGH	
DESIGNED	W. ETTLICH	
CHECKED	T. KONTONICKAS	
DRAWN	P. VAN MEURS	
DATE	08/2023	
PROJECT NUMBER	10276484	

City of Fort Bragg Water Treatment Plant Rehabilitation Project

I		2	0
PRIMARY	ELEMENT SYMBOLOGY	INST	FRUMENT SYMBOLO
	ORIFICE PLATE		LOCALLY MOUNTED FIELD INSTRUMEN
	PITOT TUBE OR ANNUBAR		
FI	ROTOMETER		MOUNTED ON PANEL FRONT
	SONIC OR ULTRASONIC FLOWMETER	\bigcirc	MOUNTED INSIDE PANEL
M	MAGNETIC FLOWMETER	×xx	FRONT PANEL MOUNTED ON AUXILIAR
FT FT	MASS DISPERSION FLOWMETER		(SUBSCRIPT INDICATES PANEL)
	FLUME		MOUNTED INSIDE AUXILIARY PANEL
	WEIR		PILOT LIGHT
	PROPELLER OR TURBINE METER		INSTRUMENT FUNCTIONS SHARING CO
	VENTURI TUBE		HOUSING
	FLOAT SWITCH	$\langle i \rangle$	COMPLEX INTERLOCK AS DEFINED IN O
	TEMPERATURE ELEMENT WITH THERMOWEL		SHARED DISPLAY, SHARED CONTROL, FIELD MOUNTED
FG FG	SIGHT FLOW GLASS		SHARED DISPLAY, SHARED CONTROL, LOCATION - NORMALLY ACCESSIBLE T
	LINE TYPES		PROGRAMMABLE LOGIC CONTROL, PR LOCATION - NORMALLY ACCESSIBLE T
	MAIN PROCESS LINE		PROGRAMMABLE LOGIC CONTROL, FIE
	SECONDARY PROCESS LINE		
	AUXILIARY PROCESS LINE	AC	TUATOR SYMBOLOG
_	DIRECTION OF FLOW	X	OPERATOR ABBREVIATIONS:
— <i>// //</i>	PNEUMATIC SIGNAL		P = PNEUMATIC S = SOLENOID
	ELECTRICAL SIGNAL		FLOAT OPERATOR
	HYDRAULIC SIGNAL		SPRING-OPPOSED SINGLE-ACTING PNEUMATIC CYLINDER
o	SOFTWARE OR DATA LINK		DOUBLE-ACTING PNEUMATIC CYLIND
	SIGNAL CONNECTION CROSSOVER - NO CONNECTION		PNEUMATIC DIAPHRAGM
 x	CAPILLARY		PNEUMATIC DIAPHRAGM WITH POSITIO
CROSS RE	FERENCE SYMBOLOGY	TYP	ES OF POWER SUPP
		А	PLANT COMPRESSED AIR
Y-3	> CONTINUATION ON SHEET Y-3	IA ES NG HYD	INSTRUMENTATION AIR ELECTRIC SUPPLY NATURAL GAS HYDRAULIC
Y-3	- CONTINUATION ON SHEET Y-3		
			I
			[

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PRIMARY ELEMENT SYMBOLOGY INSTRUMENT SYMBOLO		NSTRUMENT SYMBOLOGY	INSTRUMENT IDENTIFICATION LETTERS			CONTROL SWITCH NC	CONTROL SWITCH NOTATION)GY		
			FIRST	LETTER	SUG		S	ABBREVIATION	S		
		LOCALLY MOUNTED FIELD INSTRUMENTATION	MEASURED OR	MODIEIER		OUTPUT	MODIEIER				
PITOT TUBE OR ANNUBAR			VARIABLE		FUNCTION	FUNCTION					
		MOUNTED ON PANEL FRONT	A ANALYSIS		ALARM			ACK ACKNOWLEDGE ESTOP EMERGENCY STOP			
			B BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE	FAIL FAILURE FOR FORWARD-OFF-REV	ERSE		C
SONIC OR ULTRASONIC FLOWMETER	R	MOUNTED INSIDE PANEL	C USERS CHOICE			CONTROL	CLOSED	FR FORWARD-REVERS	Ξ		
MAGNETIC FLOWMETER		XXX FRONT PANEL MOUNTED ON AUXILIARY PANEL		DIFFERENTIAL	SENSOR (PRIMARY			HAND-AUTO HOA HAND-OFF-AUTO HOR HAND-OFF-REMOTE			
— (FT) MASS DISPERSION FLOWMETER		(SUBSCRIPT INDICATES PANEL)			ELEMENT)			LL LEAD-LAG LLS LEAD-LAG-STANDBY	/		
				RATIO (FRACTION)	GLASS,			LOR LOCAL-OFF-REMOTI	Ē		
FLUME					VIEWING DEVICE		нісн	MA MANUAL-AUTO			
WEIR		/ PILOT LIGHT			INDICATE			OC OPEN-CLOSE OO ON-OFF			
PROPELLER OR TURBINE METER		×	J POWER	SCAN				OSC OPEN-STOP-CLOSE RJ RUN-JOG			
		INSTRUMENT FUNCTIONS SHARING COMMON	TIME, K TIME SCHEDUILE	TIME; RATE OF				RJR RUN-JOG-REVERSE SIL SILENCE			
			L LEVEL	CHANGE	LIGHT	STATION	LOW				
FLOAT SWITCH		COMPLEX INTERLOCK AS DEFINED IN CONTROL	M USER'S CHOICE	MOMENTARY			MIDDLE, INTERMEDIATE	VALVES			
TE		DIAGRAM OR IN SPECIFICATIONS	N USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE	BALL VALVE			
	RMOWELL	SHARED DISPLAY, SHARED CONTROL	O USER'S CHOICE		ORIFICE, RESTRICTION			BUTTERFLY VALVE			
		FIELD MOUNTED	P PRESSURE,		POINT (TEST)						
			Q QUANTITY	INTEGRATE,	CONNECTION						
		SHARED DISPLAY, SHARED CONTROL, PRIMARY LOCATION - NORMALLY ACCESSIBLE TO OPERATOR	R RADIATION	TOTALIZE	RECORD				VALVE		
			S SPEED,	SAFETY		SWITCH					
		PROGRAMMABLE LOGIC CONTROL, PRIMARY LOCATION - NORMALLY ACCESSIBLE TO OPERATOR	T TEMPERATURE			TRANSMIT					
			U MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION	GATE VALVE			
MAIN PROCESS LINE		PROGRAMMABLE LOGIC CONTROL, FIELD MOUNTED	V VIBRATION, MECH			VALVE, DAMPER, LOUVER		GLOBE VALVE			
			W WEIGHT, FORCE		WELL			KNIFE GATE VALVE			
SECONDARY PROCESS LINE			X UNCLASSIFIED	X AXIS	UNCLASSIFIED		UNCLASSIFIED				
AUXILIARY PROCESS LINE		ACTUATOR SYMBOLOGY	Y EVENT, STATE OR PRESENCE	Y AXIS		CONVERT		PINCH VALVE			
DIRECTION OF FLOW			POSITION,	7 4 X IS		DRIVER, ACTUATOR,					
		OPERATOR ABBREVIATIONS: M = MOTOR P = PNELIMATIC	2 DIMENSION			FINAL CONTROL		L ————————————————————————————————————	LVE		
PNEUMATIC SIGNAL		S = SOLENOID	Ν.1				NI				
ELECTRICAL SIGNAL		FLOAT OPERATOR			BREVIATION		IN		LVE		
									G VALVE		
		PNEUMATIC CYLINDER	AI ANALOG AO ANALOG	G INPUT G OUTPUT				Ŕ			
		DOUBLE-ACTING PNEUMATIC CYLINDER	CL2 CHLOR CO CARBO CO2 CARBO	INE (ANALYZER MODIFI N MONOXIDE (ANALYZE N DIOXIDE (ANALYZER	IER) ER MODIFIER) MODIFIER)			PRESSURE-REGULAT	ING VALVE		
SIGNAL CONNECTION			COMB COMBU COND CONDU	JSTIBLES (ANALYZER M ICTIVITY (ANALYZER MO	ODIFIER) DDIFIER)						
		PNEUMATIC DIAPHRAGM	DEN DENSIT DI DIGITAL DO DIGITAL	Y (ANALYZER MODIFIE) L INPUT L OUTPUT	R)						
X X CAPILLARY			DO DISSOL E/P VOLTAC	VED OXYGEN (ANALYZ GE TO PNEUMATIC						GENERAL NOTES	
		PNEUMATIC DIAPHRAGM WITH POSITIONER	HCL HYDRO I/O INPUT/C	GEN SOLFIDE (ANALYZ GEN CHLORIDE (ANALY OUTPUT	ZER MODIFIER)						
			I/P CURRE NOX NITROG	NT TO PNEUMATIC GEN OXIDE (ANALYZER	MODIFIER)			$ \begin{array}{c} & & \\ & & $	M VALVE	ABBREVIATIONS DOES NOT IMPLY ALL SYMBOLS AND	U
			O2 OXYGE P&ID PROCE	IN (ANALYZER MODIFIE SS AND INSTRUMENTA	R) TION DIAGRAM ER MODIEIER)					ABBREVIATIONS HAVE BEEN USED ON THIS PROJECT.	
URUSS REFERENCE STIMBULL		IFED OF FOWER DUPPLY	TURB TURBID WAN WIDE A	REA NETWORK	IER)					2. SEE PROCESS, MECHANICAL AND PLUMBING LEGEND SH FOR MISCELLANEOUS PIPING SYMBOLS.	A
										3. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSE	: ED
Y-3 CONTINUATION ON SHEET Y-3	IA ES	INSTRUMENTATION AIR								IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK REFER TO CONTEXT OF EACH SHEET FOR USAGE.	
	N H	G NATURAL GAS YD HYDRAULIC								4. VALVE SYMBOLS SHOWN HERE ARE APPLICABLE ONLY T INSTRUMENTATION DIAGRAMS, SEE PROCESS, MECHANI	O CAL AND
Y-3 CONTINUATION ON SHEET Y-3										PLUMBING LEGEND SHEET FOR VALVE SYMBOLS USED ELSEWHERE ON THE SHEETS.	
		PROJECT MANAGER	ARASHDEEP SINGH							INSTRUMENTATION	
		DESIGNED	A. SINGH	A. SINGH							
			W. ETTLICH T. KONTONICKAS	W. ETTLICH T. KONTONICKAS			City of Fort Bragg	ity of Fort Bragg GENERA		/IATIONS	
		DRAWN	P. VAN MEURS		09/30/24		Section 1	Water Treatment Plant Rehabilitation Project			
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0	08/2023	ISSUED FOR BID	

FILE: C:\pwwork DATE: 08/10/23

PROJECT MANAGER	ARASHDEEP SINGH
DESIGNED	A. SINGH
DESIGNED	W. ETTLICH
CHECKED	T. KONTONICKAS
DRAWN	P. VAN MEURS
DATE	08/2023
PROJECT NUMBER	10276484

City of Fort Bragg Water Treatment Plant Rehabilitation Project

INSTRUMENTATION

BLOWERS AND TREATMENT UNITS PROCESS AND INSTRUMENTATION DIAGRAM

FILENAME 9102.dwg SCALE NONE

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