



PROVO WATER RECLAMATION FACILITY PHASE 1 PACKAGE 2 2020 CONSTRUCTION

VOLUME 2 FOR CONSTRUCTION: PHASE 1, ELECTRICAL UPGRADES PACKAGE E: EXISTING BLOWER / LOAD CENTER 2 RE-FEED FEBRUARY 2025

PROVO CITY

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MICHELLE KAUFUSI

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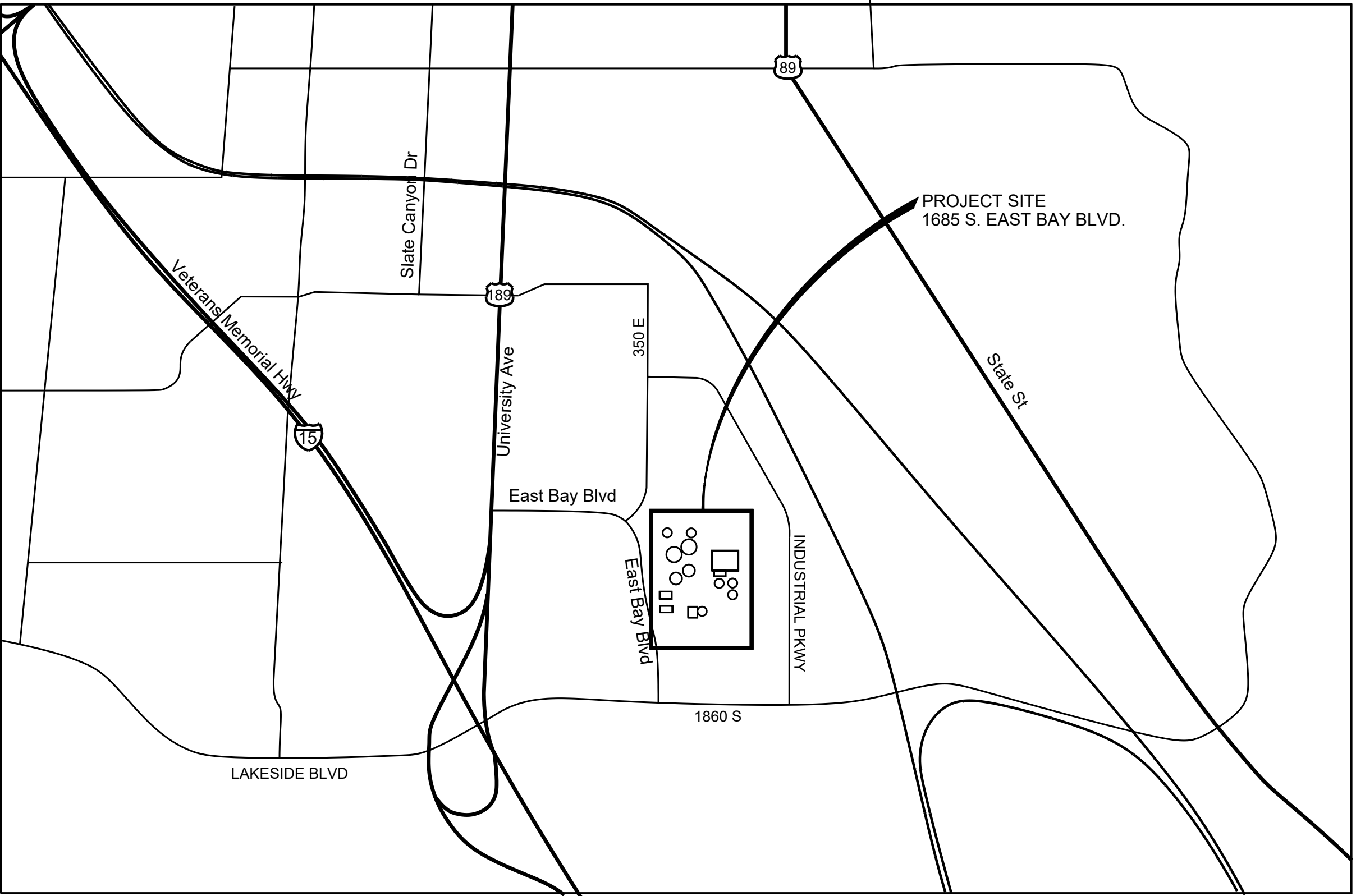
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LOCATION MAP

NTS

NO.	DATE	REVISION	BY	APVD

1

2

3

4

5

6

DISCIPLINE/
SHEET NUMBER DRAWING NUMBER TITLE

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NO.

DATE

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02/26/2025

STATE OF UTAH

DATE

FEBRUARY 2025

PROJECT NUMBER

19-002

DRAWING NUMBER

G-GN-002

SHEET

OF

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.

0

1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DESIGN

JEN

DRAWN

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JEN

APPROVED

UJM

WATERWORKS

ENGINEERS

provo

WELCOME HOME

PROVO CITY
PUBLIC WORKS DEPT
PROVO WRF
PHASE 1, ELEC. UPGRADES
PACKAGE E - EB LC-2 RE-FEED

GENERAL

DRAWINGS INDEX

A

B

C

D

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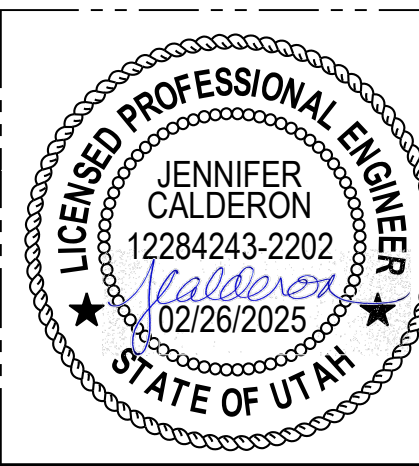
FILENAME: W:\CAD\PROJECTS\19-002 PROVO WATRR PHASE 1_(S)\PROJECT FILES_PHASE 1 ELECTRICAL UPGRADES\07 DRAWINGS\PACKAGE E - EB LC-2 RE-FEED\ARCHIVE PRE-CLIENT COMMENT INCORPORATED\19-002-01-002.DWG

PLOT TIME: 10:24 AM

ABBREVIATIONS

@	AT	CL	CENTERLINE	°F	DEGREE FAHRENHEIT			PROP	PROPERTY	SYMM	SYMMETRICAL
AB	ANCHOR BOLT, AGGREGATE BASE	CLDIP	CEMENT-LINED DUCTILE IRON PIPE	FB	FLAT BAR	JT	JOINT	PRV	PRESSURE RELEASE VALVE		
AC	ASPHALTIC CONCRETE	CLG	CEILING	FC	FLEXIBLE COUPLING			PS	PUMP STATION	T	TANGENT, TELEPHONE LINE, TOP
ACI	AMERICAN CONCRETE INSTITUTE	CLR	CLEAR, CLEARANCE	FCA	FLANGED COUPLING ADAPTER	KIP	THOUSAND POUNDS	PSF	POUNDS PER SQUARE FOOT	t, T	THICKNESS
ADD	ADDITIONAL	CLSM	CONTROLLED LOW STRENGTH MATERIAL	FCO	FLOOR CLEAN OUT	KW	KILOWATT	PSI	POUNDS PER SQUARE INCH	T&B	TOP AND BOTTOM
ADH AB	ADHESIVE ANCHOR BOLT	CML, CSP	CONCRETE MORTAR LINED AND COATED STEEL PIPE	FD	FLOOR DRAIN			PSIG	POUNDS PER SQUARE INCH, GAUGE	T&G	TONGUE AND GROOVE
ADJ	ADJACENT, ADJUSTABLE			FDA	FLOOR DRAIN W/INTEGRAL TRAP	L	LEFT, ANGLE, LENGTH	PT	POINT OF TANGENCY	TBG	TUBING
AFF	ABOVE FINISH FLOOR	CMLSP	CEMENT MORTAR LINED STEEL PIPE	FDN	FOUNDATION	LAB	LABORATORY	P.U.E.	PUBLIC UTILITY EASEMENT	TC	TOP OF CONCRETE
AFG	ABOVE FINISH GRADE	CMP	CORRUGATED METAL PIPE	FDV	FILTER DRAIN VALVE	LAT'L	LATERAL	PV	PLUG VALVE	TCE	TEMPORARY CONSTRUCTION EASEMENT
AHP	AIR: HIGH PRESSURE	CMU	CONCRETE MASONRY UNIT	FES	FLARED END SECTION	LB	POUNDS	PVC	POLYVINYL CHLORIDE PLASTIC \ POINT OF	TDH	TOTAL DYNAMIC HEAD
AIR	COMPRESSED AIR	CO	CLEANOUT	FEXT	FIRE EXTINGUISHER	LB/CU FT	POUNDS PER CUBIC FOOT		VERTICAL CURVE	TECH	TECHNICAL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	COL	COLUMN	FF	FINISH FLOOR	LF	LINEAR FEET	PVCGS	POLYVINYL CHLORIDE PLASTIC-GRAVITY SEWER TYPE	TEL	TELEPHONE
AL	ALUMINUM SULFATE	COM	COMMUNICATION	FG	FINISH GRADE, FLUE GAS	LG	LONG	PVCW	POLYVINYL CHLORIDE PLASTIC- WATER DISTRIBUTION SERVICE TYPE	TEMP	TEMPORARY, TEMPERATURE
ALP	AIR LOW PRESSURE	COMB	COMBINED	FHY	FIRE HYDRANT	LONG	LONGITUDINAL		POLYVINYL CHLORIDE PLASTIC- POINT OF VERTICAL INTERSECTION	TF	TOP FACE
ALTN	ALTERNATE	CONC	CONCRETE	FI	FLOW INDICATOR	LP	LOW POINT	PVI	PAVEMENT	THD	THREAD
AMH	AMMONIUM HYDROXIDE	CONN	CONNECTION	FIG	FIGURE	LR	LONG RADIUS	PVMT	POINT OF VERTICAL INTERSECTION	THK	THICK
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	CONT	CONTINUOUS, CONTINUATION	FIL	FILTRATE	LS	LOW PRESSURE STREAM	PVT	POINT OF VERTICAL TANGENCY, PRIVATE	TNK	TANK
		COORD	COORDINATE	FL	FLOOR, FLOW LINE					TOB	TOP OF BAFFLE
		CPLG	COUPLING	FLG	FLANGE	MAX	MAXIMUM			TOC	TOP OF CURB
APPROX	APPROXIMATE	CTR'D, CTD	CENTERED	FLH	FLAT HEAD	MCC	MOTOR CONTROL CENTER	R, RAD	RADIUS	TG	TOP OF GRATING
APVD	APPROVED	CTR	CENTER	FLL	FLOW LINE	MCJ	MASONRY CONTROL JOINT	RC	REINFORCED CONCRETE	TOW	TOP OF WALL
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	CU	COPPER	FLTR	FILTER	MECH	MECHANICAL	RCP	REINFORCED CONCRETE PIPE	TP	TURNING POINT, TEST PIT
AR	AERATION	CU FT	CUBIC FOOT	FM	FLOW METER	MFR	MANUFACTURER	RD	ROAD, ROOF DRAIN	TRANS	TRANSITION
ARCH, A	ARCHITECTURAL	CU IN	CUBIC INCH	FNSH	FINISH	MGD	MILLION GALLONS PER DAY	RDCR	REDUCER	TRANSV	TRANSVERSE
ARV	AIR RELEASE VALVE	CU YD	CUBIC YARD	FO	FUEL OIL	MH	MANHOLE	REF	REFER OR REFERENCE	TS	TUBE STEEL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	CULV	CULVERT	FOC	FACE OF CONCRETE	MIN	MINIMUM, MINUTE	REINF	REINFORCED, REINFORCING, REINFORCE	TST	TOP OF STEEL
		CV	CHECK VALVE	FRP	FIBERGLASS REINFORCED PLASTIC	MISC	MISCELLANEOUS	REQD	REQUIRED	TT	THRUST TIE
AUTO	AUTOMATIC	CW	CIRCULATING WATER	FSPS	FINE SCREEN PUMP STATION	MJ	MECHANICAL JOINT	RJ	RESTRAINED JOINT	TW	TREATED GROUND WATER
AUX	AUXILIARY			FT	FOOT OR FEET	MOV	MOTOR OPERATED VALVE	RLS	RUBBER LINED STEEL	TWS	TRACER WIRE STATION
AV	AIR/VACUUM ASSEMBLY	D	PENNY	FTG	FOOTING	MPH	MILES PER HOUR	RM	ROOM	TYP	TYPICAL
AVE	AVENUE	DBA	DEFORMED BAR ANCHOR	FWD	FORWARD	MSNRY	MASONRY	RMJ	RESTRAINED MECHANICAL JOINT		
AWG	AMERICAN WIRE GAGE	DBL	DOUBLE			MSP	MILL STEEL PIPE, MANUAL OF STANDARD	RNG	RENEWABLE NATURAL GAS	UBC	UNIFORM BUILDING CODE
AWWA	AMERICAN WATER WORKS ASSOCIATION	DEC	DECANT	G	GAS			RO	ROUGH OPENING OR	UD	UNDERDRAIN
AX	ANOXIC	DET	DETAIL	GA	GAGE	MT	MEMBRANE TANKS		REVERSE OSMOSIS	UG	UNDERGROUND
		DI	DROP INLET, DUCTILE IRON	GALV	GALVANIZED	MTL	MATERIAL	RP	RADIUS POINT	UH	UNIT HEATER
B	BORING	DIA	DIAMETER	GB	GRADE BREAK	MV	MUD VALVE	R/R	REMOVE AND REPLACE	UNK	UNKNOWN
BAV	BALL VALVE	DIAG	DIAGONAL	GC	GROOVED COUPLING	MW	MAKE UP WATER	RST	REINFORCING STEEL	UNO	UNLESS NOTED OTHERWISE
BC	BEGIN CURVE, BOTTOM OF CURB	DIL	DILUTE	GCF	GROOVED COUPLING FITTING	MWS	MAXIMUM WATER SURFACE	RT	RIGHT		
BD	BLOW DOWN	DIM	DIMENSION	GCO	GRADE CLEAN OUT	N	NORTH	RTN	RETURN WATER	V	VENT, VOLT, VALVE
BDP	BACKDRAFT DAMPER	DIMJ	DUCTILE IRON MECHANICAL JOINT	GD	GENERAL DRAINAGE	NC	NORMALLY CLOSED	RV	ROOF VENT	VAC	VACUUM
BF	BLIND FLANGE, BOTTOM FACE	DIP	DUCTILE IRON PIPE	GE	GROOVED END	NE	NORTHEAST	RW	RAW WATER	VDP	VOLUME DAMPER
BFD	BUTTERFLY VALVE DAMPER	DIPPL	DUCTILE IRON PIPE, POLYETHYLENE LINED	GL	GLASS	NG	NATURAL GAS	R/W	RIGHT-OF-WAY	VAR	VENT ACID RESISTANT
BFP	BACKFLOW PREVENTER ASSEMBLY			GPD	GALLONS PER DAY	NH3	AMMONIA			VC	VERTICAL CURVE
BFV	BUTTERFLY VALVE	DIR	DIRECTION	GPH	GALLONS PER HOUR	NIC	NOT IN CONTRACT	S	I-BEAM, SOUTH, SLOPE	VERT	VERTICAL
BLDG	BUILDING	DIST	DISTANCE	GPM	GALLONS PER MINUTE	NO.	NUMBER, NUMBERING	S =	SLOPE EQUALS	VM	VM VALVE MODULE
BLM	BUREAU OF LAND MANAGEMENT	DN	DOWN	GRTG	GRATING	NPT	NATIONAL PIPE THREAD	SA	SERVICE AIR	VPI	VERTICAL POINT OF INTERSECTION
BM	BENCH MARK, BEAM	DO	DITTO	GSP	GALVANIZED STEEL PIPE	NPW	NON POTABLE WATER	SAT	SUSPENDE ACOUSTIC TILE	VPS	VENEER PLASTER SYSTEM
BO	BLOW OFF	DR	DRAIN	GT	GAS TURBINE	NTS	NOT TO SCALE	SCFH	STANDARD CUBIC FEET PER HOUR	VTR	VENT THRU ROOF
BOC	BACK OF CURB	DWG	DRAWING	GV	GATE VALVE	NW	NORTHWEST	SCFM	STANDARD CUBIC FEET PER MINUTE		
BOO	BOTTOM OF OPENING			GVL	GRAVEL			SCH	SCHEDULE	W/	WITH
BOG	BACK OF GUTTER	E	EAST, ELECTRIC, ELECTRICAL	GW	GROUND WATER			SE	SOUTHEAST	W	WIDE FLANGE (BEAM), WEST, WATER
BOT	BOTTOM	EA	EACH			OC	ON CENTER, ODOR CONTROL	SEC	SECONDARY	WATRR	WATER ADVANCED TREATMENT AND RESOURCE RECOVERY
BRG	BEARING	EC	END CURVE	HB	HOSE BIB	OD	OUTSIDE DIAMETER, OVERFLOW DRAIN	SECT	SECTION		
BWI	BACKWASH IN	ECC	ECCENTRIC	HD	HUB DRAIN	OF	OUTSIDE FACE	SH	SHEET	WC	WATER CLOSET
BWO	BACKWASH OUT	EF	EACH FACE, EXHAUST FAN	HDR	HEADER	OFR	OVERFLOW RETURN	SHC	SODIUM HYPOCHLORITE	WD	WOOD
BYP	BYPASS	EFL	EFFLUENT	HDW	HARDWARE	OHE	OVERHEAD ELECTRIC	SLD	SLUDGE	WM	WATER METER
		EG	EXHAUST GAS	HF	HIGH PRESSURE FEEDWATER	OMRF	ORDINARY MOMENT RESISTING FRAME	SLG	SLIDE GATE	WR	WATER RESISTANT
°C	DEGREE CELSIUS	EJ	EXPANSION JOINT	HGT	HEIGHT	O TO O	OUT TO OUT	SLP	SLOPE	WS	WATER SURFACE, WATER STOP
C TO C, CC	CENTER TO CENTER	EL	ELEVATION	HM	HOLLOW METAL	OP	OPERATING	SMP	SAMPLE	W SH ST	WEATHERING SHEET STEEL
C	CHANNEL (BEAM)	ELB, ELL	ELBOW	HORIZ	HORIZONTAL	OPNG	OPENING	SOLN	SOLUTION	WSP	WELDED STEEL PIPE
CAA/ARV	COMBINATION AIR ADMISSION/ AIR RELEASE VALVE	ELC	ELECTRICAL LOAD CENTER	HP	HIGH POINT, HORSEPOWER	OPP	OPPOSITE	SP	SPACE OR SPACES	WT	WATER TIGHT
		ELEC	ELECTRIC, ELECTRICAL	HPS	HIGH PRESSURE STREAM	OZ	OUNCE	SPD	SUMP PUMP DRAIN	WTR	WATER
CARV	COMBINATION AIR RELEASE VALVE	EM	EMISSION MEASUREMENT	HR	HANDRAIL			SPEC	SPECIFICATIONS	WW	WASHWATER OR WASTEWATER
CATH	CATHODIC PROTECTION	ENGR	ENGINEER	HSS	HOLLOW STRUCTURE STEEL	PC	POINT OF CURVE	SPLY	SUPPLY	WWF	WELDED WIRE FABRIC
CATV	CABLE TELEVISION	EO	EMERGENCY OVERFLOW	HV	HOSE VALVE	PE	PLAIN END, POLYETHYLENE OR PERMANENT EASEMENT	SQ	SQUARE		
CB	CATCH BASIN	EP	EDGE OF PAVEMENT	HWY	HIGHWAY			SQ FT	SQUARE FOOT		
CCP	CONCRETE CYLINDER PIPE	EQL SP	EQUALLY SPACED	HYD	HYDRANT	PENT	PENETRATION	SQ IN	SQUARE INCH	YD	YARD
CCS	CENTRAL CONTROL SYSTEM	EQPT	EQUIPMENT			PI	POINT OF INTERSECTION		SAMPLING SYSTEM	YH	YARD HYDRANT
CE	CONDENSATE	ERW	EFFLUENT REUSE WATER			PJF	PREMOLDED JOINT FILLER	SSH	SAFETY SHOWER		
CF	CUBIC FEET	ESA	ENVIRONMENTALLY SENSITIVE AREA	IA	INSTRUMENT AIR	PL	PLATE, PROPERTY LINE	SST	STAINLESS STEEL		
CFM	CUBIC FEET PER MINUTE	ESC	EROSION SEDIMENT CONTROL	ID	INSIDE DIAMETER	PLYWD	PLYWOOD	ST	SAMPLE TAP		
CFS	CUBIC FEET PER SECOND	ESEW	EMERGENCY SHOWER/EYE WASH	IF	INSIDE FACE	PLV	PLUG VALVE	STA	STATION		
CHEM	CHEMICAL	EVC	END OF VERTICAL CURVE	IMLR	INTERNAL MIXED LIQUOR RETURN	POB	POINT OF BEGINNING	STD	STANDARD		
CI	CAST IRON	EW	EACH WAY	IN	INCH	POC	POINT OF CONNECTION	STIF	STIFFENER		
CIGC	CAST IRON GROOVED COUPLING	EWEF	EACH WAY, EACH FACE	INFL	INFLUENT	POE	POINT OF ENDING	STL	STEEL, STEEL PIPE		
CIMJ	CAST IRON MECHANICAL JOINT	EXC	EXCAVATE	INSTM	INSTRUMENTATION	PP, P&P	PLAN AND PROFILE, POWER POLE	STLS	STEEL PIPE (SPECIAL)		
CIP	CAST IRON PIPE	EXH	EXHAUST	INSUL	INSULATE, INSULATION	PPM	PARTS PER MILLION	STR	STRAIGHT		
CIRJ	CAST IRON RESTRAINED JOINT	EXP	EXPOSED, EXPANSION	INV	INVERT	PRC	POINT OF REVERSE CURVE	STRL	STRUCTURAL		
CISP	CAST IRON SOIL PIPE	EXP JT	EXPANSION JOINT	IP	IRON PIPE	PRCST	PRECAST	STRUCT	STRUCTURE		
CJ	CONSTRUCTION JOINT, CONTRACTION JOINT	EXST	EXISTING	IR	IRON ROD	PREFAB	PREFABRICATED	SUBFL	SUBFLOOR		
				IW	INJECTION WATER	PRESS	PRESSURE	SUSP	SUSPEND		
CKV	CHECK VALVE					PRI	PRIMARY	SW	SERVICE WATER, SOUTHWEST		

NO.	DATE	REVISION	BY	APVD



VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DESIGN
JEN
DRAWN
JAM
CHECKED
JEN
APPROVED
JHM

WATERWORKS
ENGINEERS

PROVO CITY
PUBLIC WORKS DEPT
PROVO WRF
PHASE 1, ELEC. UPGRADES
PACKAGE E - EB LC-2 RE-FEED

GENERAL
ABBREVIATIONS

DATE
FEBRUARY 2025
PROJECT NUMBER
19-002
DRAWING NUMBER
G-GN-003
SHEET
OF

DRAWING NUMBER

DISCIPLINE

M-BC-101

DRAWING SERIES NUMBER

FACILITY DESIGNATION

DISCIPLINE

LETTER	DISCIPLINE
G	GENERAL
D	DEMOLITION
C	CIVIL
A	ARCHITECTURAL
S	STRUCTURAL
M	MECHANICAL
H	HEATING, VENTILATION AND COOLING
P	PLUMBING
E	ELECTRICAL
N	INSTRUMENTATION

FACILITY DESIGNATION

FACILITY	AREA
GENERAL	GN
CIVIL GRADING AND DRAINAGE	CD
YARD PIPING	YP
SITE ELECTRICAL	SE
EXISTING HEADWORKS	HW
EXISTING INFLUENT PUMP STATION	IP
EXISTING PRIMARY CLARIFIERS	EC
EXISTING PRIMARY SLUDGE PUMP STATION NO. 1	S1
EXISTING PRIMARY SLUDGE PUMP STATION NO. 2	S2
COARSE SCREENS & GRIT	CG
PRIMARY CLARIFIERS	PC
PRIMARY SLUDGE PUMP STATION	P1
EXISTING AERATION BASINS (AB)	EA
BIOREACTOR COMPLEX (INCLUDES THE FOLLOWING SUB-AREAS)	BC
FINE SCREEN PUMP STATION	FP
FINE SCREENS BUILDING	FS
BIOREACTORS	BR
MEMBRANE BUILDING	MB
EXISTING BLOWER BUILDING	EB
BLOWER BUILDING	BL
ODOR CONTROL BIOFILTER	OC
EQUALIZATION AND SURGE BASINS	EQ
EXISTING CHLORINE BUILDING	CB
EXISTING FILTER BUILDING	FB
EXISTING UV BUILDING	UV
PLANT LIFT STATION	LS
EXISTING PRIMARY DIGESTERS	1D
WASTE GAS BURNER	GS
EXISTING DAF THICKENER	DT
EXISTING SECONDARY DIGESTERS	2D
EXISTING SECONDARY SLUDGE PUMP STATION	P2
EXISTING DEWATERING BUILDING	DB
STRUVITE CONTROL	ST
POWER DISTRIBUTION BUILDING	PB
EXISTING POWER DISTRIBUTION BUILDING	PE
STANDBY GENERATORS	SG
NORTH LOAD CENTER BUILDING	L1
OPERATIONS BUILDING	OP
MAINTENANCE BUILDING	MN

DRAWING SERIES

NUMBER SERIES	DRAWING TYPE
000	GENERAL
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200	SECTIONS
300	DETAILS
400	ELEVATIONS/ISOMETRICS
500	SCHEMATICS
600	SCHEDULES AND P&IDs
700	DEMOLITION ELEVATIONS
800	POINT TABLES
900	NOT USED

PROCESS IDENTIFICATION

PROCESS	AREA
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COARSE SCREENS AND COARSE SCREENINGS HANDLING	10
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FLOW STREAM ID LEGEND

ID	FLOWSTREAM	ID	FLOWSTREAM
AF	ANTI-FOAMING AGENT	MLR	MIXED LIQUOR RETURN
ALUM	ALUMINUM SULFATE	ML	MIXED LIQUOR
AS	AIR SCOUR	NG	NATURAL GAS
BD	BASIN DRAIN	NGH	HIGH PRESSURE NATURAL GAS
BP	MEMBRANE BACKPULSE	NGL	LOW PRESSURE NATURAL GAS
BYP	BYPASS	NPW	NON POTABLE WATER
CA	COMPRESSED AIR	OF	OVERFLOW
CEN	CENTRATE	PA	PROCESS AIR
CIPS	CLEAN IN PLACE SOLUTION	PD	PLANT DRAIN
CIT	CITRIC ACID	PE	PRIMARY EFFLUENT
CK	SLUDGE CAKE	PI	PRIMARY INFLUENT
CW	COLD WATER	PRM	PERMEATE
DAFI	DAF INFLUENT	POL	POLYMER
DAFR	DAF RECYCLE	PS	PRIMARY SLUDGE
DAFU	DAF UNDERFLOW	PW	POTABLE WATER
DEC	DECANT	RAS	RETURN ACTIVATED SLUDGE
DG	DIGESTER GAS	RF	RETURN FLOW
DR	DRAIN	SA	SAMPLE
DSL	DIGESTED SLUDGE	SC	SCUM
EQ	EQUALIZATION	SHC	SODIUM HYPOCHLORITE
EQR	EQUALIZATION BASIN RETURN	SCR	SCREENINGS
FA	FOUL AIR	SD	STORM DRAIN
FO	FOAM	SL	SAMPLE LINE
FE	FINAL EFFLUENT	SPD	SUMP DISCHARGE
GTO	GRAVITY THICKENER OVER FLOW	SPE	SCREENED PRIMARY EFFLUENT
GRT	GRIT	SPS	STRUVITE PRECIPITATED SLUDGE
HPA	HIGH PRESSURE AIR	SS	SANITARY SEWER
HW	HOT WATER	SW	SEAL WATER
INF	INFLUENT	TG	TAIL GAS
IPW	IMPURE WATER	TSL	THICKENED SLUDGE
IRR	IRRIGATION	V	DRAIN VENT
LUB	LUBRICATION	WAS	WASTE ACTIVATED SLUDGE
MGCL2	MAGNESIUM CHLORIDE		

STANDARD DETAIL

AS SHOWN ON DRAWING

12345

DETAIL NUMBER

AS SHOWN ON STANDARD DETAIL

12345

NOTES:

1. STANDARD DETAIL CALLOUTS ARE SHOWN TO INDICATE DETAIL REQUIRED AT SPECIFIC LOCATIONS. DETAILS ARE NOT CALLED OUT AT ALL LOCATIONS. WHERE A STANDARD DETAIL CALLOUT IS NOT SHOWN, THE CONTRACTOR SHALL USE THE STANDARD DETAIL MOST APPLICABLE AND CONSISTENT WITH OTHER WORK UNDER THIS CONTRACT.

UNIQUE VALVE AND OPERATOR

NEW PLANT DESIGNATION

PROCESS DESIGNATION

P08-BFV-XXX

UNIQUE NUMBER

VALVE TYPE

EQUIPMENT DESIGNATION

NEW PLANT DESIGNATION

PROCESS DESIGNATION

EQUIPMENT TYPE

P08-P-101

UNIQUE NUMBER

LINE TYPE APPEARANCE

—	BLACK	NEW 'ON' DISCIPLINE
—	LIGHT OR MEDIUM GRAY OR SCREENED	EXISTING 'ON' OR 'OFF' DISCIPLINE
—	DARK GRAY	NEW 'OFF' DISCIPLINE
—	FUTURE	FUTURE 'ON' DISCIPLINE

GENERAL SYMBOLOGY

STRUCTURE OR EQUIPMENT TO BE REMOVED OR DEMOLISHED

SECTION

SECTION LETTER

DRAWING NUMBER (REPLACED WITH A LINE IF TAKEN AND SHOWN ON SAME SHEET)

ON DRAWING WHERE SECTION IS TAKEN:

DRAWING NUMBER WHERE SHOWN

DRAWING NUMBER (REPLACED WITH A LINE IF TAKEN AND SHOWN ON SAME SHEET)

SECTION

1" = X'

ON DRAWING WHERE SECTION IS SHOWN: DRAWING NUMBER(S) WHERE TAKEN

DETAIL

DETAIL NUMBER

DRAWING NUMBER (REPLACED WITH A LINE IF TAKEN AND SHOWN ON SAME SHEET)

ON DRAWING WHERE DETAIL IS TAKEN:

DRAWING NUMBER WHERE SHOWN

DRAWING NUMBER (REPLACED WITH A LINE IF TAKEN AND SHOWN ON SAME SHEET)

DETAIL

1" = 1'-0"

ON DRAWING WHERE DETAIL IS SHOWN: DRAWING NUMBER(S) WHERE TAKEN

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DESIGN

JEN

DRAWN

JAM

CHECKED

JEN

APPROVED

JHM

WATERWORKS

ENGINEERS

PROVO CITY

PUBLIC WORKS DEPT

PROVO WRF

PHASE 1 ELEC. UPGRADES

PACKAGE E - EB LC-2 RE-FEED

GENERAL

STANDARD DESIGNATIONS

DATE

FEBRUARY 2025

PROJECT NUMBER

19-002

DRAWING NUMBER

G-GN-004

SHEET

OF

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FILENAME: W:\CAD\PROJECTS\19-002 PROVO WATRR PHASE 1_(S)\PROJECT FILES_PHASE 1 ELECTRICAL UPGRADES\07 DRAWINGS\PACKAGE E - EB LC-2 RE-FEED\ARCHIVE PRE-CLIENT COMMENT INCORPORATED\19-002-01-2025.DWG

DATE: FEBRUARY 2025

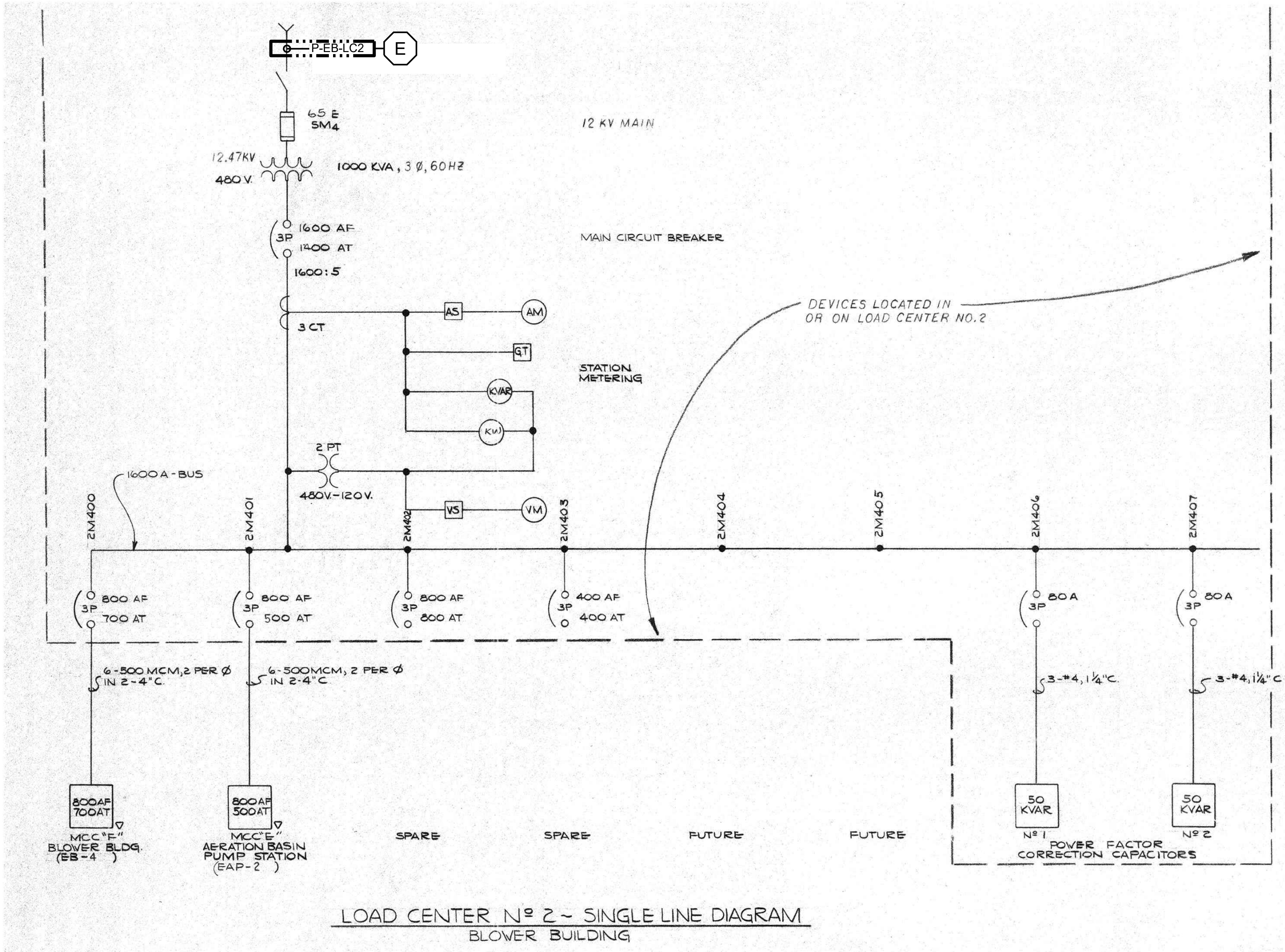
PLOT TIME: 10:31 AM

SINGLE LINE & CONTROL DIAGRAM SYMBOLS																		VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	DESIGN TCA DRAWN TCA CHECKED BCY APPROVED JHM	WATERWORKS ENGINEERS 	PROVO CITY PUBLIC WORKS DEPT PROVO WRF PHASE 1, ELEC. UPGRADES PACKAGE E - EB LC-2 RE-FEED	ELECTICAL
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FILENAME: W:\CAD\PROJECTS\19-002 PROVO WATRR PHASE 1_(S)\PROJECT FILES_PHASE 1 ELECTRICAL UPGRADES\07 DRAWINGS\PACKAGE E - EB LC-2 RE-FEED\ARCHIVE PRE-CLIENT COMMENT INCORPORATED\19-002-01-2022.DWG PLOT TIME: 10:38 AM

PLAN VIEW SYMBOLS									
CONDUIT		POWER RECEPTACLES		TELECOMMUNICATION SYSTEM (CONT)		FIRE ALARM / LIFE SAFETY (CONT)		AREA CLASSIFICATION	
PLAN VIEW	DESCRIPTION:	PLAN VIEW	DESCRIPTION:	PLAN VIEW	DESCRIPTION:	PLAN VIEW	DESCRIPTION:	PLAN VIEW	DESCRIPTION:
	EXPOSED CONDUIT	 ##A LP-### Y	208V, 3P, 4W, RECEPTACLE ##A = AMPERE RATING AS NOTED LP-##= PANEL BOARD NUMBER Y= CIRCUIT NUMBER	 C ²	PAGING SPEAKER, FLUSH MOUNTED CEILING TYPE	 STB ???	WEATHERPROOF HIGH DENSITY FIRE ALARM STROBE LIGHT		INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 12 CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IS A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
	HIDDEN / CONCEALED CONDUIT	 ##A LP-### Y	240V, 20, 3W, RECEPTACLE ##A = AMPERE RATING AS NOTED LP-##= PANEL BOARD NUMBER Y= CIRCUIT NUMBER		PAGING STATION, SURFACE MOUNTED		SPRINKLER FLOW ALARM SWITCH		
	UNDERGROUND CONDUIT	 ##A LP-### Y	FLOOR OUTLET BOX WITH TYPE OUTLET INDICATED		REMOTE WALL MOUNTED VOLUME CONTROL, FOR CEILING SPEAKER (MOUNT UP 5'-0" AFF UNO)		ADDRESSABLE CONTROL MODULE		INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4X CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
	DUCT BANK				PAGING SPEAKER AMPLIFIER ASSEMBLY		ADDRESSABLE MONITOR MODULE		
	OVERHEAD POWER LINES	 ##A LP-### Y	480V, 3P, 4W RECEPTACLE AND DISCONNECT SWITCH ##A = AMPERE RATING AS NOTED X = PANEL BOARD NUMBER Y = CIRCUIT NUMBER	FIRE ALARM / LIFE SAFETY			SMOKE DETECTOR		INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4X CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
	CONDUITS IDENTIFIED BY A NUMBER SHALL BE LISTED IN THE CONDUIT BLOCK DIAGRAM	 ##A GFCI WP X Y	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W UNLESS OTHERWISE NOTED * =C - MOUNTED ABOVE COUNTERTOP GF - GROUND FAULT INTERRUPTER TYPE WP - WEATHERPROOF T - TRANSIENT VOLTAGE SURGE SUPPRESSER X= PANEL BOARD NUMBER Y= CIRCUIT NUMBER	 200 R	FIRE ALARM HEAT DETECTOR 135Y FIXED TEMPERATURE UNLESS OTHER- WISE NOTED. "200" DENOTES 200YF TYPE "R" DENOTES FIXED TEMPERATURE RATE-OF-RISE TYPE.				
	CONDUITS IDENTIFIED BY LETTERS SHALL CONFORM TO THE TABLES IN THE LEGEND	 ##A LP-### Y	QUAD RECEPTACLE, 20A, 120V, 2P, 3W UNLESS OTHERWISE NOTED NOTATION SAME AS ABOVE	 DSD ¹	FIRE ALARM DUCT SMOKE DETECTOR PHOTOCELL TYPE UNLESS OTHERWISE NOTED. "I" DENOTES IONIZATION TYPE.				INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL CONFORM TO N.E.C. REQUIREMENTS FOR THE HAZARDOUS AREA CLASSIFICATION SHOWN.
	CONDUIT STUBBED OUT AND CAPPED	SECURITY SYSTEM			FIRE ALARM DUCT SMOKE DETECTOR	ABBREVIATIONS			
	FLEXIBLE CONDUIT OR MANUFACTURER'S CABLE(S)		SECURITY SYSTEM KEY PAD		FIRE ALARM CONTROL PANEL	A AMPS AC ALTERNATING CURRENT AFF ABOVE FINISHED FLOOR AHF ACTIVE HARMONIC FILTER AIC AMPS INTERRUPTING CAPACITY AM AMMETER AWG AMERICAN WIRE GAUGE CPT CONTROL POWER TRANSFORMER DC DIRECT CURRENT FU FUSE HP HORSEPOWER HMCP HIGH CAPACITY MOTOR CIRCUIT PROTECTOR KCMIL THOUSANDS OF CIRCULAR MILS KV KILOVOLTS KVA KILOVOLT-AMPERES KW KILOWATTS KWH KILOWATT HOURS MCP MOTOR CIRCUIT PROTECTOR MPR MULTI-PURPOSE OR MOTOR PROTECTION RELAY MVA MEGAVOLT-AMPERES OL MOTOR OVERLOADS, THERMAL OR ELECTRONIC PLC PROGRAMMABLE LOGIC CONTROLLER SE SERVICE ENTRANCE RATED TB TERMINAL BLOCK VFD VARIABLE FREQUENCY DRIVE V VOLTS VM VOLTMETER W WATTS			
	CONDUIT TURNED DOWN		SECURITY SYSTEM CARD ACCESS READER		FIRE ALARM VENTILATION PANEL (WITH GRAPHIC PANEL)				
	CONDUIT TURNED UP		SECURITY ALARM MOTION DETECTOR		FIRE ALARM REMOTE ANNUNCIATOR				
	INDICATES LIMITS OF EQUIPMENT OR WIRING ENCLOSURE		CLOSED CIRCUIT TV CAMERA		FIRE ALARM MANUAL PULL STATION, MOUNT UP 4'-0" WP DENOTES WEATHERPROOF COVER				
		TELECOMMUNICATION SYSTEM			OUTDOOR WEATHERPROOF FIRE ALARM MASTER BOX				
			TELEPHONE TERMINAL BOARD 4FT X 8FT X 3/4 INCH UNLESS NOTED OTHERWISE		WP FIRE ALARM SPEAKER, MOUNT UP 7'-8"				
	2 PR #16 TWSH		TELEPHONE OUTLET, WALL TYPE (MOUNT 1'-6" AFF UNO)		FIRE ALARM STROBE, WALL MOUNT UP 6'-8" OR AT CEILING				
	2 TR #16 TWSH		TELEPHONE/OUTLET AND FLOOR BOX		FIRE ALARM HORN AND STROBE LIGHT COMBINATION, MOUNT UP 6'-8"				
	2 PR #16 TW		TELEPHONE OUTLET AND FLOOR BOX		FIRE ALARM HORN AND STROBE LIGHT COMBINATION, CEILING MOUNT				
	THREE 4-INCH CONDUITS		TELEPHONE/OUTLET AND FLOOR BOX		PAGING SPEAKER, WALL MOUNTED "H1" AND "C1" DENOTES TYPE. H=HORNC=CONE				
			PAGING SPEAKER, WALL MOUNTED, BIDIRECTIONAL NOTATIONS SAME AS ABOVE		FIRE ALARM BELL				



SCOPE OF WORK KEY NOTES:

E PACKAGE E - EB LC-2 RE-FEED

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

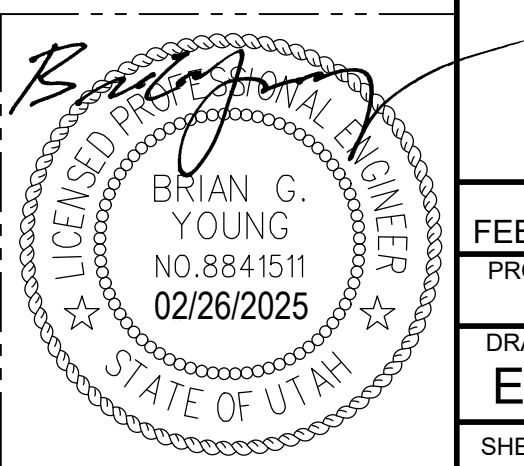
DESIGN
TCA
DRAWN
TCA
CHECKED
BGY
APPROVED
JHM



PROVO CITY
PUBLIC WORKS DEPT
PROVO WRF
PHASE 1, ELEC. UPGRADES
PACKAGE E - EB LC-2 RE-FEED

ELECTRICAL
LC-2
LOAD CENTER
ONE LINE DIAGRAM

DATE
FEBRUARY 2025
PROJECT NUMBER
19-002
DRAWING NUMBER
E-EB-001
SHEET OF



1 EXISTING LOAD CENTER NO. 4
ONE LINE DIAGRAM
SCALE: NONE

NO.	DATE	REVISION	BY	APVD

