

ADDENDUM NO. 1

Date: April 29, 2025 From: Eli Jennings, Clifton Sanitation District To: All Plan Holders Re: Clifton Sanitation District Influent Pump Station Upgrades Project 81-18-024, 150

All Plan Holders responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded, and supplemented as of this date as described below.

Below are each question provided through BidNet Direct by the Inquiry Deadline with the corresponding response. Please make note of the following:

Question - #1 - Lighting E1-1 - Please clarify control and provide preferred switch locations for the interior lighting.

Response - See attached electrical drawings, revision 1 dated 4/17/2025.

Question - #2 - Please clarify the owner provided equipment and participation. Please expand definitions of the requirements based on the notes 1, 2 & 3 page E3-1. Control Room - Will the provided power panel, transformer and PLC cabinet be installed by others or will this installation be part of this project upgrade?

Response - Everything shown on sheet E3-1 will be provided and installed by owner. This sheet is provided for reference only. Power panel, transformer, and PLC cabinet will be provided and installed by owner. See attached electrical drawings, revision 1 dated 4/17/2025.

Question - #3 - Will the PLC programming be by others? or does programming need to be included?

Response - PLC Programming providing by others.

Question - #4 - What will be the preferred wiring methods for all areas of this project ?

Response - Rigid metal conduit (RMC). See attached electrical drawings, revision 1 dated 4/17/2025.

Question - #5 - What is the preferred pump receptacle configuration that will accommodate the control wires in the pump control power cords?

Response - Owner is sourcing and will provide plug and receptacle to be installed by contractor. See attached electrical drawings, revision 1 dated 4/17/2025.

Question - #6 - Are the exhaust fan (EF-1) and louver (LV-1) be interconnected and how are the units expected to be controlled? What is the voltage requirement for LV-1.

Response - See attached electrical drawings, revision 1 dated 4/17/2025.

Question - #7 - What is the preferred connection for the wet well liquid level sensors and flow meters.? Submittal sheets ? Is there a specification for the control cables?

Response - Provide conduit to junction box within three feet of flow meters, then flexible conduit connection from junction box directly to flow meters which are treaded to accept fittings. One junction box can serve two flow meters. Same connection method preferred for wet well liquid level sensors, but this connection will be in class 1 division 1 space. Control cable specification is Belden 8760 or approved equal, this supersedes the 14 AWG requirement on sheet E2-1.

Question - #8 - Is there a panel schedule or listing that would indicate quantity and what type of new circuit breakers that may be required ?

Response - See attached electrical drawings, revision 1 dated 4/17/2025.

Question - #9 - Are there going to be two trolley monorail hoist locations?

Response - There is only one trolley monorail hoist, power will be provided and installed by owner.

Question - In reviewing the project solicitation, we did not find if Liquidated Damages will be included in the agreement. If yes, please advise rate \$/Day.

Response - No liquidated damages have been included for this project. CSD does expect the Contractor to be timely and diligent in completing the work on schedule. Partial pay estimates will be evaluated based on the schedule provided by the Contractor prior to start of work.

Question - During the site visit there was discussions about the monorail hoist shown in the plans is for reference only and will be installed by the Owner prior to the contractor mobilizing. Please confirm if the monorail hoist (S-101) will be in place prior to construction.

Response - The monorail is anticipated to be delivered to the site the first week in June. CSD will install the monorail equipment and will coordinate with the Contractor to avoid any disruption in his progress.

Question - During the site visit existing open tanks were discussed. Please confirm Clifton Water will allow the contractor to construct temporary wood framed platforms over the open tanks. The primary purpose of the platforms will be for safety.

Response - CSD will allow the Contractor to provide temporary platforms for safety purposes. The platforms will need to be constructed in a manner that will allow emergency access to the pumps if needed.

Question - During the site visit, there were discussions of Clifton Water emptying/cleaning 1 of the 2 tanks (at a time) for installation of aluminum framing shown on S-401 and S-503. Please confirm this is accurate. If yes, for scheduling, how many days will Clifton Water need to empty/clean a tank.

Response - CSD will need five calendar days advance notice and will complete emptying and cleaning of 1 tank at a time.

Question - During the site visit, permitting was discussed and the GC is responsible to obtaining and paying for permits. a. Have the permit applications been submitted by Clifton Water? -or- Will the GC need to submit the permit applications? (Bldg, Planning, Fire)

Response – The GC will need to submit the permit applications.

Question - During the site visit, work to be performed/completed by the Owner prior to GC mobilization was discussed. To encourage apples to apples bidding, please summarize these aspects of the project.

Response - Process piping is anticipated to be complete by 5/9/25, wall sleeves and link seals provided. See plan sheets and specifications for other CSD completed work. Monorail installation by CSD will be coordinated with the Contractor.

Question - Is this project Davis Bacon or any other prevailing wage rate.

Response - No.

Question - Does this project have Liquidated damages and if so what are they?

Response - No liquidated damages have been included for this project. CSD does expect the Contractor to be timely and diligent in completing the work on schedule. Partial pay estimates will be evaluated based on the schedule provided by the Contractor prior to start of work.

Please make note of the following request for proposal document modifications:

1. WORK EXPERIENCE SUBMITTAL REQUIREMENTS:

The Contractor shall include with the proposal, examples of three projects completed within the past five years having similar scope and value. Include owner reference contact information for each of the completed projects.

2. PLAN SET REVISIONS:

The plan set for the project shall be updated with revised sheets E0-1, E1-1, E2-1, and E3-1 as revised and dated April 17, 2025 and attached here.

Provided for reference are the mandatory pre-proposal meeting agenda and sign-in sheet. Only general contractors with an employee that attended the pre-proposal meeting and are shown on the sign-in sheet may provide proposals for this project.

The original solicitation for the project noted above is amended as noted herein.

All other conditions of the original solicitation remain the same.

Sincerely,

Eli Jennings

Eli Jennings, District Manager Clifton Sanitation District

PREPROPOSAL MEETING MINUTES

Project: Influent Pump Station Upgrades

Date: April 23, 2025

Time: 10:00 a.m.

Location: Clifton Sanitation District (CSD), Conference Room Notes presented in Blue Italics

1. Introductions and Circulate Attendance List.

2. Project Team:

Position	Name	Office Phone	Cell Phone	E-Mail
Clifton Sanitation Distric	t			
Clifton Sanitation District Manager	Eli Jennings	970-434-7422		ejennings@cliftonsan itation.com
J-U-B Project Manager	Bret Guillory	970-208-8508		bguillory@jub.com
J-U-B Project Engineer	Steve James	970-377-3602		<u>sjames@jub.com</u>
J-U-B Structural Engineer	Robert St. Michell	208-376-7330 ext 1014		rstmichell@jub.com
Chamberlin Architects	Kevin Taylor	970-242-6804		ktaylor@chamberli narchitects.com
Big Horn – MEP (Electrical)	Drew Brown	970-241-8709		drew@bighorneng.
Big Horn – HVAC	Greg Waldorf	970-241-8709		greg@bighorneng.c om

3. <u>Project Overview</u>: Brief discussion prior to the site walk.

4. <u>Structural</u>: Brief overview was presented to the group, no questions presented

5. <u>Architectural:</u> Brief overview was presented to the group, no questions presented

6. <u>Mechanical:</u> Brief overview was presented to the group, no questions presented

7. <u>Electrical:</u> Brief overview was presented to the group, no questions presented

8. <u>Owner Provided Materials and Project Preparation:</u>

See Specifications Section 2.3.

10. Staging Area Provided:

CSD will provide a staging area within the secure limits of the campus.

 Mesa County Building Permit: Contractor will be responsible for obtaining a Mesa County building permit for this project. CSD has been in contact with the building department during design.

12. Schedule for Proposals/Project:

Questions due:	April 25, 2025
Response to Questions/Addenda Issued:	April 30, 2025
Proposals due:	May 5, 2025, by 5:00pm
Notice of Award:	May 8, 2025
Project Completion:	October 17, 2025

All questions are to be submitted through RMEPS BidNet.

CSD will provide and install the monorail crane.

Process piping wall sleeves and link seals will be provided by CSD and installed by the Contractor. Stairs are being fabricated now and will be delivered to the job. The Contractor will be responsible for installation of the stair assembly.

CSD will provide the Class 1 Div 1 plug receptacles for the pump electrical connections that will be located on the outside of the North wall.

Flow meters have been installed.

PLC cabinet installation and programming will be completed by CSD. 4-20 communication wires will be installed by the contractor.



LIGHTING LEGEND	ELECTRICAL EQUIPMENT LEGEND	RESPONSIBLE DIVISION:				
OTES:	BRANCH CIRCUIT PANELBOARD	UNLESS OTHERWISE INDICATED ALL HE AND OTHER MECHANICAL EQUIPMENT,	ATING, VENTII MOTORS, ANC	LATING, AI CONTROI	R CONDITION	IING, PLUMBING, FURNISHED, SET
YMBOLS SHOWN ARE STANDARD. VARIATION AND/OR COMBINATIONS MAY BE USED ON HE PLANS. THIS LIST SHOWS STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE ROJECT DRAWINGS; HOWEVER, WHEREVER THE SYMBOL ON THE PROJECT DRAWINGS	TELEPHONE TERMINAL BOARD O ELECTRIC MOTOR	IN PLACE AND WIRED AS FOLLOWS:	FURNISHED	SET	POWER WIRED	CONTROL WIRED
CCUR, THE ITEM SHALL BE PROVIDED AND INSTALLED.	F FUSED SAFETY SWITCH / DISCONNECT COMBINATION	EQUIPMENT	23	23	26	
NUMBER NEXT TO A RECEPTACLE OR DEVICE INDICATES A CIRCUIT NUMBER.		COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC				
N UPPER CASE LETTER NEXT TO A SWITCH INDICATES THE FUNCTION OF THE SWITCH. A	LA-7 CIRCUITRY HOMERUN: PANEL LA - CIR. #7	MOTOR STARTERS, VFD'S AND CONTACTORS	23(1)	26	26(2)	23
N UPPER CASE LETTER NEXT TO A LIGHT FIXTURE INDICATES THE TYPE OF FIXTURE. EFER TO THE LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS. A LOWER CASE ETTER NEXT TO A LIGHT CORRESPONDS TO THE SWITCH DESIGNATION.	CONDUIT OR WIRE CONCEALED IN WALL/CLG. (SOLID LINE TYPE) CONDUIT OR WIRE UNDERFLOOR/UNDERGND. (CENTER LINE TYPE)	FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR				
	MAIN DISTRIBUTION GEAR	STARTERS MANUAL-OPERATING AND		26	26	
SWITCHES	CIRCUIT BREAKER IN A PANEL BOARD	CONTROLS, RELAYS,	23	26	26	26
\$ SINGLE POLE SWITCH	PAD MOUNTED UTILITY TRANSFORMER		23	23	26	23
\$ ₂ TWO POLE SWITCH \$ ₃ THREE-WAY SWITCH	<u> </u>	AND TIME SWITCHES	23	23	26	23
\$ ₄ FOUR-WAY SWITCH \$ _D DIMMER SWITCH	0 100A = AMP RATING 100 A 2P = NUMBER OF POLES	THERMOSTATS (LINE VOLTAGE)	23	23	26	26
\$ 3 WAY DIMMER SWITCH - (4D INDICATES A 4WAY DIMMER)	FUSED DISCONNECT	MOTOR AND SOLENOID VALVES,		20		
DR BOOK ACTIVATED OWNON WALL MOUNTED DUAL TECHNOLOGY MANUAL ON / AUTO OFF VACANCY SENSOR SWITCH	M ELECTRICAL METER SHOWN ON ONE-LINE DIAGRAMS	SWITCHES	23	23(2)		23(2)
\$LV LOW VOLTAGE LIGHT SWITCH		PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)		23(2)
<pre>\$p PILOT LIGHT SWITCH</pre>	PP1= PANEL NAME 225A MLO = MAIN LUG OR BREAKER SIZE	HEATING, COOLING, VENTILATION AND AIR				
\$ _{OS} AUTO ON / AUTO OFF LIGHT SWITCH \$ _{MO} DUAL TECHNOLOGY MOTION / OCCUPANCY SENSOR LIGHT SWITCH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE	CONDITIONING CONTROLS	23	23 26	26 26	23
 \$MA MANUAL ON / AUTO OFF DIMMING LIGHT SWITCH \$K KEY OPERATED LIGHT SWITCH 	PP1 PP1 225A MCB 225A MLO 120/2081/ 120/2081/					
\$ _T MANUAL ON - TIMED OFF LIGHT SWITCH	3PH, 4W 3PH, 4W	SUBSCRIPT FOOTNOTES: 1. MOTOR STARTER TO INCLUDE CON AUXILIARY CONTACT. AND "ON" AN	TROL TRANSF D "OFF" PILOT	ORMER, H	IOA SWITCH,	(1) NO AND (1)NC
SOS) CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH		2. IF ITEM IS FOR LINE VOLTAGE, SET				SION 26. WHERE
SOS CEILING MOUNTED DAYLIGHT HARVESTING SENSOR	ELECTRICAL DEVICE LEGEND	VOLTAGE FURNISH AND SET UNDER	R DIVISION 23,	CONNECT	UNDER DIVI	S AND USING LIN SION 26.
\$ _{SC} SCENE CONTROL STATION \$ _{MS} UNIT LIGHTING MANAGEMENT CONTROL STATION,	CEILING JUNCTION BOX - SURFACE/FLUSH	ABBREVIATIONS:				
	J⊢ WALL JUNCTION BOX - SURFACE/FLUSH	44" MOUNTING HEIGHT ABOVE	DIA	DIAMETEI	R	
LIGHT FIXTURES	DUPLEX RECEPTACLE FLOOR MOUNTED RECEPTACLE	A AMPS	- DIAG DIFF	DIAGRAM DIFFEREN	NTIAL	
A 1'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID,		A.D. ACCESS DOOR AAV AIR ADMITTANCE VALVE	DISCH DIV	DISCHAR	GE	
	CEILING MOUNTED DUPLEX RECEPTACLE	ABV ABOVE AC AIR CONDITIONING UNIT	DN	DOWN	ENCER	
A FLANGE OR SURFACE MOUNTED	FLOOR MOUNTED FOURPLEX RECEPTACLE	AC ABOVE COUNTER AD AREA DRAIN (SEE SYMBOLS)	DWG	DRAWING		
A 2'x2' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED	APPLIANCE RECEPTACLE - 3 WIRE DUPLEX RECEPTACLE	A.F.C. ABOVE FINISHED CEILING	(E)	EXISTING	XPANSION	
	FOURPLEX RECEPTACLE	AIC AMPERE INTERRUPTING CAPACITY	EA EAT	EXHAUST	G AIR GRILLE	REGISTER RATURE
	ABBREVIATIONS PERTAIN TO ALL DUPLEX AND FOURPLEX RECEPTACLES:	AFCI ARC FAULT CIRCUIT INTERRUPTERS	EC ECC	ELECTRIC	CAL CONTRA	CTOR
	AC GF ABOVE COUNTER - GROUND FAULT CIRCUIT INTERRUPTER AC USB ABOVE COUNTER WITH USB PORT AF ARC FAULT PROTECTED	A.F.F. ABOVE FINISHED FLOOR AHU AIR HANDLING UNIT	EF EFF	EXHAUST	FAN CY	
4 - 4 SURFACE CEILING OR PENDANT MOUNTED FIXTURE	AF USB ARC FAULT PROTECTED WITH USB PORT AF GF ARC FAULT WITH GROUND FAULT CIRCUIT INTERRUPTER D DEDICATED RECEPTACLE		EL ELEC	ELEVATIO	DN C	
EX2 The DOUBLE FACE EXIT SIGN, WALL AND CEILING MOUNTED	D USB DEDICATED RECEPTACLE WITH USB PORT EM RECEPTACLE CIRCUITED TO THE EMERGENCY PANEL WITH RED COVER PLATE	ATS AUTOMATIC TRANSFER SWITCH	ELEV	ELEVATO)N
EX1 SINGLE FACE EXIT SIGN, WALL AND CEILING MOUNTED	GF GROUND FAULT CIRCUIT INTERRUPTER GF WP WEATHER PROOF GROUND FAULT CIRCUIT INTERRUPTER	AVG AVERAGE	ENT		G	
	72" GENERAL PURPOSE WITH MOUNTING HEIGHT.	AWG AMERICAN WIRE GAGE BAS BUILDING AUTOMATION SYSTEM	EQ	EQUAL	, METALLIC T	UBE
	T THERMOSTAT	BB BASEBOARD BD BACK DRAFT DAMPER	EQUIP EQUIV	EQUIPME	NT ENT	
	OPEN/CLOSE/STOP PUSH BUTTON	BFP BACK FLOW PREVENTOR BL BOILER	ES ESP	END SWIT	ICH IL STATIC PR	ESSURE
	C1 DRAWING KEY NOTES	BLDG BUILDING BLW BELOW	ET EWC	EXPANSIO ELECTRIC	ON TANK C WATER COO	DLER
	100 ROOM DESIGNATION	BOB BOTTOM OF BEAM	EWT TEMPE	ENTERING ERATURE	G WATER	
GENERAL ELECTRICAL NOTES:		BOP BOTTOM OF PIPE	EX EXPAN	EXHAUST	NSION	
 ALL ELECTRICAL WORK TO COMPLY WITH LATEST EDITION OF NEC, IECC AND ALL APPLICABLE GOVERNING CODES. FIELD COORDINATION DURING CONSTRUCTION IS IMPERATIVE. CONTRACTORS 	LIMITED TO THE LUCATION OF ALL LIGHTING EQUIPMENT INCLUDING BOT NOT AND MECHANICAL DRAWINGS AND ALL OTHER TRADES AS REQUIRED. REFER TO	BTU BRITISH THERMAL UNIT	EXT F	EXTERNA DEGREES	L S FAHRENHEI	т
BIDDING THIS WORK MUST MAKE REASONABLE ALLOWANCES FOR UNFORESEEN CONTINGENCIES. 3 ELECTRIC LITUITY TO ADVISE OWNER AND/OR THE ELECTRICAL ENGINEER PRIOR TO	THE ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONAL LOCATION OF LIGHT FIXTURES. 2 LIGHTING FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE AND		FA FC	FREE ARE FAN COIL	EA UNIT	
4. ALL CONDUIT USED SHALL BE RMC.	 SHALL NOT BE SUPPORTED FROM THE T-BAR CEILING GRID. THE ELECTRICAL CONTRACTOR IS TO CONFIRM THE LIGHT FIXTURES ORDERED WILL 		FC FCV	FOOTCAN	IDLE NTROL VALV	F
WIRING:	REFLECTED CEILING PLANS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING THE FIXTURES.	CBV CIRCUIT BALANCING VALVE	FD			
 ALL WIRING IS SHOWN DIAGRAMMATICALLY ON DRAWING, FIELD VERIFY ALL CONDITIONS PRIOR TO ROUGH-IN. ALL CONDUITS AND CONVEYANCES SHALL BE CONCEALED IN THE EVENT THAT A 	 VERIFY LUMINAIRE MOUNTING REQUIREMENTS AND OVERALL HEIGHT OF ALL PENDANT MOUNTED FIXTURES PRIOR TO ORDERING. ALL LIGHT FIXTURES NEED TO BE COMPATIBLE WITH THE SWITCHES AND CONTROLS 		FIN	FINISHED		
NEW DEVICE IS BEING INSTALLED IN AN EXISTING DRYWALL PARTITION, PROVIDE A CUT IN TYPE BOX AND FISH FLEXIBLE CONDUIT DOWN INSIDE THE WALL FROM	BEING PROVIDED. 6. THE LIGHTING PACKAGE SHALL BE APPROVED BY BOTH THE ARCHITECT AND ENCINEER AS APPROVED FOUND REFORMED IN A MOUTH ENCINE	CFH CUBIC FEET PER HOUR	FLA FLEX	FLEXIBLE		
TRANSITION TO EMT ONCE ABOVE THE CEILING. 3. SIZES OF WIRE AND CABLES ARE BASED UPON COPPER CONDUCTORS, UNLESS	ORDERED UNTIL THE LIGHT FIXTURE SUBMITTAL PACKAGE HAS BEEN APPROVED IN WRITING BY THE ARCHITECT, GENERAL CONTRACTOR AND ELECTRICAL ENGINEER.	CHWR CHILLED WATER RETURN	FLR FOB	FLOOR FLAT ON I	BOTTOM	
OTHERWISE INDICATED. ALL CIRCUITS SHALL CONTAIN (2) #12 AWG WITH (1) #12 GND IN 1/2" CONDUIT UNLESS NOTED OTHERWISE.	7. COORDINATE LUMINAIRE MOUNTING REQUIREMENTS PRIOR TO PLACING ORDER.	CHWS CHILLED WATER SUPPLY CI CAST IRON	FOT FP	FLAT ON	TOP TECTION	
 ALL BRANCH CIRCUITS WITH HOME RUNS OVER 50 FEET, WILL BE SIZED ONE SIZE LARGER. ALL PENETRATIONS IN OR THROUGH FIRE RATED PARTITIONS SHALL BE FIRE 		CL CENTER LINE CLG CEILING	FP FPM	FIRE PUM	IP R MINUTE	
STOPPED IN SUCH A WAY THAT THE PENETRATION MATCHES THE FIRE RATING OF THE WALL. 6 THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN		CMU CONCRETE MASONRY UNIT CO CLEAN OUT	FPS FS	FEET PER	R SECOND	
 THE DEPENDENCE OF THE DEPENDENCE OF THE APPROPRIATE DISCIPLINES AND CONTRACTORS. COORDINATE ALL DEVICE, FIXTURE AND HARDWARE COLOR SELECTIONS WITH THE 		COL COLUMN COMP COMPRESSOR	FSD FT	FIRE/SMC	KE DAMPER	
 ARCHITECT PRIOR TO MAKING SHOP DRAWING SUBMITTALS. 8. COORDINATE THE MOUNTING HEIGHTS OF ALL RECEPTACLES MOUNTED ABOVE COUNTERS, CASEWORK AND APPLIANCE RECEPTACLES WITH ARCHITECTURAL 		CONC CONCRETE	FXC		CONNECTIO	Ν
ELEVATIONS. 9. BRANCH CIRCUIT AND SPECIAL SYSTEMS WIRING FOR DEVICES ON WALLS IN EINISHED AREAS WHICH CANNOT BE CONCEALED SHALL BE INSTALLED IN SUBJACE			GA	GAUGE		
MOUNTED RACEWAY. 10. ALL EXPOSED CONDUITS, BOXES, ETC. IN ROOMS TO BE PAINTED SHALL BE PAINTED		CONTR CONTRACTOR	GAL	GALLON		
IO MATCH THE SURROUNDING SURFACE. EXPOSED CONDUITS, BOXES, ETC. IN ROOMS WHICH ARE NOT PAINTED MAY BE LEFT UN-PAINTED. EXPOSED CONDUIT, BOXES, ETC. ON THE EXTERIOR OF BUILDINGS SHALL BE PAINTED TO MATCH THE		CRI COLOR RENDERING INDEX	GEC CONDI			
SURROUNDING SURFACE AS CLOSELY AS POSSIBLE. 11. THE CONTRACTOR IS RESPONSIBLE FOR PATCHING, PAINTING, REPAIRING OR REPLACEMENT OF ALL WALLS, CELLING OD OTHER SHILL SHOW SHOWS THE SUB-		CT CURRENT TRANSFORMER CU CONDENSING UNIT	INTERI		CONTRACT	DR
REPLACEMENT OF ALL WALLS, CEILING OR OTHER BUILDING ELEMENTS WHICH ARE DISTURBED AS PART OF THE DEMOLITION AND/OR INSTALLATION OF ELECTRICAL WORK.		CU COPPER CUH CABINET UNIT HEATER	GPH	GALLONS		
12. PROVIDE ELECTRICAL CONNECTION TO ALL FIRE, SMOKE, AND FIRE / SMOKE DAMPERS INCLUDING POWER AND FIRE ALARM. VERIFY EXACT SIZE AND FINAL		CVB CONSTANT VOLUME BOX CWR CONDENSER WATER RETURN	GPM GRS/LI	GALLONS B GRAI		- ND
UNITS RATED AT MORE THAN 2000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN THE RETURN DUCT. ALL ROOFTOP UNITS RATED AT MORE THAN		CWS CONDENSER WATER SUPPLY DB DRY BULB	Н 2О НВ	VVATER HOSE BIB	в	
15000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN BOTH THE SUPPLY AND RETURN DUCT AT ROOFTOP LEVEL AND IN THE RETURN DUCT AT EVERY LEVEL THAT IS SERVED. ELECTRICAL CONTRACTOR WILL PROVIDE A REMOTE TEST STATION AND			HD HP	HEAD (SE HEAT PUN	E SCHEDULE	S)
ALL WIRING NECESSARY TO COMPLETE INSTALLATION. 13. REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL		2. BRINNING FOUNTAIN				
OWNER/GENERAL CONTRACTOR FURNISHED EQUIPMENT.						

SUBSTITUTIONS:

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.

B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR TO BID TIME.

C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS.

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING, AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.

NO AND (1)NC

ION 26. WHERE AND USING LINE

HP	HORSEPOWER
HR	HOUR
цт	
HIR	HEATER
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HX	HEAT EXCHANGER
ΗZ	HERTZ
ID	INSIDE DIAMETER
IG	
10	ISOLATED GROUND
IN	INCHES
INV	INVERT
JBOX	JUNCTION BOX
К	KELVIN
KW	KILOWATT
KVA	KILO VOLT - AMPS
1	
LAT	LEAVING AIR TEMPERATURE
LV	LAVATORY
LB	POUND
LD	LINEAR DIFFUSER
LF	LINEAR FEET
LIN	LINEAR
110	
LRA	LUCKED ROTOR AMPS
LV	LOUVER
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSANDS OF BTU PER HOUR
МС	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MCB	
MDP	MAIN DISTRIBUTION PANEL
MED	MEDIUM
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUG ONLY
MOCP	MAXIMUM OVERCURRENT
PROTE	ECTION
MTD	MOUNTED
MUA	MAKE-UP AIR UNIT
N	NEUTRAL
NC	NORMALLY CLOSED
NEG	NEGATIVE
NIC	
NO	
NO	NORMALLY OPEN
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
occ	OCCUPIED
OCP	
OL	OVERLOAD
ORD	OVERFLOW ROOF DRAIN
ΟZ	OUNCE
PBD	PARALLEL BLADE DAMPER
PD	PRESSURE DROP
PH	PHASE
PUs	
rkv =-	
PS	PRESSURE SWITCH
PSI	POUNDS PER SQUARE INCH

PT PRESSURE TRANSMITTER

PTAC	PACKAGED TERMINAL AIR
COND	TIONER
PV	PLUG VALVE
PVC	
QTY	
RA	RETURN AIR GRILLE / REGISTER
REI	
REOD	REQUIRED
RF	RETURN FAN
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RLA	RATED LOAD AMPS
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR GRILLE / REGISTER
SC	SHORT CIRCUIT
SCA	SHORT CIRCUIT AVAILABLE
SCCR	
RATIN	
зсп 9D	
SEE	SMOKE EXHAUST FAN
SE	
SH	SENSIBI E HEAT
SH	SHOWER
SP	STATIC PRESSURE
SPD	SURGE PROTECTION DEVICE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
SS	SAFETY SHOWER
STD	STANDARD
STL	STEEL
SYS	SYSTEM
TEMP	TEMPERATURE
TR	TRANSFER GRILLE / REGISTER
TR 	
TERMI	NAL BACKBOARD
TYP	TYPICAL
ТΧ	TRANSFORMER
UC	UNDERCUT DOOR
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
UNOC	C UNOCCUPIED
UR	URINAL
V	VOLTS
VA	VOLT AMPERE
VA	VALVE
VAV	
VULI	
W	WIDTH
W	WATTS
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WC	WATER CLOSET
WG	WATER GAUGE
WP	WEATHERPROOF
WPIU	WEATHERPROOF IN-USE
WSR	WITHSTAND RATING
XFMR	TRANSFORMER



42655

04/29/20







LIGHTING - LOWER LEVEL CONSTRUCTION PLAN

SCALE: 1/8" = 1'-0"

B



	J-U-B ENGINEERS, INC.
	J-U-B ENGINEERS, INC. 305 S. Main Street Unit 6 Palisade, CO 81526 Phone: 970.208.8508 www.jub.com
	Bighorn Consulting Engineers, Inc. Mechanical & Electrical Engineers 386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709
	REUSE OF DRAWINGS J-U-B SHALL RETAIN ALL COMMON LAW, STATUTORY, COPYRIGHT AND OTHER RESERVED RIGHTS OF THESE DRAWINGS, AND THE SAME SHALL NOT BE REUSED WITHOUT J-U-B'S PRIOR WRITTEN CONSENT ANY REUSE WITHOUT WRITTEN CONSENT BY J-U-B WILL BE AT CLIENT'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO J-U-B. REVISION REVISION OTHESE DRAWINGS, AND THE SAME SHALL NOT BE REUSED WITHOUT J-U-B'S BY J-U-B WILL BE AT CLIENT'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO J-U-B. MOTION OUTIZE DESIGN DEVELOPMENT OUTIZE DESCRIPTION DESCRIPTION
	CLIFTON INFLUENT PUMP STATION UPGRADES PROJECT LIGHTING - CONSTRUCTION PLAN 3217 D ROAD CLIFTON, COLORADO
Sector de la constante	FILE : 25030 - CLIFTON WW - LTG JUB PROJ. # : 25000 DRAWN BYGC/DB DESIGN BY: DB CHECKED BY: DB CHECKED BY: DB AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY LAST UPDATED: 4/22/2025 SHEET NUMBER:
	E1-1

LU	MINAIRE	SCHEDULE	
ERNATE LOG NO.	VOLTAGE MOUNTING	DRIVER LAMP SPECIFICATION	DESCRIPTION
VED ALENT	120-277V SURFACE	0-10V LED DIMMING 4000K, 5000LM, 80CRI 44W	4' VAPORTITE LED, WET LISTED FIXTURE, UL LISTED
VED ALENT	120-277V WALL	LED 3000K, 4648LM, 38W	AXCENT WALL PACK, UL LISTED, FULL CUT OFF
VED ALENT	120/277V WALL	LED 3000K, 4648LM, 38W	AXCENT WALL PACK, UL LISTED, FULL CUT OFF
S AND FINIS	SHES		

PROVIDE PHOTOCELL CONTROL OR TIME SWITCH CONTROL FOR SW1 FIXTURE WITH A MANUAL OVERRIDE PER 2018 IECC C405.2.6 PROVIDE MANUAL ON/OFF CONTROL FOR SW1A FIXTURES THAT ARE FOR WORK/TASK LIGHTING OF THE WET WELL AREA.





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	Y, COPYRIGHT AND ND THE SAME RITTEN CONSENT. WILL BE AT CLIENT'S SURE TO J-U-B.	BY APR. DATE
	J-U-B SHALL RETAIN ALL COMMON LAW, STATUTORY OTHER RESERVED RIGHTS OF THESE DRAWINGS, A SHALL NOT BE REUSED WITHOUT J-U-B'S PRIOR WR ANY REUSE WITHOUT WRITTEN CONSENT BY J-U-B' SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPO SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPO REVISION 1 0217725 DESIGN DEVELOPMENT	NO. DESCRIPTION
	CLIFTON INFLUENT PUMP STATION UPGRADES PROJECT ELECTRICAL - CONSTRUCTION PLAN 3217 D ROAD CLIFTON, COLORADO	
	FILE : 25030 - CLIFTON WW - ELEC JUB PROJ. 25030 DRAWN BY: DB DESIGN BY: DB CHECKED BY: DB	
LCU Station	AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY LAST UPDATED: 4/22/2025	
LENG	E2-1	



PANEL SCHEDULE	E- IPSP	TYPE: VOLTAGE: ENCLOSUR	PANELB 120/208 E: NEMA1	OARD	BUS MAI MO	S SIZE: N BRKR: UNTING:	100 60 SURF	ACE	PHASES: WIRES: SC RATING:	3 4 10000	NEUTRAL BUS: GROUND BUS:	YES NO
LOAD TYPE	LOAD DESCRIPTIO	N		AMPS POLES	CKT# LOAD	۵	CKT# LOAD	AMPS POLES	LOAD TYPE		LOAD DESCRIPTION	
LIGHTING	LIGHTS			20A 1P	1 202	A	2 360	20A 1P	RECEPTACLE		GENERAL RECEPT. GROUND FAULT BREAK	KER 5 MA
RECEPTACLE	GENERAL RECEPT	REAKER 5 MA		20A 1P	3 360	В	4 1000	20A 1P	RECEPTACLE		FLOW METERS	
RECEPTACLE	FLOW METERS			20A 1P	5 1000	С	6 500	20A 1P	RECEPTACLE		PLC CABINET	
MOTOR	EF-1 + LV-1 			20A 1P	7 200	A	8 1000	20A 1P	RECEPTACLE		LEVEL SENSOR	
SPACE					9 0	В	10 200	20A 1P	RECEPTACLE		CONTROL ROOM RECE GROUND FAULT BREAK	PT/ LIGHT KER 5 MA
SPACE					11 0	С	12 180	20A 1P	RECEPTACLE		SPARE 	
SPARE	SPARE 			20A 1P	13 0	A	14 0	20A 1P	SPARE		SPARE 	
SPARE	SPARE 			20A 1P	15 0	В	16 0	20A 1P	SPARE		SPARE 	
SPACE					17 0	С	18 0		SPACE			
SPACE					19 0	A	20 0		SPACE			
SPACE					21 0	В	22 0		SPACE			
SPACE					23 0	С	24 0		SPACE			
LOADS BY TYPE:					LOADS	BY PHASE	Ξ:	-				
LOAD TYPE	CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)		PHAS	SE .		CONNECTED LOAD (VA)	CONNE LOAD (AN	ECTED IPS)	BALANCE (PERCENT)	
LIGHTING KITCHEN PROCESS RECEPTACI ES	202.00 0.00 0.00 4600.00	1.25 0.00 1.00 1.00	252.50 0.00 0.00 4600.00		A B C	_		1762.00 1560.00 1680.00	14 13 14	4.68 3.00 4.00	A-B: 88.5 B-C: 92.9 C-A: 95.3	
MECH HEATING MECH COOLING MECH YEAR ROUND	0.00 0.00 0.00 0.00 0.00	1.00 1.00 1.00 1.00	0.00 0.00 0.00		TOTA NOTES	AL/AVERA	GE	5002.00		13.89	92.2	
MISCELLANEOUS MOTOR SPARE LARGEST MOTOR ¹	0.00 0.00 200.00 0.00 ABOVE	1.00 1.00 1.00 0.25	0.00 0.00 300.00 0.00 50.00		1. THE	LARGES	T CONNEC	TED MOTOR	LOAD IS INCLUDE	ED IN MEC	HANICAL, PROCESS, OR	MOTOR LOADS.
	5002.00	0.20	5102.00									

- 1. BY OWNER: EXISTING POWER CIRCUITS FOR SCREW PUMPS ARE REPURPOSED TO POWER NEW VFDS. EACH
- REPURPOSED CIRCUIT POWERS (2) NEW VFDS. 100A FEEDER CIRCUITS ARE TO BE WIRED WITH MINIMUM 3AWG COPPER CONDUCTORS WITH A MINIMUM 8AWG COPPER GROUND IN A MINIMUM 1-1/4" CONDUIT. 2. BY OWNER: NEW POWER CIRCUIT IS TO BE PROVIDED FOR GENERAL POWER (RECEPTACLES, LIGHTING, HVAC,
- ETC.) FOR NEW CONSTRUCTION. PRELIMINARY PLAN IS TO PROVIDE A 40A/3P/480V (MAXIMUM) POWER CIRCUIT
- FROM PANEL PPHW TO FEED A 30kVA STEP-DOWN TRANSFORMER AND 60A 120Y/208V PANEL. 3. NEW OWNER PROVIDED AND INSTALLED EQUIPMENT IN VFD CONTROL ROOM INCLUDES BUT IS NOT LIMITED TO:
- 3.1. (4) VFDS FOR NEW PUMPS 3.2. 30kVA STEP-DOWN TRANSFORMER
- 3.3. 60A MAIN CIRCUIT BREAKER, 120Y/208V, 3P 4W, 24 CIRCUIT BRANCH CIRCUIT PANEL
 3.4. PLC CABINET (SCADA CONTROL INTERFACE OR TERMINATION BOX)
- 3.5. TAP GUTTER ABOVE NEW VFDS TO SPLIT 100A FEEDERS TO POWER NEW VFDS

CHEDULE	- IPSP	TYPE: VOLTAGE: ENCLOSURE:	PANELBO 120/208 NEMA1	DARD	BUS S MAIN MOUN	SIZE: BRKR: NTING:	100 60 SUR	FACE	PHASES WIRES: SC RAT	S: 'ING:	3 4 10000	NEUTRAL BU GROUND BU	JS: S:	YES NO
	LOAD DESCRIPTION			AMPS POLES	CKT# LOAD	۵	CKT# LOAD	AMPS POLES	LOAD TY	PE		LOAD DESCRIPTION	I	
	LIGHTS			20A 1P	1 202	A	2 360	20A 1P	RECEPTA	ACLE		GENERAL RECEPT. GROUND FAULT BRI	EAKEF	R 5 MA
E	GENERAL RECEPT. GROUND FAULT BRE	AKER 5 MA		20A 1P	3 360	В	4 1000	20A 1P	RECEPTA	ACLE		FLOW METERS		
E	FLOW METERS			20A 1P	5 1000	С	6 500	20A 1P	RECEPTA	ACLE		PLC CABINET		
	EF-1 + LV-1 			20A 1P	7 200	A	8 1000	20A 1P	RECEPTA	ACLE		LEVEL SENSOR		
					9 0	В	10 200	20A 1P	RECEPTA	ACLE		CONTROL ROOM RE GROUND FAULT BRI	ECEPT EAKEF	/ LIGHT R 5 MA
					11 0	С	12 180	20A 1P	RECEPT	ACLE		SPARE 		
	SPARE			20A 1P	13 0	A	14 0	20A 1P	SPARE			SPARE		
	SPARE			20A 1P	15 0	В	16 0	20A 1P	SPARE			SPARE		
					17 0	С	18 0		SPACE					
					19 0	A	20 0		SPACE					
					21 0	В	22 0		SPACE					
					23 0	С	24 0		SPACE					
YPE:					LOADS BY	PHASE	:	•						
	CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)		PHASE			CONNECTED LOAD (VA)) LO,	CONNE AD (AM	CTED PS)	BALANCE (PERCENT)		
_	202.00 0.00 0.00	1.25 0.00 1.00	252.50 0.00 0.00		A B C	-		1762.00 1560.00 1680.00		14 13 14	68 00 00	A-B: 88.5 B-C: 92.9 C-A: 95.3		
.ES ING .ING	4600.00 0.00 0.00	1.00 1.00 1.00	4600.00 0.00 0.00		TOTAL	/AVERA	GE	5002.00			13.89	92.2		
EOUS	0.00 0.00 0.00	1.00 1.00 1.00	0.00 0.00 0.00		1. THE L	ARGES	T CONNE	CTED MOTOR	LOAD IS IN	ICLUDE	D IN MEC	CHANICAL, PROCESS.	OR M	OTOR LOADS.
OTOR ¹	200.00 0.00 ABOVE	1.00 1.00 0.25	300.00 0.00 50.00									. ,		
	5002.00		5102.00											

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	CLIFTON INFLUENT PUMP STATION UPGRADES PROJECT	ELECTRICAL - DETAILS 3217 D ROAD CLIFTON, COLORADO
42655 DHIZAI2025	FILE : 25030 - CL JUB PROJ. 25030 DRAWN BY: DB DESIGN BY: DB CHECKED BY: D CHECKED BY: D SHEET NUN	FTON WW - ELEC B INCH E, IF NOT ONE E ACCORDINGLY 4/22/2025 //BER: B-1

FROM MSB

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