CITY OF TAMPA

Bob Buckhorn, Mayor **CONTRACT ADMINISTRATION DEPARTMENT**

David L. Vaughn, AIA, Director

ADDENDUM NO.6
DATE: July 30, 2014

Contract: 14-C-00009; Krause Pump Station Rehabilitation

Bidders on the above referenced project are hereby notified that the following addendum is made to the Contract Documents. BIDS TO BE SUBMITTED SHALL CONFORM TO THIS NOTICE.

Item 1: Insert attached Section 43 52 01 Bridge Crane Trolley and Hoist System.

Item 2: Replace plan sheets M8, E3, E6, E17, E22, E26 and E47 with the attached revised plan sheets M8, E3, E6, E17, E22, E26 and E47.

Item 3: Revise Plan Sheet M-6 Upper Level Plan, Section A, Transfer Cart Details Note 1 to read "1. Provide a solid top, electrically assisted transfer cart for a capacity of 6.5 TONS."

Item 4: Section 41 22 14, Transfer Cart; 1.03 Transfer Cart Schedule; Capacity: revise tons to read "6.5"

Item 5: Clarification for Transfer Cart: Any reference in the plans or specifications for the proposed transfer cart should read a capacity of 6.5 tons.

Item 6: Clarification for Specifications Section W-52.03 Manhole and Structural Rehabilitation Surface Preparation:

Deep concrete restoration is not anticipated during the wet well rehabilitation. Surface preparation shall be in accordance with the approved coating manufacturer's instructions. Proposed concrete restorations shall consist of less than ½" repair prior to the 125 mils final coating system. Refer to scaled plan sheets to determine square footage for proposed coating system.

All other provisions of the Contract Documents and Specifications not in conflict with this Addendum shall remain in full force and effect.

Questions are to be e-mailed to Contract Administration@tampagov.net.

Jim Greiner

Jim Greiner, P.E., Contract Management Supervisor

SECTION 43 52 01

BRIDGE CRANE TROLLEY AND HOIST SYSTEM

PART 1 -- GENERAL

1.1 SUMMARY

A. Replace the existing 5-ton bridge crane trolley and hoist with a 7-ton rated electric trolley and hoist system. Retrofit new equipment to existing bridge beams, in order to use the existing bridge crane frame and rails. Provide electric hoist and custom fabricated trolley complete and operable as a packaged unit from a single supplier, in accordance with the Contract Documents.

B. Related Work Specified in Other Sections Includes, But is Not Limited to, the Following:

1. Section W 24 Painting

2. Section 11 05 13 – Electric Motors

1.2 REFERENCES

A. Codes and standards referred to in this Section are:

1. ANSI B30.11, B30.16, B30.17, B30.2

2. ANSI/ASME HST-4M

3. CMAA Spec Nos. 70 and 74

4. NACM No. 6001

5. OSHA 1910.179

1.3 SYSTEM DESCRIPTION

A. Type and Capacity: Provide One (1) custom fabricated 7-ton inverted trolley hoist and electrically operated wire hoist system, located in the Pump Room.

B. Performance requirements: Provide equipment meeting the following performance requirements:

Items	
Capacity of trolley– tons	7
Distance between centerline of wheels of trolley system, feet	TBD*
Capacity of Electric Hoist- tons	7.5**

Items	
Maximum Lift Distance, feet	32.00

* To be determine by equipment supplier. Sized to reuse existing bridge crane beams.

** Provide a 7.5 ton capacity hoist that is to be de-rated to 7 tons for this application.

1.4 SUBMITTALS

A. General: Provide all submittals, including the following:

1. Product Data and Information: Submit catalog data and information for each unit.

2. Shop Drawings: Submit shop drawings signed and sealed by a professional engineer licensed in the State of Florida, including the design of the custom fabricated trolley.

3. Manufacturer's certified performance and material records.

4. Manufacturer's certified copies of Field Test Reports.

B. Operation and Maintenance Manuals: Submit operation and maintenance manuals for the hoisting system equipment in accordance with the Specific Provisions.

1.5 QUALITY ASSURANCE

A. Qualifications: Provide hoisting equipment of complete assembled units of standard manufacture made by a single company which has had equipment of equivalent capacity and design giving satisfactory service in similar installations, and which can furnish replacement parts which are completely interchangeable within the original hoist assembly.

B. Regulatory Requirements: Provide hoisting equipment meeting the requirements of the following specifications except as modified:

1. ANSI Safety Standards: B30.2, B30.11, B30.16, and B30.17

2. OSHA 1910.179, for Overhead and Gantry Cranes

1.6 SPARE PARTS

A. Furnish the following spare parts:

1. One set of trolley truck bearing assemblies.

2. One year supply of lubricants.

PART 2 -- PRODUCTS

2.1 MANUFACTURERS

A. Acceptable manufacturers for individual components are listed below. Other manufacturers of equivalent products may be submitted.

1. Acco Central Material Handling Centers

2. ACI Hoist

Packaged unit (custom trolley and hoist) shall be provided from a single source supplier. The supplier of the packaged unit shall warranty the installed system in accordance with the Contract requirements. The packaged unit shall be supplied by Advanced Overhead Systems, Lakeland, Florida(863) 667-3757, or a similar qualified vendor.

2.2 MATERIALS

A. General: Design structures in accordance with AISC Standards. Design all load bearing parts with a safety factor of at least five at rated capacity loads, based on the ultimate strength of the materials used. Arrange the equipment to operate within the space shown with adequate clearances, with minimum clearance to the nearest obstruction not less than 3 inches vertical and 2 inches horizontal.

1. Arrange all working parts for convenient inspection, lubrication, adjustment, repair, or replacement. Assemble paint, test, and adjust the equipment, in the shop as far as practicable before shipment.

2. Design the hoist with an overload limit device to prevent damage to the equipment or structure if loads in excess of the specified capacity of the hoist are applied

3. Provide all hoisting equipment components designed for inside service suitable for operation at a range of temperature 55 degrees F to +104 degrees F, and subject to moderate dust and corrosion conditions.

B. Trolley With Wire Rope Hoist: Custom manufacture the trolley for a wire rope hoist of the electrical operated type with standard or low headroom hoist as required by the headroom availability. Fabricate the trolley frame of welded rolled steel or cast steel construction or a combination of both.

1. Wheels: Manufacture wheels of rolled, forged or cast steel with tapered hardened treads, designed to carry the maximum wheel load under normal conditions. Machine the wheels to matched diameters with treads to match the rolling surface.

2. Appurtenances: Provide wire rope guards and storage container. Reeve the hoist for the specified true vertical lift, and equip the hoist with overload cutoff to prevent lifting loads over rated capacity.

C. Hoisting Wire Rope: Manufacture wire rope of stainless steel of min. 3/8” diameter.

D. Bearings: Provide all bearings of the ball or roller type, conforming to the standards of the Anti-friction Bearing Manufacturers Association. Provide bearing housings that are split or designed to permit easy removal of the shafts. Prelubricate and seal all bearings for life.

1. Design all bearings in the crane wheels, drive shaft bearings and gear reduction shaft bearings for a minimum B10 bearing life of 5,000 hours.

E. Hoisting Blocks: Provide hoisting blocks of enclosed steel construction with forged steel hooks with spring operated safety latches supported on ball or roller bearings. Design hooks to rotate freely 360 degrees on the bearing support.

F. Gears: Design the gear reducer or gear motor specifically for crane service with minimum classification of Moderate Shock service and with minimum service factor of 1.0.

G. Brakes: Equip each hoist with a direct-acting, disc-type mechanical brake which will automatically hold the load indefinitely in any position and permit it to be lowered without acceleration under full control when the chain is pulled in the lowering direction.

H. Controls: Provide a minimum of six button pendant type control station for trolley and hoist with 2-speed settings for the hoist and single speed settings for the trolley.

I. Electrical requirements: Provide motors suitable for 3-phase, 480 volt electrical service. Provide enclosures NEMA 3R or higher suitable for location in pump room of sanitary lift station. Refer to specification 11 05 13 Electric Motors.

PART 3 -- EXECUTION

3.1 GENERAL REQUIREMENTS

A. Retrofit the custom trolley-hoist systems in accordance with the manufacturer's recommendations and approved shop drawings.

3.2 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Furnish the services of a qualified representative of the manufacturer to provide instruction on the proper installation of the equipment, inspect the completed installation, make any necessary adjustments, participate in the startup of the equipment, participate in the field testing of the equipment and place it in initial trouble free operation.

B. Tests: After installation of the trolley-hoist systems and all appurtenances, subject the units to an OSHA loading test, to 14,000 lbs. Test trolley, rails and electric hoist in accordance with ANSI B30.16. Operate each hoist through a complete lift and lowering cycle and through complete travel of the trolley to determine that the

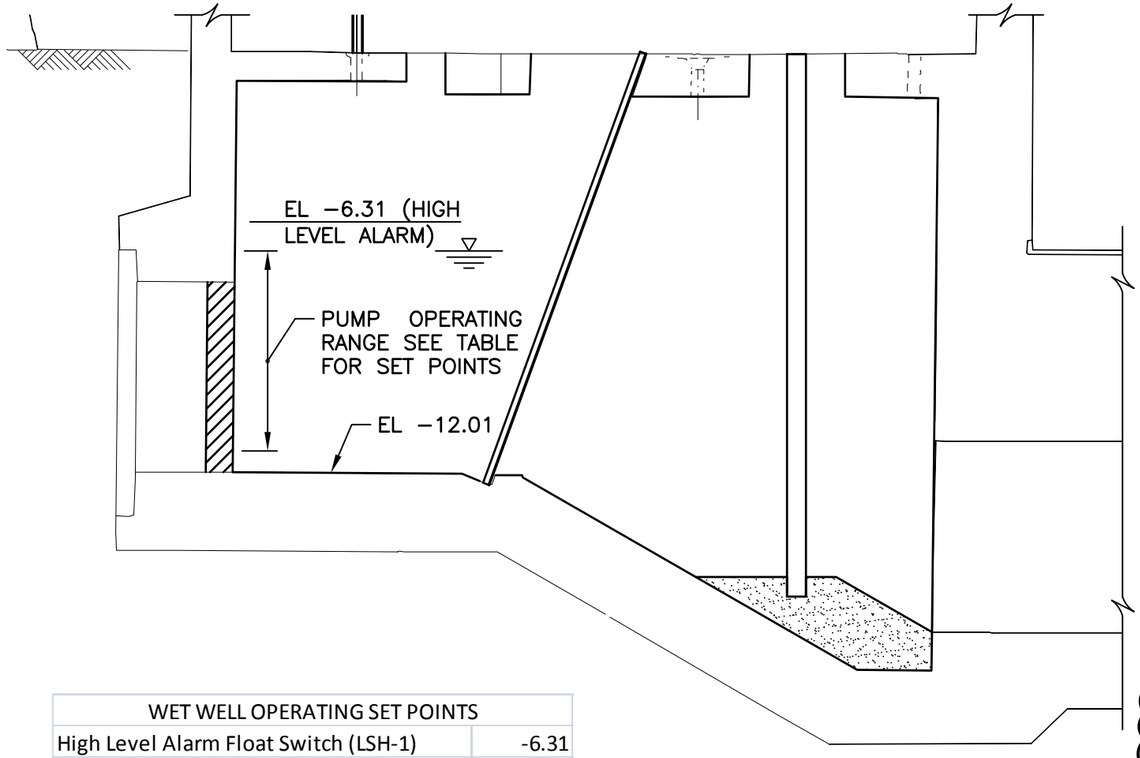
equipment will perform the function of hoisting, braking and traveling quietly, smoothly and safely without failure of any parts. Promptly correct defects in the equipment indicated by the tests. Provide new 7-ton rating name plates after successful testing.

3.3 CLEANING AND PAINTING

A. Paint the trolley-hoist meeting the requirements of Section W-24, using colors conforming to applicable safety laws and codes. Paint the trolley beams in accordance with the Structural Steel (Interior) class of work. Paint the motors, hoists, trolleys and blocks in accordance with the Equipment (Interior) class of work. Do not paint hand stainless steel hoist wire ropes, as specified.

- END OF SECTION -

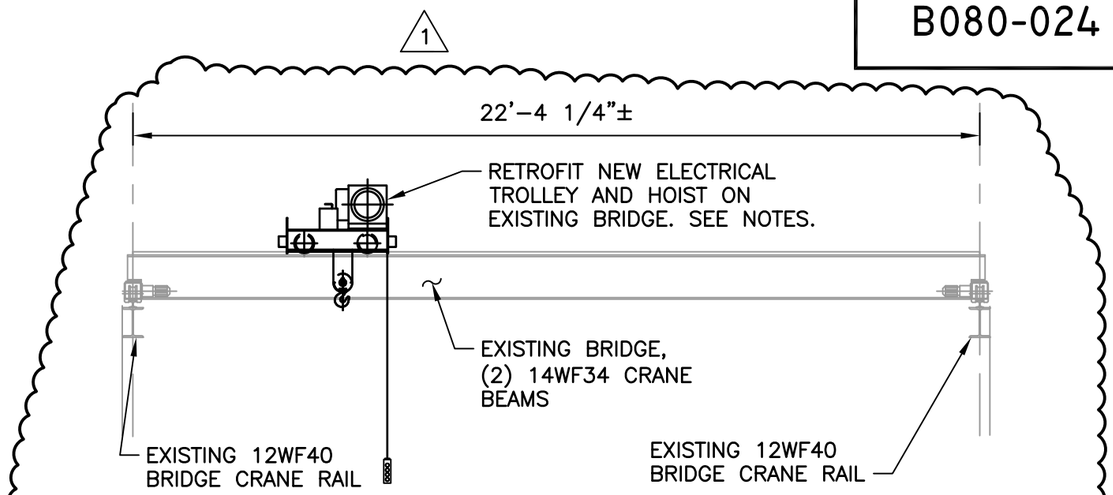
B080-024



WET WELL OPERATING SET POINTS	
High Level Alarm Float Switch (LSH-1)	-6.31
Lag Pump No.2 Start - Set Point	-6.81
Lag Pump No.2 Off - Set Point	-7.31
Lag Pump No.1 Start - Set Point	-7.81
Lag Pump No.1 Off - Set Point	-8.31
Lead Pump Start - Set Point	-8.81
Lead Pump Off - Set Point	-9.81

WET WELL SECTION

SCALE: 1/4" = 1'−0"



BRIDGE CRANE TROLLEY AND HOIST REPLACEMENT DETAIL

SCALE: 1/4" = 1'−0"

NOTES:

1. FIELD VERIFY DIMENSIONS PRIOR TO SUBMITTAL OF SHOP DRAWINGS.
2. REMOVE EXISTING 5−TON HOIST AND HAND GEARED TROLLEY FROM EXISTING BRIDGE.
3. PROVIDE CUSTOM FABRICATED 7−TON CAPACITY, DECK MOUNTED WITH SPECIAL TOP, ELECTRICAL INVERTER TROLLEY (50 FPM) WITH TWO (2) ½ HP MOTORS AND RETROFIT TO EXISTING BRIDGE.
4. PROVIDE A NEW 7.5−TON, 2−SPEED (15 FPM/3 FPM) ELECTRICAL HOIST (7 ½ HP MOTOR) THAT WILL BE DE−RATED TO 7−TONS. THE WIRE HOIST SHALL BE CAPABLE OF A 32 FOOT VERTICAL LIFT. ELECTRICAL TROLLEY AND ELECTRICAL HOIST SHALL BE PROVIDED AS A PACKAGE UNIT FROM A SINGLE SOURCE, SUCH AS ADVANCED OVERHEAD SYSTEMS (TEL: 863−667−3757), TO WARRANTY THE EQUIPMENT AS A SINGLE UNIT.
5. COORDINATE ELECTRICAL REQUIREMENTS FOR TROLLEY AND HOIST MOTORS. PROVIDE NEW CABLE REEL AND CABLE.
6. AFTER INSTALLATION, PERFORM OSHA FIELD LOAD TEST AT 14,000 LBS AND RE−RATE BRIDGE AND EQUIPMENT TO 7−TONS. INSTALL NEW CAPACITY NAMEPLATES FOR THE EQUIPMENT.

GREELEY AND HANSEN
1715 N. WESTSHORE BLVD., STE. 464
TAMPA, FLORIDA 33607
CERTIFICATE OF AUTHORIZATION NO. 37

P.E. NAME: FREDDY J. BETANCOURT P.E. NO. 68072

P.E. NAME:_____
DATE: _____

Engineering Design Technologies Corp.
P.O. Box 152403
Tampa, FL 33684-2403
813.289.8080
813.282.9184 FAX
engineering@edt1.com
Certificate of Authorization Number: 4795

CITY of TAMPA
WASTEWATER DEPARTMENT

KRAUSE PS REHABILITATION

WET WELL LEVELS AND BRIDGE CRANE TROLLEY AND HOIST REPLACEMENT

1

NO.	DATE	REVISIONS
1	7/28/14	ADDED TROLLEY AND HOIST REP. DETAIL

DRAWN: J.WHITE
DESIGN: FJB
QC: DCH
DATE: 07/28/14

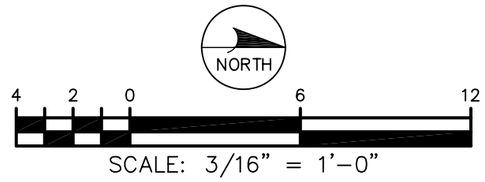
SHEET M-8

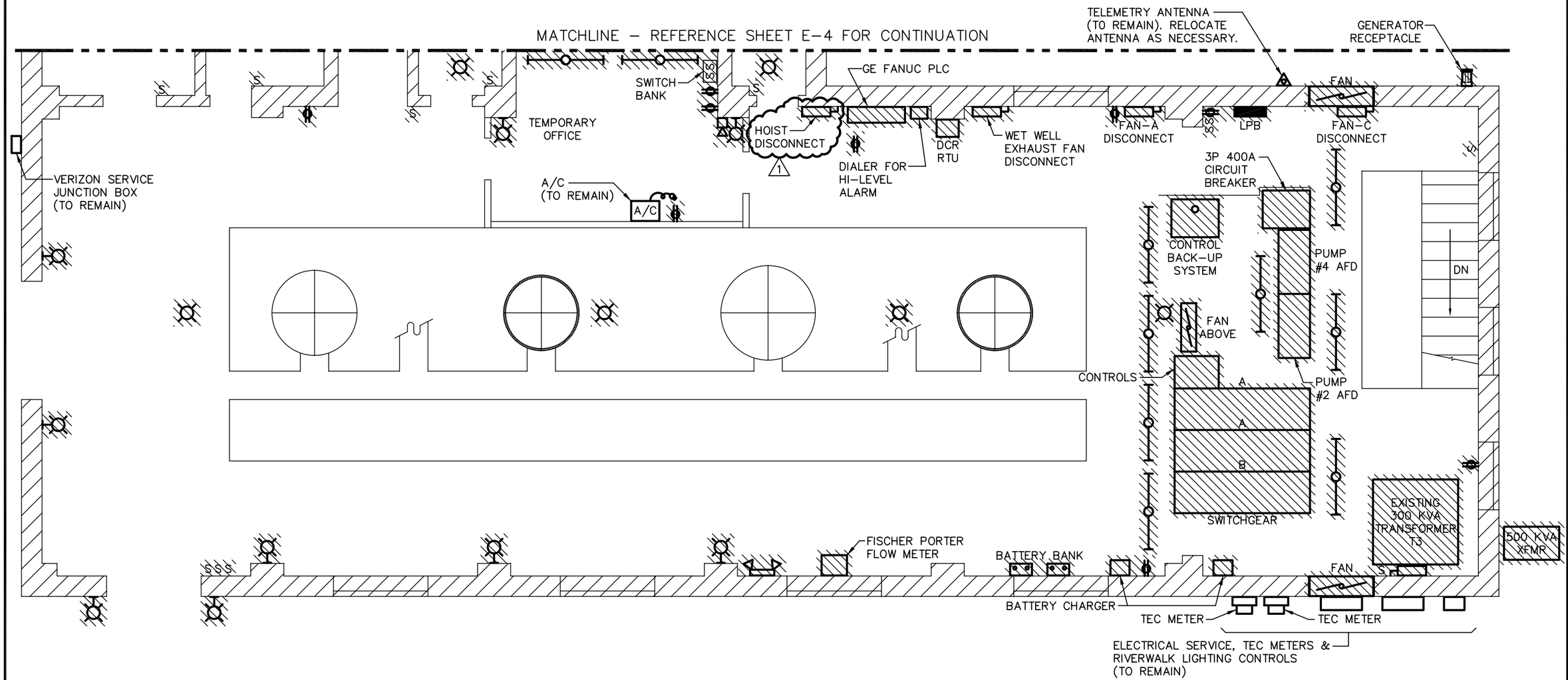
B080-064

NOTES:

– DENOTES EXISTING EQUIPMENT TO BE REMOVED. ITEM SHALL BE REMOVED FROM PREMISES AND DISPOSED OF PROPERLY. UNLESS OTHERWISE NOTED, REMOVE ALL ASSOCIATED CONDUIT & WIRING CONNECTED TO EQUIPMENT TO BE REMOVED, INCLUDING ABANDONED CONDUIT & WIRING.

1. ALL EQUIPMENT, CONDUIT & WIRING INCLUDED ON THIS DRAWING ARE EXISTING. CONTRACTOR SHALL VISIT THE SITE & FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS BEFORE SUBMITTING A BID OR COMMENCING CONSTRUCTION.
2. COORDINATE ALL DEMOLITION ACTIVITIES WITH THE CITY AND ALL TRADES.
3. ALL EXISTING INSTALLATIONS DENOTED ON THE DRAWINGS ARE FOR CONTRACTORS REFERENCE ONLY. ALL EXISTING INSTALLATIONS SHALL BE FIELD VERIFIED PRIOR TO SUBMITTING A BID AND PRIOR TO COMMENCING CONSTRUCTION.
4. COORDINATE WITH THE CITY FOR A LIST OF EQUIPMENT TO BE SALVAGED.





ENGINEER OF RECORD:
BOB E. HALLMAN, P.E.
FLORIDA REGISTRATION NO. 20761

Engineering Design Technologies Corp.
P.O. Box 152403
Tampa, FL 33684-2403
813.289.8080
813.282.9184 FAX
engineering@edt1.com
Certificate of Authorization Number: 4795

CITY of TAMPA
WASTEWATER DEPARTMENT

KRAUSE PS REHABILITATION

ELECTRICAL DEMOLITION PLAN (UPPER LEVEL) (SHEET 1 OF 2)

NO.	DATE	REVISIONS
1	7/29/14	TROLLEY/HOIST REPLACEMENT

DRAWN: RWB
DESIGN: STK
QC: BEH
DATE: 05/01/14

SHEET E-3

B080-067

NORTH

4 2 0 6 12

SCALE: 3/16" = 1'-0"

MATCHLINE – REFERENCE SHEET E-7 FOR CONTINUATION

PROPOSED MEANS OF EGRESS

TRANSFORMER AUTOMATIC TRANSFER SWITCH (ATS)

REMOTE CIRCUIT BREAKER PANEL (RCBP)

AIR COMPRESSOR AC-2

EXISTING CONCRETE FLOOR (ELEV 7.54 FT NAVD)

TEMPORARY OFFICE

NEW ELEVATED PLATFORM, 2.6 FT AFF. +/- (ELEV 10.1 FT NAVD)

DN

TROLLEY/ HOIST DISCONNECT

1

48"

MCC

PANELBOARD LPA (BELOW XFMR)

45 KVA XFMR

22"

SWITCHBOARD-KPS

3 2500/2500 MAIN CIRCUIT BREAKER KPS-A

PUMP NO. 1 AFD

PUMP NO. 3 AFD

MCC BUS A

SPACE

3 2500/2500 GENER. CIRCUIT BREAKER

3 2500/2500 TIE CIRCUIT BREAKER

3 2500/2500 GENER. CIRCUIT BREAKER

GENER. TERM. BOX A

GENER. TERM. BOX B

VENTILATION RELAY PANEL

SUMP PUMP DISCONNECT

EXISTING HANDRAIL. MODIFY AS REQUIRED (REFERENCE STRUCTURAL DRAWINGS)

PUMP NO. 1

PUMP NO. 2

PUMP NO. 3

PUMP NO. 4

400 HP 460 VAC 3ø

NEW HANDRAIL LOCATION (REFERENCE STRUCTURAL DRAWINGS)

GRATING EXTENDING OVER OPEN PUMP BAY (REFERENCE STRUCTURAL DRAWINGS)

NEW ELEVATED PLATFORM, 2.6 FT AFF. +/- (ELEV 10.1 FT NAVD)

22"

48"

EXISTING HANDRAIL TO BE RELOCATED (REFERENCE STRUCTURAL DRAWINGS)

26"

41"

AFD #1 (500 HP)

AFD #2 (500 HP)

AFD #3 (500 HP)

AFD #4 (500 HP)

97"

FLOW METER TOTALIZER

BUBBLER PANEL

PUMP CONTROL PANEL/PLC

FRONT

72"

43"

UPS

CIRCUIT BREAKER UPS

3 2500/2500 MAIN CIRCUIT BREAKER KPS-B

PUMP NO. 4 AFD

PUMP NO. 2 AFD

MCC BUS B

SPACE

6" (TYP.)

ENGINEER OF RECORD:
BOB E. HALLMAN, P.E.
FLORIDA REGISTRATION NO. 20761

Engineering Design Technologies Corp.
P.O. Box 152403
Tampa, FL 33684-2403
813.289.8080
813.282.9184 FAX
engineering@edt1.com

Certificate of Authorization Number: 4795

CITY of TAMPA
WASTEWATER DEPARTMENT

KRAUSE PS REHABILITATION

ELECTRICAL EQUIPMENT LAYOUT (UPPER LEVEL – FLOOR ELEV. 7.54' NAVD) (SHEET 1 OF 2)

NO.	DATE	REVISIONS
1	7/29/14	TROLLEY/HOIST REPLACEMENT

DRAWN: RWB
DESIGN: STK
QC: BEH
DATE: 05/01/14

SHEET E-6

B080-078

TO SWITCHBOARD–KPS, BUS A

M106A
M106B

MCC–KPS

3 600AF/600AT

50/51/51G

K1

SOLID STATE TRIP UNIT. SEE NOTE 1.

SEE NOTE 3.

R

BUS A 480V, 3ø, 3W, 600A

AIC=42,000

SEE NOTE 3.

K1 3 600AF/600AT

50/51

BUS B 480V, 3ø, 3W, 600A

TO SWITCHBOARD–KPS, BUS B

M107A
M107B

SOLID STATE TRIP UNIT. SEE NOTE 1.

3P, 25A (1)

3P, 20A R

3P, 20A R

3P, 15A R

3P, 15A NEMA SIZE 1 SSOLR R

3P, 15A NEMA SIZE 1 SSOLR R

3P, 70A R

3P, 15A NEMA SIZE 1 SSOLR R

3P, 15A NEMA SIZE 1 SSOLR R

3P, 15A NEMA SIZE 1 SSOLR R

SOLID STATE OVERLOAD RELAY (TYP.)

3P, 15A NEMA SIZE 1 SSOLR R

3P, 15A NEMA SIZE 1 SSOLR R

3P, 70A R

3P, 15A R

3P, 20A R

3P, 20A R

3P, 20A R VOLTAGE INDICATOR (TYP.)

3P, 15A NEMA SIZE 1 SSOLR R

3P, 15A NEMA SIZE 1 SSOLR R

M128
M121
3–#10 & 1–#10 GND., 3/4" C.

TO TROLLEY/HOIST DISCONNECT

TO AIR COMPRESSOR AC–1 CONTROL PANEL

TO VACUUM PUMP VP–1 CONTROL PANEL

M133
M131
M116

3–#10 & 1–#10 GND., 3/4" C.

M122
M123
M124

TO PUMP NO. 1 BLOWER (5 HP, 3ø)

TO PUMP NO. 3 BLOWER (5 HP, 3ø)

PUMP 3 MOTOR OPERATED KNIFE GATE PUMP SUCTION VALVE (PSV)

PUMP 1 MOTOR OPERATED KNIFE GATE PUMP SUCTION VALVE (PSV)

M116
M117

BUS A
BUS B

3P, 100A POWER SEEKING AUTOMATIC TRANSFER SWITCH (ATS)

M118

T1 480 VAC// 45 KVA

120/208 VAC, 3ø, 4W

L200
L201

3–#10 & 1–#10 GND., 3/4" C.

LPA 3P, 175A MAIN CIRCUIT BREAKER

3 HP 460 VAC 3ø EXHAUST FAN EF–1

0.33 HP 460 VAC 3ø EXHAUST FAN EF–3

0.75 HP 460 VAC 3ø SUPPLY FAN SF–1

3 HP 460 VAC 3ø EXHAUST FAN EF–2

0.75 HP 460 VAC 3ø SUPPLY FAN SF–2

M117

3–#10 & 1–#10 GND., 3/4" C.

M125

20A TRANSFER CART RECEPTACLE

M126
M127

PUMP 4 MOTOR OPERATED KNIFE GATE PUMP SUCTION VALVE (PSV)

PUMP 2 MOTOR OPERATED KNIFE GATE PUMP SUCTION VALVE (PSV)

M130
M129
M132

3–#10 & 1–#10 GND., 3/4" C.

TO AIR COMPRESSOR AC–2 CONTROL PANEL

TO VACUUM PUMP VP–2 CONTROL PANEL

M134

TO PUMP NO. 2 BLOWER (5 HP, 3ø)

TO PUMP NO. 4 BLOWER (5 HP, 3ø)

ENGINEER OF RECORD:
BOB E. HALLMAN, P.E.
FLORIDA REGISTRATION NO. 20761

MCC-KPS ELECTRICAL ONE-LINE DIAGRAM

SEE NOTES ON SHEET E-18

Engineering Design Technologies Corp.
P.O. Box 152403
Tampa, FL 33684-2403
813.289.8080
813.282.9184 FAX
engineering@edt1.com
Certificate of Authorization Number: 4795

CITY of TAMPA
WASTEWATER DEPARTMENT

KRAUSE PS REHABILITATION

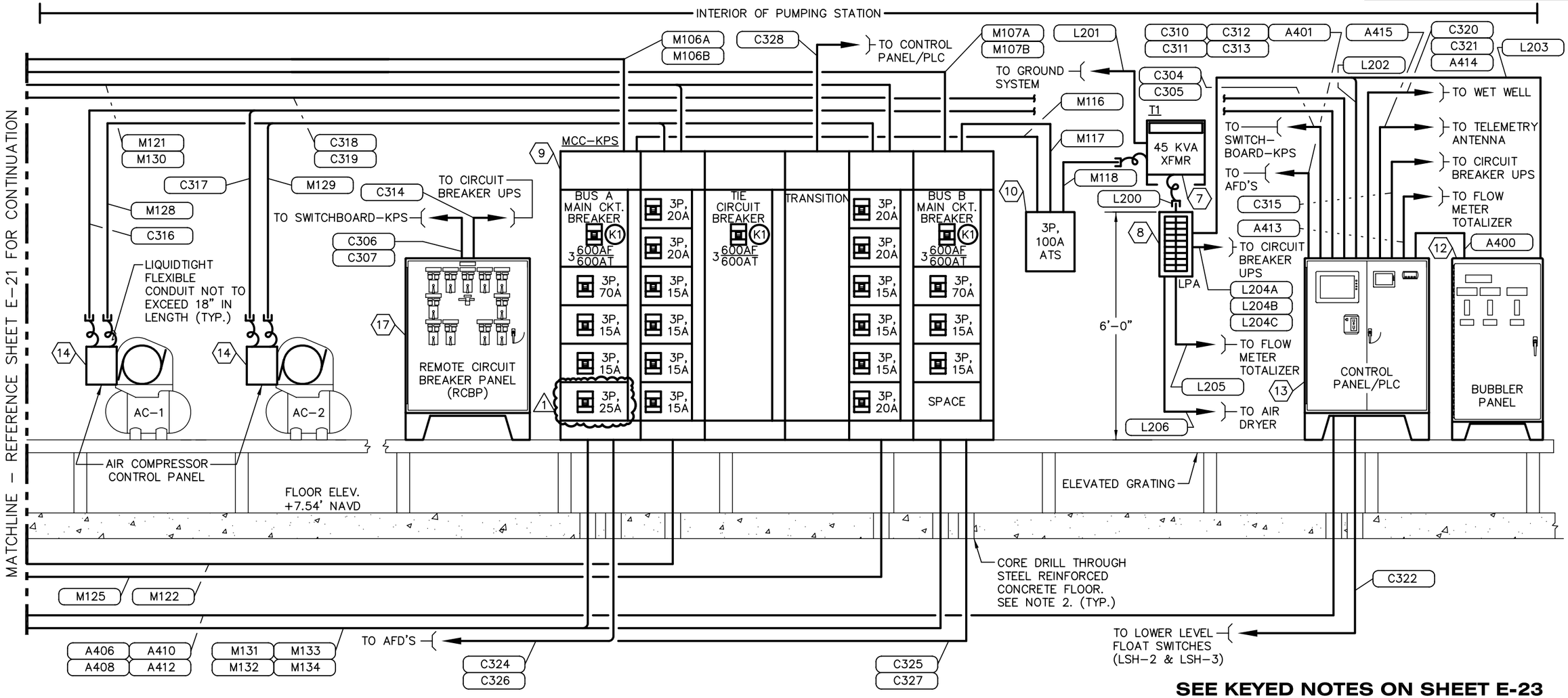
MCC–KPS ELECTRICAL ONE–LINE DIAGRAM (SHEET 1 OF 2)

NO.	DATE	REVISIONS
1	7/29/14	TROLLEY/HOIST REPLACEMENT

DRAWN: RWB
DESIGN: STK
QC: BEH
DATE: 05/01/14

SHEET E-17

B080-083



ELECTRICAL RISER DIAGRAM

SEE KEYED NOTES ON SHEET E-23

NOTES:

1. REFERENCE OVERHEAD CONDUIT SECURING DETAIL.
2. AFTER CORE DRILLING HOLES THROUGH REINFORCED CONCRETE WALLS AND FLOORS, COAT EXPOSED REINFORCING STEEL CONCRETE SURFACES WITH EMACO P24 BY BASF. AFTER ROUTING CONDUIT THROUGH HOLE, FILL AND FINISH CONCRETE WITH A SHRINKAGE COMPENSATING REPAIR MORTAR WITH CORROSION INHIBITING PROPERTIES, EMACO S66 C1 BY BASF. REFERENCE STRUCTURAL DRAWINGS.

ENGINEER OF RECORD:
BOB E. HALLMAN, P.E.
FLORIDA REGISTRATION NO. 20761

Engineering Design Technologies Corp.
P.O. Box 152403
Tampa, FL 33684-2403
813.289.8080
813.282.9184 FAX
engineering@edt1.com
Certificate of Authorization Number: 4795

CITY of TAMPA
WASTEWATER DEPARTMENT

KRAUSE PS REHABILITATION

ELECTRICAL RISER DIAGRAM
(SHEET 4 OF 4)

NO.	DATE	REVISIONS
1	7/29/14	TROLLEY/HOIST REPLACEMENT

DRAWN: RWB
DESIGN: STK
QC: BEH
DATE: 05/01/14

SHEET E-22

B080-087

NORTH

4 2 0 6 12

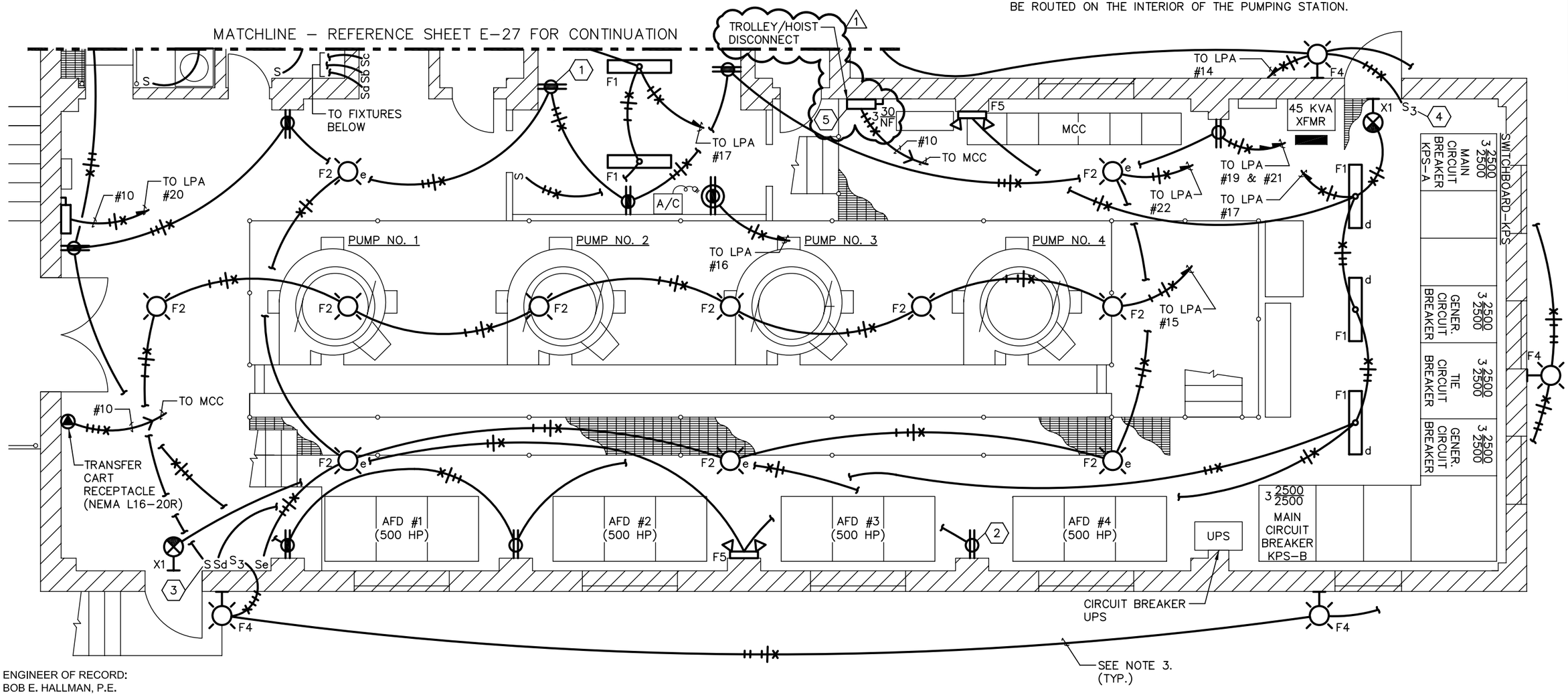
SCALE: 3/16" = 1'-0"

KEYED NOTES:

1. 20A, 125V, DUPLEX RECEPTACLE w/ ALUMINUM COVERPLATE MNTD. IN A CAST ALUMINUM BACK BOX. LEVITON CAT. NO. 5362-I (DUPLEX RECEPTACLE), 83003 (COVERPLATE) & BELL CAT. NO. 5324-0 (BACK BOX). CENTER 50" AFF.
2. 20A, 125V, DUPLEX RECEPTACLE w/ ALUMINUM COVERPLATE MNTD. IN A CAST ALUMINUM BACK BOX. LEVITON CAT. NO. 5362-I (DUPLEX RECEPTACLE), 83003 (COVERPLATE) & BELL CAT. NO. 5324-0 (BACK BOX). CENTER 18" ABOVE GRATING.
3. 1P, 20A, 120 VAC LIGHT SWITCH w/ ALUMINUM COVERPLATE MNTD. IN A CAST ALUMINUM BACK BOX. LEVITON CAT. NO. 1221-2I (SWITCH), 83001 (COVERPLATE) & BELL CAT. NO. 5324-0 (BACK BOX). CENTER 50" AFF.
4. 1P, 20A, 120 VAC 3-WAY LIGHT SWITCH w/ ALUMINUM COVERPLATE MNTD. IN A CAST ALUMINUM BACK BOX. LEVITON CAT. NO. 1223-2I (SWITCH), 83001 (COVERPLATE) & BELL CAT. NO. 5324-0 (BACK BOX). CENTER 50" AFF.
5. 3P, 30A, 600 VAC, HEAVY DUTY, SINGLE THROW, NON-FUSIBLE SAFETY SWITCH c/w EQUIPMENT GROUND BAR KIT, MOUNTED IN A NEMA 4X SS ENCLOSURE. MOUNT ENCLOSURE IN CEILING SPACE ADJACENT TO TROLLEY/HOIST JUNCTION BOX. COORDINATE LOCATION WITH TROLLEY/HOIST SUPPLIER.

NOTES:

1. LIGHTING FIXTURE F5 & X1 SHALL NOT BE SWITCHED.
2. ALL CONDUITS SHALL BE SURFACE MOUNTED, U.O.N.
3. CONDUITS ROUTED TO EXTERIOR LIGHTING FIXTURES SHALL BE ROUTED ON THE INTERIOR OF THE PUMPING STATION.



ENGINEER OF RECORD:
BOB E. HALLMAN, P.E.
FLORIDA REGISTRATION NO. 20761

EDT
Engineering Design Technologies Corp.
P.O. Box 152403
Tampa, FL 33684-2403
813.289.8080
813.282.9184 FAX
engineering@edt1.com
Certificate of Authorization Number: 4795

CITY of TAMPA
WASTEWATER DEPARTMENT

KRAUSE PS REHABILITATION

ELECTRICAL LIGHTING & POWER PLAN (UPPER LEVEL – FLOOR ELEV. 7.54' NAVD) (SHEET 1 OF 2)

NO.	DATE	REVISIONS
1	7/29/14	TROLLEY/HOIST REPLACEMENT

DRAWN: RWB
DESIGN: STK
QC: BEH
DATE: 05/01/14

SHEET E-26

B080-108

PANELBOARD SCHEDULE PANEL "LPA"

bus amps A	bus amps B	bus amps C	LOAD	poles	amps		bus ABC		poles	amps	LOAD	bus amps A	bus amps B	bus amps C
7			CONTROL PANEL/PLC	1	20	1		2	1	15	FLOW METER TOTALIZER	5		
	4		BUBBLER PANEL	1	15	3		4	3	20	SPARE			
		5	LOWER LEVEL RECEPTACLES*	1	20	5								
3			LOWER LEVEL RECEPTACLES*	1	20	7								
	2		LOWER LEVEL LIGHTING*	1	20	9		10	1	20	WET WELL UPPER LEVEL LIGHTING		1	
		2	LOWER LEVEL LIGHTING*	1	20	11		12	1	20	WET WELL LOWER LEVEL LIGHTING*			1
2			LOWER LEVEL LIGHTING*	1	20	13		14	1	20	EXTERIOR LIGHTING	4		
	9		HIGH BAY PUMP LIGHTING	1	20	15		16	1	20	OFFICE A/C RECEPTACLE		10	
		5	UPPER LEVEL LIGHTING	1	20	17		18	1	15	VENTILATION RELAY PANEL			2
9			UPPER LEVEL RECEPTACLES	1	20	19		20	1	20	SUMP PUMP	12		
	9		UPPER LEVEL RECEPTACLES	1	20	21		22	1	20	HIGH BAY LIGHTING		8	
		2	AIR DRYER	1	15	23		24	2	30	CIRCUIT BREAKER UPS–MODULE A			21
												21		
								28	2	30	CIRCUIT BREAKER UPS–MODULE B		21	
														21
								32	2	30	CIRCUIT BREAKER UPS–MODULE C	21		
													21	
			SPARE	1	20				1	20	SPARE			
			SPARE	1	20				1	20	SPARE			

1

RATED VOLTAGE: 120/208 VAC, 3ø, 4W	BRANCH POLES: 42
RATED AMPS: 225	CABINET: SURFACE
FULL NEUTRAL BUS / GROUND BUS / HINGED DOOR / KEYED DOOR LATCH / 3P, 175A MAIN BREAKER	
CIRCUIT BREAKER (BOLT–ON) BRANCH DEVICES	FEED IS TO BE TOP
ALL BRKRS. MUST BE RATED TO INTERRUPT A SHORT CIRCUIT I_{sc} OF 22,000 AMPS SYMMETRICAL	
APPROVED MANUFACTURERS: SIEMENS, SQUARE D	MAIN LUGS: 1 SET; SIZE: #2/0 AWG/CU
TOTAL AMPS: BUS A 84, BUS B 85, BUS C 59, CONNECTED KVA 27.4, DEMAND KVA 27.4	

* PROVIDE GFCI CIRCUIT BREAKER FOR LIGHTING & RECEPTACLE CIRCUITS LOCATED BELOW THE FLOODPLAIN.

ENGINEER OF RECORD:
BOB E. HALLMAN, P.E.
FLORIDA REGISTRATION NO. 20761

Engineering Design Technologies Corp.
P.O. Box 152403
Tampa, FL 33684-2403
813.289.8080
813.282.9184 FAX
engineering@edt1.com
Certificate of Authorization Number: 4795

CITY of TAMPA
WASTEWATER DEPARTMENT

KRAUSE PS REHABILITATION

ELECTRICAL PANELBOARD SCHEDULE

NO.	DATE	REVISIONS
1	7/29/14	TROLLEY/HOIST REPLACEMENT

DRAWN: RWB
DESIGN: STK
QC: BEH
DATE: 05/01/14

SHEET E-47