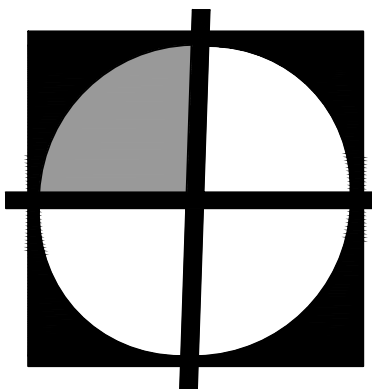
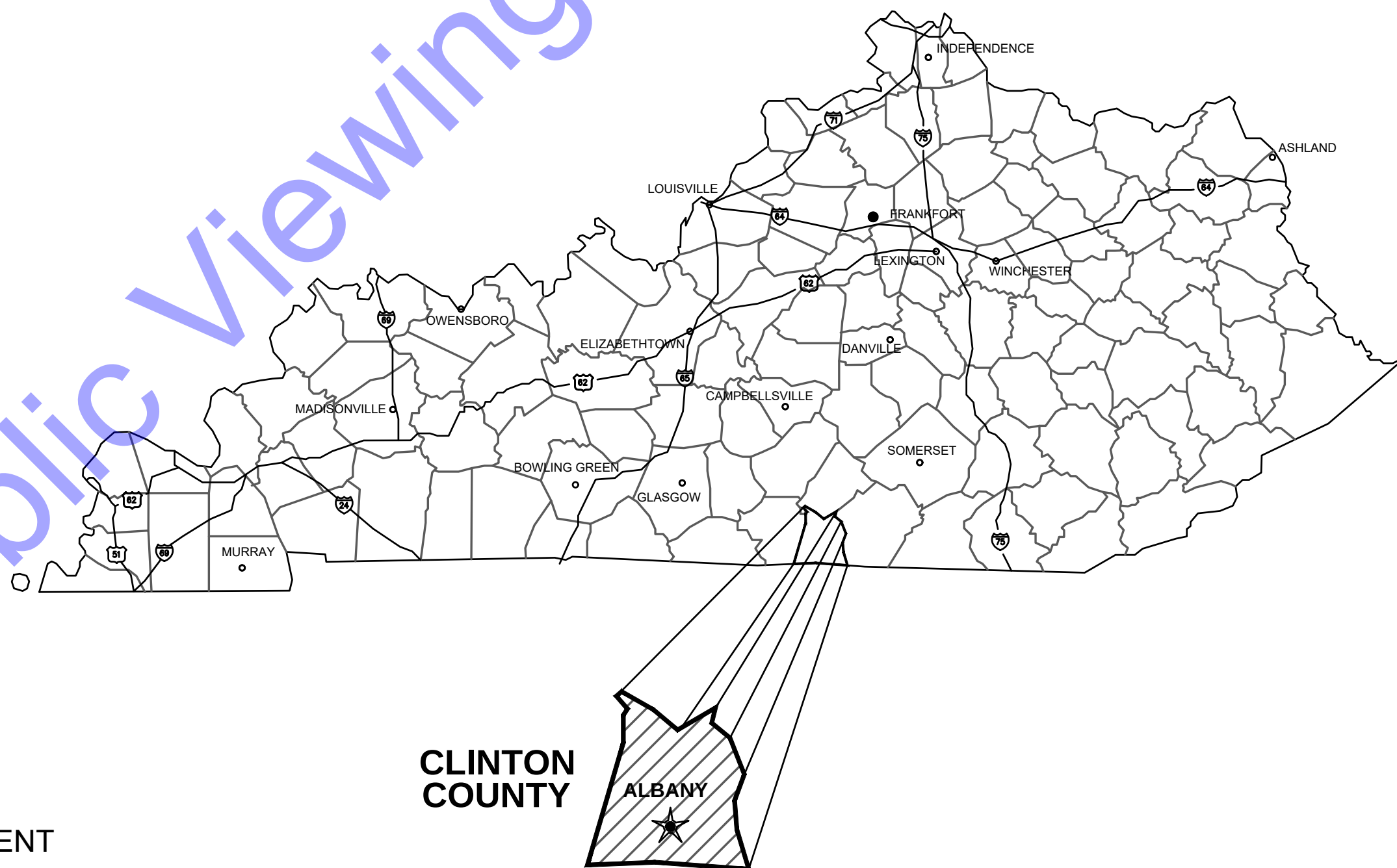


CITY OF ALBANY CLINTON COUNTY, KENTUCKY

HOSPITAL STREET LIFT STATION REPLACEMENT PROJECT JUNE 2025

CITY COUNCIL

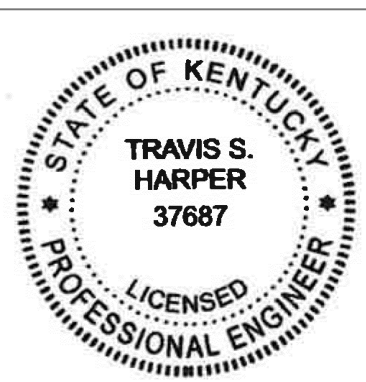
JAMES BRAY _____ MAYOR
JUNIOR GREGORY _____ CITY COUNCIL
LELAND HICKS _____ CITY COUNCIL
TIM NORRIS _____ CITY COUNCIL
REED SLOAN _____ CITY COUNCIL
RANDY SPECK _____ CITY COUNCIL
RENEE YORK _____ CITY COUNCIL
ASHLEY TUCKER _____ CITY CLERK
MELISSA P. SMITH _____ CITY TREASURER
JEFFERY HOOVER _____ CITY ATTORNEY
MICHAEL RIDDLE _____ WASTEWATER SUPERINTENDENT



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QA/QC BY : JEFFREY T. LASHLEE, P.E. 06/18/2025
DATE :

CERTIFIED BY : *Travis S. Harper* 06/18/2025
TRAVIS S. HARPER
KENTUCKY P.E. No. 37687
DATE :

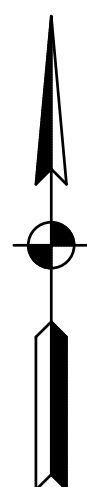


CONTRACT NO. : **S25065**



PROJECT LOCATION MAP

SCALE: 1"=200'-0"



DRAWING SET INDEX		
SHEET No.	DRAWING No.	TITLE
GENERAL		
1	G1	COVER SHEET
2	G2	PROJECT LOCATION MAP & DRAWING SET INDEX
3	G3	SYMBOLS AND ABBREVIATIONS
CIVIL		
4	C1	SITE DEMOLITION PLAN
5	C2	SITE IMPROVEMENT PLAN
6	D1	LIFT STATION PLANS AND SECTION
7	PP1	GRAVITY SEWER PLAN AND PROFILE
8	EC1	EROSION CONTROL DETAILS
9	MD1	MISCELLANEOUS DETAILS I
ELECTRICAL		
10	E0-0	ELECTRICAL LEGENDS AND SCHEDULES
11	E1-0	ELECTRICAL DEMOLITION PLAN
12	E1-1	ELECTRICAL IMPROVEMENTS PLAN
13	E2-0	ELECTRICAL MOUNTING DETAILS
14	E3-0	ELECTRICAL MISC. DETAILS

UTILITY CONTACT INFORMATION

SOUTH KENTUCKY RECC - ELECTRIC - (800) 264-5112

ALBANY WATER WORKS - WATER AND WASTEWATER - (606) 387-6011

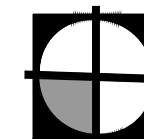
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PROJECT LOCATION MAP & DRAWING SET INDEX

Drawing No:

G2

Sheet: 2 OF 14



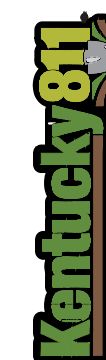
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Signature

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STATION REPLACEMENT
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PROJECT NOTES CONT.

1. ALL PROPERTY AND RIGHT-OF-WAY LINES INFORMATION SHOWN IN DRAWING SET ARE APPARENT AND SHALL NOT BE DEEMED EXACT LOCATIONS, UNLESS OTHERWISE NOTED. INFORMATION WAS OBTAINED VIA "INDIANA ON-LINE" GIS WEBSITE.
2. EXISTING UTILITY INFORMATION SHOWN IN DRAWING SET, MEETS "ASCE 36-02" QUALITY LEVEL "**D**", UNLESS OTHERWISE NOTED.

UTILITY COORDINATION AND PROJECT DEPICTION OF EXISTING SUBSURFACE UTILITY DATA:

UTILITY QUALITY LEVEL DESCRIPTIONS:

UTILITY QUALITY LEVEL A - PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATIONS OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. ACCURACY OF LOCATION MATCHES PROJECT SURVEY TOLERANCE.

UTILITY QUALITY LEVEL B - INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION SUBSURFACE UTILITIES. THE RELIABILITY OF THIS INFORMATION IS SURVEYED TO PROJECT CONTROL AND SUBJECT TO ACCURACY LEVELS OF THE GEOPHYSICAL TOLERANCE DEFINED BY THE PROJECT.

UTILITY QUALITY LEVEL C - INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE GROUND UTILITY FEATURES AND CORRELATING QUALITY LEVEL "D" INFORMATION.

UTILITY QUALITY LEVEL D - INFORMATION DERIVED FROM EXISTING RECORDS OR VERBAL RECOLLECTIONS.

3. NORTHING AND EASTING COORDINATES SHOWN ON ALL MANHOLE, INLETS, ETC. ARE SHOWN FROM CENTER OF STRUCTURE NOT CASTING, UNLESS OTHERWISE NOTED.

1. BURIED UTILITIES MAY BE IN THE PROJECT AREA. CONTRACTOR SHALL MARK ALL UTILITIES BEFORE CONSTRUCTION. PRIOR TO ANY EXCAVATION TAKING PLACE ON SITE, CONTACT KENTUCKY UNDERGROUND 811 AND THE APPROPRIATE UTILITY COMPANY FOR LOCATION OF ALL LINES. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL RESIDENTS OF INTERRUPTION TO THEIR UTILITIES THAT WILL BE OR IS CAUSED BY CONSTRUCTION.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL SUBMIT ALL LOCATIONS AND ELEVATIONS OF ALL UTILITIES TO THE ENGINEER TO ALLOW FOR ANY NECESSARY ADJUSTMENTS TO ANY ALIGNMENT ADJUSTMENTS PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL REPORT, IN WRITING TO THE ENGINEER, ANY CHANGE IN SITE CONDITIONS THAT MAY POTENTIALLY AFFECT THE SANITARY FACILITIES INSTALLATION.
3. AS SPECIFIED IN THE WORKMANSHIP AND MATERIALS SECTION 2, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO: EXISTING UNDERGROUND TELEPHONE, FIBER OPTIC CABLES, STORM SEWERS AND STRUCTURES, CABLE TV, ELECTRICAL WATER FACILITIES AND STRUCTURES, GAS AND SANITARY SEWERS AND STRUCTURES. IN SOME INSTANCES, CONTRACTOR MAY BE REQUIRED TO RUN NEW SEWER FACILITIES PARALLEL AND UNDERNEATH BURIED CABLES, ELECTRICAL FACILITIES AND FIBER OPTICS, AS WELL AS ABOVE GROUND ELECTRICAL BOXES AND CABLE PEDESTALS. CONTRACTOR SHALL NOTIFY UTILITY OWNERS(S) TO VERIFY THE TECHNIQUES ACCEPTABLE TO TEMPORARILY SHORE/BRACE OR TEMPORARILY OR PERMANENTLY RELOCATE THESE FACILITIES TO ACCOMMODATE THE SANITARY FACILITY INSTALLATION. CONTRACTOR SHALL CONTACT RESPECTIVE UTILITY TO TEMPORARILY HOLD OR SHORE EXISTING UTILITY POLES (AND GUY ANCHORS) THAT COULD POTENTIALLY BE AFFECTED BY OPEN CUT EXCAVATIONS. CONTRACTOR SHALL REPAIR AND/OR REPLACE ALL DAMAGED UTILITIES AT CONTRACTOR'S EXPENSE.

PROPOSED MINOR CONTOUR LINE

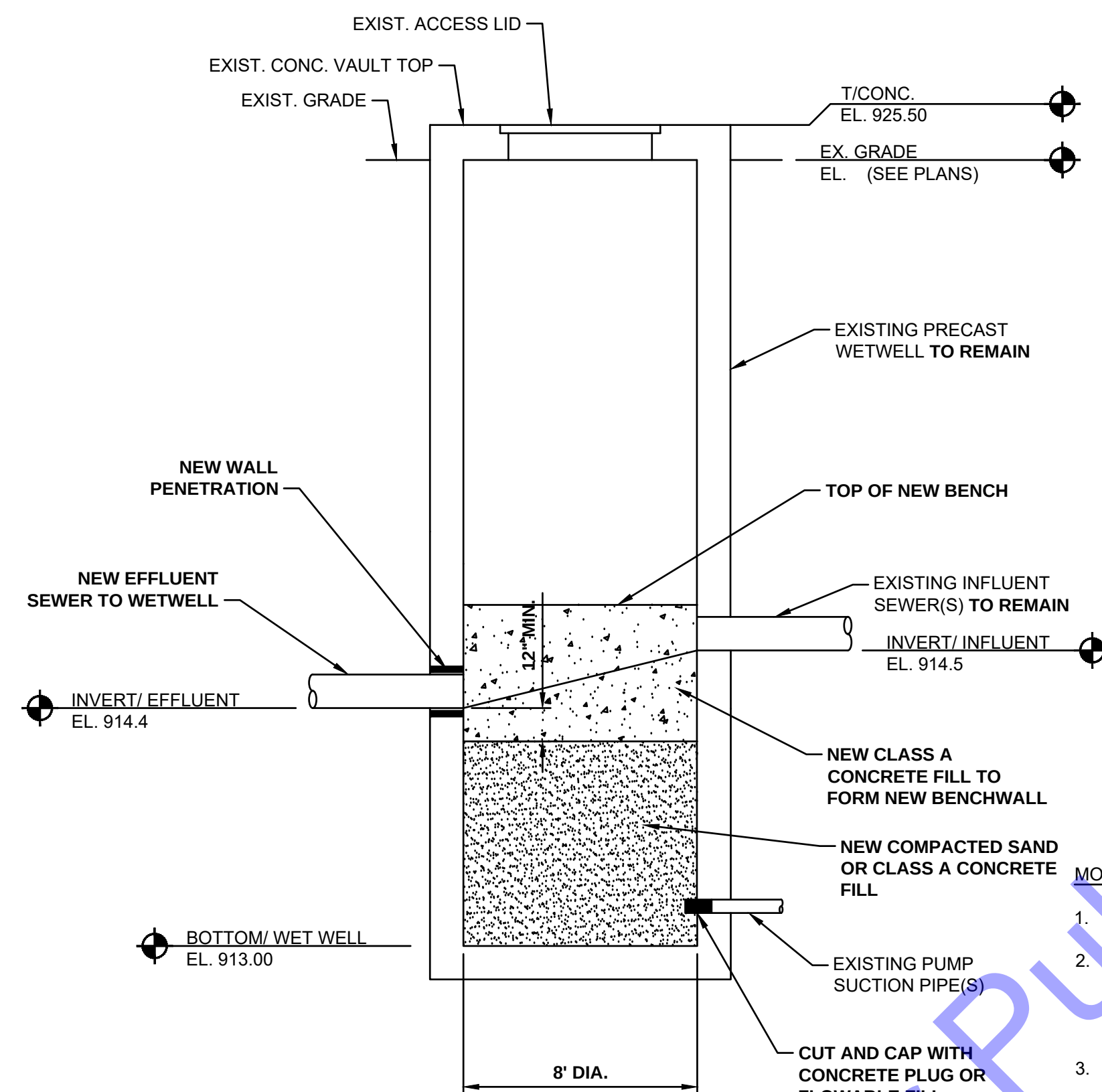
**CITY OF ALBANY
CLINTON COUNTY, KENTUCKY
HOSPITAL STREET LIFT
STATION REPLACEMENT
PROJECT**

	- CMU WALL (PLAN VIEW)
	- GRANULAR BACKFILL (PROFILE VIEW)
	- DEMOLITION (CONTRACTOR SHALL REFER TO DETAILED SPECIFICATIONS)
	- GROUT
	- CONCRETE
	- STEEL
	- COMPACTED GRANULAR BACKFILL OR COMPACTED FOUNDATION
	- ABANDONED IN PLACE

DISCLAIMER NOTE:
THIS DRAWING REFLECTS TYPICAL INFORMATION,
SOME MAY NOT BE APPLICABLE TO THIS PROJECT.

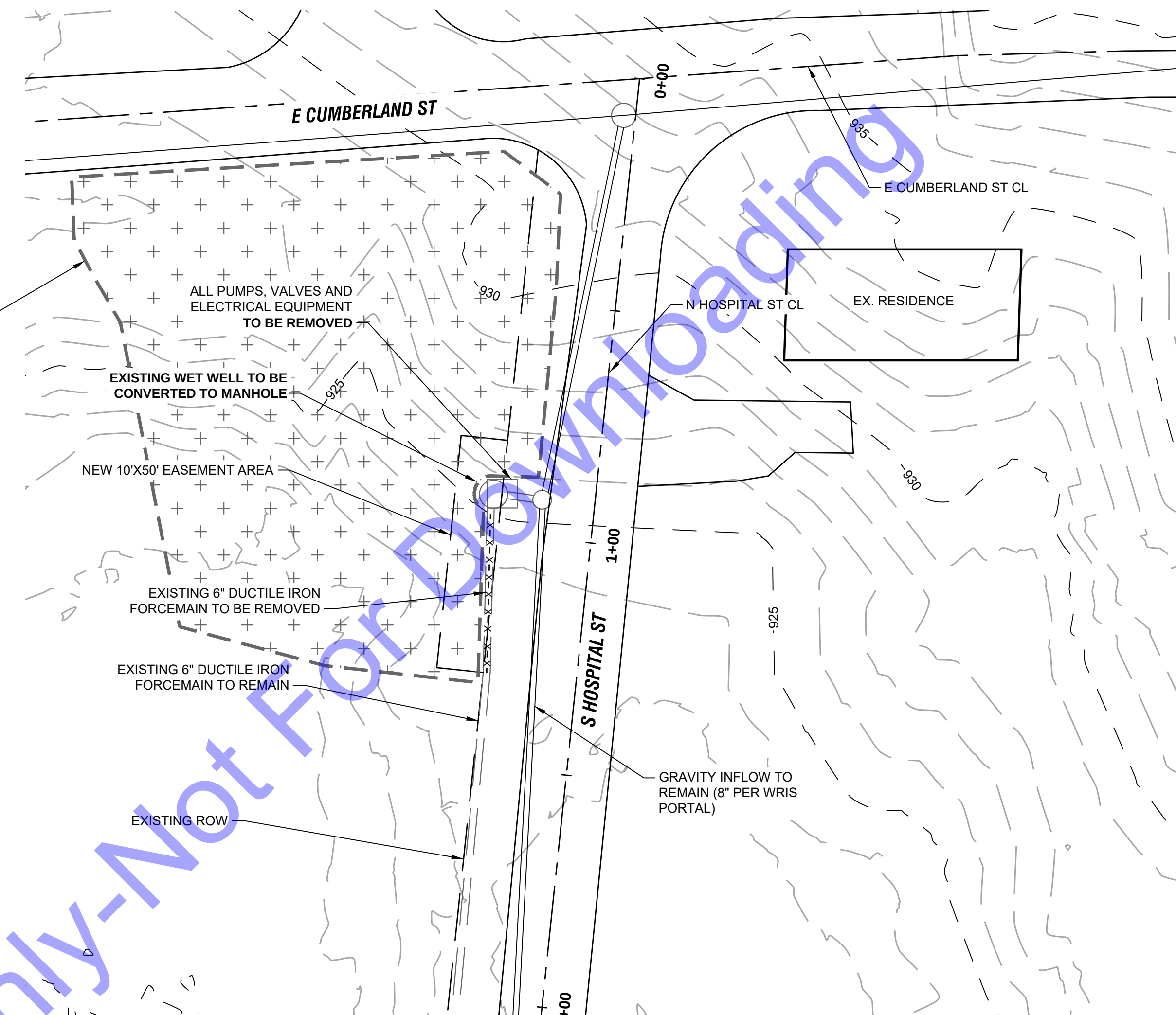
1. CONTRACTOR SHALL DEMOLISH, REMOVE, AND LAWFULLY DISPOSE OF ALL DESIGNATED STRUCTURES AND EQUIPMENT TO ACCOMMODATE IMPROVEMENTS.
2. CONTRACTOR SHALL COORDINATE WITH OWNER'S WASTEWATER SUPERINTENDENT, MICHAEL RIDDLE TO IDENTIFY SPECIFIC EQUIPMENT TO BE SALVAGED PRIOR TO BEGINNING DEMOLITION.
3. ALL OWNER SALVAGED MATERIALS SHALL BE DELIVERED TO ALBANY WWTP.
4. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL NON-SALVAGED MATERIALS.
5. WITHIN INTERIOR OF VALVE VAULT AND WET WELL; ITEMS DEEMED NON-SALVAGEABLE BY OWNER SHALL BE REMOVED. REMOVAL ITEMS MAY INCLUDE BUT NOT LIMITED TO: PIPING, VALVES, RAILS, HATCHES, FLOATS & ELECTRICAL COMPONENTS.

1. COMPLETELY CLEAR TRASH AND DEBRIS AND PROPERLY DISPOSE.
2. STRIP 4" TOPSOIL AND PROPERLY DISPOSE OF CONTAMINATED SOIL OFFSITE.
3. ENSURE AREA IS CLEAN AND CLEAR OF ANY RESIDUAL HAZARDOUS MATERIAL.
4. REPLACE WITH 4" OF NEW TOPSOIL.
5. SEED AND STRAW NEW TOPSOIL.

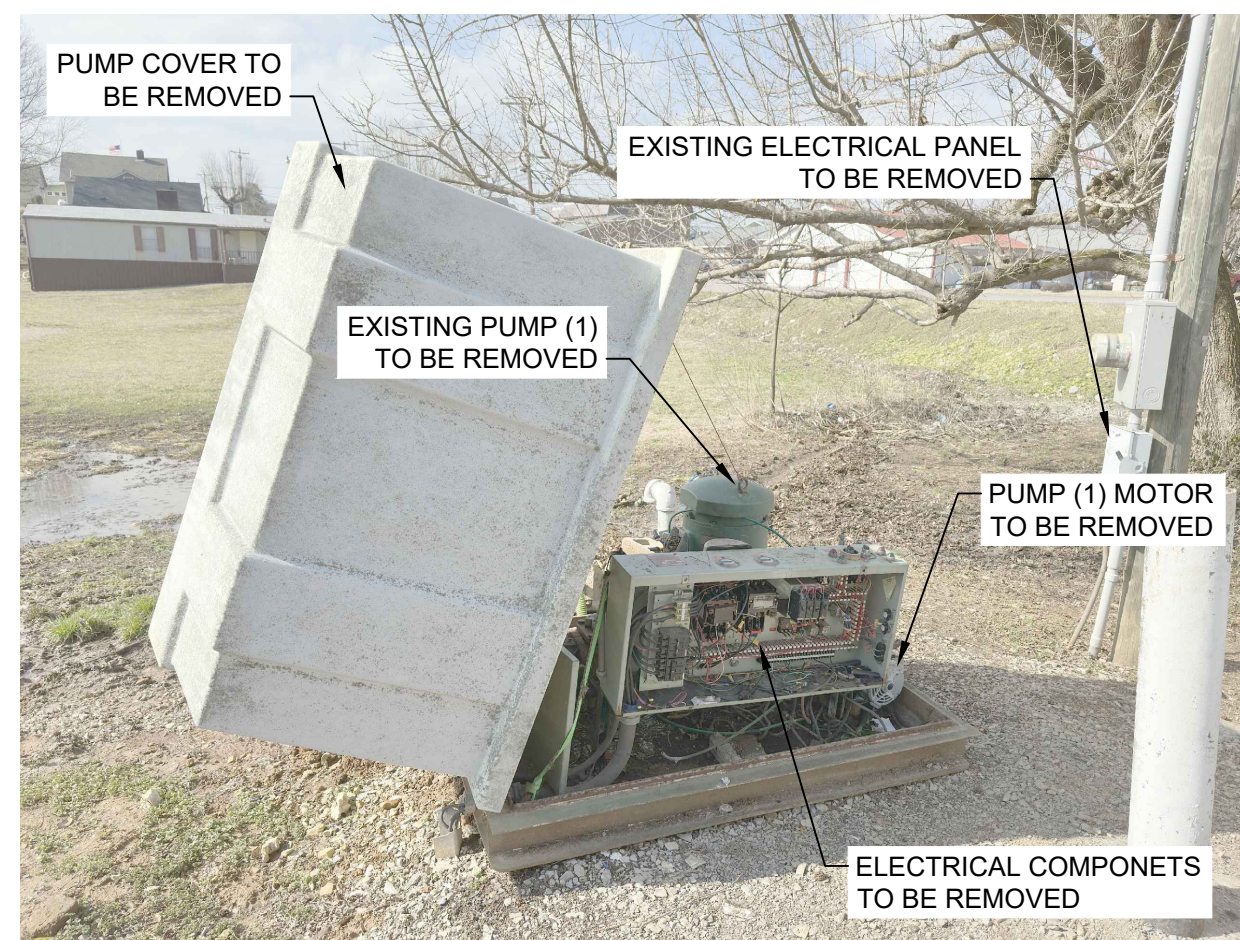


NOT TO SCALE

1. **EXISTING EQUIPMENT TO BE REMOVED.**
2. **THE WET WELL SHALL BE CLEANED WITH A POWER WASHER AND ALL MATERIAL AND LIQUID REMOVED AND LAWFULLY DISPOSED OF BEFORE MAKING MODIFICATIONS.**
3. **EXISTING WET WELL SHALL BE INSPECTED AND, IF FOUND, ACTIVE LEAKS SHALL BE SEALED PER SPECS.**
4. **CONTRACTOR TO FIELD VERIFY EXISTING DIMENSIONS, ELEVATIONS, AND INTERIOR EQUIPMENT OF WETWELL.**
5. **OWNER HAS FIRST RIGHT OF SALVAGE OF ALL EQUIPMENT. COORDINATE WITH OWNER REGARDING ITEM(S) TO BE REMOVED AND DELIVERED TO OWNER'S DESIGNATED LOCATION.**



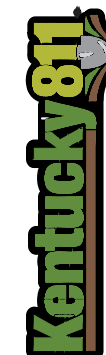
SCALE: 1"=20'-0"



Signature _____ Date _____

**CITY OF ALBANY
CLINTON COUNTY, KENTUCKY
HOSPITAL STREET LIFT
STATION REPLACEMENT
PROJECT**

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[illegible]

Designed By: JDG	Drawn By: ACF	Checked By: TSH
Issue Date: -----	Project No: S22124	Scale: AS SHOWN

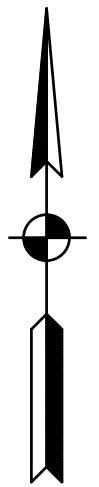
Drawing No:

C1

Sheet: 4 OF 14



- GENERAL NOTES:**
1. SITE DRAINAGE - CONTRACTOR SHALL GENERALLY SLOPE GRADE AWAY FROM TOP OF LIFT STATION TO PROMOTE DRAINAGE AWAY FROM LIFT STATION.



Signature _____

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Designed By: JDG	Drawn By: ACF	Checked By: TSH
Issue Date: ----	Project No: S22124	Scale: AS SHOWN

SITE IMPROVEMENT PLAN

Drawing No:

C2

DUPLEX NON CLOG PUMP PACKAGE
WITH DIRECT MOUNTED CONTROL PANEL
PUMP MODELS: KSB D 80-140

NOTES:

1. THIS STATION TO BE BASE BID USING F.E.MYERS PUMPS AND ACCESSORIES.
CONTACT STRAEFFER PUMP & SUPPLY, 800-837-7867.
2. DRAWING IS NOT TO SCALE, DO NOT SCALE DRAWING.
3. 4" DUCTILE IRON PIPING, W/VALVES & BY PASS CONNECTION.
4. WET WELL SHALL HAVE 6" TAPERED CORNERS (FILLET) TO PREVENT BUILDUP ON THE SIDES OF THE STATION.

ALARM LIGHT

ALARM HORN WITH SILENCE ALARM

DUPLEX CONTROL PANEL
3/230 VOLT
NEMA 4X SS

GAS TIGHT CORD GRIPS

DUAL ALUMINUM PEDESTAL WITH
4" X 4" X 24" TALL - WITH VENT
WITH FOUR - 1/2" X 3 1/2"
STAINLESS STEEL ANCHOR BOLTS

CONTROL MOUNTING BRACKET, SS

ELEV. 923.57'

60" FIBERGLASS REINF. POLYESTER
RESIN, 3/8" MIN. WALL THICKNESS
GELCOATED SURFACES TO SEAL FIBERS
120 PCF LOAD RATING AT S.F.2

8" INLET FITTING
(FIELD INSTALLED)

ELEV. 914.29'

HIGH WATER "ALARM" LEVEL 913.50'

LAG PUMP "ON" LEVEL 912.50'

LEAD PUMP "ON" LEVEL 911.50'

PUMPS "OFF" LEVEL 909.00'

ELEV. 907.00'

CORNERS GROUTED
PER NOTE 4 ABOVE

CONCRETE ANTI-FLOTATION BASE REQUIRED
(BY OTHERS)

72"

UPPER GUIDE PLATE

SS LIFT OUT CABLE

ALUM. BASIN COVER
W/ HINGED ACCESS

2" VENT

ALUM. VAULT COVER
W/ HINGED ACCESS

45°

SS FASTENERS

HOLES FOR POWER
CONTROL CABLES
SPACING BASED ON SIZING
OF CONTROL PANEL.

SIZE AND DEPTH OF VALVE VAULT
TO BE DETERMINED BY BASIN MANUFACTURER
TO ALLOW FOR PROPER SPACING / DEPTH
FOR CONSTRUCTION.

60"

4" Depth

Elev. 919.57'

6" FORCE MAIN

DISCHARGE FLEX
BOOT

VALVEBOX DRAIN W/PVC
CHECK VALVE

2" GUIDE RAILS S.S.

4" DISCHARGE PIPE

3X4" DISCHARGE ELBOW

3" LIFT OUT ASSY

CORNERS GROUTED
PER NOTE 4 ABOVE

CONTROL MOUNTING
BRACKET, SS

2" Vent

4"

FORCE MAIN

HATCH SIZED BASED ON PUMP
CLEARANCES AND SPACING OF PIPING
IN VALVE VAULT.

[illegible]

PROJECT		
SCALE: =		
	NAME	DATE
DESIGNED BY		
DRAWN BY	SRP	3/6/15
CHECKED BY		
AS BUILTS		

SHEET
OF
SET NO

**CITY OF ALBANY
CLINTON COUNTY, KENTUCKY
HOSPITAL STREET LIFT
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PROJECT**

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Designed By: JDG	Drawn By: ACF	Checked By: TSH
Issue Date: -----	Project No: S22124	Scale: AS SHOWN

LIFT STATION PLANS AND SECTION

Drawing No:

D1

Sheet: 6 OF 14

FILE Z:\SHARED\CLIENTS\ALBANY\BIDDING\SUBMITTALS\REPLACEMENT PROJECTS\COMMONWEALTH ENGINEERS\ELECTRICAL SITE PLANS.DWG
Sheet: 6/26/2025 2:17:01 PM Plotted: 6/26/2025 2:17:56 PM Current User: Regan Winkler/EI User: Commonwealth Engineers

PROCESS AND INSTRUMENTATION DIAGRAM LEGEND

TAG FUNCTION ABBREVIATIONS

ALT ALTERNATE
C CLOSED(C)
CM COMPUTER-MANUAL
DIFF DIFFERENCE OR DIFFERENTIAL
DO DISSOLVED OXYGEN
F FAIL
F(X) CHARACTERIZED
FOR FORWARD-STOP(OFF)-REVERSE(MAINTAINED CONTACT)
FSR FORWARD-STOP-REVERSE(MOMENTARY CONTACT)
HA HAND-OFF-AUTOMATIC(MAINTAINED CONTACT)
HOR HAND-OFF-REMOTE(MAINTAINED CONTACT)
II CURRENT TO CURRENT
IP CURRENT TO PNEUMATIC
LEAD-LAG(MAINTAINED CONTACT)
LOE LOSS OF ECHO(ULTRASONIC SENSOR FAILURE)
LOR LOCAL-OFF-REMOTE(MAINTAINED CONTACT)
LOS LOCKOUT STOP/LOCKABLE IN "STOP" POSITION
(MOMENTARY CONTACT)
L/R LOCAL/REMOTE(MAINTAINED CONTACT)
MA MANUAL-AUTOMATIC(MAINTAINED CONTACT)
MOA MANUAL-OFF-AUTOMATIC(MAINTAINED CONTACT)

O OPEN
OA OFF-AUTOMATIC
OCA OPEN-CLOSE-AUTOMATIC(MAINTAINED CONTACT)
OC OPEN-CLOSE(D)MAINTAINED CONTACT)
OSC OPEN-STOP-CLOSE(MOMENTARY CONTACT SPRING
RETURN TO CENTER POSITION)
OO ON-OFF(MAINTAINED CONTACT)
ODA ON-OFF-AUTOMATIC(MAINTAINED CONTACT)
OOR ON-OFF-REMOTE(MAINTAINED CONTACT)
R RUN
SBL SLIDING BLANKET INTERFACE LEVEL
SP SPEED POT
SQRT SQUARE ROOT
SS START-STOP
SSA START-STOP-AUTOMATIC
SL START-STOP-LOCK
(LOCKABLE IN "STOP" POSITION, MOMENTARY CONTACT)
SUM SUMMATION
VIB VIBRATION
X MULTIPLY

FWD FORWARD
REV REVERSE
F/R FORWARD/REVERSE(MOTOR STARTER COILS)
ESTP ESTOP(EMERGENCY STOP)
SPD (SPEED POT)
SUSP SUSPEND
ALRT ALERT
RSET RESET
SRT START

TAG SYMBOLS

HORIZONTAL BAR SYMBOLS
FOR PHYSICAL MOUNTING OF DEVICE

SINGLE FUNCTION
SINGLE/MULTI I/O DEVICE
NON-CONFIGURABLE
NON-PROGRAMMABLE

MULTI-FUNCTION
MULTI I/O
PROGRAMMABLE DEVICE

FIELD MOUNTED

MAIN CONTROL ROOM
PANEL NORMALLY
ACCESSIBLE

BEHIND MAIN CONTROL
PANEL, NOT NORMALLY
ACCESSIBLE

LOCAL PANEL
NORMALLY ACCESSIBLE

LOCAL PANEL - NOT
NORMALLY ACCESSIBLE

CONTROL AND I/O DEVICES
DISPLAY

[ADD APPROPRIATE HORIZ. BAR(S)]

NON-DISPLAYED
CONFIGURABLE DEVICE
(SEMI-PROGRAMMABLE)

NON-DISPLAYED
PROGRAMMABLE DEVICE
(= PLC)

DISPLAYED
CONFIGURABLE DEVICE
(SEMI-PROGRAMMABLE)

DISPLAYED
PROGRAMMABLE DEVICE

DISPLAYED
PROGRAMMABLE POINT
(HMI TOUCH SCREEN OR
SCADA SOFTWARE)

INSTRUMENT SOCIETY OF AMERICA TABLE

LETTER	FIRST LETTER(S)		SUCCEEDING LETTER(S)		
	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM(W. LOGGING)	ANNUNCIATE	
B	BURNER COMBUSTION		USERS CHOICE(*)	USERS CHOICE(*)	USERS CHOICE(*)
C	USERS CHOICE(*)			CONTROL	CLOSE
D	USERS CHOICE(*)	DIFFERENTIAL			
E	VOLTAGE	RATIO	PRIMARY ELEMENT		
F	LOW RATE		GLASS		FEEDBACK
G	USERS CHOICE(*)				
H	HAND (MANUAL)				HIGH
I	CURRENT				
J	POWER	SCAN	INDICATE		
K	TIME OR SCHEDULE	TIME RATE OF CHANGE	KEYPAD(DATA ENTRY)	CONTROL STATION	LOW
L	LEVEL		LIGHT(PILOT)		MONITORING
M	MOTOR	MOMENTARY	USERS CHOICE(*)	USERS CHOICE(*)	USERS CHOICE(*)
N	USERS CHOICE(*)		ORIFICE		
P	PRESSURE OR VACUUM		POINT TEST CONNECTION		
Q	QUANTITY	INTEGRATE			
R	SPEED OR FREQUENCY	SAFETY	RECORD, TREND, LOG	SWITCH	
S	TEMPERATURE		TRANSIT		
U	UNIVERSAL MULTIVARIABLE(*)		MULTIFUNCTION(*)	MULTIFUNCTION(*)	MULTIFUNCTION(*)
V	VIBRATION		VALUE	VALVE	
W	WEIGHT, FORCE, TORQUE		WELL	W	
X	UNCLASSIFIED(*)	X AXIS	UNCLASSIFIED(*)	UNCLASSIFIED(*)	UNCLASSIFIED(*)
Y	EQUIP. STATE	Y AXIS	RELAY OR COMBINE(*)		
Z	POSITION, DIMENSION	Z AXIS	DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT		

(*) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL.

SPECIAL CASES:
ETM - ELAPSED TIME METER
JBX - JUNCTION BOX
NDX - INDEX #
MS - MOTOR STARTER
MOR - MOTOR OVERLOAD RELAY
MPR - MOTOR PROTECTION RELAY

CONDUIT NOTES

PVC SCHEDULE 40 BELOW GRADE.

RIGID ALUMINUM OR PVC COATED RGS CONDUIT ABOVE GRADE OUTDOORS.

RIGID ALUMINUM OR PVC COATED RGS CONDUIT IN CLASSIFIED AND CORROSIVE SPACES.

NO CONDUIT SHALL BE INSTALLED ON TOP OF A DECK, ON A WALKWAY, OR IN AN AREA THAT MAY POSE A TRIP HAZARD. NO CONDUIT SHALL BE INSTALLED ABOVE A DECK, ABOVE A WALKWAY, OR IN AN AREA THAT IS COMMONLY TRAVELED. ALL CONDUIT IN SUCH AREAS SHALL BE COORDINATED WITH THE OWNER/ENGINEER AND SHALL BE INSTALLED BELOW GRADE OR IN THE CONCRETE DECKING OR PAD. CONDUIT INSTALLED IN CONCRETE DECKING OR PAD SHALL BE AVOIDED WHEN POSSIBLE. IF CONDUIT IS TO BE ROUTED IN A STRUCTURAL CONCRETE DECK, PAD, WALL, ETC. IT SHALL BE COORDINATED AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. CONDUIT INSTALLED IN CONCRETE CAN IMPACT THE STRUCTURAL INTEGRITY OF CONCRETE. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFORM TO ANY REQUIREMENTS REQUIRED OF THE STRUCTURAL ENGINEER TO ACCOMMODATE THE INTEGRITY OF THE INSTALLATION AT NO COST TO THE OWNER. FOR A CONDUIT EMBEDDED IN CONCRETE TO BE CONSIDERED IT MUST BE THE ONLY REASONABLE SOLUTION AS DETERMINED BY THE ENGINEER. ALL PROPOSED INSTALLATIONS MUST COMPLY WITH ACI 318 AND BE ENGINEER APPROVED.

ALL UNDERGROUND CONDUITS SHALL BE SEALED AT BOTH ENDS.

NO CONDUIT PENETRATIONS ON THE TOP OF ANY OUTDOOR PANELS/ENCLOSURES.

EMT IS ACCEPTABLE IN CONDITIONED ELECTRICAL ROOMS AND OFFICE/BREAK AREAS. ONLY EMT SHALL BE TRANSITIONED PRIOR TO EXITING NON CORROSIVE SPACES. EMT SHALL NOT BE USED WHEN IT CAN BE EXPOSED TO ANY CORROSIVE GASES.

CONTROL WIRING REQUIREMENTS

EACH ANALOG INPUT REQUIRES AN 18/2 TWISTED SHIELDED PAIR IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

EACH ANALOG OUTPUT REQUIRES AN 18/2 TWISTED SHIELDED PAIR IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

EACH DISCRETE INPUT REQUIRES 2 #14's IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

EACH DISCRETE OUTPUT REQUIRES 2 #14's IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

CONTROL WIRING OF THE SAME TYPE MAY BE COMBINED INTO THE SAME CONDUIT. EXAMPLES: TWO 4-20MA ANALOG SIGNALS MAY BE COMBINED. TWO 24VDC DISCRETE SIGNALS MAY BE COMBINED, AND TWO 120VAC DISCRETE SIGNALS MAY BE COMBINED.

NOTE: INSTRUMENTS AND CABLE SHALL BE AS REQUIRED BY THE INSTRUMENT MANUFACTURER.

INSTRUMENT POWER

INSTRUMENTS REQUIRING 120 VAC:

- MAGNETIC FLOW METERS
- TURBIDITY TRANSMITTERS
- pH TRANSMITTERS
- ORP TRANSMITTERS
- DO TRANSMITTERS
- ULTRASONIC LEVEL TRANSMITTERS
- ULTRASONIC FLOW TRANSMITTERS
- INFLUENT AND EFFLUENT SAMPLERS

NOTE: THIS LIST IS PROVIDED AS A REFERENCE AND IS NOT ALL INCLUSIVE. COORDINATE WITH THE EQUIPMENT SUPPLIERS FOR DETAILED WIRING REQUIREMENTS OF INSTRUMENTS, SENSORS, AND EQUIPMENT.

ELECTRICAL GENERAL NOTES

(GENERAL NOTES APPLICABLE TO ALL ELECTRICAL SHEETS)

- CONTRACTOR SHALL EXAMINE NOT ONLY PLANS AND SPECIFICATIONS FOR ELECTRICAL AND INSTRUMENTATION, BUT PLANS AND SPECIFICATIONS FOR OTHER RELATED SECTIONS. VISIT THE SITE TO BECOME ACQUAINTED WITH ALL PROJECT CONDITIONS INCLUDING EXISTING CONDITIONS. EXECUTION OF CONTRACT IS EVIDENCE THAT THE CONTRACTOR HAS EXAMINED ALL DRAWINGS AND SPECIFICATIONS AND THAT ALL CONDITIONS OF INSTALLING THE WORK IN THIS SECTION ARE VERIFIED. LATE CLAIMS FOR LABOR AND MATERIALS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATIONS BEEN MADE WILL NOT BE RECOGNIZED.
- THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO INCLUDE EVERY DETAIL OF REQUIRED CONSTRUCTION, EQUIPMENT, AND MATERIALS. PROVIDE ALL MATERIALS AND WORK NOT SPECIFICALLY MENTIONED, SHOWN, OR CAN BE REASONABLY INFERRED ON THE DRAWINGS BUT WHICH ARE NECESSARY TO FULLY COMPLETE THE WORK.
- WHEN SUBSTITUTING OTHER EQUIPMENT, MATERIALS, AND PRODUCTS THAN SPECIFIED IN THE CONTRACT DOCUMENTS, INCLUDE IN PRICING ALL COSTS FOR OTHER DESIGN CHANGES TO THE PROJECT (ALL DIVISIONS) WHICH WILL RESULT FROM USE OF THE SUBSTITUTED ITEM(S).
- REVIEW THE CONTRACT DOCUMENTS OF OTHER DIVISIONS, AND COORDINATE ELECTRICAL AND CONTROL WORK WITH THE WORK OF OTHER DISCIPLINES TO AVOID CONFLICTS AND INTERFERENCE.
- UPON COMPLETION OF THE WORK REQUIRED UNDER THIS CONTRACT, PROVIDE TYPED UPDATED DIRECTORY WITHIN DOOR OF EACH AFFECTED PANELBOARD. LEAVE "SPARE" BREAKERS IN "OFF" POSITION.
- ALL MOUNTING HEIGHTS INDICATED ON DRAWINGS ARE TO CENTERLINE, UNLESS NOTED OTHERWISE.
- PROVIDE LIGHTING FIXTURES COMPATIBLE WITH CEILING CONSTRUCTION. COORDINATE WITH ARCHITECTURAL ROOM FINISH SCHEDULES.
- IN AREAS HAVING FINISHED CEILINGS, LOCATE CEILING-MOUNTED ELECTRICAL DEVICES AND FIXTURES ACCORDING TO ARCHITECTURAL REFLECTED CEILING PLAN. DO NOT INSTALL CEILING-MOUNTED SMOKE DETECTORS WITHIN 4 FEET OF HVAC SUPPLY DIFFUSERS.
- IN ELECTRICAL AND MECHANICAL EQUIPMENT SPACES, COORDINATE EXACT LOCATIONS OF LIGHTING FIXTURES WITH CONDUIT BANKS, DUCTWORK, PIPING, STRUCTURE, SUPPORTS, AND OTHER OBSTRUCTIONS. LOCATE FIXTURES SUCH THAT DIALS, GAUGES, METERS, ETC. ARE PROPERLY ILLUMINATED.
- DO NOT USE ANY LIGHTING FIXTURE AS A RACEWAY FOR CONDUCTORS NOT SERVING THAT PARTICULAR FIXTURE.
- CONNECT BATTERY-OPERATED EMERGENCY LIGHTING UNITS AND EXIT SIGNS HAVING BATTERY BACK-UP TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND NEC SUCH THAT FAILURE OF CIRCUIT TRANSFERS UNIT FROM NORMAL TO EMERGENCY MODE, CAUSING LAMPS TO RE-ENERGIZE.
- DO NOT INSTALL OUTLET BOXES BACK-TO-BACK IN NON-RATED PARTITIONS. OFFSET AND SEAL, SIMILAR TO REQUIREMENTS FOR RATED PARTITIONS, TO MINIMIZE SOUND TRANSMISSION.
- COORDINATE ROUTING OF ALL LARGE CONDUITS (2" DIA AND LARGER) AND PULL BOX LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION TO AVOID CONFLICTS AND TO GUARANTEE REQUIRED CLEARANCE AND ACCESSIBILITY OF ELECTRICAL AND OTHER SYSTEMS.
- COORDINATE WITH OWNER OR OWNER'S SELECTED VENDOR PRIOR TO ROUGH-IN FOR EXACT LOCATIONS OF SPECIAL PURPOSE OUTLETS DEDICATED TO SPECIFIC EQUIPMENT. VERIFY REQUIRED NEMA CONFIGURATION OF ALL SUCH OUTLETS.
- PROVIDE APPROPRIATE PULL WIRE IN EACH EMPTY SYSTEMS CONDUIT INCLUDED IN THIS PROJECT.
- INCLUDE GREEN-INSULATED GROUNDING CONDUCTOR SIZED PER 2002 NEC TABLE 250.122 WITH ALL BRANCH CIRCUIT CONDUCTORS SERVING LIGHTING FIXTURES, RECEPTACLES, MECHANICAL OR OTHER DEVICES INSTALLED AT OR BELOW 8'-0".
- MATCH A.I.C. RATINGS AND OTHER CHARACTERISTICS OF EXISTING DEVICES IN PANELBOARD WHEN ADDING BREAKERS TO EXISTING PANELBOARDS.
- ALL WORK SHALL BE IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE - LATEST EDITION ADOPTED BY INDIANA, THE INDIANA CODE AMENDMENT, LOCAL MUNICIPAL CODE, AND THE AUTHORITIES HAVING JURISDICTION.
- ALL CONNECTIONS TO EQUIPMENT SUBJECT TO MOVEMENT OR VIBRATION SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, NOT LESS THAN 12" IN LENGTH, NOR GREATER THAN 36" IN LENGTH.
- ALL CONDUIT PENETRATIONS SHALL BE SEALED WITH APPROPRIATE CONDUIT SEALING MATERIAL.
- ALL CABLE SIZES SHALL UTILIZE COPPER CONDUCTORS.
- FIELD VERIFY LOCATIONS OF BUILDING EXPANSION JOINTS WHEN ROUTING CONDUIT. ALL CONDUITS CROSSING EXPANSION JOINTS SHALL BE INSTALLED WITH THE EXPANSION FITTINGS. EXPANSION FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC AND MANUFACTURERS WRITTEN RECOMMENDATIONS.
- FEEDERS FROM PANELBOARDS BACK TO MAIN SWITCHBOARD, BETWEEN AUTO TRANSFER SWITCHES AND THEIR SOURCE/LOADS, BETWEEN DRY TRANSFORMERS AND THEIR SOURCE/LOADS ARE NOT INDICATED. FEEDERS ARE PART OF THE WORK, AND SHALL BE SIZED AS INDICATED ON THE LINE DIAGRAM.
- HOMERUNS SHALL NOT BE COMBINED IN A RACEWAY UNLESS SHOWN ON THE CONTRACT DRAWINGS. SINGLE PHASE BRANCH CIRCUIT HOMERUNS MAY BE COMBINED AT THE CONTRACTORS DISCRETION NOT GREATER THAN (3) PHASE CONDUCTORS, NEUTRAL CONDUCTORS, AND A GROUNDING CONDUCTOR.
- EACH SINGLE PHASE BRANCH CONDUCTOR SHALL HAVE A DEDICATED NEUTRAL BACK TO THE PANEL.
- ALL PENETRATIONS BELOW GRADE SHALL USE LINK SEALS.
- WHERE LOW VOLTAGE (CONTROL) CABLING IS ALLOWED TO BE INSTALLED WITHOUT A RACEWAY, IT SHALL BE SUPPORTED NOT EXCEEDING INTERVALS OF 48", AND NOT MORE THAN 6" FROM THE CABINETS, BOXES, FITTINGS, OUTLETS, RACKS, FRAMES AND TERMINALS.
- ALL MOUNTING HARDWARE INCLUDING NUTS, BOLTS, SCREWS, WASHERS, ETC. SHALL BE STAINLESS STEEL.
- MOUNT JUNCTION BOXES AND DISCONNECT SWITCHES ON STAINLESS STEEL UNISTRUT.
- ALL UNISTRUT, MOUNTING BRACKETS AND SUPPORTING STRUCTURES SHALL BE STAINLESS STEEL.
- DO NOT MIX DISCRETE AND ANALOG CONTROL CONDUCTORS IN THE SAME CONDUIT.
- ADJUSTABLE SPEED DRIVES (ASD) LINE AND LOAD WIRE SHALL BE RUN IN SEPARATE RACEWAYS.
- CONTRACTOR SHALL COORDINATE WITH HEAT TRACE MANUFACTURER DURING BIDDING AND CONSTRUCTION AND SHALL PROVIDE ALL CONDUIT, WIRING, AND CIRCUITS AS REQUIRED. HEAT TRACE SHALL BE PROVIDED/INSTALLED COMPLETE. ALL HEAT TRACE IS REQUIRED TO BE GFI PROTECTED.
- CONTRACTOR SHALL NOT COMBINE POWER FEEDS FOR THREE PHASE LOADS.
- THE BELOW LOCATIONS ARE WHERE GFCI OUTLETS ARE REQUIRED:
35.1. KITCHENS: ALL KITCHEN OUTLETS.
35.2. BATHROOMS: GFCI OUTLETS ARE REQUIRED IN BATHROOMS NEAR THE SINK.
35.3. GARAGES: GFCI OUTLETS ARE REQUIRED IN GARAGES THAT HAVE SINKS.
35.4. BASEMENTS: UNFINISHED BASEMENTS REQUIRE AT LEAST ONE GFCI OUTLET.
35.5. OUTDOOR SPACES: GFCI OUTLETS ARE REQUIRED IN OUTDOOR AREAS THAT ARE ACCESSIBLE OR AT GRADE LEVEL.
35.6. LAUNDRY ROOMS: ALL LAUNDRY ROOM OUTLETS.
35.7. CRAWL SPACES: GFCI OUTLETS ARE REQUIRED IN CRAWL SPACES WHERE MECHANICAL EQUIPMENT IS LOCATED.
35.8. UTILITY ROOMS: ALL UTILITY ROOM OUTLETS.
- LIMIT CAT BE INSTALLATION TO 230' MAXIMUM DISTANCE. CONTRACTOR SHALL FURNISH AND INSTALL FIBER OPTIC CABLE AND MEDIA CONVERTERS IF CONDUIT ROUTING EXCEEDS CAT BE LIMITS.

LEGEND

SYMBOL	DESCRIPTION	MTG HGT AFF TO CL, UNLESS NOTED
	OPEN LIGHTING FIXTURE SYMBOLOLOGY DENOTING FIXTURES CONNECTED TO NORMAL POWER. FIXTURE TYPE DETERMINES MOUNTING.	----
	SINGLE DIAGONAL LIGHTING FIXTURE SYMBOLOLOGY DENOTING FIXTURES CONNECTED TO CRITICAL OR EQUIPMENT BRANCH (OR EMERGENCY POWER), UNLESS OTHERWISE NOTED.	----
	DOUBLE DIAGONAL LIGHTING FIXTURE SYMBOLOLOGY DENOTING FIXTURES CONNECTED TO LIFE SAFETY BRANCH (OR EMERGENCY POWER), UNLESS OTHERWISE NOTED.	----
	BATTERY POWERED EMERGENCY LIGHTING UNIT	7'-6"
	EXIT SIGN: ARROWS DENOTE DIRECTIONAL, INDICATING CHEVRON ROOMS, SHADING DENOTES FACE(S) ORIENTATION.	----
	WALL WASH OR OTHER DIRECTIONALLY ADJUSTABLE/AIMABLE FIXTURE: OPEN SIDE DENOTES ORIENTATION. TYPE DETERMINES MOUNTING.	----
	TRACK LIGHTING FIXTURE: TYPE DETERMINES MOUNTING.	----
	POLE-MOUNTED SITE LIGHTING FIXTURE: TYPE DETERMINES MTG.	----
	FLOOD LIGHTING FIXTURE: TYPE DETERMINES MOUNTING.	----
	PHOTO-CELL	----
	ALL FIXTURES IN THIS SPACE SHALL BE SAME TYPE INDICATED, U.O.N.	----
	SINGLE-POLE TOGGLE SWITCH	3'-10"
	SINGLE-POLE TOGGLE SWITCH: SLASH DENOTES ESSENTIAL POWER SYSTEM CONNECTION - TYPICAL FOR ALL SWITCHES	3'-10"
	DUAL TECHNOLOGY, WALL MNTD OCCUPANCY SENSOR WITH MANUAL OVERRIDE SWITCH	3'-10"
	DUAL TECHNOLOGY, CEILING MNTD OCCUPANCY SENSOR WITH REMOTE MANUAL OVERRIDE SWITCH	3'-10"
	SINGLE-POLE REMOTE OVERRIDE SWITCH FOR CEILING MNTD OCCUPANCY SENSOR	3'-10"
	DIMMER SWITCH	3'-10"
	THREE-WAY DIMMER SWITCH	3'-10"
	SINGLE-POLE TOGGLE SWITCH WITH PILOT LIGHT	3'-10"
	SINGLE-POLE MOTOR-RATED TOGGLE SWITCH DISCONNECT	3'-10"
	SINGLE-POLE OR DOUBLE-POLE MANUAL MOTOR STARTER WITH MELTING ALLOY ELEMENTS FOR THERMAL OVERLOAD PROTECTION	3'-10"
	OCCUPANCY SENSOR SWITCH	3'-10"
	INTERVAL TIMER RESET AND CONTROL SWITCH	3'-10"
	JOG SWITCH	3'-10"
	MUSHROOM HEAD TYPE PUSHBUTTON STATION	5'-0"
	AUTO DOOR CONTROL PUSHPLATE	----
	VARIABLE INTENSITY CONTROLLER INCLUDED WITH OWNER-FURNISHED-CONTRACTOR-INSTALLED SURGICAL LIGHTING FIXTURE	5'-0"
	LOW VOLTAGE CONTROL SWITCH	3'-10"
	FACTORY SUPPLIED WALL CONTROLLER FOR CEILING MOUNTED LIGHT-INSTALLED BY ELECTRICAL CONTRACTOR	3'-10"
	120V DUPLEX RECEPTACLE, STANDARD MOUNTING HEIGHT	1'-6"
	120V DUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT	ABOVE COUNTER
	120V DUPLEX RECEPTACLE, STANDARD MOUNTING HEIGHT	1'-6"
	120V QUADRUPLUX RECEPTACLE, STANDARD MOUNTING HEIGHT	ABOVE COUNTER
	120V QUADRUPLUX RECEPTACLE, SPECIAL MOUNTING HEIGHT	ABOVE COUNTER
	120V SINGLE RECEPTACLE, AMP RATING IF OTHER THAN 20A SHOWN, STANDARD MOUNTING HEIGHT, OR OTHER HEIGHT AS NOTED	1'-6", UNLESS NOTED
	120V GFCI DUPLEX RECEPTACLE, STANDARD MOUNTING HEIGHT	1'-6"
	120V GFCI DUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT	ABOVE COUNTER
	120V GFCI DUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT	ABOVE COUNTER
	SINGLE RECEPTACLE (OTHER THAN 120V), VOLTAGE, AMP RATING, NEMA CONFIGURATION, AND MOUNTING HEIGHT AS NOTED	----
	RECEPTACLE OR X-BOX CONNECTION FOR X-RAY VIEWER, VERIFIER, CONNECTION ROOMS WITH UNIT FURNISHED PRIOR TO ROUGH-IN	----
	120V DUPLEX RECEPTACLE IN FLUSH FLOOR-MOUNTED BOX	----
	TELE-POWER POLE	----
	HALON PULL STATION	----
	FIRE ALARM MANUAL PULL STATION	3'-10"
	FIRE ALARM MANUAL, PULL STATION, KEY-OPERATED	3'-10"
	FIRE ALARM CEILING-MOUNTED SMOKE DETECTOR	----
	FIRE ALARM CEILING-MOUNTED HEAT DETECTOR	----
	FIRE ALARM SUPPLY AIR DUCT-MOUNTED SMOKE DETECTOR	----
	FIRE ALARM RETURN AIR DUCT-MOUNTED SMOKE DETECTOR	----
	FIRE ALARM PROJECTED BEAM SMOKE DETECTOR - RECEIVER	AS NOTED
	FIRE ALARM PROJECTED BEAM SMOKE DETECTOR - TRANSMITTER	AS NOTED
	FIRE ALARM CONNECTION TO SPRINKLER SYSTEM VALVE STATUS SWITCH (TAMPER SWITCH)	----
	FIRE ALARM CONNECTION TO SPRINKLER SYSTEM WATER FLOW SWITCH	----
	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE-CHIME & STROBE	6'-8"
	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE-HORN & STROBE	6'-8"
	FIRE ALARM VISUAL ONLY NOTIFICATION DEVICE - STROBE LIGHT	6'-8"
	FIRE ALARM SPEAKER: CEILING-MOUNTED, WALL-MOUNTED	6'-8"
	FIRE ALARM HORN, WALL-MOUNTED	AS NOTED
	DUCT SMOKE DETECTOR ALARM REMOTE INDICATOR LIGHT: CEILING-MOUNTED, WALL-MOUNTED	6'-8"
	DUCT SMOKE DETECTOR ALARM REMOTE INDICATOR LIGHT AND TEST SWITCH: CEILING-MOUNTED, WALL-MOUNTED	6'-8"
	FIRE ALARM ZONE ADDRESSABLE MODULE	----
	FIRE ALARM INDIVIDUAL ADDRESSABLE MODULE	----
	FIRE ALARM ELECTRO-MAGNETIC DOOR HOLDER	6'-4"
	FIRE RELAY	----
	DESK MOUNTED INTERCOM	----
	WALL MOUNTED INTERCOM	----
	EXPLOSION PROOF SWITCH	3'-10"
	3 WAY SWITCH	3'-10"
	4 WAY SWITCH	3'-10"
	NEMA 4X SWITCH	3'-10"

PUMP AND METER LEGEND

SYMBOL	DESCRIPTION
	MAGNETIC FLOW METER
	SONIC FLOW METER
	CENTRIFUGAL PUMP
	LOBE PUMP
	PERISTALTIC PUMP
	SUBMERSIBLE PUMP
	GRINDER PUMP

LEGEND

ABBREVIATIONS

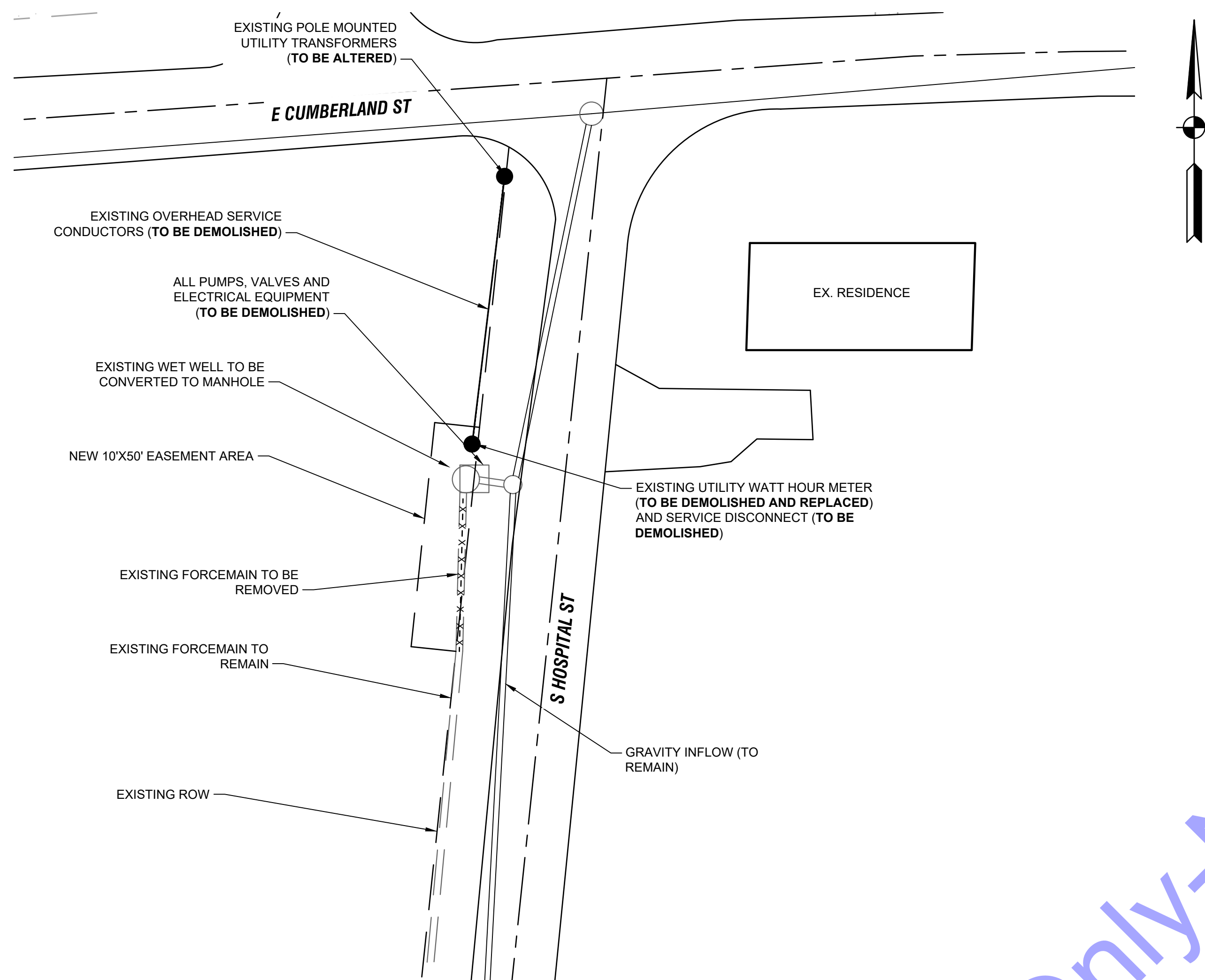
ABV	ABOVE	IG	ISOLATED GROUND
AFF	ABOVE FINISHED FLOOR	MON	MONITOR
ACLG	ABOVE FINISHED CEILING	MTG	MOUNTING
BFC	BELOW FINISHED CEILING	MV	MULTI-VIEWER
C	CRITICAL BRANCH OR EMERG PWR-RED DEVICE & PLATE, UNLESS NOTED	MW	MICROWAVE OVEN
CL	CENTER-LINE	NEC	NATIONAL ELECTRICAL CODE
CLG	CEILING-MOUNTED	OCPD	OVERCURRENT PROTECTIVE DEVICE
COF	COFFEE MAKER	OFCI	OWNER-FURNISHED-CONTRACTOR-INSTALLED
COP	COPIER	OFE	OWNER-FURNISHED EQUIPMENT
CTR	COUNTER	PRT	PRINTER
ECB	ENCLOSED CIRCUIT BREAKER	PTS	PNEUMATIC TUBE STATION
EMER	EMERGENCY	Q	EQUIP BRANCH OR EMERG PWR-RED DEVICE & PLATE, UNLESS NOTED
EWC	ELECTRIC WATER COOLER	REF	REFRIGERATOR
EWV	ELECTRIC WATER HEATER	REQMTS	REQUIREMENTS
FAX	FACSIMILE MACHINE	T	TAMPERPROOF DEVICE
FBO	FURNISHED BY OTHERS	TS	TWISTED SHIELDED PAIR
GFCI	GROUND FAULT CIRCUIT INTERRUPTING - PERSONNEL PROTECTION	UN	UNLESS OTHERWISE NOTED
GFI	GROUND FAULT INTERRUPTING - EQUIPMENT PROTECTION	UCR	UNDER-COUNTER REFRIGERATOR
HGT	HEIGHT	WP	WEATHERPROOF
FPMR	FUSED PER MANUFACTURE'S RECOMMENDATIONS		

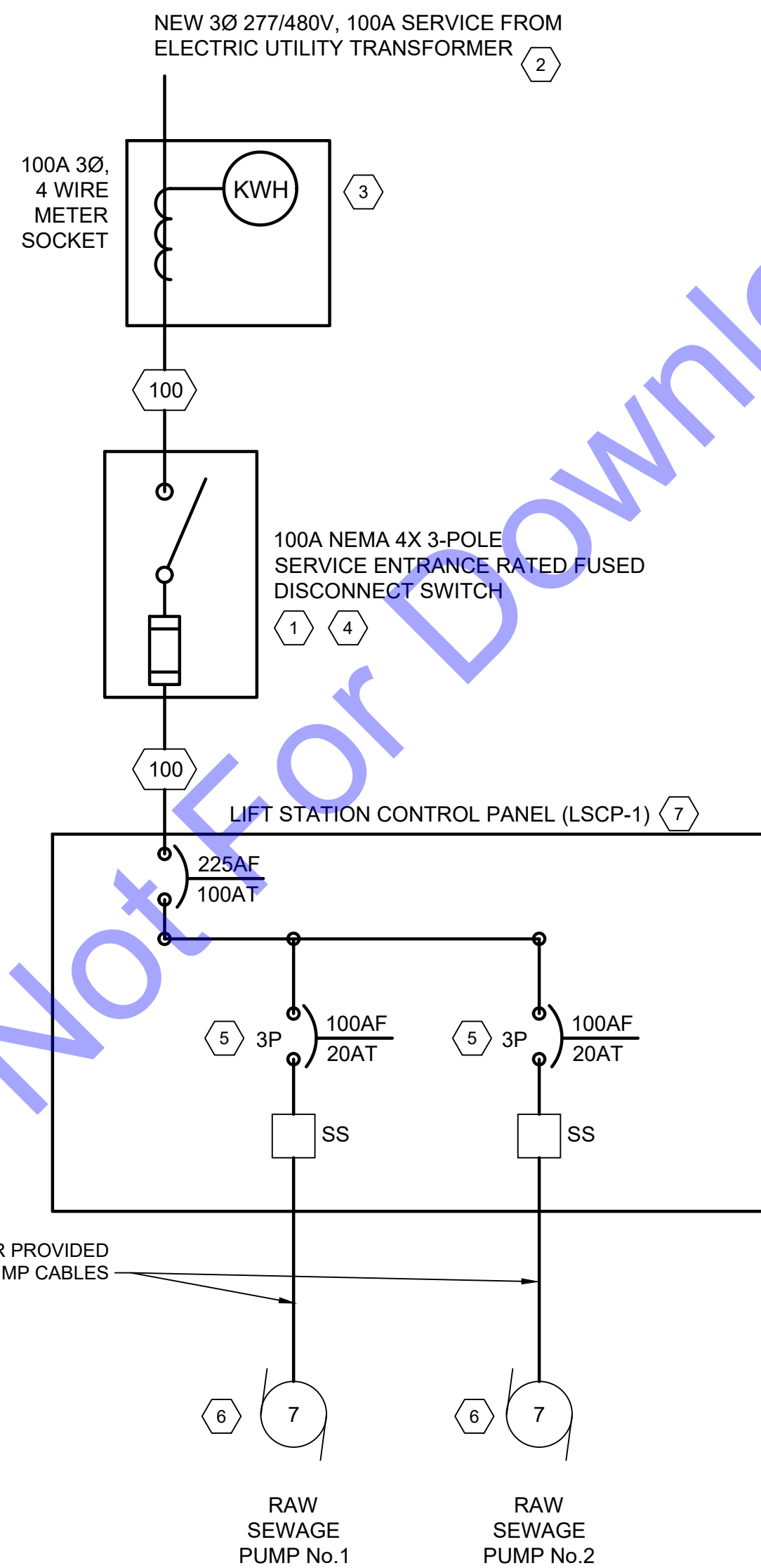
SYMBOL	DESCRIPTION	MTG HGT AFF TO CL, UNLESS NOTED
	EXPOSED RACEWAY	----
	RACEWAY CONCEALED IN OR ABOVE CEILINGS AND WITHIN WALLS	----
	BRANCH CIRCUIT RACEWAY CONCEALED IN OR BELOW FLOOR SLAB OR BELOW GRADE	----
	FEEDER RACEWAY CONCEALED BELOW FLOOR SLAB OR BELOW GRADE	----
	LIGHTNING PROTECTION CABLING	----
	HOMERUN RACEWAY: NUMBER OF ARROWHEADS DENOTES NUMBER OF CIRCUITS.	----
	RACEWAY TURNING UP AS VIEWED FROM THE LOAD	----
	RACEWAY TURNING DOWN AS VIEWED FROM THE LOAD	----
	RACEWAY VERTICAL RISER WITH HORIZONTAL CONTINUATION AT TWO LEVELS SHOWN	----
	CAPPED RACEWAY	----
	GENERAL LIGHTING OR OUTLET CIRCUIT - MAY BE DAISY CHAINED	AS NOTED
	JUNCTION BOX	AS NOTED
	ENCLOSED BREAKER	----
	FUSIBLE SAFETY SWITCH (AMP RATING, POLES, FUSE SIZE, AND NEMA ENCLOSURE TYPE IF OTHER THAN 1 NOTED)	----
	NON-FUSIBLE SAFETY SWITCH (AMP RATING, POLES, AND NEMA ENCLOSURE TYPE IF OTHER THAN 1 NOTED)	----
	COMBINATION MAGNETIC ACROSS-THE-LINE STARTER WITH MOTOR CIRCUIT PROTECTOR (NEMA STARTER SIZE NOTED)	----
	CONTROL PANEL, FURNISHED INTEGRAL TO EQUIPMENT (SINGLE-POINT ELECTRICAL CONNECTION REQUIRED)	----
	MOTOR	----
	FLEXIBLE CONDUIT CONNECTION	----
	SURFACE- OR FLUSH-MOUNTED LIGHTING/RECEPTACLE PANELBOARD	----
	POWER DISTRIBUTION PANELBOARD	----
	DRY TYPE TRANSFORMER	----
	MISCELLANEOUS SYSTEMS PANEL OR CABINET: REFER TO ABBREVIATIONS	----

NOTE II: ALL ABBREVIATIONS, NOTES, AND SYMBOLS SHOWN ON THIS DRAWING DO NOT NECESSARILY APPEAR IN THIS SET OF CONTRACT DOCUMENTS. REFER ONLY TO THOSE THAT APPLY.

MOTOR CONTROLLER LEGEND

SYMBOL	DESCRIPTION
	ACROSS THE LINE MOTOR STARTER
	SOFT STARTER
	VARIABLE FREQUENCY DRIVE
	ACROSS THE LINE MOTOR STARTER WITH INTEGRAL DISCONNECT
	SOFT STARTER WITH INTEGRAL DISCONNECT
	VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT





ELECTRICAL SITE IMPROVEMENTS PLAN

SCALE: 1"=20'-0"

1. GROUND PER NEC REQUIREMENTS. INSTALL TRIAD GROUNDING SYSTEM WITH 3 GROUND RODS SPACED A MINIMUM OF 10' APART.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY FOR NEW 480V 3PH. SERVICE. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NOT PROVIDED BY UTILITY AS REQUIRED FOR UPGRADED SERVICE TO NEW LIFT STATION. ALL COSTS ASSOCIATED WITH PROVIDING POWER TO LIFT STATION SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE (EXCEPT ANY CHARGES BY THE UTILITY COMPANY FOR THEIR WORK).
3. PROVIDE 100A, 3PH. 4 WIRE METER SOCKET, MANUFACTURER AND MODEL AS APPROVED BY LOCAL ELECTRIC UTILITY.
4. PROVIDE NEMA 4X, SERVICE ENTRANCE RATED 3 POLE MAIN DISCONNECT SWITCH FUSED AT 100A. DISCONNECT SHALL BE CAPABLE OF BEING LOCKED IN THE OFF POSITION. KAIC RATING AS REQUIRED BY LOCAL UTILITY; 10KAIC MINIMUM REQUIRED.
5. COORDINATE WITH EQUIPMENT SUPPLIERS WHEN SELECTING CIRCUIT BREAKERS TO ENSURE NEW BREAKERS ARE PROPERLY SIZED.
6. CONTRACTOR SHALL COORDINATE WITH PUMP SUPPLIER AND PROVIDE ALL NECESSARY POWER AND CONTROL WIRING FOR A COMPLETE AND FUNCTIONING LIFT STATION. USE SEAL OFFS ON CONDUITS BETWEEN WET WELL AND CONTROL PANEL.
7. WIRE PUMP SAFETIES AND LEVEL CONTROLS AS REQUIRED. COORDINATE WITH SUPPLIERS DURING BIDDING AND CONSTRUCTION. INTEGRATE PUMP SAFETIES INTO LIFT STATION CONTROL PANEL; PUMP SAFETIES SHALL BE INSTALLED INTERNAL TO THE CONTROL PANEL.

Load Wiring Schedule		
Copper Wire		
Type #:	Quantity and Wire Size	Conduit
20	3 #12's & #12 Ground	3/4"
30	3 #10's & #10 Ground	3/4"
50	3 #8's & #10 Ground	3/4"
60	3 #6's & #8 Ground	3/4"
80	3 #4's & #8 Ground	1"
100	3 #2's & #6 Ground	1.5"
125	3 #1's & #6 Ground	1.5"
150	3 - 2/0 & #6 Ground	2"
200	3 - 4/0 & #4 Ground	2.5"
250	3 - 300's & #4 Ground	3"

**CITY OF ALBANY
CLINTON COUNTY, KENTUCKY
HOSPITAL STREET LIFT
STATION REPLACEMENT
PROJECT**

[illegible]

ELECTRICAL IMPROVEMENTS PLAN

E1-1

