CITY OF SUNBURY DELAWARE COUNTY, OHIO

CHESHIRE ROAD LIFT STATION UPGRADES

FEBRUARY, 2025



<u>OWNER</u>

CITY OF SUNBURY

9 E. GRANVILLE STREET SUNBURY, OH 43074

PHONE: 740-965-2684

CONTACT: DARYL HENNESSY

CITY ADMINISTRATOR

EMAIL: DHENNESSY@SUNBURYOHIO.ORG

ENGINEER

VERDANTAS

6397 EMERALD PKWY, SUITE 200 DUBLIN, OH 43016

> OFFICE: 614-793-8777 CONTACT: DAN BARR, PE

EMAIL: DBARR@VERDANTAS.COM

CHESHIRE RD CHESHIRE RD

LOCATION MAP

	INDEX OF SHEETS	
SHEET NUMBER	SHEET TITLE	SHEET NAME
1	COVER SHEET	G-01
2	LEGEND AND ABBREVIATIONS	G-02
3	GENERAL NOTES	G-03
4	LIFT STATION SITE PLAN	C-01
5	LIFT STATION PUMP DETAILS	C-02
6	ELECTRICAL LEGEND AND GENERAL NOTES	E-01
7	ELECTRICAL SITE PLAN	E-02
8	ELECTRICAL DIAGRAMS, SCHEDULES & DETAILS	E-03

CONSTRUCTION PLAN APPROVALS:

APPROVAL OF THESE PLANS DOES NOT CONSTITUTE ASSURANCE TO OPERATE AS INTENDED. THE REVIEWER DOES NOT ACCEPT RESPONSIBILITY FOR THE INTEGRITY OF THE PLANS.

DARYL HENNESSY, CITY ADMINISTRATOR, CITY OF SUNBURY

CARLA ODEBRALSKI, P.E, CITY ENGINEER, CITY OF SUNBURY

DESIGN ENGINEER:

THIS IS TO CERTIFY THAT GOOD ENGINEERING PRACTICES HAVE BEEN UTILIZED IN THE DESIGN OF THIS PROJECT AND THAT ALL MINIMUM STANDARDS FOR FAIRFIELD COUNTY, INCLUDING THOSE STANDARDS GREATER THAN MINIMUM WHERE, IN OUR OPINION, THEY ARE NEEDED TO PROTECT THE SAFETY OF THE PUBLIC. ANY VARIANCES TO THE ABOVE STANDARDS ARE CONSISTENT WITH SOUND ENGINEERING PRACTICES AND ARE NOT DETRIMENTAL TO THE PUBLIC

SAFETY AND CONVENIENCE.

Dan Barr, PE

2/14/25

DATE

CITY OFFICIALS

ADMINISTRATION

JOE ST. JOHN........MAYOR

DARYL HENNESSY......CITY ADMINISTRATOR

DANA STEFFAN.....FISCAL OFFICER

ROBERT HOWARD.....POLICE CHIEF

COUNCIL



ENGINEER'S PROJECT NO. 22000715

PROJECT NO.

22000715

DISCIPLINE

CIVIL

SHEET NAME

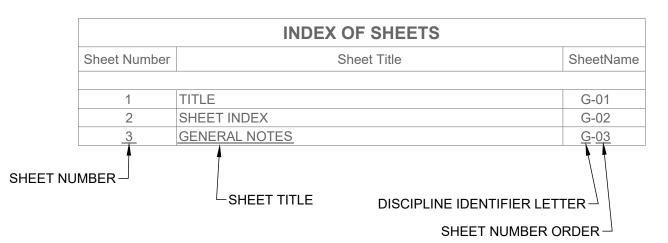
G-01

DISCIPLINE INFORMATION:

<u>IDENTIFIER:</u> DISCIPLINE:

GENERAL CIVIL **ELECTRICAL**

INDEX EXPLANATION:



GENERAL SYMBOLOGY NOTES:

1. THIS IS A STANDARD SHEET SHOWING COMMONLY USED SYMBOLOGY. 1. CT CONTRACTUAL NOTES ARE DEPICTED WITH A

- 2. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
- 3. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE NEW IMPROVEMENTS SO AS TO HIGHLIGHT SPECIFIC TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.
- 4. SYMBOLOGY OR DIAGRAMMATICAL LEGENDS MAY BE SHOWN ON INDIVIDUAL SHEETS FOR SCHEDULES, DIAGRAMS, DETAILS, SCHEMATICS OR EQUIPMENT.

PLAN REVISIONS:

A REVISION DESCRIPTION

/B\ REVISION DESCRIPTION

REFERENCE DIMENSION:

DRAWING CODED NOTE TYPES:

PERTAIN TO PREVIOUS WORK DONE.

12'-4" (REF.)

HEXAGON, SQUARE, CIRCLE OR TRIANGLE. ALL OTHER

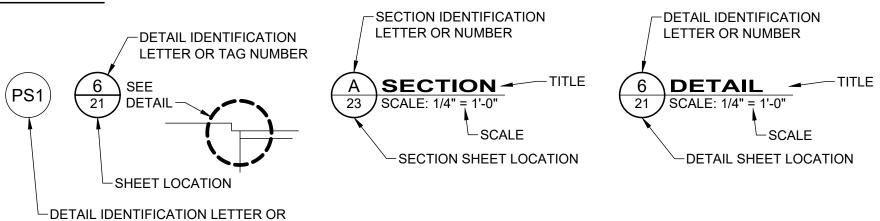
EXISTING WRITTEN CALLOUTS SHOWN ON THE REUSED SCANNED PLANS, SECTIONS & DETAILS ARE FOR

EXISTING CONDITIONS AND REFERENCE ONLY, MANY

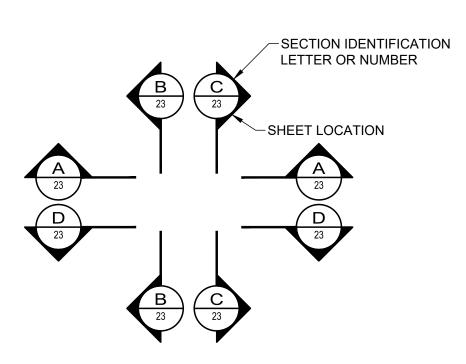
OF THOSE NOTES FROM THE SCANNED DRAWINGS

REFERENCE DIMENSIONS ARE GIVEN FOR INFORMATION ONLY. THEY ARE CALCULATED DIMENSIONS NOT INTENDED TO BE USED WITHOUT FIELD VERIFICATION AND ARE USEFUL IN SHOWING INTENDED DESIGN.

DETAIL REFERENCES:



MAJOR SECTION CUT CONVENTIONS:



NUMBER FOR GENERAL DETAILS

SITE LINE LEGEND:

SITE SYMBOL LEGEND:

GAS VENT

POLE - GUY

POLE - LIGHT

SANITARY VENT

CATCH BASIN - 2X2

CURB INLET - 2X3

STORM DRAIN

STORM CLEAN-OUT

STORM MANHOLE - 48"

WATER HYDRANT, FDC

WATER VALVE W/TEXT

WATER METER

WATER METER PIT

POLE - GENERAL

POLE - GUY ANCHOR

SANITARY CLEAN-OUT

SANITARY MANHOLE - 48"

POLE - ELECTRIC (POWER)

EX:

PR: RIGHT-OF-WAY EX. R/W -----(APPROXIMATE NOT SURVEYED) POST, MAILBOX PROPERTY LINE (APPROXIMATE NOT SURVEYED) POST, SIGN — — — — BUILDING OUTLINES ----- CONTOURS - MAJOR POST, SIGN - DOUBLE ------ CONTOURS - MINOR POST, SIGN - DUAL ----- SLOPE LINE GEOTECHNICAL - SOIL BORING **E** TREE, DECIDUOUS —— SLOPE - TOE TREE, EVERGREEN — - - - WATER EDGE TREE, STUMP — X — X — X — X — X — FENCE - GENERAL NAIL - MAG — 0 — 0 — 0 — 0 — 0 — FENCE - CHAIN LINK PIN - IRON . TREE LINE PIPE - IRON SPIKE ELECTRIC LINE - UG ———— G————— G———— GAS LINE GM **GAS METER** ----- GS ----- GS ----- GS ----- GAS SERVICE GAS VALVE — S — S ANITARY LINE

> _____ EASEMENT

---- EASEMENT ELECTRICAL CONDUIT

_____ STORM LINE

----- WS ---- WS ---- WS ---- WS ---- WATER SERVICE

GENERAL ABBREVIATIONS:

AIR RELEASE VALVE

AIR & VACUUM VALVE MH MANHOLE BALL VALVE MIN MINIMUM MJ MECHANICAL JOINT BFV BUTTERFLY VALVE MV BACKPRESSURE VALVE MUD VALVE NORTHING **BENCH MARK** BACKFLOW PREVENTER ОН OVERHEAD CB **CATCH BASIN** PR PROPOSED PVC **CENTER LINE** POLYVINYL CHLORIDE PIPE CPP CORRUGATED PLASTIC PIPE R/W RIGHT OF WAY CV SAN CHECK VALVE SANITARY DUCTILE IRON PIPE SOIL BORING STANDARD DIAMETER RATIO **EASTING** SS **EXISTING GRADE** STAINLESS STEEL STA ELEVATION STATION STM STORM **EXISTING** TYP FINISHED GRADE TYPICAL UNDERGROUND GATE VALVE HIGH-DENSITY POLYETHYLENE PIPE VB VALVE BOX KNIFE GATE VALVE WAT WATER

KN

KNIFE VALVE

	ISSUED FOR:	BID SET	ON	REVISION	DATE
	ISSUE DATE:	2/3/25			
	SCALE:	AS SHOWN			
	DESIGNED BY:	МНА			
4.6	DRAWN BY:	МНА			
	CHECKED BY:	DEB			

PROJECT NO. 22000715

> DISCIPLINE CIVIL SHEET NAME G-02

H:2022/22000715/PHASE\05 CHESHIRE RD LS UPGRADE FINAL DESIGN\DWG\SHEETS\C_22000715-LEGEND AND ABBREVIATION.DWG - 2 LEGEND AND ABBREVIATIONS - 1/9/2025 4:06:25 PM - MANUEL ALEMAN

BASIS OF DESIGN:

PROJECT DESCRIPTION:

THE PROJECT CONSISTS OF THE REMOVAL AND REPLACEMENT OF THE DUAL SUBMERSIBLE PUMPS AT THE EXISTING CHESHIRE ROAD LIFT STATION (LS) AND CONTROL PANEL. THE EXISTING LIFT STATION IS LOCATED APPROXIMATELY 1,300-FT EAST OF THE INTERSECTION OF CHESHIRE ROAD AND DOMIGAN ROAD. ON THE NORTH SIDE OF CHESHIRE ROAD.

IMMEDIATE AND LONG-TERM SERVICE AREAS:

THE LIFT STATION CURRENTLY SERVICES 109 RESIDENTIAL UNITS, 20 INDUSTRIAL UNITS, 9 COMMERCIAL UNITS AND A MIDDLE SCHOOL LOCATED ALONG CHESHIRE ROAD, W. CHERRY ROAD, AND KINTNER PARKWAY. FUTURE EXPANSION OF THE SERVICE AREA TO THIS LIFT STATION IS PLANNED TO TAKE PLACE WITH THE DEVELOPMENT OF THE KINTNER DEVELOPMENT. THE PROPOSED DUPLEX SUBMERSIBLE PUMPS ARE DESIGNED TO ACCOMMODATE THE FUTURE FLOWS AS WELL AS THE IMMEDIATE FLOWS TO THE AREA.

IMMEDIATE AND FUTURE FLOW DATA:

THE FOLLOWING FLOW DATA IS FOR THE IMMEDIATE CONDITIONS, BASED ON A 350 GPM PEAK DESIGN FLOW :

ADF: 168,000 GPD

- PHF: 21,000 GPH UTILIZING PEAKING FACTOR OF 3.00
- THE FOLLOWING FLOW DATA IS FOR THE FUTURE CONDITIONS, BASED ON A 600 GPM PEAK DESIGN FLOW:

ADF: 288,000 GPD

PHF: 36,000 GPH
UTILIZING PEAKING FACTOR OF 3.00.

PUMP DESIGN DATA:

PUMP TYPE:	SUBMERSIBLE EXPLOSION-PROOF
ARRANGEMENT:	DUPLEX
PUMPED FLUID:	RAW SEWAGE
DESIGN CAPACITY, EACH:	600 GPM
T.D.H.:	115 FEET
MAXIMUM NAMEPLATE H.P.:	40 H.P.
POWER REQUIREMENTS:	480 VOLT, 3 PHASE, 60 Hz
DISCHARGE SIZE:	4 INCH

CITY OF SUNBURY GENERAL NOTES:

- 1. A PRE-CONSTRUCTION MEETING SHALL BE HELD AT THE CITY ADMINISTRATION BUILDING (9 E GRANVILLE ST) AT LEAST 15 CALENDAR DAYS BEFORE THE START OF CONSTRUCTION. REPRESENTATIVES OF THE OWNER, DESIGN ENGINEER, DELAWARE COUNTY ENGINEER'S OFFICE, AND THE CONTRACTOR SHALL BE IN ATTENDANCE. A SCHEDULE OF THE SEQUENCE OF EVENTS DURING CONSTRUCTION MUST BE SUBMITTED FOR REVIEW AT LEAST (7) SEVEN DAYS PRIOR TO THIS MEETING.
- 2. THE CITY OF SUNBURY DETAILED SPECIFICATIONS TOGETHER WITH THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS), INCLUDING ALL SUPPLEMENTS THERETO, 2018 EDITION, SHALL GOVERN ALL MATERIAL AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN IN THE PLANS UNLESS OTHERWISE NOTED.
- 3. ALL WORK SHALL BE COMPLETELY ACCEPTABLE TO THE CITY OF SUNBURY OFFICIALS. NO WORK SHALL COMMENCE UNTIL ARRANGEMENTS HAVE BEEN MADE WITH THE CITY OF SUNBURY ENGINEER FOR INSPECTION. NECESSARY LINE AND GRADE STAKING TO BE PROVIDED BY THE
- 4. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE CITY OF SUNBURY ENGINEER AT LEAST (7) SEVEN WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
- 5. THE CONTRACTOR SHALL PROVIDE A VIDEO RECORD OF THE SITE TO THE CITY ENGINEER PRIOR TO THE START OF CONSTRUCTION. EMPHASIS OF THE VIDEO SHOULD BE ON EXISTING DEVELOPED AREAS CONTIGUOUS WITH THE PROJECT WORK AREAS.
- 6. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AN UP-TO-DATE COPY OF THE APPROVED PLANS. FOR ACCEPTANCE OF WORK, THE CITY REQUIRES A SIGNED COMPLETE SET OF ALL APPROVED PLANS.
- 7. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND GOVERNMENT FEES, LICENSES, AND INSPECTIONS FOR THE PROPER
- 3. ALL PERTINENT STANDARD CONSTRUCTION DRAWINGS ARE AVAILABLE UPON REQUEST AT THE OFFICE OF THE CITY ENGINEER.
- 9. APPROVAL OF THESE PLANS SHALL BE IN ACCORDANCE WITH THE CITY OF SUNBURY.

EXECUTION OF THE IMPROVEMENTS SHOWN ON THE PLANS.

- 10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND VERIFY THE EXTENT OF WORK TO BE PERFORMED PRIOR TO MAKING THEIR BID. THIS IS ESPECIALLY TRUE WITH REGARD TO ANY REMOVAL ITEMS.
- 11. THE CONTRACTOR AND SUBCONTRACTOR SHALL ALSO ABIDE BY ALL ORDINANCES OF THE CITY OF SUNBURY.
- 12. THE CONTRACTOR ACKNOWLEDGES THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.
- 13. ALL FIELD TILE BROKEN DURING EXCAVATION SHALL BE REPLACED TO ORIGINAL CONDITION OR CONNECTED TO THE CURB SUBDRAIN OR TO THE STORM SEWER SYSTEM AS DIRECTED BY THE ENGINEER.
- 14. INGRESS AND EGRESS SHALL BE MAINTAINED TO PUBLIC AND PRIVATE PROPERTY.
- 15. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT AT THEIR OWN EXPENSE. SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER'S ENGINEER AND THE CITY OF SUNBURY.
- 16. ALL SIGNS, FENCES, SHRUBS, DRAINAGE STRUCTURES, OR OTHER PHYSICAL FEATURES THAT ARE TO REMAIN INTACT WHICH ARE DISTURBED OR DAMAGED DURING WORK UNDER THE CONTRACT SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR UNLESS OTHERWISE PROVIDED IN THE CONTRACT. THE COST OF ALL SUCH WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS SANITARY SEWER ITEMS.
- 17. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO ORIGINAL CONDITION AS NEAR AS PRACTICABLE UPON COMPLETION OF THIS WORK. ANY DAMAGE TO OTHER UTILITIES DURING THIS WORK BY THE SUBCONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE.
- 18. CARE SHALL BE EXERCISED WHEN WORKING THE AREA AROUND EXISTING TREES AND SHRUBS. TREES MAY BE REMOVED WITHIN THE PERMANENT AND TEMPORARY EASEMENTS ONLY WITH OWNER APPROVAL. EFFORTS SHALL BE MADE TO PRESERVE TREES 24-INCHES CALIPER OR LARGER. NO TREES SHALL BE DAMAGED OR DISTURBED OUTSIDE OF THE EASEMENTS OR WHERE MARKED ON THE PLANS AS "DO NOT
- 19. THE COST OF DEWATERING OR ROCK EXCAVATION SHALL BE INCLUDED IN THE PRICE BID FOR SANITARY PIPE. THE BIDDER SHALL

DETERMINE IF ANY DEWATERING OR ROCK EXCAVATION WILL BE REQUIRED AND ADJUST THEIR BIDS ACCORDINGLY.

- 20. PAVEMENT CUTS FOR UTILITY LINE INSTALLATIONS SHALL BE SUBJECT TO THE BACKFILL REQUIREMENTS OF COC CMS ITEM 912. PAVEMENT SHALL BE PLACED TO MATCH EXISTING SECTION. DEEP TRENCHES MAY NOT BE PARTIALLY FILLED WITH LARGE SIZE AGGREGATE.
- 21. THE FLOW IN ALL SEWERS, DRAINS, AND SANITARY SEWER ENCOUNTERED SHALL BE MAINTAINED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
- 22. ALL EARTHWORK OPERATIONS, ESPECIALLY PAVEMENT SUBGRADE CONSTRUCTION, SHALL BE INSPECTED BY A REGISTERED SOILS ENGINEER. ADDITIONALLY ALL FINAL GRADES SHALL BE FIELD CHECKED BY THE CONSTRUCTION MANAGER UPON COMPLETION OF THE CONTRACTOR'S OPERATIONS TO DETERMINE IF THE SITE HAS BEEN CONSTRUCTED TO THE GRADES INDICATED.
- 23. ALL ITEMS CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF SAME AND SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

CITY OF SUNBURY GENERAL NOTES CONTINUED:

- 24. EROSION CONTROL MEASURES ARE TO BE INSTALLED PER PLAN OR AS SUCH DIRECTED BY THE CITY AND ARE TO BE MAINTAINED UNTIL SUCH TIME THAT THEY ARE NO LONGER REQUIRED.
- 25. ALL AREAS IN THE RIGHT-OF-WAY ARE TO BE GRADED AND SEEDED AS SOON AS WORK IN THAT AREA IS COMPLETE.
- 26. THE CONTRACTOR IS RESPONSIBLE FOR THE PROVISION AND MAINTENANCE OF A PORTABLE TOILET ON THE SITE DURING ALL PHASES OF CONSTRUCTION.
- 27. THE CONTRACTOR IS RESPONSIBLE FOR ALL COMPACTION AS WELL AS ASPHALT AND CONCRETE TESTING. TESTING IS TO BE PERFORMED BY A REGISTERED CONTRACTOR AS SPECIFIED BY THE CITY ENGINEER.
- 28. THE CITY ENGINEER RESERVES THE RIGHT TO DIRECT PROJECT SPECIFIC CHANGES TO ANY CITY CONSTRUCTION NOTE AND SPECIFICATION.
- 29. NO CONSTRUCTION TRAFFIC IS PERMITTED ON STREETS ACCESSING NEIGHBORHOOD SUBDIVISIONS. NO TRACKED EQUIPMENT IS PERMITTED ON EXISTING STREET PAVEMENT.
- 30. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL OTHER FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. THE CONTRACTOR AND SUBCONTRACTORS SHALL INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS ASSOCIATED WITH THIS WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS NECESSARY TO PERFORM ALL WORK WITHIN AND/OR ADJACENT TO THE RIGHT-OF-WAY OF ALL ROADS AND HIGHWAYS. ALL FEES, BONDS, INSURANCE, AND OTHER COSTS REQUIRED BY THE OWNER OF SAID ROADS AND HIGHWAYS SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE PRICE BID FOR THE WORK.
- THE CONTRACTOR SHALL PROVIDE THE CITY ENGINEER AND DELAWARE COUNTY ENGINEER WITH A 24 HOUR TELEPHONE NUMBER TO READILY CONTACT A RESPONSIBLE PARTY IN THE CASE OF AN EMERGENCY. THE COST AND/OR DAMAGES INCURRED RELATED TO WORK PERFORMED BY THE CONTRACTOR IN SUCH EMERGENCIES ARE THE CONTRACTORS RESPONSIBILITY AND NOT THE AFFECTED ENTITY.
- 33. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR BY REASON OF COMPLIANCE WITH ANY OF THE REQUIREMENTS INDICATED IN THE PLANS, BUT PAYMENT SHALL BE DEEMED TO BE INCLUDED AMONG THE SEVERAL ITEMS, AS BID UPON, UNLESS OTHERWISE SPECIFICALLY PROVIDED.
- 34. IN ADDITION TO THE DIRECT REQUIREMENTS OF THE CONTRACT SPECIFICATIONS, THE CONTRACTOR SHALL OBSERVE AND CONFORM TO THE SPECIFIC REQUIREMENTS OF ALL RIGHT-OF-WAYS INCLUDING EASEMENTS, COURT ENTRIES, RIGHTS OF ENTRY, OR ACTION FILED IN COURT IN ACCORDANCE WITH THE CODE OF THE APPLICABLE GOVERNING AGENCY. THE COST OF OPERATIONS NECESSARY TO FULFILL SUCH REQUIREMENTS SHALL BE INCLUDED IN THE TOTAL CONTRACT PRICE BID.
- 35. THE DESIGN SHOWN ON THESE DRAWINGS IS BASED UPON A FIELD SURVEY AND EXISTING RECORDS.
- 6. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL TAKE PHOTOGRAPHS AND VIDEO OF THE PROJECT SITE PER THE SPECIFICATIONS. A DIGITAL COPY OF ALL MEDIA SHALL BE SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL
- 37. ALL CONSTRUCTION STAKING SHALL BE PROVIDED BY THE CONTRACTOR. THIS WILL CONSIST OF ALIGNMENT AND GRADE STAKES SET AND MARKED IN THE FIELD. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY REPLACEMENT STAKES NECESSARY, REMOVED OR DESTROYED BY THEIR PERSONNEL OR EQUIPMENT.
- 38. THE CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS THROUGHOUT THE PROJECT AND SHALL BRING THE CURRENT SET OF AS-BUILT DRAWINGS TO EACH PROGRESS MEETING FOR REVIEW.
- THE WORK OF THIS CONTRACT SHALL NOT INTERFERE WITH MAINTAINING CONTINUOUS FLOW IN THE EXISTING SANITARY SEWER, STORM SEWER, WATERLINES, POWER, TELEPHONE, CABLE TV, GAS, OR ANY OTHER SYSTEM THAT MAY BE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL UTILITY POLES AND RELOCATE ANY UTILITY THAT IMPEDES CONSTRUCTION. NOTHING SHALL BE DONE BY ANY OTHER CONTRACTOR FOR THIS PROJECT WHICH WILL IN ANY WAY REDUCE THE QUALITY OR QUANTITY LEVEL OF SUCH OPERATIONS. THE CONTRACTOR SHALL NOTIFY THE OWNER (1) ONE WEEK PRIOR TO MODIFYING ANY FACILITIES. NO PAYMENT WILL BE MADE FOR ANY UTILITY MAINTENANCE UNLESS SPECIFICALLY NOTED AS A BID ITEM IN THE PROPOSAL. FAILURE TO PROPERLY MAINTAIN UTILITIES WILL RESULT IN THE REDUCTION OF THE PROPOSAL ITEM FOR UTILITY MAINTENANCE.
- 40. AT ALL UTILITY CROSSINGS, THE BACKFILL SHALL CONSIST OF COMPACTED GRANULAR MATERIAL BETWEEN THE DEEPER AND SHALLOWER PIPE UNLESS CONTROLLED DENSITY FILL OR CONCRETE IS SPECIFIED OTHERWISE IN THE DRAWINGS.
- 41. MANHOLES SHALL BE INSTALLED WITH ADJUSTING RINGS SO THAT THE TOP OF THE CASTING IS AT EXISTING GRADE. THE CASTING SHALL NOT PROTRUDE SO AS TO INTERFERE WITH MOWING.
- 42. BACKFILL: EARTH WILL NOT BE MOUNDED OVER THE TRENCH IN ANTICIPATION OF SETTLEMENT. THE CONTRACTOR SHALL COMPACT THE TRENCH AND ESTABLISH THE ORIGINAL DITCH GRADE AS WORK PROGRESSES. DRAINAGE MUST BE RESTORED AS QUICKLY AS PRACTICAL. IF EROSION OF THE DITCH LINE CAUSES SILTING OF EXISTING DRAINAGE LINES, THE CONTRACTOR SHALL CLEAN AS NECESSARY. BACKFILL AND CLEANUP OPERATIONS SHALL BE KEPT WITHIN 300 FEET OF PIPE LAYING OPERATIONS DAILY. CARE SHALL BE TAKEN TO INSURE THAT NO DITCH LINE ELEVATIONS ARE RAISED DUE TO EXCESS BACKFILL. COMPACTION IS TO BE CARRIED OUT WITH THE NECESSARY EQUIPMENT TO ACHIEVE THE COMPACTION REQUIREMENT OF ODOT CMS ITEM 304.05. THE CONTRACTOR SHALL MAINTAIN DRIVEWAYS ACCESSIBLE AT ALL TIMES BY USING PLATES OR COMPACTED GRANULAR FILL.
- 43. ROAD MAINTENANCE AREA: UNLESS PREEXISTING BEFORE CONSTRUCTION OPERATIONS, THE SURFACE WITHIN A MINIMUM OF 5 FEET FROM THE EDGE OF PAVEMENT SHALL BE MAINTAINED OBSTACLE FREE, BY THE CONTRACTOR, FOR POSITIVE DRAINAGE AND/OR SNOW PLOW/MAINTENANCE OF ROAD PAVEMENT.
- 44. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
- 45. DISTURBANCE TO THIS SITE IS COVERED BY OEPA GENERAL PERMIT OHC000006 AND THE NPDES PERMIT.

UTILITY PROVIDERS

WATER
DELCO WATER CO INC.
6658 OLENTANGY RIVER ROAD
DELAWARE, OHIO 43015
(740) 548-7746

SANITARY SEWER
CITY OF SUNBURY
WASTEWATER DEPARTMENT
127 MIDDLEVIEW DRIVE
SUNBURY, OHIO 43074
(740) 965-5380

GAS
COLUMBIA GAS OF OHIO
200 CIVIC CENTER DRIVE
COLUMBUS, OHIO 43215
(800) 440-6111

TELECOMMUNICATIONS
CENTURYLINK
441 WEST BROAD STREET
P.O. BOX 1031
PATASKALA, OHIO 43062
(800) 407-5411

ELECTRIC

AMERICAN ELECTRIC POWER COMPANY
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
(614) 883-6871

ELECTRIC
CONSOLIDATED ELECTRIC
5255 STATE ROUTE 95
MOUNT GILEAD, OHIO 43338
(419) 947-3055

erdanta

	LIFT STATION UPGRADES CITY OF SUNBURY, DELAWARE COUNTY, OHIO GENERAL NOTES	CHESHIKE KOAD I STATION UPGRADE SUNBURY, DELAWARE COUNTY, C
--	--	--

PROJECT NO.

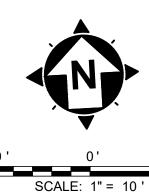
22000715

DISCIPLINE

CIVIL

SHEET NAME

C-01



GENERAL NOTES:

1. THE EXISTING CONDITIONS IS BASED ON TOPOGRAPHICAL SURVEY CONDUCTED BY CT CONSULTANTS, INC. DATED APRIL 25, 2024 AND BEST AVAILABLE UTILITY RECORDS FROM THE COUNTY. UTILITIES SHOWN WITHIN ARE BASED ON BEST AVAILABLE RECORDS BUT EXACT LOCATION OF UNDERGROUND SERVICES HAVE NOT BEEN CONFIRMED. THE CONTRACTOR SHALL PERFORM FIELD INVESTIGATION TO CONFIRM THE PRESENCE, LOCATIONS AND DEPTHS OF EXISTING UTILITY SERVICES WITHIN THE WORK AREA PRIOR TO THE START OF CONSTRUCTION.

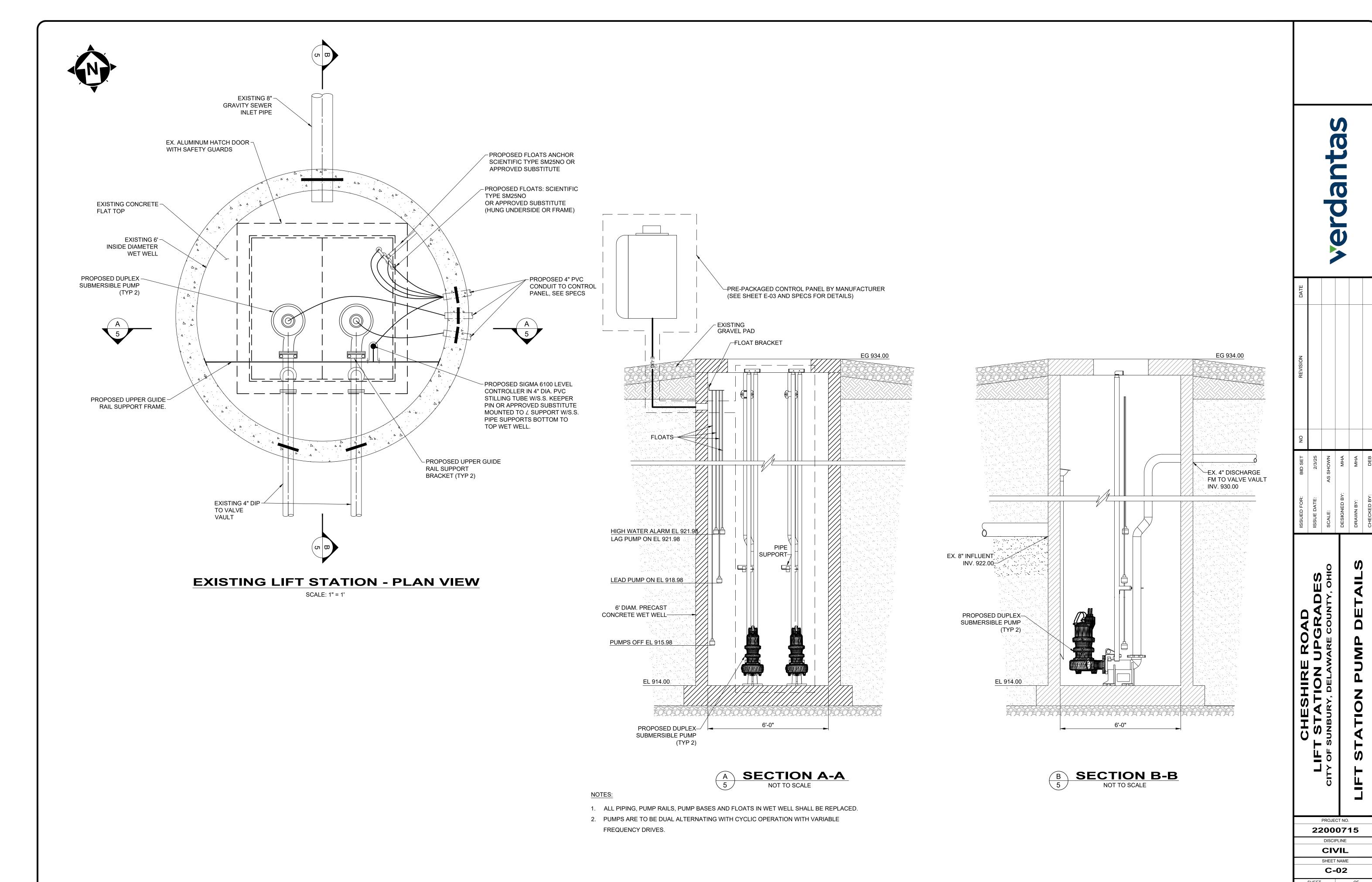
X CODED NOTES:

- 1. PROPOSED UNDERGROUND ELECTRICAL SERVICE LINE TO EXISTING POLE. SEE SHEET E-02 FOR DETAILS.
- 2. BYPASS PUMP FROM UPSTREAM MANHOLE TO EXISTING QUICK-CONNECT HOSE IN VALVE VAULT. SEE PHOTO BELOW. THE EXISTING LIFT STATION CAPACITY IS 350 GPM. THE EXISTING 8" FORCE MAIN IS APPROXIMATELY 4,500 LINEAR FEET. THE APPROXIMATE STATIC HEAD IS 48'. BYPASS AS NEEDED TO COMPLETE THE WORK.
- 3. PROPOSED ELECRICAL EQUIPMENT BACKBOARD. SEE SHEETS E-02 AND E-03 FOR DETAILS.



EXISTING 8-FT X 8-FT VALVE VAULT AND QUICK CONNECT HOSE

EX. CONSOLIDATED COOPERATIVE ELECTRICAL POLE W/ DISCONNECT		930	S S	8
& METER ***Cuo	-9	31		
ELEC-UG ELEC-U	PID: 41713402005010 ROMANELLI SCHROCK ROAD INVESTMENTS LLC 39.87 ACRES PROPOSED 10' ELECTRICAL EASEME	ENT		
ELEC-UG—ELEC-U	ELEC-UG ELEC-UG ELEC-UG ELEC-UG	— ELEC-UG — ELEC-UG — ELEC-UG		
EXISTING UNDERGING TO BE ABAND	ROUND SERVICE DONED IN PLACE 18" MAPLE EXISTING 8" GR. SEWER	AVITY		
986 PID: 41713301022000	EXISTING 6-FT DIAMETER WET WELL DO NOT DISTURB	STURB - ELEC-UG - ELEC-UG	PID: 99999937000000 DEDICATED ROAD RIGHT OF WAY	986
	SUBMERSIBLE PUMPS TO BE REMOVED, SEE SHEET E-02 FOR DETAILS. EXISTING WET WELL JUNCTION BOX TO BE REMOVED, SEE SHEET E-02 FOR DETAILS. EXISTING CONTROL PANEL, TRANSFER SWITCH, AUTODIALER, AND BACKBOARD TO BE REMOVED, SEE SHEET E-02 FOR	ELEC-UG T		935
935	EXISTING IN-GROUND 8-FT X 8-FT VALVE VAULT DO NOT DISTURB EXISTING 8" DISCHARGE FM DO NOT DISTURB			
G G G G	G G G G G G G G G G G G G G G G G G G	PID: 41713301023 THE CITY OF SUI 0.04 ACRES		G G
TRAF SIGN EX. R/W EX. R/W EX. R/W	EX. RW EX. RW	EX. R/W EX. R/W	M — FM — FM — FM — FM — ELEC-OH — ELEC-OH — ELEC-OH — EX-R/W	ELEC-OH-
GR	CHESHIRE ROAD	GRAVEL 933		
	(30' R/W)	24" RCP		
EX. R/W EX. R/W CONC	EX. R/W —	— EX. R/W —	EX. R/W	EX. R/W



ELECTRICAL SYMBOLS - PLAN: ELECTRICAL LINE SYMBOLOGY: SINGLE LINE, ELEMENTARY, & INTERCONNECTION **DIAGRAMS (ONLY) SYMBOLOGY: PROPOSED:** HOME RUN TO PANEL — CONDUIT AND WIRE RUN EXPOSED **DISCONNECT SWITCH -**CONTACT -O LIMIT — — — — — — — — CONDUIT AND WIRE BELOW GRADE AMP RATING NORMALLY OPEN **SWITCH** ELECTRIC LINE \boxtimes MOTOR CONTROLLER E-OH ELECTRIC LINE - OVERHEAD DESC N.O. CONTACT -FUSE -O FLOW ELECTRIC LINE - UNDERGROUND **FUSIBLE SAFETY SWITCH** AMP RATING NORMALLY CLOSED **SWITCH** ELEC SERVICE NON-FUSIBLE DISCONNECT SWITCH ELEC-OH ELEC-OH ELEC-OH ELEC-OH ELEC SERVICE - OVERHEAD 30A SOLENOID COIL O__O LEVEL SIMPLEX RECEPTACLE, EXPLOSION PROOF **SWITCH** LIGHT-OH —— LIGHT-OH —— LIGHT-OH —— ELEC LIGHTING - OVERHEAD CIRCUIT BREAKER -AMP RATING LIGHT-UG — LIGHT-UG — ELEC LIGHTING - UNDERGROUND PILOT LIGHT -N.O. **DUPLEX RECEPTACLE** O PRESSURE **PUSH TO TEST** SWITCH (COLOR) **EXISTING:** QUADPLEX RECEPTACLE —— ELEC — ELECTRIC LINE MOTOR W / DATA PORT, RJ45 O TEMPERATURE GROUND **HORSEPOWER** SWITCH INDICATED E-OH ELECTRIC LINE - OVERHEAD SPECIAL RECEPTACLE, NEMA TYPE NOTED **AMMETER** N.O. TIME CAPACITOR O_O DELAY AFTER SINGLE-POLE SWITCH, "3" INDICATES 3-WAY, ----- ELEC ------ ELEC ------ ELECTRIC SERVICE "OS" INDICATES OCCUPANCY SENSING **ENERGIZATION** — ELEC-OH — ELEC-OH — ELEC-OH — ELECTRIC SERVICE - OVERHEAD **VOLT METER DRY-TYPE TRANSFORMER** — ELEC-UG — ELEC-UG — ELEC-UG — ELECTRIC SERVICE - UNDERGROUND N.C. TIME O TO DELAY AFTER POWER FACTOR 2 POSITION **ENERGIZATION PUSHBUTTON STATION** METER SELECTOR SWITCH ---- LIGHT-UG ---- LIGHT-UG --- LIGHT-UG --- ELECTRIC LIGHTING - UNDERGROUND N.C. TIME ------ FI FCTRIC DUCT LOUVER OPERATOR OTO DELAY AFTER **FAULT RELAY** DE-ENERGIZATION JΒ JUNCTION BOX **ELECTRICAL CODED NOTES: TRANSFORMER** 3 POSITION N.O. TIME SELECTOR SWITCH **SOLENOID VALVE** O DELAY AFTER 1 NEW WORK - NOTE 1 1 DEMOLITION - NOTE 1 DE-ENERGIZATION **RELAY COIL** LIMIT SWITCH 2 DEMOLITION - NOTE 2 2 REVISION - NOTE 2 (2) NEW WORK - NOTE 1 N.O. SWITCH **EQUIPMENT** O (GENERAL) TIMING RELAY FS FE FIT (3) NEW WORK - NOTE 1 (3) DEMOLITION - NOTE 3 (3) REVISION - NOTE 3 FLOW: SWITCH, SENSOR, TRANSMITTER W / DISPLAY FIELD TERMINAL COIL EVEL: SWITCH, SENSOR, TRANSMITTER W / DISPLAY STARTER COIL START PUSHBUTTON LOCAL PANEL / BLDG **ELECTRICAL DETAIL REFERENCE:** O O NORMALLY OPEN WIRING PRESSURE: SWITCH, SENSOR, TRANSMITTER W / DISPLAY **ELAPSED TIME** TOTALIZER TS TE TIT DETAIL IDENTIFICATION ____ EXTERNAL / FIELD TEMPERATURE: SWITCH, SENSOR, TRANSMITTER W / DISPLAY LETTER OR TAG NUMBER -**GROUNDING** NORMALLY CLOSED (AE)(AIT) OTHER SENSOR / INDICATING TRANSMITTER AS NOTED DETAIL -SEE DETAIL 27 TRANSIENT VOLTAGE 27 / SCALE: 1/4"=1'-0" HAZARDOUS AREA LIGHT FIXTURE SURGE SUPPRESSOR -SHEET LOCATION -DETAIL IDENTIFICATION LETTER OR NUMBER **OUTDOOR CANOPY LIGHT FIXTURE** FOR GENERAL DETAILS EXTERIOR WALL-PACK LIGHT FIXTURE **ABBREVIATIONS:** HIGH BAY LIGHT FIXTURE IN ACCORDANCE WITH RELAY x-CSC x-CONDUCTOR SHIELDED CABLE LINEAR LED LIGHT FIXTURE **INSTRUMENTATION & CONTROL PANEL** RCP REINFORCED CONCRETE PIPE **INSTRUMENT POWER PANEL** RUN LIGHT AMPERE FRAME EXIT SIGN JUNCTION BOX SURGE CONTROL PANEL ANALOG INPUT (PLC) JUNCTION BOX-CONTROL SILICON-CONTROLLED RECTIFIER **EMERGENCY REMOTE HEAD** JUNCTION BOX-METERING SECONDARY **AMMETER** JBP JUNCTION BOX-POWER SUPPLY FAN ANALOG OUTPUT (PLC) **EMERGENCY WALL-PACK** KILO (1000) CIRCULAR MILL SHIELDED ALARM PANEL FIRE ALARM PULL STATION, STROBE, HORN-STROBE KILOVOLT AMPERES SHEAR PIN SWITCH AMPERE TRIP AMERICAN WIRE GAUGE KILOVOLT AMPERES-REACTIVE SPK SPEAKER FIRE ALARM AREA SMOKE DETECTOR kW SELECTOR SWITCH OR STAINLESS STEEL **KILOWATT** CONDUIT LA LIGHTING ARRESTOR SOLID STATE OVERLOAD RELAY **CAPACITOR** LGT START/STOP PUSHBUTTON CB **CIRCUIT BREAKER** LIGHT **ELECTRIC SYMBOLS - UTILITIES:** LOCAL/OFF/REMOTE SELECTOR SWITCH **CONTROL JUNCTION BOX** SOLID STATE STARTER LIGHTING PANEL STD STANDARD CP CONTROL PANEL EX: LS LEVEL SWITCH STP SHIELDED TWISTED PAIR CONTROL POWER TRANSFORMER MOTOR CONTROL CENTER STR STARTER CR **CORROSION RESISTANT** AIR CONDITIONING UNIT MOTOR CIRCUIT PROTECTOR SOLENOID VALVE CS CONTROL STATION ELECTRIC CONTROL BOX **CURRENT TRANSFORMER** MAIN DISTRIBUTION PANEL SW SWITCH CT CU COPPER METERING JUNCTION BOX **TELEPHONE ELECTRIC JUNCTION BOX** NATIONAL ELECTRICAL CODE TERMINAL BOARD **DUCT BANK** NATIONAL ELECTRICAL MFR ASSOC. TC ELECTRIC PULL BOX TIME CLOCK DIGITAL INPUT (PLC) TRENCH DUCT DO DIGITAL OUTPUT (PLC) ELECTRIC RISER BOX NON-FUSED DISCONNECT SWITCH TELEPHONE EQUIPMENT BACKBOARD **ELECTRICALLY ACTIVATED GATE** OPEN/CLOSE SELECTOR SWITCH TEMPERATURE EAV **ELECTRICALLY ACTIVATED VALVE** ELECTRIC VAULT BOX OL OVERLOAD THERMAL OVERLOAD RELAY **EXHAUST FAN** ELECTRIC LIGHT - GROUND ooss ON/OFF SELECTOR SWITCH TIMING RELAY EMERGENCY STOP PUSHBUTTON (MAINTAINED) OCCUPANCY SENSING TWISTED SHIELDED PAIR ETT ELAPSED TIME TOTALIZER ELECTRIC LIGHT - POST OVER TORQUE SWITCH THERMOSTAT **ELEMENTARY WIRING DIAGRAM** POLE TRANSIENT VOLTAGE SURGE SUPPRESSOR FDS ELECTRIC MARKER POST FUSED DISCONNECT SWITCH PUSHBUTTON UNIT HEATER FULL LOAD AMPERES ELECTRIC METER PULLBOX-CONTROL **UNLESS NOTED OTHERWISE** FS FLOW SWITCH PULLBOX-METERING UNINTERRUPTIBLE POWER SUPPLY FVC FULL VOLTAGE CONTACTOR ELECTRIC MANHOLE - 48" **PULLBOX-POWER** UTP UNSHIELDED TWISTED PAIR FVNR-1 FULL VOLTAGE NON-REVERSING STARTER SIZE 1 ELECTRIC MANHOLE - 48" - ADJUST PC PHOTO CONTROL **VOLTS GROUND FAULT INTERRUPTER POWER FACTOR** VOLUME CONTROL **GROUND ELECTRIC MANHOLE - LID** PHASE VARIABLE FREQUENCY DRIVE GROUND FAULT RELAY

ELECTRICAL GENERAL NOTES:

- 1. ALL ELECTRICAL EQUIPMENT AND MATERIALS WILL BE SELECTED AND INSTALLED IN COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL FIRE CODES, INCLUDING BUT NOT LIMITED TO ALL PERTINENT NFPA REGULATIONS. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE WITH THESE CODES.
- 2. DO NOT INSTALL DEVICES SCALED FROM THESE DRAWINGS. ALL DEVICES SHALL BE INSTALLED AT LOCATIONS SHOWN IN THE APPROVED CONDUIT/DEVICE LAYOUT DRAWINGS AND WITH DIMENSIONS TAKEN IN THE FIELD.
- 3. ELECTRICIAN TO VISIT SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO BID.
- 4. NO DUCTWORK OR PIPING TO BE RUN ABOVE ELECTRICAL PANELS OR THROUGH ELECTRICAL EQUIPMENT ROOMS. ELECTRICIAN SHALL COORDINATE WITH ALL TRADES FOR EQUIPMENT LAYOUTS PRIOR TO ROUGH-IN OF ALL SYSTEMS.
- 5. MANUFACTURERS AND CATALOG NUMBERS SHOWN IN THE LIGHT FIXTURE SCHEDULE ARE PROVIDED TO INDICATE DESIRED LIGHT FIXTURE CHARACTERISTICS. IT IS THE INTENT OF THE DOCUMENTS TO ALLOW ALTERNATE MANUFACTURERS TO PROVIDE LIGHTING PRODUCTS FOR THE PROJECT, AS LONG AS PROPOSED ALTERNATES PROVIDE THE SAME GENERAL DESIGN AND LIGHTING CHARACTERISTICS AS NOTED IN THE LIGHT FIXTURE DESCRIPTION.
- 6. ELECTRICIAN TO CONFIRM LOCATIONS OF ALL ELECTRICAL EQUIPMENT AND ELECTRICAL CHARACTERISTICS OF PROCESS EQUIPMENT PROVIDED BY OTHER TRADES PRIOR TO INSTALLING ROUGH-INS AS SHOWN ON THE ELECTRICAL PLANS. ALL SHOP DRAWING REQUIREMENTS WILL BE CONSIDERED AS THE MEANS AND METHODS OF INSTALLATION.
- 7. THIS PROJECT INVOLVES WORK AT AN INDUSTRIAL FACILITY AND THE CONTRACTOR IS EXPECTED TO PROVIDE CRAFTSMANSHIP REFLECTING THE NATURE OF THE FACILITY. CONDUITS IN PROCESS AREAS ARE TO BE SURFACE MOUNTED RIGID GALVANIZED STEEL (RGS). IN CLASSIFIED AREAS SEAL ALL CONDUITS TO RESTRICT THE PASSAGE OF GASSES AND VAPORS, AND ARRANGE SEALING FITTING DRAINS IN CONDUIT SYSTEMS TO PREVENT ACCUMULATION OF CONDENSATE ABOVE SEALS. ALL CONDUITS ENTERING OR LEAVING A MOTOR CONTROL CENTER, CONTROL PANEL, VALVE ACTUATOR, INSTRUMENT, A BUILDING, OR A PANELBOARD SHALL BE MADE WATERTIGHT USING AN INFLATABLE SEALED BLADDER DUCT SEALING SYSTEM, RAYCHEM 'RAYFLATE' DUCT SEALING SYSTEM RDSS OR APPROVED EQUAL. ALL HARDWARE IS TO BE STAINLESS STEEL UNLESS OTHERWISE DIRECTED.

ALL ENCLOSURES ARE TO BE RATED AS FOLLOWS (UON):

- OUTDOORS: NEMA 4X (STAINLESS STEEL)
- CLASSIFIED AREAS: NEMA 7
- INDOORS (CORROSIVE AREAS): NEMA 4X (STAINLESS STEEL)
- INDOORS (CONTROLLED ENVIRONMENT) NEMA 12
- 8. ELECTRICIAN SHALL REVIEW ALL OTHER TRADES' CONSTRUCTION DOCUMENTS AND/OR COORDINATE WITH OTHER TRADES AND VERIFY IF THERE ARE ANY ADDITIONAL ELECTRICAL REQUIREMENTS NOT SHOWN ON ELECTRICAL DRAWINGS. COST FOR WORK SHOWN ON OTHER TRADES' DRAWINGS SHALL BE INCLUDED IN BASE BID. ALL FIELD WIRING AND TERMINATIONS OF PROCESS EQUIPMENT AND INSTRUMENTATION AND CONTROLS SHALL BE THE RESPONSIBILITY OF THE ELECTRICIAN. ALL CABLES AND WIRES PROVIDED BY VENDORS SHALL BE INSTALLED AND TERMINATED BY THE ELECTRICIAN. WIRE ALL MISCELLANEOUS POWER AND CONTROLS AS REQUIRED TO PROVIDE A COMPLETE FUNCTIONING SYSTEM.
- 9. A 4-20mA SIGNAL IS AN ANALOG SIGNAL USED TO TRANSMIT DATA (LEVEL, FLOW, ETC.) FOR PROCESS CONTROLS. THE ELECTRICIAN SHALL PROVIDE, INSTALL, AND TERMINATE SHIELDED TWISTED PAIRS (STP) WIRING IN RIGID GALVANIZED STEEL CONDUIT (RGS). RGS IS USED IN AN ATTEMPT TO REDUCE THE DISTORTION AFFECT FROM EMI AND RFI. BELOW GRADE CONDUITS SHALL BE PVC SCHED-40. PARALLEL RUNS OF DATA CONDUITS AND POWER CONDUITS SHALL BE SEPARATED BY 2 FEET. THE STP SHIELD SHALL BE GROUNDED AT THE CONTROL PANEL ONLY (DO NOT GROUND AT BOTH ENDS).
- 10. THE ELECTRICIAN SHALL BE RESPONSIBLE FOR LAYOUT AND COORDINATION OF OPENINGS AND CHASES AND SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED TO INSTALL THEIR WORK. ALL CONCRETE HOUSE KEEPING PADS SHALL BE FRAMED AND POURED BY THE ELECTRICIAN. PADS SHALL HAVE A 45 DEGREE, 1" CHAMFER AROUND UPPER EDGE.
- 11. THE ELECTRICIAN SHALL INSTALL & DISTRIBUTE TEMPORARY POWER SERVICE FOR THE DURATION OF THIS PROJECT AS DEFINED IN DIVISION 1 SPECIFICATIONS. ALL COSTS ASSOCIATED WITH THE INSTALLATION, DISTRIBUTION AND MAINTENANCE OF THE TEMPORARY POWER IS THE RESPONSIBILITY OF THE ELECTRICIAN THERE SHALL BE 480/277V,3PH,4W; 208/120V,3PH,4W; AND 120/240V,1PH,3W POWER AVAILABLE AT ALL LOCATIONS OF CONSTRUCTION AS DIRECTED IN FIELD AND AS SPECIFIED. ALL TEMPORARY EQUIPMENT, CONDUITS & CONDUCTORS SHALL BE COMPLETELY REMOVED AT COMPLETION OF PROJECT.
- 12. ALL ELECTRICAL EQUIPMENT, DEVICES, LIGHTING FIXTURES, CONDUIT, AND WIRING SHOWN ON THE ELECTRICAL DRAWINGS IS NEW UNLESS CLEARLY CALLED OUT AS EXISTING. ALL EXISTING ELECTRICAL EQUIPMENT THAT IS CALLED OUT TO BE REUSED SHALL BE INSPECTED IN THE FIELD BY THE ELECTRICIAN AND THE CONSTRUCTION MANAGER TO DETERMINE ITS CONDITION PRIOR TO STARTING ANY WORK. PROVIDE DOCUMENTATION TO OWNER INDICATING CONDITION OF THE EXISTING EQUIPMENT, AND REUSE EXISTING EQUIPMENT ONLY IF ALL PARTIES AGREE THE CONDITION IS ACCEPTABLE. ALL EXISTING EQUIPMENT DETERMINED TO BE UNUSABLE SHALL BE REPLACED WITH LIKE KIND AS DIRECTED BY THE OWNER. ANY OF THE OWNERS EQUIPMENT DETERMINED TO BE REUSED THAT IS DAMAGED BY ANY CONTRACTOR DURING SWITCHOVER SHALL BE REPLACED BY THAT CONTRACTOR. ALL EXISTING EQUIPMENT IS THE PROPERTY OF THE OWNER (NOT THE CONTRACTOR) AND SHALL BE TREATED ACCORDINGLY.
- 13. THE ELECTRICIAN SHALL BE HELD RESPONSIBLE TO ENSURE ALL CONTROLLERS TO BE INSTALLED ARE CAPABLE OF LOCKOUT / TAGOUT PRIOR TO INSTALLATION.
- 14. CONFORM TO THE NEC, OSHA, FIRE MARSHAL, BUILDING DEPARTMENT AND OTHER APPLICABLE CODES AND REGULATIONS. OBTAIN PERMITS, PAY ALL FEES, AND ARRANGE FOR REQUIRED INSPECTIONS.
- 15. ALL LIGHTING AND RECEPTACLE WIRING TO BE #12 XHHW WITH EQUIPMENT GROUND IN 3/4" C UNLESS OTHERWISE NOTED.
- 16. DO NOT MOUNT ANY LIGHT FIXTURE DIRECTLY OVER PIPING OR EQUIPMENT THAT WILL INTERFERE WITH NORMAL LIGHTING DISTRIBUTION.
- 17. SIZE JUNCTION BOXES AS REQUIRED PER NEC. PROVIDE BARRIER TYPE TERMINAL STRIPS, AND ALL WIRING TO BE IN CONDUIT.
- 18. SIZE PULL BOXES (PB) AS REQUIRED PER NEC.
- 19. PROVIDE SEPARATE PB'S FOR CONTROL AND POWER.
- 20. MOTOR OVERLOAD SETTING SHALL BE FIELD SELECTED PER MOTOR NAME PLATE CURRENT AND INSTALLED ACCORDINGLY.
- 21. MOUNT LOCAL CONTROLS AND SERVICE DISCONNECTS ON WALL NEAREST EQUIPMENT WHERE POSSIBLE. (MAXIMUM 60" ABOVE FINISHED FLOOR OR FINAL GRADE, MAXIMUM LATERAL DISTANCE FROM WALL TO EQUIPMENT 10 FEET).
- 22. ALL FEEDERS RUN BELOW GRADE SHALL BE RUN IN PVC CONDUIT AT MINIMUM 3'-0" BELOW FINISHED GRADE, TRANSITION TO ABOVE GRADE SHALL BE MADE USING FACTORY PVC COATED RIGID STEEL CONDUIT SWEEPS.

verdanta

	ISSUED FOR:	BID SET	ON	REVISION	DATE
' 0	ISSUE DATE:	2/3/25			
O I	SCALE:	AS SHOWN			
	DESIGNED BY:	МНА			
•	DRAWN BY:	МНА			
	CHECKED BY:	DEB			

CITY OF SUNBURY, DEL
CITY OF SUNBURY, DEL
CO00212

DISCIPLINE

CIVIL

SHEET NAME

E-01

ELECTRIC PAINT MARK

ELECTRIC TRANSFORMER

ELECTRIC PEDESTAL

HOA

HT

HAND/OFF/AUTO SELECTOR SWITCH

HORSEPOWER

HERTZ

HIGH TORQUE SWITCH

PROGRAMMABLE LOGIC CONTROLLER

POWER JUNCTION BOX

PRESSURE SWITCH

POTENTIAL TRANSFORMER

POWER PANEL

PRIMARY

PRI

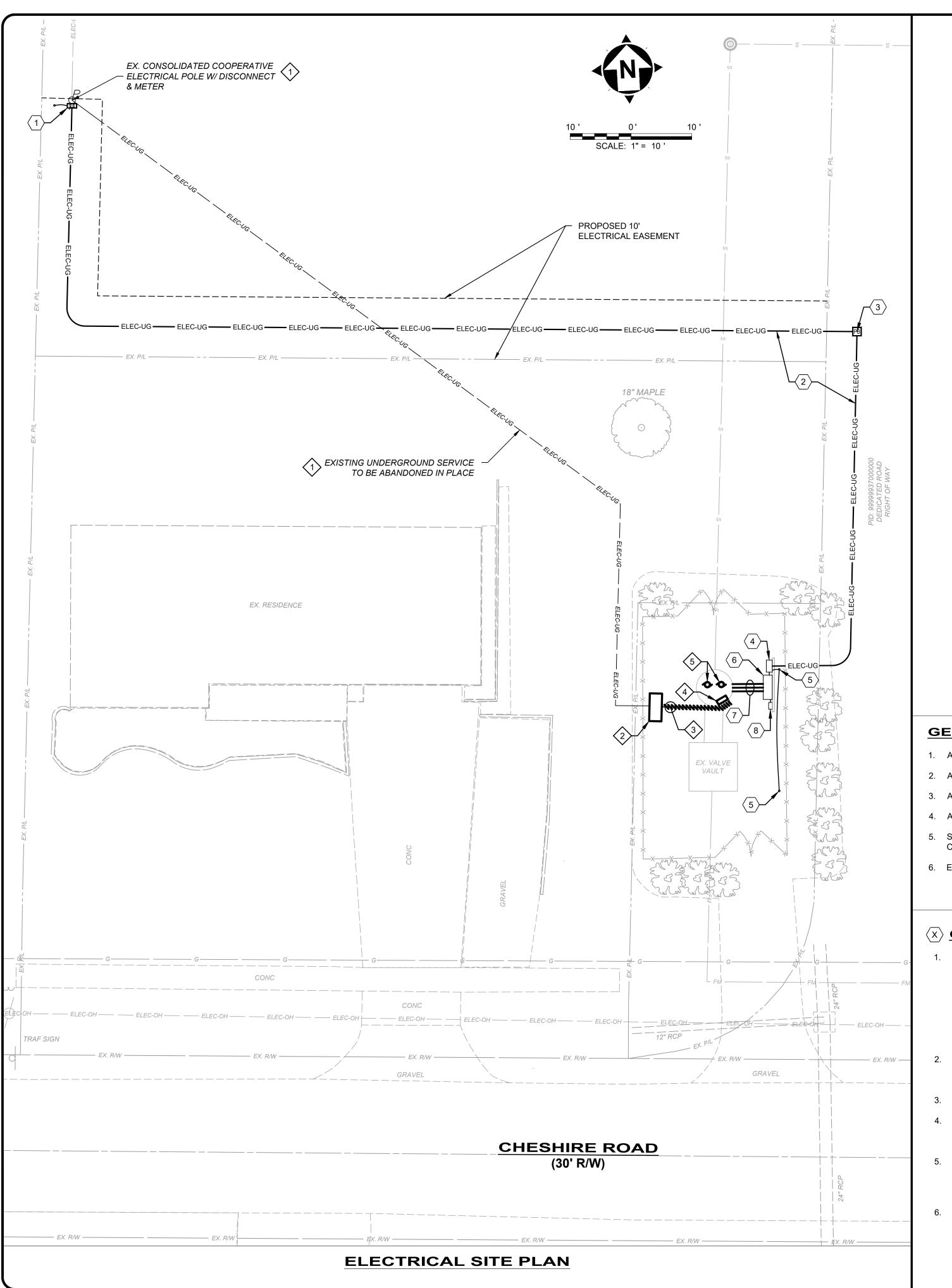
VOLT METER

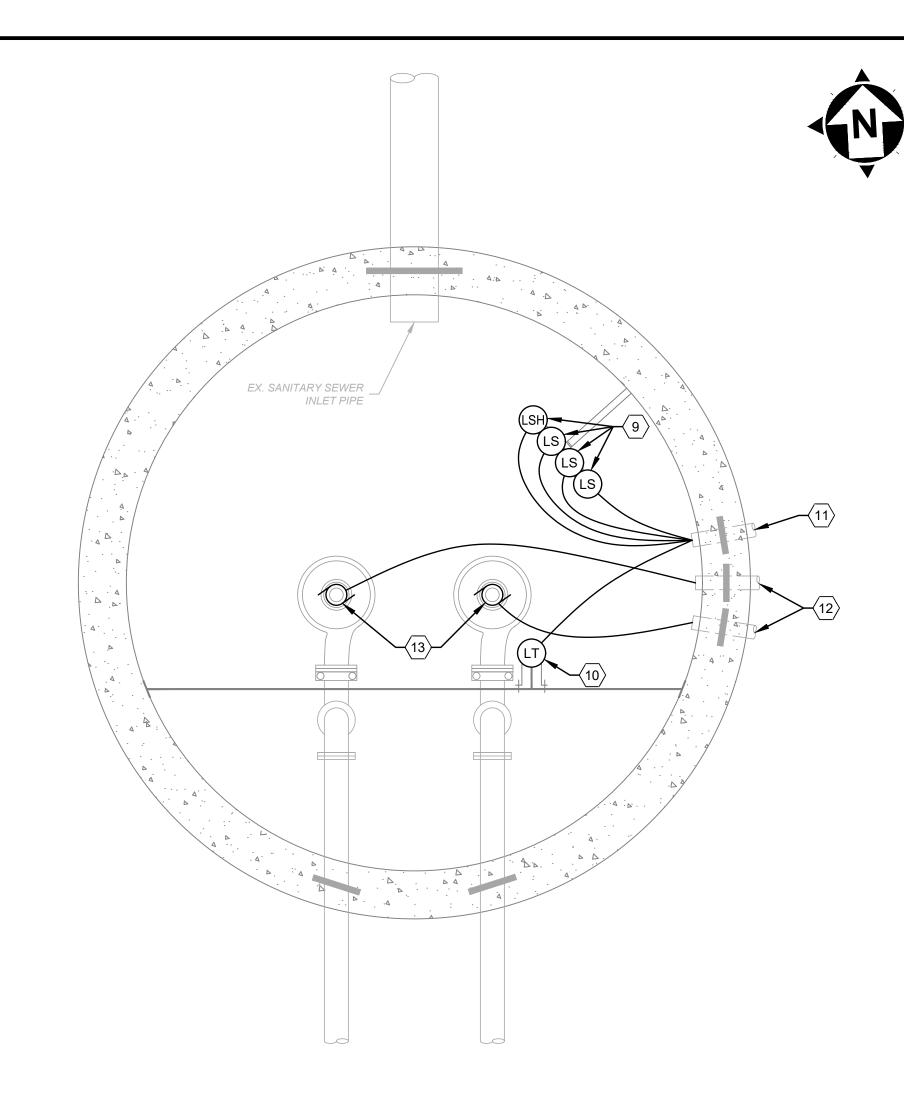
EXPLOSION PROOF

TRANSFORMER

WATERPROOF

LIMIT SWITCH





ELECTRICAL SITE PLAN - WET WELL DETAILS

SCALE: 1" = 1

GENERAL NOTES:

- 1. ALL REFERENCES TO "UTILITY" TO DESIGNATE CONSOLIDATED COOPERATIVE.
- 2. ALL ENCLOSURES TO BE NEMA 4X SS, UNO.
- 3. ALL PROPOSED UNDERGROUND DUCT BANKS TO UTILIZE 36" SWEEPS, MINIMUM.
- 4. ALL PROPOSED UNDERGROUND CONDUIT ROUTED TO WET WELL TO BE 1-1/2", MIN.
- 5. SEE ONE-LINE DIAGRAM ON SHEET E-03 FOR ALL DISTRIBUTION EQUIPMENT WITH CONDUIT/CONDUCTOR CALLOUTS.
- 6. ELECTRICAL SERVICE TO BE 480V / 3φ / 4-W / 60 Hz / 200A

(X) CODED NOTES - PROPOSED:

- 1. INSTALL NEW SERVICE DISCONNECT AND METER WITH CONDUIT AERIAL PER UTILITY STANDARDS.
- 1.1. 200A DISCONNECT SWITCH FUSED AT 150A, 480V, 3-POLE WITH SEPARATE NEUTRAL & GROUND LUGS, NEMA 3R ENCLOSURE
 1.2. METER SOCKET, 480V, 3¢, 200A, NEMA 3R
- 1.3. 5/8" Ø x 8' LONG COPPER-CLAD GROUND ROD DRIVEN TO A DEPTH OF 3' BFG, MIN. AND BONDED TO LUG VIA #4 STRANDED BARE COPPER WIRE EXOTHERMICALLY WELDED TO ROD. ROUTE CONDUCTOR THROUGH 3/4" PVC CONDUIT ABOVE GROUND INTO DISCONNECT.
- UNDERGROUND SERVICE CONDUIT, ROUTE FROM UTILITY POLE TO NEW PULL BOX THROUGH MIDDLE OF NEW 10-FOOT WIDE EASEMENT. ROUTE TO MANUAL TRANSFER SWITCH THROUGH EXISTING DEDICATED ROAD RIGHT-OF-WAY. SEE SHEET E-03 FOR DETAILS.
- 3. NEW SERVICE FEEDER PULL BOX INSTALLED PER DETAILS ON SHEET E-03.
- 4. MANUAL TRANSFER SWITCH, 200A, 3-POLE W/ SOLID NEUTRAL, NEMA 4X ENCLOSURE WITH 200A, 4-WIRE + GND, PIN & SLEEVE RECEPTACLE WIRED FOR MOBILE GENERATOR CONNECTION. SQUARE D CAT# 82344DS + APPLETON CAT# AR20044-RS OR APPROVED EQUALS.
- 5. 5/8" Ø X 8' LONG COPPER-CLAD GROUND ROD DRIVEN TO A DEPTH OF 3' BFG, MIN. AND BONDED TO LUG VIA #4 STRANDED BARE COPPER WIRE EXOTHERMICALLY WELDED TO ROD. ROUTE CONDUCTOR THROUGH 3/4" PVC CONDUIT ABOVE GROUND INTO TRANSFER SWITCH. INSTALL SECOND ROD AT A MINIMUM DISTANCE OF 16' FROM FIRST ROD.
- 6. VENDOR-SUPPLIED DUPLEX PUMPS CONTROL PANEL CONTAINING OVERCURRENT PROTECTION DEVICES PER DISTRIBUTION DIAGRAM TO INCLUDE THE FOLLOWING CIRCUITS:
 - 6.1. 480 VAC 6.1.1. (2) VFDS W/ 5% LINE REACTORS
 - 6.1.2. 120VAC CONTROL TRANSFORMER

CODED NOTES - DEMOLITION:

- 1. REMOVE EXISTING UTILITY DISCONNECT AND METER BASE FROM POWER POLE. REMOVE EXISTING SERVICE CONDUCTORS AND DEMOLISH CONDUIT TO WITHIN 12" OF FINAL GRADE, CAP AND ABANDON IN PLACE.
- 2. EXISTING ELECTRICAL EQUIPMENT RACK: REMOVE ALL ENCLOSURES, CONDUIT & CONDUCTORS, AND OTHER DEVICES. DEMOLISH RACK TO CONCRETE FOUNDATION. DEMOLISHED CONDUIT PENETRATING FOUNDATION TO WITHIN 2" OF FINISHED SURFACE, CAP AND ABANDON IN PLACE.
- 3. REMOVE EXISTING UNDERGROUND CONDUIT BETWEEN CONTROL PANEL AND WET WELL JUNCTION BOX, REPLACE WITH SUITABLE BACKFILL.
- 4. REMOVE EXISTING WET WELL JUNCTION BOX. DISCONNECT ALL CONDUCTORS AND DEMOLISH ALL MOUNTING HARDWARE TO BE FLUSH WITH FINISHED SURFACE.
- 5. DISCONNECT AND REMOVE EXISTING SUBMERSIBLE PUMPS (2) AND LEVEL SWITCHES (4). FILL AND CAP ALL EXISTING CONDUIT FLUSH TO FINISHED SURFACE.
- 6.2. 120 VAC
- 6.2.1. PLC FOR WET WELL LEVEL MONITORING, AUTOMATIC PUMP CYCLING, AND ALARM ANNUNCIATION
- 6.2.2. ALARM AUTO-DIALER
- 6.2.3. 15A GFCI CONVENIENCE RECEPTACLE W/ WEATHERPROOF IN-USE COVER6.2.4. MEDIUM LED FLOOD LIGHT W/ TOGGLE SWITCH
- 7. 2" UNDERGROUND CONDUITS FROM PUMP STATION CONTROL PANEL (PR. NOTE #6) TO WET WELL DEVICES. CONTAINS LEVEL SWITCH & TRANSMITTER CABLES AND PUMP POWER & SENSOR CABLES. CORE DRILL, PENETRATE, AND SEAL AROUND EXISTING WET WELL WALL PER DETAILS ON SHEET E-04. TRANSITION TO PVC-COATED RMC FOR VERTICAL SWEEP AND INSTALL GAS-TIGHT CONDUIT SEALS IN VERTICAL SECTION BENEATH CONTROL PANEL.
- 8. TELECOM JUNCTION BOX PER UTILITY STANDARDS. WALL MOUNTED ON RACK AND WIRED TO PUMP CONTROL PANEL.
- 9. FLOATING LEVEL SWITCHES, SUPPLIED BY VENDOR INSTALLED BY CONTRACTOR AT LEVELS PER PROCESS DRAWINGS. ATTACH CABLES TO STAINLESS STEEL RACK WHILE LEAVING A 5', MIN. SERVICE LOOP BEFORE ROUTING THROUGH PVC CONDUIT TO CONTROL PANEL.
- 10. VENDOR-SUPPLIED WET WELL LEVEL TRANSMITTER IN STILLING WELL. INSTALL PER PROCESS DRAWINGS WITH 5', MIN. SERVICE LOOP OF EXTRA CABLE AT TOP OF WELL BEFORE ROUTING THROUGH PVC CONDUIT TO CONTROL PANEL.
- 11. CONTROL DEVICE CONDUIT, CONTAINS (4) 2-CONDUCTOR MANUFACTURER CABLES FROM LEVEL SWITCHES & (1) 2-CONDUCTOR SHIELDED MFR CABLE FROM LEVEL TRANSMITTER
- 12. SUBMERSIBLE PUMP CONDUITS, CONTAIN PUMP MFR POWER & SENSOR CABLE.
- 13. SUBMERSIBLE PUMPS, 480V / 3ϕ / 60 Hz / 40 HP. SEE SHEET E-03 FOR FEEDERS. ATTACH 5', MIN. SERVICE LOOP OF MFR CABLE TO RACK AND TERMINATE IN CONTROL PANEL.

LIFT STATION UPGRADES TY OF SUNBURY, DELAWARE COUNTY, OHIO	ELECTRICAL SITE PLAN & WET WELL DETAILS
LIFT STA	ELECTRI

PROJECT NO.

22000715

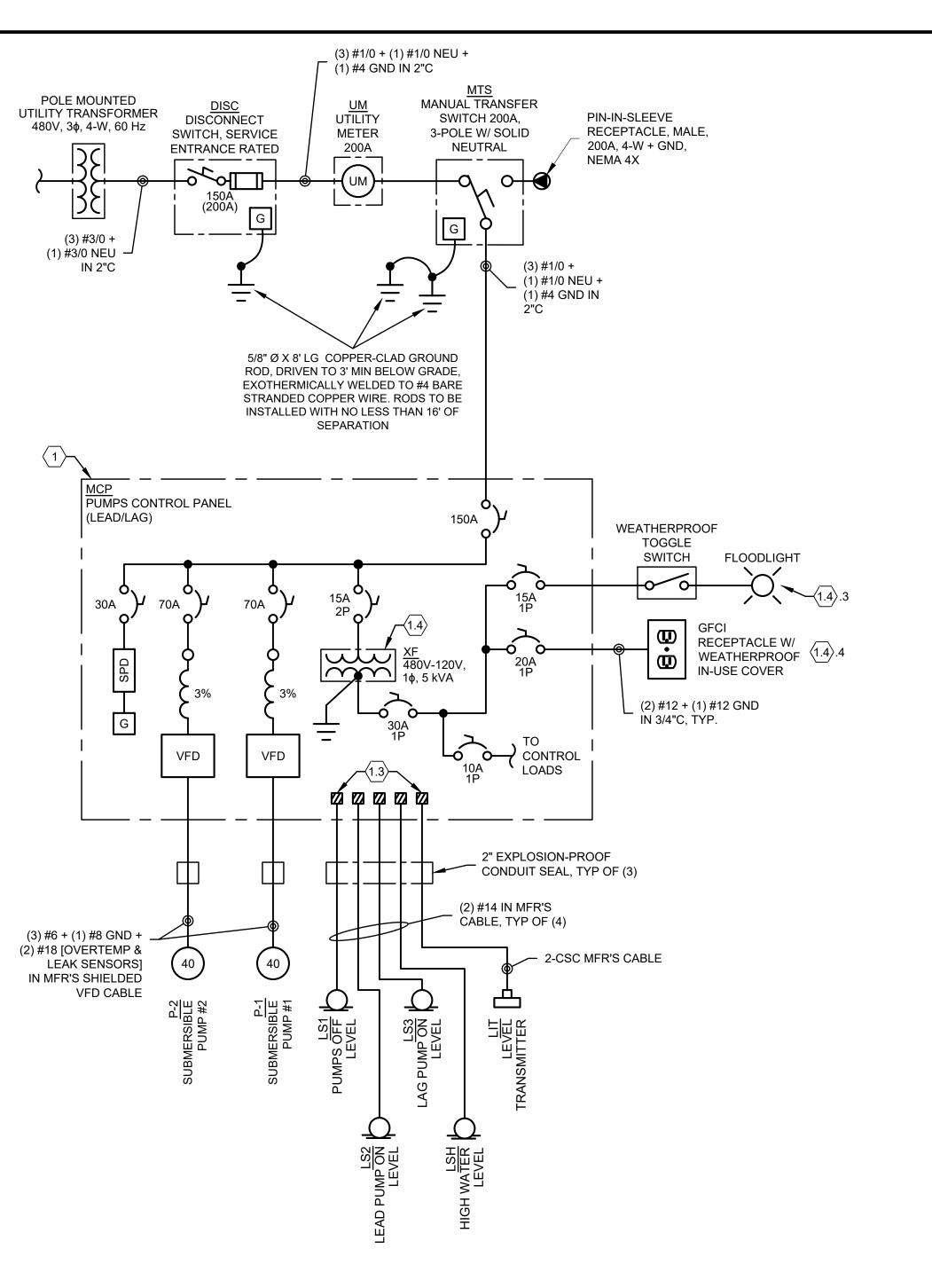
DISCIPLINE

CIVIL

SHEET NAME

E-02

H:\2022\22000715\PHASE\05 CHESHIRE RD LS UPGRADE FINAL DESIGNIDWG\SHEETS\E 22000715 - ELECTRICAL SITE PLAN & WET WELL DETAILS.DWG - 7 ELECTRICAL SITE PLAN - 1/13/2025 1:33:16 PM - MANUEL ALEMAN

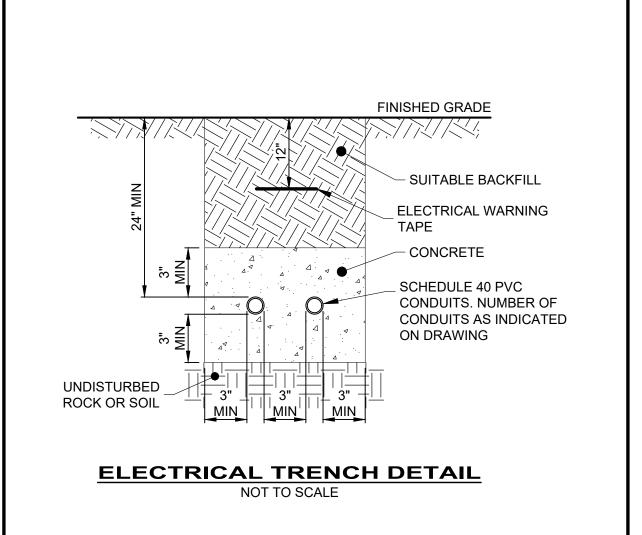


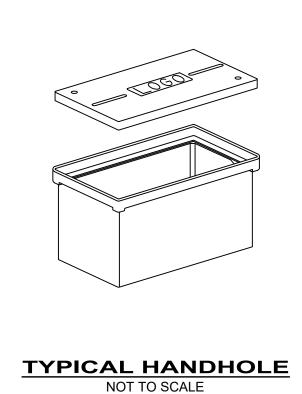
- 1. ALL REFERENCES TO "UTILITY" TO DESIGNATE CONSOLIDATED COOPERATIVE.

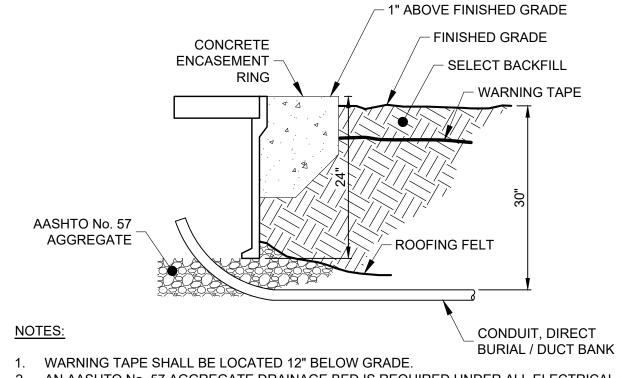
GENERAL NOTES:

- 2. ALL ENCLOSURES TO BE NEMA 4X SS, UNO.
- 3. ALL OVERCURRENT PROTECTION DEVICES TO BE 3-POLE, UNO.

PR. CONNECTION DIAGRAM



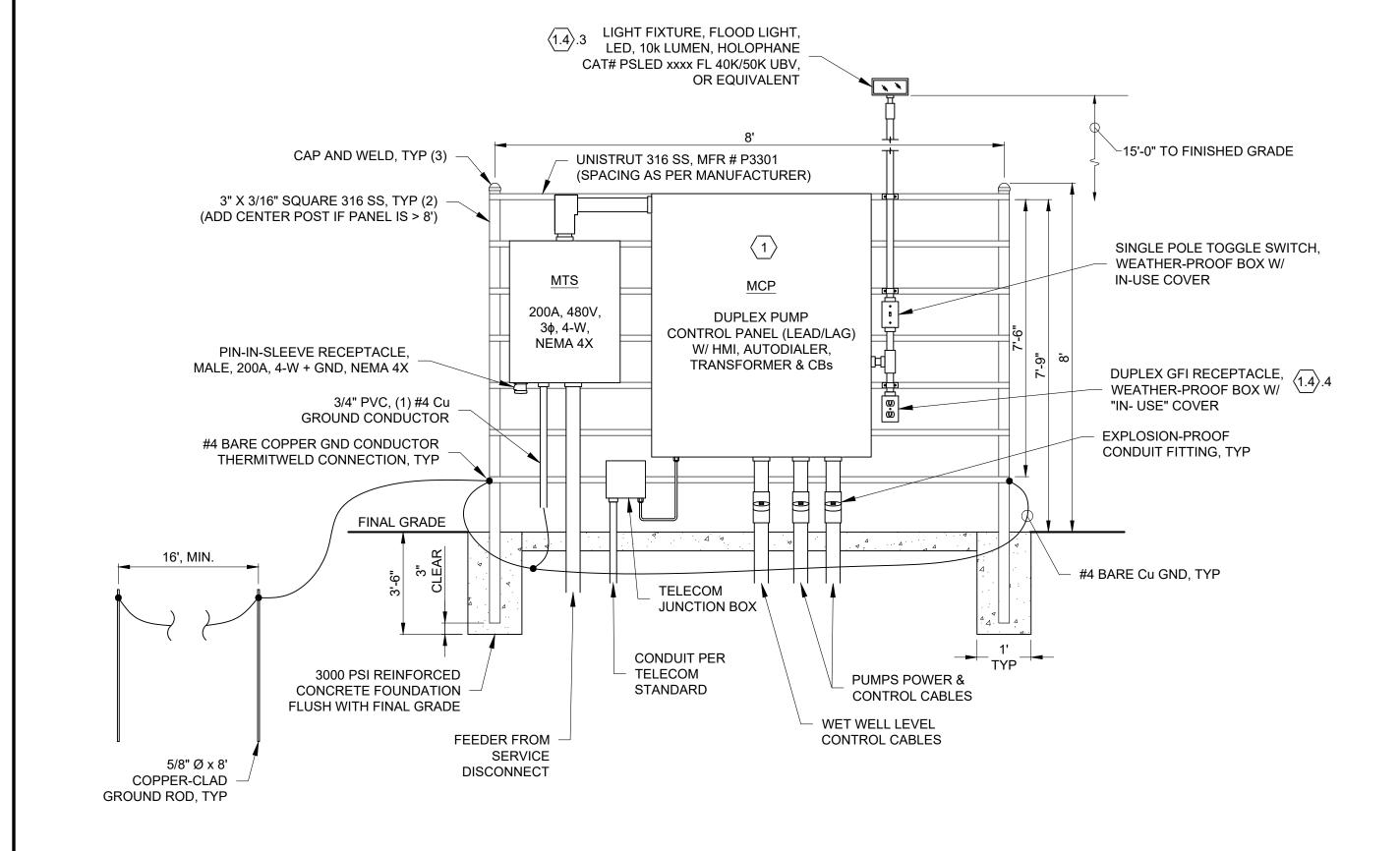




2. AN AASHTO No. 57 AGGREGATE DRAINAGE BED IS REQUIRED UNDER ALL ELECTRICAL HANDHOLES. THE DRAINAGE BED SHALL BE EQUAL TO THE HANDHOLE BASE DIMENSIONS PLUS 12" DEPTH. THE ENCASEMENT RING SHALL BE 1" ABOVE FINISHED GRADE.

4. THE HANDHOLE COVER SHALL BE GRAY IN COLOR AND EMBOSSED WITH "ELECTRIC" OR "COMMUNICATIONS". THE COVER SHALL BE HEAVY DUTY TYPE WITH A DESIGN LOAD EQUAL OR EXCEEDING 15,000 LBS OVER A 10" SQUARE.

> **HANDHOLE (TYP) FOR** NON-ROADWAY APPLICATIONS NOT TO SCALE



ELECTRICAL EQUIPMENT BACKBOARD DETAILS

NOT TO SCALE

- 1. ADJUST EQUIPMENT PLACEMENT ON THE RACK TO MATCH CONDUIT STUB UPS AS SHOWN ON THE SITE PLAN.
- 2. ALL DIMENSIONS SHOWN ARE APPROXIMATE. COORDINATE RACK DIMENSIONS AND LAYOUT WITH EQUIPMENT SHOP DRAWINGS. SUBMIT FINAL DIMENSIONED LAYOUT TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- 3. SEAL ALL UNDERGROUND CONDUIT AT ENTRY INTO ENCLOSURES.

Шο PROJECT NO.

22000715 DISCIPLINE

CIVIL

SHEET NAME

E-03

H:2022/22000715\PHASE\05 CHESHIRE RD LS UPGRADE FINAL DESIGN\DWG\SHEETS\1E_22000715 - ELECTRICAL DIAGRAMS, SCHEDULES & DETAILS.DWG - 8 ELECTRICAL DIAGRAMS SCHEDULES & DETAILS - 1/13/2025 1:02:19 PM - MANUEL ALEMAN

 $\langle x \rangle$ CODED NOTES:

1. DUPLEX PUMP CONTROL PANEL SHALL BE PROVIDED BY THE PUMP SUPPLIER AND

AUTOMATIC ALTERNATION FROM CONTROLLER. PANEL TO INCLUDE

1.1. PLC & TOUCHSCREEN HMI FOR LOCAL CONTROL

1.2.4.2. ON GENERATOR POWER 1.2.4.3. GENERATOR FAULT 1.2.4.4. PUMP OVERTEMP 1.2.4.5. PUMP SEAL FAIL

STATION STATUS INCLUDING:

1.2.4.1. HIGH WATER

1.2.1. PUMP 1 RUNNING

1.2.2. PUMP 2 RUNNING

1.2.3. WET WELL LEVEL

LEVEL TRANSMITTER.

1.4.2. DC POWER SUPPLY

1.4.3. LED FLOOD LIGHT

1.4.4. GFCI RECEPTACLE

1.4.5. ALARM DIALER

1.4.1. PLC

1.2.4. ALARMS:

INSTALLED BY THE CONTRACTOR. PUMPS TO OPERATE IN A LEAD/LAG MODE WITH

1.2. SENSAPHONE 1800, OR APPROVED EQUAL, FOR REMOTE MONITORING OF PUMP

1.3. INTRINSICALLY SAFE TERMINALS FOR LEVEL AND THERMAL SWITCHES AS WELL AS

1.4. CONTROL TRANSFORMER WITH PRIMARY & SECONDARY OVERCURRENT PROTECTION TO PROVIDE POWER FOR THE FOLLOWING CIRCUITS: