

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D7 PUMP STATIONS 2019		9	1

D-7

CONTRACT NO. 46529
LAWRENCE/EFFINGHAM/MACON

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 WESTPORT PUMP STATION ELECTRICAL PLAN AND DETAILS
- 5 WESTPORT PUMP STATION ELECTRICAL ONE-LINE DIAGRAM
- 6 EFFINGHAM PUMP STATION ELECTRICAL PLAN AND DETAILS
- 7 EFFINGHAM PUMP STATION ELECTRICAL ONE-LINE DIAGRAM
- 8 DECATUR PUMP STATION ELECTRICAL PLAN AND DETAILS
- 9 DECATUR PUMP STATION ELECTRICAL ONE-LINE DIAGRAM

HIGHWAY STANDARDS

000001-07 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

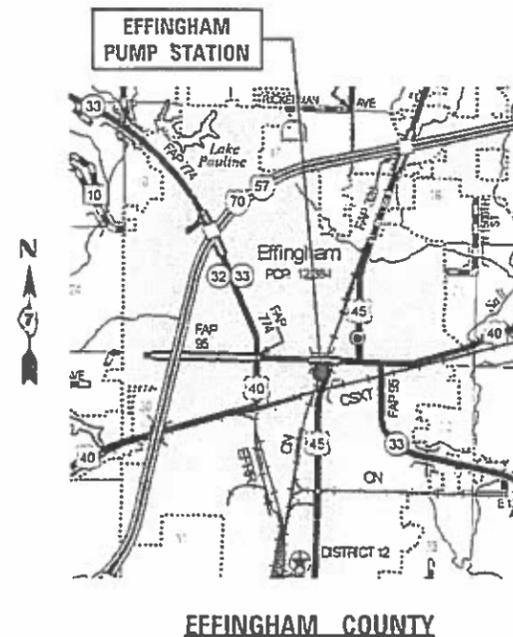
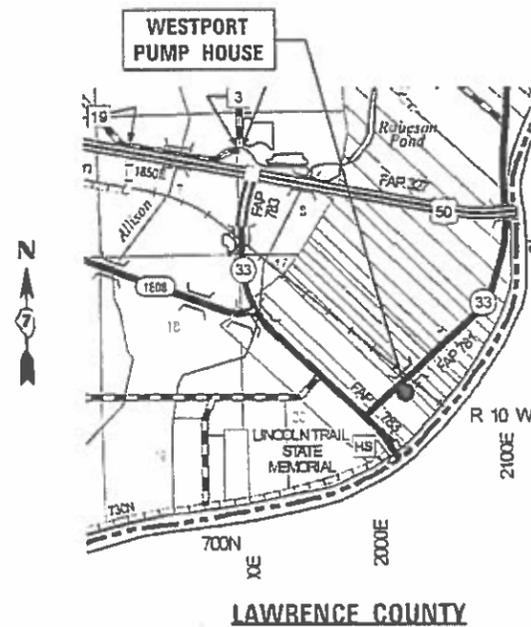
PROPOSED
HIGHWAY PLANS

VARIOUS ROUTES
SECTION D7 PUMP STATION 2019
NEW AUTOMATIC TRANSFER SWITCHES
AND MISC. IMPROVEMENTS
LAWRENCE, EFFINGHAM, AND MACON COUNTIES

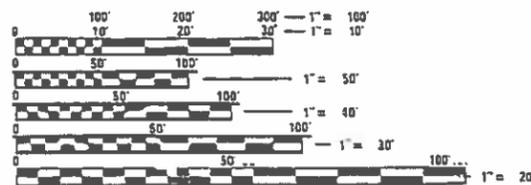
C-30-010-19



LOCATION OF SECTION INDICATED THIS: -



GROSS LENGTH = NA
NET LENGTH = NA



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT MANAGER: KIMBERLY BLAIR 217-342-8265

CONTRACT NO. 46529



JOHN J. NEYENS
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-063295
LICENSE EXPIRES NOVEMBER 30, 2019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED April 04 2019
Jeffery M. Smith
REGIONAL ENGINEER

May 10 2019
Paul P. [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 10 2019
Paul P. [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

1. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD, AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.
2. THE CONTRACTOR SHALL SECURE ANY LOCAL, STATE, COUNTY PERMITS NEEDED FOR THIS PROJECT.
3. THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION FOR THE PROJECT IN A MANNER AND SEQUENCE THAT ARE BASED ON ACCEPTED INDUSTRY STANDARDS THAT RECOGNIZE THE INTERACTION OF THE COMPONENTS THAT COMPRISE THE STRUCTURE, WITHOUT CAUSING DISTRESS, UNANTICIPATED MOVEMENTS OR IRREGULAR LOAD PATHS AS A RESULT OF THE CONSTRUCTION MEANS AND METHODS EMPLOYED.
4. CONSTRUCTION LOADS SHALL NOT EXCEED DESIGN LIVE LOAD. THE CONTRACTOR IS RESPONSIBLE FOR ALL DESIGN REQUIRED TO SUPPORT CONSTRUCTION EQUIPMENT USED IN CONSTRUCTING THIS PROJECT. SHORING AND RESHORING IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED WITH THE COST OF FURNISHING AND ERECTING STRUCTURAL STEEL, SPECIAL.
5. UTILITIES - LOCATIONS / INFORMATION ON PLANS
ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

*
*
*
*
*

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY *. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENFORCE ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
7. ALL CONTRACTORS ARE REQUIRED TO EXAMINE THE DRAWINGS AND SPECIAL PROVISIONS CAREFULLY. VISIT THE SITE AND FULLY INFORM THEMSELVES AS TO ALL EXISTING CONDITIONS AND LIMITATIONS, PRIOR TO AGREEING TO PERFORM THE WORK. FAILURE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND LIMITATIONS WILL IN NO WAY RELIEVE THE CONTRACTOR FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS WITHOUT ADDITIONAL COST TO THE OWNER.
8. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE EXISTING PUMP STATION BUILDING.
9. DRAWINGS ARE NOT TO SCALE.
10. THE DEPARTMENT RESERVES THE RIGHT TO NOTIFY THE CONTRACTOR TO CHANGE THE CONSTRUCTION SCHEDULE IF NEEDED TO ENSURE PROPER DEWATERING NEEDS FOR THE DEPARTMENT.
11. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES, GRADUATES ARE WELL TRAINED AND READY TO BECOME PRODUCTIVE ENTRY LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

D:\17files\170264\Work Order - Phase II Pump Station Blanket Agreement\Homeland Security Transfer - Switch Projects\Documents\District 7\0746529-shr-generalnotes.dgn

• LAWRENCE/EFFINGHAM/MACON

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223-3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = oms	DESIGNED - AMS	REVISED -
PLOT SCALE = 2:0' = 1" / 16'	DRAWN - ADL	REVISED -
PLOT DATE = 3/28/2019	CHECKED - AMS	REVISED -
	DATE - ADL	REVISED -

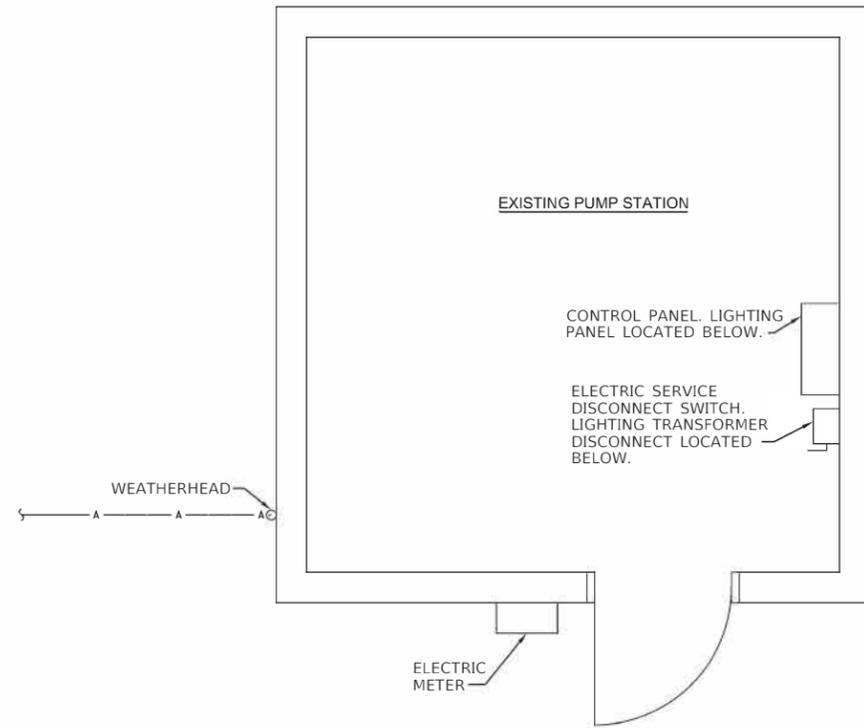
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES

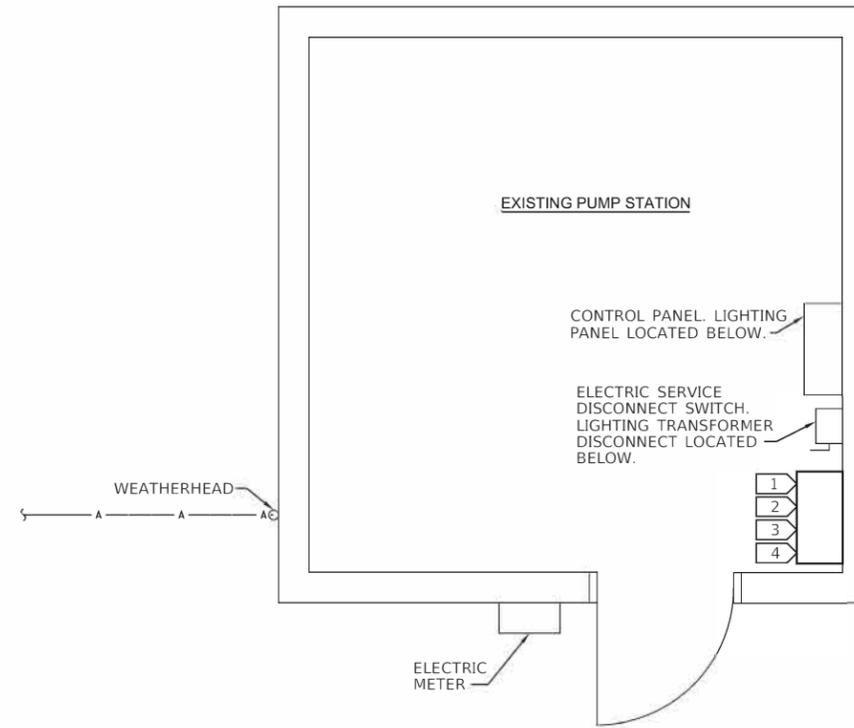
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D7 PUMP STATIONS 2019	*	9	2
			CONTRACT NO. 46529	
ILLINOIS FED. AID PROJECT				

D:\17\Files\170264\Work Order 02 - Phase II Pump Station Blanket Agreement\HomeLand Security Transfer Switch Projects\Documents\District 7\0746529-ehc-Plan.dgn



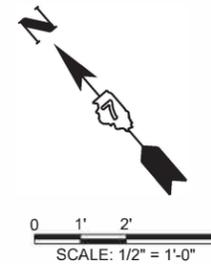
EXISTING ELECTRICAL PLAN
SCALE: 1/2"=1'-0"



PROPOSED ELECTRICAL PLAN
SCALE: 1/2"=1'-0"

KEY NOTES (APPLICABLE TO THIS SHEET ONLY)

- 1 INSTALL NEW CONDUIT/CONDUCTORS FROM SERVICE DISCONNECT TO NEW TRANSFER SWITCH.
- 2 NEW AUTOMATIC TRANSFER SWITCH.
- 3 NEW GENERATOR QUICK CONNECTION ENCLOSURE.
- 4 INSTALL NEW CONDUIT/CONDUCTORS FROM TRANSFER SWITCH TO CONTROL PANEL AND LIGHTING TRANSFORMER DISCONNECT.
- 5 CLEAN AND PAINT STRUCTURAL STEEL ROOF BEAMS. COST INCLUDED IN CLEANING AND PAINTING STRUCTURAL STEEL LOCATION 1



REV. - MS

• LAWRENCE/EFINGHAM/MACON

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223.3570
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = bgj	DESIGNED -	REVISED -
PLOT SCALE = 0 1/2" = 1'-0"	DRAWN -	REVISED -
PLOT DATE = 3/25/2019	CHECKED -	REVISED -
	DATE -	REVISED -

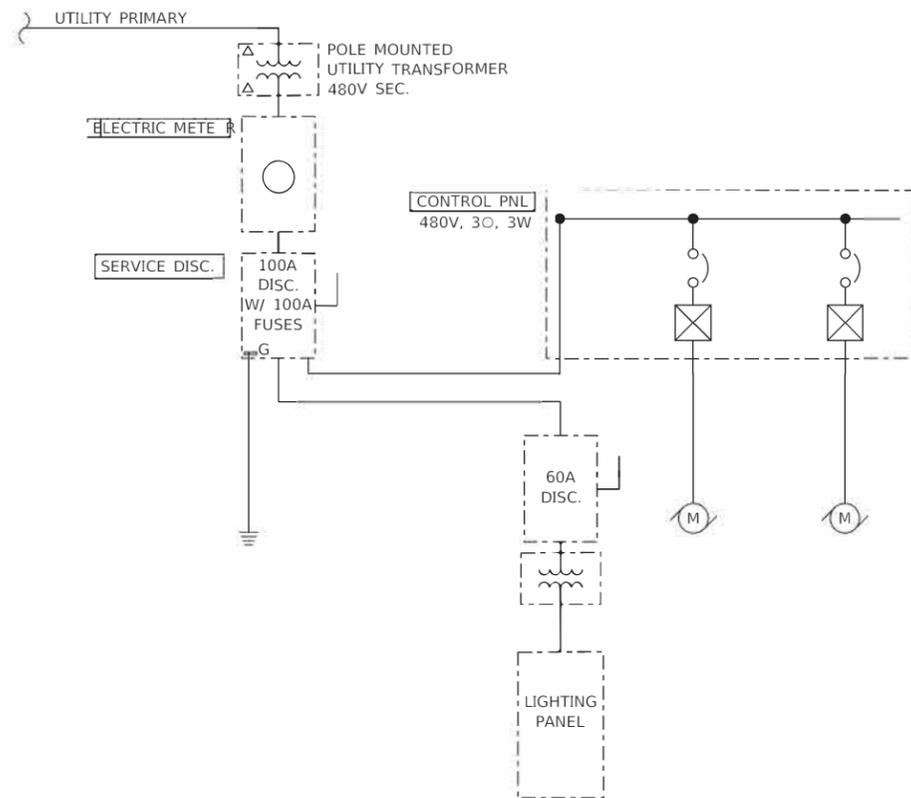
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WESTPORT PUMP STATION
ELECTRICAL PLAN AND DETAILS

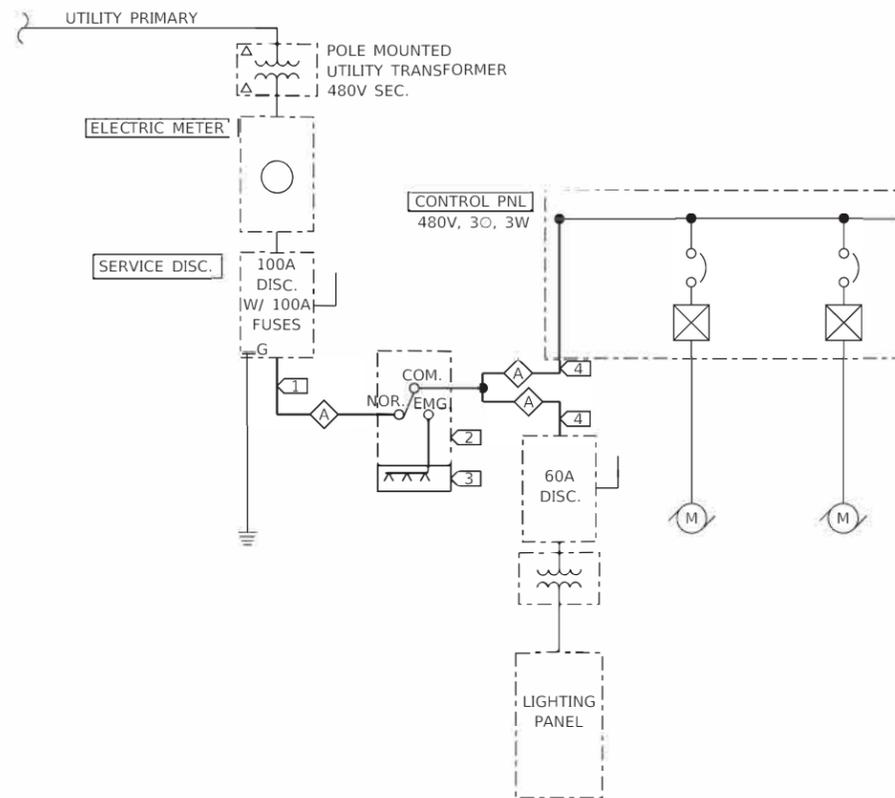
SCALE: AS NOTED SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D7 PUMP STATIONS 2019	*	9	4
			CONTRACT NO. 46529	
ILLINOIS FED AID PROJECT				

Q:\17\Files\170264\Work\02 - Phase II Pump Station Blanket Agreement\Home\end Security Transfer Switch Projects\Documents\District 7\0746529-ahc-Desen\1.dgn



EXISTING ONE-LINE DIAGRAM
NTS



PROPOSED ONE-LINE DIAGRAM
NTS

KEY NOTES (APPLICABLE TO THIS SHEET ONLY)

- 1) INSTALL NEW CONDUIT/CONDUCTORS FROM SERVICE DISCONNECT TO NEW TRANSFER SWITCH.
- 2) NEW AUTOMATIC TRANSFER SWITCH.
- 3) NEW GENERATOR QUICK CONNECTION ENCLOSURE.
- 4) INSTALL NEW CONDUIT/CONDUCTORS FROM TRANSFER SWITCH TO CONTROL PANEL AND LIGHTING TRANSFORMER DISCONNECT.

FEEDER SCHEDULE						
TAG	NUMBER OF SETS	PHASE CONDUCTORS QUANTITY	PHASE CONDUCTORS SIZE	NEUTRAL	EGC/ GEC	CONDUIT
⬡	1	3	#1 AWG	-	#8 AWG	1.5"

REV. - MS

• LAWRENCE/EFFINGHAM/MACON

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N. 24TH ST. QUINCY, ILLINOIS 62430 (217) 223-3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2739

USER NAME = bgj	DESIGNED -	REVISED -
PLOT SCALE = 0:1" = 1'-0"	DRAWN -	REVISED -
PLOT DATE = 3/25/2019	CHECKED -	REVISED -
	DATE -	REVISED -

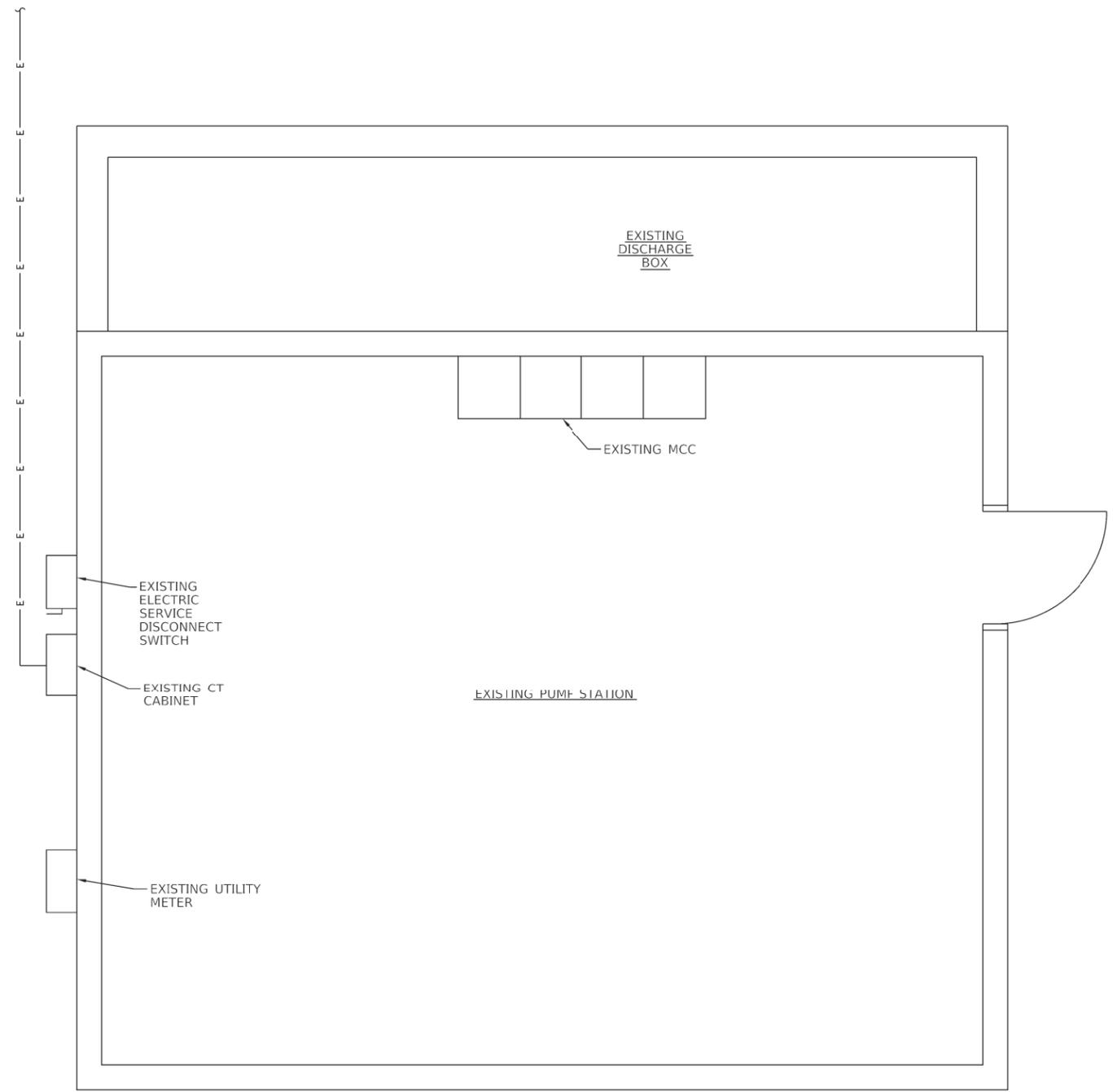
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WESTPORT PUMP STATION
ELECTRICAL ONE-LINE DIAGRAM**

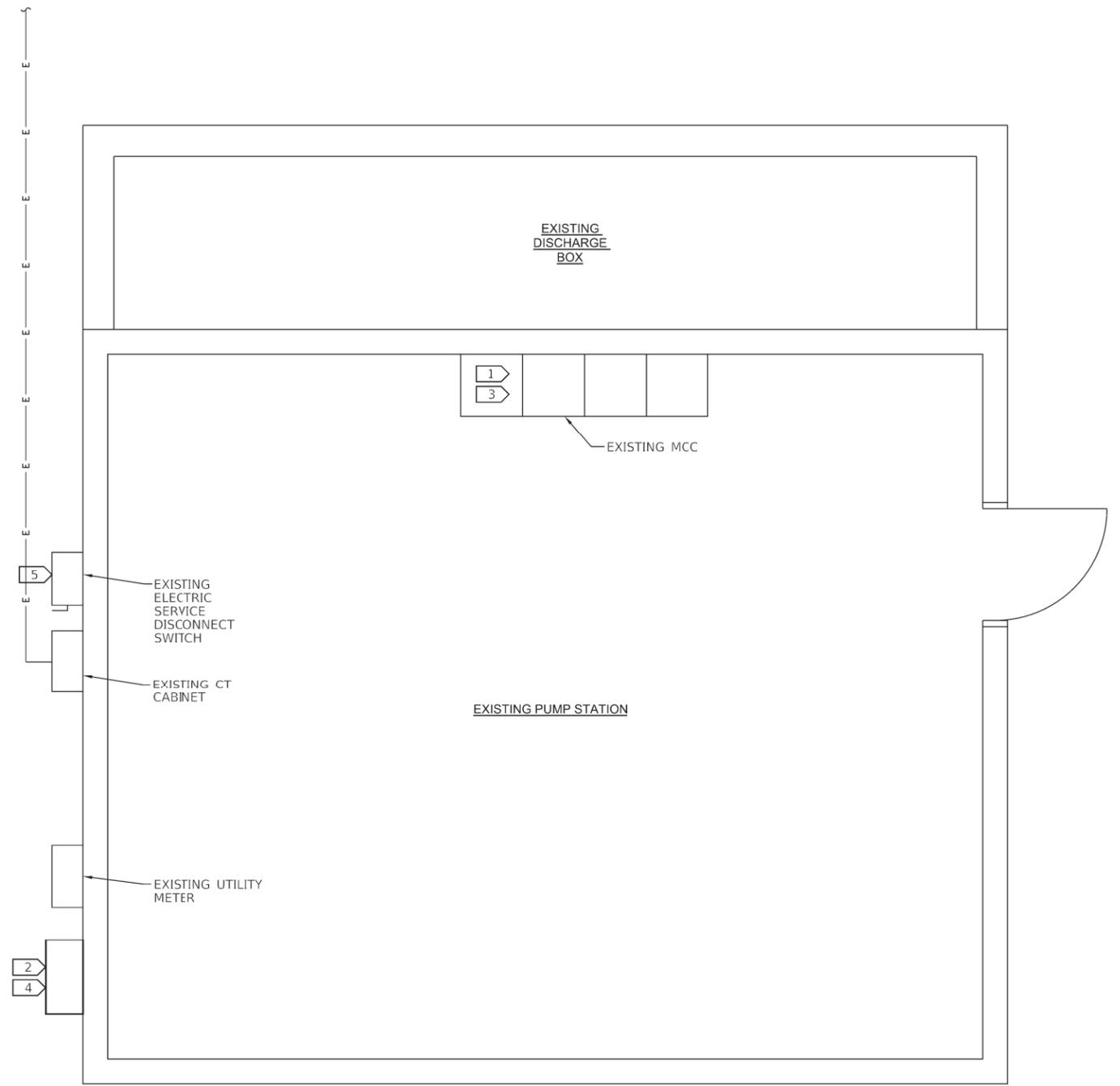
SCALE: NONE SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D7 PUMP STATIONS 2019	*	9	5
CONTRACT NO. 46529				
ILLINOIS FED. AID PROJECT				

Q:\17\Files\170564\Work - Order - 02 - Phase II Pump Station Blanket Agreement\Homeland Security Projects\Documents\District 7\0746529-eh-Plan2.dgn



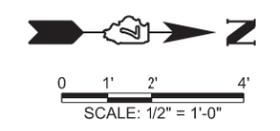
EXISTING ELECTRICAL PLAN
SCALE: 1/2"=1'-0"



PROPOSED ELECTRICAL PLAN
SCALE: 1/2"=1'-0"

KEY NOTES (APPLICABLE TO THIS SHEET ONLY)

- 1 REMOVE PHASE TO GROUND BOND IN EXISTING MCC.
- 2 NEW AUTOMATIC TRANSFER SWITCH.
- 3 CONNECT TO EXISTING GEC.
- 4 NEW GENERATOR QUICK CONNECTION ENCLOSURE.
- 5 ESTABLISH PHASE-TO-GROUND BOND IN EXISTING SERVICE DISCONNECT SWITCH
- 6 COORDINATE CONDUIT/CONDUCTOR ROUTING WITH EXISTING EQUIPMENT.



KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = bgj	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0:1' = 1/4"	CHECKED -	REVISED -
PLOT DATE = 3/25/2019	DATE -	REVISED -

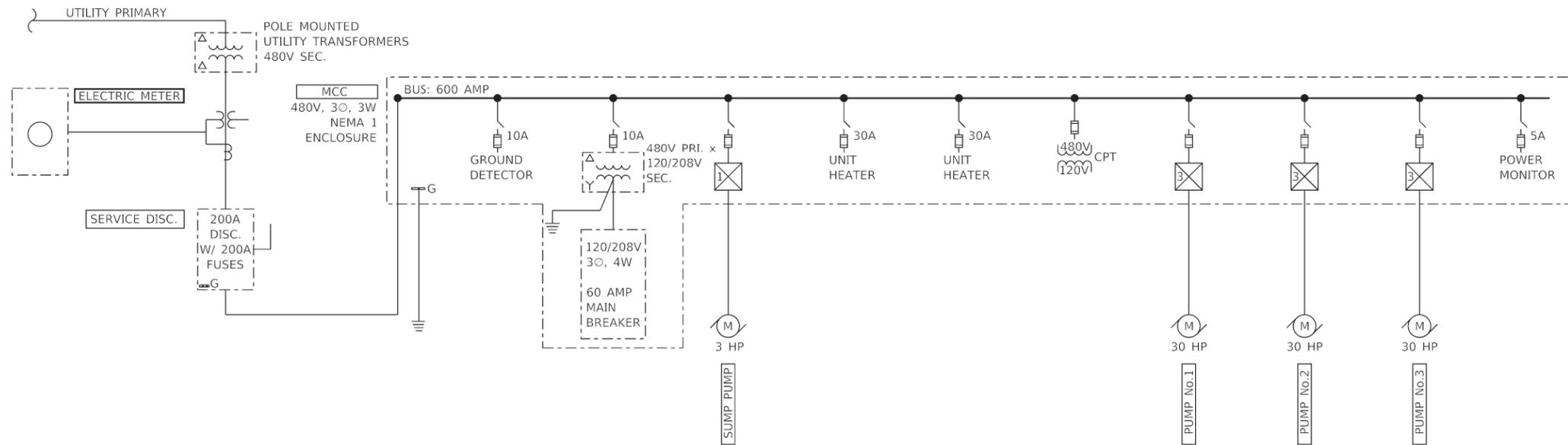
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EFFINGHAM PUMP STATION
ELECTRICAL PLAN AND DETAILS**

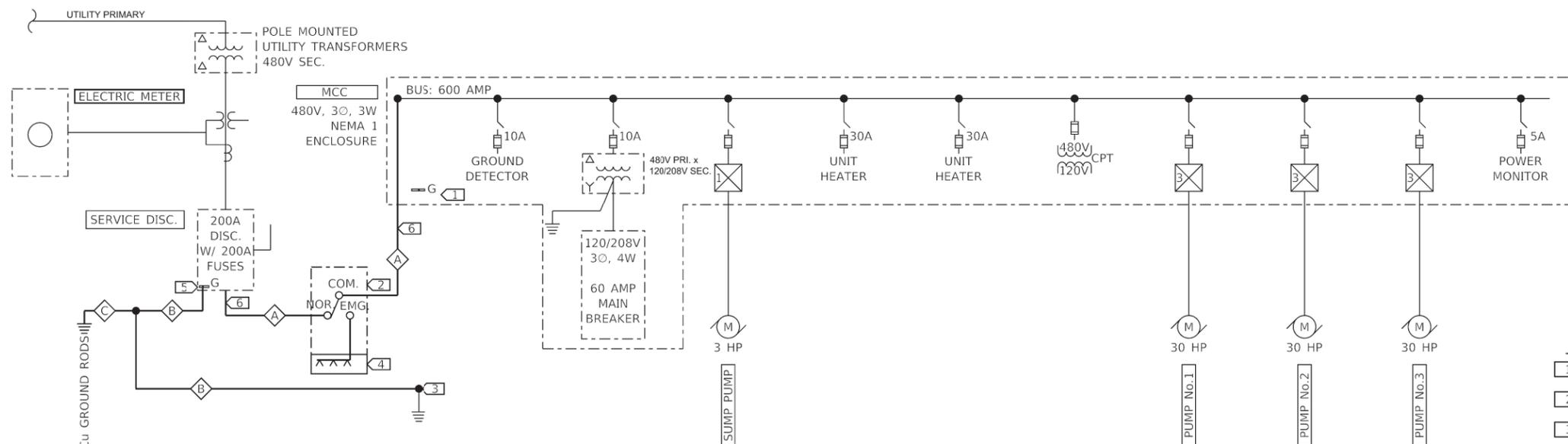
SCALE: AS NOTED SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D7 PUMP STATIONS 2019	*	9	6
CONTRACT NO. 46529				
ILLINOIS FED. AID PROJECT				

• LAWRENCE/EFFINGHAM/MACON



EXISTING ONE-LINE DIAGRAM
NTS



FEEDER SCHEDULE						
TAG	NUMBER OF SETS	PHASE CONDUCTORS QUANTITY	PHASE CONDUCTORS SIZE	NEUTRAL	EGC/ GEC	CONDUIT
A	1	3	3/0 AWG	-	#6 AWG	2"
B	1	-	-	-	#4 AWG	-
C	1	-	-	-	#6 AWG	-

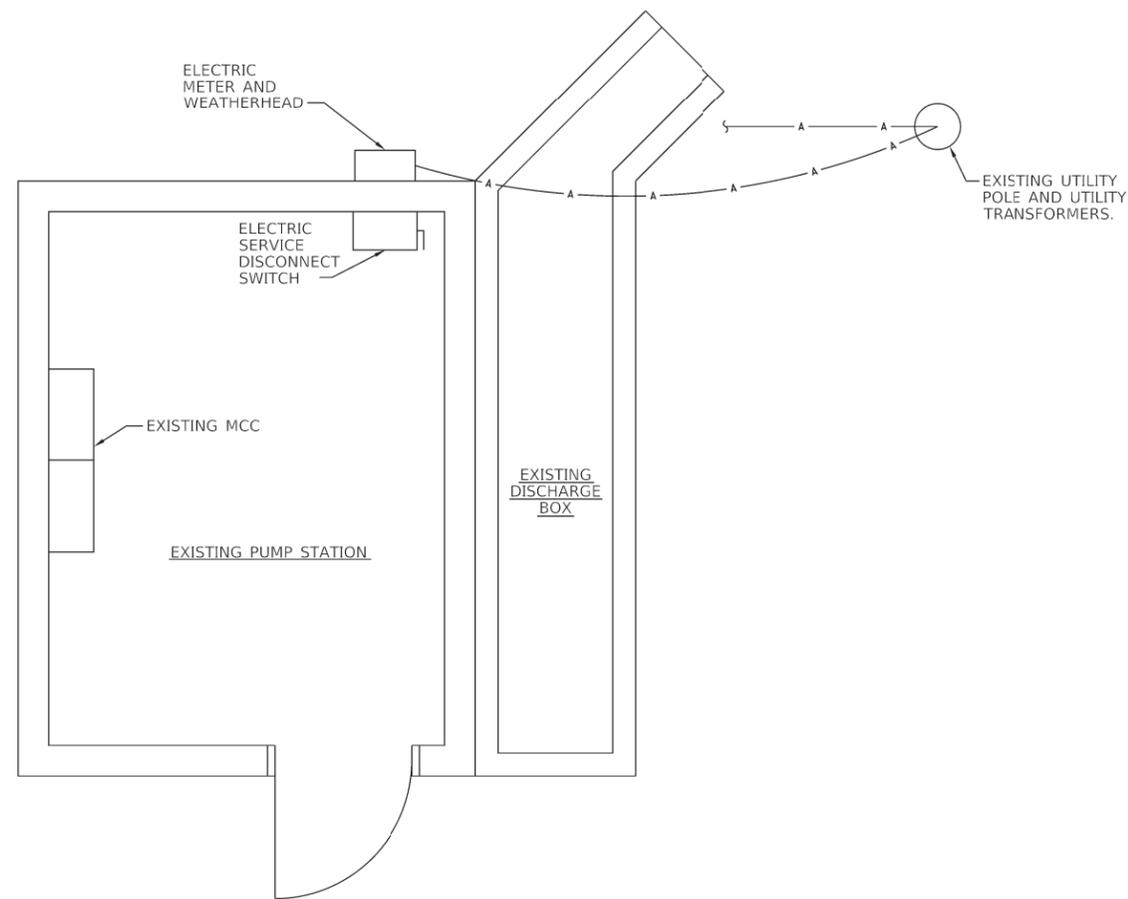
PROPOSED ONE-LINE DIAGRAM
NTS

KEY NOTES (APPLICABLE TO THIS SHEET ONLY)

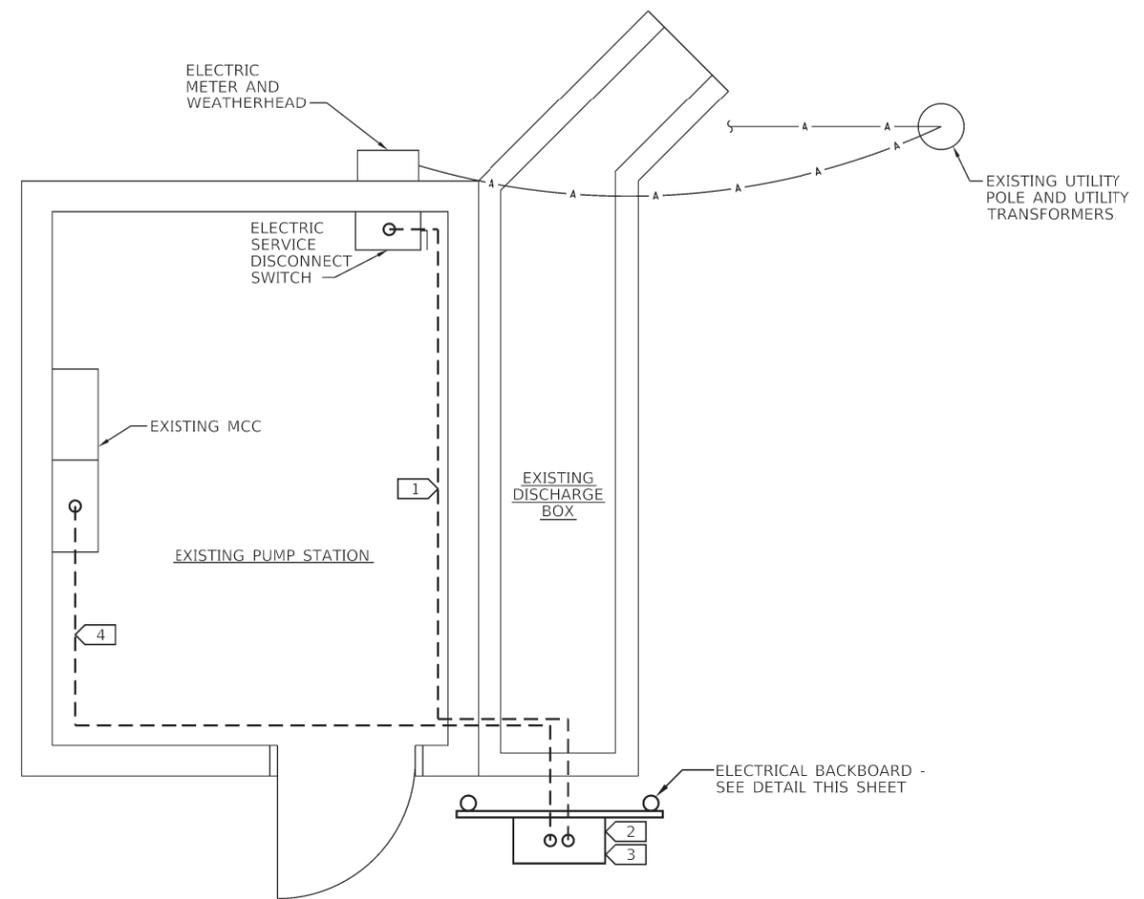
- 1 REMOVE PHASE-TO-GROUND BOND IN EXISTING MCC.
- 2 NEW AUTOMATIC TRANSFER SWITCH.
- 3 CONNECT TO EXISTING GEC.
- 4 NEW GENERATOR QUICK CONNECTION ENCLOSURE.
- 5 ESTABLISH PHASE-TO-GROUND BOND IN EXISTING SERVICE DISCONNECT SWITCH
- 6 COORDINATE CONDUIT/CONDUCTOR ROUTING WITH EXISTING EQUIPMENT.

Q:\17\Files\170564\Work - Order - 02 - Phase II Pump Station Blanket Agreement\Homeland Security Transfer - Switch Projects\Documents\District 7\0746529-eh-Deval2.dgn

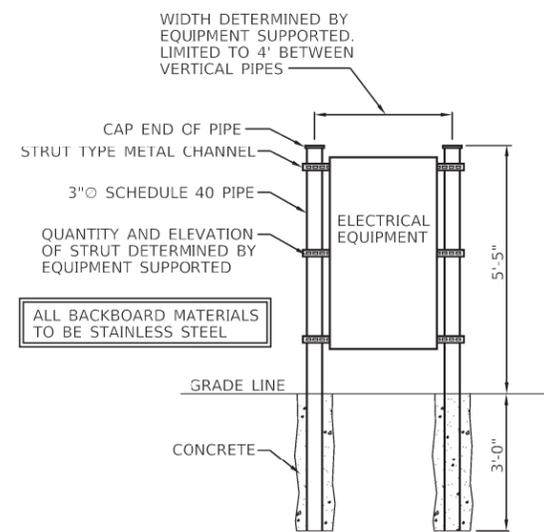
Q:\17\Files\170864\Work\Order_02 - Phase II Pump Station Blanket Agreement\Home\end Security Transfer_Satch Projects\Documents\District_7\0746529-eh-Plan3.dgn



EXISTING ELECTRICAL PLAN
SCALE: 1/2"=1'-0"



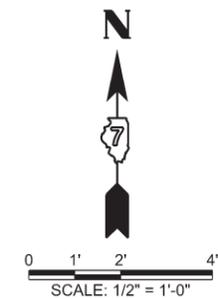
PROPOSED ELECTRICAL PLAN
SCALE: 1/2"=1'-0"

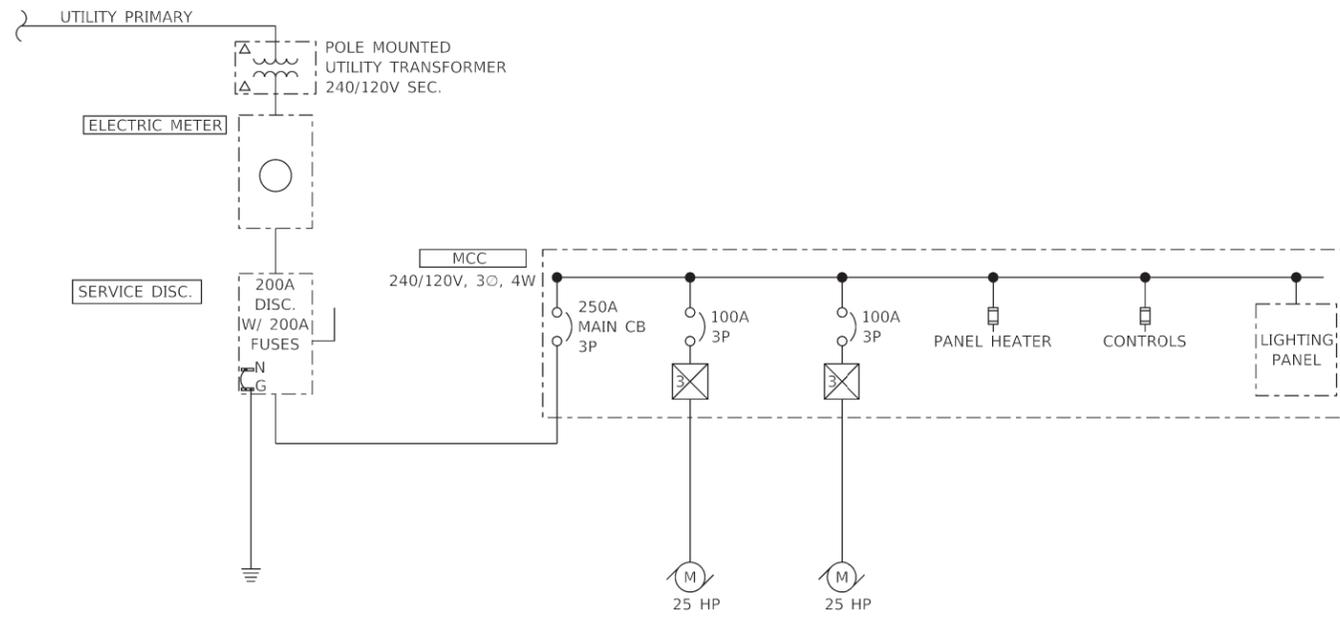


ELECTRICAL BACKBOARD DETAIL
NTS

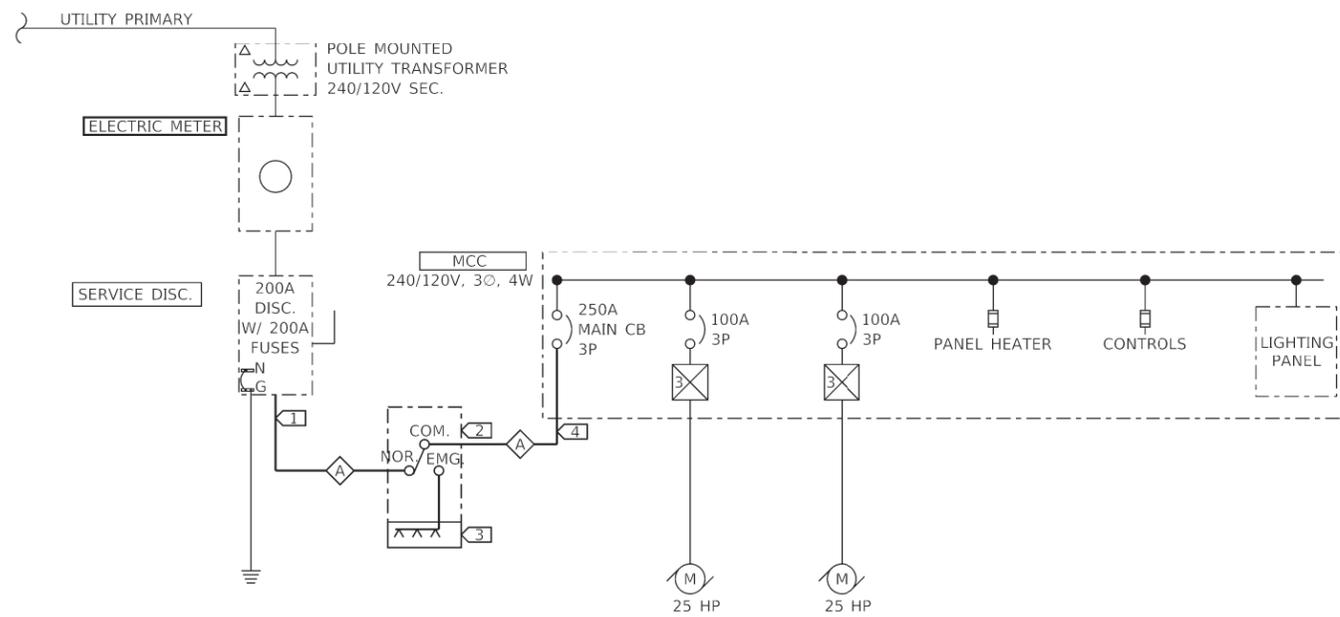
KEY NOTES (APPLICABLE TO THIS SHEET ONLY)

- 1 INSTALL NEW CONDUIT/CONDUCTORS FROM SERVICE DISCONNECT TO NEW TRANSFER SWITCH. COORDINATE CONDUIT ROUTING WITH EXISTING EQUIPMENT AND MAINTAIN EQUIPMENT MAINTENANCE AND REMOVAL PATHWAYS WITHIN PUMP STATION
- 2 NEW AUTOMATIC TRANSFER SWITCH.
- 3 NEW GENERATOR QUICK CONNECTION ENCLOSURE.
- 4 INSTALL NEW CONDUIT/CONDUCTORS FROM TRANSFER SWITCH TO MCC. COORDINATE CONDUIT ROUTING WITH EXISTING EQUIPMENT AND MAINTAIN EQUIPMENT MAINTENANCE AND REMOVAL PATHWAYS WITHIN PUMP STATION
- 5 CLEAN AND PAINT STRUCTURAL STEEL ROOF BEAMS. COST INCLUDED IN CLEANING AND PAINTING STRUCTURAL STEEL LOCATION 2





EXISTING ONE-LINE DIAGRAM
NTS



PROPOSED ONE-LINE DIAGRAM
NTS

FEEDER SCHEDULE						
TAG	NUMBER OF SETS	PHASE CONDUCTORS		NEUTRAL	EGC/ GEC	CONDUIT
		QUANTITY	SIZE			
⬡	1	3	3/0 AWG	3/0 AWG	#6 AWG	2"

KEY NOTES (APPLICABLE TO THIS SHEET ONLY)

- 1 INSTALL NEW CONUIT/CONDUCTORS FROM SERVICE DISCONNECT TO NEW TRANSFER SWITCH.
- 2 NEW AUTOMATIC TRANSFER SWITCH.
- 3 NEW GENERATOR QUICK CONNECTION ENCLOSURE.
- 4 INSTALL NEW CONUIT/CONDUCTORS FROM TRANSFER SWITCH TO MCC.

Q:\17\Files\170264\Work - Order - 02 - Phase II Pump Station Blanket Agreement\Homeland Security - Switch Projects\Documents\District 7\0746529-ah-Devel.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = bgj	DESIGNED -	REVISED -
PLOT SCALE = 0:1' = 1/4"	DRAWN -	REVISED -
PLOT DATE = 3/25/2019	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DECATUR PUMP STATION ELECTRICAL ONE-LINE DIAGRAM			
SCALE: NONE	SHEET 2 OF 2 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D7 PUMP STATIONS 2019	*	9	9
CONTRACT NO. 46529				
ILLINOIS FED. AID PROJECT				

• LAWRENCE/EFFINGHAM/MACON