

06-14-2019 LETTING ITEM 118

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1ELE-1	ST. CLAIR	6	1
		ILLINOIS	CONTRACT NO. 76L85	

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- 2 SUMMARY OF QUANTITIES
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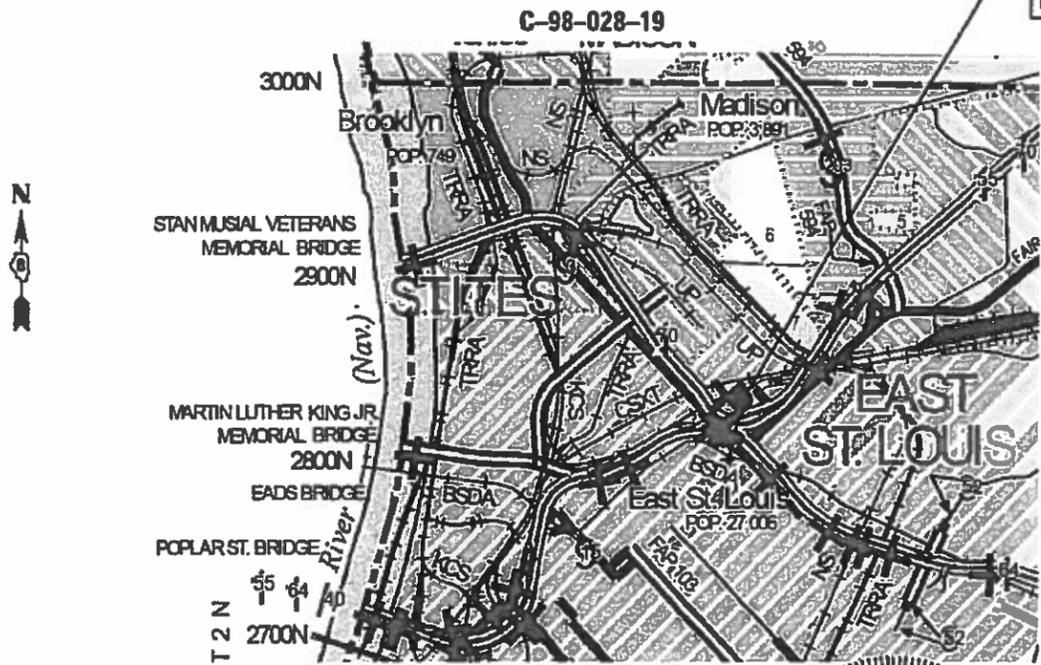
HIGHWAY STANDARDS

000001-07 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

PROPOSED HIGHWAY PLANS

FAI ROUTE 55/70 (I-55/70)
SECTION 82-2-1ELE-1
BOWMAN PUMP STATION
CONTROLS REHABILITATION
ST. CLAIR COUNTY

D-98-023-19



PROJECT LOCATION



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 ENGINEER: HERVE GELIN 618-346-3179
PROJECT MANAGER: PHILLIP SAWYER 618-346-3275

CONTRACT NO. 76L85

KLINGNER
& ASSOCIATES, P.C.
Engineers • Architects • Surveyors

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618 N. 24th Street Quincy, IL Galesburg, IL
217.223.3870 Hannibal, MO Burlington, IA Peeta, IA
STATE OF ILLINOIS DESIGN FIRM # 1842738

JOHN J. NEYENS
062.063295
REGISTERED
PROFESSIONAL
ENGINEER
OF
ILLINOIS

JOHN J. NEYENS REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-063295
LICENSE EXPIRES NOVEMBER 30, 2019
DATE 3/4/19

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
SUBMITTED March 11, 2019
Kathie Roberts REGIONAL ENGINEER
May 10, 2019
cc E.A. Etk
ENGINEER OF DESIGN AND ENVIRONMENT
May 10, 2019
Paul J. Chaf DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

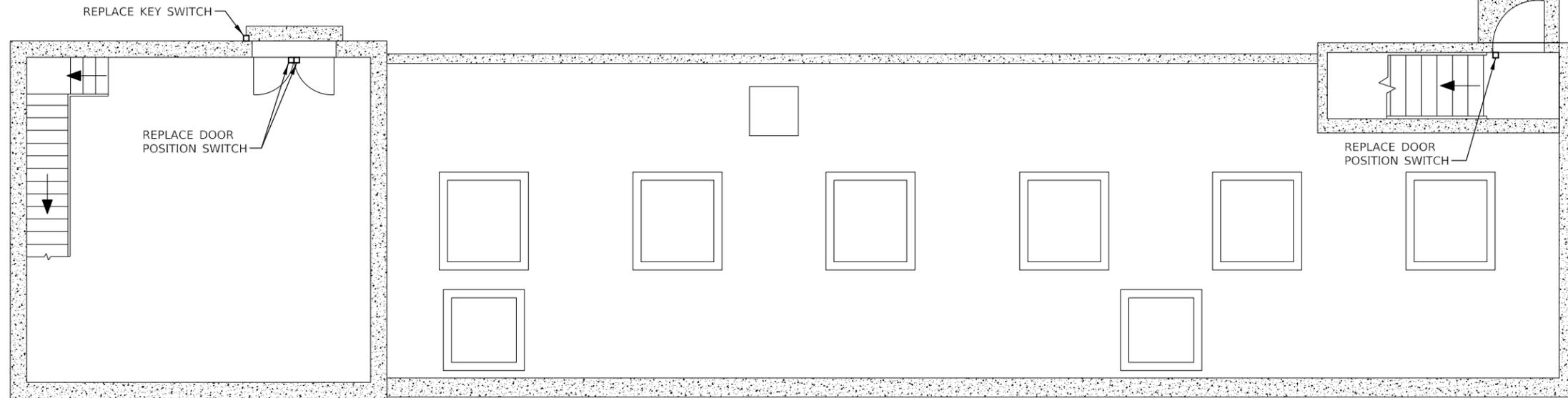
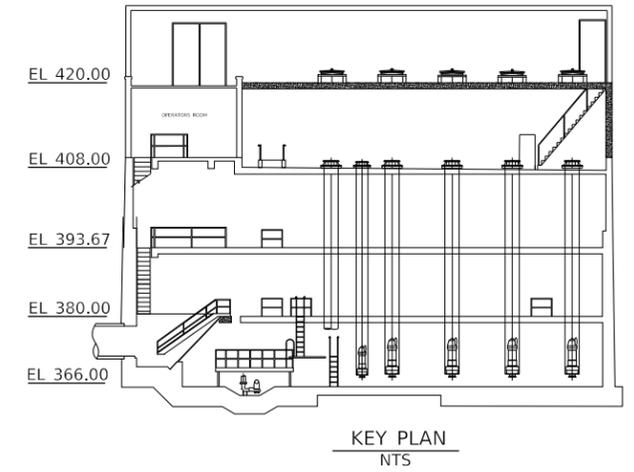
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GENERAL ELECTRICAL NOTES:

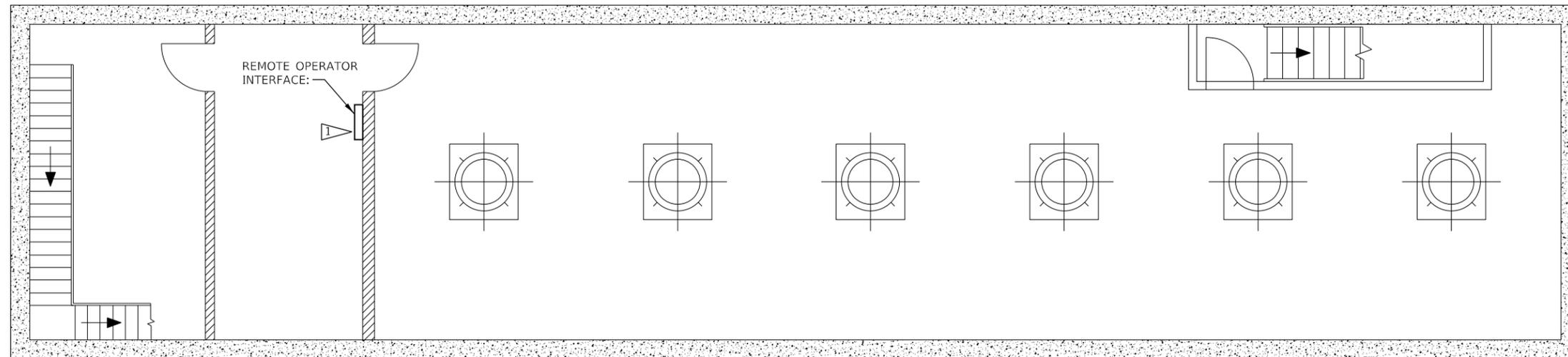
1. APPLICABLE STANDARDS: NFPA-70, NFPA-101, STATE BUILDING CODES, AND THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) OF 1971 AND ALL AMENDMENTS THERETO; EQUIPMENT, DEVICES, APPARATUS, SYSTEMS, AND INSTALLATIONS SHALL BE ENTIRELY SUITABLE AND SAFE FOR EACH INTENDED APPLICATION AND BE IN FULL COMPLIANCE WITH APPLICABLE STANDARDS, REQUIREMENTS, RULES, REGULATIONS, CODES, STATUTES, ORDINANCES, ETC. NOTHING CONTAINED IN THESE PLANS AND SPECIFICATIONS SHALL BE CONSTRUED TO CONFLICT WITH THESE LAWS, CODES, AND ORDINANCES.
2. DRAWINGS ARE SCHEMATIC AND SHOW APPROXIMATE LOCATIONS OF ELECTRICAL EQUIPMENT. EXACT LOCATIONS SHALL BE COORDINATED BY THE CONTRACTOR AND VERIFIED IN THE FIELD PRIOR TO ROUGH-IN.
3. INSTALLATIONS WHICH INCLUDE ELECTRICAL FIXTURES, DEVICES, CONDUIT, SWITCHES, PANELS, HANGERS, WIRE, CABLE, STANDARDS, ETC., MUST BE ENTIRELY SUITABLE FOR TEMPERATURES, HUMIDITY, DAMP AREAS, VOLTAGE, FREQUENCY, AND ALL INSTALLATION CONDITIONS ENCOUNTERED.
4. INSTALLATION MUST BE ENTIRELY SAFE IN EVERY RESPECT, AND MUST NOT CREATE ANY CONDITIONS OF ANY KIND WHICH WILL BE HARMFUL TO ANY OCCUPANT OF THE BUILDING. IF CONTRACTOR BELIEVES THAT INSTALLATION WILL NOT BE SAFE FOR ALL PEOPLE, HE/SHE SHALL SO REPORT IN WRITING TO ENGINEER BEFORE ANY EQUIPMENT IS PURCHASED OR WORK IS INSTALLED, GIVING EXACT RECOMMENDATIONS, AND REASONS FOR THEM.
5. GROUNDING: ALL GROUNDING SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC).
6. INSTALLATION OF ELECTRICAL DEVICES SHALL BE COORDINATED WITH OTHER TRADES AS NECESSARY TO PREVENT ANY CONFLICTS DURING CONSTRUCTION.
7. LOW VOLTAGE CONDUIT AND JUNCTION BOXES SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.
8. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS, ACCESSORIES, TOOLS, EQUIPMENT, TRANSPORTATION, LABOR, SERVICES AND OPERATIONS NECESSARY FOR A COMPLETE ELECTRICAL AND CONTROLS MODIFICATION SYSTEM.
9. ELECTRICAL CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ARRANGE FOR ALL INSPECTIONS REQUIRED BY STATE OR LOCAL AUTHORITIES.
10. MATERIALS MUST BE NEW, IN FIRST CLASS CONDITION.
11. CONDUIT SHALL BE SEPARATELY HUNG AND ANCHORED, FREE TO EXPAND AND CONTRACT QUIETLY, WITHOUT IMPOSING STRAINS ON STRUCTURE, DEVICES, AND EQUIPMENT. CONDUIT SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.

ELECTRICAL KEYED NOTES:
(APPLICABLE TO THIS SHEET ONLY)

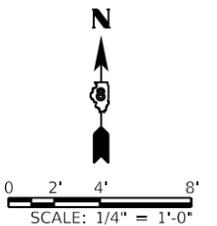
1. PROVIDE NEW CAT-6 CABLE FROM REMOTE OPERATOR INTERFACE TO MAIN CONTROL PANEL. UTILIZE EXISTING CONTROL CABLE ROUTING INCLUDING EXISTING CONDUITS.



PUMP STATION ELECTRICAL PLAN (EL 420.00)
1/4" = 1'-0"



PUMP STATION ELECTRICAL PLAN (EL 408.00)
1/4" = 1'-0"



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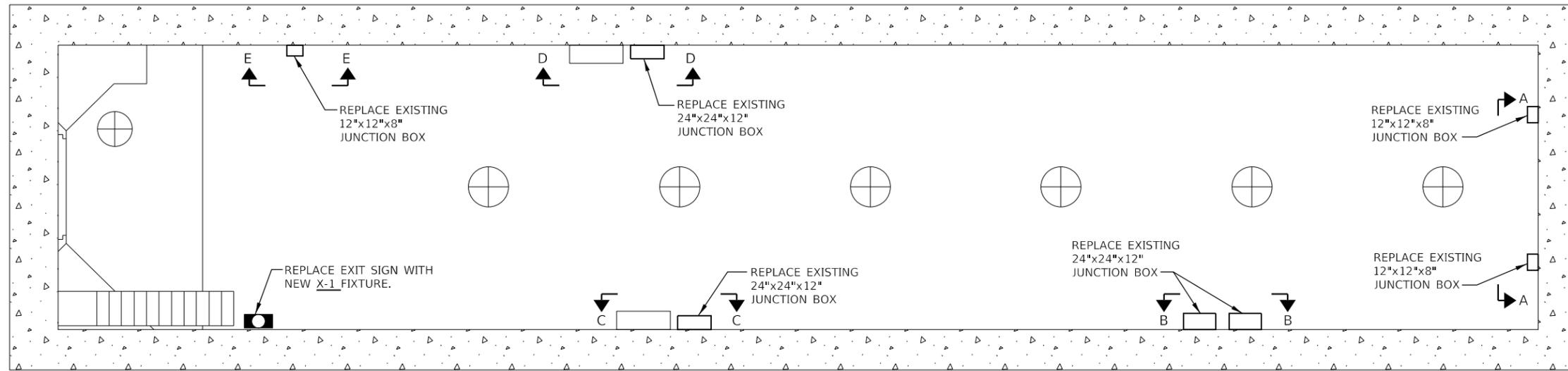
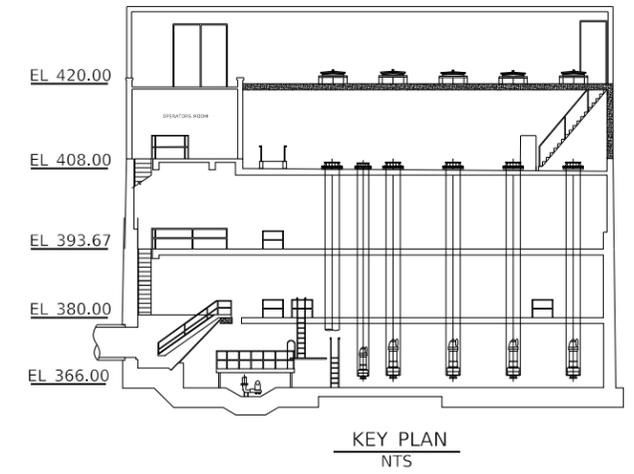
ELECTRICAL PLAN

SCALE: 1/4"=1'-0 SHEET OF SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1ELE-1	ST. CLAIR	6	3
CONTRACT NO. 76L85				
ILLINOIS FED. AID PROJECT				

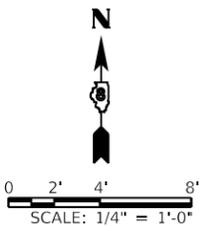
GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY QUANTITY AND ARRANGEMENT OF DIN RAIL AND TERMINAL STRIPS WITHIN EXISTING JUNCTION BOXES. REPLACEMENT JUNCTION BOXES SHALL CONTAIN DIN RAILS AND TERMINAL STRIPS MATCHING ORIGINAL CONFIGURATION.
2. WIRE WITHIN EXISTING JUNCTION BOXES SHALL BE CUT BACK 6 INCHES OR UNTIL COPPER SHOW NO SIGNS OF DETERIORATION BEFORE RE-TERMINATING WITHIN REPLACEMENT JUNCTION BOX.
3. REPLACE ALL WIRE LABELS WITHIN JUNCTION BOX.
4. EXCESS CABLE SHALL BE NEATLY COILED WITHIN JUNCTION BOX.



LIGHTING FIXTURE SCHEDULE

TAG	TYPE	MANUFACTURER	MODEL NUMBER	VOLTS	LUMENS	WATTS	LAMP	DISTRIBUTION	COLOR TEMP.	COMMENTS
X-1	WALL MOUNTED EXIT SIGN	COOPER	EX LITE ZE	120	N/A	6	LED	N/A	N/A	CLASS 1 DIVISION 2 RATED FIXTURE 90 MINUTE BACK-UP BATTERY
		EMERGI-LITE	GG-SVXNHZ-R-D			2	LED			
		LITHONIA	LZ-S-A-R-ELN-SD			4	LED			



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	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ELECTRICAL PLAN

SCALE: 1/4"=1'-0 SHEET OF SHEETS STA. TO STA.

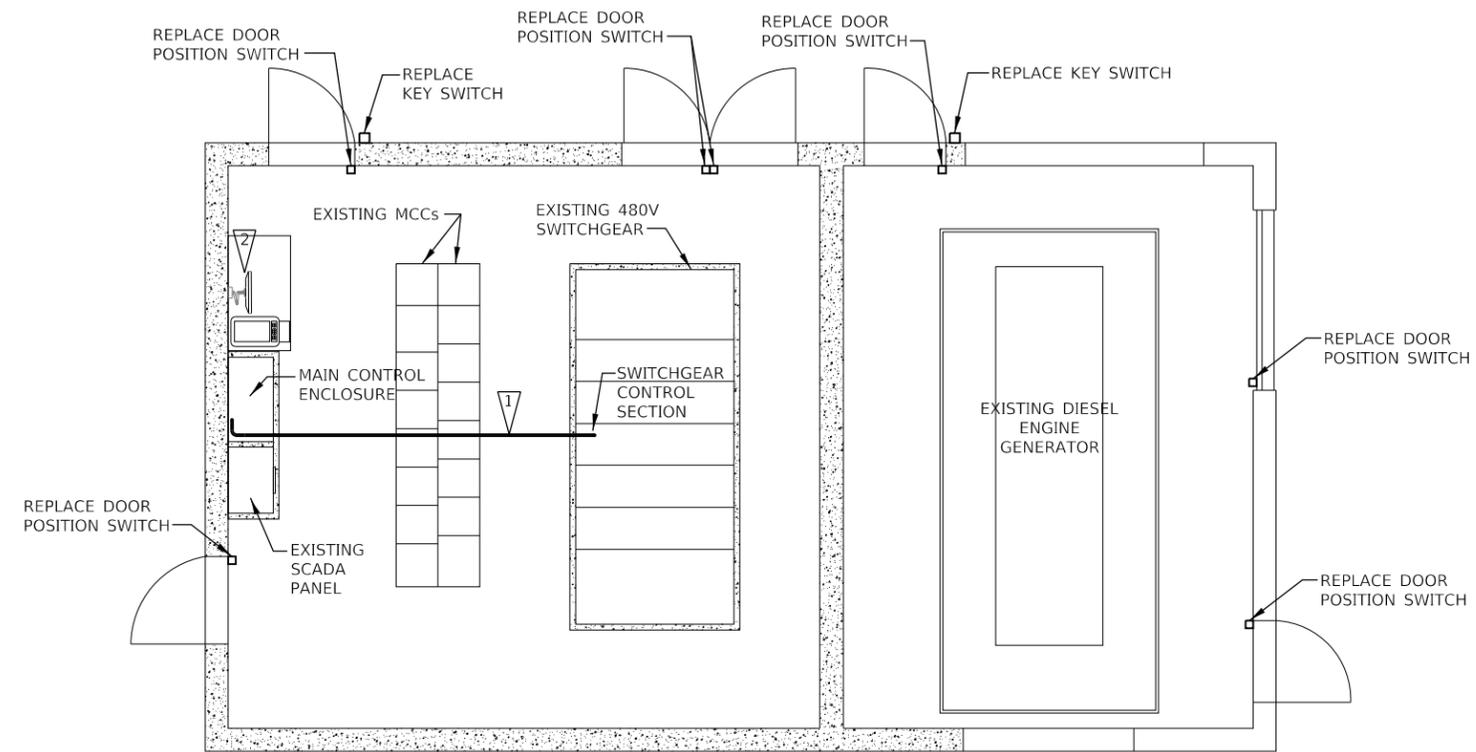
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70	82-2-1ELE-1	ST. CLAIR	6	4
CONTRACT NO. 76L85				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

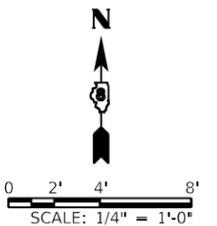
- SEE PROJECT MANUAL FOR CONTROL SYSTEM MODIFICATION INFORMATION.

ELECTRICAL KEYED NOTES:
(APPLICABLE TO THIS SHEET ONLY)

- PROVIDE (2) NEW 3/4" EMT CONDUITS BETWEEN SWITCHGEAR CONTROL SECTION AND MAIN CONTROL ENCLOSURE. PROVIDE NEW CAT-6 CABLE IN ONE CONDUIT AND A PULL STRING IN OTHER CONDUIT.
- SCADA COMPUTER SYSTEM TO BE REPLACED



ELECTRICAL ROOM ELECTRICAL PLAN
1/4" = 1'-0"



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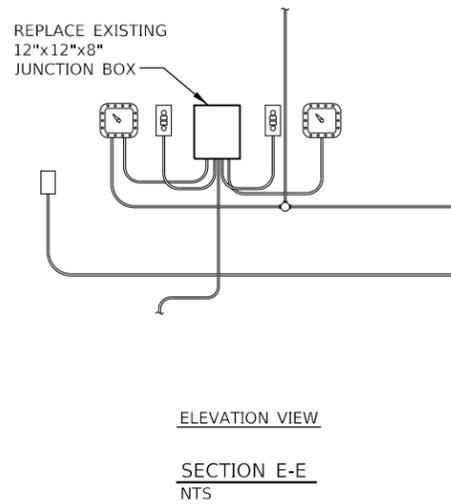
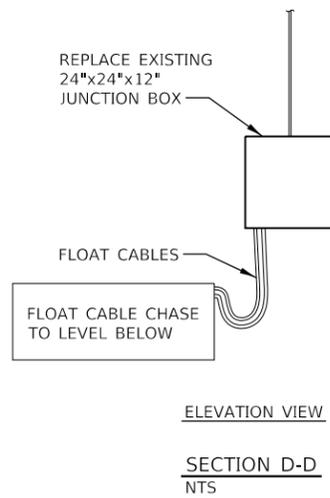
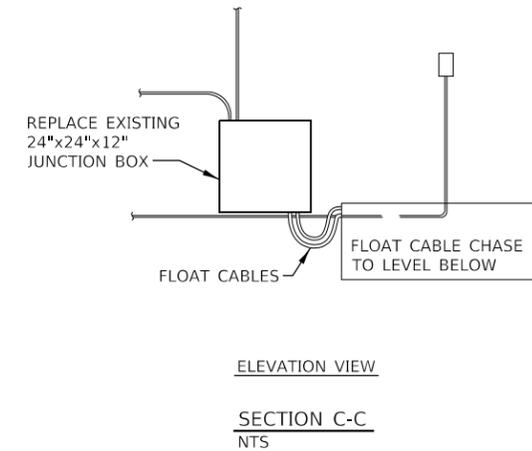
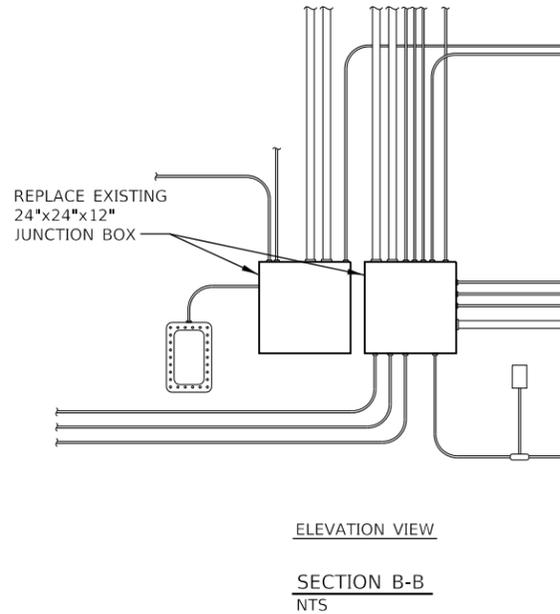
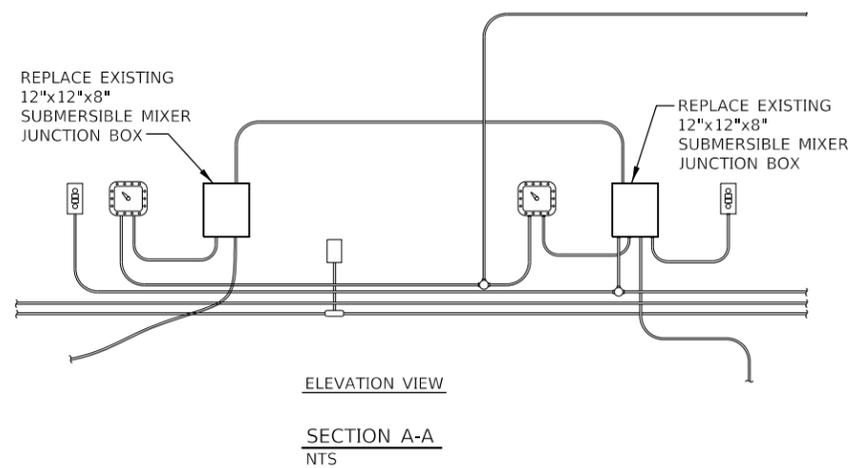
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ELECTRICAL PLAN

SCALE: 1/4"=1'-0 SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 76L85				
ILLINOIS FED. AID PROJECT				



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ELECTRICAL SECTIONS & DETAILS

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1ELE-1	ST. CLAIR	6	6
CONTRACT NO. 76L85				
ILLINOIS		FED. AID PROJECT		