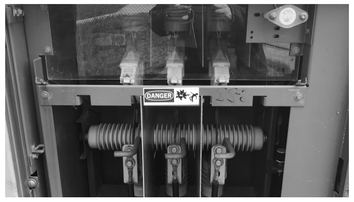
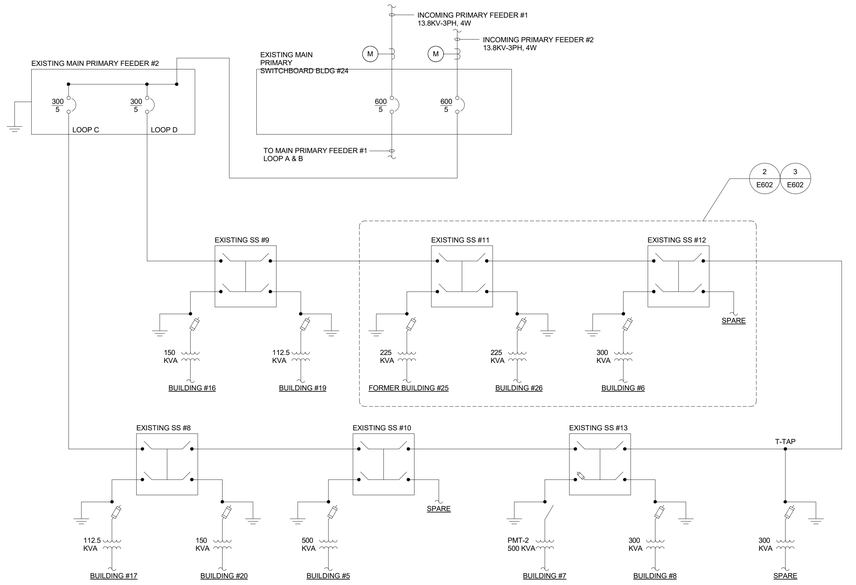

4 EXISTING SECTIONAL SWITCH, SS #11

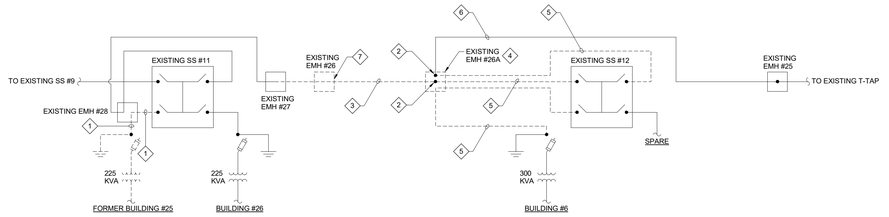
5 EXISTING SECTIONAL SWITCH, SS #12



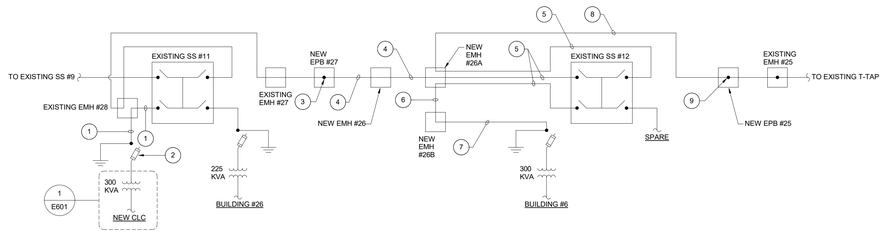

6 INTERIOR SECTIONAL SWITCH




1 EXISTING OVERALL SITE SINGLE LINE - 13.8KV-3PH-4W




2 DEMOLITION SS #11-12 SITE SINGLE LINE - 13.8KV-3PH-4W




3 RENOVATION SS #11-12 SITE SINGLE LINE - 13.8KV-3PH-4W

## SEQUENCE OF OPERATIONS

PHASE 1:

A. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE DEMOLITION/RENOVATION PLANS AND IDENTIFY ALL UNDERGROUND ROUTING OF NEW WORK ENSURING EXISTING INSTALLATION OF UNDERGROUND UTILITIES ARE NOT DISTURBED.

B. INSTALL NEW UNDERGROUND 13.8KV DUCTBANK FEEDERS FROM EXISTING SECTIONAL SWITCH (SS) #12 TO NEW ELECTRICAL MANHOLE (EMH) #26A. PREP AREA WHERE FINAL CONNECTION OF SS #12 IS TO BE MADE. DO NOT MAKE FINAL CONNECTION UNTIL SHUT DOWN OF SS #12 IS COMPLETED DURING PHASE 4. PROVIDE PULL CORD AS REQUIRED.

C. INSTALL NEW UNDERGROUND 13.8KV DUCTBANK FEEDERS FROM NEW EMH #26A TO NEW EMH#26B. PROVIDE PULL CORD AS REQUIRED.

D. INSTALL NEW UNDERGROUND 13.8KV DUCTBANK FEEDERS FROM NEW EMH #26B UP TO EXISTING BUILDING 6'S 300KVA PAD MOUNTED TRANSFORMER. PREP AREA WHERE FINAL CONNECTION OF BUILDING 6'S TRANSFORMER IS TO BE MADE. DO NOT MAKE FINAL CONNECTION UNTIL SHUT DOWN OF BUILDING 6'S TRANSFORMER IS COMPLETED DURING PHASE 4. PROVIDE PULL CORD AS REQUIRED.

E. INSTALL NEW UNDERGROUND 13.8KV DUCTBANK FEEDERS FROM NEW EMH #26A TO NEW FREESTANDING NEMA 4X ENCLOSURE, EPB #25 MOUNTED ON CONCRETE PAD AS SHOWN ON ES100. PREP AREA WHERE FINAL CONNECTION OF EMH #25 IS TO BE MADE. DO NOT MAKE FINAL CONNECTION UNIT SHUT DOWN OF LOOP C AND D ARE COMPLETED DURING PHASE 4. PROVIDE PULL CORD AS REQUIRED.

F. INSTALL NEW FREESTANDING NEMA 4X ENCLOSURE, EPB #27 MOUNTED ON CONCRETE PAD AS SHOWN ON ES100. INSTALL NEW UNDERGROUND 13.8KV DUCTBANK FEEDER ON BOTH SIDES TO CONNECT TO EXISTING AS REQUIRED.

G. INSTALL NEW UNDERGROUND 13.8KV DUCTBANK FEEDER FROM NEW EMH #26 TO NEW EPB #27. PROVIDE PULL CORD AS REQUIRED.

H. INSTALL NEW UNDERGROUND 13.8KV DUCTBANK FEEDER FROM NEW EMH #26 TO NEW EMH #26A. COORDINATE WITH CIVIL PLANS AND NEW UNDERGROUND TUNNEL. PROVIDE PULL CORD AS REQUIRED.

PHASE 2:

A. INSTALL NEW UNDERGROUND DUCTBANK FROM NEW 300KVA PAD MOUNTED TRANSFORMER TO EXISTING 225KVA PAD MOUNTED TRANSFORMER PREVIOUSLY SERVICING BUILDING #25. DO NOT MAKE FINAL CONNECTION UNTIL SHUT DOWN OF SS #11 IS COMPLETED DURING PHASE 4. PROVIDE PULL CORD AS REQUIRED.

B. INSTALL CONCRETE PAD AND 300KVA TRANSFORMER WITH INTEGRAL FUSE. SEE CIVIL PLANS FOR ADDITIONAL INFORMATION. ENSURE TRANSFORMER SWITCH/FUSE ARE IN THE "OFF" POSITION UNTIL NEW CLC IS READY FOR SERVICE.

PHASE 3:

A. CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE DIESEL GENERATOR FOR EACH BUILDING 6 AND 7 AND MAN THE OPERATIONS. GENERATOR WILL ACT AS NORMAL POWER DURING PHASE 4. VA'S EMERGENCY GENERATOR SHALL NOT BE USED FOR NORMAL WORKING ACTIVITIES. HOWEVER, MAY BE USED FOR CONTRACTOR PROVIDED GENERATOR INSPECTION PURPOSES ONLY. PROVIDE SUPERVISION, FUEL AND REQUIRED RECORD DOCUMENTATION DURING RUNTIME AND TESTING.

1) BUILDING 6'S TEMPORARY GENERATOR SHALL BE SIZED FOR A MINIMUM OF 400KVA OR 1000A WITH AT LEAST 96 HOURS OF FUEL TIME.

2) BUILDING 7'S TEMPORARY GENERATOR SHALL BE SIZED FOR A MINIMUM OF 720KVA OR 2000A WITH AT LEAST 96 HOURS OF FUEL TIME.

B. PREP AREA WHERE TEMPORARY CONNECTION WILL BE MADE IN BUILDING 6 UP TO THE SERVICE ENTRANCE EQUIPMENT. DO NOT MAKE CONNECTION UNTIL SHUT DOWN OF SS #12 IS COMPLETED DURING PHASE 4. PROVIDE PULL STRINGS AS REQUIRED.

C. PREP AREA WHERE TEMPORARY CONNECTION WILL BE MADE IN BUILDING 7 UP TO THE SERVICE ENTRANCE EQUIPMENT. DO NOT MAKE CONNECTION UNTIL SHUT DOWN OF SS #12 IS COMPLETED DURING PHASE 4. PROVIDE PULL STRINGS AS REQUIRED.

PHASE 4:

A. COORDINATE ELECTRICAL SERVICE SHUT DOWN OF LOOP C AND D WITH THE VA COR. CONTRACTOR SHALL PROVIDE A PLAN IN WRITTEN FORM FOR APPROVAL FROM THE COR. CONTRACTOR SHALL COORDINATE AT LEAST THREE (3) MONTHS PRIOR WITH THE VA COR FOR ACTUAL SHUT DOWN. ONLY (1) ONE SHUT DOWN WILL BE ACCEPTABLE. CONTRACTOR SHALL ENSURE SUFFICIENT STAFFS (A MINIMUM OF A TWO-MAN CREW AT EACH AFFECTED MANHOLE) SHALL BE PROVIDED ON SITE TO MINIMIZE SHUT DOWN DURATION. COMPLETION OF WORK DURING SHUT DOWN SHALL BE DONE OVER ONE WEEKEND AND MUST NOT EXCEED TWO DAYS.

B. CONTRACTOR SHALL TEMPORARILY DISCONNECT NORMAL SERVICE IN EXISTING SERVICE ENTRANCE EQUIPMENT SERVICING BUILDING 6 AND MAKE CONNECTION FROM TEMPORARY GENERATOR TO EXISTING SERVICE ENTRANCE EQUIPMENT. START UP GENERATOR, ENSURE BUILDING IS FULLY FUNCTIONING.

C. CONTRACTOR SHALL TEMPORARILY DISCONNECT NORMAL SERVICE IN EXISTING SERVICE ENTRANCE EQUIPMENT SERVICING BUILDING 7 AND MAKE CONNECTION FROM TEMPORARY GENERATOR TO EXISTING SERVICE ENTRANCE EQUIPMENT. START UP GENERATOR, ENSURE BUILDING IS FULLY FUNCTIONING.

D. SEVER LOOP C AND D AT EXISTING EMH #26A. PULL BACK 13.8KV FEEDERS FROM EXISTING EMH #26A TO EXISTING EMH #27. ON THE OTHER SIDE, PULL BACK 13.8KV FEEDERS FROM EMH #26A TO EXISTING EMH #25. DEMOLISH ASSOCIATED DUCTBANK AS REQUIRED.

E. DISCONNECT CONNECTION OF UNDERGROUND 13.8KV FEEDER FROM SS #12 AND BUILDING 6'S TRANSFORMER. DEMOLISH ASSOCIATED DUCTBANK AS REQUIRED.

F. REMOVE EXISTING 225KVA PAD MOUNTED TRANSFORMER PREVIOUSLY SERVICING DEMOLISHED BUILDING #25. REMOVE EXISTING CONDUCTORS FROM EXISTING 225KVA PAD MOUNTED TRANSFORMER TO EXISTING SS #11 VIA EXISTING ELECTRICAL MANHOLE #28. ENSURE EXISTING CONCRETE ENCASED DUCTBANK IS PROTECTED TO BE REUSED. EXTEND EXISTING DUCTBANK TO NEW DUCTBANK AS SHOWN ON ES100. PULL NEW CONDUCTORS AS REQUIRED FROM EXISTING SS #11 TO NEW CLC'S TRANSFORMER LOCATION.

G. BORE EXISTING ELECTRICAL MANHOLES #27 AND #25 AS SHOWN ON SHEET ES100.

H. MAKE FINAL CONNECTION AND PULL NEW CONDUCTORS AT THE FOLLOWING LOCATION:

1) EXISTING EMH #27 TO NEW EPB #27.

2) NEW EPB #27 TO NEW EMH #26.

3) NEW EMH #26 TO NEW EMH #26A.

4) NEW EMH #26A TO NEW EPB #25.

5) NEW EPB #25 TO EXISTING EMH #25.

6) EXISTING SS #12 TO NEW EMH #26A.

7) NEW EMH #26A TO NEW EMH #26B.

8) NEW EMH #26B TO EXISTING BUILDING 6'S 300KVA TRANSFORMER.

9) EXISTING SS #11 TO NEW 300KVA PAD MOUNTED TRANSFORMER. ENSURE TRANSFORMER FUSE IS IN THE OFF POSITION UNTIL NEW CLC IS READY FOR SERVICE.

## SINGLE-LINE GENERAL NOTES

A. REFER TO COR FOR ELECTRICAL SERVICE REQUIREMENT FOR COORDINATION WITH INSTALLATION OF TRANSFORMER AND METERING EQUIPMENT.

B. EXISTING SINGLE-LINE ARE BASED ON EXISTING DRAWINGS PROVIDED BY THE VA. CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS PRIOR TO DISTURBING EXISTING INSTALLATION.

## (X) DEMO SINGLE-LINE KEYNOTES

1. EXISTING CONCRETE DUCTBANK TO REMAIN TO BE REUSED FOR NEW WORK AS DIRECTED BY THE VA. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE FILL CAPACITY AND THE EXISTING DUCTBANK/CONDUITS ARE IN CURRENT CODE COMPLIANT CONDITION FOR REUSE. REMOVE EXISTING CONDUCTORS PREVIOUSLY SERVICING DEMOLISHED BUILDING #25'S TRANSFORMER. PREP AREA IN EXISTING EMH #28 AND SS #11 FOR CONNECTION OF NEW WORK.
2. SEVER EXISTING 13.8KV CONDUCTOR IN EXISTING EMH #26A.
3. PULL BACK EXISTING 13.8KV CONDUCTORS FROM EXISTING EMH #26A TOWARDS EXISTING EMH #27. DEMOLISH ASSOCIATED CONCRETE ENCASED DUCTBANK AS REQUIRED. SEE ED100 FOR ADDITIONAL INFORMATION.
4. EXISTING EMH #26A TO BE DEMOLISHED AND MADE NEW AT RELOCATED LOCATION. SEE RENOVATION SINGLE-LINE FOR ADDITIONAL INFORMATION.
5. REMOVE EXISTING DUCTBANK FEEDER AND ASSOCIATE CONDUCTORS FROM EXISTING EMH #26A TO EXISTING SS #12. PREP AREA IN EXISTING SS #12 FOR CONNECTION OF NEW WORK.
6. PULL BACK EXISTING 13.8KV CONDUCTOR FROM EXISTING EMH #26A TO EXISTING EMH #25.
7. EXISTING EMH #26 TO BE DEMOLISHED AND MADE NEW AT RELOCATED LOCATION. SEE RENOVATION SINGLE LINE FOR ADDITIONAL INFORMATION.

## (X) RENO SINGLE-LINE KEYNOTES

1. PROVIDE NEW 3-1/C 15KV SHIELD, #1/0 & 1-1/0 THW 600V GRD IN EXISTING DUCTBANK FROM EXISTING SS#11 VIA EXISTING ELECTRICAL MANHOLE #28 TO NEW PAD MOUNTED TRANSFORMER. EXTEND DUCTBANK AS REQUIRED TO NEW PAD MOUNTED TRANSFORMER LOCATION.
2. PROVIDE 13.8KV, 80A RATED FUSE WITHIN NEW 300KVA PAD MOUNTED TRANSFORMER.
3. EXTEND EXISTING CONDUCTOR PULLED BACK DURING DEMOLITION. MAKE CONNECTION IN NEW FREESTANDING NEMA 4X ENCLOSURE, EPB #27 TO NEW CONDUCTOR.
4. PROVIDE NEW 3-1/C 15KV SHIELD, #1/0 & 1-1/0 THW 600V GRD IN NEW DUCTBANK FROM NEW EPB #27 TO NEW EMH #26A VIA NEW EMH #26.
5. PROVIDE NEW 3-1/C 15KV SHIELD, #1/0 & 1-1/0 THW 600V GRD IN NEW DUCTBANK FROM NEW EMH #26A TO EXISTING SS #12.
6. PROVIDE NEW 3-1/C 15KV SHIELD, #1/0 & 1-1/0 THW 600V GRD IN NEW DUCTBANK FROM NEW EMH #26A TO NEW EMH #26B.
7. PROVIDE NEW 3-1/C 15KV SHIELD, #1/0 & 1-1/0 THW 600V GRD IN NEW DUCTBANK FROM NEW EMH #26B TO EXISTING 300KVA PAD MOUNTED TRANSFORMER SERVICING BUILDING 6.
8. PROVIDE NEW 3-1/C 15KV SHIELD, #1/0 & 1-1/0 THW 600V GRD IN NEW DUCTBANK FROM NEW EMH #26A TO NEW EPB #25.
9. EXTEND EXISTING CONDUCTOR PULLED BACK DURING DEMOLITION. MAKE CONNECTION IN NEW FREESTANDING NEMA 4X ENCLOSURE, EPB #25 TO NEW CONDUCTOR.

| Revisions: | Date: |
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05/09/2022

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