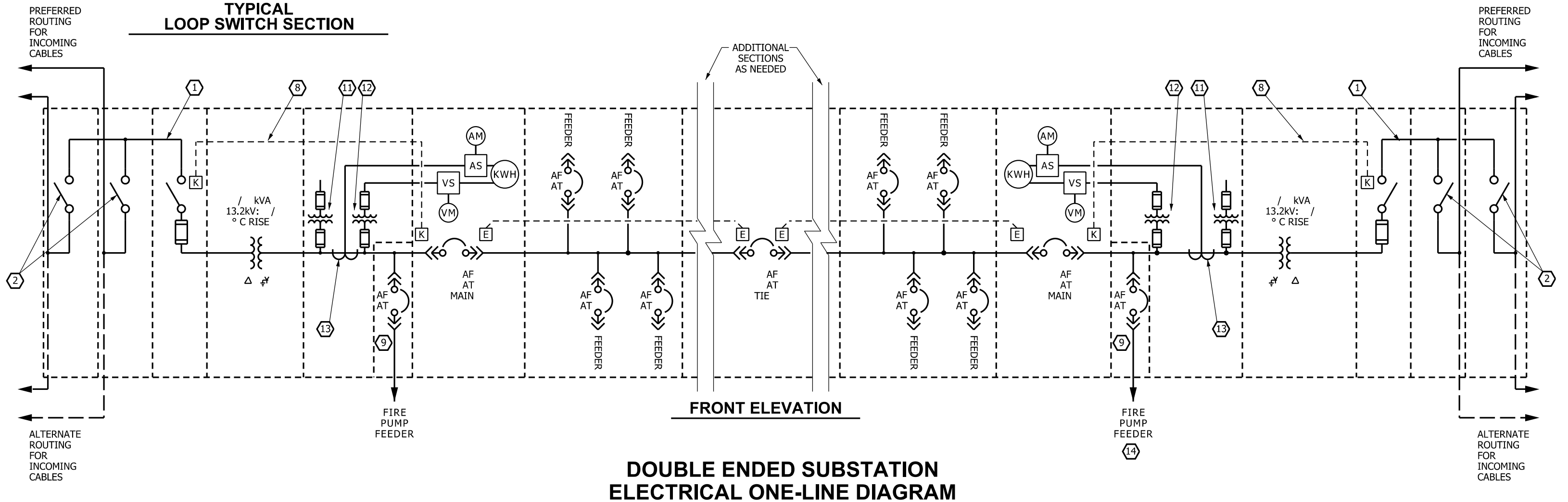


**TYPICAL LOOP SWITCH SECTION**

**NOTES:**

- ① MEDIUM VOLTAGE "THRU" BUS
- ② DISCONNECT SWITCH
- ③ BARRIERS TO COMPLETELY ISOLATE CABLE COMPARTMENT FROM MAIN BUS.
- ④ NON-METALLIC CABLE SUPPORT BRACKET
- ⑤ COMPRESSION LUGS FOR OVERHEAD OR BELOW GRADE CABLE CONNECTIONS (NEMA STANDARD 2 HOLE)
- ⑥ "BUS RUN BACK"
- ⑦ GROUND BUS, CONTINUOUS THROUGHOUT SUBSTATION.
- ⑧ KIRK KEY MAIN INTERLOCK
- ⑨ THE FIRE PUMP DISCONNECTING MEANS SHALL BE IN A DEDICATED FULLY-BARRIERED VERTICAL SECTION.
  - \* PAINT THE ENCLOSURE RED
  - \* THE BREAKER SHALL BE CAPABLE OF BEING LOCKED IN THE CLOSED (ON) POSITION
  - \* CONCEAL CIRCUIT BREAKER TRIP BUTTONS BEHIND CUBICLE DOOR, OR PROVIDE COVERS OVER TRIP BUTTONS TO PREVENT INADVERTENT TRIPS
  - \* EQUIP WITH A REDUCED ENERGY LET-THROUGH FEATURE, TO REDUCE ARC FLASH HAZARD DURING FIRE PUMP CONTROLLER MAINTENANCE
  - \* EQUIP WITH AN AUXILIARY DRY CONTACT TO CHANGE STATE WHEN THE BREAKER HAS BEEN OPENED, FOR REMOTE SUPERVISORY MONITORING BY THE BUILDING MANAGEMENT SYSTEM (BMS)
  - \* THE CELL POSITION SHALL BE MONITORED BY THE BMS, TO CHANGE STATE WHEN THE BREAKER HAS BEEN WITHDRAWN FROM THE CUBICLE
  - \* THE BREAKER SHALL ALARM ONLY (NOT TRIP) UPON DETECTION OF A GROUND FAULT
  - \* THE KEY FOR THE FIRE PUMP CIRCUIT BREAKER LOCK SHALL BE STORED IN A KEY BOX WITHIN THE SUBSTATION ROOM. UM UTILITIES WILL PROVIDE THE KEY BOX.
- ⑩ PHASING THROUGHOUT SHALL BE: X, Y, Z (A, B, C) LEFT TO RIGHT, TOP TO BOTTOM AND/OR FRONT TO BACK.
- ⑪ IF SECONDARY VOLTAGE IS GREATER THAN 208/120 VOLTS, PROVIDE CONTROL POWER TRANSFORMER (CPT) WITH PRIMARY AND SECONDARY FUSES.
- ⑫ IF SECONDARY VOLTAGE IS GREATER THAN 208/120 VOLTS, PROVIDE POTENTIAL TRANSFORMER FOR METERING WITH PRIMARY AND SECONDARY FUSES.
- ⑬ SEE SPECIFICATIONS FOR SPECIAL CT, AMMETER AND KWH METER REQUIREMENTS.
- ⑭ IN SCENARIOS IN WHICH AN ON-SITE GENERATOR IS AVAILABLE, THE ALTERNATE SOURCE OF POWER SHALL BE THE GENERATOR AND THIS SECOND FIRE PUMP FEEDER SECTION IS NOT REQUIRED. CONFIRM WITH UM PROJECT ENGINEER AND UM UTILITIES.



**DOUBLE ENDED SUBSTATION ELECTRICAL ONE-LINE DIAGRAM**

NO SCALE

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