

**RELEASE FOR BID**  
Not For Construction  
15-Jul-20

CITY OF GLENWOOD SPRINGS  
GLENWOOD SPRINGS, COLORADO

**CARDNELL SUBSTATION**  
ONE-LINE/SWITCHING DIAGRAM

No	Date	Drawn	Designed	Checked	Revisions	Proj. No.
0	10/31/19	APG	JMB	DKD	ORIGINAL ISSUE	419-821
1	2/21/2020	LLC	JMB	CT	ARRESTOR CORRECTION	419-821
2						
3						
4						
5						
6						
7						

APPROVED BY:  
JMB

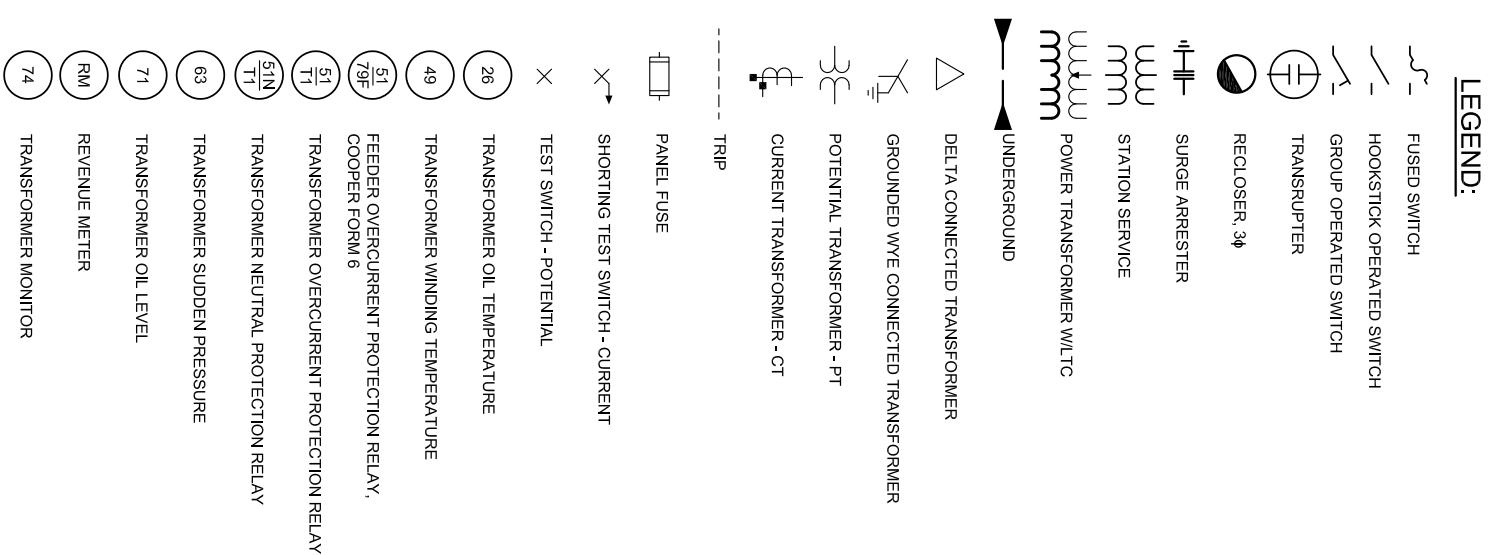


NONE



FORT COLLINS COLORADO  
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**CN-W100**

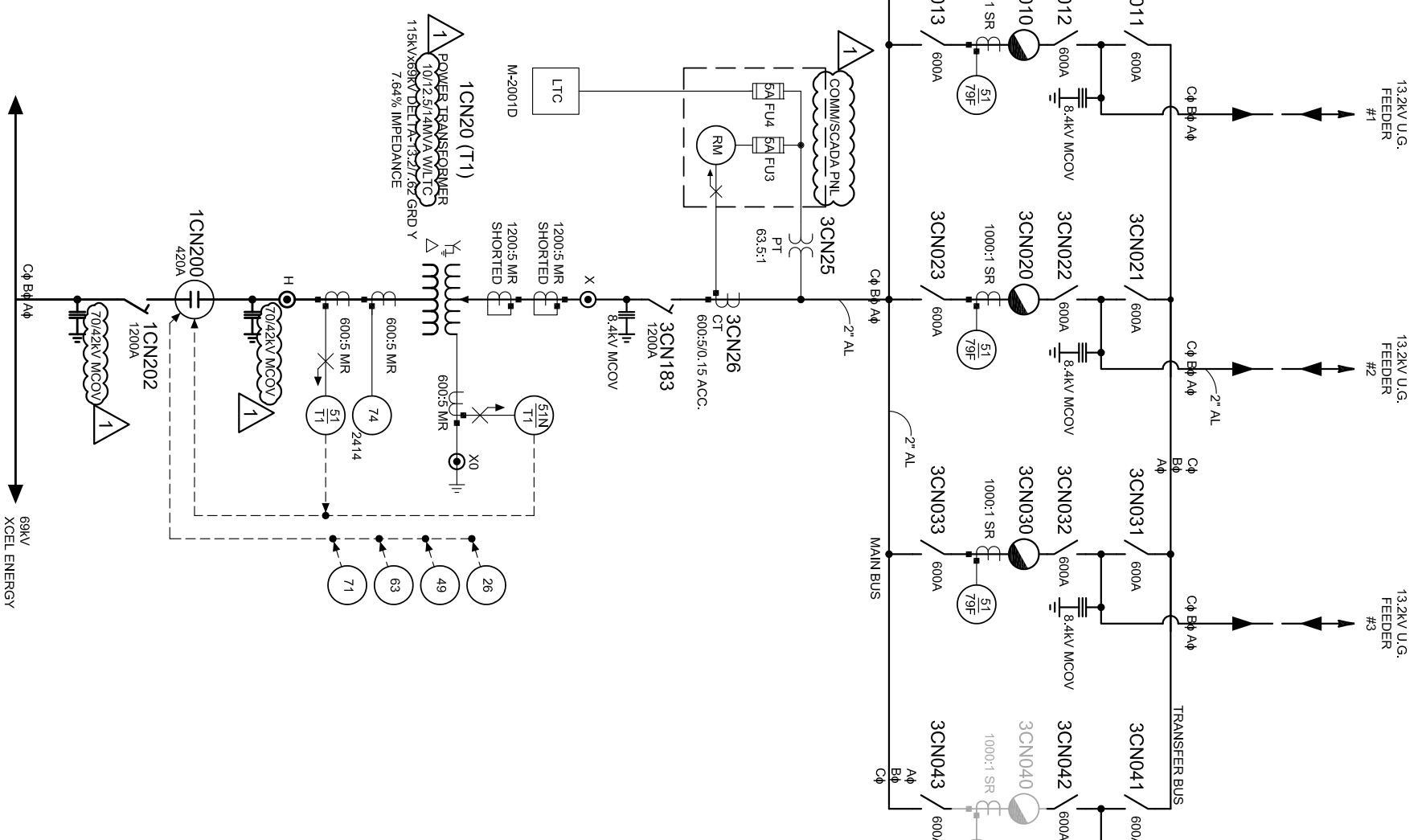


**LEGEND:**

- FUSED SWITCH
- HOOKSTICK OPERATED SWITCH
- GROUP OPERATED SWITCH
- RECLOSER, 3Φ
- SURGE ARRESTER
- STATION SERVICE
- POWER TRANSFORMER WLTTC
- UNDERGROUND
- DELTA CONNECTED TRANSFORMER
- GROUNDED WYE CONNECTED TRANSFORMER
- POTENTIAL TRANSFORMER - PT
- CURRENT TRANSFORMER - CT
- TRIP
- PANEL FUSE
- SHORTING TEST SWITCH - CURRENT
- TEST SWITCH - POTENTIAL
- TRANSFORMER OIL TEMPERATURE
- TRANSFORMER WINDING TEMPERATURE
- FEEDER OVERCURRENT PROTECTION RELAY, COOPER FORM 6
- TRANSFORMER OVERCURRENT PROTECTION RELAY
- TRANSFORMER NEUTRAL PROTECTION RELAY
- TRANSFORMER SUDDEN PRESSURE
- TRANSFORMER OIL LEVEL
- REVENUE METER
- TRANSFORMER MONITOR

**DEVICE KEY:**

- 0 - BREAKER/RECLOSER/
  - 1 - BYPASS SWITCH
  - 2 - LINE DISCONNECT SWITCH
  - 3 - BUS DISCONNECT SWITCH
  - 4 - TRANSFER SWITCH
  - 5 - BUS TO BUS DISCONNECT SWITCH
  - 6 - TRANSFORMER DISCONNECT SWITCH
  - 7 - FUSED DISCONNECT SWITCH
  - 8 - CAPACITOR DISCONNECT SWITCH
- LOCATION OR CIRCUIT NUMBER
- 00 - 17 - CIRCUIT NUMBERS
  - 18 - TRANSFORMER BAY
  - 19 - TIE BAY
  - 20 - TRANSFORMER
  - 21 - REGULATOR
  - 22 - HIGH VOLTAGE BUS
  - 23 - LOW VOLTAGE BUS
  - 24 - AMR
  - 25 - BUS PT
  - 26 - BUS CT
  - 27 - STATION SERVICE
- SUBSTATION
- CN - CARDNELL
- VOLTAGE
- 1 - TRANSMISSION (115KV)
  - 2 - TRANSMISSION (69KV)
  - 3 - DISTRIBUTION (13.2KV)



69KV XCEL ENERGY