

SNAP (25 kW or Less)

REVISED 1/2021

Golden Valley Electric Association, Inc.
758 Illinois Street
Fairbanks, AK 99701
New Construction Phone: (907) 458-5870

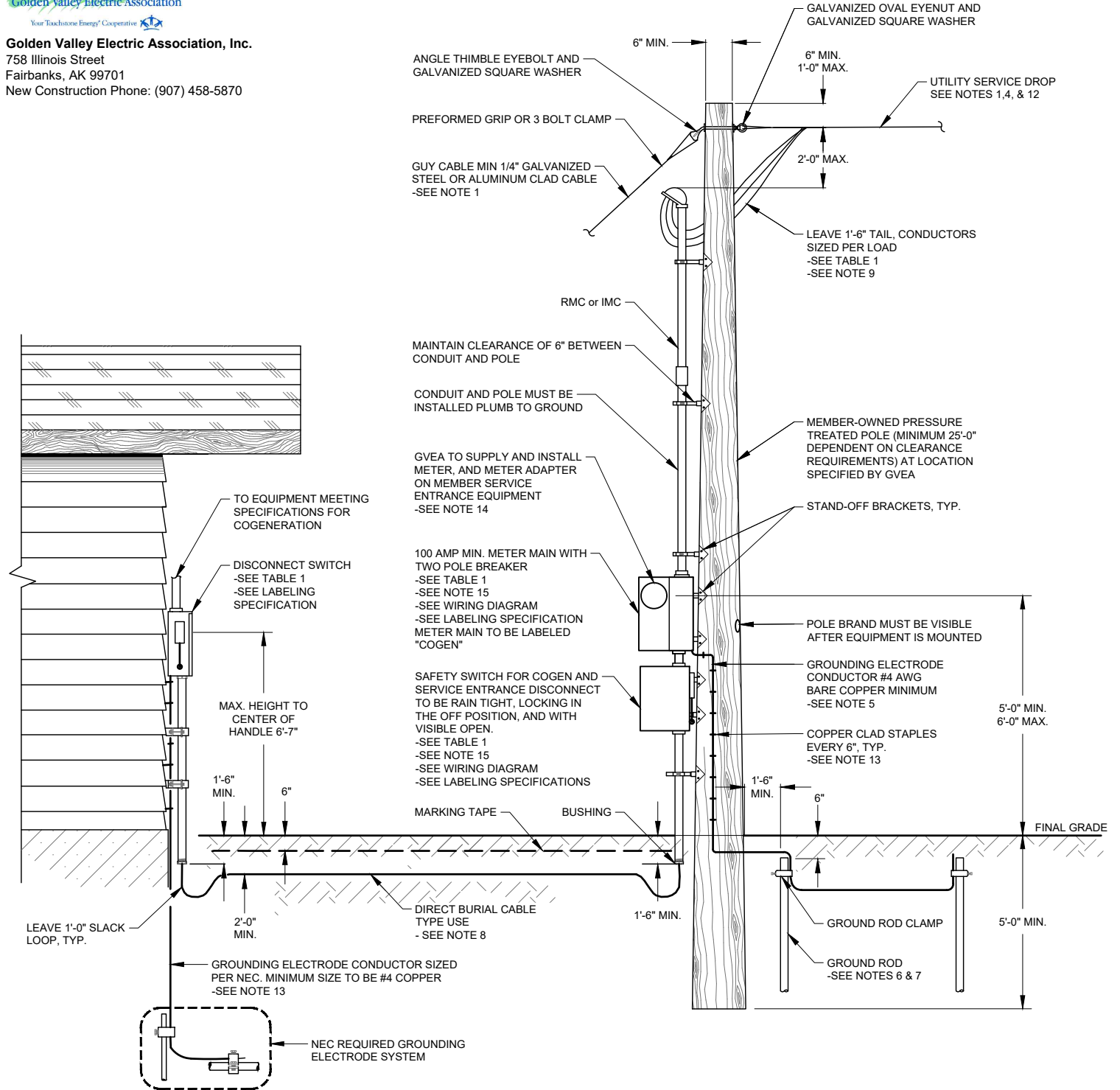
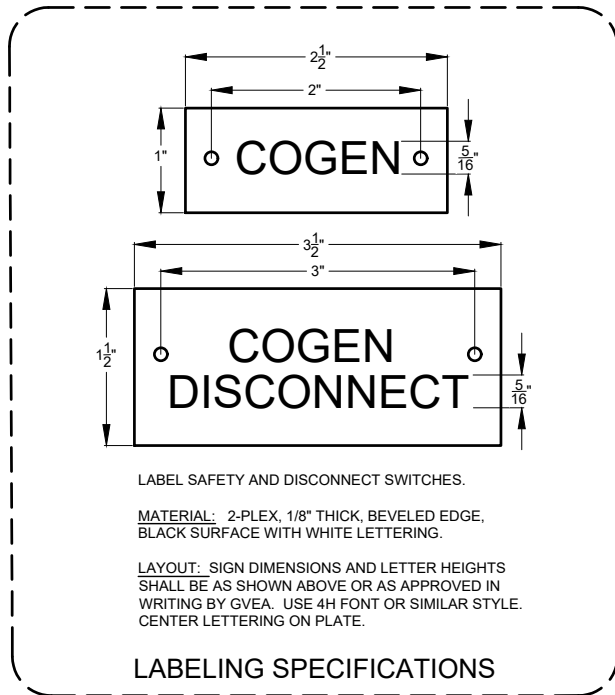


TABLE 1. SERVICE, WIRE, CONDUIT, AND BREAKER SIZE

WIRE MUST BE COPPER									
MINIMUM SERVICE ENTRANCE CONDUCTOR SIZE	MINIMUM SERVICE ENTRANCE CONDUIT SIZE	SERVICE ENTRANCE RATING	SERVICE ENTRANCE BREAKER RATING	SAFETY SWITCH RATING	MINIMUM FEEDER SIZE TO MEMBER'S SNAP EQUIPMENT	DISCONNECT SWITCH RATING	MINIMUM FEEDER CONDUIT SIZE	MINIMUM GROUNDING ELECTRODE CONDUCTOR SIZE	MINIMUM EQUIPMENT GROUNDING CONDUCTOR SIZE
#3/0 COPPER	2" SEE NOTE 2	200 Amp	200 Amp	200 Amp	#3/0 COPPER	200 Amp	2"	#4 COPPER	#6 COPPER
#2 COPPER	1 1/4" SEE NOTE 2	100 Amp	100 Amp	100 Amp	#2 COPPER	100 Amp	1-1/4"	#4 COPPER	#8 COPPER
#2 COPPER	1 1/4" SEE NOTE 2	100 Amp	60 Amp	60 Amp	#6 COPPER	60 Amp	1-1/4"	#4 COPPER	#10 COPPER
#2 COPPER	1 1/4" SEE NOTE 2	100 Amp	30 Amp	30 Amp	#10 COPPER	30 Amp	1-1/4"	#4 COPPER	#10 COPPER

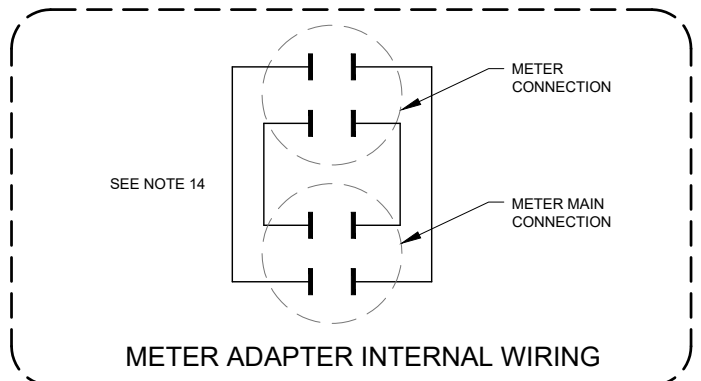
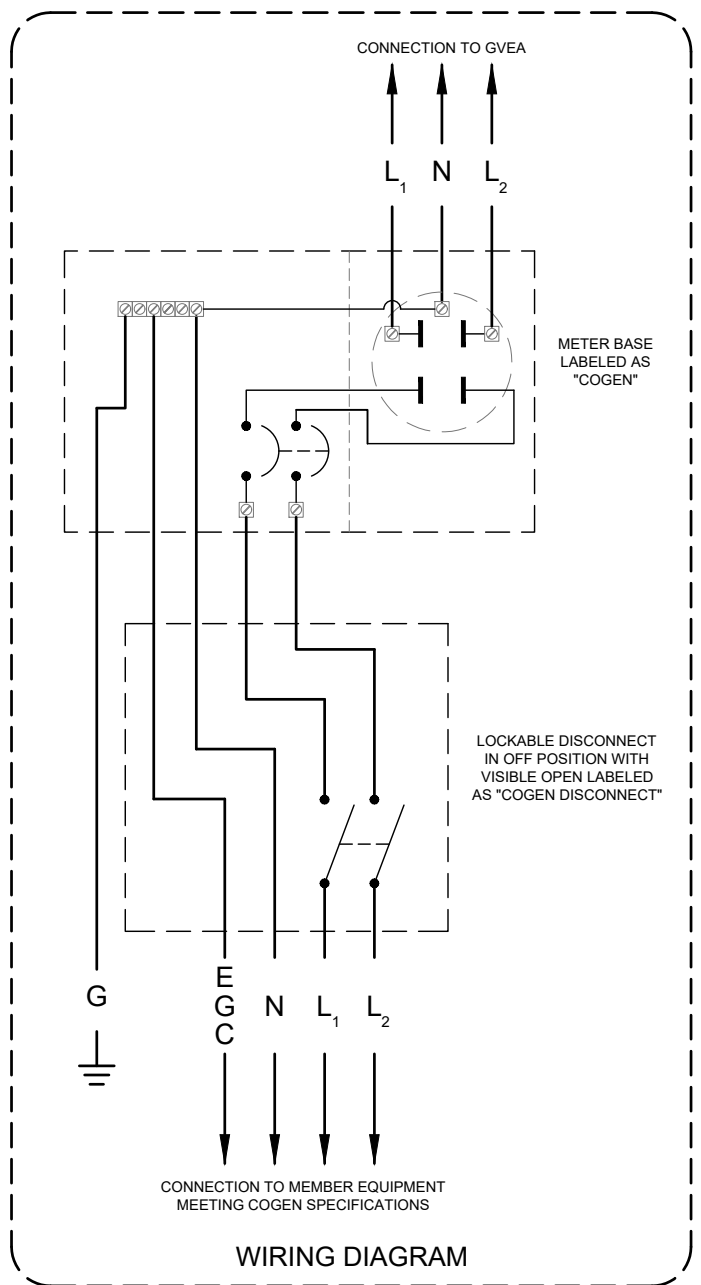
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NOTES:

1. If service drop exceeds 50'-0", pole must be guyed. Service drop shall not exceed 150'-0". See GVEA guying details.
2. Telephone drop must be more than 1'-0" (vertical clearance) below power cable at all points. See NESC 235C1, Exception 3.
3. Use of split bolts is not allowed.
4. Members must provide and maintain a minimum 4'-0" wide clearing, free from vegetation that may grow into overhead service drop conductors, between the service entrance and the GVEA pole.
5. Grounding electrode conductor shall be connected to the neutral at the service enclosure disconnect and the NEC compliant grounding electrode system.
6. Approved copper-clad ground rod, 8'-0" x 5/8" dia. min., with approved connector, driven into undisturbed earth. Leave exposed for inspection in 1'-0" deep hole.
7. All grounding must meet current NEC requirements.
8. Conductors or cables under drivable areas shall be placed in conduit. Equipment grounding conductor to distribution panel(s) required. See NEC 250.32(B).
9. Conductor insulation shall be type XHHW or RHW.
10. Minimum pole length shall be 25'-0".
11. In order to be approved for a connection to Golden Valley's system, the member's actual installation must correspond to a reviewed set of construction plans that shall be submitted on an "Electrical Load Data and Electrical Print" form. See page 3 of Golden Valley's "Electrical Service Requirements for Commercial and Multi-Residential Installations" Booklet or contact the Engineering Services Department.
12. Meter poles are to be placed a minimum of 20'-0" from primary lines.
13. If the grounding electrode conductor is exposed to physical damage it shall be run in conduit securely fastened to the pole. See NEC 250.64(B).
14. Meter adapter used to adapt standard service entrance equipment to SNAP application. GVEA to supply and install this adapter.
15. All service entrance breakers shall be suitable for use as service equipment as per NEC 2008, 225.36 and 230.66.
16. The installation of a SNAP system on facilities with a primary meter, non-self contained meter, or service entrance capacity over 200A requires the submission and approval of drawings prepared by a Professional Engineer licensed in Alaska.
17. SNAP Plus Photovoltaic Systems must meet Rapid Shutdown requirements NEC 690.12 and 690.56.



SNAP One-Line

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Completed by GVEA

GVEA
 Existing Drop/Lateral _____ [Yes/No]
 Existing Drop Conductor Size _____ [AWG]
 Drop Length _____ [Feet]
 Existing Transformer Size _____ [kVA or None]
 Overhead/Underground _____

SNAP Service Entrance (not detented)
 Rating _____ [Amps] (100 Amp Minimum)
 Installation Method _____
 [Overhead/Underground]
 Overcurrent Device _____ [Breaker/Fuse]
 Overcurrent Device Rating _____ [Amps]
 Interrupt Rating (AIC) _____ [Amps]

Safety Switch
 Switch Rating _____ [Amps]
 (As Overcurrent Device Rating or Grater)
 Lockable, Visible Open _____ [Yes/No]
 Fused Rating (If Used) _____ [Yes/No]

Inverter
 Manufacturer _____
 Model _____
 L-L Output Voltage _____ [VAC]
 Number of Units _____
 Nominal Rating _____ [Watts, Each]
 Total Rating _____ [Watts, Total]
 UL 1741 Certified? _____ [Yes/No]

Renewable Generation Unit
 Manufacturer _____
 Model _____
 Number of Units/Panels _____
 Nominal Rating _____ [Watts, Each]
 Total Rating _____ [Watts, Total]
 Rated Peak Power Output _____ MPH Wind Speed
 Generation Site _____ EST Wind Speed at Location

- Provide All Applicable Information
- Add Details for Additional/Optional Equipment (i.e. Transformers)
- (Use Separate Sheet for Different Unit Types)

SNAP Service Entrance Conductors
 Conductor Size, Line _____ [AWG]
 Conductor Size, Neutral _____ [AWG]
 Conduit Size _____
 Conductor Length _____ [Feet]
 Conduit Type _____

SNAP Safety Switch Conductors
 Conductor Size, Line* _____ [AWG]
 Conductor Size, Neutral* _____ [AWG]
 Conductor Size, EGC _____ [AWG]
 Conduit Size _____
 Conductor Length _____ [Feet]

SNAP Feeder Conductors
 Conductor Size _____ [AWG]
 Conductor Type _____ [Cu/Al]
 Conductor Insulation _____
 Conductor Size, EGC _____ [AWG]
 Installation Method _____
 [Overhead/Underground]

#4 Cu GEC To Approved Grounding System (size Per NEC)

*SAME AS SERVICE ENTRANCE CONDUCTORS IF OVERCURRENT DEVICE LOCATED AT SAFETY SWITCH.

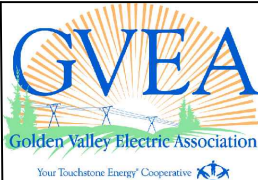
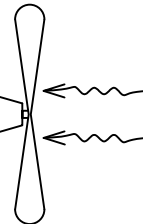
NOTE: The use of Micro Inverters meets the requirements of NEC 690.12.

NOTE: Disconnect means per NEC 690.13 and 690.15.

NOTE: Disconnect means per NEC 694.20 and 694.22.

Rapid Shutdown Switch

Rapid Shutdown Initiator



Member Name _____
 GVEA Project # _____
 Date _____
 Prepared By _____