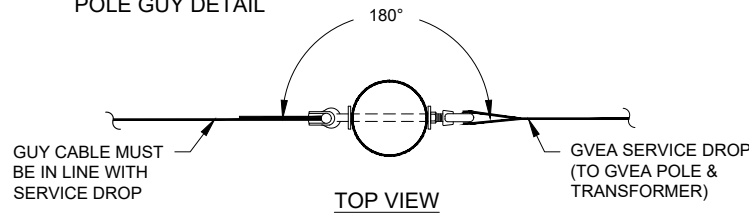


Instructions by Item Number (Continued)

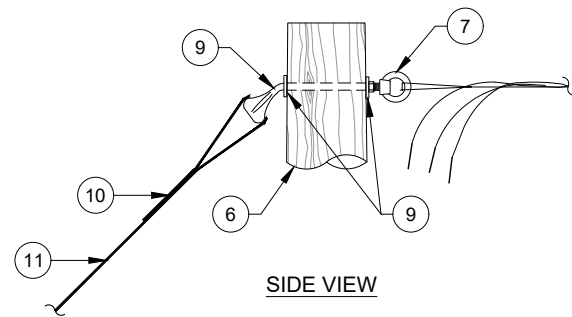
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- 16 GUY CABLE (for pole)**
Must be minimum 1/4" stranded galvanized steel or aluminum clad cable with approved clamps. If service drop exceeds 50'-0", pole must be guyed. Service drop must not exceed 150'-0".

POLE GUY DETAIL



TOP VIEW



SIDE VIEW

- 17 CONNECTOR**
Use compression connector properly sized for conductors.
- 18 PREFORMED GRIP OR THREE BOLT GUY CLAMP**
- Grip must be the correct size for the guy cable.
 - The painted marks on the grip must be aligned after it is installed.
 - A three-bolt clamp may be used instead of a grip.



PREFORMED GRIP



TOP VIEW

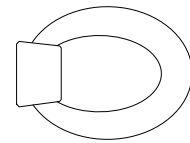
SIDE VIEW

THREE BOLT GUY CLAMP

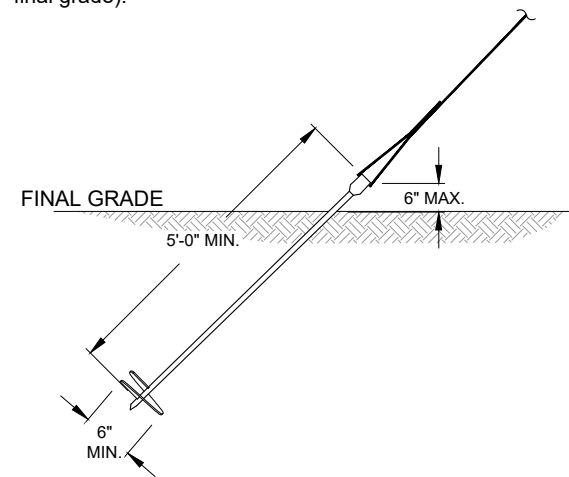
- 19 QUADRUPLEX CONDUCTOR**
Aluminum conductor with ACSR messenger. Conductor Size: The National Electric Code requires #2 AWG or larger for 100 Amp services, and 2/0 or larger for a 200 Amp service. Insulation shall be XLP. Messenger used as equipment grounding conductor as required by NEC 250.32(B).

- 20 SWINGING CLEVIS**
The swinging clevis is used as an attachment between the grip on the conductor and the eye nut. The messenger should be attached to the end with the roller.

- 21 OVAL EYE NUT (for minimum 5/8" diameter bolt)**



- 22 GALVANIZED BOLT, 5/8"**
Length shall be determined by diameter of pole.
- 23 PREFORMED GRIP (for overhead conductor messenger)**
- This grip is similar to the one used for the guy.
 - Grip must be the correct size for the bare conductor of the Triplex conductor.
 - The painted marks on the grip must be aligned after it is installed.
- 24 GALVANIZED SQUARE WASHER**
2 1/8" Square Washer
- 25 SCREW ANCHOR**
Shall be installed a minimum of 15'-0" from meter pole (measured at final grade).



- 26 COPPER CONDUCTOR**
LEAVE MINIMUM 1'-6" TAILS out of weather head for connection to GVEA system. Mark neutral with White Tape around ends.

WIRE/CONDUIT SIZE TABLE				
WIRE SHALL BE COPPER				
SERVICE SIZE	MINIMUM WIRE SIZE (XHHW OR RHW)	MINIMUM CONDUIT WIRE (RMC OR IMC)	MINIMUM GROUNDING ELECTRODE CONDUCTOR SIZE	MINIMUM EQUIPMENT GROUNDING CONDUCTOR SIZE
100 Amp	#2 Copper	1 1/4"	#4 Copper	#8 Copper
200 Amp	#3/0 Copper	2"	#4 Copper	#6 Copper
300 Amp	300 kcmil Copper	2"	#2 Copper	#4 Copper

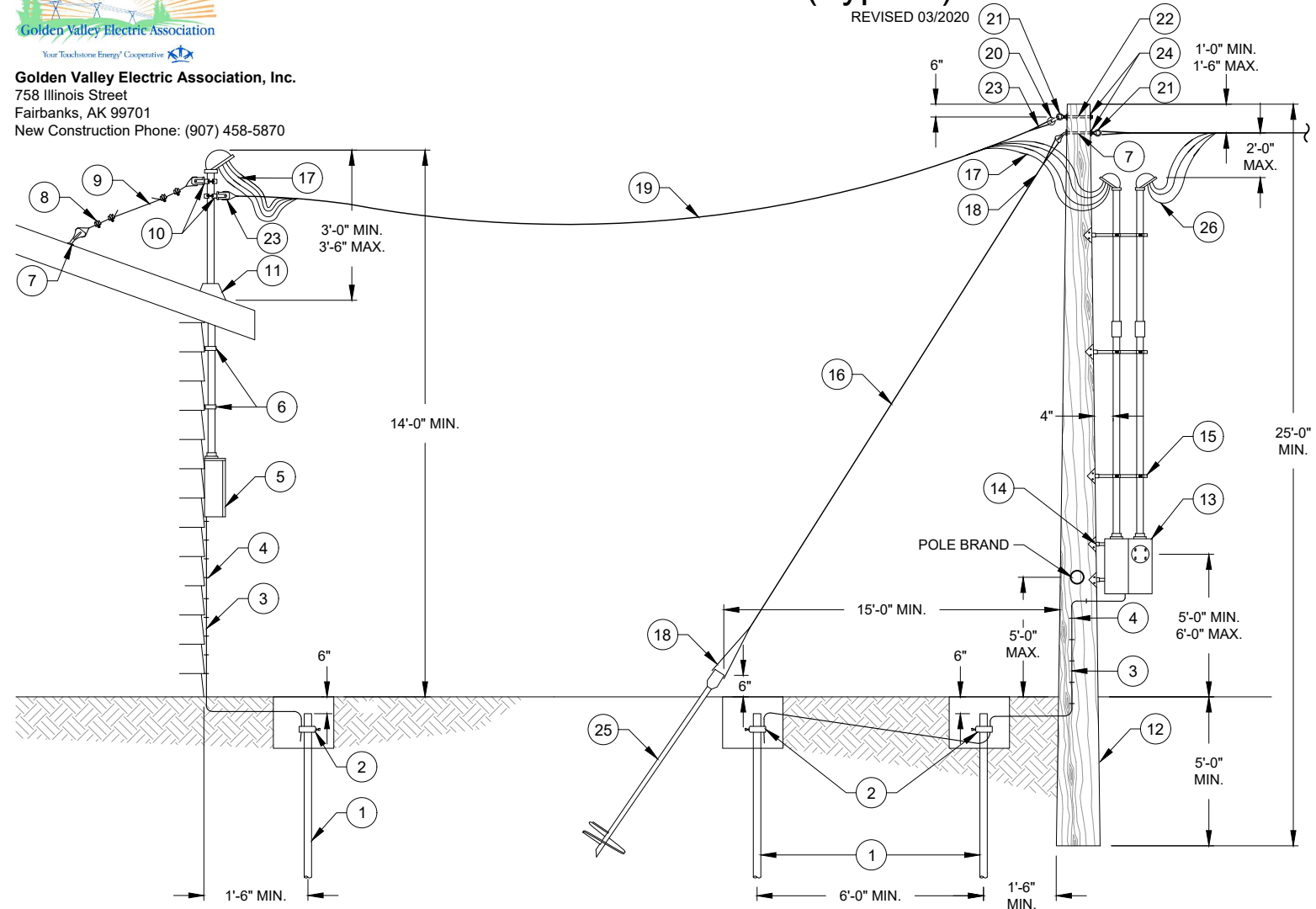
*Table applies to wire in conduit only.



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

Construction Guide For Overhead Residential Service - Meter On Pole (Type D)

REVISED 03/2020



MATERIAL LIST			
ITEM	QTY	DESCRIPTION	TYP. CATALOG #
1	2	GROUND ROD - 5/8"x8'-0"	Blackburn 6258
2	2	GROUND ROD CLAMP	Blackburn G5
3	**	#4AWG OR #2AWG CU WIRE	*
4	**	COPPERCLAD STAPLE	Joslyn J6652(E)
5	1	SERVICE DISCONNECT	*100A, 200A, or 300A
6	2	CONDUIT STRAPS	Blackburn 16-416
7	2	THIMBLE EYEBOLT - 5/8"	Joslyn 8151(E)
8	4	CROSBY CLAMP	Campbell 316CC
9	8'-0"	GUY CABLE (FOR CONDUIT)	Campbell 18AC
10	2	MAST CLAMP	Joslyn J0588(E)
11	1	ROOF FLASHING AND SEAL	Blackburn NF2
12	**	PRESSURE TREATED POLE	*
13	1	SERVICE ASSEMBLY	*100A, 200A, or 300A
14	2	POLE HUGGER BRACKET	*
15	**	STANDOFF BRACKET	Morfab 85SOSM
16	**	GUY CABLE 1/4" OR LARGER (FOR POLE)	Porcelain 8714
17	6	CONNECTORS	*
18	2	PREFORMED GRIP	Joslyn AWDE4116
19	**	QUADRUPLEX CONDUCTOR	*
20	1	SWINGING CLEVIS	*

*See instruction on following pages.
**Quantity/Length determined by installation requirements.

MATERIAL LIST (CONTINUED)			
ITEM	QTY	DESCRIPTION	TYP. CATALOG #
21	1	OVAL-EYE BOLT	Joslyn J1092(E)
22	1	GALVANIZED BOLT, 5/8"	*
23	1	SERVICE GRIP	*
24	4	SQUARE WASHER	*
25	1	SCREW ANCHOR	*
26	**	COPPER CONDUCTOR	*

- NOTES:**
- The information in this booklet provides general guidelines for the installation of service equipment to meet the requirements of GVEA. It is the owner's responsibility to make sure that the service is also installed to meet all applicable city, borough, and State of Alaska codes, as well as the National Electrical Code (NEC) and National Electrical Safety Code (NESC).
 - If service drop exceeds 50'-0", pole must be guyed. Service drop must not exceed 150'-0".

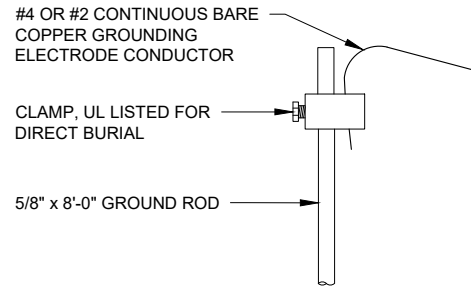
Instructions by Item Number

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- 1 GROUND ROD**
 Shall be 5/8" x 8'-0" listed copper-clad. Locate in undisturbed earth a minimum of 1'-6" from pole and outside of hole dug for pole installation.

Ground rod at house must be located at least 1'-6" from foundation or basement of building and out from under eaves. See National Electrical Code, Article 250 for more information.

Drive rod 6" below ground level into undisturbed earth. Leave exposed for inspection. Cover the ground rod hole in winter to prevent it from filling with snow.

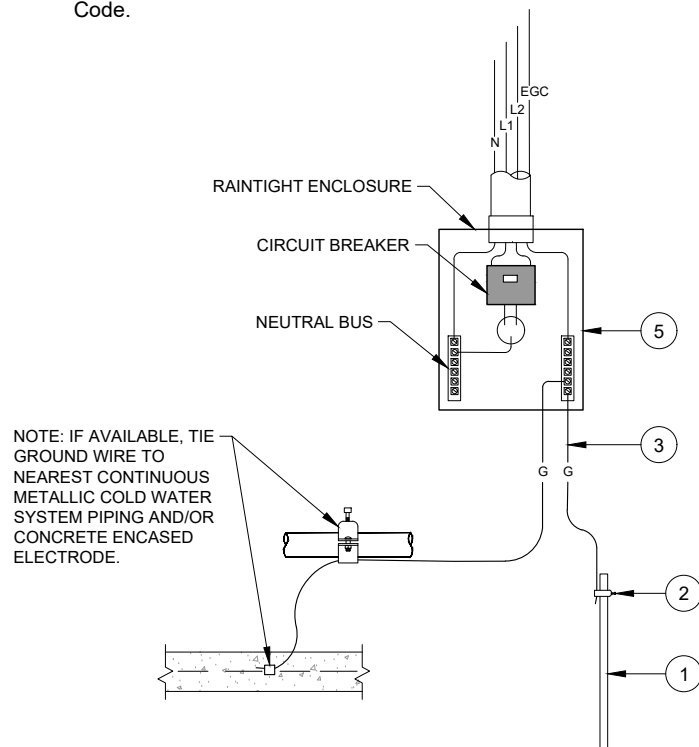


- 2 GROUND ROD CLAMP**
 Use bronze or stainless steel clamp listed for direct burial.
- 3 #4AWG OR #2AWG SOLID OR STRANDED BARE COPPER WIRE**
 Connect continuous grounding electrode conductor to grounding block at disconnect, then ground to minimum 5/8" x 8'-0" ground rod and, if available, connect to nearest continuous metallic cold water system. Attached with UL listed grounding connectors.

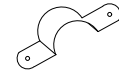
- 4 STAPLE, Copper Clad**
 Staple Ground Wire every 6".



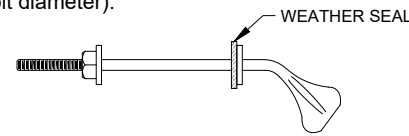
- 5 SERVICE DISCONNECT (with mast)**
 Install appropriately sized disconnect based on National Electrical Code.



- 6 CONDUIT STRAPS**
 Strap must be listed for use with conduit installed. Install with screws appropriate for the material to which it is being fastened.



- 7 GALVANIZED THIMBLE EYEBOLT (2 ea)**
 Install with adequate weather seal, square washers, and square nuts (minimum 5/8" bolt diameter).

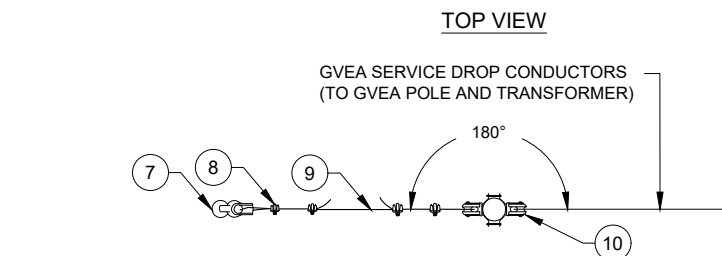
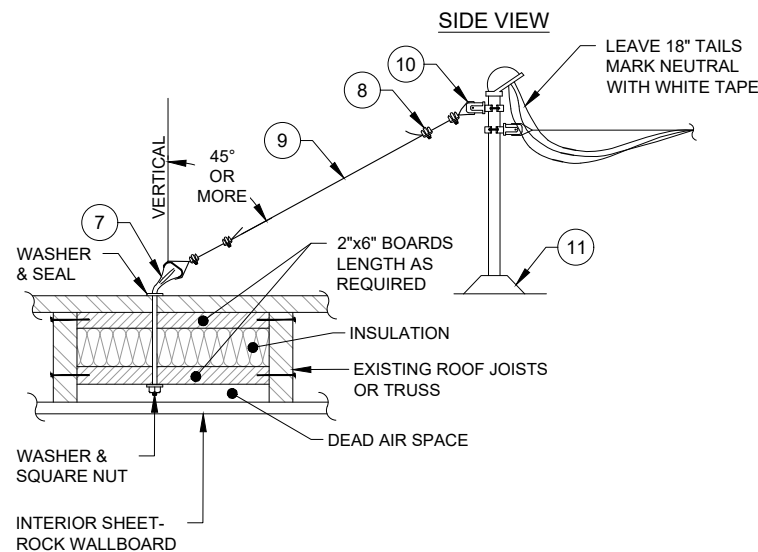


- 8 CROSBY CLAMP**
 Crosby Clamp must be installed on 1/8" aircraft guy cable with loop over tail.



- 9 GUY CABLE (for conduit)**
 Must be 1/8" aircraft cable (min.). Must be in line with service drop.

ROOF GUY DETAIL

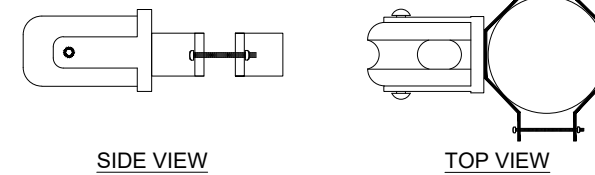


NOTE: All service conduit extending above the roof must be minimum 2" rigid conduit and must be guyed. Roof guy cable must be minimum 1/8" stainless steel aircraft cable with approved clamps.

Instructions by Item Number (Continued)

REVISED 03/2020

- 10 MAST CLAMP**



- 11 ROOF FLASHING AND SEAL**

- 12 FULLY PRESSURE TREATED POLE, NO CEDAR (MEMBER OWNED)**

Length: Min. 25'-0" or greater as required to maintain clearances.
 Strength: ANSI class 6 or better (e.g. Class 5, 4, etc.).
 The pole must be installed at a location agreed upon with GVEA's Construction Services Representative. At least 5'-0" of the pole must be buried below the level of the surrounding ground. Poles 30'-0" and longer must be buried 10% of pole length plus 2'-0". The fill around the pole must be tamped firm so that the pole will not lean when it is climbed. Pole brand (belly button) must be visible after equipment is mounted.

- 13 SERVICE ASSEMBLY - (Member's service equipment)**
 Preassembled with Mast, Breaker, and Conductors See "Construction Guide for Overhead Residential Service Assembly" for details.

1. Prior to wiring a building or performing any electrical construction for a new service, the member shall request approval from GVEA for the location of member's service equipment, including meter(s).

2. The location of the member's service equipment shall be determined by working with GVEA's Construction Services Representative.

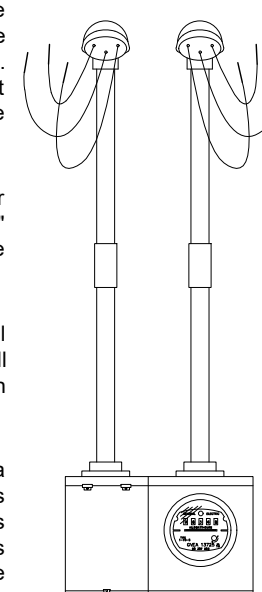
3. The member's service equipment shall be level, plumb, and located outside on the member's structure. The member's service equipment must be firmly supported and be in a location free from vibration, mechanical damage, and accumulating or falling ice. The meter must be accessible for reading, testing, and replacement.

4. GVEA does not permit the installation of the member's service equipment on GVEA facilities. Member's service equipment is not allowed to be installed on mobile structures.

5. Horizontal centerline of the meter shall be between 5'-0" and 6'-0" above the finished grade immediately in front of the meter.

6. The distance between the vertical center line of the meter and any wall or obstruction shall be greater than 7".

7. Member must provide and maintain a minimum 4'-0" wide path and debris free clearing between the member's service entrance mast and GVEA's pole for access to GVEA's service drop conductors. Remove any overhanging limbs or trees.

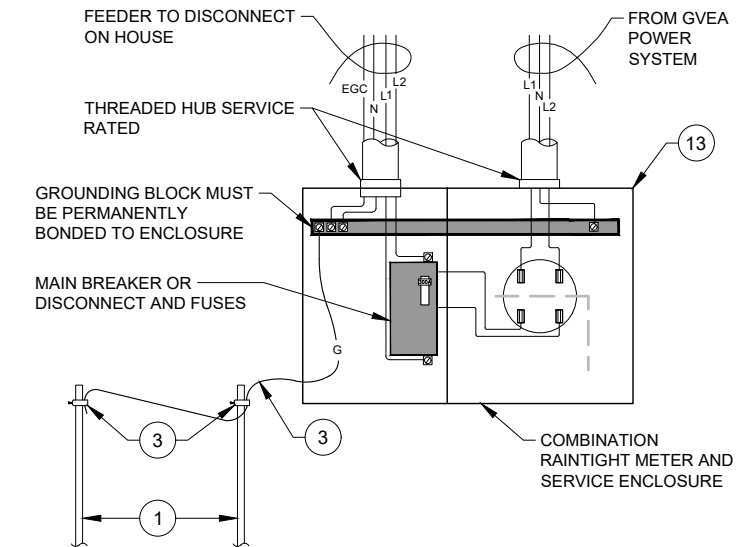


- 13 SERVICE ASSEMBLY (CONTINUED)**

8. All service conduit extending above the roof must be minimum 2" rigid (RMC or IMC) conduit and must be guyed.

9. Meter socket for a 300A self-contained service must have a lever bypass and the upper right-hand jaw must be reduced or have an anti-inversion clip installed to prevent the insertion of a 200A meter.

METER ENCLOSURE - Mounted on Pole



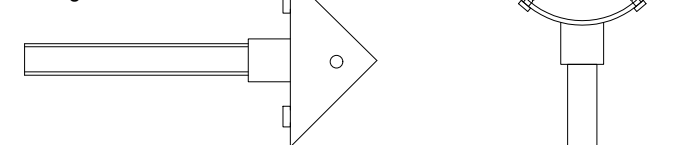
LEGEND:

EGC	Equipment Grounding Conductor	Green or Bare Wire
G	Grounding Electrode Conductor	Green or Bare Wire
L1,L2	Phases	Black Wires
N	Neutral	Bare Wire (in mast only) or Black Wire with White Tape
		Wrapped Around Ends

- 14 POLE HUGGER BRACKET**
 with unistrut nuts, bolts, washers, and lag screws.



- 15 STAND OFF BRACKET**
 with lag screws



CONDUIT CLAMP
 Clamp must be listed for use with conduit type installed.

