



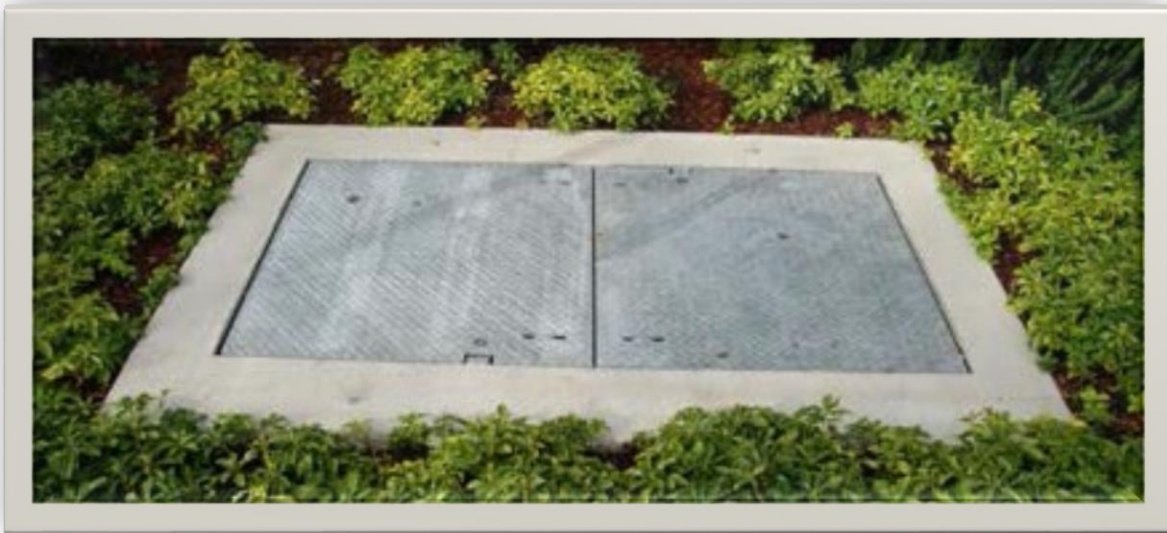
# Structures & Equipment

This is a pictorial guide to typical electrical distribution and transmission system facilities at Snohomish PUD.

<b>Underground Structures</b>	<b><u><a href="#">Page 2</a></u></b>
<b>Overhead Structures</b>	<b><u><a href="#">Page 7</a></u></b>
<b>Transmission Line Structures</b>	<b><u><a href="#">Page 9</a></u></b>

# Typical PUD Underground Distribution System Structures & Equipment

Most underground distribution systems operate at 7,200 volts (7.2kV) or 12,500 volts (12.47kV). Much of our underground distribution system (cables) is located underground along public and private roads and is rarely seen. This section displays typical PUD underground distribution facilities mounted above ground.



## Typical Underground Distribution Cable Junction Vault



Single-phase padmount transformers are common in neighborhoods typically serving 1 to 8 homes per transformer.



## Typical Underground Distribution Single-Phase Padmount Transformer

## Typical Underground Distribution Three-Phase Padmount Transformer



Three-phase padmount transformers often serve a single commercial customer (but may serve multiple customers) and may be paired with single-phase transformers in response to particular service needs.



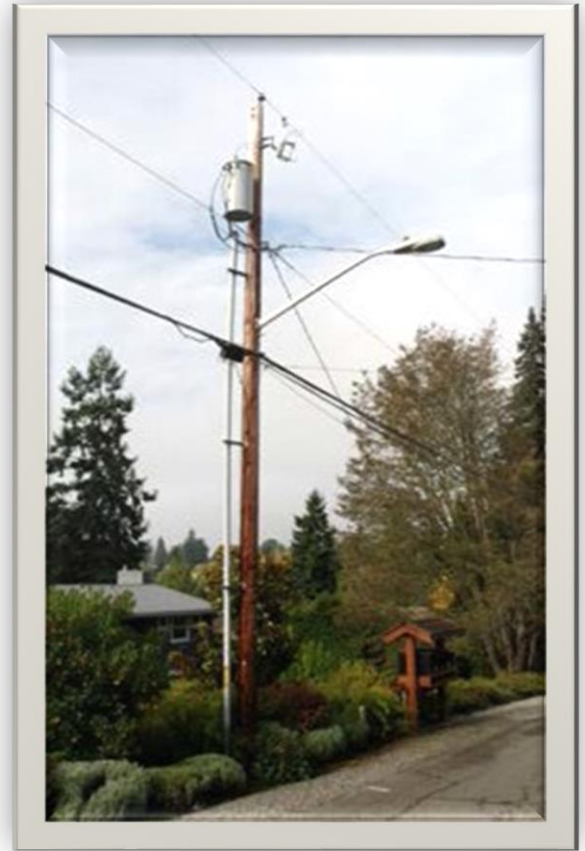
Switches are common in neighborhoods and are sometimes installed in multiple adjacent configurations.

# Typical PUD Overhead Distribution System Structures

Most PUD overhead distribution lines operate at 7,200 volts (7.2kV) or 12,500 volts (12.47kV). Most of our overhead distribution system support structures are single wood poles located along public and private roads. This section displays typical PUD distribution line structures.



**Typical Single-Phase Distribution**



**Typical Single-Phase Distribution with Transformer & Street Light**



**Typical Single-Phase Distribution with Down Guys & Anchor**



# Typical PUD 115kV Transmission Line Structures

Most PUD transmission lines operate at 115,000 volts (115kV). Many of our transmission line support structures are single wood poles along public roads, and a few are steel. Some transmission lines located in dedicated rights-of-way are supported by two or three wood pole H-Frame structures. This section displays typical PUD transmission line structures.



## **Typical 115kV Transmission Pole (Vertical Tangent Framing)**



## **Typical 115kV Transmission Pole (Vertical Small Angle Framing)**



**Typical 115kV  
Transmission Pole  
Glu-lam (laminated  
wood rectangular)**



**Typical 115kV  
Transmission Pole  
Steel**



## **Typical 115kV Transmission H-Frame Structure**