Electrical Infrastructure Upgrade - Kitsap Cabin
Phase 1

Notes:

This project includes a mixture of existing and new installations. The Mountaineers Kitsap Cabin Committee, or its representative will be informed of any code violations found during inspections which are due to existing electrical installations. All changes made during the work will be approved by the Kitsap Cabin Committe, or its representative.

The servicing utility is Puget Sound Energy: 1-888-225-5773.

The local jurisdiction office is Washington State L&I, Bremerton: 1-360-415-4039

The following scope of work is not in any particular order. The work may be performed in any order that seems efficient and safe.

All permits, inspections and fees are the responsibility of the electrical contractor.

All work to be performed will conform to the NEC 2002 code and applicable local jurisdiction requirements.

The property and buildings are available for inspection prior to bidding by appointment on most weekends.

The Kitsap Cabin Committee will perform all trenching operations using volunteer labour. All trenches will be a minimum of 24” deep by 24” wide, with the exception of the Grounding Ring trench around the main lodge building. The contractor may install access boxes in conduit runs as required to assist the installation of wire.

Upon completion of the work, a site map will be provided to the Kitsap Cabin Committee indicating the location and type of any access boxes installed on the property. Additionally, an ‘as built’ drawing will be created indicating any deviations from the approved initial design.

1. **Install 320 Ampere service on East wall of Woodshed tool room.**

   Use Square D QO type service equipment for compatibility with existing installations.

   Install an underground service entrance conduit from existing utility pole 10’ from building. The servicing utility requires 3” schedule 40 PVC conduit with a minimum 24” radius on all bends.

   Install two grounding rods 6’ apart.

2. **Install Feeder to Main Lodge building.**

   Install a 2” schedule 40 PVC conduit between the service panel and the existing rigid metal conduit under the lodge. Rework the existing conduit as required by current codes. Total distance is approximately 70’ from panel to panel.

   Install AWG #1 THWN feeder conductors between service equipment and Main Lodge building panel board.

   Feeder protection in service panel board to be 100A.

   Install a Grounding Ring around main lodge building in 24” deep trench. Use AWG #2 bare Copper wire. Use AWG #6 Copper wire for the Grounding Electrode Conductor.

3. **Remove the existing disconnecting switch on West interior wall of Woodshed tool room.**

   Remove the existing feeder from the existing panel board and the disconnecting switch.

4. **Install a feeder to the existing panel board on the West interior wall of Woodshed tool room.**

   Install new 1-1/4” rigid metal conduit between the service panel and the existing panel board on the West interior wall.

   If, in the opinion of the Jouneyman in charge of the job, the existing panel board needs to be replaced it is OK to do so.

   Feeder conductors shall be copper AWG #3 THHN, or equivalent.

   Feeder protection in service panel board to be 100A.

5. **Re-wire the existing outside outlets on the South wall of the Woodshed tool room to a new 20 Ampere circuit in the existing panel box.**

   The new branch circuit shall be GFCI protected.

   Leave the other outside outlets, on the North wall, on the existing 15 Ampere general purpose circuit.

6. **Install a 60 Ampere weather-proof panel board in the Wellhouse above the well head.**

   Panel board main circuit breaker to be 40A.

   Remove existing feeder to Wellhouse. This is a directly buried wire and only needs to be cut back a few feet from the structure.

7. **Re-wire existing branch circuits in Wellhouse into the new panel board.**

   All of the circuits except the lighting and utility outlet circuits are 240V so load balancing is not an issue here.

   Ground the installation to the well casing and install one grounding rod.

   Replace the existing outlet with a GFCI protected 20 Ampere outlet with weather-proof cover.

   Replace the existing lighting fixture with a weather-proof fixture.

   Lighting circuit protection shall be 15A.

   Outlet circuit protection shall be 20A.

   Heating circuit protection shall be 20A.

   Pump motor circuit protection shall be 10A.

   Replace or add conduit as required by current codes.

8. **Install a feeder from the service panel to the Wellhouse.**

   Install 2” schedule 40 PVC conduit in existing trench to the Well House. The total distance is 265’.

   Install utility boxes rated for direct burial as required to assist installation of wire in conduit.

   Feeder conductors to be copper AWG #4 THWN.

   Feeder protection in the service panel to be 60A.

9. **Install new 100 Ampere panel board in the Bathroom facility.**

   Mount a weather-proof, lockable panel board on the outside of the South wall. This panel board should be vandalism resistant, as the facility is un-occupied most of the time.

   The main panel board circuit protection to be 100A.

   Install two grounding rods 6’ apart.

10. **Re-wire Bathroom Facility.**

    Install rigid metal conduit as needed to bring the Bathroom Facility up to current codes.

    Remove the existing feeder into the Bathroom facility. This is a directly buried wire and only needs to be cut back a few feet from the structure.

    Remove existing power transformer mounted to the inside South wall of the Bathroom facility. Retain for use by Kitsap Cabin Committee.

    Remove the existing panel boards from the Bathroom Facility and re-wire all existing circuits to the newly installed 100A panel board.

11. Install a feeder from the service panel to the Bathroom facility.

Install three 2” schedule 40 PVC conduits in the existing trench between the service panel and the Bathroom Facility. The total distance is 455’.

Only one conduit will be used during this project. The other two are for future expansion.

Feeder conductors to be copper AWG #2/0 THWN.

Feeder protection in the service panel to be 125A.