# INFORMATION BULLETIN

## TEMPORARY AND PERMANENT SERVICES FOR CONSTRUCTION POWER

**Date of Issue: February 29, 2016** **No: IB-EL-2016-03**

*The following bulletin provides guidance on the application of rules pertaining to the 2015 BC Electrical Code Regulation. The requirements of local municipal authorities having jurisdiction may vary. Installers should consult with local authorities having jurisdiction, prior to undertaking work, to determine their requirements.*

### A: Temporary Services and Wiring for Buildings under Construction or Demolition

**1. Scope**

As outlined in Rule 76-000 of the BC Electrical Code**,** Section 76 applies to temporary wiring installations for buildings under construction or demolition. It is the nature of the installation, not the use of that installation, that determines whether the installation is temporary. Receptacles that are connected to the permanent wiring system and therefore not within the scope of Section 76 are subject to other applicable rules of the BC Electrical Code. Temporary distribution panels are not considered permanent and are therefore subject to the rules in Section 76.

**2. Receptacles**

Where construction sites utilize temporary wiring methods, this wiring is exposed to more severe duty and weather conditions than permanent installations. The use of extension cords may increase bonding conductor impedance. Additionally, site and environmental conditions may make grounding conditions unstable. These factors can result in an increased risk of electrical shock to workers. For this reason, Rule 76-016 requires GFCI protection for 15 A (configuration 5-15R) and 20 A (configuration 5-20R) receptacles installed on temporary wiring installations.

**3. WorkSafe BC Assured Grounding Program**

Contractors may wish to use an assured grounding program as per *OHS Regulation Guidelines Part 19 – G19.15(1)* (See WorksafeBC.com and WorkSafe BC publication *Working Safely Around Electricity* for further details on the Assured Grounding Program). To use an assured grounding program as an alternative to GFCI protection a variance will be required.
A variance for an assured grounding program will only be granted for Electrical Temporary Construction Operating Permits issued to electrical contractors.

To obtain a variance, BC Safety Authority requires the electrical contractor to declare on the operating permit (at time of application) the intent to use the WorkSafe BC Assured Grounding Program. A copy of the WorkSafe BC Notice of Project listing the choice to use assured grounding must be posted at the service location and the contractor must submit a copy of the Notice of Project to BC Safety Authority prior to service connection.

Where a change from GFCI protection to the Assured Grounding Program is implemented, or where the Assured Grounding Program is discontinued after the Electrical Temporary Construction Operating Permit has been obtained, the contractor must apply for a permit amendment and indicate the change on the amended permit. A new or revised Notice of Project form must be posted at the service location. If requested by a Safety Officer, the contractor must provide a copy of the Notice of Project to BC Safety Authority.



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## 4. Temporary Construction Operating Permit Requirements

A Temporary Operating Permit is required for service installations which are temporary in nature and will be disconnected once the construction or demolition phase of work is completed. In many cases, the contractor installing the equipment may not be the same contractor or Field Safety Representative who monitors ongoing safety for operation and maintenance of the equipment. The Temporary Operating Permit authorizes installation of the equipment, and the permit holder is responsible for ensuring a Field Safety Representative monitors the ongoing safe operation and maintenance of the equipment for the duration of its operation. The Temporary Operating Permit must be obtained by the equipment owner; "owner" may be the lessee in accordance with the definition provided in the Safety Standards Act. In most cases, the site owner or builder should be the operating permit holder. The permit holder must name a Field Safety Representative on the permit.

The temporary operating permit is valid for 12 months from date it is obtained. This permit is not renewable. A new, temporary construction operating permit must be obtained after the 12 month period if the temporary service is still required. To complete the temporary construction operating permit, the temporary construction service must be disconnected from the electrical supply prior to submitting a request for a Final – *"All Work is Complete"* inspection request.

## 5. Temporary Construction Services (Pole mount 200 amps or less)

Temporary construction service Installations will be accepted if constructed in accordance with attached Diagrams 1-2 and must be:

(a) Protected from the weather and mechanical damage by location or by installing the equipment within an enclosure which has been made weather proof, or by use of a Type 3R weatherproof enclosure ; and
(b) The equipment must be capable of being locked; and
(c) All panel covers must be installed while the equipment is energized; and
(d) Receptacles supplying temporary power for construction purposes must comply with the requirements of Rule 76-016; and
(e) Branch circuits must comply with the requirements of 76-012.



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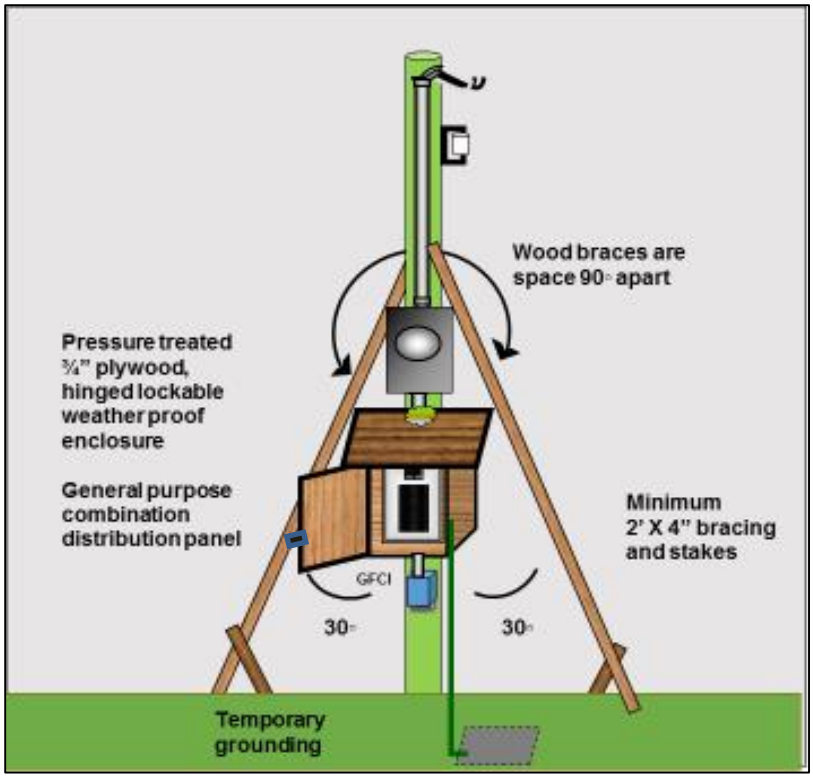


## DIAGRAM 1

- **Min. Class 6 treated pole or treated 6"X 6" post** (Overhead Line Guideline B-E3 090312 1) (CSA C22.3 No. 1-15)
- **Min. overhead clearance (**6-112)
- **Min. pole setting depth** (Overhead Line Guideline B-E3 090312 1) (CSA C22.3 No. 1-15)
- **Guy assembly requirement** (Overhead Line Guideline B-E3 090312 1) (CSA C22.3 No. 1-15)
- **Supply attachment** (6-112)
- **Weather proof, sealed, hinged, lockable ¾" (21mm) treated plywood enclosure** (76-006)
- **Branch circuits** (76-012)
- **GFCI protection** (76-016)
- **Receptacles** (76-01626-702)
- **Grounding + bonding** (76-004)

## DIAGRAM 2

- **Min. Cl. 6 treated pole or treated 6"X6" post** (Overhead Line Guideline B-E3 090312 1) (CSA C22.3 No. 1-15)
- **Min. overhead clearance** (6-112)
- **Min. pole depth setting** (Overhead Line Guideline B-E3 090312 1) (CSA C22.3 No. 1-15)
- **Guy assembly requirement** (Overhead Line Guideline B-E3 090312 1) (CSA C22.3 No. 1-15)
- **Supply attachment** (6-112)
- **Type 3R lockable enclosure** (2-400, 76-006)
- **Branch circuits** (76-012)
- **GFCI protection** (76-016)
- **Receptacles** (76-016)
- **Grounding + bonding** (76-004)



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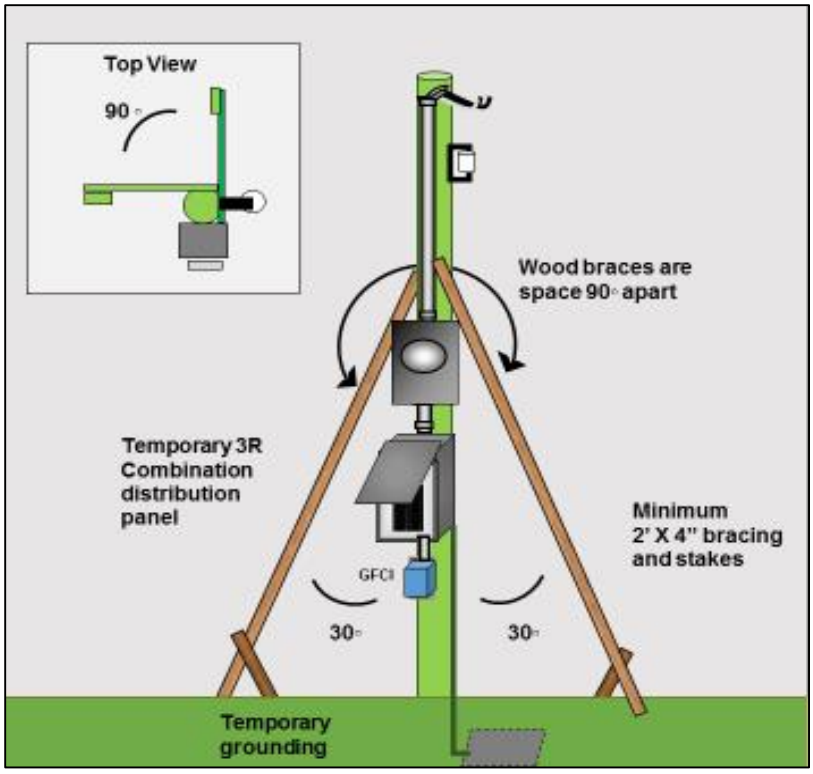


**B: Permanent Services and Wiring for Buildings under Construction**

**1.** Electrical service equipment such as panel boards and circuit breakers installed during construction to provide temporary power must be installed to ensure the electrical equipment is not exposed to moisture or damage during the construction phase.

**2.** Permanently installed receptacles do not require GFCI protection even though they may be energized for use during construction. All receptacles in outdoor locations must be weather protected as required in Rule 26-702. Outdoor receptacles in residential occupancies must be GFCI protected (*Rule 26-710*)

Permanent construction service Installations will be accepted if constructed in accordance with attached Diagrams 3 - 8 and must be:

(a) Protected from the weather and mechanical damage by location, by installing the equipment within a weatherproof enclosure, or by use of a Type 3R enclosure ; and
(b) The electrical service equipment must be capable of being locked, if the building is not to the lock-up stage (i.e. lockable windows and doors installed) ; and
(c) All panel covers must be installed while the equipment is energized; and



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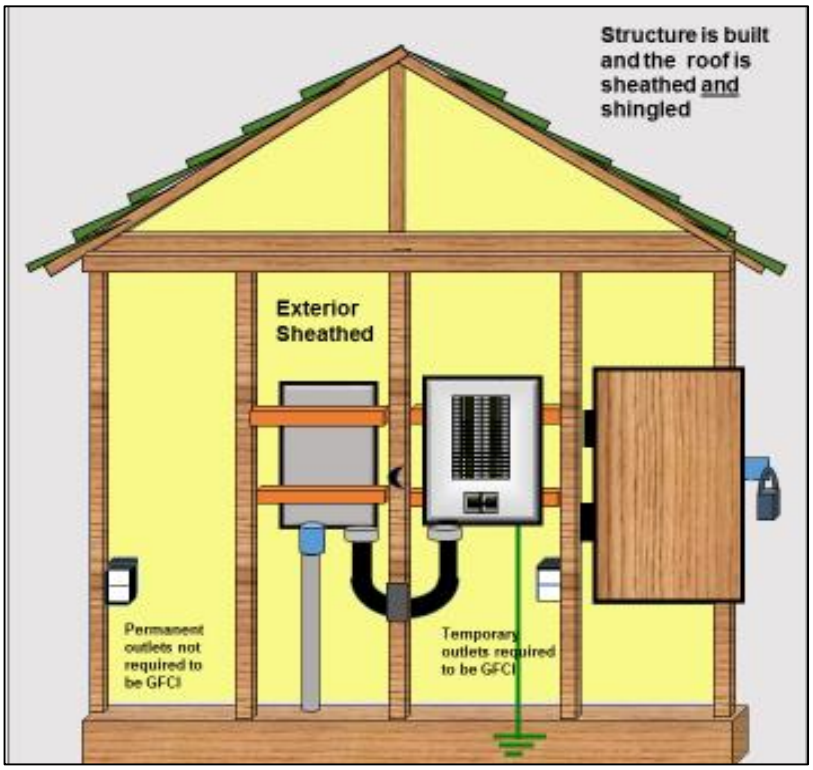
(d) Receptacles and branch circuits supplying temporary power for construction purposes must comply with the requirements of Section 76; and
(e) Receptacles and branch circuits which form part of the permanent wiring, but are utilized for the construction phase, must comply with the general sections of the code; and
(f) Receptacles exposed to weather must comply with 26-702.




## DIAGRAM 3

**Enclosed building (not at lock-up stage) with roofing material installed:**

- **Permanent service equipment installed** (6-206, 6-208)
- **Hinged, lockable door for distribution equipment is required** (2-200, 6-206)
- **Alternatively, a lockable panel cover is permitted** (2-024)
- **Permanently installed branch circuits + receptacles** (Section 26)
- **Temporary branch circuits + receptacles** (76-012, 76-016)
- **Grounding + bonding** (Section 10)



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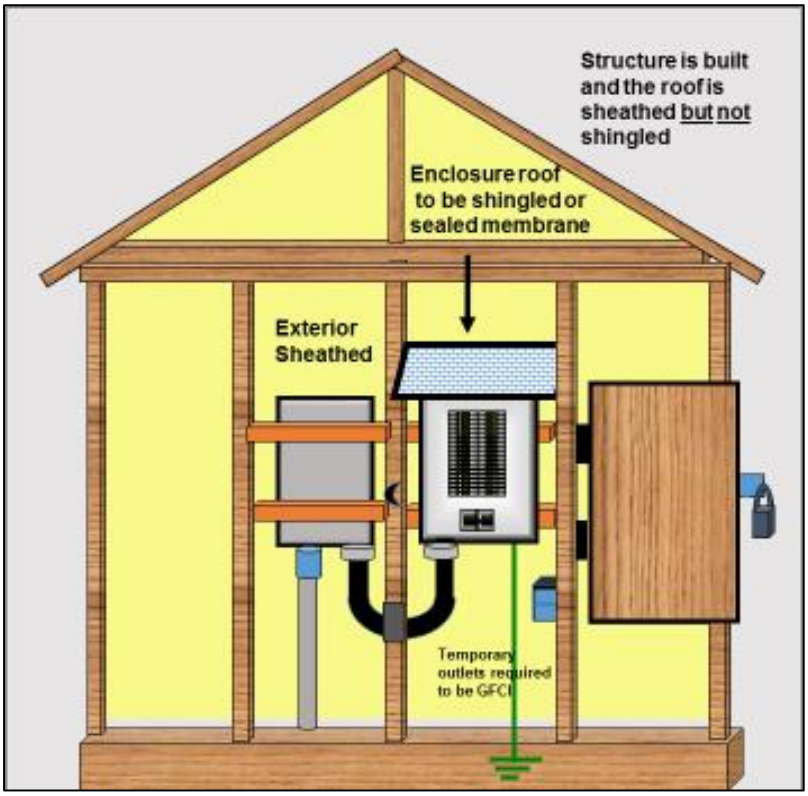


**DIAGRAM 4**

**Enclosed building (not at lock-up stage) with roofing material not installed:**

- **Permanent service equipment installed** (6-206, 6-208)
- **Weatherproof enclosure with sealed roof, lockable and hinged door** (2-200, 2-400)
- **6ml poly may be acceptable for roof membrane if adequately secured and sealed** (2-112)
- **Permanently installed branch circuits + receptacles** (Section 26)
- **Temporary branch circuits + receptacles** (76-012, 76-016)
- **Grounding + bonding** (Section 10)
- **Receptacles exposed to weather** (26-702)



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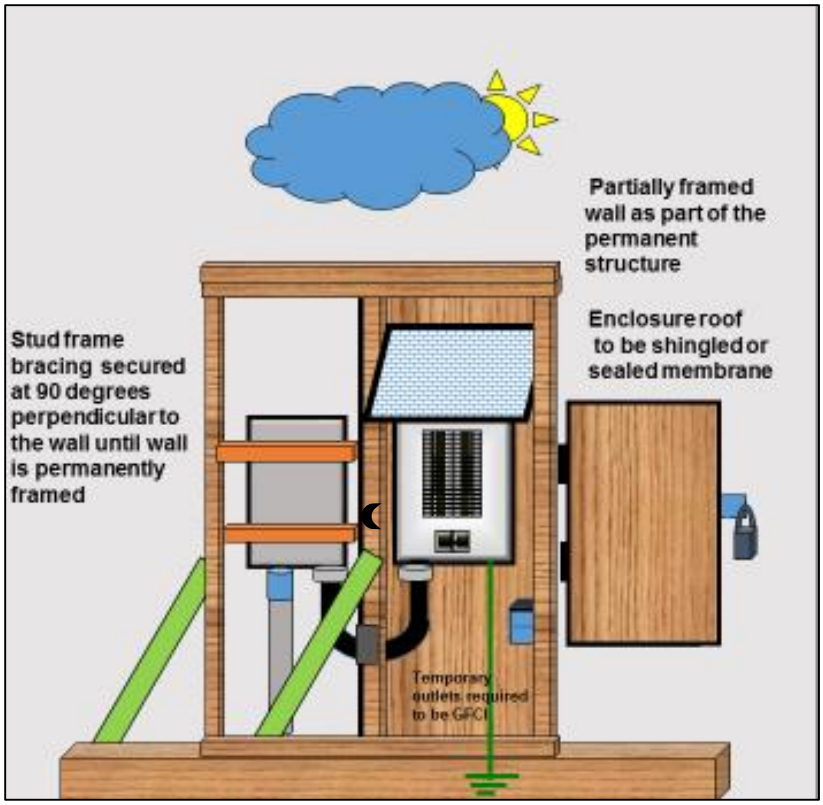


## DIAGRAM 5

**Open structure exposed to weather (front view):**

- **Permanent service equipment installed** (6-206, 6-208)
- **Weather proof panel enclosure complete with sealed roof, 21mm plywood, lockable and hinged door** (2-200, 2-400)
- **Exterior sheathing provided behind service equipment** (2-200)
- **Temporary branch circuits + receptacles** (76-012, 76-016)
- **Receptacles exposed to weather** (26-702)
- **Grounding + bonding** (Section 10)



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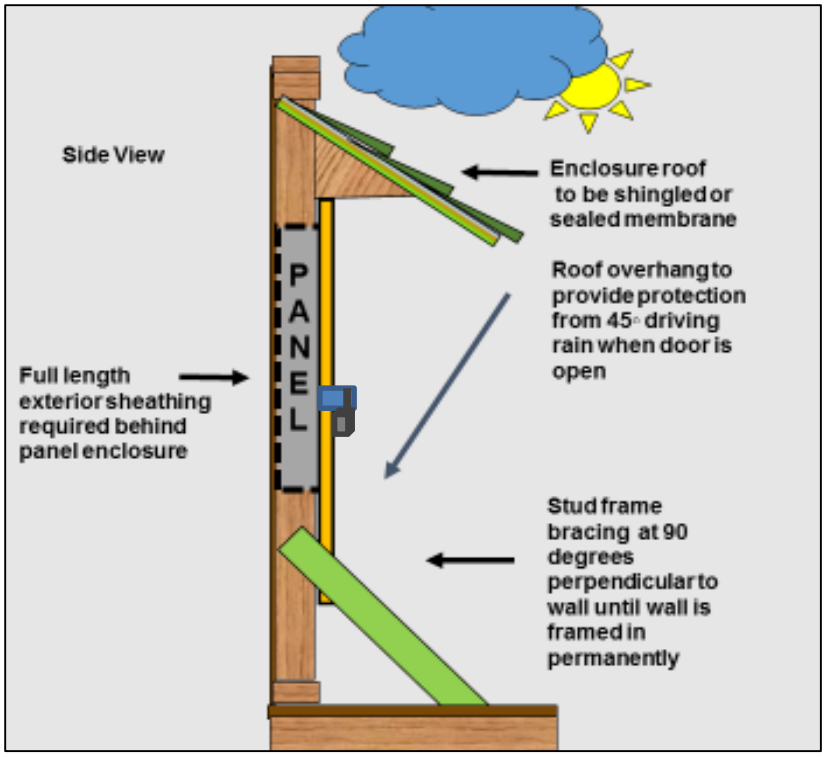


## DIAGRAM 6

**Open structure exposed to weather (side view):**

- **Permanent service equipment installed** (6-206, 6-208)
- **Weather proof panel enclosure complete with sealed roof 21mm plywood, lockable and hinged door**(2-200, 2-400)
- **Exterior sheathing provided behind service equipment** (2-200)
- **Temporary branch circuits + receptacles** (76-012, 76-016)
- **Receptacles exposed to weather** (26-702)
- **Grounding + bonding** (Section 10)

**NOTE: Enclosure roof overhang to extend forward sufficiently to protect service equipment (when door open) from 45◦ driving rain**



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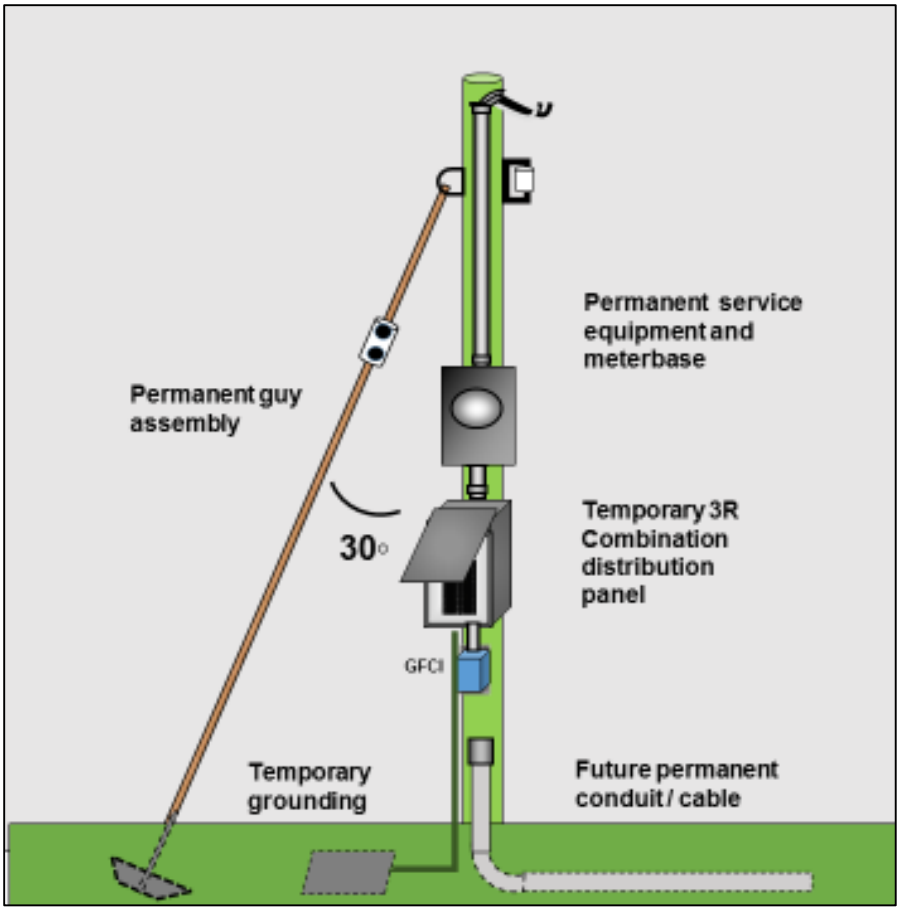


## DIAGRAM 7

**Permanent service pole and meter base – temporary distribution panel:**

- **Min. Class 6 treated pole** (Overhead Line Guideline) (CSA C22.3 No. 1-15)
- **Min. overhead clearance** (6-112)
- **Min. pole depth setting** (Overhead Line Guideline) (CSA C22.3 No. 1-15)
- **Guy assembly requirement** (Overhead Line Guideline) (CSA C22.3 No. 1-15)
- **Supply attachment, weather head** (6-112, 6-116)
- **Type 3R lockable enclosure** (2-400, 76-006)
- **Branch circuits** (76-012)
- **Receptacles** (76-016)
- **Receptacles exposed** (26-702)
- **Grounding + bonding** (Section 10)



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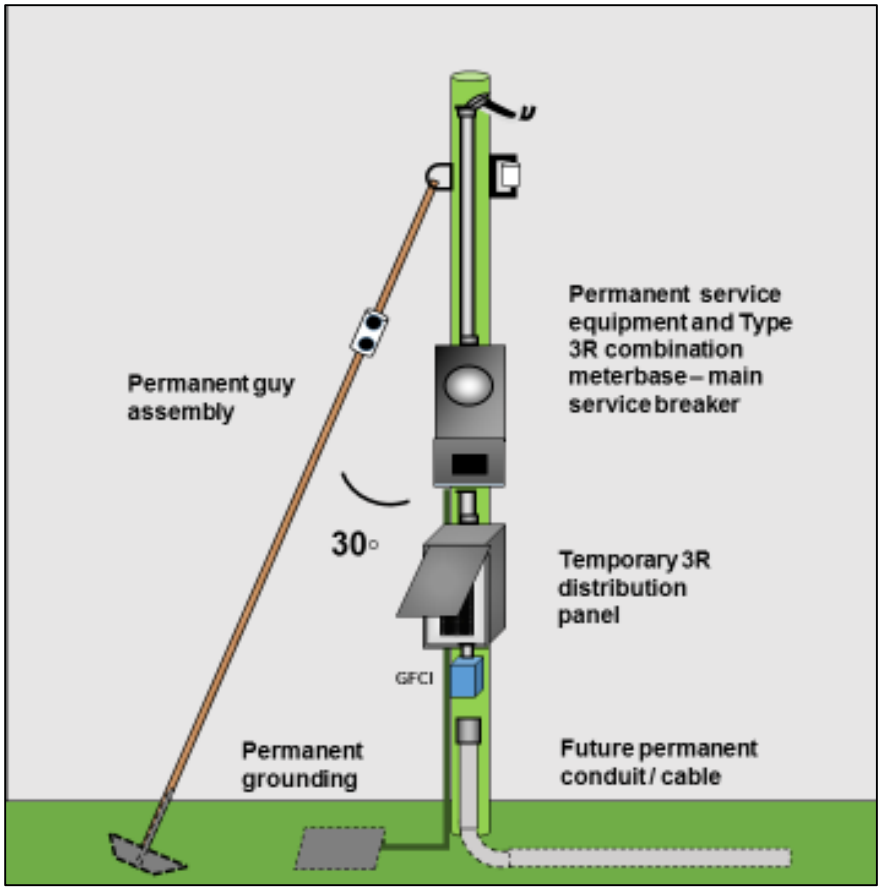


## DIAGRAM 8

**Permanent service pole and combination meter base / main service breaker – temporary distribution panel:**

- **Min. Class 6 treated pole** (Overhead Line Guideline)

  (CSA C22.3 No. 1-15)
- **Min. overhead clearance** (6-112)
- **Min. pole depth setting** (Overhead Line Guideline)

  (CSA C22.3 No. 1-15)
- **Guy assembly requirement** (Overhead Line Guideline)

  (CSA C22.3 No. 1-15)
- **Supply attachment, weather head** (6-112, 6-116)
- **Type 3R lockable enclosure** (2-400, 76-006)
- **Branch circuits** (76-012)
- **Receptacles** (76-016)
- **Receptacles exposed** (26-702)
- **Grounding + bonding** (Section 10)

Ulrich Janisch
Provincial Safety Manager, Electrical

**References:**
*Safety Standards Act*
Electrical Safety Regulation
Safety Standards General Regulation
C22.3 No. 1-15 Canadian Electrical Code Part III- Overhead Lines
B-E3 090312 1 Rev 01 Information Bulletin – Overhead Line Guidelines

For more information about British Columbia Safety Authority, please visit our website at:
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