

Use of Cantilevered Sill Plates with MPCWT to Align with Varying Thicknesses of Exterior Sheathing

Design Guide

Revised 3/22/2017

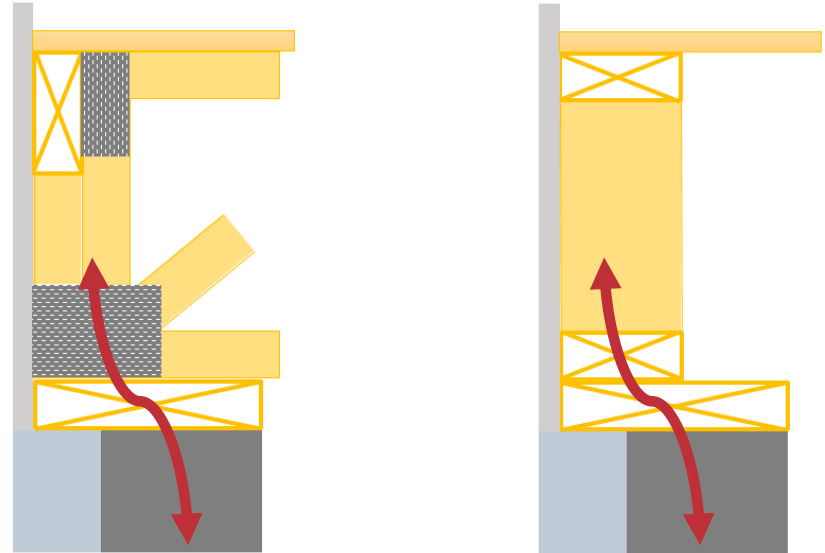
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Introduction

- Sill plates supporting metal plate connected wood trusses (MPCWT) are sometimes cantilevered over the foundation (parallel or perpendicular to the sill) to align the exterior sheathing with the foundation insulation.

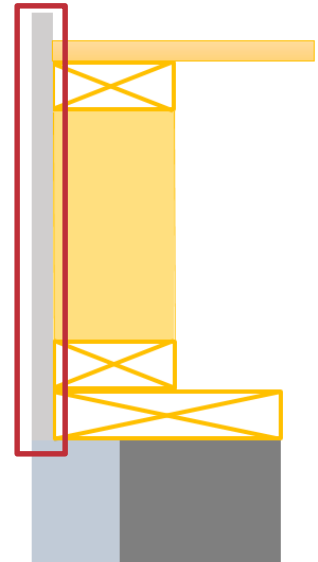
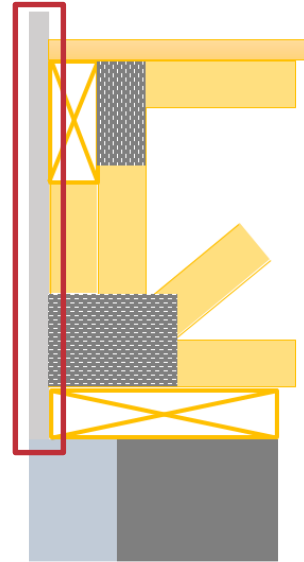


Introduction

- When this is done, there is a potential for a discontinuity between the exterior wall above and the foundation.
- This design guide will show when sill plates may be cantilevered without requiring design of the trusses for a cantilevered condition.

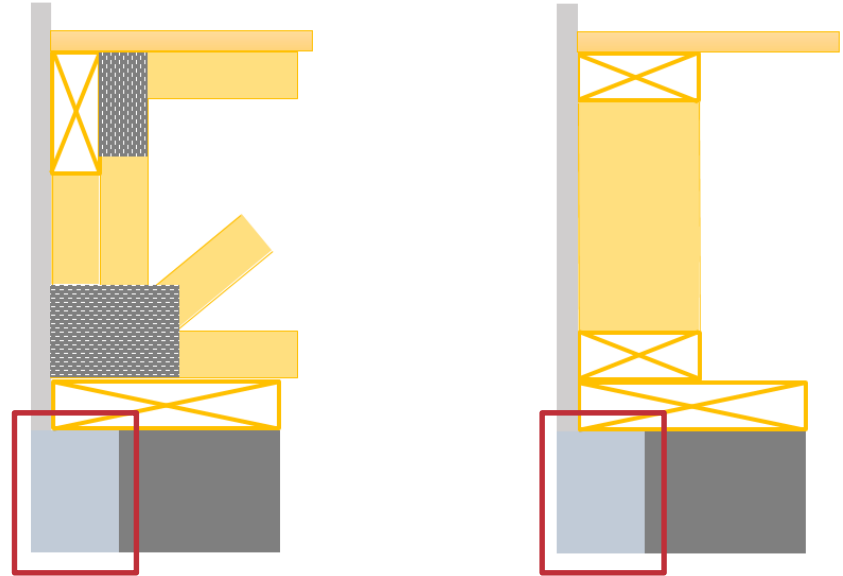
Step 1 – Verify Design Assumptions

- Exterior wall sheathing is any thickness to align the exterior face of the sheathing with the exterior face of the sheathing below.



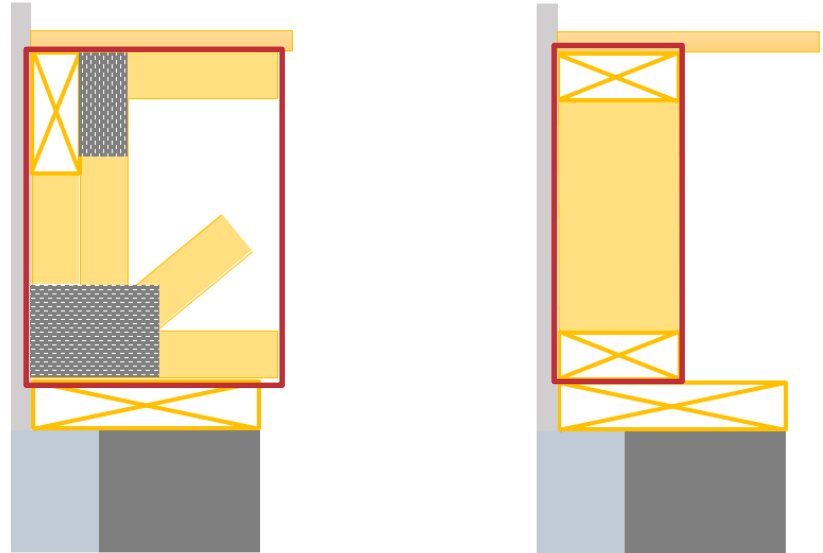
Step 2 – Verify Design Assumptions

- Basement continuous insulation is installed on the exterior of the foundation and does not exceed 2".



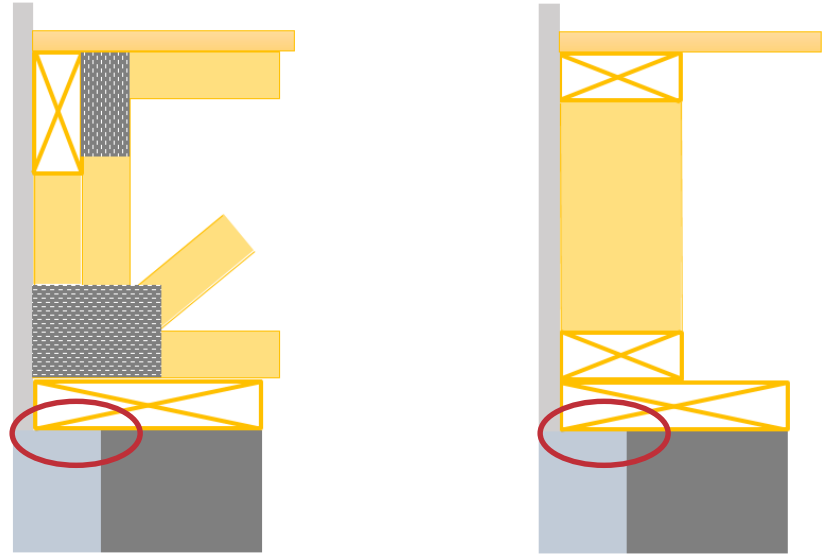
Step 3 – Verify Design Assumptions

- Floor system is bottom chord bearing metal plate connected wood trusses.



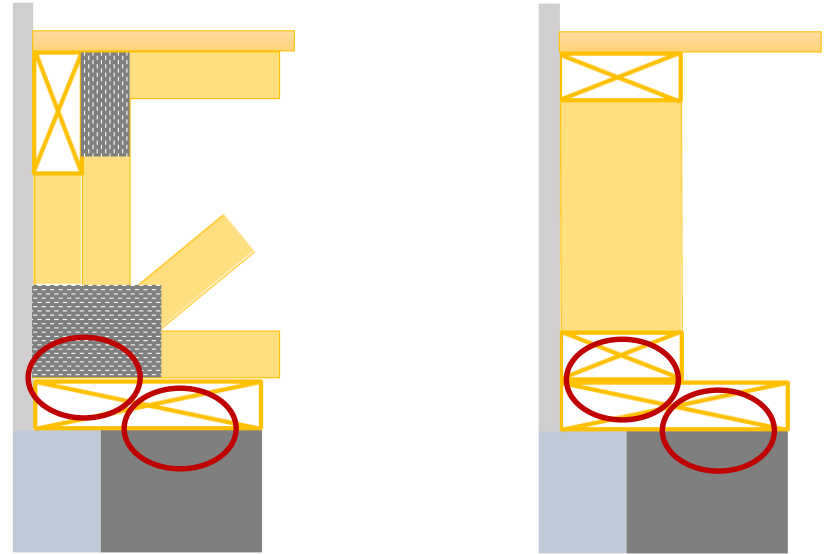
Step 4 – Verify Design Assumptions

- The sill plate does not overhang the foundation by more than $1\frac{9}{16}$ ".



Step 5 – Verify Connections

- Truss to sill plate and sill plate to foundation connections are required.
- Consult the locally adopted building code for connection requirements.



Step 5 – Verify Connections

- The truss-sill plate connection should be as close as practical to the line of sill plate anchor bolts to prevent parallel to grain bending in the sill plate when loaded in uplift.
- No additional consideration is required due to the cantilever.

