

Individual Consideration Agenda

Public Comment 2:

IRC: APPENDIX BB, SECTION BB108 (New), BB108.1 (New), BB108.1.2 (New), FIGURE BB108.1.2 (New), BB108.1.3 (New), FIGURE BB108.1.3 (New), BB108.1.4 (New), FIGURE BB108.1.4(1) (New), FIGURE BB108.1.4(2) (New), FIGURE BB108.1.4(3) (New), BB108.1.5 (New), TABLE BB108.1.5 (New)

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Replace as follows:

2024 International Residential Code

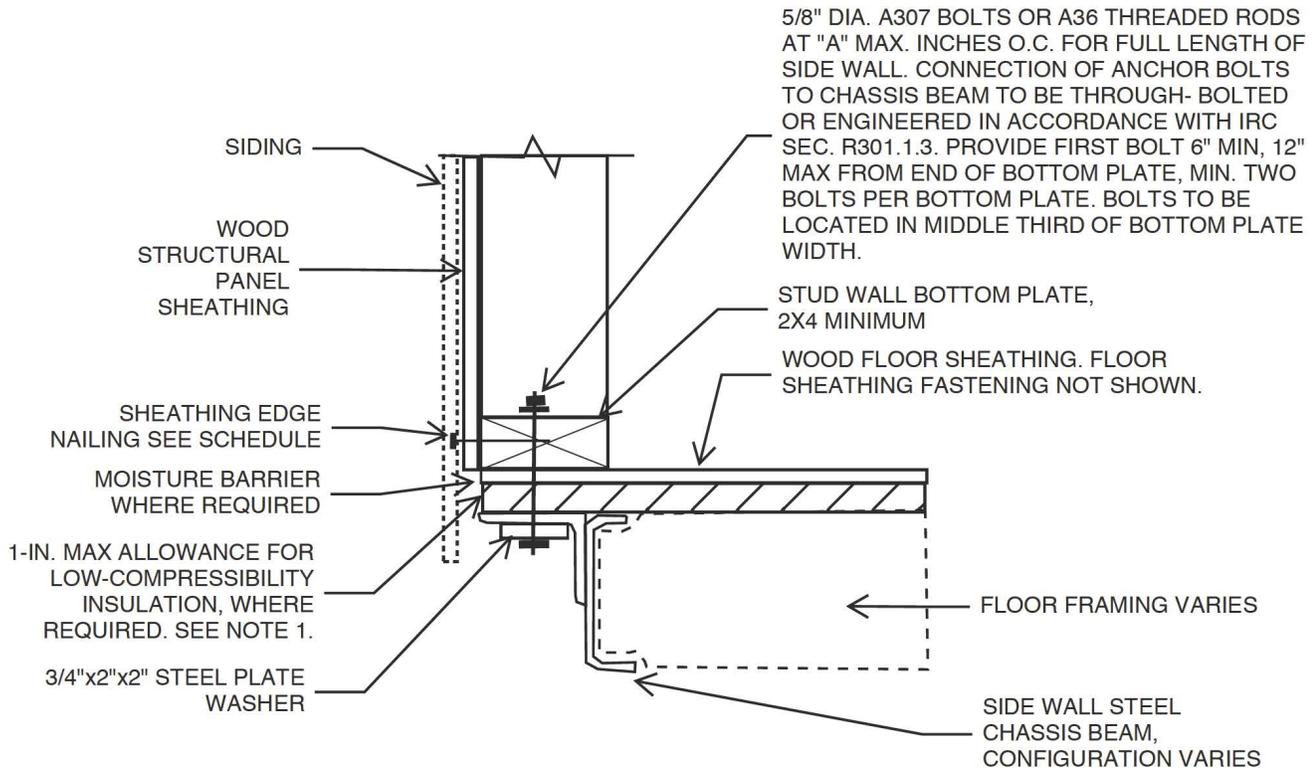
APPENDIX BB TINY HOUSES

SECTION BB108 ALTERNATIVE PRESCRIPTIVE STRUCTURAL DESIGNS

BB108.1 Use of alternative prescriptive structural provisions. *Relocatable tiny houses* meeting all of the following scoping limits shall be permitted to use the provisions of Sections BB108.1.2 through BB108.1.5 in lieu of an engineered design for those elements:

1. In Exposure C, ultimate wind speed not greater than 115 MPH (Table R301.2).
2. In Exposure B, ultimate wind speed not greater than 130 MPH (Table R301.2).
3. Not located in hill, ridge, or escarpment locations that require consideration of wind topographic effects in accordance with IRC Section R301.2.1.5.
4. Seismic Design Category A, B or C (Table R301.2).
5. Top of lowest floor not more than three feet above *grade plane*.
6. Mean roof height not more than 15 feet above *grade plane*.
7. End wall length not less than 7'-6" nor more than 12'-0".
8. Side wall length not greater than 40 feet.
9. Framed wall height from top of lowest floor to bottom of roof framing not greater than 12'-0".
10. Roof slope between 0 and 45 degrees.
11. Roof framing spanning in the short direction (side wall to side wall).

BB108.1.2 Side wall to chassis frame connection. The side wall connection to the *chassis frame* shall be in accordance with Figure BB108.1.2

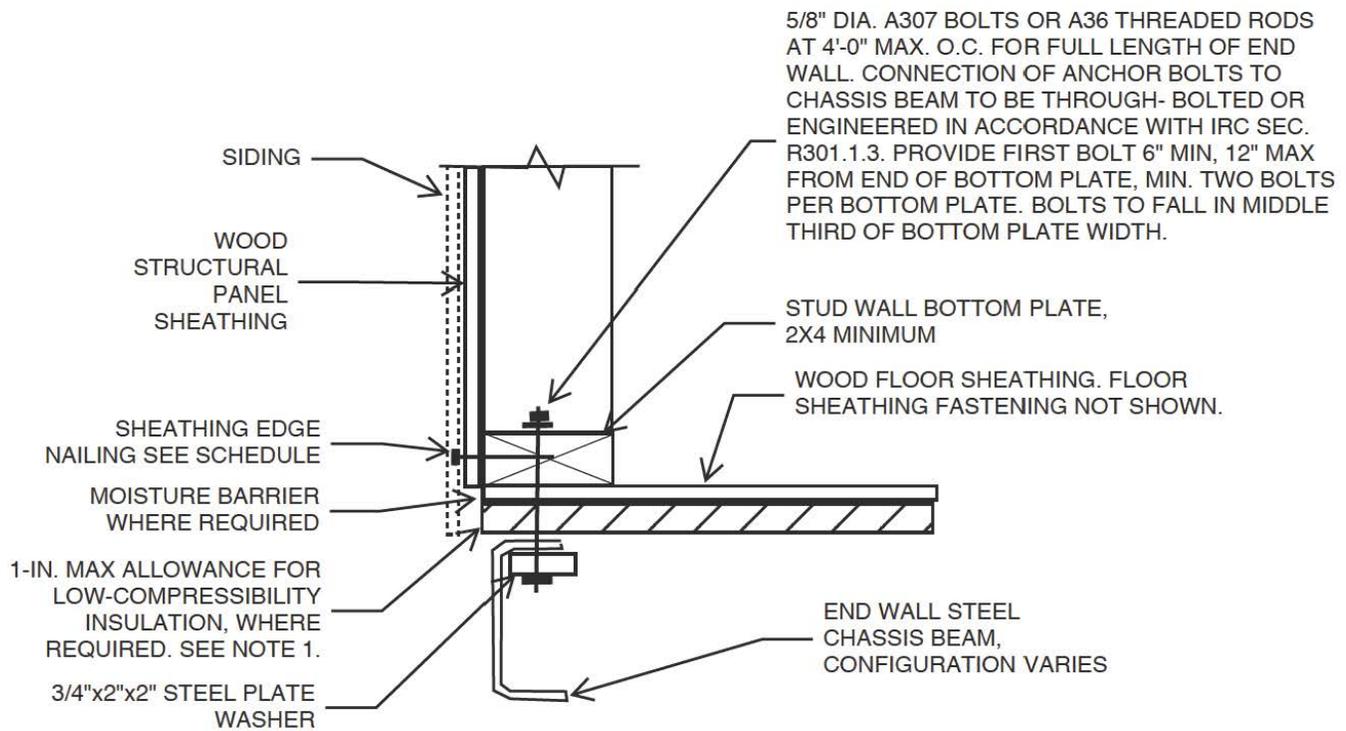


NOTE 1: LOW COMPRESSIBILITY INSULATION TO BE EPS OR SIMILAR. COMPRESSIVE STRENGTH TO BE NOT LESS THAN 25 PSI AT 10% COMPRESSION. PROVIDE 1-1/2" MINIMUM BEARING WIDTH BETWEEN INSULATION AND SUPPORTING CHASSIS BEAM.

DWELLING MAXIMUM WIDTH (FT)	"A" MAXIMUM ON-CENTER SPACING OF BOLTS (IN)
UP TO 8'-0"	42
8'-1" TO 12'-0"	36

FIGURE BB108.1.2 PRESCRIPTIVE SIDE WALL CONNECTION TO CHASSIS FRAME WITH FLUSH FLOOR FRAMING

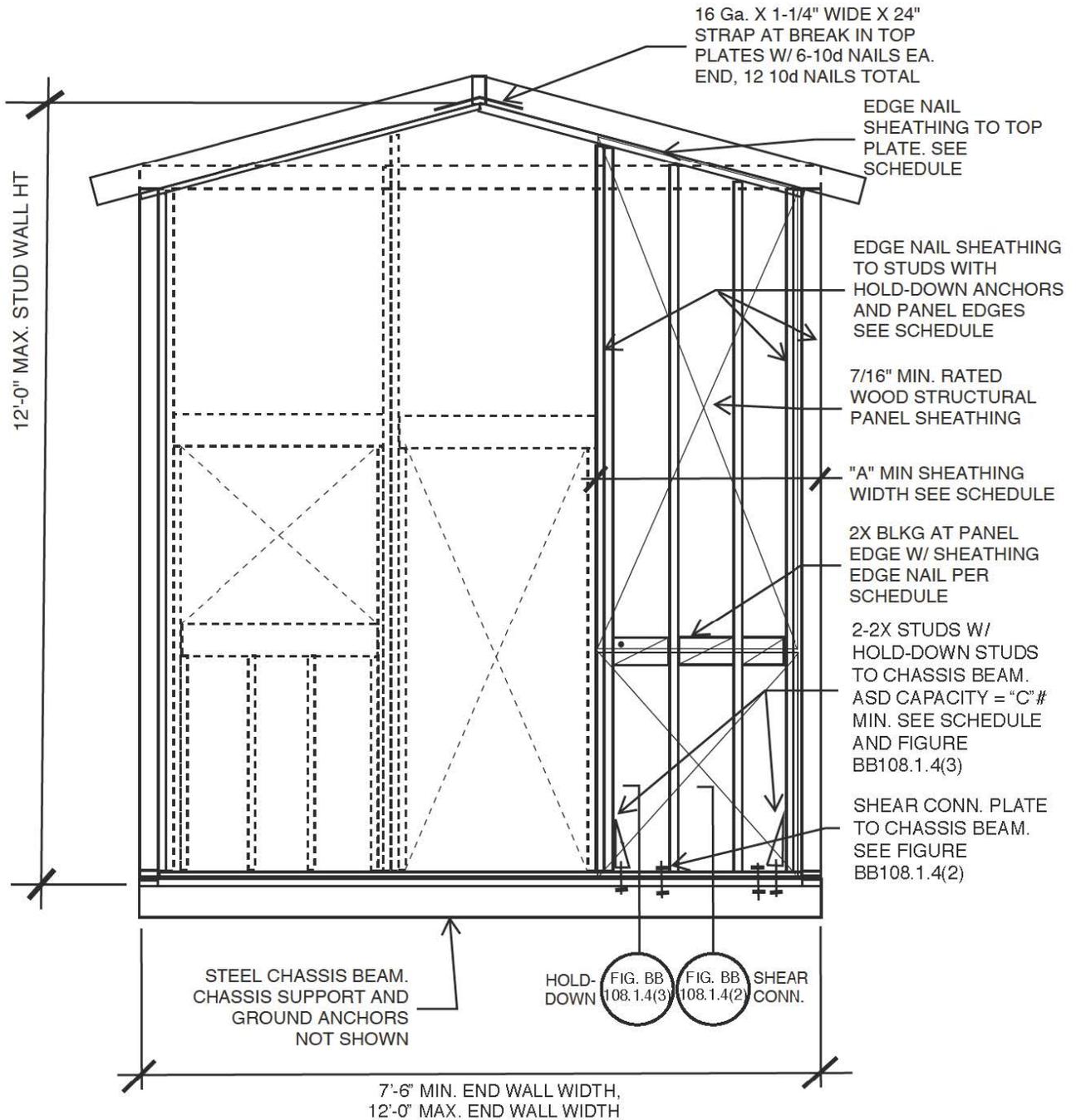
BB108.1.3 End wall to chassis frame connection. The end wall connection to the *chassis frame* shall be in accordance with Figure BB108.1.3.



NOTE 1: LOW COMPRESSIBILITY INSULATION TO BE EPS OR SIMILAR. COMPRESSIVE STRENGTH TO BE NOT LESS THAN 25 PSI AT 10% COMPRESSION. PROVIDE 1-1/2" MINIMUM BEARING WIDTH BETWEEN INSULATION AND SUPPORTING CHASSIS BEAM.

FIGURE BB108.1.3 PRESCRIPTIVE END WALL CONNECTION TO CHASSIS FRAME WITH FLUSH FLOOR FRAMING

BB108.1.4 End wall bracing. Bracing for one or both end walls shall be constructed in accordance with Figures BB108.1.4(1) through BB108.1.4(3).



"A" MINIMUM FULL-HEIGHT SHEATHING WIDTH	"B" SHEATHING EDGE NAIL SIZE AND SPACING (COMMON NAILS 0.0131 X 2-1/2")	"C" HOLD-DOWN REQUIRED ASD CAPACITY (LB)
3'-8"	8d @ 3"	6000
6'-0"	8d @ 6"	3700
8'-0"	8d @ 6"	2800

FIGURE BB108.1.4(1) ALTERNATIVE END WALL BRACING- ON STEEL CHASSIS FRAME

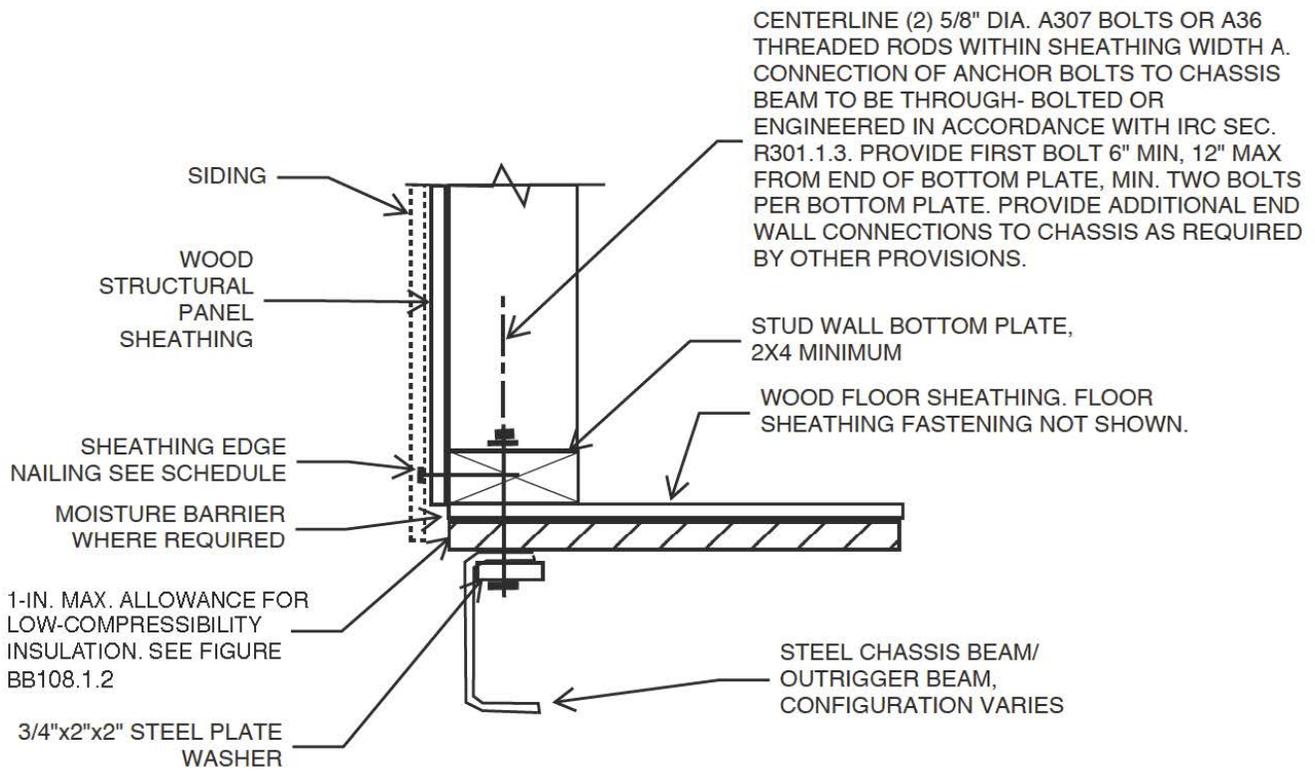


FIGURE BB108.1.4(2) ALTERNATIVE END WALL BRACING SHEAR CONNECTION

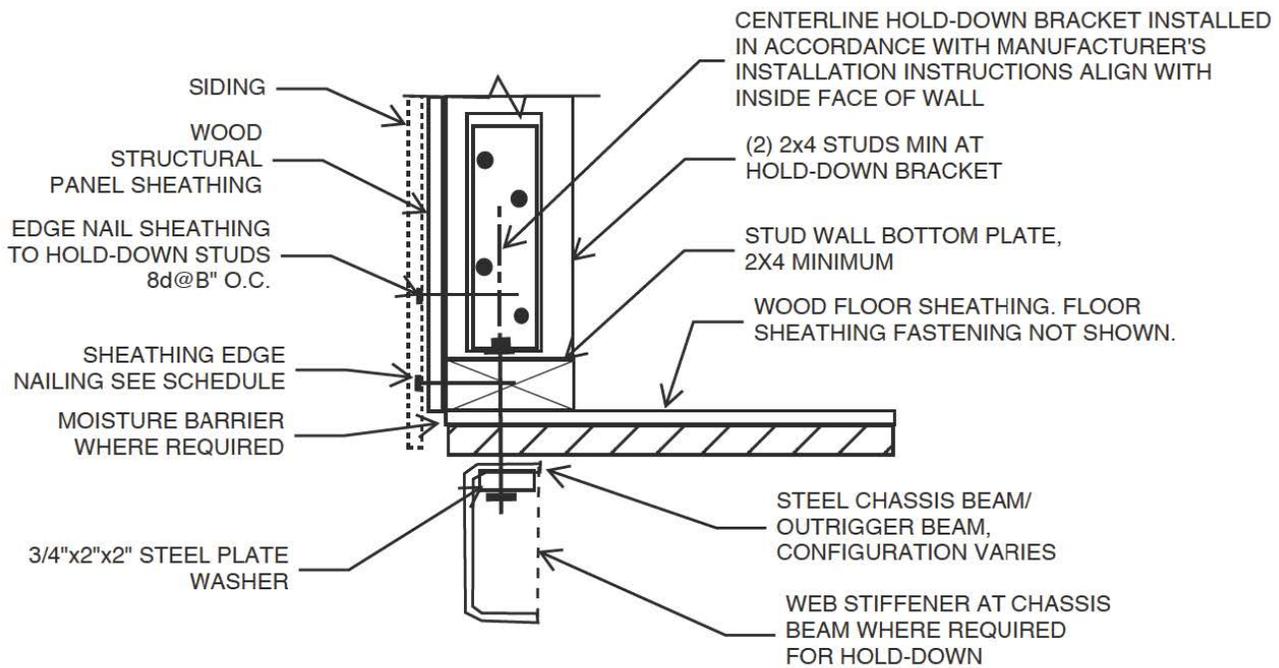


FIGURE BB108.1.4(3) ALTERNATIVE END WALL BRACING HOLD-DOWN CONNECTION

BB108.1.5 Roof sheathing. Roof sheathing shall be wood structural panel rated sheathing, conforming to the requirements of this code, with a minimum panel thickness of 7/16-inch and span rating of not less than 24/16. Sheathing shall be nailed with not less than 8d common nails (0.131" x 2-1/2"). Construction shall be as specified in Table BB108.1.5. Where required, blocking shall be with not less than 2x4 framing installed with 2-8d common toenails or 2-16d (0.162" x 3-1/2") common end-nails each end. Sheathing shall be edge nailed to rafters or continuous blocking at the full perimeter of all exterior walls.

TABLE BB108.1.5 CONSTRUCTION REQUIREMENTS FOR ROOF SHEATHING

Portions of table not shown remain unchanged.

RATIO OF SIDE WALL LENGTH DIVIDED BY LEAST END WALL LENGTH.	CONSTRUCTION TYPE.	SHEATHING NAILING AT SUPPORTED EDGES.	SHEATHING NAILING AT ALL PANEL EDGES.	FIELD NAILING.
0 to 3.0	Unblocked	8d@6"	-	8d@12"
3.1 to 5.5	Blocked	-	8d@6"	8d@12"
Greater than 5.5	Not Permitted	Not Permitted	Not Permitted	Not Permitted

Reason: Public Comments 1 and 2 for RB42-25 are related. PC1 adds Section BB107 to Appendix BB - Tiny Houses, specifically for relocatable tiny houses. It requires an engineered design for the chassis, chassis frame, and connections of the IRC-compliant dwelling structure to the chassis, and the chassis to the foundation and/or ground anchorage. PC1 is a stand-alone proposal and can be approved on its own. PC2 gives prescriptive design options for some structural elements instead of the engineered designs required in PC1. It does so in a separate new Section BB108 with no changes to proposed Section BB107 in PC1. PC2 is contingent on PC1, and usefully complements it if both are approved.

Alternative Prescriptive Structural Provisions Rationale

This Public Comment includes alternative prescriptive structural provisions in a separate Section BB108, informed by work created during

the ICC/THIA 1215 Standard development process and aligned with prevailing tiny house construction practices. The intent is to provide design and building professionals, building officials and homeowners with an immediately usable alternative prescriptive compliance path for end-wall bracing, and attachment of an IRC-compliant tiny house structure to an engineered, integrated chassis frame. The alternative prescriptive provisions in this Public Comment address particular challenges facing relocatable tiny houses that use IRC prescriptive requirements, as follows:

1. Alternative end-wall bracing that is challenging for long and narrow structures in the IRC.
2. Prescriptive attachment of an IRC-compliant structure to an integrated chassis frame that is not provided in the IRC. (See the [attached](#) file for structural calculations for the anchor bolt connections in Figures BB108.1.2 and BB108.1.3)
3. Alternative roof sheathing requirements that address challenges for long and narrow structures in the IRC. This carries forward applicable work developed to date in the ICC/THIA 1215 Standard effort, making it available in the current IRC code cycle.

The alternative prescriptive language in this Public Comment 2 is particularly valuable for small jurisdictions, small builders, owner builders, and situations where engineering resources or specialty review capacity may be limited. The proposed provisions are based on widely accepted dimensional limits, accepted engineering practice, and anchorage methods already in use. They have been designed and reviewed by civil and structural engineers to ensure they are appropriately adapted to the specific characteristics of relocatable tiny houses, including provisions for transit loads associated with relocation, included in Public Comment 1.

PC1 provisions require an engineered design to demonstrate the chassis frame is capable of supporting the completed structure above and safely delivering its gravity and lateral loads to the ground with an engineered foundation and anchorage system.

Prescriptive structural design options for elements not included in this Public Comment are anticipated for future code cycles. In the meantime, local jurisdictions could provide prescriptive chassis frame designs, or foundation, and ground anchorage options for relocatable tiny houses using well-established resources such as IRC Appendix BA.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: This Comment does not change the provisions in Appendix BB for tiny houses permanently fixed to a foundation, and therefore does not impact their cost. Rather, it introduces a distinct new category of tiny houses. Although there are similarities between tiny houses and relocatable tiny houses, the added requirements for relocatable tiny houses form their own construction cost baseline.

Staff Analysis:

PC 2 is contingent on the approval of PC 1

Attached Files

- **StructuralCalcs_ForRB42-25_PC2_BB108.pdf**
<https://www.cdpassess.com/public-comment/4052/40053/files/download/11983/>