

HOUSE³

transitional housing module



HOUSE³

transitional housing module

House³ module is based on the development of a 3 bedroom, single family housing unit which meets all IRC housing codes while serving the greatest residential need (i.e. 3 bedroom housing).

House³ Design Team consists of:

- +Project Leader
- +Architect
- +Architecture Intern
- +Structural Engineer
- +Electrical Engineer
- +Manufacturing Engineer
- +Builder
- +U of M Building Inspection Department

Front



Back



Aerial



HOUSE³

transitional housing module

The most unique characteristic of House³ is its ability to be transported, assembled, disassembled, and redeployed.

House³ panels are packed into shipping mode for transportation by truck. An on-site crane then unloads panels from the shipping box while a small team works to connect wall, clerestory, and roof panels. This not only doubles square footage of the unit, but adds vertical space for sunlight and ventilation in main living areas.



Shipping mode

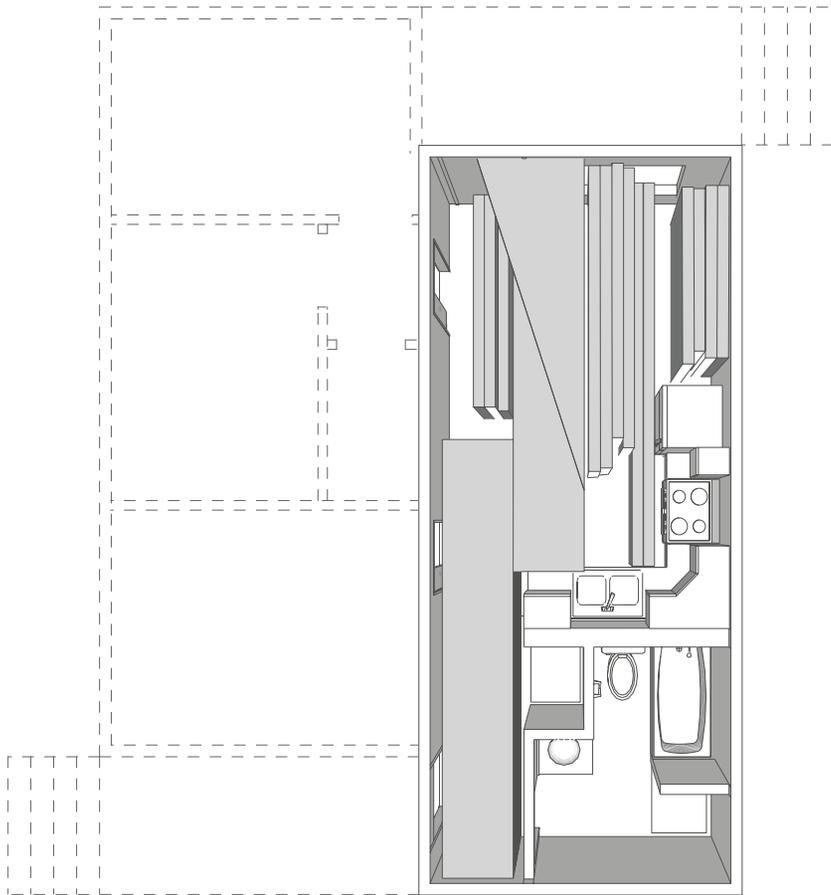


Living mode

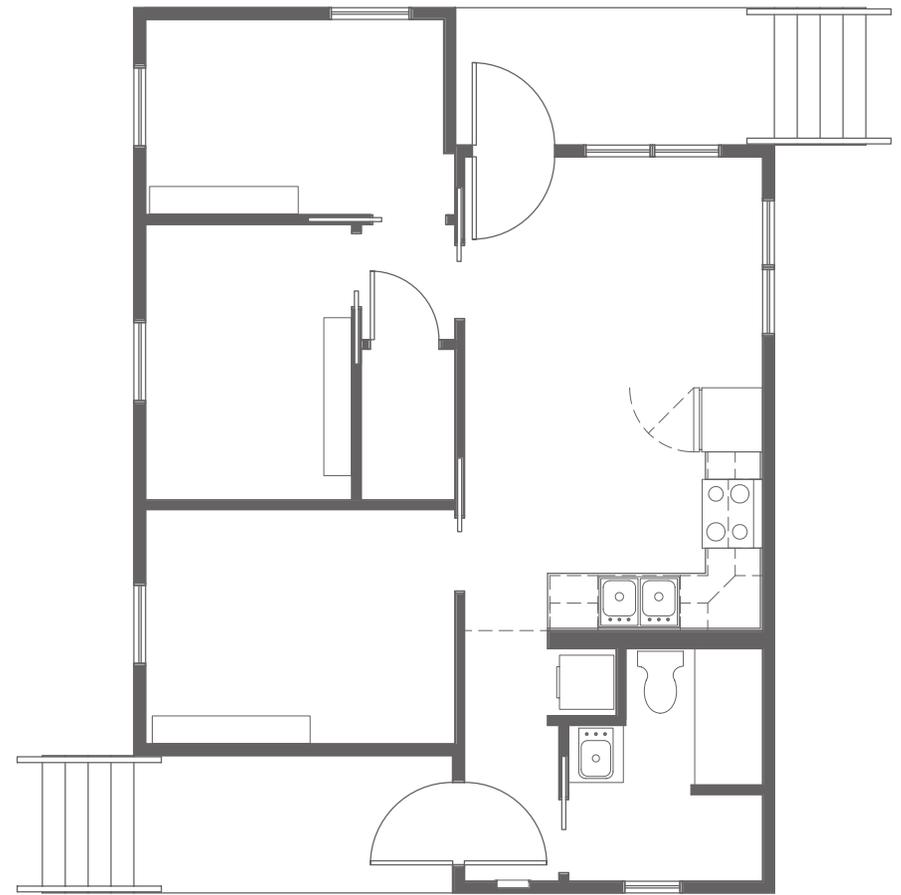
HOUSE³

transitional housing module

House³ was developed as a container for its own components during shipping mode. Wall and roof panels are unloaded and connected on site - transitioning the module to living mode.



Shipping mode

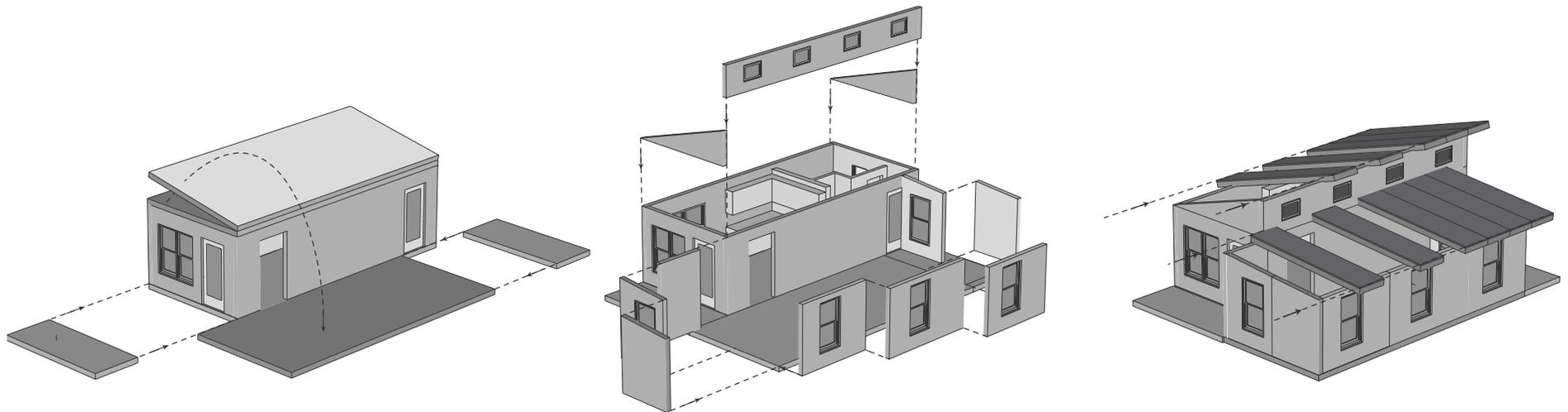


Living mode

HOUSE³

transitional housing module

This assembly diagram shows how wall and roof panels, once removed from the shipping box, are sequentially attached to complete the House³ module.



HOUSE³

transitional housing module



Aerial view of interior



House³ kitchen

HOUSE³

transitional housing module

House³ uses proprietary wall connectors to ensure that prefabricated wood framewalls can be slid into place directly on site with minimal effort.

The images (right) indicate how the connectors can be easily installed during the manufacturing process. On site this allows for a secure connection with adjacent panels during field assembly.

Most importantly, the connectors allow for a clean disassembly and repacking of the module for relocation.



HOUSE³

transitional housing module

House³ units could be quickly mobilized using existing regional Morton Buildings, Inc. infrastructure, providing an advanced, standard residential product nationwide.



Morton Building Resources:
+118 Construction Centers
+6 Manufacturing Plants
+900 Construction Personell



HOUSE³

transitional housing module

From our centrally located manufacturing facilities we can quickly distribute nation wide by truck, rail, or water.

House³ units may be stacked for convenient storage and ready for deployment as necessary.

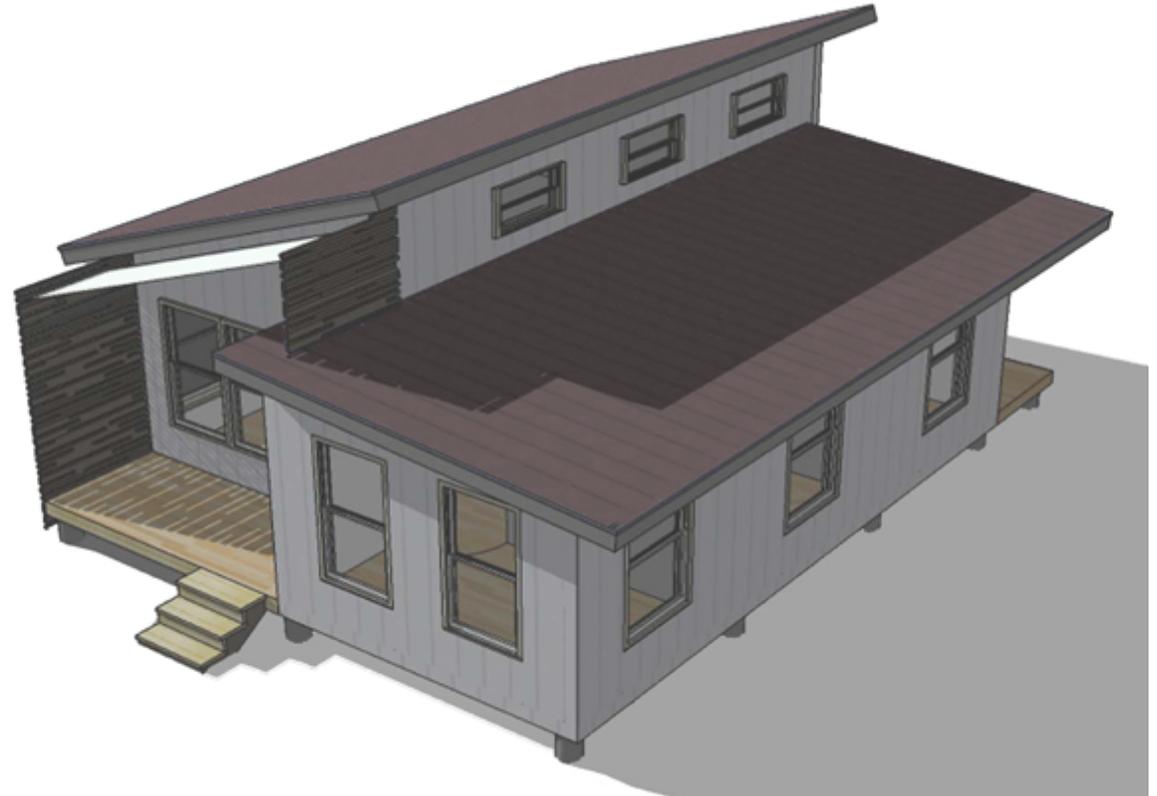


HOUSE³

transitional housing module

House³ units can easily and affordably be modified for a variety of climate zones. For example, our sun control devices can be added to all units.

In addition, accessible and adaptable units meeting all requirements of Americans with Disabilities Act Accessibility Guidelines (ADAAG) are available.



HOUSE³ transitional housing module

Team approach for project: UMD Scientists, UMD students, UM Building Inspectors, Business Owners, and Union Labor



HOUSE³ transitional housing module

House³ nearing completion in West Duluth pilot plant



Vendor Support: Donated and Discounted Building Materials

Knapp Verbinder

Fastenal

Kohler

General Electric

Dow Chemical

BASF – North American Polyurethane

James Hardie Building Materials

Marvin Windows

Potlatch

Hedstrom Lumber

Lake States Lumber

Hill Wood Products

Crystal Cabinets

Viking Engineering

Stanley Bostich

Simpson StrongTie

Northern Sheer Veneer

Carlson Brothers Plumbing

Benson Electric

WTW Construction Services

Manion's Wholesale

Edward Sales

Ferguson

Valspar

Viking Electric

Morton Building