BUILD BLOCK REPRESENTATIVE

ITEM# BBM-2100 REV. 02/10 BuildDeck™ Pocket Installation Guide

BuildDeck™ System is a lightweight, stay-in-place Insulating Concrete floor and/or roof decking Form System.

BuildDeck™ is perfect for Insulated site-cast or precast concrete floors, roofs, decks, and walls for commercial, industrial and residential uses.

BuildDeck™ Provides structural integrity and strength through the reinforced concrete floor, deck or wall, the form creates.

BuildDeck™ Offers superior EPS insulation resulting in highly insulated structures that are both comfortable and extremely quiet.

TOOLS AND MATERIALS

- Hand saw / shark tooth saw
- Skill saw / table saw
- Key hole saw
- Drill
- Grinder/tin snips
- Hot knife or combo hot knife kit
- Hammer
- Framing square / speed square
- Concrete finishing tools
- Tape measure
- Rebar bender / cutter
- Shoring materials
- Concrete vibrators (internal / external)
- Foam: Guns, Glue, Cleaner
- Work gloves
- Safety glasses
- Rebar tie tool
- Level, laser level and/or transit

PRE-POUR CHECKLIST

- Check all bracing for proper set up
- Inspect and install additional shoring where necessary
- Go over utility diagrams
- Ensure all ceiling attach strips are in place
- Inspect all steel, steel splices and intersections for proper connection and concrete embedment
- Verify concrete mix ordered
- Prepare all finishing tools
- Prepare all accessories that may be needed
- Have extra lumber, fasteners, etc available

SHORING ASSEMBLY

(See BuildDeck Install Manual for full details)

1. Attach 2"x8" girders back to back with appropriate width spacers using 16d nails.
2. Attach joist hangers to girders 24” O.C. using approved fasteners. Height adjusters are acceptable.
3. Cut posts and vertical supports to ceiling height less 7.5" (girder height).
4. Install purlin spacer on posts.
5. Assemble as shown below.

Simpson Joist Hanger
attached w/(4) 10d nails
Ellis Manufacturing - 4"x4" Purlin Splicer may be substituted w/ other code approved method or component
Simpson LPC6Z or (2) H5 Clips
Simpson LUS26 Joint Hanger
attached w/(4) 10d nails
#2 or Better Southern Yellow Pine
2"x6"x8′ Vertical Support (Max Height 10′)
5"-1.5" Wood Spacers attached w/(4) 16d nails
STEP 1 WALL/SITE PREPARATION
1. Refer to “BuildBlock Install Manual” for proper wall installation procedures.
2. Determine ceiling height of current floor level. With laser level, indicate and mark “ceiling height” location.
3. Place joists in pre-hung joist hangers.

STEP 2 INSTALL SHORING (SEE SHORING ASSEMBLY SECTION)
1. Attach 2x4(min.) vertical girder supports to ICF wall with Simpson LPZ6C or HS clips.
2. Attach 2”x8” girders to intermediate posts with purlin height as the intended ceiling height.

STEP 3 INSTALL DECKING
1. Starting in one corner of the floor, place a BuildDeck panel. Interlock the next panel utilizing the male/female connection tongues. Continue until first row is complete.
2. Once a row is complete, cut the male tongues off the appropriate end, and glue them into the female cores on the other end to eliminate concrete waste.
3. Install BuildBlock provided 2” x 2.5” x 2” C-channel around one arm of the BuildDeck panel. This will provide an attachment strip for ceiling elements every 24” O.C. (these may be installed on both arms optional)
4. Repeating steps 1 through 3 continue placing rows until the floor area is covered. Any cuts that need to be made in order to achieve proper fit can be done at the end of a row, and on the last row to be placed. The panels should fit snug, but may require glue or further attachment. If gluing do not cover drain holes.

STEP 4 INSTALL BEAM STEEL
1. Each beam that is formed by the panels will require 2 runs of steel in the bottom unless otherwise specified by your Engineer. The steel size will vary based on Engineer’s recommendations.
2. Place appropriate size steel on min. 3/4” risers placed on the top of the BuildDeck™ 12” Panel.
3. Install BuildBlock provided 2" x 2.5" x 2" C-channel around the wall’s horizontal steel to within 3/4” of outside wall.
4. From the underside of the floor system, drive 4” screws, 12” O.C. Start in corner, install supports 72” O.C. from end wall along both sides (long walls).

STEP 5 INSTALL GRID (SLAB) STEEL
1. The grid placed in the slab will typically be #4 steel in a 12” x 12” grid pattern. Steel must be placed in a manner that ensures minimum 3/4” concrete coverage around all steel.
2. Start with the steel running perpendicular to the beams. Set steel on min. 3/4” risers placed on the top of the BuildDeck Panels.
3. You may bend sticks of steel to make the 90º angle that will splice into your wall, or place straight bars, and come back to tie in pre-fab 90º angle bars. Minimum 40 diameter overlap at all splices.
4. Once perpendicular steel is placed, repeat steps 2 and 3 for all parallel steel. Tie at intersections.

STEP 6 UTILITIES/OTHER PENETRATIONS
1. Work with all mechanical trades to make sure that pass-throughs for all utilities are in place. This includes plumbing, electric/communications, HVAC, or any other item that must continue between floor levels. It is worth the time now to make sure you have not forgotten anything.
2. Cut the appropriate size hole for the needed penetration. Place the item, or a sleeve (typically PVC piping) for the item in the panel. Extend past the top and bottom at least 4” Cover ends so not to fill with concrete. Avoid all cuts in beam areas.
3. Glue each sleeve in place using Foam-to-Foam, low expansion glue.
4. For the underside of the floor system, drive 4” screws through the C-channels protruding into the beam cavity. This will provide positive attachment between the concrete and the ceiling element.

STEP 7 CONCRETE PLACEMENT
1. After you have completed your pre-pour checklist and double checked all sharing and utility penetrations, it is time to place concrete.
2. If pouring walls and floors separately, fill walls to a height 12” lower than overall wall height.
3. Start by filling walls if they are not completed. Ensure to keep wall/beam intersections clear of loose concrete as it will harden and create a cold joint at this critical intersection.
4. Once walls are filled and properly consolidated, start at one end filling the beam panels. Consolidation is the most important concern. Vibrate the beams as you fill.
5. Once a beam is filled, fill the next beam. Any overflow can be pushed between the two beams to create the slab. As you are filling beams, ensure that enough concrete has been placed on top of the panels to complete the slab.
6. As the beams are being filled, have a float man follow and smooth the concrete floor to the appropriate height.
7. Complete this process until the entire floor area is covered and floated to the appropriate height.

ESTIMATING TABLE

<table>
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<th>Length</th>
<th>Width</th>
<th>Area</th>
<th>Con. Vol.</th>
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</tbody>
</table>

*Concrete volume based on top cap height of 3". Add .012222 cu. yd. per form for each additional 1".

WARNING ! All concrete and steel design must be specified by the Engineer of record. All tables, figures, diagrams and other information provided by BuildBlock are for estimation purposes only. Follow all instructions carefully.