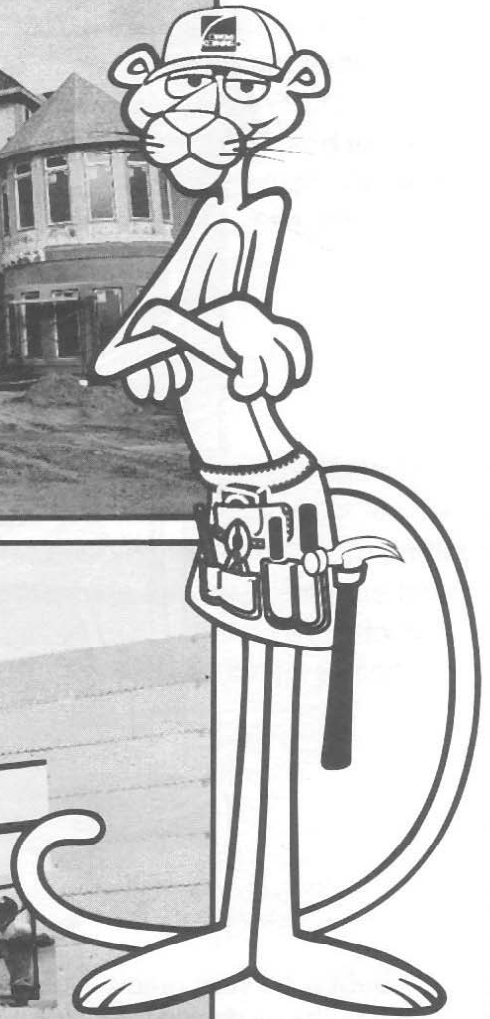


# Advanced Residential

## Advanced Installation

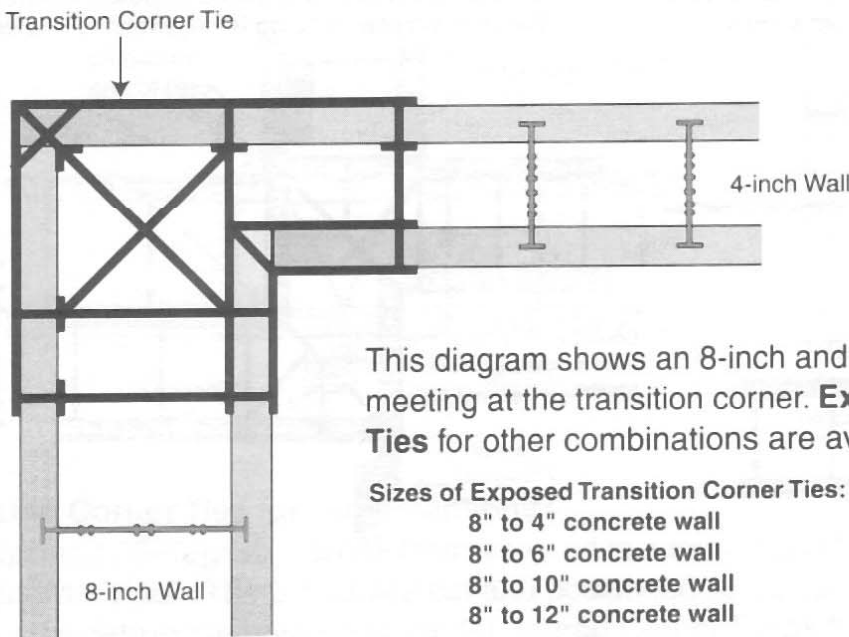


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United Artists Corp.

## Transition Corners

Transition corners may be appropriate for below-grade projects which are in sloping ground conditions where some of the concrete walls will be totally below-grade while others are "walk-out" walls. Changing the wall thicknesses is normally done at the project's corners with the use of an **Exposed Transition Corner Tie**. Standard blocks must be trimmed on inner side of Corner Tie. Slots must be cut into the blocks to accommodate the Transition Corner Tie.

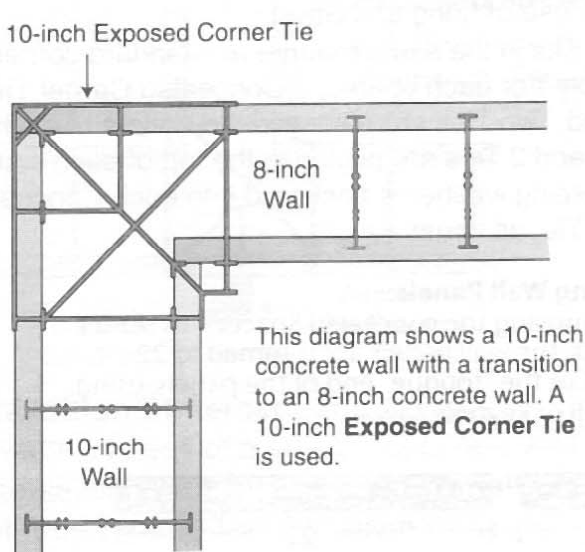
Transition Corner Ties can be used to assemble **T Intersections** which have different thicknesses at the intersecting wall. See **"T-Intersections"** in this Manual.



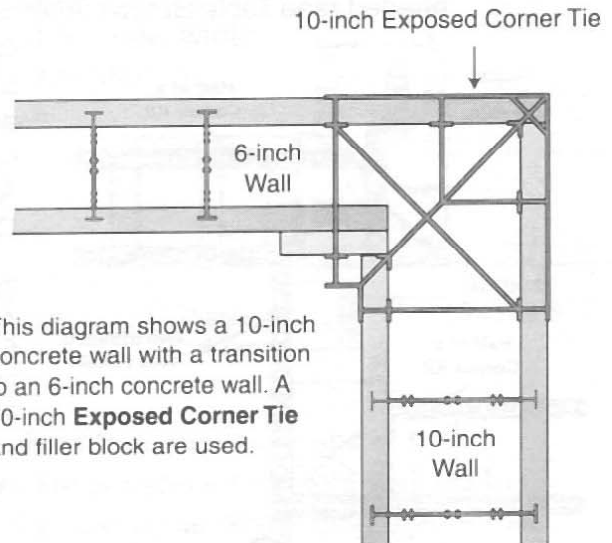
This diagram shows an 8-inch and 4-inch concrete wall meeting at the transition corner. **Exposed Transition Corner Ties** for other combinations are available.

- Sizes of Exposed Transition Corner Ties:**
- 8" to 4" concrete wall
  - 8" to 6" concrete wall
  - 8" to 10" concrete wall
  - 8" to 12" concrete wall

### Using Exposed 90° Corner Tie for Transition Corner



This diagram shows a 10-inch concrete wall with a transition to an 8-inch concrete wall. A 10-inch **Exposed Corner Tie** is used.

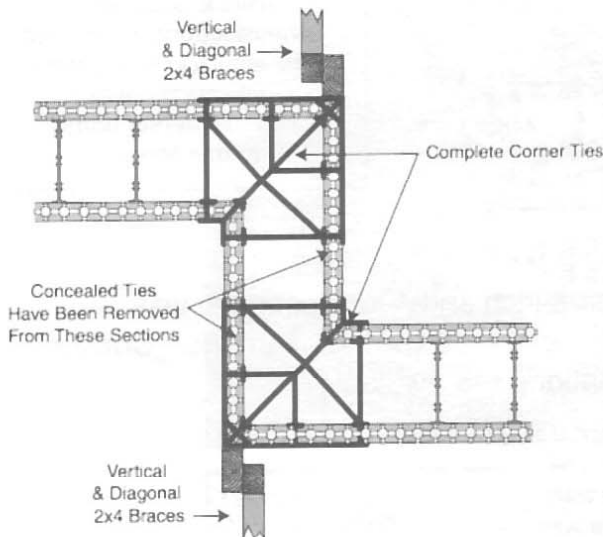


This diagram shows a 10-inch concrete wall with a transition to a 6-inch concrete wall. A 10-inch **Exposed Corner Tie** and filler block are used.

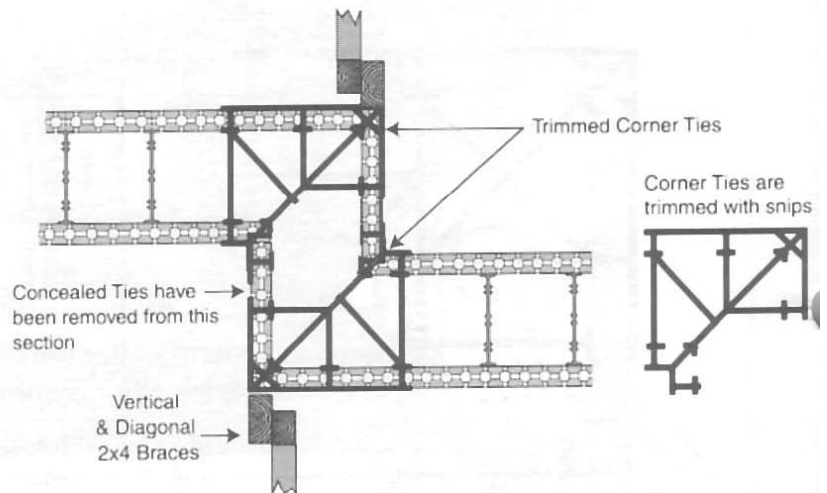
## 2-Foot Offset & 1-Foot Offsets

Forms for offsets can be assembled with two **Exposed Corner Ties**. Full blocks must be trimmed and slots added, to accommodate the Corner Ties for each 12-inch course, up the wall. Trimming and slotting dimensions will vary and are determined by the concrete wall thickness. Corner Ties must always be placed at the bottom of the form, where slots must be cut deep enough to allow the ties to be inserted flush with the bottom of the block. Subsequent ties are placed so the tabs support two courses of insulation.

**2-Foot Offset (using complete Exposed Corner Ties)**  
Exterior vertical bracing is required, as shown.



**1-Foot Offset (using trimmed Exposed Corner Ties)**  
Exterior vertical bracing is required, as shown.

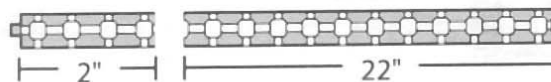
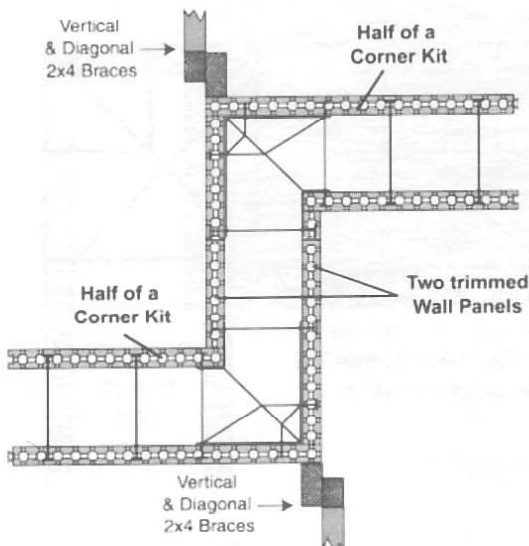


Two-foot offsets can be assembled with **Concealed Corner Ties**, by combining half of 2 corner Kits with 2 trimmed lengths of insulating wall panels. After removing the concealed Spacer Ties from a full block, the insulating wall panels are trimmed, as needed (see Table Below). Alternate the use of Long and Short

Corner Kits in the same manner as standard corner assembly. For each course, 4 Concealed Corner Ties are used. Two Ties are placed in the bottom of each course and 2 Ties are placed in the top of each course. A reinforcing washer is anchored into each Concealed Corner Tie, as usual.

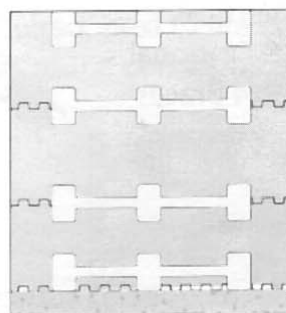
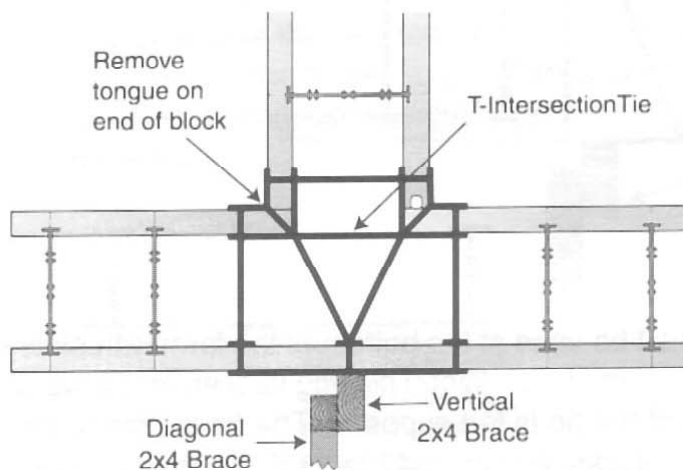
### Trimming Wall Panels

After removing the concealed Spacer Ties from a full block, the wall panels are trimmed to 22 inches. Cut the "tongue" end of the panels, using a drywall or keyhole saw.



## T-Intersections

For a T-intersection along a straight concrete wall **up to 8-inches thick**, one side of a full block must be removed, at the intersection and the intersecting block is placed at the intersection. Slots must be cut in the blocks, to accommodate an **Exposed T-Intersection Tie**, as shown in diagram. A Tie is placed at the bottom and top of wall and at each 12-inch course of blocks, up the wall. Opposite the intersection, a vertical brace is anchored to each T-intersection, a diagonal brace is attached to the vertical brace with 3" drywall screws and firmly anchored at the bottom.

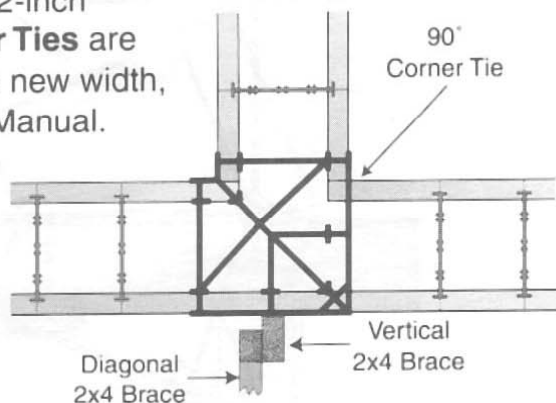
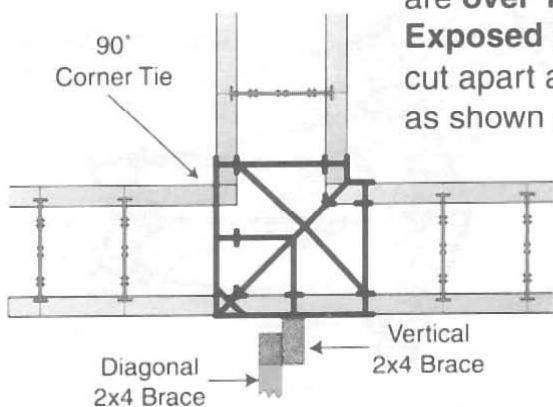


*T-Tie is placed at bottom of wall, at every row of blocks & at top of wall.*

### Using Corner Ties for T-Intersections

**Exposed 90-degree Corner Ties** are used in intersections for walls which are **over 8-inches thick**. The blocks are cut and positioned as usual. The T shape is assembled by **alternating** the position of the 90-degree Corner Tie as the wall is assembled. Additional bracing is also required. For T-intersections in concrete walls which

are **over 12-inches thick**, 12-inch **Exposed 90-degree Corner Ties** are cut apart and re-wired at the new width, as shown elsewhere in this Manual.

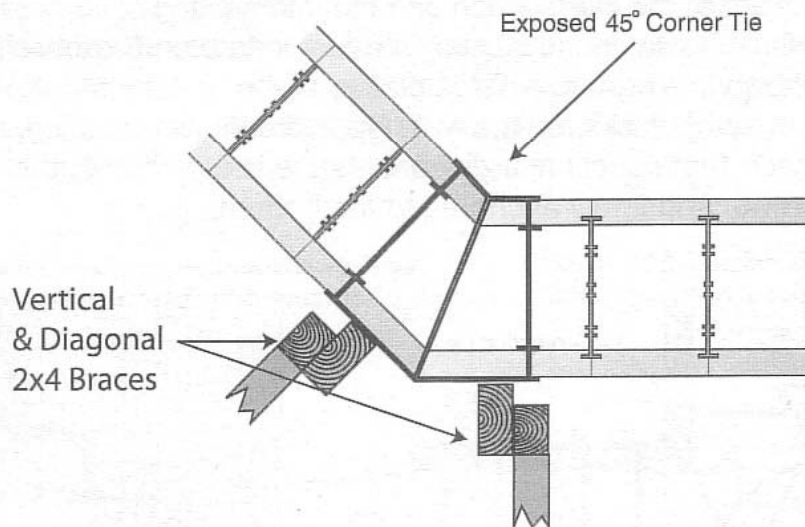


### Transition T-Intersections

If the thickness of a straight concrete wall is **different** than the thickness of the intersecting wall, an **Exposed Transition Corner Tie** is used for straight wall **up to 8-inches thick**. The Transition Corner Tie is used in the same alternating manner as the 90-degree Exposed Corner Tie.

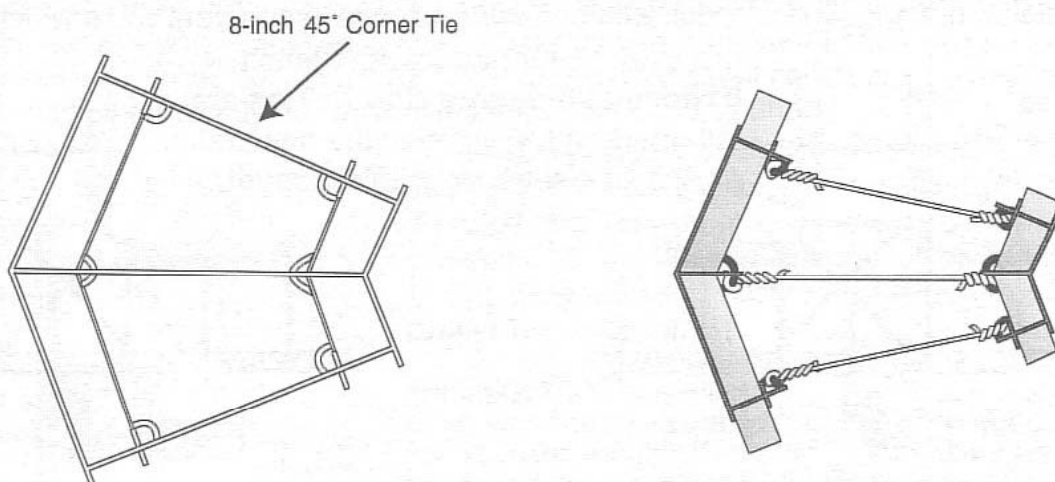
## 45° Corners

For concrete wall thicknesses of 4, 6, and 8-inches, installer uses a single piece, **Exposed 45° Corner Tie**.



As with all special corners, ties must be used at the bottom of the form with slots cut deep enough to be flush with edge of the block. When placing subsequent rows of ties, they are placed so that half of the tie is left exposed. The tie is now ready to receive the next row of insulation blocks. Vertical 2x4 braces (Full height of wall) must be anchored to Ties with drywall screws or wire. Diagonal Braces must be attached & firmly anchored at the bottom

## 45° Corners for wall thickness greater than 8-inches thick

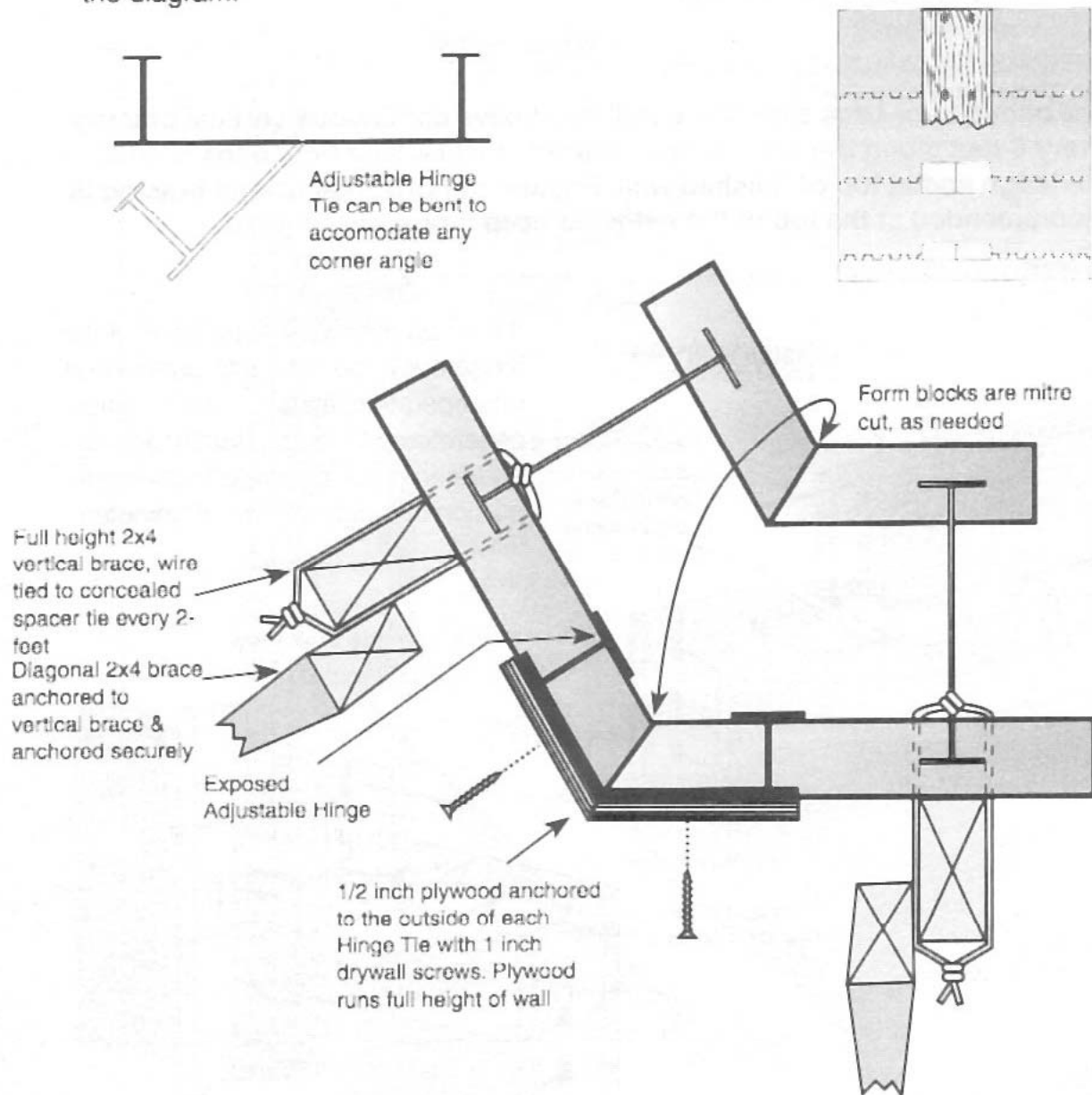


The 8-inch **Exposed 45° Corner Tie** is used in concrete walls which are greater than 8-inches thick. The plastic Tie is cut apart as shown and re-assembled by connecting the inner and outer parts of the Tie with lengths of 12-gauge steel wire inserted through the Tie's loops, as shown.



## Custom Corners

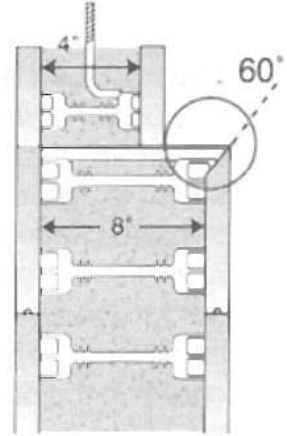
The **Exposed Adjustable Hinge Tie** is used to form corners other than 90° or 45°. The center of the tie is flexible (hinged) so that it can accommodate nearly any corner angle. One Hinge Tie is used at the outside of the corner. Special slots must be cut to accommodate the Hinge Tie. At the bottom of the form, the hinge tie must be pressed completely into the slots so that it is flush with the block. For subsequent rows, ties are pressed half-way into the block so that top of tie is exposed. Tie is now ready to receive the next row of insulation blocks. Before assembly, all blocks should be mitre-cut to the proper angle. Vertical braces are required, next to the corner, as shown in the diagram. Vertical braces are required, next to the corner, as shown on the diagram.



## Brick Ledge

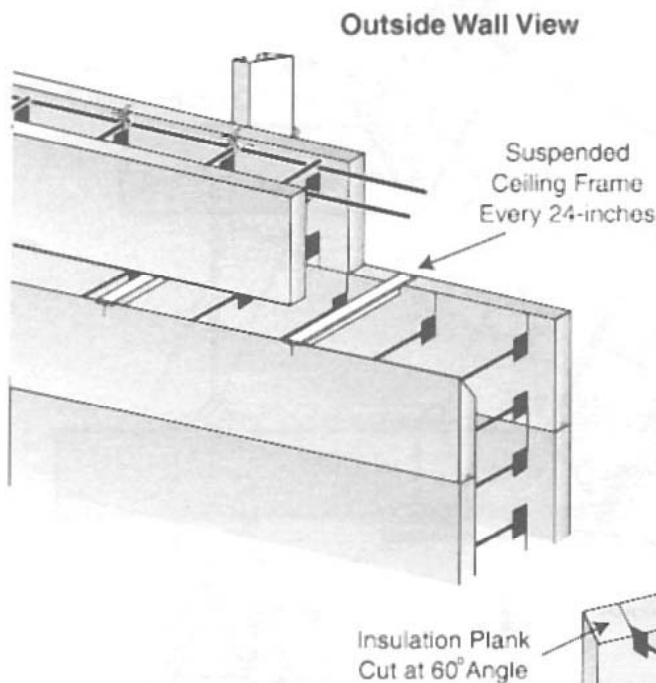
Brick ledges are used to create a concrete support for brick fascia (veneer) or a floor system. This technique creates a 4-inch wide ledge by reducing the concrete wall width (above the ledge) by 4-inches. Prior to assembly, the edge of the insulation planks at the ledge is field trimmed by installer with a hand or power saw at a 60° angle.

At the ledge, the form is supported by inserting lengths of metal suspended ceiling frame\* are trimmed to span the wider wall, every 24-inches along the ledge. Slots must be cut for this frame which will remain in the wall.



\*Purchased by installer at building materials center.

**The common or back side of the wall must have continuous vertical bracing every 8-feet along the wall. Vertical braces must be wire tied to the form at the ledge and at top of finished wall. Friction fit horizontal in-wall bracing is recommended at the top of the ledge, to keep it properly aligned.**



If the upper and lower portions of the ledge are to be filled with concrete in one operation, installer should place concrete up to ledge, float it smooth and then place concrete in the upper portion of ledge approx. 30 minutes later.

**Inside Wall View**

