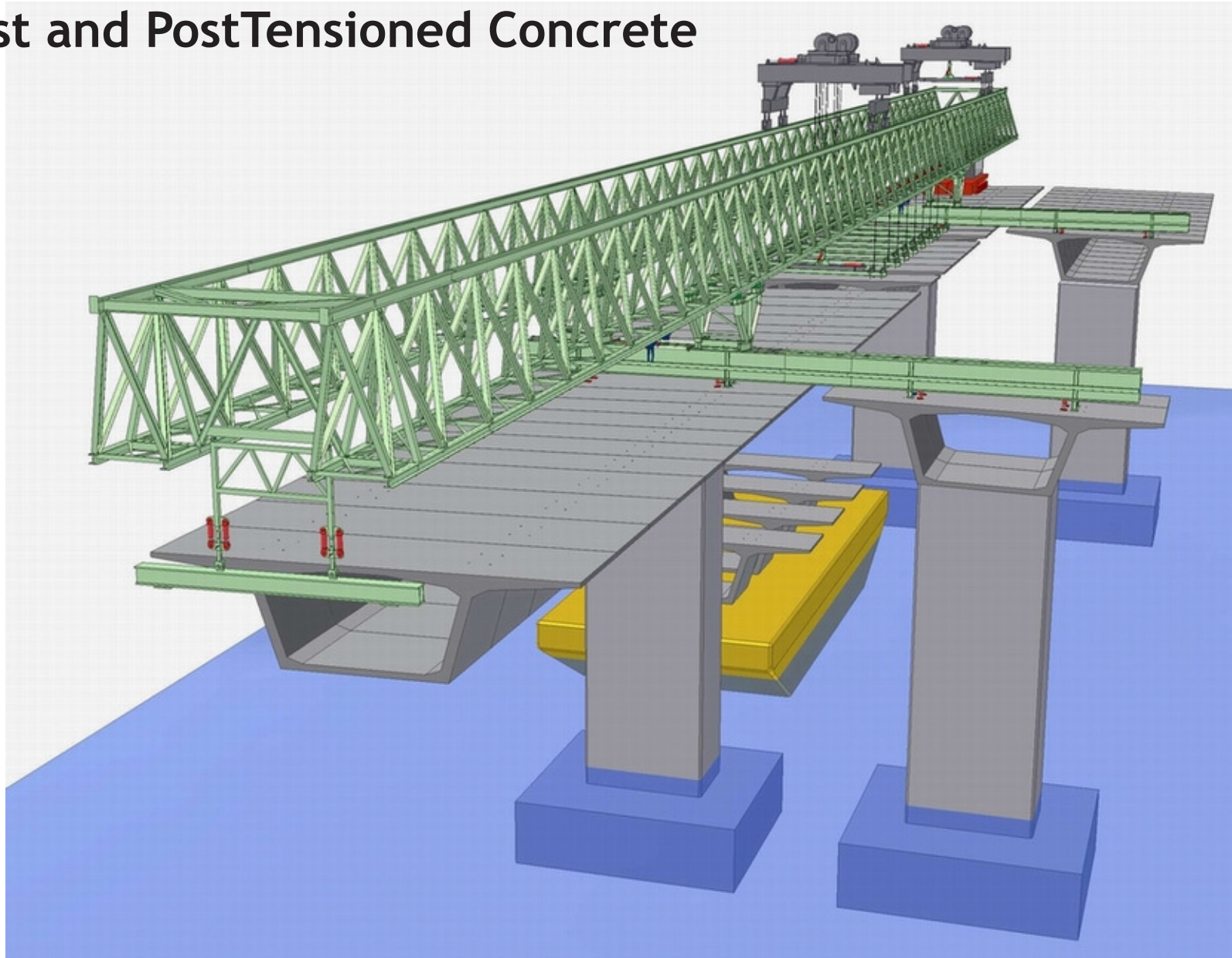


Architectural Technology V

|

Precast and PostTensioned Concrete

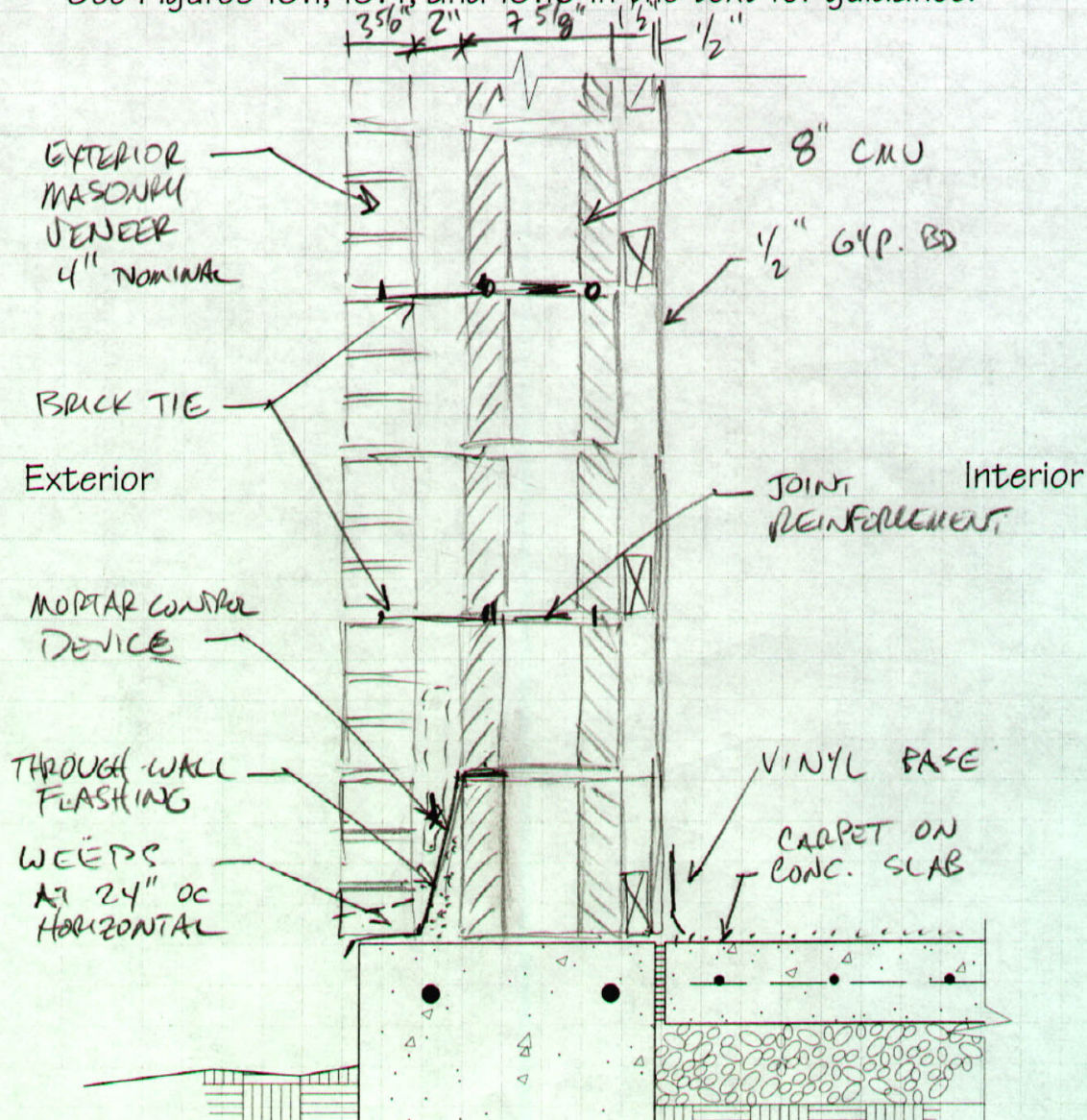




Architectural Technology V

3

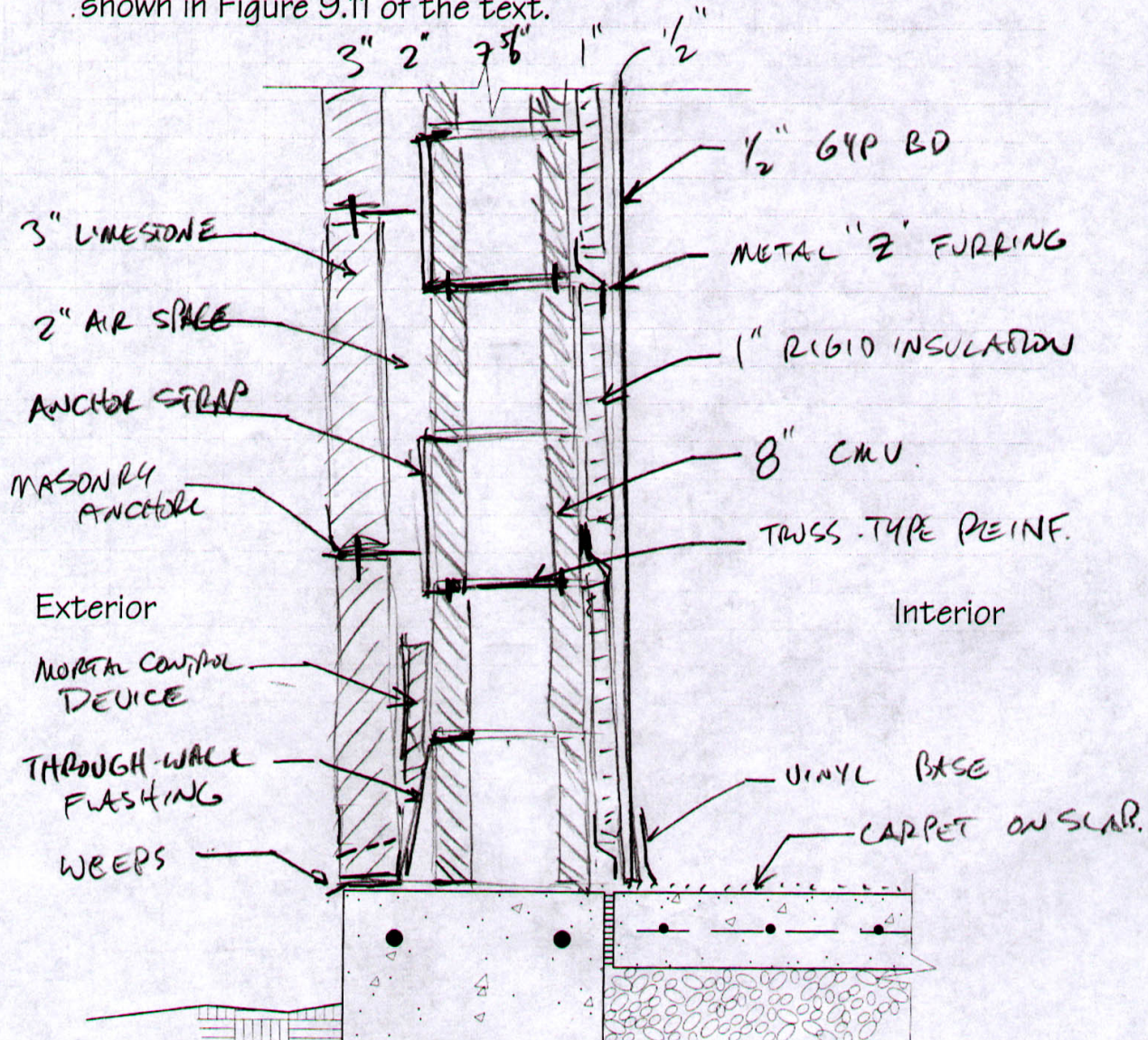
1. On the concrete slab edge shown below, draw a section through the base of an unreinforced wall consisting of an outer wythe of Standard bricks, a 2" (51 mm) uninsulated cavity, and an inner wythe of 8" (200 mm) hollow concrete masonry units. Show and label every necessary feature of the construction. See Figures 10.1, 10.4, and 10.10 in the text for guidance.



Architectural Technology V

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2. Draw in section and label completely the base of a cavity wall consisting of a full 3" (76 mm) outer wythe of ashlar limestone blocks, an inner wythe of 8" (200 mm) hollow concrete masonry units, and an inch (25.4 mm) of insulating foam plus gypsum board as shown in Figure 23.5 of the text. Make the stone blocks nominally 18" (457 mm) high, and mount them in the manner shown in Figure 9.11 of the text.





Precast Concrete!



SHAWNESSY LIGHT RAIL
TRANSIT STATION

Calgary, Alberta

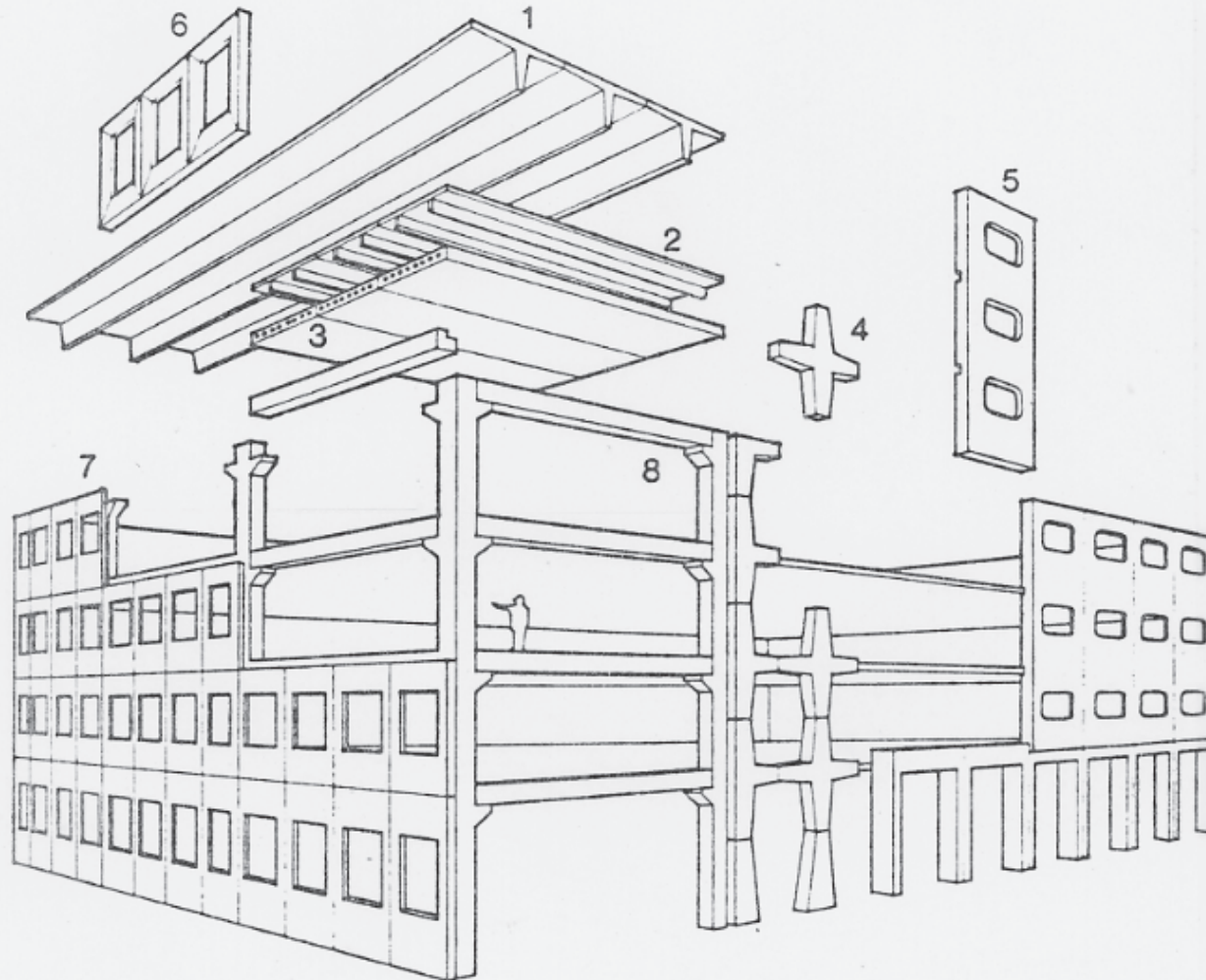
CPV Group Architects &
Engineers Ltd.

Roof/floor span systems:

1. structural concrete "T" sections
2. structural double "T" sections
3. hollow core concrete slab

Wall systems:

4. load-bearing frame components (cross)
5. multi-story load-bearing panels

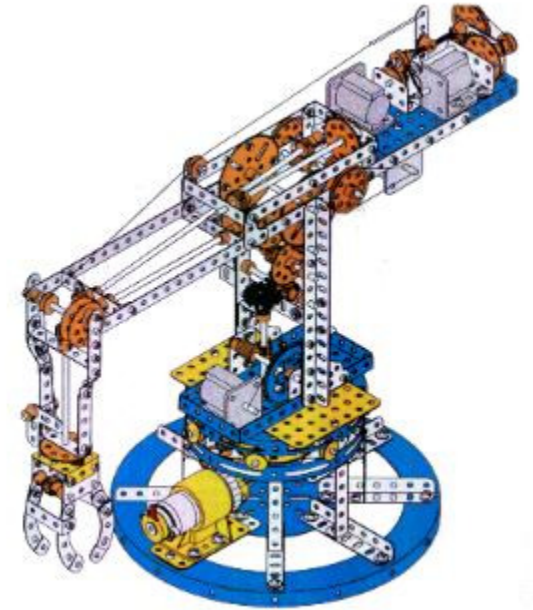
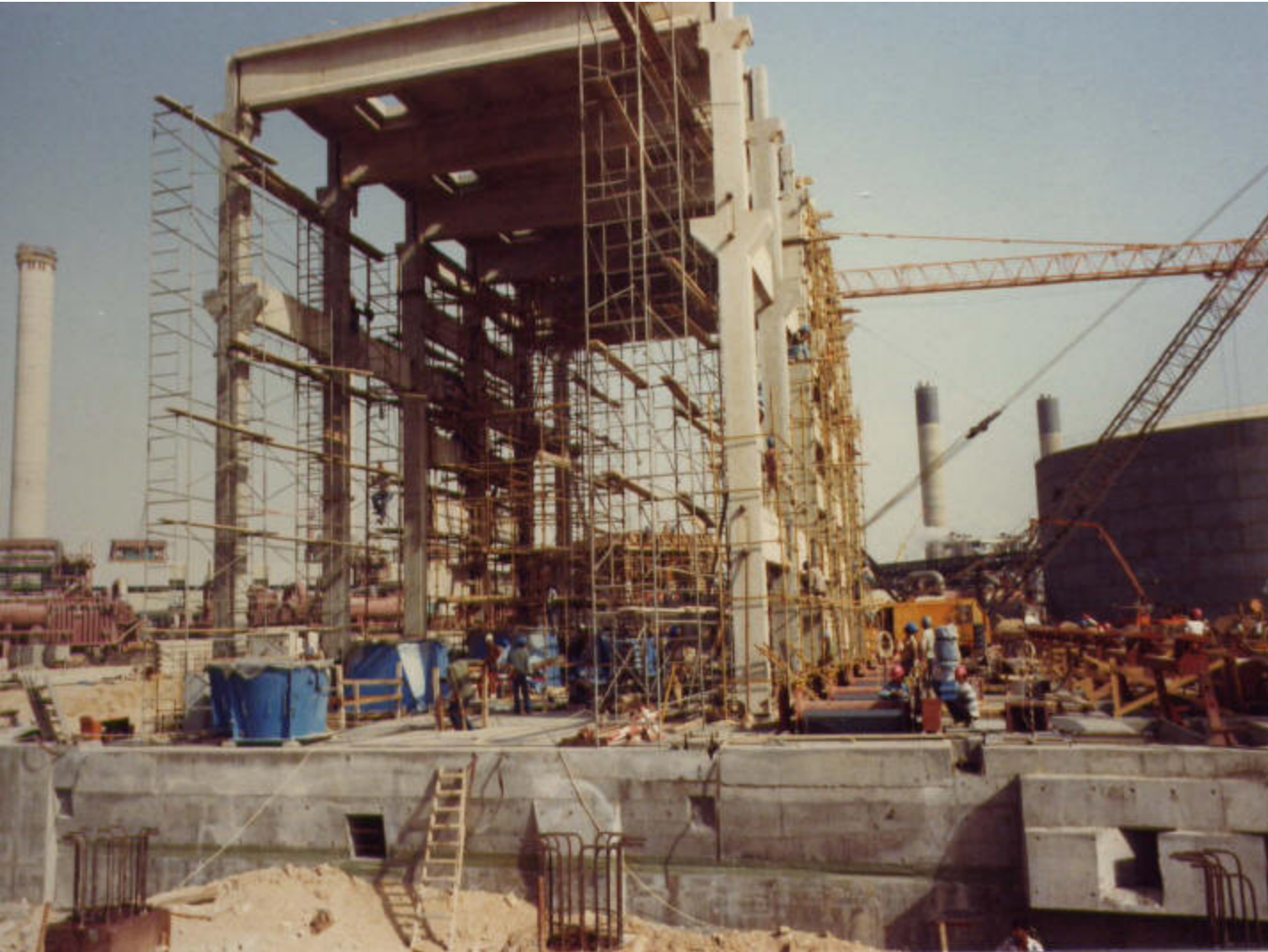


Curtain wall system:

6. precast concrete panels
7. metal, glass, or stone panels

Structural system:

8. precast column and beams



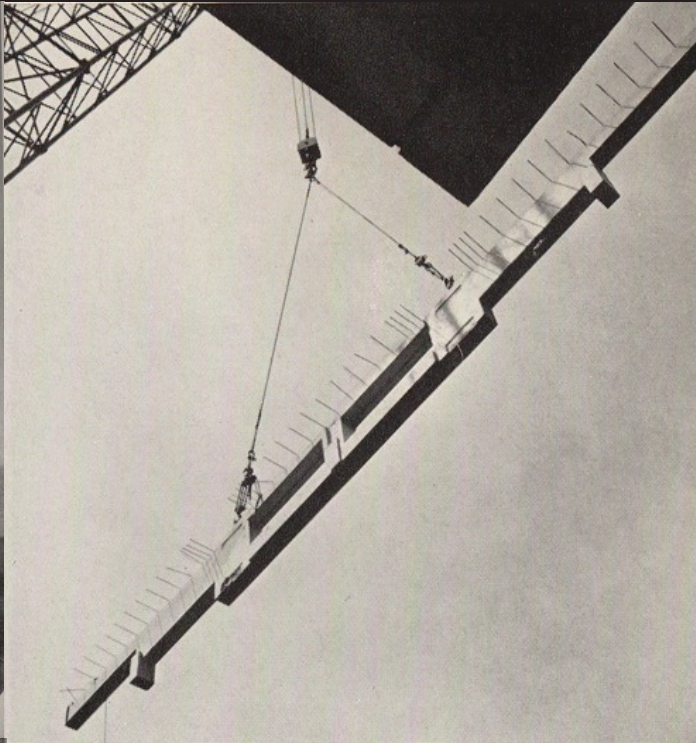
Architectural Technology V

8

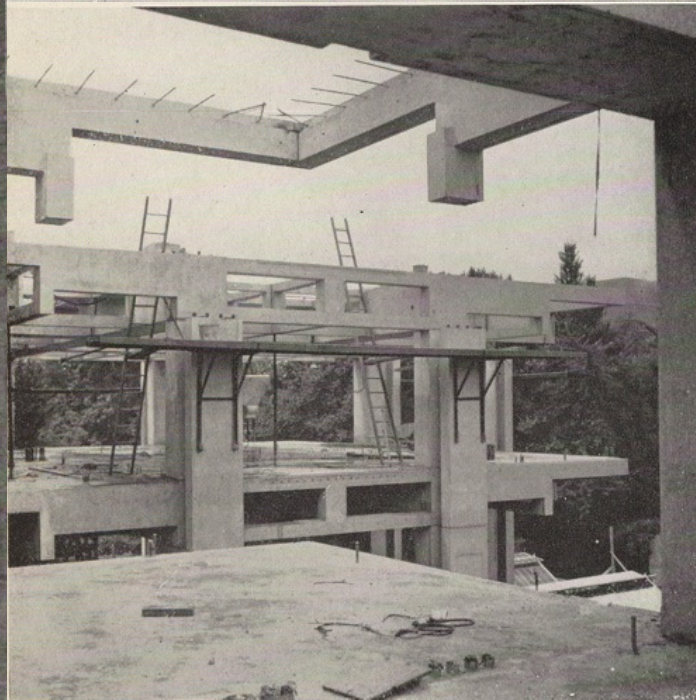
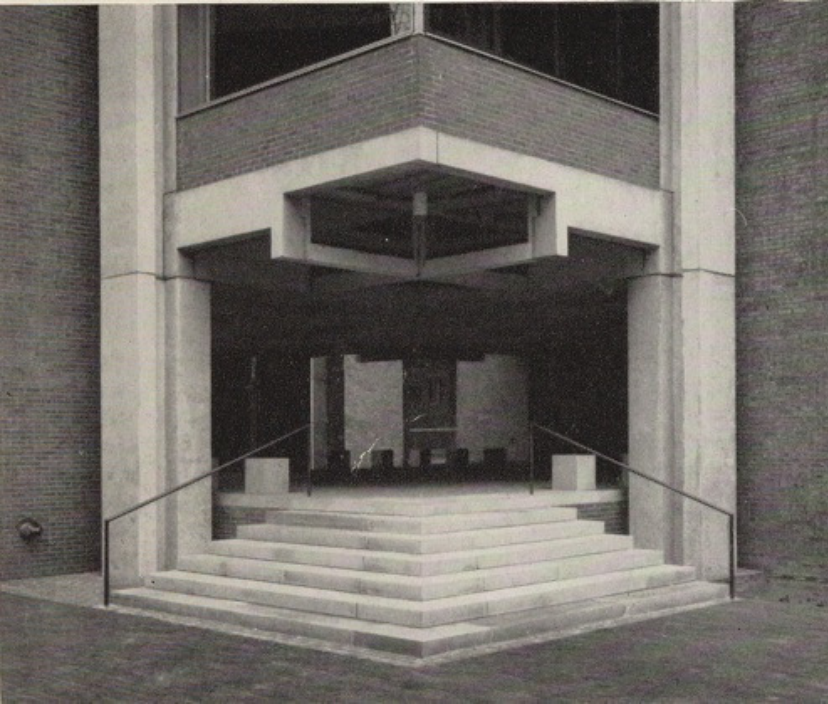


Architectural Technology V

9



Richards Medical Labs
Louis Kahn



Hollow-Core Planks



Architectural Technology V

11

Precast Wall and Spandrel System



Precast Facade Panels



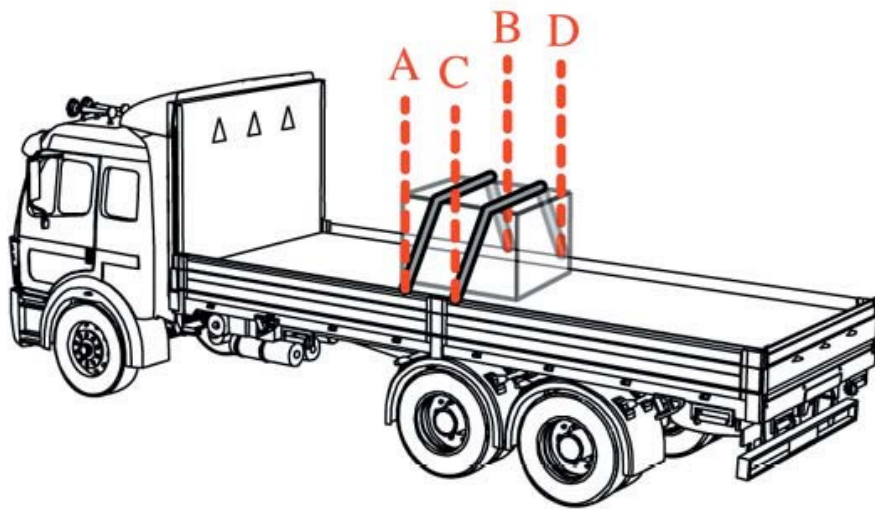
Lindner Athletic Center,
Bernard Tschumi



On the Road...



Paul Kane Collection



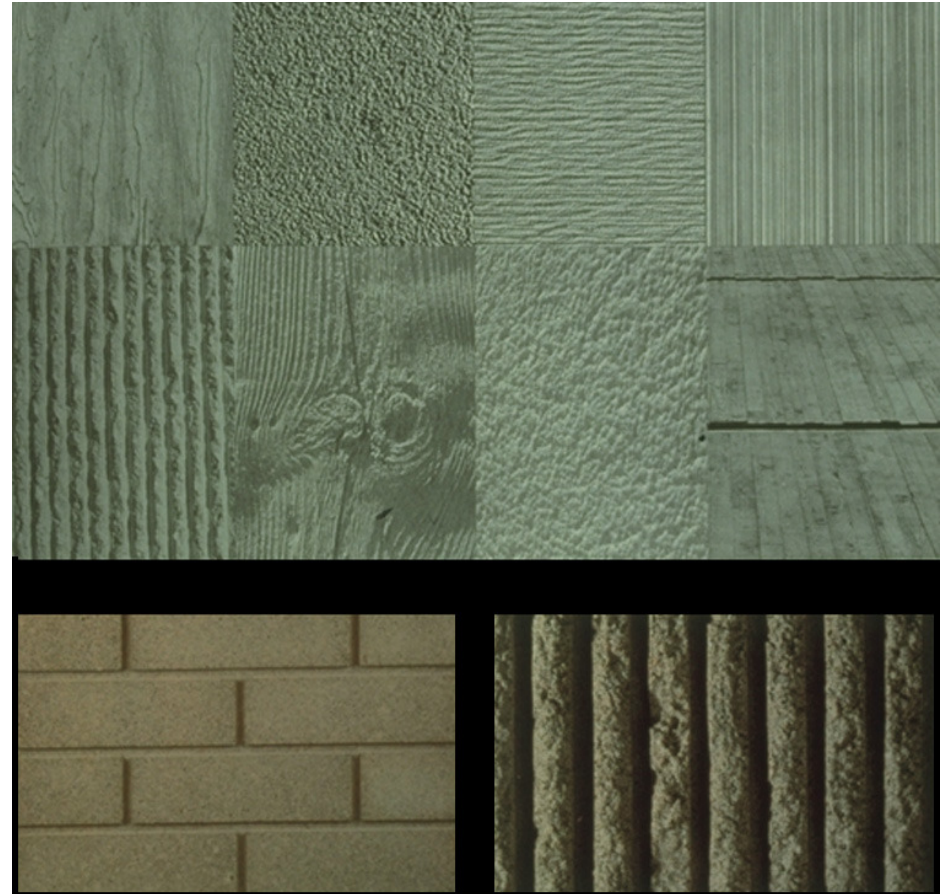




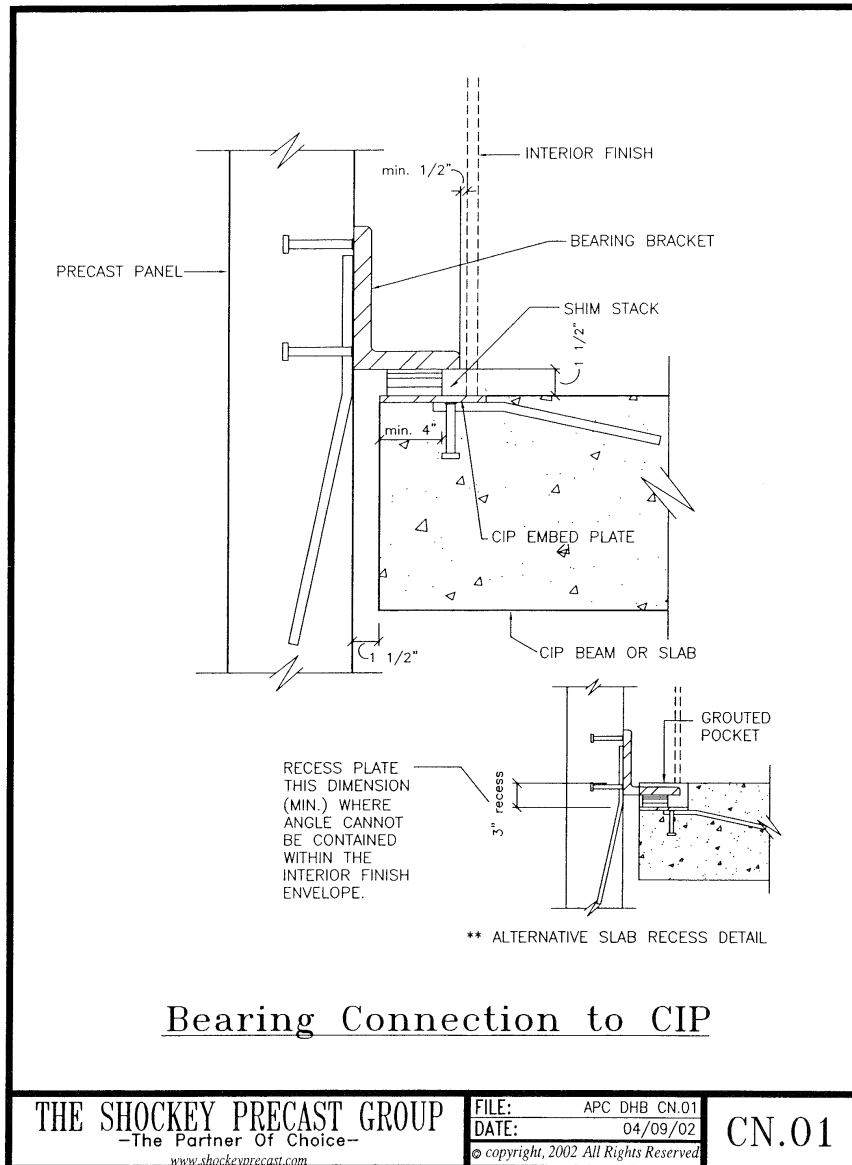
Precast Structure...



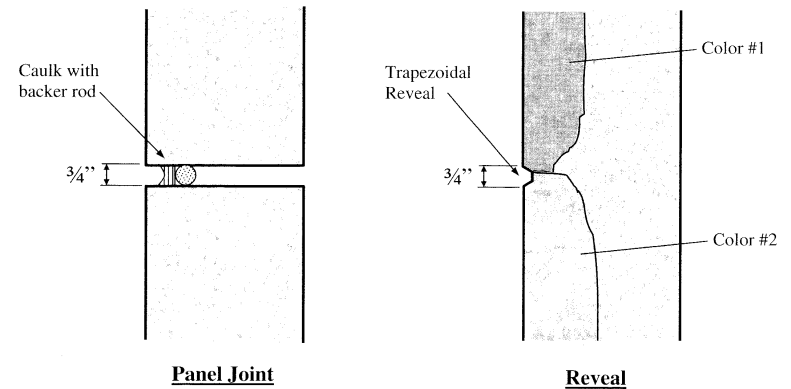
Precast Finishes...



The Devil is In the Details!

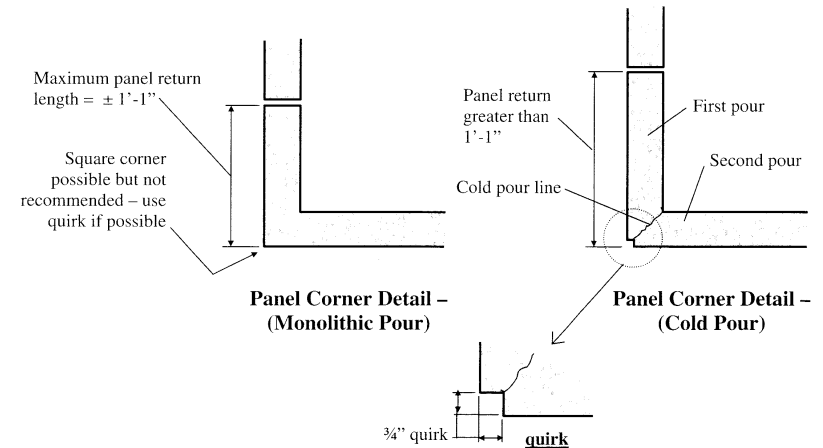


the two mixes to provide the casting crew a distinct stopping point and help reduce color bleed. This will help ensure an unwavering and smooth break line between the two colors, as illustrated in the figure below. When choosing a reveal size also consider limiting the depth to 3/4". Deep reveals decrease the effective section of the panel, thereby reducing panel strength and increasing the chance for panel cracking.



Corners and Quirks

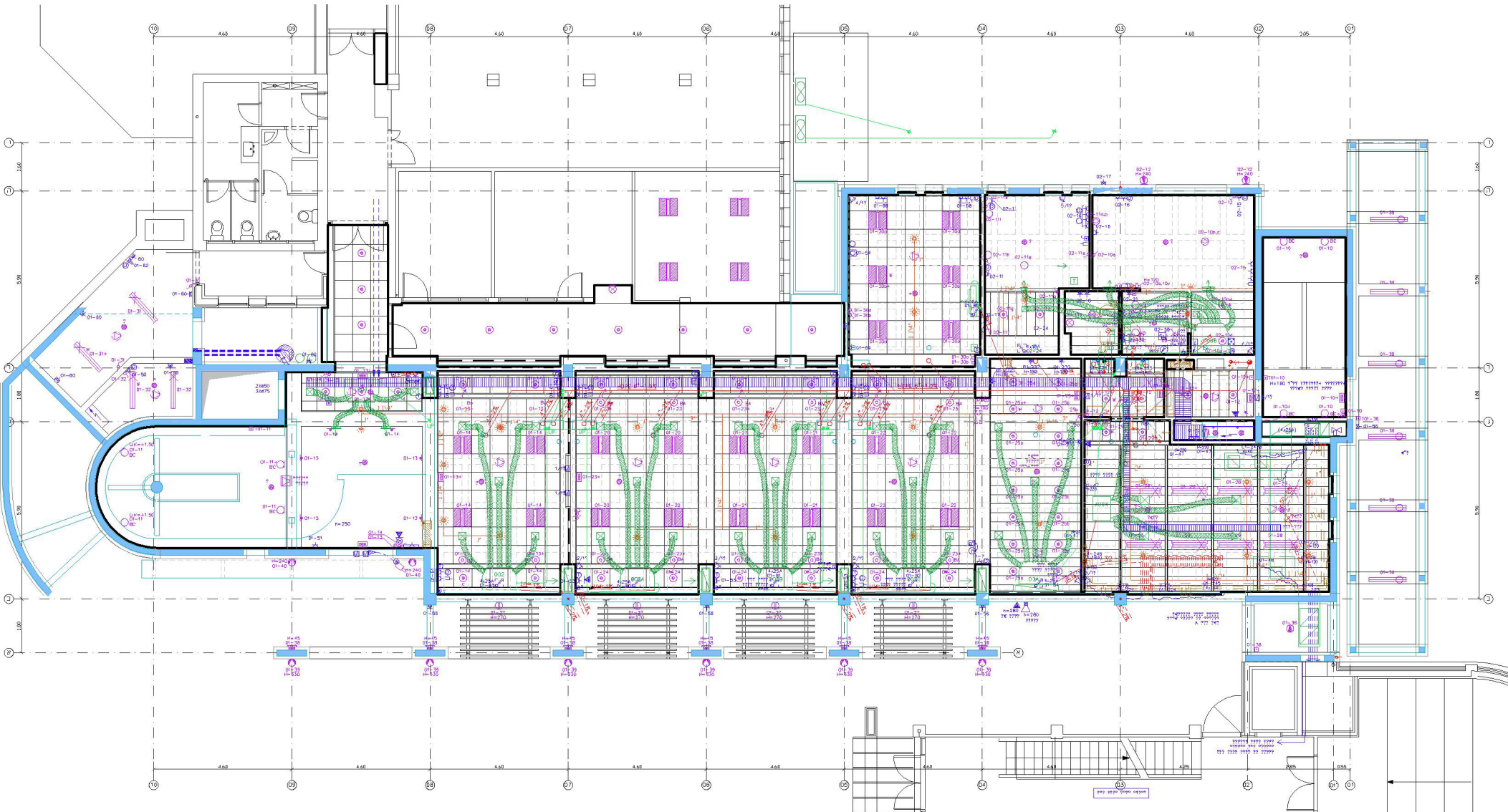
When considering details at building corners, it's recommended that a 3/4" quirk be introduced at panel returns – especially those exceeding 1'-1" in length. To achieve a superior finish along the panel face, panels are often produced in two phases – which results in a casting or "cold joint" line between the two pieces (see sketch below). The quirk will minimize this effect by essentially hiding the line in the apex of the notch.



NO CORE DRILLING!



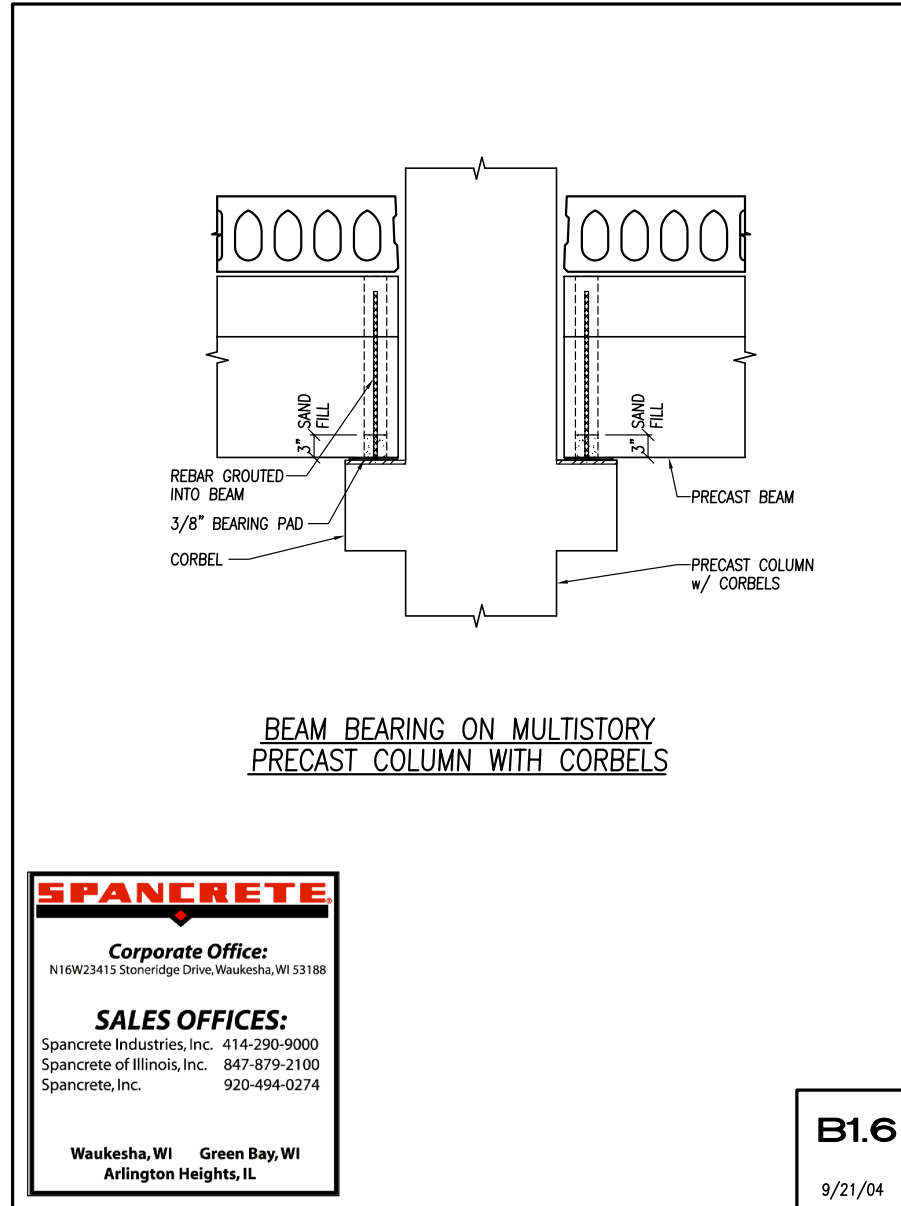
Superposition Study



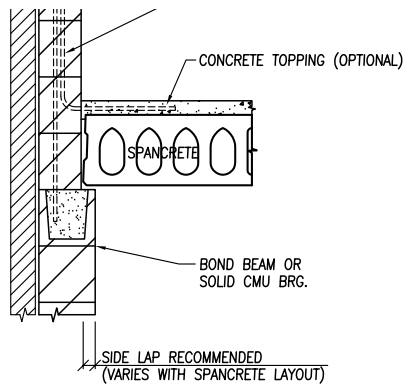
Genzyme, Boston -- Benische and Partners



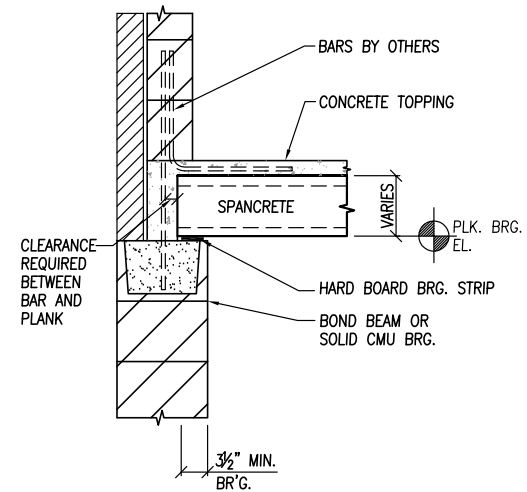
Bumps and Bulges



Hollow Core Plank



HOLLOWCORE FLOOR PLANK AT EXTERIOR WALL
NON-LOAD BEARING



HOLLOWCORE PLANK BEARING ON MASONRY

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N16W23415 Stoneridge Drive, Waukesha, WI 53188

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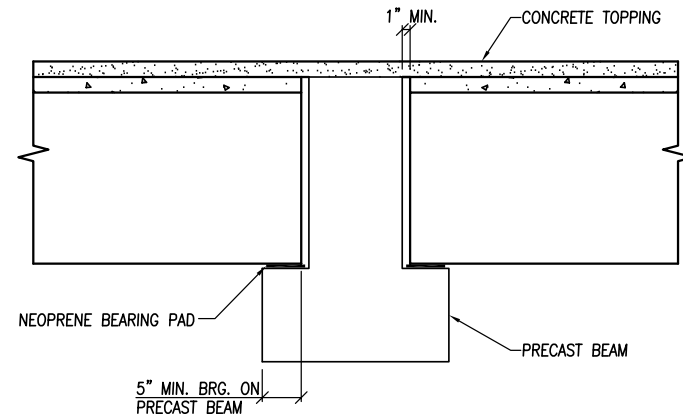
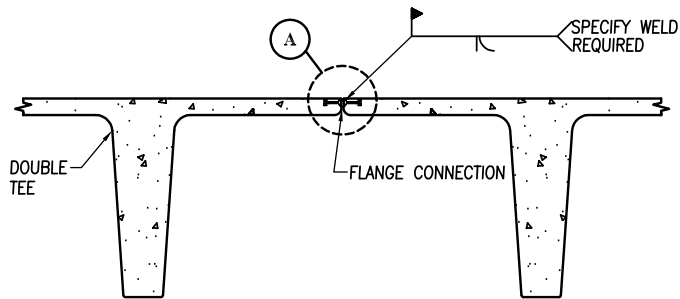
Spancrete Industries, Inc. 414-290-9000
Spancrete of Illinois, Inc. 847-879-2100
Spancrete, Inc. 920-494-0274

Waukesha, WI Green Bay, WI
Arlington Heights, IL

P1.2

9/21/04

Double Ts



DOUBLE TEE BEARING
ON PRECAST TEE BEAM

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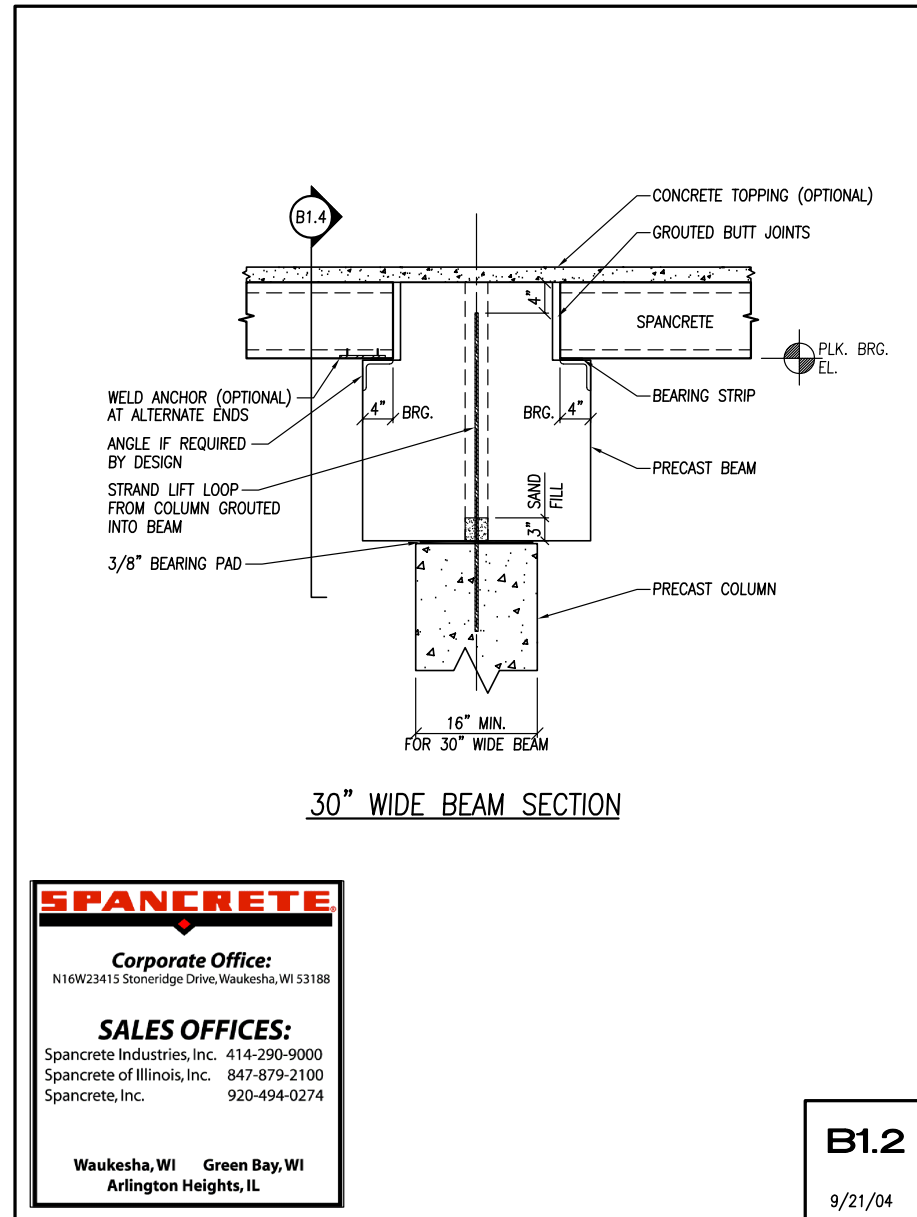
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Waukesha, WI Green Bay, WI
Arlington Heights, IL

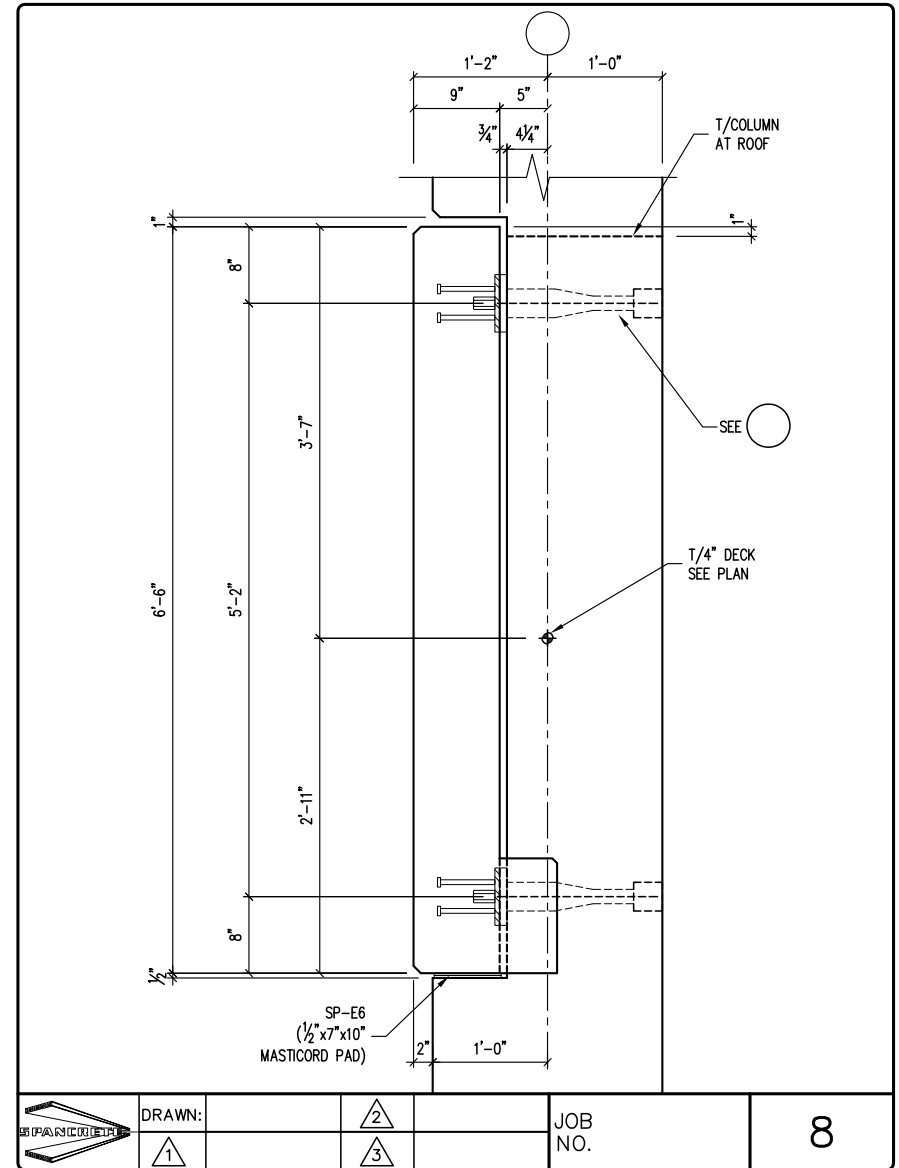
D2.1

9/21/04

Beams and Columns



Spandrel Panels

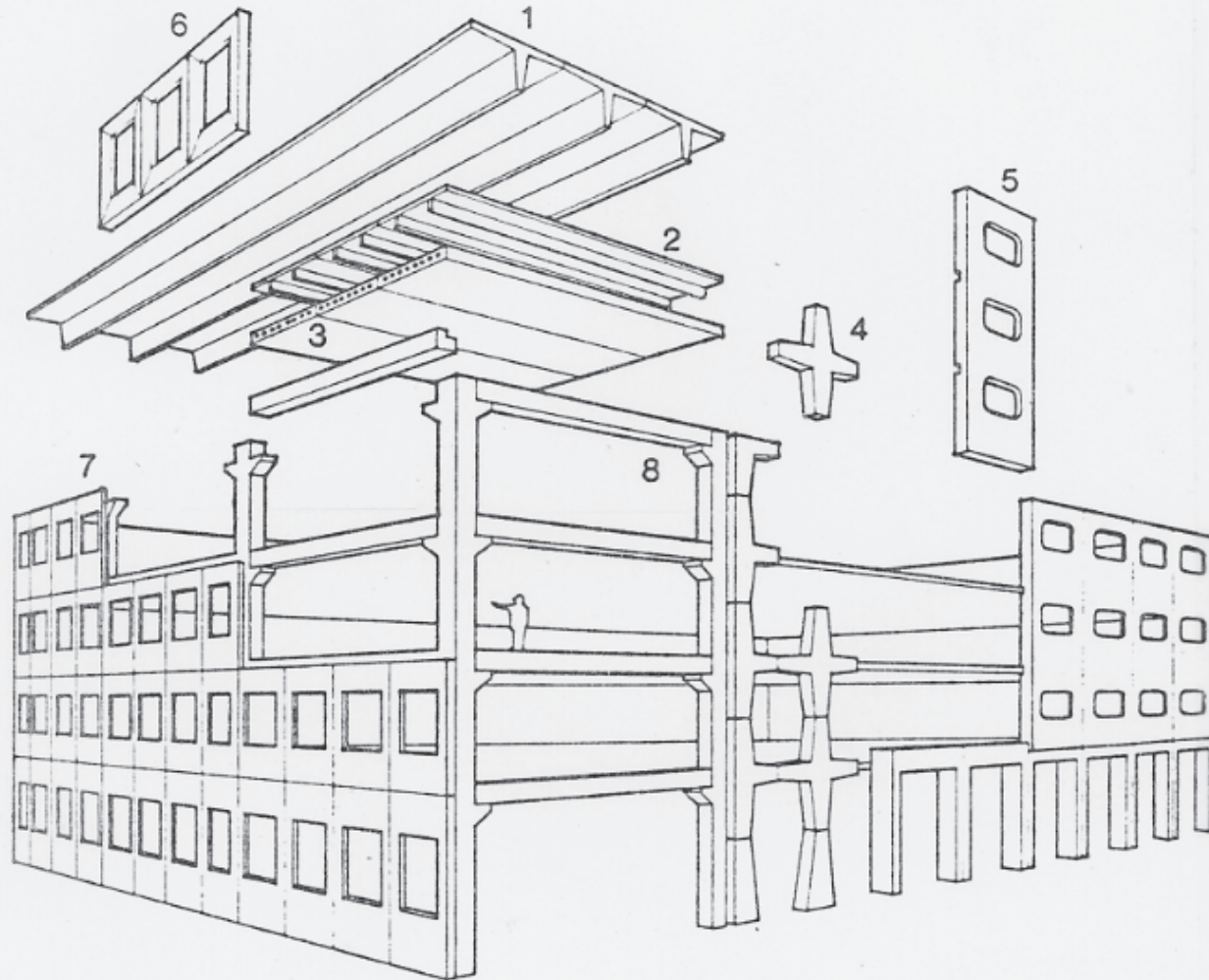


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Casting Beds

