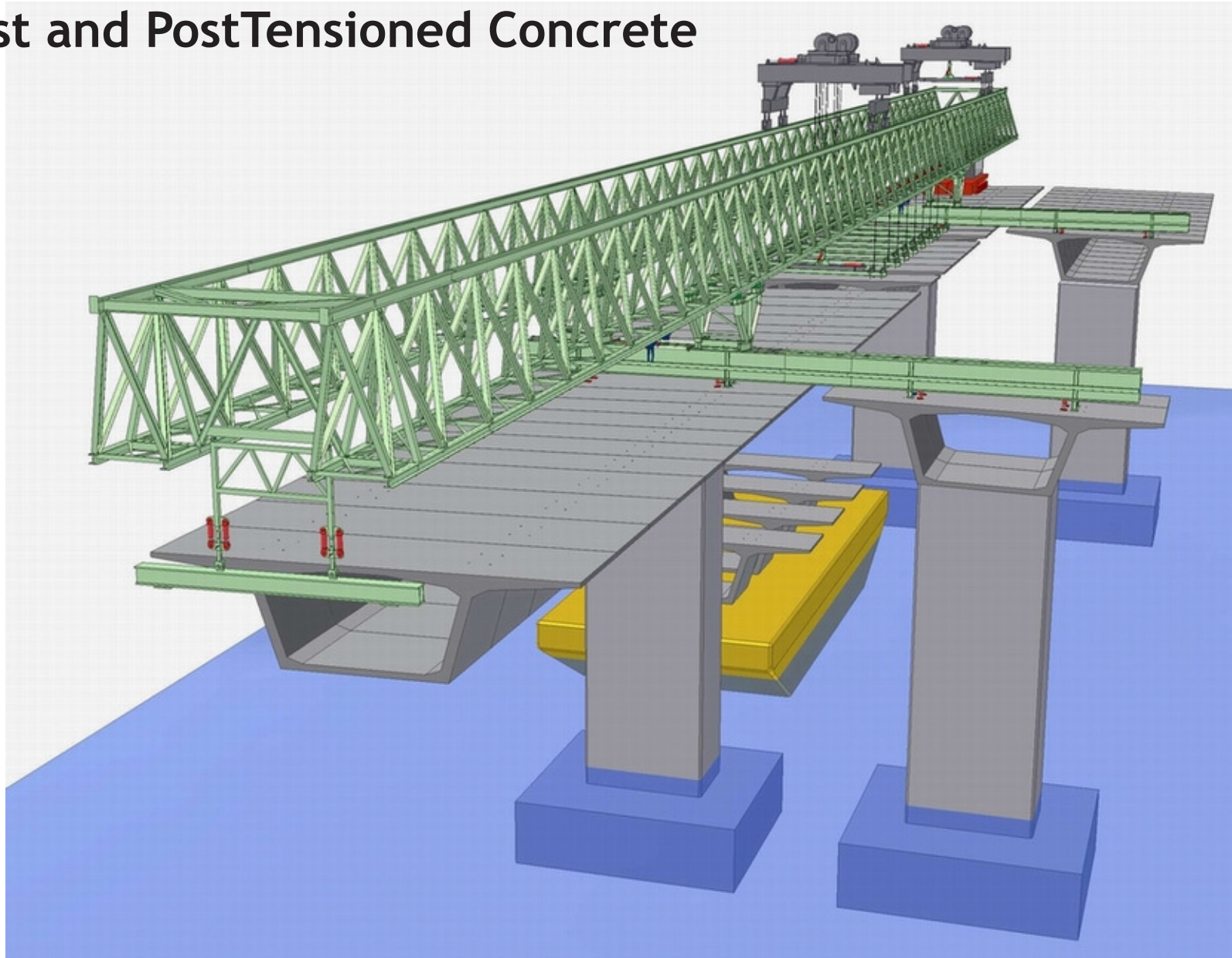


Architectural Technology V

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Precast and PostTensioned Concrete



Baltimore AIA Technology in Practice Committee &
Morgan State University Institute of Architecture and Planning
presents:

bUILDING iNFORMATION mODELING

A SERIES OF THREE DISCUSSIONS ABOUT BIM IN ARCHITECTURE

10.24.2007 (5:30 to 7:00): INTRODUCTION TO BIM
Building Information Modeling and its applications in the design and construction industry

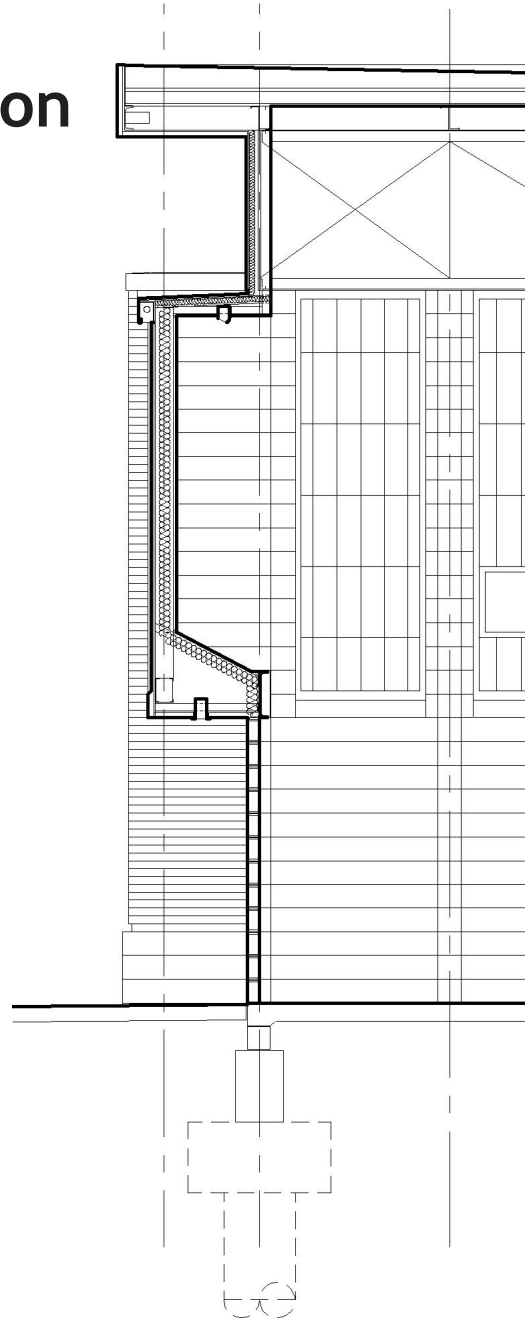
11.08.2007 (5:30 to 7:00): BIM CASE STUDIES
a case study using BIM during the design and documentation of a building project

02.07.2008 (6:00 to 8:00): PANEL DISCUSSION
panelists from architecture, engineering, and construction will lead a discussion with students and professionals on BIM and the building industry

- all events to be held in 241 Schaeffer in the Clarence M. Mitchell, Jr. School of Engineering-
- all events free for students, faculty, AIA members; \$15 for non-AIA members applying for CES credits-
- free parking available on north end of the Engineering School parking lot-
- light refreshments will be served-



Wall Elevations and Section





Precast Concrete!



SHAWNESSY LIGHT RAIL
TRANSIT STATION

Calgary, Alberta

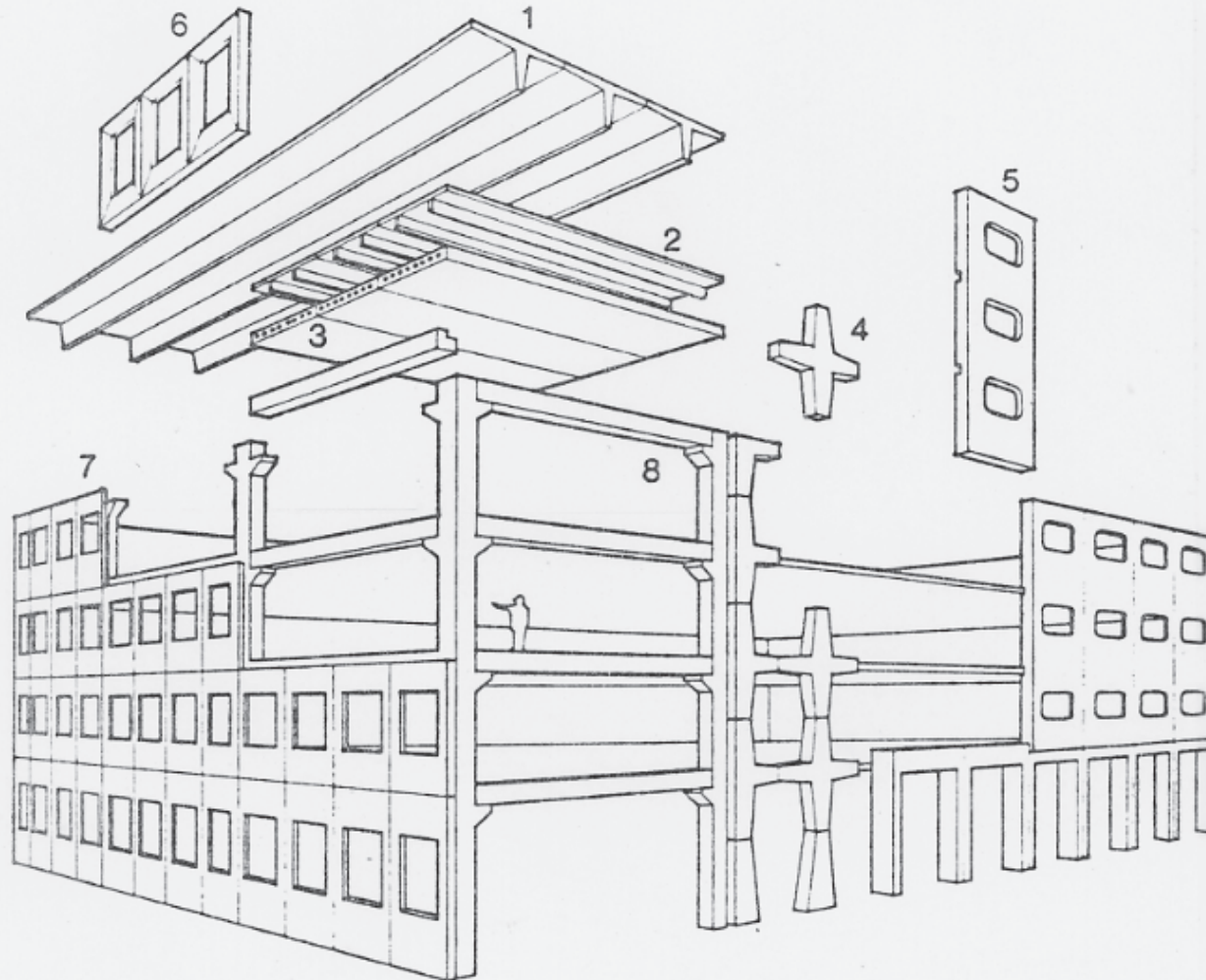
CPV Group Architects &
Engineers Ltd.

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

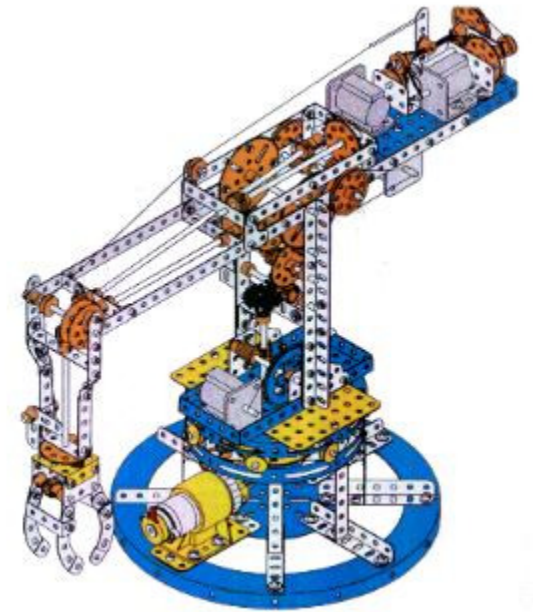
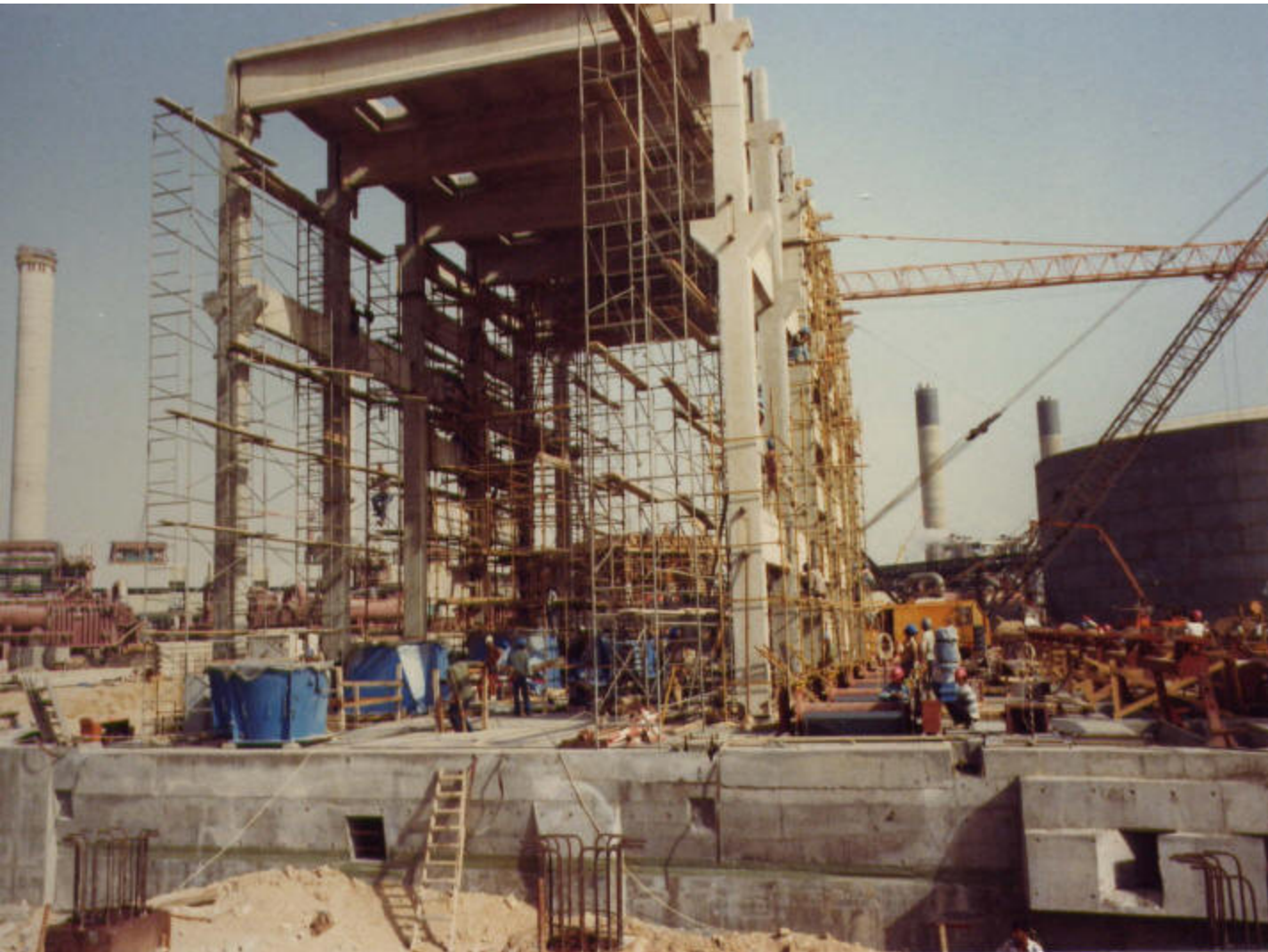


Curtain wall system:

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

Structural system:

8. precast column and beams



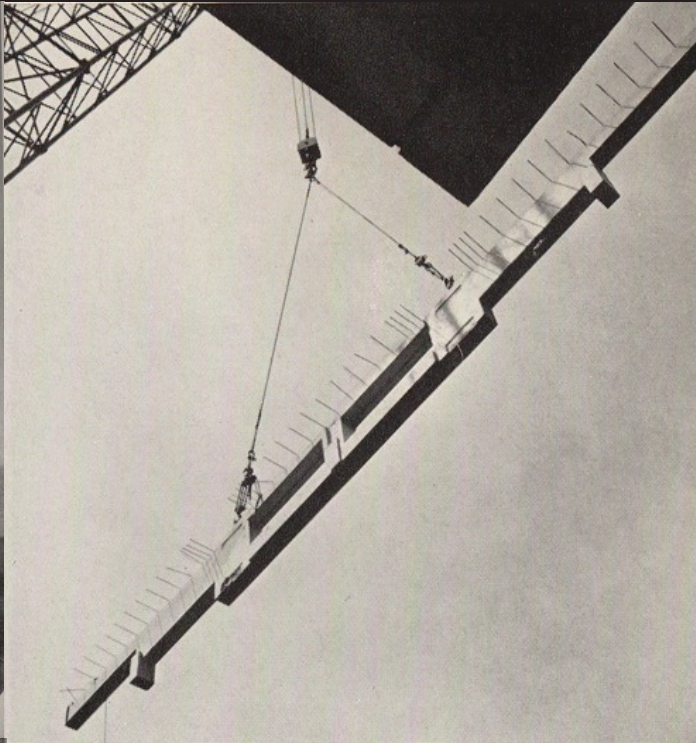
Architectural Technology V

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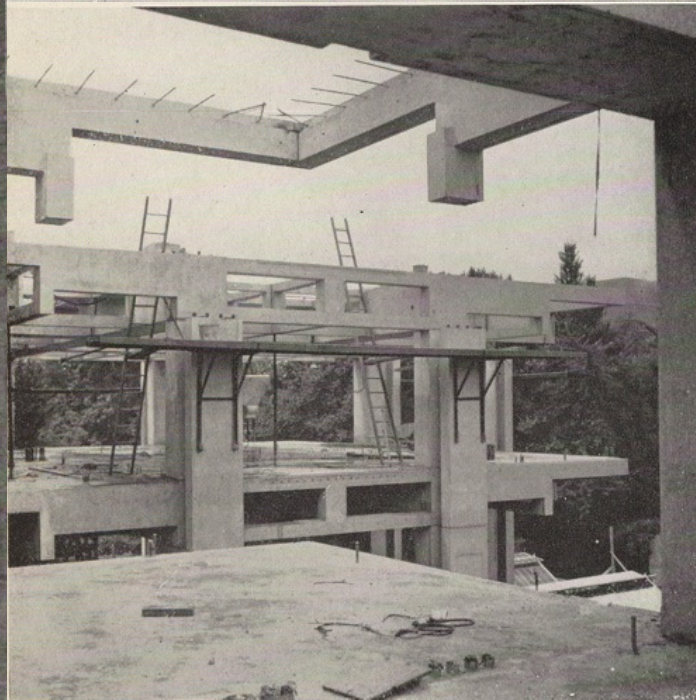
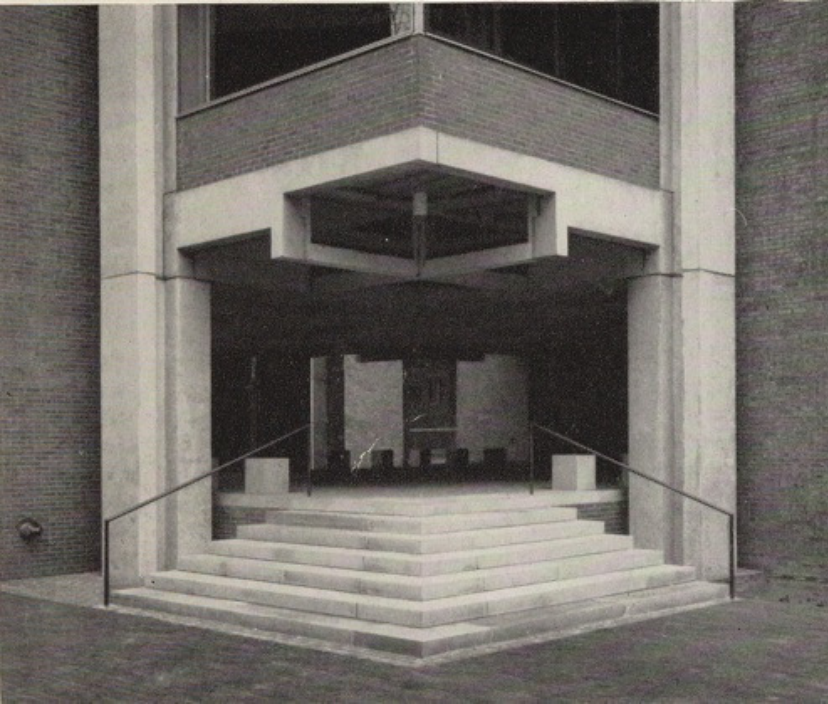


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Richards Medical Labs
Louis Kahn



Hollow-Core Planks



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11

Precast Wall and Spandrel System



Precast Facade Panels



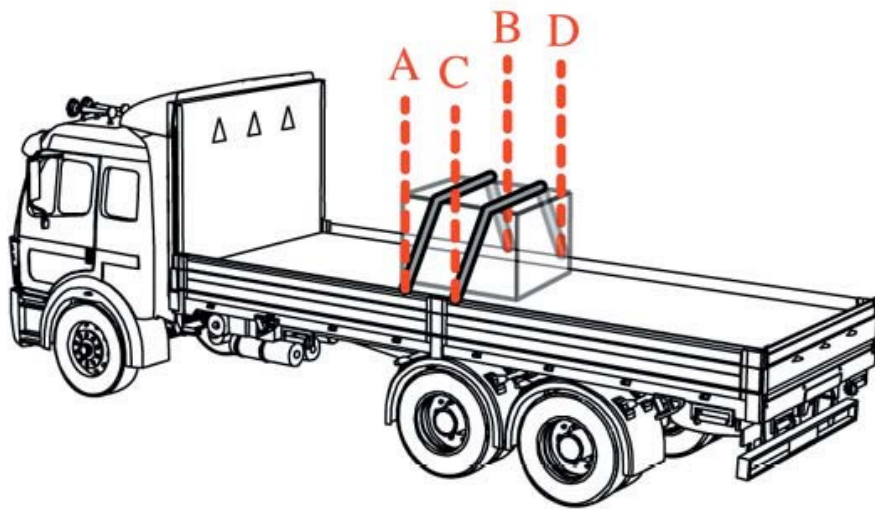
**Lindner Athletic Center,
Bernard Tschumi**



On the Road...



Paul Kane Collection



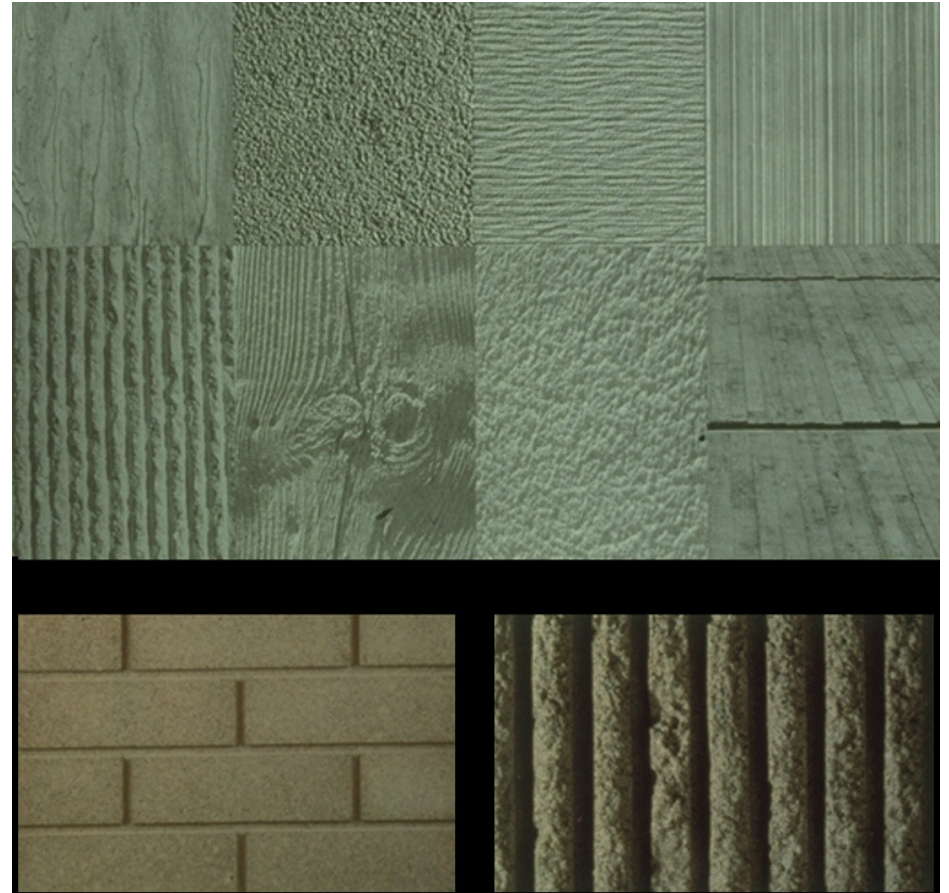




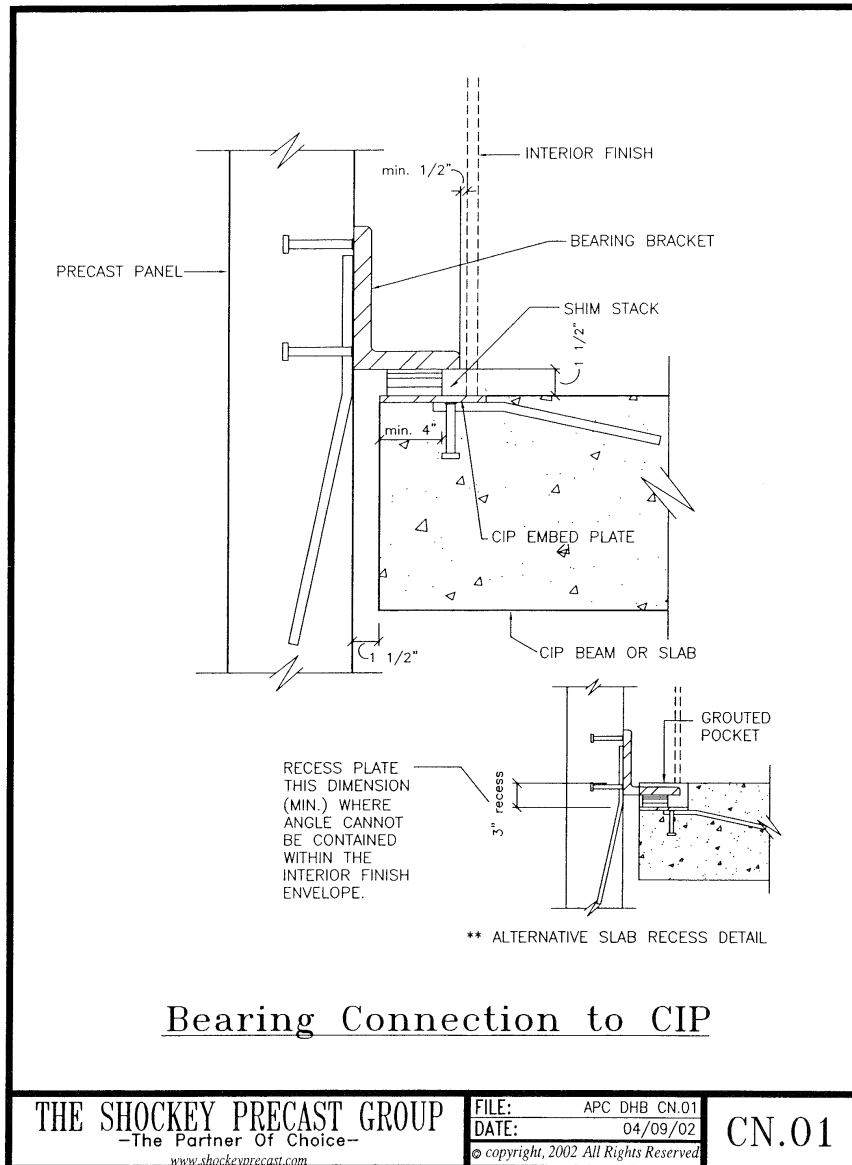
Precast Structure...



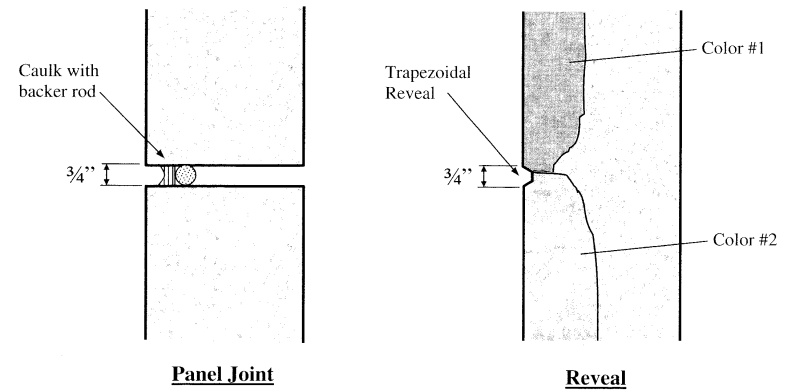
Precast Finishes...



The Devil is In the Details!

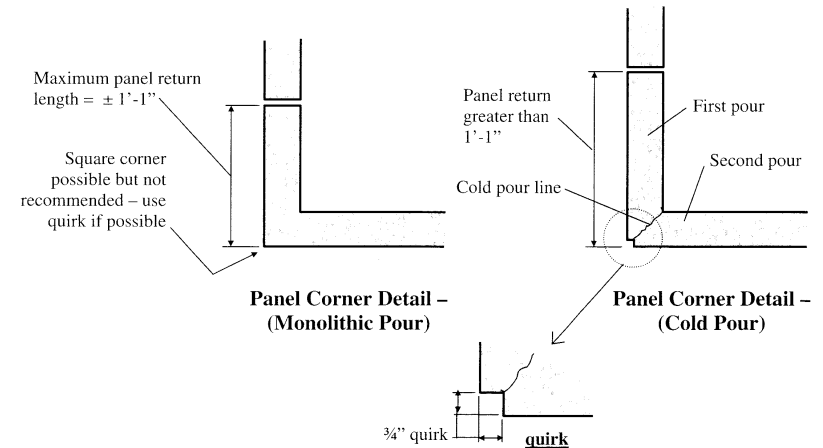


the two mixes to provide the casting crew a distinct stopping point and help reduce color bleed. This will help ensure an unwavering and smooth break line between the two colors, as illustrated in the figure below. When choosing a reveal size also consider limiting the depth to 3/4". Deep reveals decrease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



Corners and Quirks

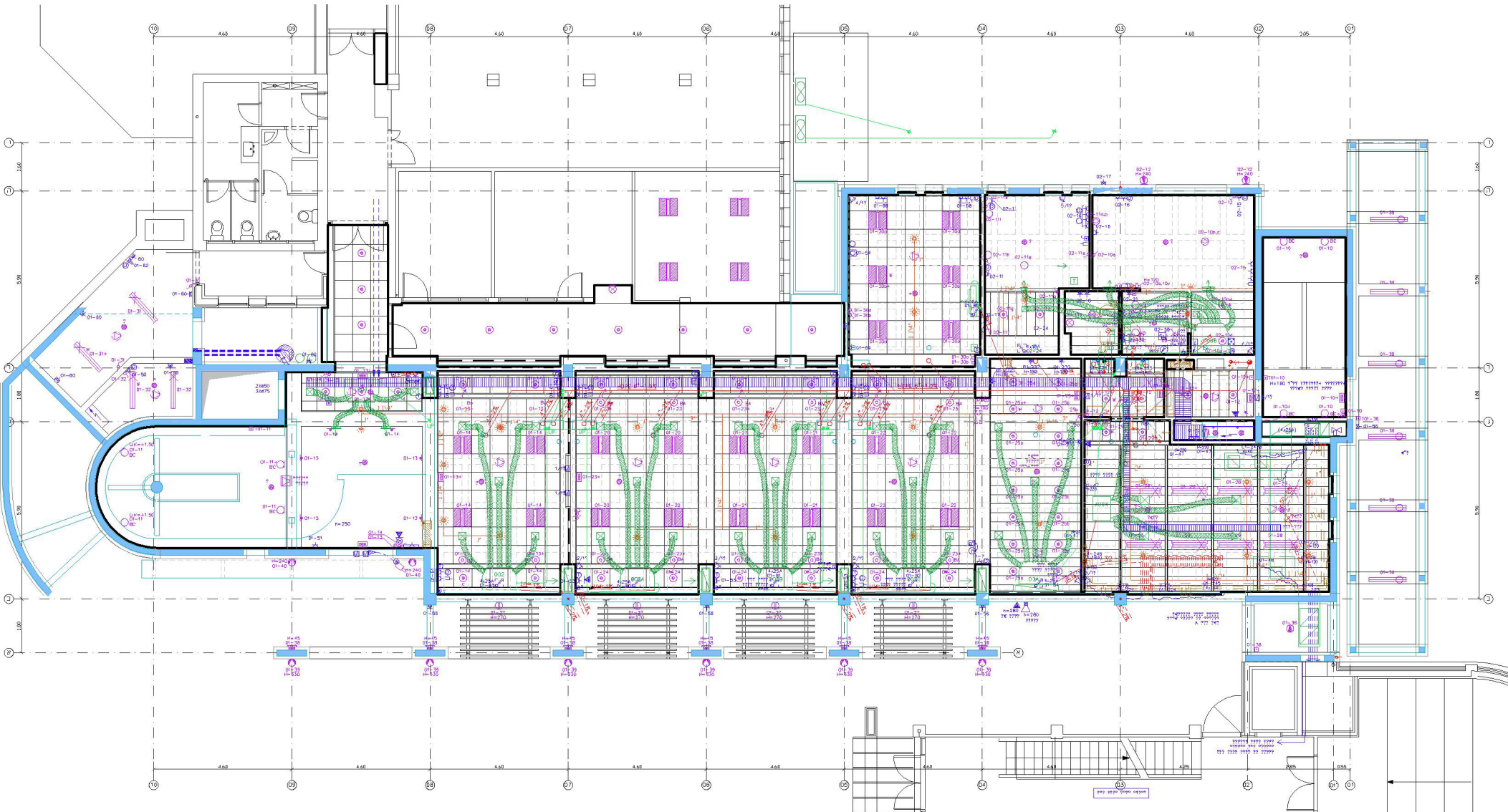
When considering details at building corners, it's recommended that a 3/4" quirk be introduced at panel returns – especially those exceeding 1'-1" in length. To achieve a superior finish along the panel face, panels are often produced in two phases – which results in a casting or "cold joint" line between 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!



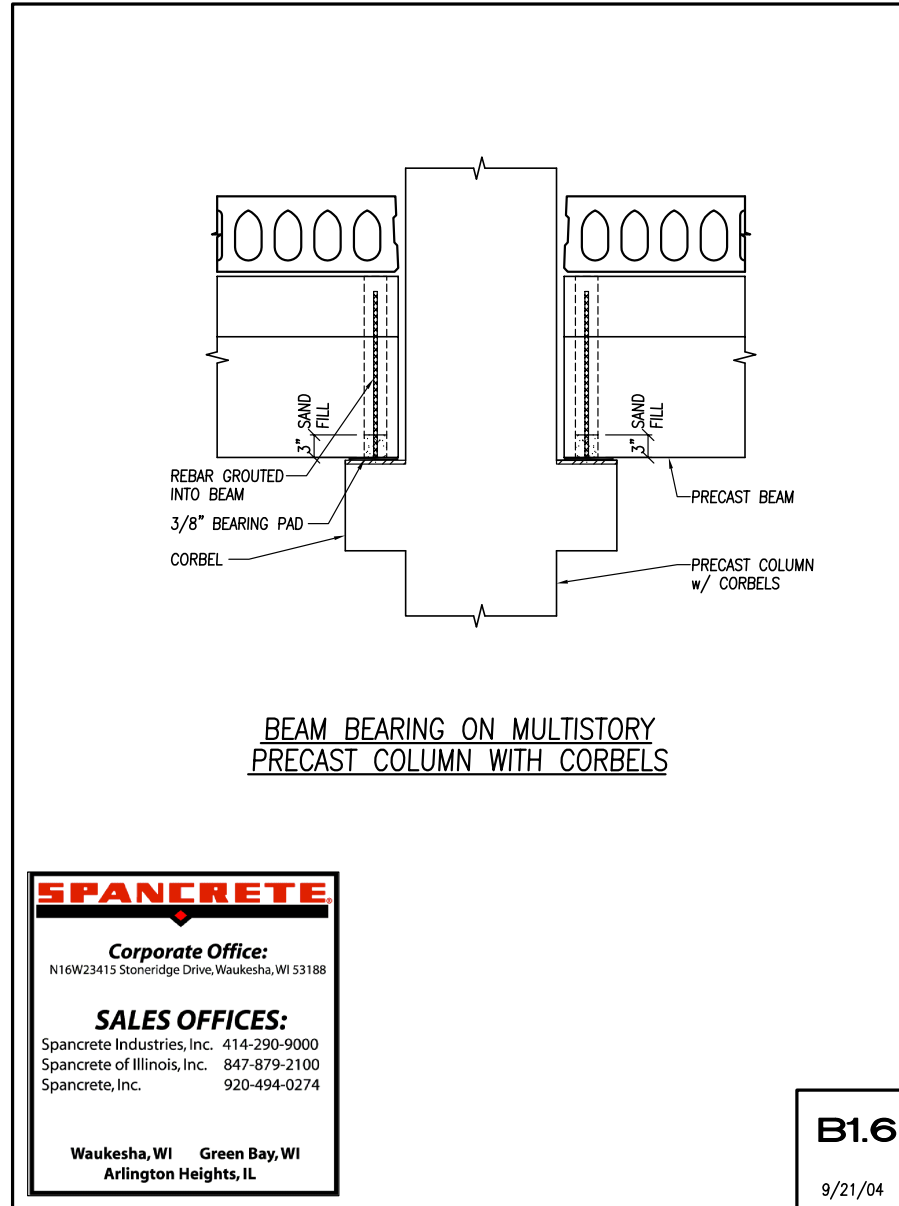
Superposition Study



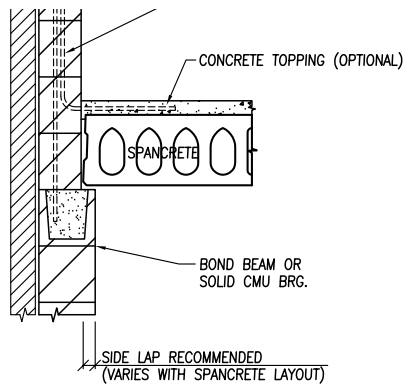
Genzyme, Boston -- Benische and Partners



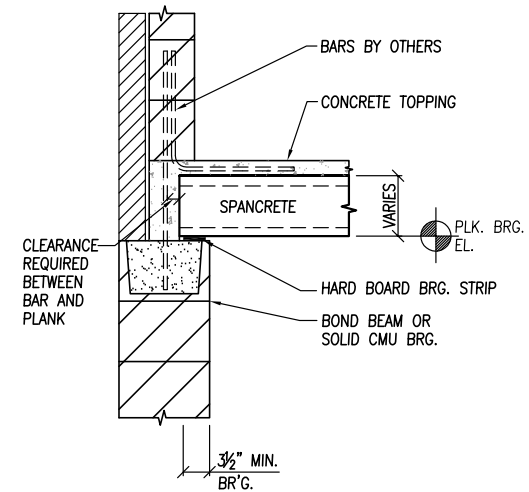
Bumps and Bulges



Hollow Core Plank



HOLLOWCORE FLOOR PLANK AT EXTERIOR WALL
NON-LOAD BEARING



HOLLOWCORE PLANK BEARING ON MASONRY

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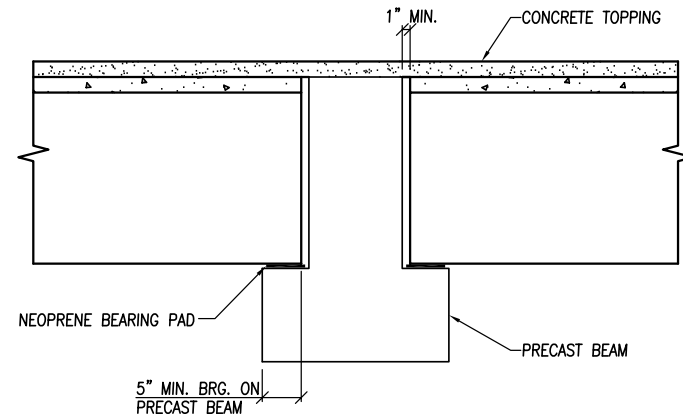
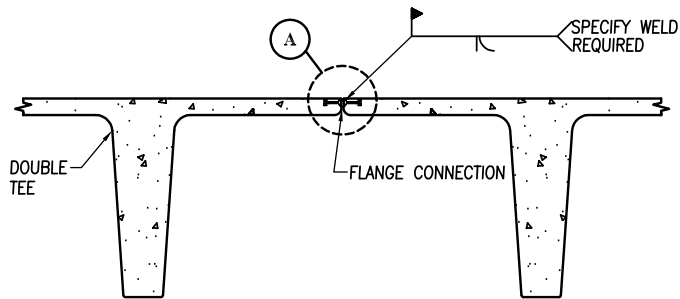
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Spancrete of Illinois, Inc. 847-879-2100
Spancrete, Inc. 920-494-0274

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Double Ts



DOUBLE TEE BEARING
ON PRECAST TEE BEAM

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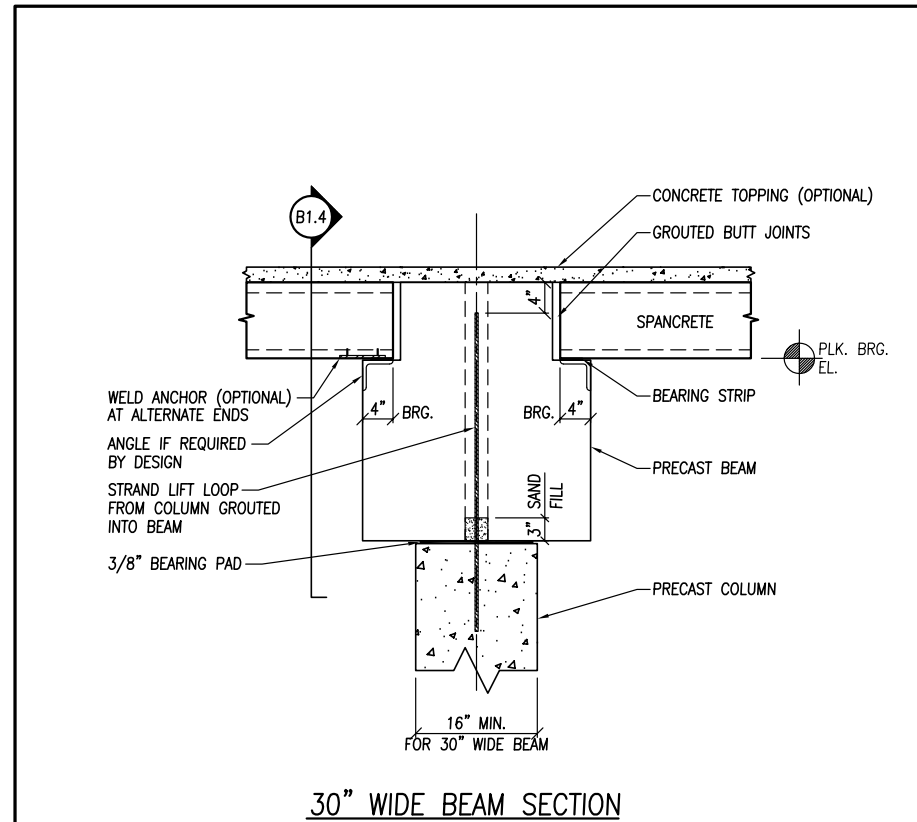
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9/21/04

Beams and Columns



SPANCRETE

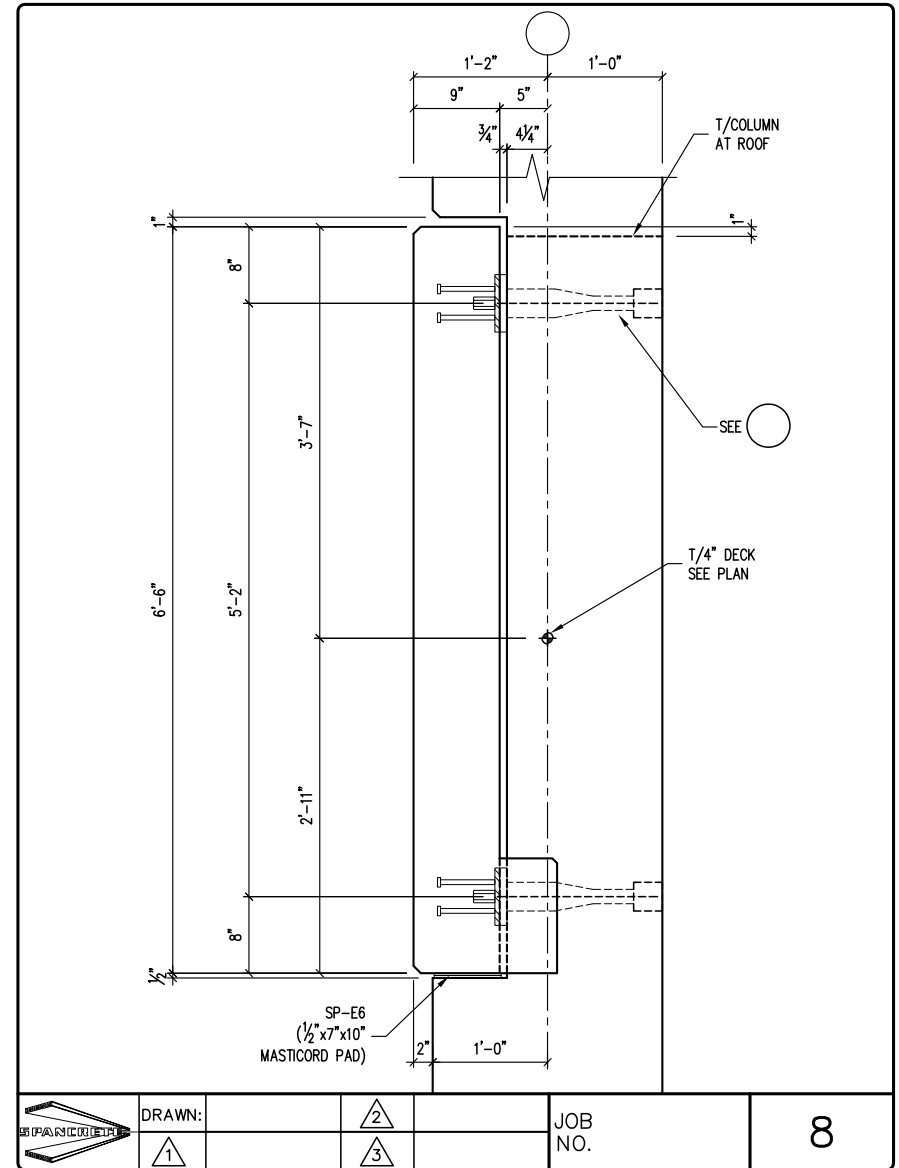
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Spandrel Panels

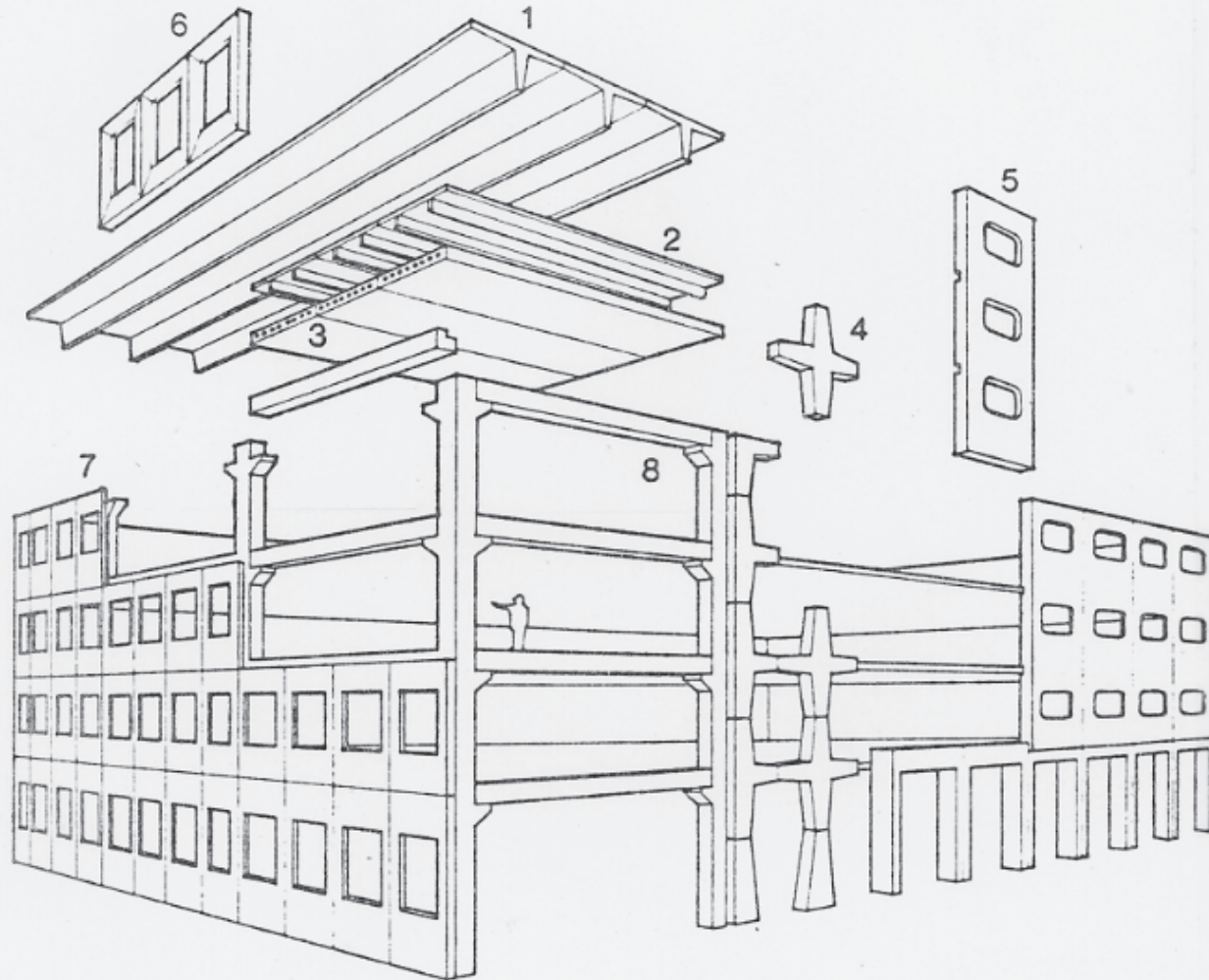


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Casting Beds



