



Evans K-10 Office Building

Precast concrete panels in various shapes and sizes were used attractively to clad this five-story office building in Paramus, New Jersey. The facility covers a total area of 168,000 sq ft (15,600 m²).

Altogether, 236 fascia panels, spandrel panels, and column covers were specified, amounting to an area of 50,922 sq ft (4736 m²). See accompanying table and drawings for details of the precast components and building exterior.

A distinctive feature of the building exterior was the bull-nosed recessed window sills and horizontal ribbed spandrel panels. These specially shaped sills weighed about 20 tons (18 t).

The spandrel panels were cast using a horizontal ribbed liner and a bull nose form to produce a unique relief to the standard geometric shape of the building. The placement of the bull nose also created sills for the windows.

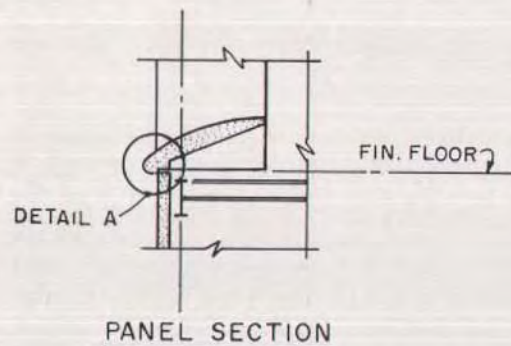
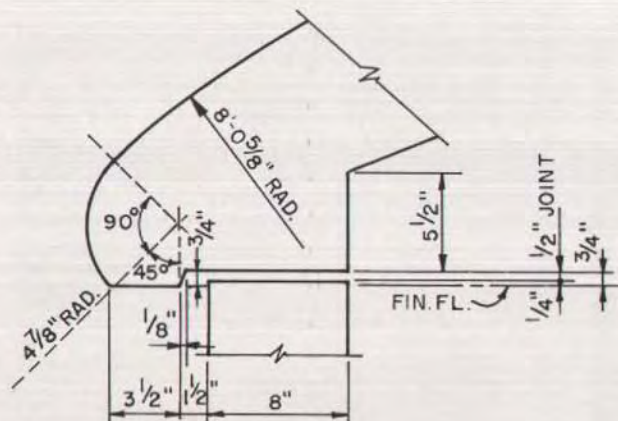
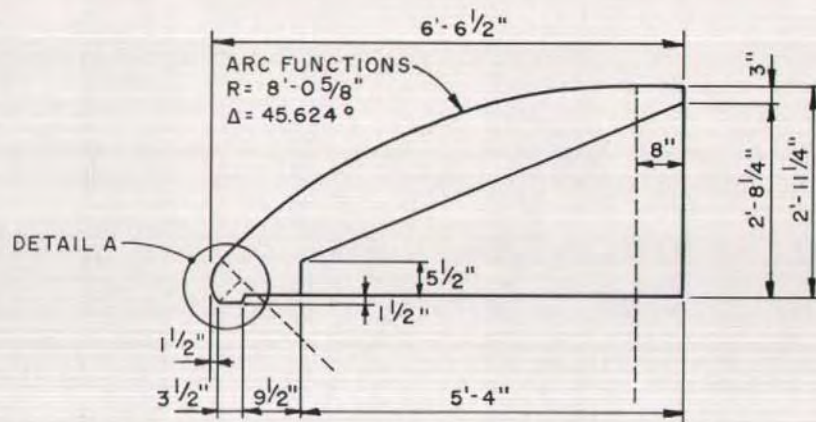
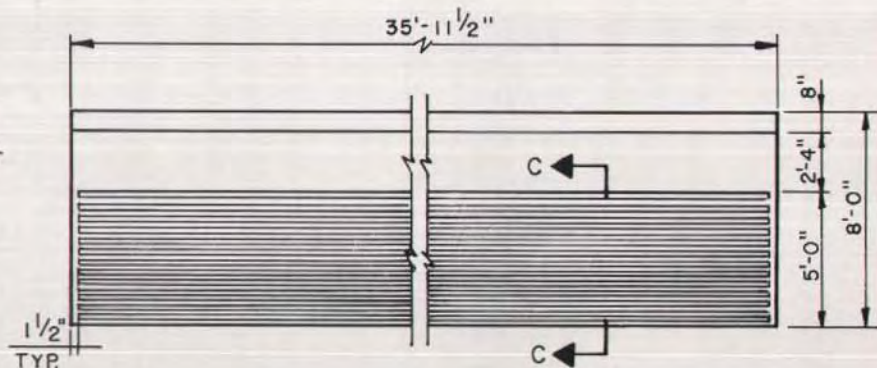
The horizontal ribbed spandrel panels and other precast components were cast with gray cement and light brown aggregates, creating a warm look to the building and making it blend in well with the natural stone buildings in the area.

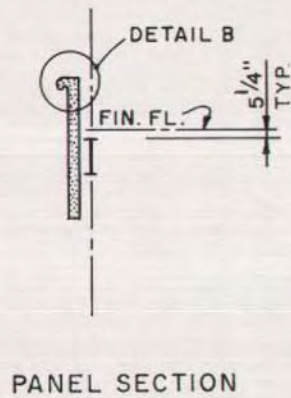
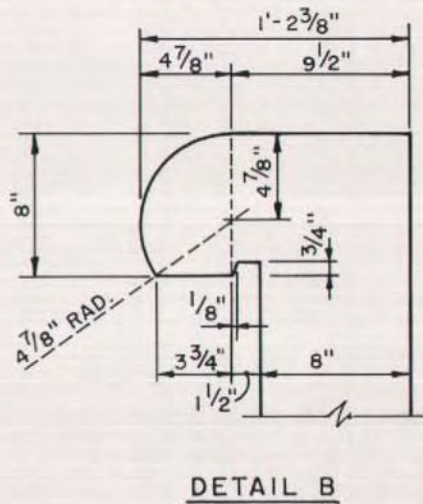
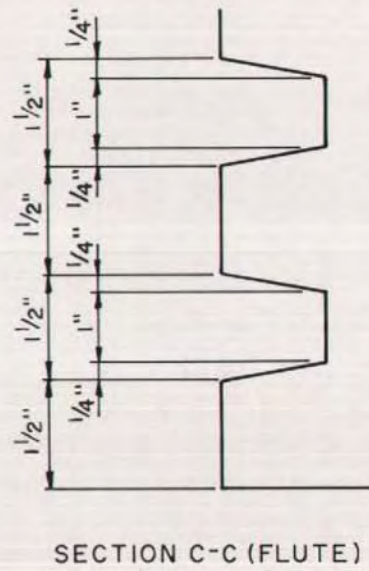
The west, east, and north sides of the building consisted of basically flat panels with bull-nosed sills. The south side of the building consisted of deeply recessed windows with a hyperbolic curved shape that added the benefit of energy efficiency to the building. This was due to indirect sunlight reflecting into the interior off the sills. Solar green glass was used in the windows.



Architectural precast concrete panels added distinction to this five-story office building while complementing existing stone buildings in the area.







Number and Dimensions of Precast Components

- 22 fascia panels (7692 sq ft)
Size: Varied
Largest size: 8 in. x 8 ft 8 in. x 38 ft 8 in.
Average weight: 15 tons per piece
- 142 spandrel panels (37,776 sq ft)
Size: Varied
Largest size: 1 ft 2 $\frac{3}{8}$ in. x 9 ft 1 in. x 38 ft 8 in.
Average weight: 15 tons per piece
- 72 column covers (5454 sq ft)
Size: Varied
Largest size: 6 in. x 6 ft 8 in. x 13 ft
Average weight: 3 tons per piece.

Note: 1 ft = 0.305 m, 1 in. = 25.4 mm, 1 sq ft = 0.093 m²,
1 ton (short) = 907 kg = 0.907 t.

Planned for flexibility, the 35,000 sq ft (3255 m²) floors provide wide bay spacing and high capacity floor loading for most types of applications.

The structure was completed in January 1984. During the past two years the facility has functioned with total satisfaction.

Credits

Owner: Evans Partnership, New York, New York.

Architect/Engineer: Gwathmey-Siegel and Associates, New York, New York.

Contractor: Evans Shure Construction Company, New York, New York.

Precast Concrete Manufacturer: High Concrete Structures, Inc., Denver, Pennsylvania.

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