

Comcast Center

PHILADELPHIA, PA.

► Standing 975 feet tall, the Comcast Center is the tallest building between New York and Chicago, and the tallest “green” building in the country.

This new commercial building was designed with safety and innovation in mind, with sprinklers, elevators, stairwells and communications systems all encased in a concrete core that stretches the full height of the building. The 10-foot thick mat foundation consumed 4,500 cubic yards of concrete, and was placed overnight in order to avoid the typical daily city traffic and congestion. The structural concrete elevator core required 10,000psi, 8,000psi and 6,000psi concrete and was constructed with wall thicknesses ranging from 30 to 54 inches. The 10,000psi and 8,000psi mixes were “self-consolidating concrete,” which increased density and strength and also assisted in coverage of rebar in highly congested reinforcing zones.

Delivering the concrete to the top levels of the building required the use of a 650 horsepower Putzmeister trailer pump. This method enabled Madison Concrete Construction to send concrete nearly 1,000 feet towards the top of the building vertically.

This project was Madison’s first use of concrete maturity testing technology. This technology provides fast, reliable, non-destructive determination of in-place concrete strength. Further, maturity testing reduces (but does not eliminate)



the amount of traditional “cylinder” testing that is required. Receiving strength results sooner allowed earlier stripping and moving of formwork.

In addition to using advanced safety features, sustainability was utilized for the Comcast Center facility in several eco-friendly ways. Some of these features include a shaded plaza, a nine-story glass curtain and an under-floor water loop. The structure achieved LEED Gold Certification under the LEED Core and Shell Pilot Program by the U.S. Green Building Council and uses 40 percent less water than characteristic office buildings of this size.

OWNER: Liberty Property Trust

GENERAL CONTRACTOR: L.F. Driscoll Co.

OTHER TEAM MEMBERS: Action Concrete Supply, SJA Concrete, PERI Formwork, ReSteel Supply, Bayshore Rebar, Providence Rebar, Putzmeister Pumps, Engius, Inc. Maturity Testing

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COMPLETION DATE: 2008

SERVICES PROVIDED:

- Pre-construction constructability study
- Foundations