

Best of 2005

WMATA Morgan and Largo Stations Prince George's County, Md.

Award of Merit Transit

With the January 2005 presidential inauguration on the horizon and the clock steadily ticking, the Washington Metropolitan Area Transit Authority knew an accelerated construction schedule would be the only path to a timely completion of the 3-mi. extension to Washington, D.C.'s, Metrorail system.

By using the design-build method, WMATA and its design-build team were able to shave two years off the original four-year timeline, resulting in the successful completion of the Morgan Boulevard and Largo Town Center transit stations, the 2,200-car Largo Town Center parking structure and the 10,200-sq.-ft. Morgan Boulevard Childcare Center in half the amount of time than was originally anticipated.

Clark-Kiewit Largo, a general contracting joint-venture of Clark Construction Group of Bethesda, Md., and Kiewit Construction of Omaha, Neb., partnered with the design team of HSMM/STV, a joint-venture between HSMM of Roanoke, Va., and STV Architects of Douglassville, Pa., to complete the \$92 million job.

The Blue Line extension to the Largo Town Center in Prince George's County, Md., is the first segment to be added to the 103-mi. transit system and the first Metro line to extend beyond the Capital Beltway into Prince George's County.

The design of the two stations marks a departure from WMATA's existing design standard - a process that had been developed and refined over 30 years. The



team decided to use precast concrete to meet the schedule, budget and aesthetic requirements.

The decision compressed a significant percentage of architectural and engineering design time in the early stages of the delivery process. The use of precast track girders and platform sections was the first such application of precast on any of WMATA's stations.

The team also reworked the stations' canopies, shifting from the use of concrete to structural steel. That helped keep construction of the canopies on schedule, allowing sufficient time for line and systems contractors to follow and complete their work. WMATA, design-build team members and structural engineers performed shop inspections and review of shop drawings at the fabricator's plant to expedite the work.

The team also assembled a fly bay mock-up in-shop to validate the proposed erection methods to be used in the field.

More than 700,000 person-hours were logged during the 800 days of construction with no fatalities, no serious injuries and minimal lost-time accidents. The job maintained a site-incident rate of 1.2 - well below WMATA's goal of 4.0. <<

Key Players

Owner: Washington Metropolitan Area Transit Authority, Washington, D.C.

Architect and Structural Engineers: Hayes, Seay, Mattern & Mattern, Inc., Roanoke, Va.; STV Inc., Vienna, Va.

General Contractor: Clark-Kiewit Largo, A Joint Venture, Bethesda, Md.

Electrical: Truland/Walkerseal, Reston, Va.

Electrical Engineers : John J. Christie & Assoc., Silver Spring, Md.

Precast Concrete Supplier: Atlantic Metrocast Inc., Portsmouth, Va.

Pile Driving and Concrete: Clark Foundations, Bethesda, Md.