Signals Project

Brown Line

Block 37

Howard

CTA Capital Construction Update
July 11, 2007
Capital Construction Update Agenda

- Howard Station Reconstruction
- Brown Line Capacity Expansion Project
- Block 37 Tunnel Connections Project
- Dearborn/Congress/Kennedy/Block 37 - Train Control System and Traction Power System Upgrades and Improvements
- Loop Signals Project
Howard Station Reconstruction
Project Summary

BUDGET
• Total CTA budget: $87 million

SCHEDULE
• NTP: February 27, 2006
• Percent Complete: 28%
• Project Completion: Spring 2009

PROJECT GOALS
• Key station to be made accessible in compliance with the Americans with Disabilities Act Accessibility Guidelines by July 26, 2010
• Reconstruct Howard station, Rail Operations and Facilities Maintenance facilities
• Infrastructure upgrades will include newly-installed precast concrete platforms, viaduct repairs, track work, new elevators, and escalators
Howard Station Reconstruction

Project Activities

- Continued installing grade beams for the new south entrance/office building
- Continued foundation work, platform and canopy construction
- Continued welding and installation of canopy support steel and decking
- Continued repairing underside of deck and piers for Howard Street viaduct
- Continued platform panels alignment, welding and grouting into final position
- Continued installing stairs J and K in the north tenant space

Three Month Look Ahead

- Begin installation of underground utilities and structural steel work for the new south entrance/office building
- Finish welding and installation of canopy support steel and decking
- Begin initial installation of mechanical/electrical/plumbing (MEP) layout for new south entrance office
- Begin construction of caisson caps
- Complete removal and replacement of remaining southbound and northbound platform
Brown Line Capacity Expansion Project
Project Summary

BUDGET
• Total project budget: $529.9 million

SCHEDULE
• Percent Complete:
  • Clark Junction Signals: 98% complete
  • Substations: 83% complete
  • Belmont and Fullerton: 31% complete
  • Armitage/Sedgwick/Chicago: 41% complete
  • Kimball/Kedzie/Rockwell/Francisco/Western: 95% complete
  • Damen/Montrose/Irving Park/Addison: 15% complete
  • Paulina/Southport/Wellington/Diversey: 5% complete
• Project Completion: December 31, 2009

PROJECT GOALS
• Extend platforms to allow 8-car operations
• Make stations ADA compliant
• Add elevators to 13 stations
• Rehabilitate 18 stations
• Restore 8 historic stations
• Upgrade signal, communications and power delivery system
Brown Line Capacity Expansion Project
Project Activities

• Completed second phase caissons at Fullerton.
• Continued structural steel installation and concrete pours at Belmont for the new northbound track and platform.
• Closed Diversey Station on June 25, 2007
• Continued foundation work and steel erection for the new secondary entrance and exit at Superior Street at Chicago Station. Continued excavation for elevator foundations at Chicago.
• Continued installation of new platform decking and structural steel at the south end of the Armitage Station. Installed new auxiliary stairs at the northbound and southbound platform. Continued work on the temporary station house.
• Completed masonry installation on the elevator towers and installed the new stairs to the northbound and southbound platforms at Sedgwick.
• Continued installation of station house foundations at Addison and began station house foundations at Montrose. Began setting structural steel for the new platforms at Addison. Completed erection of the elevator towers at Addison and Montrose.
• Completed stair and platform demolition at Southport and began track structure foundation replacements.
Brown Line Capacity Expansion Project
Three Month Look Ahead

• Complete and place in service the new track 4 and northbound platform at Belmont
• Begin structural steel installation at Fullerton
• Shift main entrance at Chicago to the temporary station house located on Superior Street
• Install second elevator tower at Armitage and place temporary station house in service. The temporary station house is currently located across the street from the present entrance
• Complete installation of new station house foundations at Montrose and Addison and begin masonry installation on the elevator towers.
• Continue foundation work at Southport
• Begin foundation work and platform demolition work at Diversey
Block 37 Tunnel Connections Project

Project Summary

BUDGET
• Total project budget: $213.3 million

SCHEDULE
• Percent complete: 27% (Kiewit/Reyes Tunnel Connections), 28% (W.E. O’Neil Transit Station)
• Project completion: September 2008

PROJECT GOALS
• Kiewit-Reyes to construct connecting tunnels, linking the existing CTA Dearborn and State Street subway tunnels to a new transit station to be constructed within the substructure of the Block 37 Development by Joseph Freed & Associates
• Install new track in the connecting tunnels and transit station. Station will be designed to eventually function as a downtown terminal for express trains to O’Hare and Midway
• Replace 8,000 existing wood half-ties in the Dearborn and State Street subways with cast-in-place concrete half ties
Project Activities

- Kiewit-Reyes is relocating utilities in conflict with tunnel connections locations.
- Began installing slurry wall storage and mixing tanks

Three Month Look Ahead

- Protect existing utilities that must remain within the limits of the tunnel connections excavations
- Construct slurry wall at the intersection of State/Washington and Dearborn/Randolph Streets
- Continue to replace existing half-ties in the Blue Line and Red Line subway tunnels at identified locations
- Obtain city approval to close one additional traffic lane on Washington, Dearborn and Randolph Streets
Dearborn/Congress/Kennedy/Block 37 - Train Control System and Traction Power System Upgrades and Improvements

Project Summary

BUDGET
• $251 million

SCHEDULE
• Contractor: Aldridge-Mass Joint Venture (AMJV)
• Construction NTP: December 1, 2005
• Percent complete: 42%
• Project completion: Summer 2009

PROJECT GOALS
• Replace approximately 20 miles of the existing train control systems on the Blue Line that are between 35 and 54 years old
• Install new interlockings and train controls for Block 37
• Installation of new fiber communication backbone with copper backup on the Congress Line and in the Dearborn Subway
• Traction Power upgrades in the State and Dearborn Subways
Dearborn/Congress/Kennedy/Block 37 - Train Control System and Traction Power System Upgrades and Improvements

Project Activities

• Continued installation of local hand holes, conduit and signal foundations on the Congress Line and O’Hare Line
• Continued installation of communication cable, signal cable and traction power cable in the Dearborn Subway
• New cab signals were put in service on the Congress Line between the Lavergne interlocking and the east end of Forest Park Station.
• Continued subway lighting fixture replacement in the Dearborn Subway
• Installed foundations for the Forest Park relay house
• Began wiring Kedzie interlocking and continuing underground work at Western interlocking
• Continued pocket demolition at LaSalle interlocking for the relay house structural steel installation
Three Month Look Ahead

- Continue installation of local hand holes, conduit and signal foundations on the Congress Branch and O’Hare Branch
- Continue installation of traction power cable in the State Street and Dearborn Subways
- Continue replacing the DC circuit breakers with disconnect switches in the State Street and Dearborn Subways
- Continue installation of signal cable in the Dearborn Subway
- Deliver and install new relay houses at Forest Park and Jefferson Park
- Continue lighting installation in the Dearborn Subway
- Continue preparation for the Kedzie relay house cutover and Western relay house cutover
- Continue pocket demolition for the LaSalle relay house installation
Loop Signals Project

PROJECT BUDGET
• $78.8 million

SCHEDULE
• Contractor: Divane Brothers Electric Company
• Construction NTP: February 21, 2007
• Percent complete: 5.8%
• Project completion: Summer 2009

PROJECT GOALS
• Provide new train control system for the Loop elevated structure, replacing a system that is more than 30 years old. The new signal system will help to improve reliability of CTA rail service by regulating train movement, speed and intervals at these junctions.
• Construct new control tower at Lake and Wells to replace the current Tower 18, and new interlockings at Towers 18 and 12.
Loop Signals Project

Project Activities

• Divane Brothers has submitted their construction schedule, safety and quality plans
• Continued work on the signal block design
• Removed all equipment from the old Randolph west platform to prepare for timber decking and structural steel removal

Three Month Look Ahead

• Approve Contractor’s construction schedule
• Approve Contractor’s safety and quality plans
• Remove timber decking and structural steel at the old Randolph west platform
• Set up staging area on Van Buren for Tower 12 south platform demolition work
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