

Construction Project Briefing

May 8, 2019



Today's Presentation

- **ELMI – East Lake, Milwaukee, Illinois Substation Upgrade**
- **Your New Blue Signals Project**
- **95th Street Terminal Improvement Program**
- **Belmont and Jefferson Park Station Improvements (Blue Line)**
- **Red and Purple Modernization Project**



Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade

Justification of Need:	The existing traction power equipment at these substations is well past its useful life and needs to be replaced to assure reliable 600-volt DC traction power. Rehabilitate the substation buildings to a state of good repair.
Priority of Project:	High
Total Project Budget:	\$ 69M
Construction Contract Value:	\$ 42.9M
Earned to Date:	63.0%
Percent Change Orders to Construction Contract:	0
Percent Time Used:	71%
DBE:	Goal: 20% / Commitment: 20% Contract is on track to meet the DBE goal Outreach events conducted: 2 (CTA)
Funding Source:	CTA Bonds, RTA Bonds
Estimated Start Date/Estimated Length of Project:	NTP: April 10, 2017; Substantial Completion March 8, 2020
Designer of Record:	T.Y. Lin International
Construction Manager/General Contractor:	STV

Detailed Overview of Scope:

Rehabilitation of existing buildings and building envelopes to a state of good repair at East Lake, Milwaukee, and Illinois. Scope of work includes replacement of roof, tuck-pointing, hazardous material abatement, structural repairs and improvements, plumbing and mechanical repairs and improvements, and electrical repairs and improvements.

Replace existing AC/DC conversion equipment at all locations and getaway cables at East Lake.

Part of the scope of this project includes CTA purchasing 10 East Lake from ComEd.



Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade

Impact on Customers:	There will be minimum impact to CTA customers.
Benefit to System:	<ul style="list-style-type: none">• Additional traction power capacity• Reduced traction power related train defects• Improved reliability for revenue service• Improved safety
Benefit to Community:	Improved Reliability and Safety
Impact on Accessibility:	None
Estimated # of Jobs Created:	897 indirect, 188 direct
Customer Communication Need:	Construction activity notices will be provided to inform businesses and residents regarding temporary construction impacts (noise, dust, street/alley closures) throughout the project.

Comparable Projects:

- Traction Power Systems Upgrades and Improvements Kimball, Princeton, and State Substation Projects.



Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade

Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"><li data-bbox="386 321 1391 349">• Manufacturing of traction power equipment is in progress at East Lake Substation.<li data-bbox="386 385 1400 442">• Factory Acceptance Testing of traction power equipment at East Lake Substation is progressing.<li data-bbox="386 478 1487 535">• Tuckpointing, demolition, lead paint abatement, drywall installation, epoxy floor installation, exhaust fan installation, plumbing are in progress at East Lake Substation.	Ongoing Ongoing Ongoing

Delay Explanation:

N/A



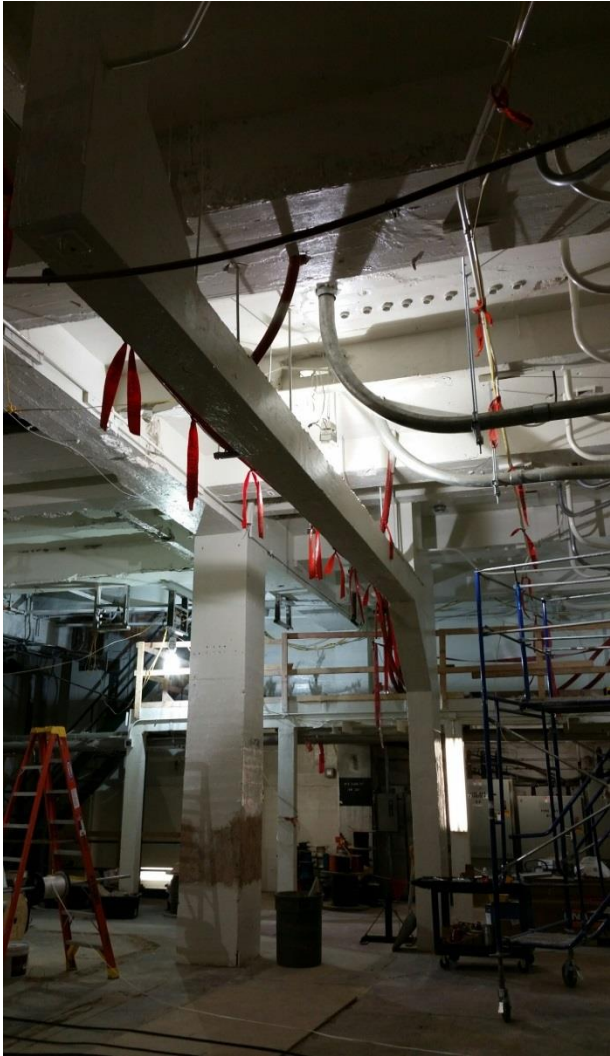
Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade



Courtyard Demolition at East Lake Substation



Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade



AC Feeds at East Lake Substation



Project Title: Your New Blue Jefferson Park to O'Hare Signals Project

Justification of Need:	The existing 30-year old signal system is approaching the end of its useful life. Maintaining the system has become increasingly difficult in as much as many components are now obsolete and difficult to repair or replace.
Priority of Project:	High
Total Project Budget:	\$ 207
Construction Contract Value:	\$ 152,975,000
Earned to Date:	9.1%
Percent Change Orders to Construction Contract:	0
Percent Time Used:	33%
DBE:	Goal: 10% Design / 15% Construction Commitment: 10.1% Design / 15% Construction Contract is on track to meet the DBE goal Outreach events conducted: 2 (CTA) 1 (KAJV)
Funding Source:	CTA Bonds, RTA Bonds, Federal Formula Funds, and Federal TIFIA loan
Estimated Start Date/Estimated Length of Project:	NTP: May 21, 2018; Substantial Completion May 20, 2021
Designer of Record:	KAJV – Mott McDonald
Construction Manager/General Contractor:	STV

Detailed Overview of Scope:

This is a design-build project that existing relay houses are going to be replaced with new relay houses on elevated or at grade platforms and existing relay rooms are proposed to be expanded/ refurbished and/or reconfigured to accommodate the new signal equipment. The existing relay houses/ rooms are located at the following locations: Jefferson Park, Central, Foster, Nagle, Harlem, Cumberland, River Road, Rosemont East, Rosemont Yard, Rosemont West, Old Manheim, O'Hare East and O'Hare West. Special trackwork improvements are at Central Interlocking.



Project Title: Your New Blue Jefferson Park to O'Hare Signals Project

Impact on Customers:	There will be 11 weekend Line Cuts: 2 – 9 Day Line Cuts from O'Hare to Rosemont, 2 Weekend Line Cuts from Rosemont to Harlem, and 7 Line Cuts from Harlem to Jefferson Park. Bus shuttles will be provided for these line cuts. In addition, there are 90 nighttime single track outages that may affect customers.
Benefit to System:	This will be the last section of the Blue Line to receive upgraded signals and interlocking systems. When completed, these systems will assure consistent, safe and reliable train operations on the entire Blue Line for many years to come. The proposed new equipment will provide bi-directional railway traffic protection and maintain headways at 90 seconds at 35 mph nominal. The Project will be designed with infrastructure provisions for a future Communication Based Train Control (CBTC) system, such as ducts for serial fiber/ cables, ample spare room for hardware in each relay/ audio house and ideal locations for transponders, radio transmitters/ antennae and wayside zone controllers.
Benefit to Community:	Improved Reliability and Safety
Impact on Accessibility:	During the 11 weekend Line Cuts, train stations will be inaccessible.
Estimated # of Jobs Created:	TBD
Customer Communication Need:	Construction activity notices will be provided to inform customers that Line Cuts will impact their commute.

Comparable Projects:

- Ravenswood Loop Connector
- Congress Dearborn – Jefferson Park to Forest Park Signal Replacement



Project Title: Your New Blue Jefferson Park to O'Hare Signals Project

Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"><li data-bbox="388 308 1450 334">• Manhole Investigation. Manholes are being cleaned, check valves are being inspected<li data-bbox="388 372 697 398">• Ductbank Investigation.<li data-bbox="388 436 819 462">• Removal of cable from ductbanks<li data-bbox="388 501 919 526">• Signal & Traction Power Cable Installation<li data-bbox="388 565 813 591">• Potholing along the Right of Way<li data-bbox="388 629 664 655">• Innerduct installation<li data-bbox="388 694 620 719">• Asbestos testing<li data-bbox="388 758 1035 783">• Underground Infrastructure at Edmunds and Central<li data-bbox="388 822 1074 848">• Excavate and install new conduits from Foster to Nagle<li data-bbox="388 886 732 912">• Move Foster Relay House	Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Completed

Delay Explanation:
N/A



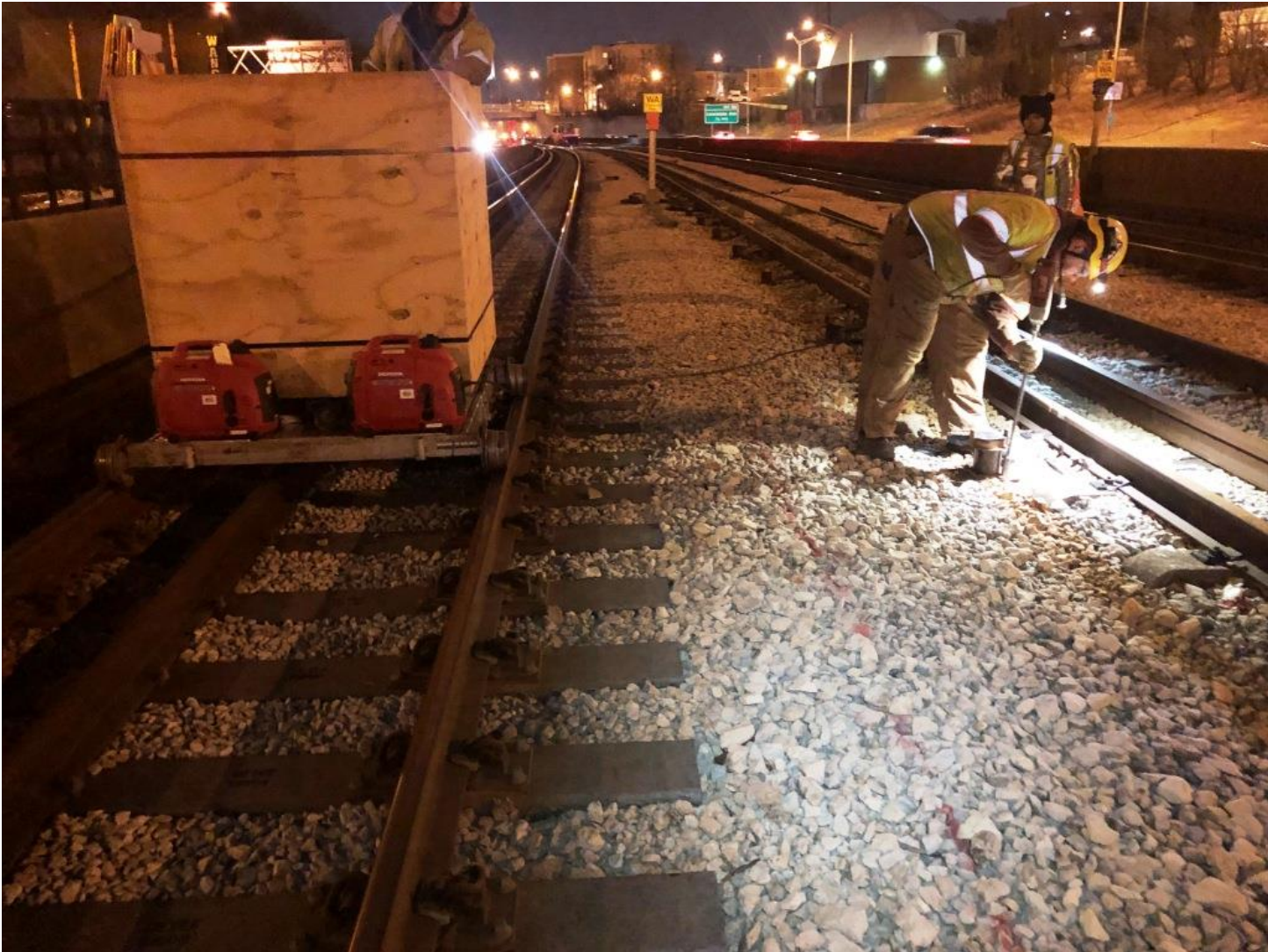
Project Title: Your New Blue Jefferson Park to O'Hare Signals Project



Potholing at Central to Foster



Project Title: Your New Blue Jefferson Park to O'Hare Signals Project



Removal of 3rd Rail Chairs Edmunds Center Track



Project Title: Your New Blue Jefferson Park to O'Hare Signals Project



Foster Relay House Temporary AC Feed



Project Title: 95th Terminal Improvement Program

Justification of Need:	The terminal is functionally obsolete and does not allow for optimal bus operations and pedestrian flow.
Priority of Project:	High
Total Project Budget:	\$280 M
Construction Contract Value:	Advance Package 1: \$ 2,482,588 Advance Package 2: \$24,697,210 Main Terminal Contract: \$188,395,277
Earned to Date:	Advance Package 1: 100% Advance Package 2: 100% Main Terminal Contract: 94%
Percent Change Orders to Construction Contract:	Advance Package 1: (0.3%) Advance Package 2: 7% Main Terminal Contract: 4.7%
Percent Time Used:	Advance Package 1: 100% Advance Package 2: 100% Main Terminal Contract: 100%
DBE:	Advance Package 1: Goal: 30% / Commitment: 35.19% / Final Attainment*: 37.26% Advance Package 2: Goal: 30% / Commitment: 30% / Final Attainment*: 37.80% Main Terminal Contract: Goal: 27% / Commitment: 27% Contract is on track to meet the DBE goal Outreach events conducted: 8 *Attainment is based on progress payments and may vary over the life of the project
Funding Source:	Federal, State, Bond



Project Title: 95th Terminal Improvement Program

Estimated Start Date/Estimated Length of Project:	Main Terminal Contract: NTP: Nov 24, 2015; South Terminal – operational April 14, 2018. North Terminal – Terminal operational December 31, 2018.
AP1/AP2 Construction Manager/General Contractor:	Walsh / II in One JV
Main Terminal Contractor:	F.H. Paschen / Milhouse JV
Owners Representative:	Jacobs/SQN JV

Detailed Overview of Scope:

The 95th Terminal Improvement Project will create new South and North terminal buildings at 95th on the Dan Ryan Red Line. The new terminal buildings will create a functional and efficient intermodal facility to enhance bus service and improve pedestrian safety. Scope includes the replacement and expansion of the terminal and platform and the addition of bus and pedestrian bridges. New administrative office space will be built and new bus bays will be provided around the terminal buildings.



Project Title: 95th Terminal Improvement Program

Impact on Customers:	Track closures and weekend station closures during construction. Temporary relocation of certain bus operations to nearby streets during construction phasing.
Benefit to System:	Improved customer circulation and safety by relieving congestion. Improved bus service and improved pedestrian safety.
Benefit to Community:	Improved pedestrian safety with new pedestrian bridge over 95 th Street, longer train platform extending to the new South Terminal Building.
Impact on Accessibility:	New south and north terminal buildings with improved accessible routes to buses.
Estimated # of Jobs Created:	3,640 indirect, 762 direct
Customer Communication Need:	Requires periodic track closures and possible station closures with bus shuttle service. Bus Operations may be relocated to adjacent streets during certain phases of construction.

Comparable Projects:

- Wilson Station



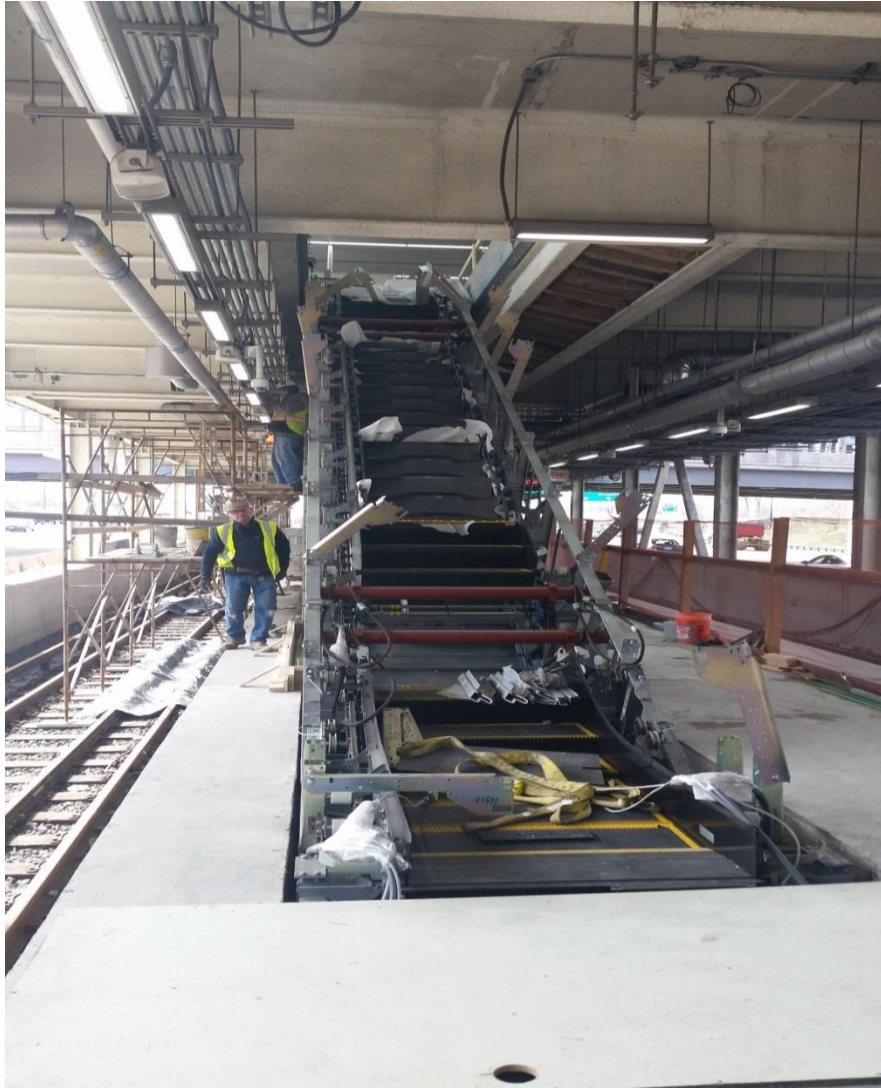
Project Title: 95th Terminal Improvement Program

Construction Progress

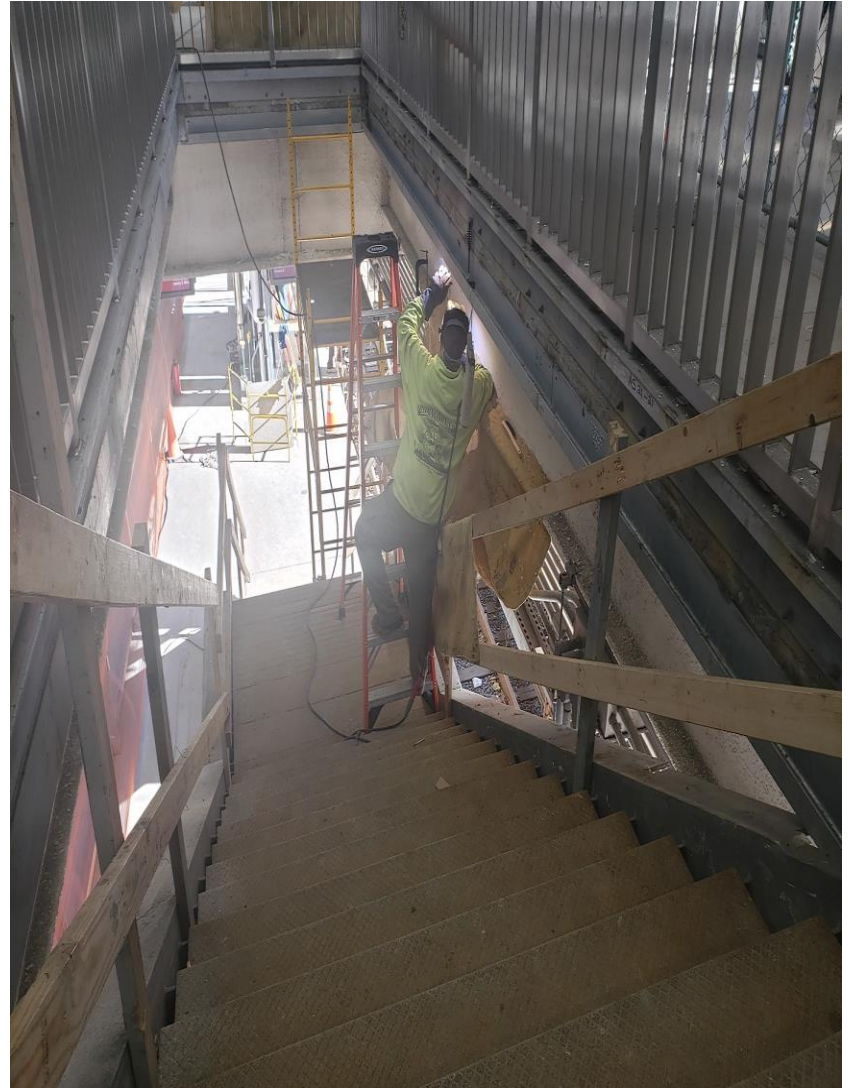
Phase	Description	Status
Construction	<ul style="list-style-type: none"> ▪ South Terminal: <ul style="list-style-type: none"> ▪ Various punchlist work is ongoing. ▪ The final South Terminal building and platform reconfiguration activities are ongoing. (Installing escalator #1, shifting stair case# 2, platform rooms, etc.) ▪ North Terminal: <ul style="list-style-type: none"> ▪ ComEd electrical feeder tie-in for concession spaces is complete. ▪ Various punchlist work is ongoing. ▪ 96th Interlocking work complete; testing and commissioning expected to be complete in Q2 2019 allowing for full operational service. ▪ 95th Street: <ul style="list-style-type: none"> Started the preparation work for installing the median on 95th bridge. 	<p>Ongoing Ongoing</p> <p>Complete Ongoing</p> <p>Complete</p> <p>Ongoing</p>
Delay Explanation:		
N/A		



Project Title: 95th Terminal Improvement Program



Escalator # 1 at South Terminal



Welding stair case # 2 in South Terminal



Project Title: 95th Terminal Improvement Program



ST Platform Plumbing Closet Room



Project Title: 95th Terminal Improvement Program



95th Bridge – Median Preparation



Project Title: Belmont and Jefferson Park Station Improvements

Justification of Need:	Most elements of the Belmont and Jefferson Park Stations have not experience major renovation or updating since being built in 1970. In order to bring both stations to a state of good repair, upgrades are required. In addition, Jefferson Park Bus Terminal will be brought up to current ADA standards.
Priority of Project:	High
Total Project Budget:	\$ 42.2 M
Construction Contract Value:	\$ 30.8 M
Earned to Date:	78% (thru March)
Percent Change Orders to Construction Contract:	0
Percent Time Used:	84%
DBE:	Goal: 30% / Commitment: 30% Contract is on track to meet the DBE goal Outreach events conducted: 2 (CTA HQ and Community First Hospital)
Funding Source:	CTA PBV, CTA Bonds, RTA Bonds, IDOT, FTA, TIF, TIFIA
Start Date/Length of Project:	NTP: October 16, 2017; Substantial completion Belmont & Jefferson Park Rail Stations: December 31, 2018; Substantial completion Belmont Bus turnaround and canopy; 1 st quarter 2019; and Substantial completion Jefferson Park Bus Terminal: July 8, 2019
Designer of Record:	EXP
Construction Manager/General Contractor:	WSP (formerly Parsons Brinckerhoff)/Walsh Construction

Overview of Scope: Both the Belmont and Jefferson Park Stations will be brought to a state of good repair. Scope of work includes electrical and lighting upgrades, floor replacements, sidewalk repair, updated signage, wall repairs, water mitigation, and improved customer amenities. Belmont will also receive a Gateway Canopy element that will invoke a sense of community and protect customers from the elements. Jefferson Park Bus terminal will be brought to current ADA standards via larger bus islands, improved lighting and signage, and repaired pavement and sidewalks.



Project Title: Belmont and Jefferson Park Station Improvements

Impact on Customers:	<ul style="list-style-type: none"> • 8 Weekend Station Closures at Belmont. • Belmont Bus Turnaround Closed up to 90 Days for Construction. • 8 Weekend Single Tracks. • 45 Nightly Single Tracks. • Longitudinal Partial Platform Closures: 3 weeks each side at Belmont and Jefferson Park. • One half of Jefferson Park Bus Terminal Closed at a time (Bus stops temporarily relocated) during terminal construction.
Benefit to System:	Extensive renovations to both stations. Jefferson Park Bus Terminal will meet current ADA standards.
Benefit to Community:	Improved reliability, safety and accessibility.
Impact on Accessibility:	Improves accessibility in the Jefferson Park Bus Terminal.
Estimated # of Jobs Created:	546 indirect, 114 direct
Customer Communication Need:	Construction activity notices and customer notices will be needed to alert customers, businesses and residents to weekend and night work occurrences. Extensive communication will be required for weekend closures, extended partial platform closures, and bus terminal closures.

Comparable Projects:	
•	O'Hare Line – Addison, Irving Park, Montrose, Harlem, and Cumberland Station Renovations



Project Title: Belmont and Jefferson Park Station Improvements

Construction Progress

Phase	Description	Status
Design	<ul style="list-style-type: none">• Achieve Final Design.	Complete
Construction	<ul style="list-style-type: none">• Topping Slab Replacement at Belmont Platform.	Complete
	<ul style="list-style-type: none">• Punchlist at Belmont Station.	Ongoing
	<ul style="list-style-type: none">• Installation of Belmont Gateway Canopy.	Complete
	<ul style="list-style-type: none">• Topping Slab Replacement at Jefferson Park Rail Station.	Complete
	<ul style="list-style-type: none">• Construction at Jefferson Park Rail Station.	Complete
	<ul style="list-style-type: none">• Construction at North Half of Jefferson Park Bus Terminal.	Complete
	<ul style="list-style-type: none">• Construction at South Half of Jefferson Park Bus Terminal.	Ongoing

Delay Explanation:



Project Title: Belmont and Jefferson Park Station Improvements



New North Bus at Jefferson Park Terminal in Service



Project Title: Belmont and Jefferson Park Station Improvements



North Bus Terminal at Jefferson Park In Service



Project Title: RPM Advance Contracts

Justification of Need:	<ul style="list-style-type: none"> • Advance Utility Relocation to relocate utilities in conflict with future RPM Phase One construction. • Demolition Work Orders: Two Mid-Con Work Orders to demolish buildings at 18 parcels to facilitate future RPM Phase One Construction.
Priority of Project:	<ul style="list-style-type: none"> • High
Total Project Budget:	<ul style="list-style-type: none"> • Additional support costs as part of RPM Phase One Project Budget of \$2.2B • Advance Utility Relocation: \$35,000,000 per Ordinance No. 017-53 • Demolition: \$4,380,195 Construction Contract Value
Construction Contract Value:	<ul style="list-style-type: none"> • Advance Utility Relocation: \$15,324,415 Work Orders Authorized (as of 04/15/19) • Demolition: \$4,380,195
Earned to Date:	<ul style="list-style-type: none"> • Advance Utility Relocation: 59% (ComEd ductbank), 49% (all work) • Demolition: 97%
Percent Change Orders to Construction Contract:	<ul style="list-style-type: none"> • Advance Utility Relocation: N/A • Demolition: 0%
Percent Time Used:	<ul style="list-style-type: none"> • Advance Utility Relocation: 75% • Demolition: 100%
DBE:	<ul style="list-style-type: none"> • Advance Utility Relocation: CTA Diversity continues to work with Utilities to provide opportunities for DBEs and other diverse contractors. • Demolition: Work Orders are on track to meet the DBE goals of 30%
Funding Source:	<ul style="list-style-type: none"> • CTA Bonds, FTA Core Capacity Grant, CMAQ, TIFs
Estimated Start Date/Estimated Length of Project:	<ul style="list-style-type: none"> • Advance Utility Relocation NTP: 06/25/18 (373 days) Planned Substantial Completion: 07/02/19 • Demolition NTP: 01/16/18 (322 Days) Demolition Substantial Completion: 03/22/2019 (Contractor notified of potential Liquidated Damages)



Project Title: RPM Advance Contracts

Designer of Record:	<ul style="list-style-type: none">• Advance Utility Relocation: Relevant Utility Agency• Demolition: CTA
Construction Manager/General Contractor:	<ul style="list-style-type: none">• Advance Utility Relocation: CM= WSP; GCs = Relevant Utility Agency or Contractor• Demolition: CM = WSP; GCs = ICC Group Inc. and John Burns Construction
Detailed Overview of Scope: <ul style="list-style-type: none">• Advance Utility Relocation: Relocate underground and overhead facilities ahead of track and station construction.• Demolition: Demolish properties needed for RPM Phase One ahead of track and station construction.	



Project Title: RPM Advance Contracts

Impact on Customers:	<ul style="list-style-type: none">• Periodic flagging activities while poles being set/removed.• Flagging and Track Impacts during select demolition activities.• Bus reroutes for street closures.
Benefit to System:	<ul style="list-style-type: none">• Reduces risk and duration for the future RPM Phase One Design-Build Project.
Benefit to Community:	<ul style="list-style-type: none">• Reduces risk and duration for the future RPM Phase One Design-Build Project.
Impact on Accessibility:	<ul style="list-style-type: none">• None
Estimated # of Jobs Created:	<ul style="list-style-type: none">• N/A
Customer Communication Need:	<ul style="list-style-type: none">• Construction Activity Notices will be provided to inform businesses and residents regarding temporary construction impacts (noise, dust, street/alley closures) throughout the advance work.

Comparable Projects:

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Project Title: RPM Advance Contracts

Construction Progress

Phase	Description	Status
Design:	<ul style="list-style-type: none">• Advance Utility Relocation – Utilities are finalizing designs and Work Orders.	Ongoing
Construction:	<ul style="list-style-type: none">• Advance Utility Relocation – ComEd, PGL, and AT&T continue to install infrastructure as part of relocation.• Demolition Package 2 – Demolition work is substantially complete. Public way restoration and final fencing work is in progress.	Ongoing Ongoing
Close-Out:	<ul style="list-style-type: none">• Demolition Package 1 - Review of submittals of warranties and as-built drawings.	Complete

Delay Explanation:

N/A



Project Title: RPM Advance Utility Work and Property Demolition



Gas main installation by Peoples Gas contractor (left) and AT&T trench south side of Roscoe (right) on Clark Street

Project Title: RPM Advance Utility Work and Property Demolition



Parcel 14,15 and 16 sidewalk and fencing



Project Title: RPM Broadway Substation Upgrade

Justification of Need:	<ul style="list-style-type: none"> • The existing traction power equipment at these substations is well past its useful life and needs to be replaced to assure reliable 600-volt DC traction power. • Rehabilitate the substation buildings to a state of good repair.
Priority of Project:	<ul style="list-style-type: none"> • High
Total Project Budget:	<ul style="list-style-type: none"> • \$25,954,699.00 (Part of RPM Phase One Project Budget of \$2.2B)
Construction Contract Value:	<ul style="list-style-type: none"> • \$14,500,000.00
Earned to Date:	<ul style="list-style-type: none"> • 70%
Percent Change Orders to Construction Contract:	<ul style="list-style-type: none"> • None at this time
Percent Time Used:	<ul style="list-style-type: none"> • 85%
DBE:	<ul style="list-style-type: none"> • Goal: 25% / Commitment: 25.17% • Contract is on track to meet the DBE Goal • Outreach events conducted: 1 (CTA HQ)
Funding Source:	<ul style="list-style-type: none"> • CTA Bonds, FTA Core Capacity Grant, CMAQ, TIFs
Estimated Start Date/Estimated Length of Project:	<ul style="list-style-type: none"> • NTP: August 2017 • Substantial Completion: Q4 2019; (Length: 729 calendar days)
Designer of Record:	<ul style="list-style-type: none"> • TY Lin
Construction Manager/General Contractor:	<ul style="list-style-type: none"> • CM = STV • GC = Clark Construction Group

Detailed Overview of Scope:

Replace Broadway Substation traction power equipment and rehabilitate various structural, architectural, civil, mechanical, plumbing, and electrical elements.



Project Title: RPM Broadway Substation Upgrade

Impact on Customers:	<ul style="list-style-type: none">• None to minimum during construction.• Infrequent Track Access Occurrences (Track Out of Service and Reroutes).
Benefit to System:	<ul style="list-style-type: none">• Additional traction power capacity• Reduced traction power related train defects• Improved reliability for revenue service• Improved safety
Benefit to Community:	<ul style="list-style-type: none">• Improved Reliability and Safety
Impact on Accessibility:	<ul style="list-style-type: none">• None
Estimated # of Jobs Created:	<ul style="list-style-type: none">• 450 indirect and 95 direct
Customer Communication Need:	<ul style="list-style-type: none">• Construction Activity Notices will be provided to inform businesses and residents regarding temporary construction impacts (noise, dust, street/alley closures) throughout the project.

Comparable Projects:

- East Lake Substation (Loop and Adjacent Lines)
- Milwaukee Substation (Blue Line)



Project Title: RPM Broadway Substation Upgrade

Construction Progress

Phase	Description	Status
Construction:	• Stage 6 slab removal and replacement	Ongoing
	• Building Electrical Work (Lighting)	Ongoing
	• Interior/Exterior Plumbing	Ongoing
	• Old DC Gear Removal	Ongoing

Delay Explanation:

N/A



Project Title: RPM Broadway Substation Upgrade



Old Equipment Removal