Construction Project Briefing

April 10, 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



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:	59.6%
Percent Change Orders to Construction Contract:	0
Percent Time Used:	69%
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.



Impact on Customers:	There will be minimum impact to CTA customers.
Benefit to System:	 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.



Construction Progress

Phase	Description	Status
Construction		
	All testing has been completed at Illinois Substation.	Completed
	All testing has been completed at Milwaukee Substation	Completed
	Manufacturing of traction power equipment is in progress at East Lake Substation.	Ongoing
	Factory Acceptance Testing of traction power equipment at East Lake Substation is progressing.	Ongoing
	Tuckpointing, demolition, lead paint abatement, drywall installation, epoxy floor installation, exhaust fan installation, plumbing are in progress at East Lake Substation.	Ongoing

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N/A





Courtyard Demolition at East Lake Substation







AC Feeds at East Lake Substation



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:	8.4%
Percent Change Orders to Construction Contract:	0
Percent Time Used:	30%
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.



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



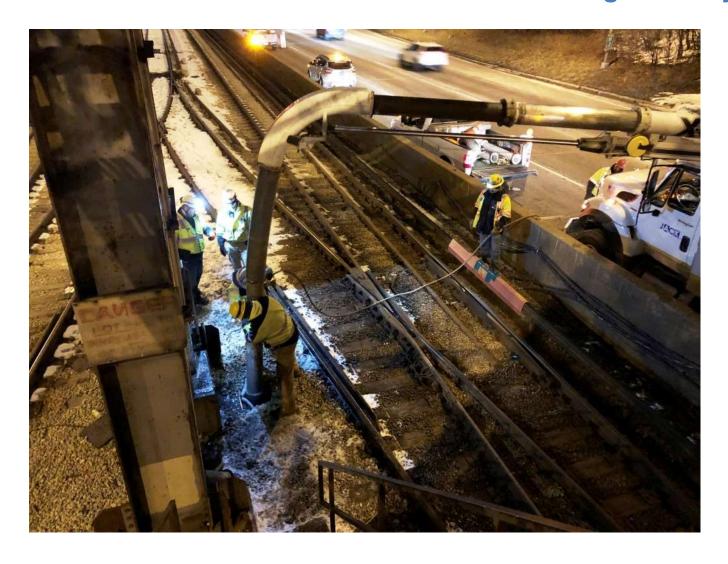
Construction Progress

Phase	Description	Status
Construction		
	Manhole Investigation. Manholes are being cleaned, check valves are being inspected	Ongoing
	Ductbank Investigation.	Ongoing
	Removal of cable from ductbanks	Ongoing
	Temporary cable installation	Ongoing
	Potholing along the Right of Way	Ongoing

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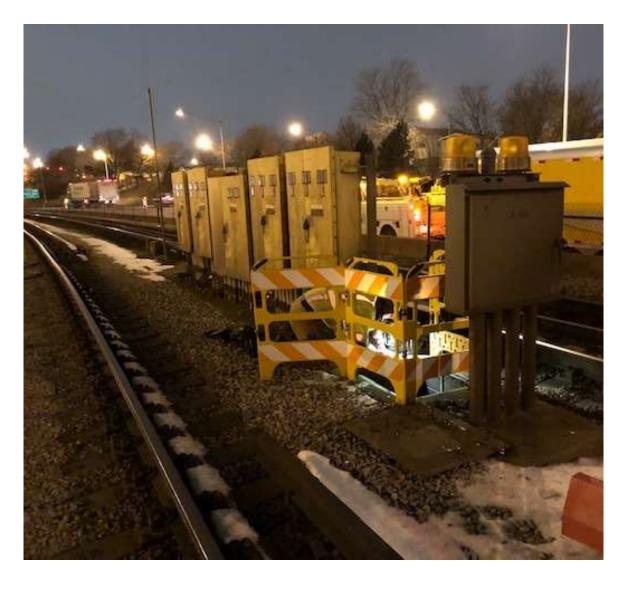
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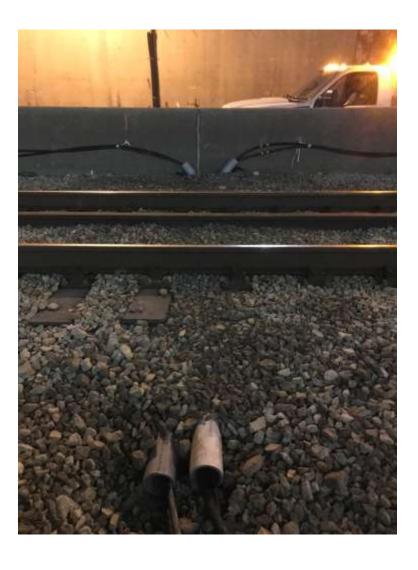
Potholing at Central Relay House





Manhole Work





Temporary Cable Installation



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: 93%
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

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 95thTerminal 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.



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:

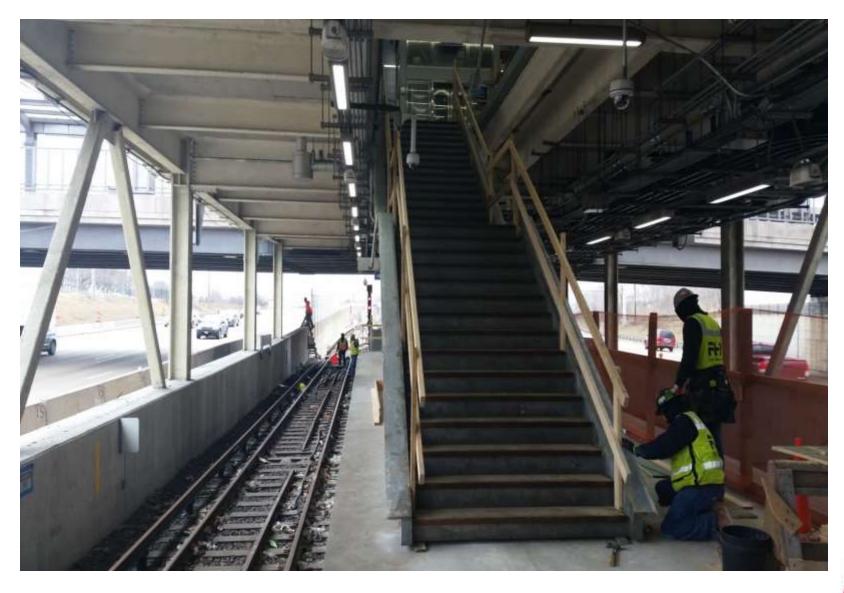
Wilson Station



Construction Progress

Phase	Description	Status
Construction	 South Terminal: Various punchlist work is ongoing. The final South Terminal building and platform reconfiguration activities are ongoing. 	Ongoing Ongoing
	 North Terminal: North Bus Bridge bus canopy panel installation is complete. ComEd electrical feeder tie-in for concession spaces ongoing. Various punchlist work is ongoing. 	Complete Ongoing Ongoing
	 96th Interlocking work continues; testing and commissioning expected to be complete early Q2 2019 allowing for full operational service. 	Ongoing
Delay Explanation:		
N/A		

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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:	75% (thru Feb)	
Percent Change Orders to Construction Contract:	0	
Percent Time Used:	80%	
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; 1st 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.



Impact on Customers:	 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



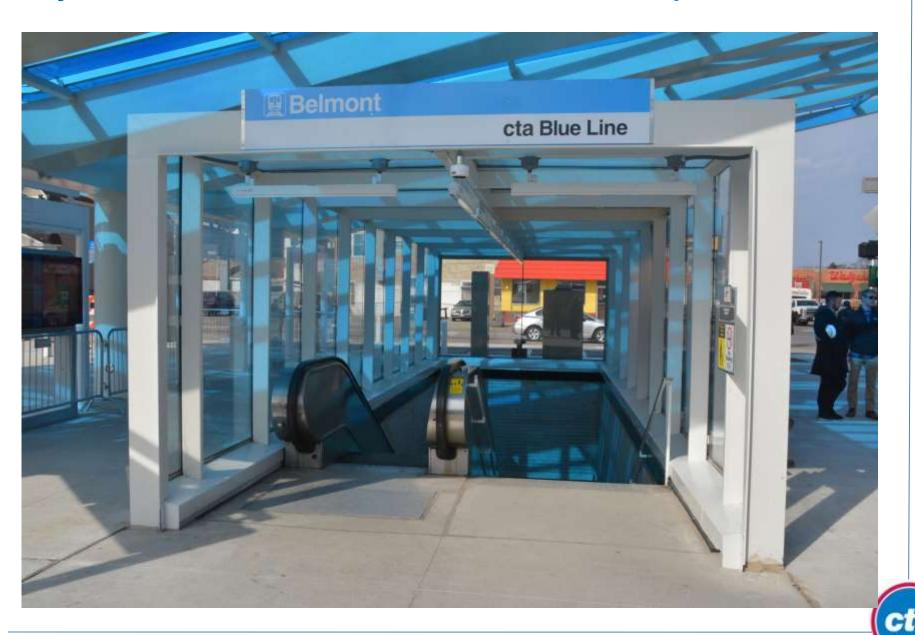
Construction Progress

Phase	Description	Status
Design	Achieve Final Design.	Complete
Construction	Topping Slab Replacement at Belmont Platform.	Complete
	Construction at Belmont Station.	Ongoing
	Installation of Belmont Gateway Canopy.	Ongoing
	Topping Slab Replacement at Jefferson Park Rail Station.	Complete
	Construction at Jefferson Park Rail Station.	Complete
	Construction at North Half of Jefferson Park Bus Terminal.	Ongoing
	Construction at South Half of Jefferson Park Bus Terminal.	Planned

Delay Explanation:	

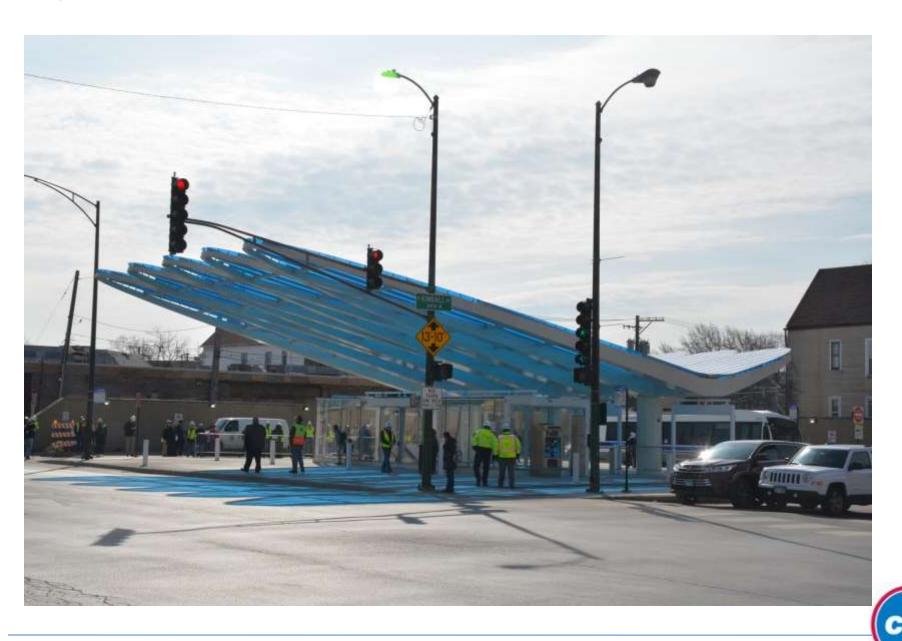
















Justification of Need:	 Advance Utility Relocation to relocate utilities in conflict with future RPM Phase One construction. Demolition Work Orders: Two Mid-Con Work Orders to demolish buildings at 18 parcels to facilitate future RPM Phase One Construction. 	
Priority of Project:	• High	
Total Project Budget:	 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:	 Advance Utility Relocation: \$15,148,515 Work Orders Authorized (as of 03/20/19) Demolition: \$4,380,195 	
Earned to Date:	 Advance Utility Relocation: 47% (ComEd ductbank), 41% (all work) Demolition: 95% 	
Percent Change Orders to Construction Contract:	Advance Utility Relocation: N/ADemolition: 0%	
Percent Time Used:	Advance Utility Relocation: 66%Demolition: 100%	
DBE:	 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:	CTA Bonds, FTA Core Capacity Grant, CMAQ, TIFs	
Estimated Start Date/Estimated Length of Project:	 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) 	

Designer of Record:	Advance Utility Relocation: Relevant Utility Agency Demolition: CTA
Construction Manager/General Contractor:	 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:

- 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.



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

Comparable Projects:	



Construction Progress

Phase	Description	Status
Design:	Advance Utility Relocation – Utilities are finalizing designs and Work Orders.	Ongoing
Construction:	 Advance Utility Relocation – ComEd installing poles and duct bank. CDWM working on their facilities in the Clark Street closure in RPB. PGL working on their facilities in LBMM. AT&T installing conduit and constructing manholes in the Clark Street closure. RCN installing innerduct and cable in RPB. 	Ongoing
	Demolition Package 1 –All work is substantially complete.	Complete
	Demolition Package 2 – Demolition work is substantially complete. Public way restoration and final fencing work is in progress.	Ongoing
Close-Out:	Demolition Package 1 - Review of submittals of warranties and as-built drawings.	Ongoing

Delay Explanation:	
N/A	



Project Title: RPM Advance Utility Work and Property Demolition

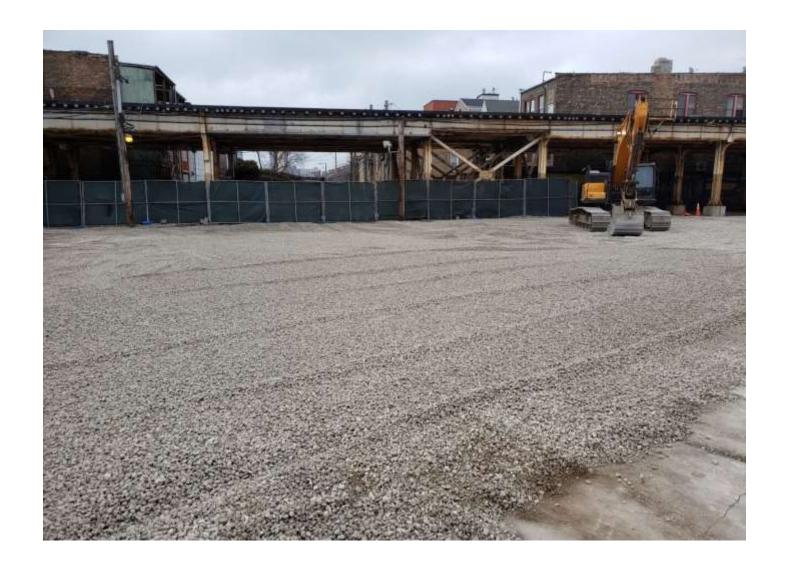




Base to Grade Finish Installation around AT&T manhole on Clark Street (left) and RCN innerduct installation in RPB area (right)



Project Title: RPM Advance Utility Work and Property Demolition



Parcel 14 and 15 Demolition Substantially Complete



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:	• \$25,954,699.00 (Part of RPM Phase One Project Budget of \$2.2B)	
Construction Contract Value:	• \$14,500,000.00	
Earned to Date:	• 65%	
Percent Change Orders to Construction Contract:	None at this time	
Percent Time Used:	• 77%	
DBE:	Goal: 25% / Commitment: 25.17% Contract is on track to meet the DBE Goal Outreach events conducted: 1 (CTA HQ)	
Funding Source:	CTA Bonds, FTA Core Capacity Grant, CMAQ, TIFs	
Estimated Start Date/Estimated Length of Project:	 NTP: August 2017 Substantial Completion: Q4 2019; (Length: 729 calendar days) 	
Designer of Record:	• TY Lin	
Construction Manager/General Contractor:	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.

Impact on Customers:	 None to minimum during construction. Infrequent Track Access Occurrences (Track Out of Service and Reroutes).
Benefit to System:	 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:	450 indirect and 95 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:

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



Construction Progress

Phase	Description	Status
Construction:	DC Track Section 73-80 cut over from the old DC Gear to the New DC Gear	Ongoing
	AC Gear Energized from ComEd Line 8441	Ongoing
	Rectifier Transformer Line Up #2 Energized	Ongoing
	Traction Power Cable Work Continued	Ongoing
	Lead Based Paint on the Walls Continued	Ongoing

Delay Explanation:	
N/A	





DC Track Section to New DC Gear





Auxiliary Transformer Terminations



Justification of Need:	This project primarily replaces a deteriorating running rail anchoring system within the concrete deck limits at the Red Line Addison Station. Additionally tactile edge replacement, drainage cleaning, and footwalk replacement are included in the scope. The goals are to remove a slow zone and reduce maintenance efforts.		
Priority of Project:	• High		
Total Project Budget:	Part of RPM Phase One Project Budget of \$2.2B		
Construction Contract Value:	• \$4,381,000.000		
Earned to Date:	• \$4,381,000.000		
Percent Change Orders to Construction Contract:	• 13% (Pending)		
Percent Time Used:	• 100%		
DBE:	Goal: 20% Contract is on track to meet the DBE Goal		
Funding Source:	CTA Bonds, FTA Core Capacity Grant, CMAQ, TIF		
Estimated Start Date/Estimated Length of Project:	NTP: August 13, 2018April 1, 2019		
Designer of Record:	• CTA		
Construction Manager/General Contractor:	CM = WSP GC = Kiewit (MidCon)		

Detailed Overview of Scope:

Over a 21 day temporary re-route of Tracks 1 and 2 at Addison Station, remove and replace the existing concrete plinths, rail plates, and associated hardware. Install new direct fix running rail plates and new contact rail chairs, reinstall running and contact rail. Remove existing tactile edge and install new. Remove existing wood footwalk at track level and install new. Clean track drainage.

Construction Progress

Phase	Description	Status
Construction:	 Install Track 3 to 2 cut and throw south of Addison Station (Proceed Order No. 1 – Pending Change Order) Remove and protect running and contact rails, signal equipment Track 2: Demolish existing concrete plinths Install rebar and formwork for new plinths Form and pour new concrete plinths with embedded rail anchors Remove formwork Reinstall trackwork Track 1: Core holes in existing plinths for new anchoring system Set new anchors in cored holes with epoxy Reinstall trackwork Reinstall contact rail and signal systems Remove Track 3 to 2 cut and throw (Proceed Order No. 1 – Pending Change Order) 	Complete

Delay Explanation:	
N/A	



