Construction Project Briefing

November 14, 2018



Today's Presentation

- ELMI East Lake, Milwaukee, Illinois Substation Upgrade
- Ravenswood Loop Signals Upgrade Project
- 95th Street Terminal Improvement Program
- Quincy Loop Station Upgrade
- Garfield Green Station Renovation
- Belmont and Jefferson Park Station Improvements (Blue Line)
- Red 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:	38%
Percent Change Orders to Construction Contract:	0
Percent Time Used:	55%
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		
	Traction power testing has started at Illinois Substation. Anticipated testing completion is November 2018.	Ongoing
	Traction power cable installation has started at Illinois and Milwaukee Substation	Ongoing
	All of the DC Switchgear is in service.	Ongoing
	Transformers, Rectifiers and AC Switchgear are being delivered to Milwaukee Substation.	Ongoing
	Demolition of existing traction power equipment has started at Illinois and Milwaukee.	Ongoing
	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, masonry, demo, and lead paint abatement is in progress at East Lake Substation.	Ongoing
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Delay Explanation:

N/A



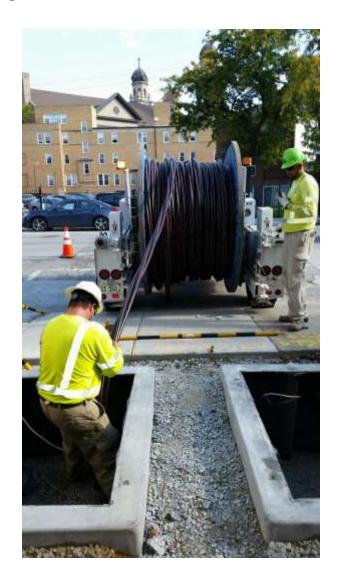


Manhole Installation at Illinois Substation



Traction Power Cable Installation at Illinois Substation







Electrical Work in the Cable Vault at Milwaukee Substation

ComEd Installing Cable at Milwaukee Substation



Justification of Need:	The signal system for the Ravenswood Loop Connector section of the CTA Brown Line was originally commissioned in 1975. In order to decrease headways and improve reliability, the system will be replaced with a new system.
Priority of Project:	High
Total Project Budget:	\$ 50 M
Construction Contract Value:	\$ 32.6M
Earned to Date:	67.7% (thru Sept)
Percent Change Orders to Construction Contract:	0
Percent Time Used:	100%
DBE:	Goal: 10% / Commitment: 10% Contract is on track to meet the DBE goal. Outreach events conducted: 1 (CTA)
Funding Source:	CTA PBV, CTA Bonds, FTA
Start Date/Length of Project:	NTP: November 4, 2015; Substantial completion April 2, 2018 (Actual projected 4 th quarter 2018.)
Designer of Record:	Parsons Transportation
Construction Manager/General Contractor:	Parsons Brinckerhoff/Ragnar Benson Construction, LLC

Overview of Scope: The signal system upgrade will include the following features:

- Removal of all existing signal equipment, cabling, and signal platforms.
- Design & install new platforms, cabling, cable support brackets, and signal equipment.
- · Communication network design, configuration, installation, and commissioning.



Impact on Customers:	54 hour line cut to cut over new signal system.	
Benefit to System:	 Decreased headways More reliable equipment More robust signal network Better diagnostic abilities More reliable track circuit indications Added loss of shunt detection system Optimized curve speeds (potentially reduce run times) 	
Benefit to Community:	 Maximizing number of trains allowed in the corridor. Less customer inconvenience due to signal system malfunction. 	
Impact on Accessibility:	None	
Estimated # of Jobs Created:	650 indirect, 136 direct	
Customer Communication Need:	Construction activity notices will be provided to inform businesses and residents regarding line cut and construction impacts (noise, dust, street/alley impacts) throughout the project.	

Comparable Projects:

- Loop Signal Project
- Dearborn Signal Project



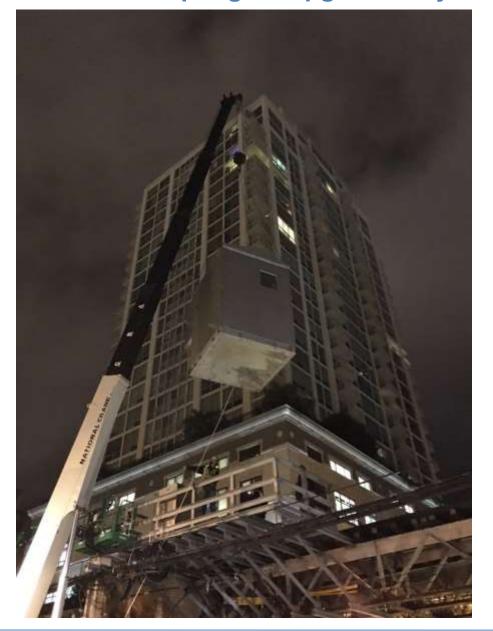
Construction Progress

Phase	Description	Status
Construction	Installation of cable brackets and cable.	Complete
	Installation of foundations and structural steel to support new signal houses.	Complete
	Installation of new signal houses.	Complete
	Installation of new signal equipment.	Ongoing
	Integration and troubleshooting of new system.	Ongoing
	System Cutover.	Ongoing

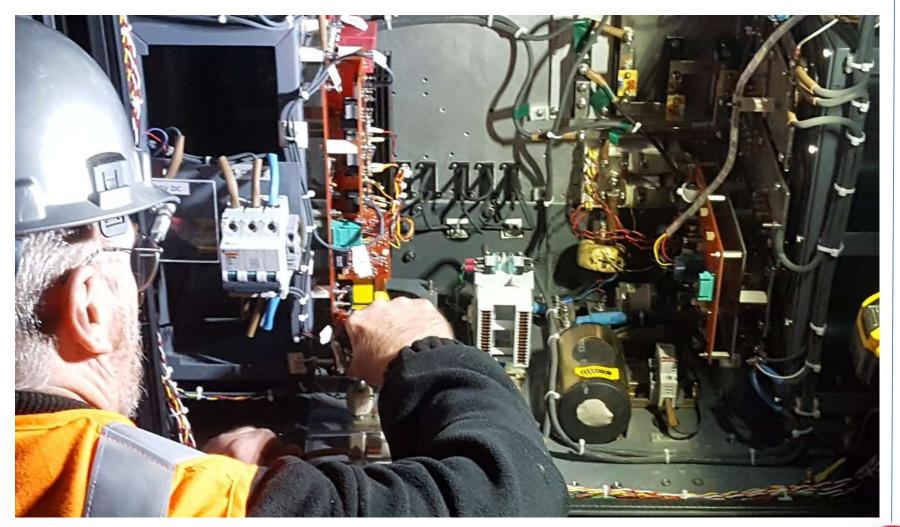
Delay	y Exp	lanat	ion:
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General Contractor's performance.











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: 74%
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: 96%
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; Substantial Completion Dec. 16, 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:

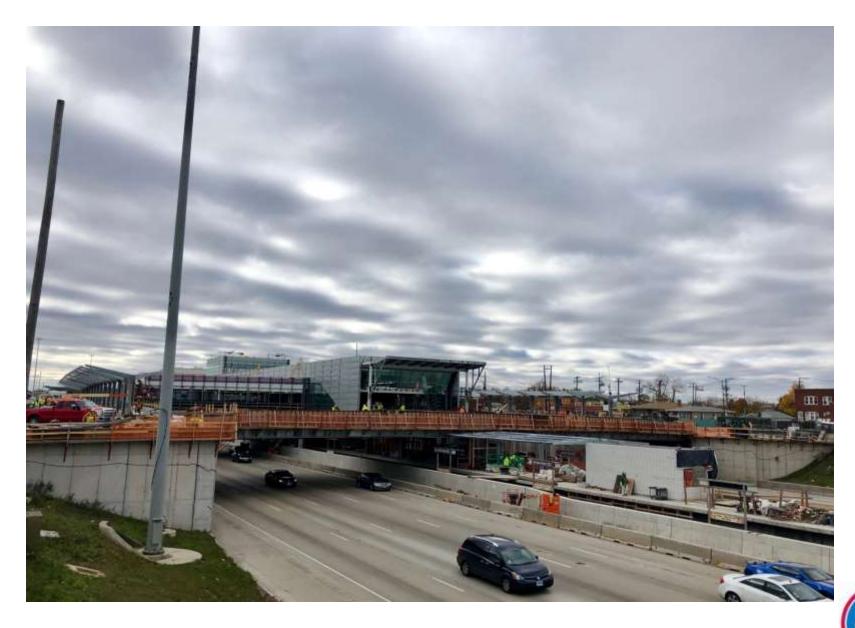
Wilson Station



Construction Progress

Phase	Description	Status
Construction	 South Terminal: Various punchlist work is ongoing. Building systems commissioning and training of CTA Maintenance personnel is ongoing. North Terminal Building: 	Ongoing Ongoing
	 North Terminal Building: Interior room and wall construction is ongoing. Curtainwall panels and glazing installation is ongoing. Electrical conduit/wire rough-ins and plumbing installation is ongoing. Two of four escalator trusses and one stair truss are installed. Escalator and elevator component and wiring installation is ongoing. North Terminal electrical switch gear and feeder tie-in is complete. North Terminal Bus Area:	Ongoing Ongoing Ongoing Complete Ongoing Complete Complete Complete Complete Ongoing Complete Ongoing Complete Ongoing
Delay Explanation:		
N/A		









Justification of Need:	The Station is not currently accessible. The project will provide another accessible Loop station, as well as provide additional repairs and improvements throughout the station.
Priority of Project:	High
Total Project Budget:	\$18M
Construction Contract Value:	\$11.7M
Earned to Date:	80%
Percent Change Orders to Construction Contract:	0
Percent Time Used:	100%
DBE:	Goal: 30%, Commitment: 30% Contract is on track to meet the DBE goal Outreach events conducted: 1 (CTA)
Funding Source:	TIF, CTA Bonds
Estimated Start Date/Estimated Length of Project:	NTP: July 27, 2016; Contract substantial Completion, February 1, 2018 (Actual projected – 4 th Qtr. 2018)
Designer of Record:	Exp US Services
Construction Manager/General Contractor:	Parsons Brinckerhoff/Ragnar Benson Construction, LLC

Detailed Overview of Scope: The station will include the following features:

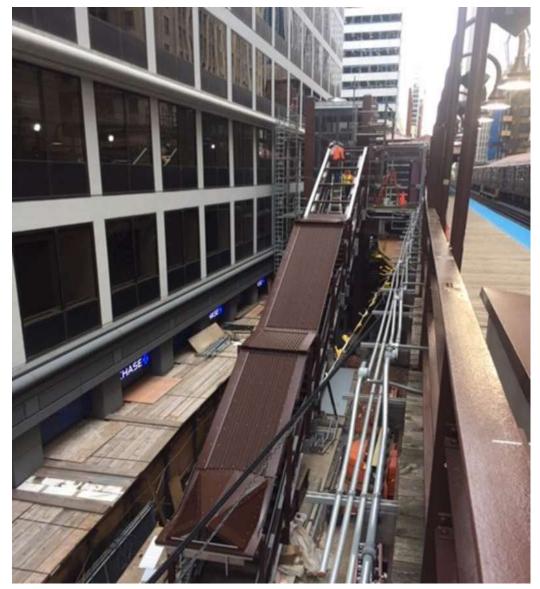
- Two (2) new Elevators with connection bridges to stationhouses.
- · One new exit stair.
- · New electrical service.
- · New and upgraded Electrical fixtures.
- Painting upgrades.
- Replacement of existing wood floors with new tile floors at both stationhouses.



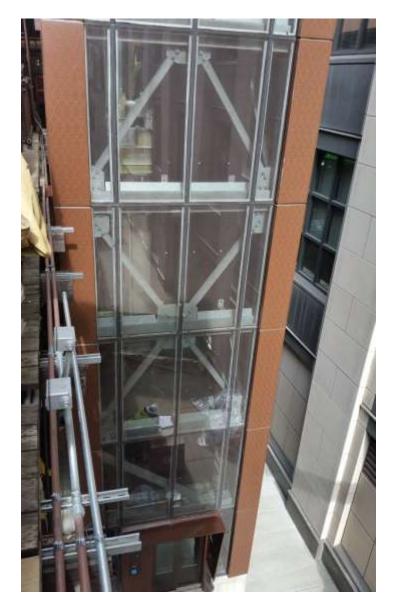
Construction Progress

Phase	Description	Status
Construction	Street Level, East Side:	
	East elevator cab flooring installation continues.	Ongoing
	Elevated connection bridge walkway build out continues with lighting, and roof deck installations.	Ongoing
	East elevator control closet metal panels installation continues.	Ongoing
	Street Level, West Side:	
	West elevator cab flooring installation continues.	Ongoing
	Elevated connection bridge walkway build out continues with lighting and roof deck installations.	Ongoing
	West elevator control closet metal panels installations continues.	Ongoing
	Other planned activities:	
	Electrical conduit /wiring installation throughout the station continues.	Ongoing
	New janitor closets build out continues with doors and panel installation.	Ongoing
	New drop metal ceiling installation and lighting at mezzanine level continues.	Ongoing
	New station access ADA doors installation continues .	Ongoing
	New exit stair installation build out continues with roofing and painting	Ongoing
	Street site work, light poles, concrete sidewalk and curbs continues.	Ongoing













Project Title: Garfield Green Station Renovation

Justification of Need:	The purpose of the project is to upgrade and enhance The Garfield Gateway, as well as create a transit gateway to the community. The project will increase pedestrian access and flow at the operational station with a variety of streetscape improvements, including crosswalk enhancements, new lighting, bike racks, landscaping, and traffic control devices. Also, the original historic landmark street level station will be refurbished.
Priority of Project:	High
Total Project Budget:	\$42 M
Construction Contract Value:	25,978,000
Earned to Date:	21% (thru Oct 11)
Percent Change Orders to Construction Contract:	0%
Percent Time Used:	63.4%
DBE:	DBE Goal: 30% Contract is on track to meet the DBE goal Outreach events conducted: 2 (CTA HQ & Arts Incubator)
Estimated Start Date/Estimated Length of Project:	NTP: October 25, 2017 Substantial Completion : January 8, 2019
Designer of Record:	Walsh Construction Company / Exp US Services
Construction Manager / Owners Representative:	Arcadis

Detailed Overview of Scope:

This Project will bring elements of Garfield Station and the historic station to a state of good repair and enhance the aesthetics of the station. A new platform slab will be installed along with new furniture, signage, and mid-platform exit stairs. A new canopy will be placed that extends to an 8 car length and will have new LED light fixtures and new speakers. The historic track structure will be painted and new access stairs will be installed. The operational stationhouse will be refinished, a new escalator to the southbound tracks will be installed, and existing elevators will be improved. Street level improvements include bike lanes, a new bus stop configurations, and a new walkway.



Project Title: Garfield Green Station Renovation

Impact on Customers:	 Track Occurrences 30 Nightly Single Tracks Maximum 6 Weekend Line cuts Operational Stationhouse Closure 90 day closure of operational stationhouse. (Once temp. station is complete) 14 day platform closure: per platform. (Back riding on each side) Construction of temporary stationhouse just north of stationhouse.
Benefit to System:	Increased reliability and safety for customers, rail and bus operations.
Benefit to Community:	The overall aesthetics of the Garfield station, historic station, and the track structure will be improved. New LED light fixtures, platform furniture, speakers and communications, and midplatform exit stairs will also be added. There will also be improvements to the streetscape (bus stop, landscaping) and the parking lot.
Impact on Accessibility:	The current elevator will be improved and a new escalator will be added to the Southbound tracks. New speakers and new signage.
Estimated # of Jobs Created:	114 indirect, 546 direct
Customer Communication Need:	Construction Activity Notices regarding construction-related impacts.

Comparable Projects:

Quincy Loop Station Upgrade



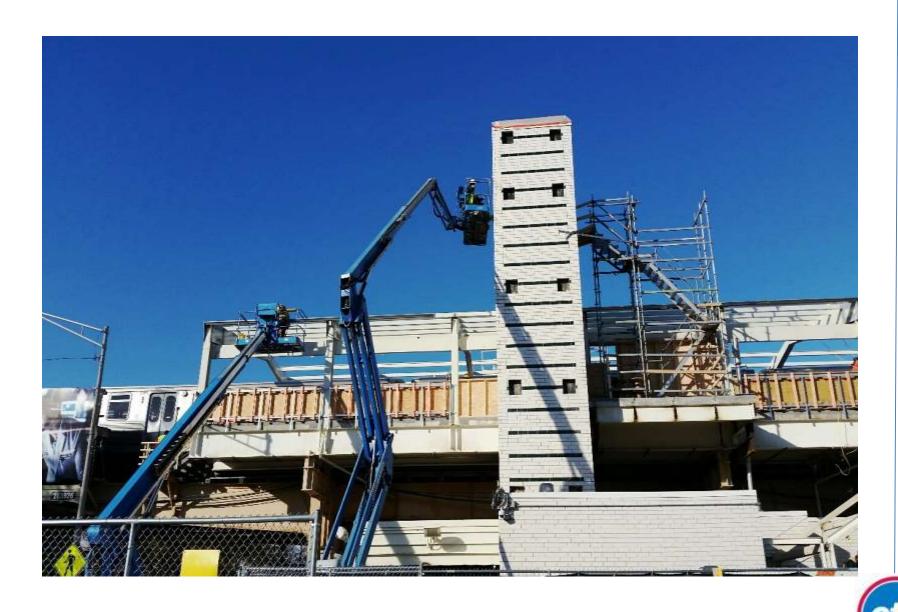
Project Title: Garfield Green Station Renovation

Construction Progress

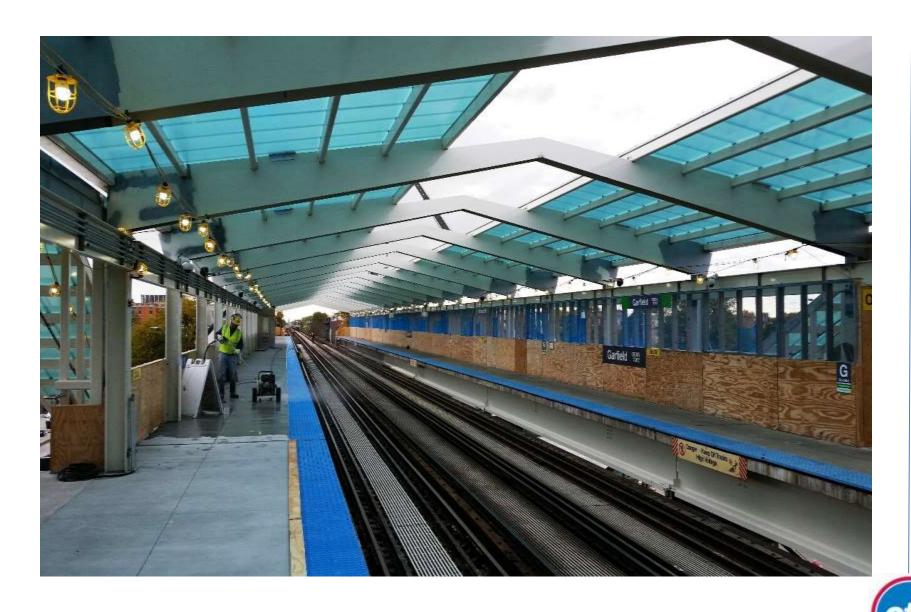
Phase	Description	Status
Construction		
Construction	North Stairs Structural Steel installation.	Completed
	Build Temporary Fare Area.	Completed
	Demolish Stub Columns & Existing Guardrail.	Completed
	Install Underground Sewer Utilities.	Completed
	Demolition of East Elevator.	Ongoing
	Platform Canopy Installation.	Ongoing
	Platform Topping Removal and Replacement.	Ongoing
	West Elevator Modernization.	Ongoing
	Painting Historic Track Structure.	Ongoing
	Stationhouse Demolition.	Ongoing



Project Title: GARFIELD GREEN STATION RENOVATION



Project Title: GARFIELD GREEN STATION RENOVATION



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:	25.6% (thru Sept)
Percent Change Orders to Construction Contract:	0
Percent Time Used:	59.3%
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 Jefferson Park Bus Terminal: July 8, 2019
Designer of Record:	EXP
Construction Manager/General Contractor:	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.



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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	Ongoing
	Construction at Jefferson Park Rail Station	Ongoing
	Construction at North Half of Jefferson Park Bus Terminal.	Ongoing
	Construction at South Half of Jefferson Park Bus Terminal.	Planned

Delay Explanation:	

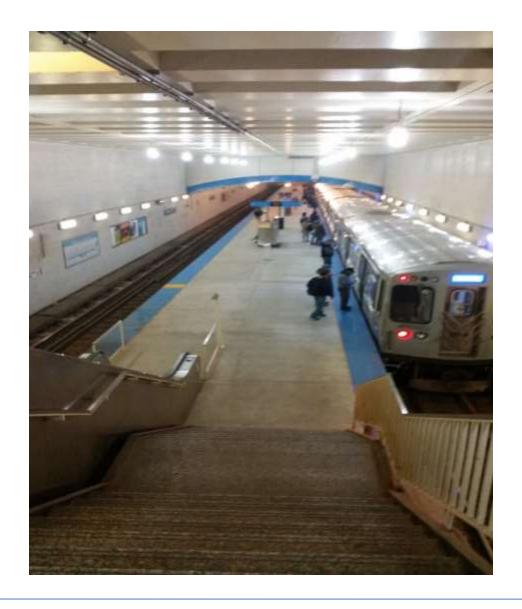




PROJECT TITLE: BELMONT AND JEFFERSON PARK STATION IMPROVEMENTS









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:	 Advance Utility Relocation: \$35,000,000 per Ordinance No. 017-53 Demolition: \$4,380,195 Part of RPM Phase One Project Budget of \$2.2B
Construction Contract Value:	 Advance Utility Relocation: \$8,277,145 (Work Orders Authorized) Demolition: \$4,380,195
Earned to Date:	Advance Utility Relocation: 25% Demolition: 57%
Percent Change Orders to Construction Contract:	Advance Utility Relocation: N/A Demolition: 0%
Percent Time Used:	Advance Utility Relocation: 31% Demolition: 87%
DBE:	 Advance Utility Relocation: CTA Diversity continues to work with Utilities to provide opportunities for DBEs, MBEs, and WBEs. 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) Planned Substantial Completion: 12/5/18



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.
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
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 advance work.

Comparable Projects:



Construction Progress

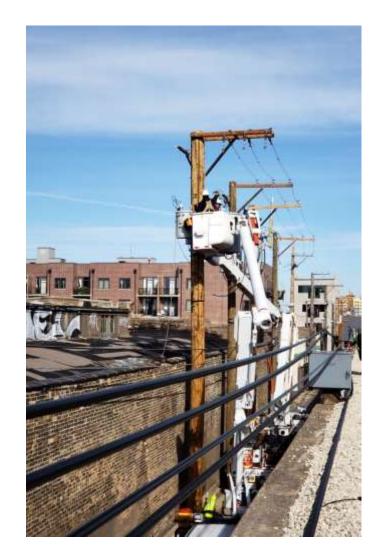
Phase	Description	Status
Design	Advance Utility Relocation – Utilities are finalizing design and submittal Work Orders.	Ongoing
Construction	Advance Utility Relocation – ComEd installing poles and duct bank.	Ongoing
	Demolition Package 1 –All work is substantially complete.	Complete
	Demolition Package 2 – Initial Submittals and Wrecking Permits are in process.	Ongoing
Close-Out	Demolition Package 1 - Review of submittals of warranties and as-built drawings.	Ongoing

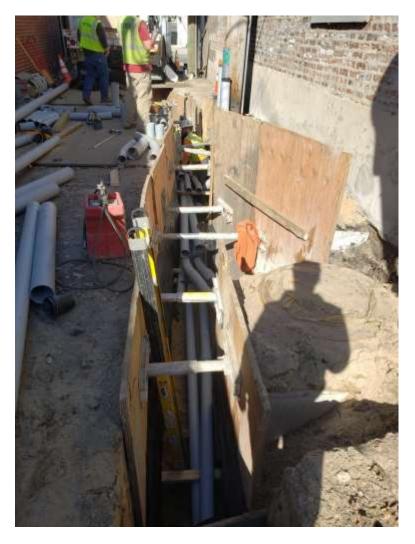
Delay Ex	planation:
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N/A



Project Title: RPM Advance Utility Work and Property Demolition





Transformer Hookup in Alley South of Winona (left) and Conduit Installation in Alley South of Berwyn (right)



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		
Construction Contract Value:	\$14,500,000.00		
Earned to Date:	\$3,780,381.00		
Percent Change Orders to Construction Contract:	None at this time.		
Percent Time Used:	54%		
DBE:	Goal: 25% / Commitment: 25.17% Contract is on track to meet the DBE goal Outreach events conducted: 1 (CTA HQ)		
Funding Source:	Federal and Local		
Estimated Start Date/Estimated Length of Project:	NTP: August 2017 Substantial Completion August 2019		
Designer of Record:	TY Lin		
Construction Manager/General Contractor:	WSP		

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.	
Benefit to System:	Reliable rail service.	
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)



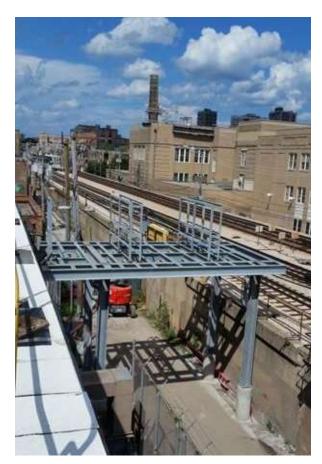
Construction Progress

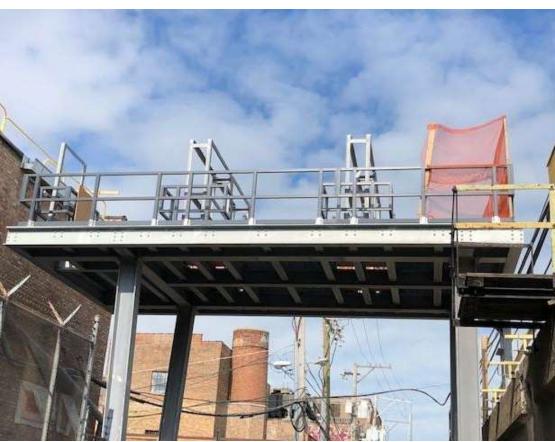
Phase	Description	Status
Construction	Cable bridge has been erected. Underground electrical ductbanks and plumbing in the Stage 3 slab replacement have been completed.	Completed
	Right-of-Way traction power cable replacement work, traction power equipment deliveries, and demolition, excavation, and replacement of remaining floor areas.	Ongoing
	Factory acceptance testing for the AC traction power equipment.	Ongoing

Delay	Exp	lanati	on:

N/A







Cable Bridge Erection at Broadway Substation







Rebar Installation and Concrete Pour at Broadway Substation

