



# Construction Project Briefing

January 13, 2023



# Today's Presentation

- CDOT - Lake Line - Damen Station
- Non-Revenue Maintenance
- Traction Power Upgrades - Canal Tie House, Barry and Damen Substations
- Red and Purple Modernization Project



# Project Title: CDOT - Lake Line - Damen Station

## Justification of Need:

Priority of Project:	Medium
Total Project Budget:	
Construction Contract Value:	\$67,316,000.00
Earned to Date:	18%
Percent Change Orders to Construction Contract:	2.7%
Percent Time Used:	85%
DBE:	MBE: 30% WBE: 8% VBE: 0.96%
Funding Source:	TIF/CMAQ
Estimated Start Date/Estimated Length of Project:	540 days after NTP
Designer of Record:	Perkins and Will
Construction Manager/General Contractor:	Arcadis / FH Paschen



# Project Title: CDOT - Lake Line - Damen Station

Impact on Customers:	This will be a new Elevated CTA Station on the Lake Branch of the Green Line at Damen and Lake Streets. CTA has also implemented slow zones due to structural on-going work.
Benefit to System:	The new station will provide transit connectivity, convenience and amenities to residents, workers and visitors alike.
Benefit to Community:	New, modern transit facility that will serve the burgeoning needs of the Kinzie Industrial Corridor. The new station will also support visitors to the United Center, Malcom X College and educational institutions.
Impact on Accessibility:	This will be a fully accessible CTA station equipped with escalator and elevator access to both platforms and accessible path to the new station house.
Customer Communication Need:	Customer and Community facing is being handled through CDOT.

## Comparable Projects:

Morgan Station on Green Line
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# Project Title: CDOT - Lake Line - Damen Station

## Construction Progress

Phase	Description	Status
<b>Construction</b>	<ul style="list-style-type: none"><li data-bbox="211 354 629 376">• Pour Mat Foundation for station house</li><li data-bbox="211 390 768 442">• Installed Deep Benchmarks/Inclinometers to monitor existing 30-inch water main</li><li data-bbox="211 456 719 507">• Continue excavation of caisson caps and grade beams at Station House</li><li data-bbox="211 521 725 543">• Installation of ERS for Stage I Bent replacement</li><li data-bbox="211 558 705 609">• Install Shoring towers/Demo columns and pier footings (Bent replacement)</li><li data-bbox="211 623 454 645">• Install Platform Steel</li></ul>	Completed Completed On-Going On-Going Planned Q1 Planned Q2



# Project Title: CDOT - Lake Line - Damen Station



## Damen Station

## Concrete Mat Foundation for Station House



# Project Title: CDOT - Lake Line - Damen Station



**Damen Station  
House**

**Rerouted DEO  
conduit at  
Station House**



# Project Title: Non-Revenue Rail Vehicle Facility

## Justification of Need:

Priority of Project:	Medium
Total Project Budget:	\$65,902,503
Construction Contract Value:	\$42,676,222
Earned to Date:	29% (thru September 2022)
Percent Change Orders to Construction Contract:	4% (Change Order #1 – \$1,694,221 – Executed October 4 <sup>th</sup> , 2022)
Percent Time Used:	76%
DBE:	Goal: 30% Design / 27% Construction Commitment: 30% Design / 27% Construction Workforce Goals: 10% Career Opportunity/ 10% Apprentice/ 35% EDA Outreach events conducted: 3 (CTA / Clark) Contract is on track to meet the DBE goal
Funding Source:	IDOT - Rebuild Illinois
Estimated Start Date/Estimated Length of Project:	NTP: 3/24/21 Project Duration 730 Days
Designer of Record:	STV Inc.
Construction Manager/General Contractor:	WSP/Clark Construction

**Detailed Overview of Scope:** Perform Design/Build Services to design and construct a new maintenance facility at the CTA's 63<sup>rd</sup> Lower Yard. This facility will be utilized to repair and maintain CTA's Non-Review Rail Mounted Equipment Fleet. This facility will include three maintenance and inspection tracks, a vehicle wash track with equipment, a paint booth, a welding room, a multipurpose lunchroom and classroom, locker and washroom facilities, supervision offices, and storage facilities.



# Project Title: Non-Revenue Rail Vehicle Facility

Impact on Customers:	While no direct impact to rail service, this facility will allow CTA Rail Maintenance to efficiently maintain the CTA's non-revenue fleet. This will result in equipment being in good working order and ready to perform necessary repairs and upkeep to the CTA system. This will allow CTA to maintain reliable service to our customers.
Benefit to System:	The ability to effectively and efficiently maintain the CTA's non-revenue fleet will result in equipment being in good working order and ready to perform necessary repairs and upkeep to the CTA system.
Benefit to Community:	This facility will be design to compliment the surrounding neighborhood from an aesthetic perspective. It will also bring additional activity to the immediate neighborhood.
Impact on Accessibility:	The building will obtain City of Chicago Building permits, which included accessibility reviews.
Customer Communication Need:	Customer impact will be minimal. Community outreach efforts are ongoing with local elected official and the neighboring school to discuss and minimize impacts during construction. Communications will continue with the surrounding residences and business regarding any upcoming impacts to the surrounding area during construction.

## Comparable Projects:



# Project Title: Non-Revenue Rail Vehicle Facility

## Construction Progress

Phase	Description	Status
<b>Construction</b>	<p>Design Phase</p> <ul style="list-style-type: none"><li>• Design Validation</li><li>• Intermediate Design</li><li>• Permitting – Underground Package</li><li>• Permitting – Building Package</li><li>• Final Design</li></ul> <p>Construction Phase</p> <ul style="list-style-type: none"><li>• Building Foundations</li><li>• Grade Beams Pours</li><li>• Foundation Utility Work</li><li>• Electrical Ductbank Routing</li><li>• ComEd Switchgear Installation</li><li>• Precast Panel Erection</li><li>• Structural Steel Installation</li></ul>	<p>Complete</p> <p>Complete</p> <p>Complete</p> <p>Complete</p> <p>Under Review</p> <p>Complete</p> <p>Complete</p> <p>In Progress</p> <p>In Progress</p> <p>In Progress</p> <p>In Progress</p> <p>Upcoming</p>

**Delay Explanation:**



# Project Title: Non-Revenue Rail Vehicle Facility



**New Horizon – Precast Panel Erection – North Wall**



# Project Title: Non-Revenue Rail Vehicle Facility



**New Horizon – Precast Panel Erection – Loading Dock**



# Project Title: Non-Revenue Rail Vehicle Facility



**Precast Panel Erection – NW Corner**



# Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations

The CTA has identified additional traction power demands based on results from the Blue Line Load Flow study and determined that three (3) areas along the blue line O’Hare branch and Dearborn subway may experience problems with running the new fleet at the service levels proposed. To continue providing a reliable and safe service, it is necessary to build two (2) new traction power substations, one at Barry and the other at Damen with all their infrastructure support along with installing a new Tie Breaker house in the Dearborn subway. Also, the project includes the replacement of all traction power equipment at the Haymarket substation.

## Justification of Need:

Priority of Project:	High
Total Project Budget:	\$113 Million
Construction Contract Value:	\$58 Million
Earned to Date:	22% (As of November 2022)
Percent Change Orders to Construction Contract:	0
Percent Time Used:	40% (As of November 2022)
DBE:	Goal: 25% Commitment: 25.71% Workforce Goals: 10% Career Opportunity/ 8% Apprentice/ 25% EDA Contract is on track to meet the DBE goal
Funding Source:	CTA Bonds / Rebuild Illinois
Estimated Start Date/Estimated Length of Project:	NTP: 10.20.21 Estimated Duration 900 days /Substantial Completion April 04, 2024
Designer of Record:	TYLin
Construction Manager/General Contractor:	WSP / John Burns Construction



# Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations

Impact on Customers:	Minor service disruptions during track access occurrences.
Benefit to System:	The new traction power substation will increase service reliability to the Blue Line.
Benefit to Community:	New buildings will enhance and will blend with the surrounding community and will benefit transit riders in the Blue Line with a safer and more reliable service.
Impact on Accessibility:	N/A
Customer Communication Need:	Construction Activity Notices.

## Comparable Projects:

East Lake, Milwaukee & Illinois (ELMI) and Broadway substations



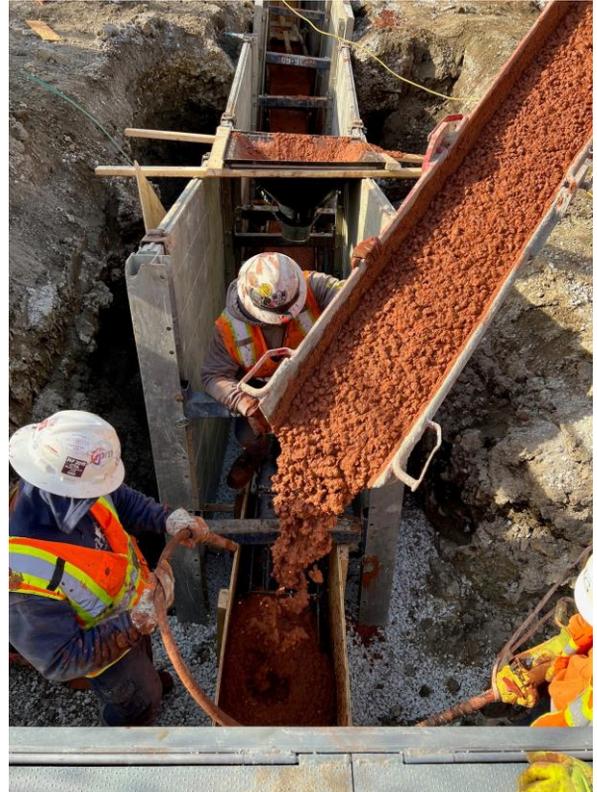
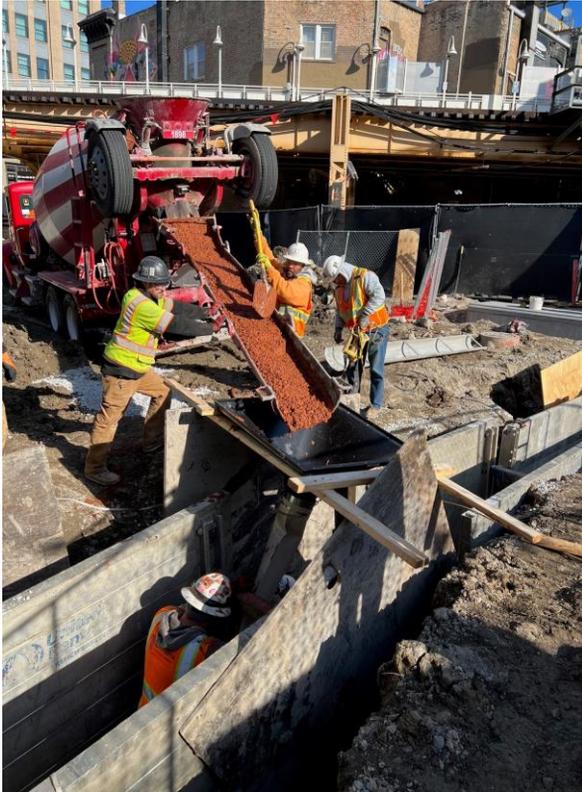
# Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations

## Construction Progress

Phase	Description	Status
<b>Haymarket Substation</b>	• Install new electrical equipment	Upcoming
	• Site Preparation and rebar installation for new equipment foundations	Ongoing
	• Form/Pour new equipment foundations	Ongoing
	• Install new courtyard masonry wall	Ongoing
<b>Canal Tie-House</b>	• Fabricate new Canal Tie-House Building	Ongoing
	• Fabricate new Canal Tie-House equipment	Ongoing
	• Install new Canal Tie-House equipment	Upcoming
	• Test and Commission new Canal Tie-House	Upcoming
	• Install, form, and pour new Ductbank 2	Ongoing
<b>Damen Substation</b>	• Build building interior, flooring, rooms, and finishes	Upcoming
	• Fabricate new substation electrical equipment	Ongoing
	• Site excavation and preparation	Ongoing
	• Install foundation micropiles and grade beams	Ongoing
	• Build building exterior walls and roof	Upcoming
<b>Barry Substation</b>	• Obtain foundations permit	Ongoing
	• Obtain building permit	Ongoing
	• Fabricate new substation electrical equipment	Ongoing
	• Mobilization	Ongoing
	• Demolition of existing building	Upcoming



# Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations



**Duct Bank Concrete Pour AC Feeder Damen**



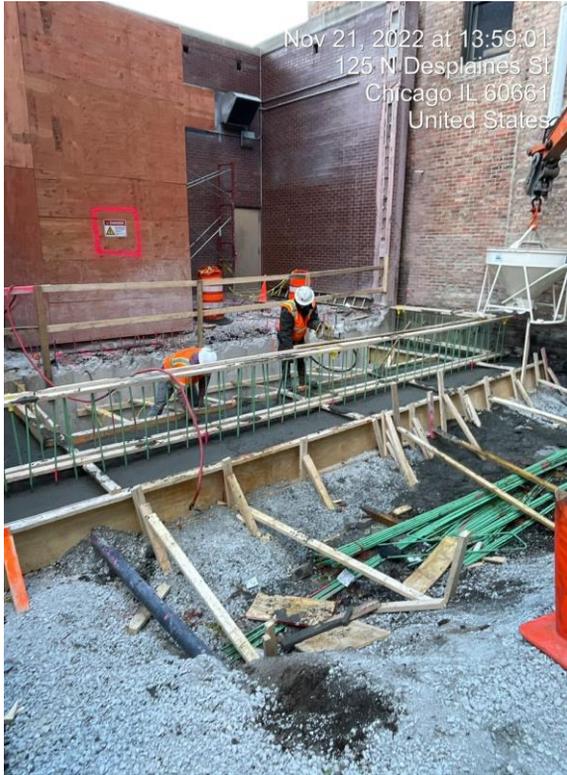
# Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations



**Install New LED Fixtures Canal**



# Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations



**Foundation Wall Concrete Pour  
Haymarket**



# Project Title: RPM Phase One – Design-Build Contract

<b>Justification of Need:</b>	The RPM Phase One Project is greatly needed in order to expand capacity on CTA's most utilized rail line and to replace aging infrastructure.	
Priority of Project:	High	
Total Project Budget:	\$ 2.1 Billion (excludes Transit TIF interest payments)	
Construction Contract Value:	Original - \$1,272,275,929    Current - \$1,268,818,121	
Earned to Date:	57.5%	
Percent Change Orders to Construction Contract:	-0.27%	
Percent Time Used:	68%	
DBE:	Design: Goal: 20% / Commitment: 20.64% Construction Goal: 20% / Commitment: 20% Workforce Goals: 10% WIOA / 15% Apprentice / 35% EDA	Contractor is on track to meet the DBE goal
Funding Source:	CTA Financing, FTA Core Capacity Grant, CMAQ, TIFs	
NTP / Construction Start / Estimated Completion:	February 8, 2019 / October 2019 / 2025	
Design-Build Contractor:	Walsh-Flour Design-Build Team	
Owners Representative:	Elevated Solutions Partners	
<b>Detailed Overview of Scope:</b>	RPM Phase One consists of the following elements that will allow CTA to expand service along the Red and Purple lines:	
	<ul style="list-style-type: none"> <li>• Lawrence to Bryn Mawr Modernization (LBMM) – complete reconstruction and addition of ADA accessibility at four Red Line stations (Lawrence, Argyle, Berwyn, and Bryn Mawr) and reconstruction of 6 miles of track, structures, and viaducts from Leland Ave. to Ardmore Ave.</li> <li>• Red-Purple Bypass (RPB) - Construction of a grade-separated bypass for the Brown Line at Clark Junction, just north of Belmont Ave. Includes realignment and reconstruction of 1.4 miles of mainline tracks and structure between Belmont station and south of Cornelia Ave.</li> <li>• Corridor Signal Improvements (CSI) – Installation of new higher-capacity signal system on 23 miles of track between Belmont and Howard stations.</li> </ul>	



# Project Title: RPM Phase One – Design-Build Contract

Phase	Description	Status
<p><b>Administrative / Design:</b></p> <p><b>Construction:</b></p>	<ul style="list-style-type: none"> <li>▪ Continued submittal/revisions of required management plans</li> <li>▪ Continued Design Development in support of Red-Purple Bypass, Lawrence to Bryn Mawr Modernization, and Corridor Signal Improvements</li>   <li>▪ Red-Purple Bypass (RPB).               <ul style="list-style-type: none"> <li>– Ravenswood structure rehabilitation</li> <li>– Clark Relay House electrical distribution equipment installation</li> <li>– Construction of concrete columns and caps</li> <li>– Pre-cast beam and structural steel installation</li> <li>– North Mainline Stage 2 closed deck installation</li> <li>– Construction of signal and traction power concrete ductbanks and risers</li> <li>– Removal of decommissioned signal and communications cabling</li> </ul> </li>   <li>▪ Lawrence to Bryn Mawr Modernization               <ul style="list-style-type: none"> <li>– Pre-cast Segment fabrication</li> <li>– Pre-cast Segment erection</li> <li>– Bryn Mawr and Argyle Temp Station (Stage B) Foundations</li> <li>– DF Track construction</li> <li>– Winona Relay House construction</li> <li>– Transition Bridge erection at Ardmore</li> <li>– Rail flash butt welding</li> <li>– Noise Wall Barrier Erection</li> </ul> </li>   <li>▪ Corridor Signal Improvements (CSI)               <ul style="list-style-type: none"> <li>– Cable bracket and fiber slack enclosure installation Loyola to Jarvis</li> <li>– Messenger installation on cable brackets north of Thorndale</li> <li>– Installation of snake tray and brackets for signal/comm cabling near Wilson Station</li> <li>– Installation of cable hangers inside and below the LBMM structure</li> <li>– Factory testing of Clark Junction Relay House</li> </ul> </li> </ul>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Complete</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Complete</p>
<p><b>Delay Explanation:</b></p>		



## Red-Purple Bypass



**North Main Line  
Concrete Deck Pour**



# Project Title: RPM Phase One – Design-Build Contract

## Red-Purple Bypass



## Precast Beam Installation



# Project Title: RPM Phase One – Design-Build Contract



## Steel Beam Installation



## Red-Purple Bypass



**North Main  
New Track  
Superstructure**



## Lawrence to Bryn Mawr Modernization



**Bryn Mawr  
Temporary  
Station  
Foundation Work**

## Lawrence to Bryn Mawr Modernization



## Winona Relay House Interior Construction



## Lawrence to Bryn Mawr Modernization

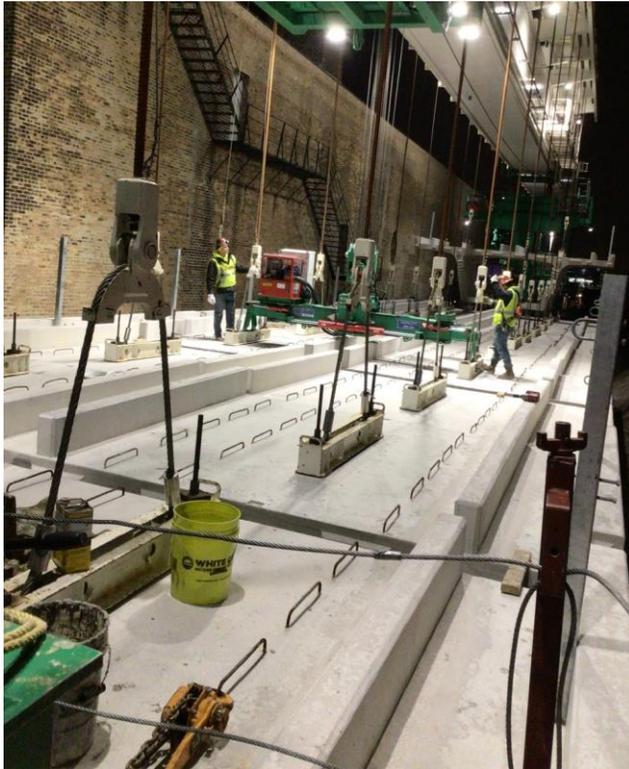


**Track Installation**



# Project Title: RPM Phase One – Design-Build Contract

## Lawrence to Bryn Mawr Modernization



## Segment Erection



# Project Title: RPM Phase One – Design-Build Contract

## Lawrence to Bryn Mawr Modernization



**Santa on the  
Gantry**



# Project Title: RPM Phase One – Design-Build Contract

	Outreach type	Major Activities	Timing
Community	 <p><i>Houndstooth Saloon in Lakeview East</i></p>	<ul style="list-style-type: none"> <li>• Weekly Red-Purple Bypass Project updates for 44<sup>th</sup> ward</li> <li>• Lawrence to Bryn Mawr project updates for 48<sup>th</sup> ward</li> <li>• Meeting with Houndstooth Saloon owners about Open for Business program and promotion during reconstruction of Red &amp; Purple elevated structure in Lakeview</li> <li>• Monthly “Virtual Office” answering constituent questions</li> </ul>	<p>Weekly</p> <p>Bi-weekly</p> <p>Dec. 7</p> <p>Dec. 13</p>
Workforce & SBE/DBE	 <p>CHICAGO COOK WORKFORCE PARTNERSHIP A proud partner of the American Job Center network</p> 	<ul style="list-style-type: none"> <li>• Monthly DBE/Workforce Outreach &amp; Compliance Meeting</li> <li>• DBE and Workforce Numbers as of 12/31/2022</li> <li>• Dollars Awarded To Date: \$236,053,567             <ul style="list-style-type: none"> <li>• Unique DBE Firms To Date: 88</li> <li>• Unique Firms New to CTA: 34</li> </ul> </li> <li>• Total Labor Hours Produced: 1,079,250</li> <li>• Total Dollars Earned: \$62,827,447</li> <li>• Jobs created to date (construction trade labor on the design-build team): 1,754 individuals</li> </ul>	<p>Ongoing</p>