



# Construction Project Briefing



December 13, 2023



# Today's Presentation

- CDOT - Lake Line - Damen Station
- Non-Revenue Maintenance
- Traction Power Upgrades - Canal Tie House, Barry and Damen Substations
- Refresh & Renew Program
- 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:	\$80,549,037.47
Earned to Date:	40%
Percent Change Orders to Construction Contract:	19.7%
Percent Time Used:	88%
DBE:	MBE: 30% WBE: 8% VBE: 0.96%
Funding Source:	TIF/CMAQ
Estimated Start Date/Estimated Length of Project:	897 days after NTP – New SC Date: 3/28/24
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>	• Pour Second Floor and Exterior Walls at Station	Completed
	• Erect Steel for Station Roof	Completed
	• Set Outbound Stair at North Tower	Completed
	• Plumbing and Electrical at Elevator Core	On-Going
	• Escalator installation	On-Going
	• Erect/Detail Platform/Canopy Steel	On-Going
	• Set Concrete Platform Panels	On-Going
	• Steel Delivery for Pedestrian Bridge	Planned Q1



# Project Title: CDOT - Lake Line - Damen Station



**Pouring Concrete  
at West Exterior  
Wall**



# Project Title: CDOT - Lake Line - Damen Station



**Installing  
Concrete Wall  
Forms – South  
Wall**



# Project Title: CDOT - Lake Line - Damen Station



## Station House Roof Steel





# Project Title: Non-Revenue Rail Vehicle Facility

## Justification of Need:

Priority of Project:	Medium
Total Project Budget:	\$65,902,503
Construction Contract Value:	\$44,370,833
Earned to Date:	66% (thru September 2023)
Percent Change Orders to Construction Contract:	12% (thru Change Order #2, Authorized October 2023 Board) (Scheduled for execution in November)
Percent Time Used:	92%
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 – 995 days thru Change Order #2
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>	Design Phase <ul style="list-style-type: none"><li>• Design Package 3 – W48 Waterline Permit</li><li>• W48 Parking Lot Design</li><li>• Final Design</li></ul>	Complete In Progress Complete
	Construction Phase <ul style="list-style-type: none"><li>• Oil-Water Separator Installation</li><li>• Apron and Track Preparation</li><li>• Garden Wall</li><li>• Pour Slab on Grade</li><li>• Duct banks/Conduit Installation</li><li>• Installing CMU Walls</li><li>• Painting Walls</li><li>• Storeroom 48 Waterline Installation</li><li>• Installing Paint and Blast Booth</li><li>• Install Rail at Track D</li><li>• Install Track C,B,A</li><li>• Overhead Crane Installation</li><li>• Overhead Door Installation</li></ul>	Complete Complete Complete Complete In Progress In Progress In Progress In Progress In Progress In Progress In Progress In Progress

**Delay Explanation:**



# Project Title: Non-Revenue Rail Vehicle Facility



**External Storage Shelters**



**Loading Dock – Crane Installation**



# 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:	\$122.8 Million
Construction Contract Value:	\$67.9 Million
Earned to Date:	67% (As of November 2023)
Percent Change Orders to Construction Contract:	16.7%
Percent Time Used:	72% (As of November 2023)
DBE:	Goal: 25% Commitment: 25.3% 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: October 20, 2021, Estimated Duration 1020 days/Substantial Completion August 5, 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

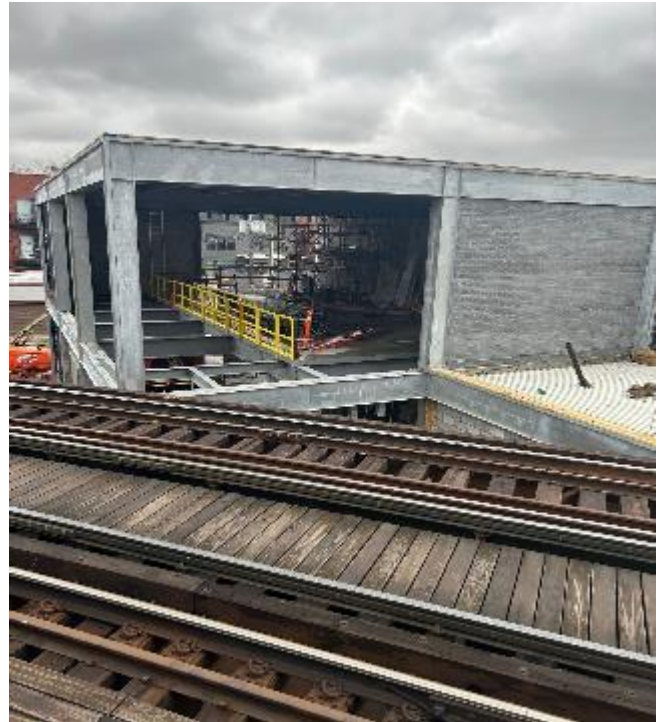
## Construction Progress

Phase	Description	Status
<b>Haymarket Substation</b>	<ul style="list-style-type: none"><li>• Install new electrical equipment</li></ul>	Ongoing
	<ul style="list-style-type: none"><li>• Build building interior, flooring, rooms and finishes</li></ul>	Ongoing
	<ul style="list-style-type: none"><li>• Equipment testing and commissioning.</li></ul>	Ongoing
<b>Canal Tie-House</b>	<ul style="list-style-type: none"><li>• Commission Tie-House</li></ul>	Upcoming
	<ul style="list-style-type: none"><li>• Install new Canal Tie-House equipment</li></ul>	Completed
	<ul style="list-style-type: none"><li>• Install, form, and pour new Ductbank 2</li></ul>	Completed
<b>Damen Substation</b>	<ul style="list-style-type: none"><li>• Fabricate new substation electrical equipment</li></ul>	Ongoing
	<ul style="list-style-type: none"><li>• Build building exterior walls and roof</li></ul>	Ongoing
	<ul style="list-style-type: none"><li>• Build building interior, flooring, rooms and finishes</li></ul>	Upcoming
<b>Barry Substation</b>	<ul style="list-style-type: none"><li>• Building exterior walls and roof.</li></ul>	Ongoing
	<ul style="list-style-type: none"><li>• Site excavation and preparation for grade beams.</li></ul>	Completed
	<ul style="list-style-type: none"><li>• Installation of foundation grade beams</li></ul>	Completed
<b>Belmont Crossover</b>	<ul style="list-style-type: none"><li>• Punchlist work.</li></ul>	Ongoing





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



**View of Substation Masonry work at Damen**



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



**Installation of Switchgear Leveling Channels and Transformer Pad at Haymarket**



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



**Canal Tie-House Installation**



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



**Structural Steel Erection and Forming Stem Wall at Barry**



# Project Title: Refreshed & Renewed

The Refreshed & Renewed Program is a CTA Facilities Maintenance implemented plan to promote safety, security and longevity to all CTA Facilities including, but not limited to: Rail Stations and Platforms, Bus Garages and Rail Shops across the system. The Refreshed & Renewed Program performs major improvement work at these transit operations facilities for both the customer and the internal needs of the Authority.

## Justification of Need:

Priority of Project:	Medium
Total Project Budget:	\$6,500,000
Expended to Date:	\$3,596,210.2
Used last Month:	\$ 304,701.23
Funding Source:	Various
Estimated Start Date/Estimated Length of Project:	January 2021 to December 31, 2023
Contractor	CTA Forces

**92 Rail stations will receive lighting upgrades, painting and deep cleaning as part of this program.**

### **29 stations will have a detailed Scope of work which includes:**

- Maintaining Cleanliness throughout public, as well as back-of-house areas
- Ensuring stations are graffiti free;
- Re-painting painted surfaces;
- Maintaining pathways of ingress and egress are clear of obstruction;
- LED lighting conversions and component;
- Removing obstructions from windows and store front systems that may impede natural light and safe viewing points.
- Address and repair any unsafe defects such as spalling concrete and rotted wooden platforms;
- Replacing outdated and damaged signage;
- Maintaining a warm/cool working environment.



# Project Title: Refresh & Renew

Department	Description	Status
<b>Facility Maintenance</b>	<p><u>Rail Stations Full Program Scope 29 Stations (29 of 29 Completed)</u></p> <ul style="list-style-type: none"> <li>• Laramie/Green</li> <li>• Addison/ Brown Line</li> <li>• Francisco/ Brown</li> <li>• Main/ Purple</li> <li>• Clark/ Division/ Red</li> <li>• Jefferson Park/ Blue</li> <li>• Washington/Wells/Loop</li> <li>• Irving Park/ Blue</li> <li>• Logan Square/ Blue</li> <li>• Division/Blue</li> <li>• Chicago/Brown</li> <li>• Belmont/Blue</li> <li>• Irving Park/Brown</li> <li>• Pulaski/ Pink</li> <li>• Monroe/Blue</li> <li>• Linden/Purple</li> </ul> <p><u>Bus Turnaround Full Program (12 of 12 Completed)</u></p> <ul style="list-style-type: none"> <li>• Archer &amp; Neva</li> <li>• 24th &amp; Cicero</li> <li>• North &amp; Narragansett</li> <li>• Belmont &amp; Kimball</li> <li>• Belmont &amp; Cumberland</li> <li>• 31st &amp; Komensky</li> </ul>	<p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p>  <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p>

## Delay Explanation:

N/A



# Project Title: Refresh & Renew

**Before**

**After**



**Pulaski/Pink** – Repaint all exterior structure, column and stripe curb line safety yellow

**Before**



**After**



**Pulaski/Pink-** Paint all staircase stringers, inspect stair treads, paint all side rails & steel. Replace light fixture with new LED





# Project Title: Refresh & Renew

**Before**



**After**



**Pulaski/Pink – Replaced all lighting with LED lights**

**Before**



**After**



**Linden/Purple** – Epaint all doors, replace lamps with LED and epoxy coat all concrete, back of house floors



# Project Title: Refresh & Renew

**Before**



**After**



**Linden/Purple** – Preplace all exterior wall pack with new LED fixtures



# Project Title: Refresh & Renew

**Before**



**After**



**Linden/Purple** – Repair all pitted, cracked & spalling concrete floors inside station house



# Project Title: Refresh & Renew

**Before**



**After**



**31st & Komensky/BTA – Paint all bollards, curb lines and guard rails throughout**



# 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 - \$1,364,324,117	
Earned to Date:	69.08%	
Percent Change Orders to Construction Contract:	7.2%	
Percent Time Used:	71.38%	
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-Fluor 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
<b>Administrative / Design:</b>	<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> </ul>	<p>Ongoing</p> <p>Ongoing</p>
<b>Construction:</b>	<ul style="list-style-type: none"> <li>▪ Red-Purple Bypass (RPB)           <ul style="list-style-type: none"> <li>– Ravenswood structure rehabilitation</li> <li>– North Mainline Stage 2 track work</li> <li>– North Mainline structure rehabilitation</li> <li>– Installation of signal cabling for permanent bypass track equipment</li> <li>– Installation of cable brackets below the new North Mainline structure</li> <li>– Installation of traction power positive and negative cables below the new structure</li> <li>– Installation of contact rail and auxiliary negative return rail on the new North Mainline deck</li> <li>– Pre-testing of signal circuits at Clark, Barry, and Addison Relay Houses</li> <li>– Cutover of Communications circuits to new infrastructure</li> </ul> </li>   <li>▪ Lawrence to Bryn Mawr Modernization           <ul style="list-style-type: none"> <li>– Pre-cast Segment fabrication</li> <li>– Stage A Punchlist work</li> <li>– Viaduct Demolition</li> <li>– Embankment Excavation</li> <li>– Retaining Wall Demolition and Removal</li> <li>– Drilled shaft installation</li> <li>– Concrete substructure work</li> </ul> </li>   <li>▪ Corridor Signal Improvements (CSI)           <ul style="list-style-type: none"> <li>– Stage A systems punchlist activities</li> <li>– Cutover the Flyover track between Clark Junction Interlocking and Kenmore Interlocking from AF-800 to DGTrack</li> <li>– Installation of signal equipment along the RPB North Mainline Structure</li> <li>– Terminations of signal cabling at Clark Junction Relay House and adjacent tie-in houses</li> <li>– Testing and cutover of fiber optic cabling to Signal Houses and Comm Rooms</li> <li>– Pre-testing of Clark RH, Kenmore RH, Lakewood-Seminary RH, and Barry RH signal circuits ahead of remaining RPB Stage 3 cutovers</li> <li>– Commissioning of traction power and signal systems for the NM1 track at Clark Junction</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>Complete</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>Complete</p> <p>Ongoing</p> <p>Complete</p>



## Red-Purple Bypass



**Cut and Throw  
Weekend #1**





## Red-Purple Bypass



**Cut and Throw  
in  
Service**



## Lawrence to Bryn Mawr Modernization



**Steel Erection  
Ardmore**



## Lawrence to Bryn Mawr Modernization



**Bryn Mawr  
Drilling  
Operations**



## Lawrence to Bryn Mawr Modernization



**Column Concrete  
Pour**



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

	Outreach type	Major Activities	Timing
Community	 <p>The RPM team provided a construction tour to the IL Asian-American Civil Engineers group.</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 46<sup>th</sup>, 48<sup>th</sup> wards</li> <li>• Illinois Asian-American Civil Engineers project tour</li> <li>• RPM tour with USDOT CFO Victoria Wassmer and FTA Regional Administrator Kelley Brookins</li> <li>• RPM monthly virtual office hours</li> <li>• RPM Next Phases virtual public meeting</li> </ul>	<p>Weekly</p> <p>Bi-weekly</p> <p>Nov. 7</p> <p>Nov. 9</p> <p>Nov. 14</p> <p>Nov. 14</p>
Workforce & SBE/DBE	 <p>CTA and Walsh-Fluor hosted a three-day Tracks to Trade Event.</p>	<ul style="list-style-type: none"> <li>• Monthly DBE/Workforce Outreach &amp; Compliance Meeting</li> <li>• Job Corps Tracks to Trades Event</li> <li>• DBE and Workforce Numbers as of 11/30/2023</li> <li>• Dollars Awarded To Date: \$268,719,255               <ul style="list-style-type: none"> <li>• Unique DBE Firms To Date: 118</li> <li>• Unique Firms New to CTA: 53</li> </ul> </li> <li>• Total Labor Hours Produced: 1,502,809</li> <li>• Total Dollars Earned: \$87,981,659</li> <li>• Jobs created to date (construction trade labor on the design-build team): 2,047 individuals</li> </ul>	<p>Ongoing</p> <p>Nov 13, 15 &amp; 17</p>