

# **Construction Project Briefing**

**April 19, 2013**



# Today's Presentation

- Loop Track
- Farwell/Armitage/Hill Substations
- Dan Ryan Track Project
- Bus Hoist Replacement Program – Phase 1
  - ✓ Forest Glen, South Shops, 77<sup>th</sup> Street Bus Garage
- Green Line Reliability Improvements
  - ✓ Englewood & Incline Track Renewal
  - ✓ Garfield Station and Terminal
  - ✓ 63<sup>rd</sup> and Ashland Station



# Project Title: Loop Track Renewal Project

## Managing Department: Power & Way Construction

Justification of Need:	The existing track system and the components are beyond their useful life.
Priority of Project:	High
Total Project Budget:	\$53,026,306
Construction Contract Value:	\$34,545,713.56
Earned to Date:	\$24.4M
Percent Change Orders to Construction Contract:	2.2%
Percent Time Used to Date:	100% for Milestone A-1, 95% for Milestone A-2
Funding Source:	2010 State Capital Program
Estimated Start Date/Estimated Length of Project:	NTP issued September 14, 2011, Milestone A-1: 476 days to Substantial Completion, Milestone A-2 (Tower 18 and Hubbard): 609 days to Substantial Completion
Designer of Record:	CTA In-House Design
Construction Manager/General Contractor:	PB America (CM), Ragnar Benson (GC)
Project Manager:	Barney Gray (GM); Grace Ohs (PM)

- Detailed Overview of Scope:**
- The project consists of renewal of track on the Wells/Van Buren legs of the Loop, including Tower 18 and Tower 12 Junctions, and Hubbard Curve on the Brown Line.
  - New components shall include ties, running rail, rail fasteners, guard rail, restraining rail, other track material, contact rail, contact rail insulators and anchors, footwalk, track access stairs, control panels, switch machines, rail lubricators, traction power and signal cabling.
  - Special Track Work includes Tower 12 Junction, Tower 18 Junction, new double crossover near Washington/Wells and replacement of Left Hand & Right Hand crossovers near Adams/Wabash.



# Project Title: Loop Track Renewal Project

## Managing Department: Power & Way Construction

Impact on Customers:	16 Weekend line cuts and reroutes. 14 Nightly single tracks and reroutes. Work will also be completed during two extended line cuts for the CDOT Wells Street Bridge Project.
Benefit to System:	Reduced maintenance costs, improved headways for revenue service, and improved safety.
Benefit to Community:	Improved headways for revenue service and improved safety.
Impact on Accessibility:	None.
Estimated # of Jobs Created:	140
Customer Communication Need:	Construction Activity Notices will be needed to alert businesses and residents to weekend and night work. Station signage and Customer Assistants will be needed to direct customers during weekend and night work.

<b>Comparable Projects:</b>
<ul style="list-style-type: none"> <li>• Dearborn Track Renewal</li> <li>• Ravenswood and North Main Line Tie Renewal</li> <li>• Loop Signal Project (Track Renewal on Lake and Wabash)</li> </ul>



# Project Title: Loop Track Renewal Project

## Managing Department: Power & Way Construction

### Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"><li>▪ Contractor requested substantial completion of Milestone A-1 on December 4, 2012. CTA issued the Notice of Substantial Completion for Milestone A-1 on January 14, 2013 with the Punch List. Punch List work is in progress.</li><li>▪ The first extended line cut for the Wells Street Bridge took place March 1, 2013- March 11, 2013. The North and Center sections of Tower 18 were completed. Track 2 (northbound) and the northern half of Track 1 (southbound) at Hubbard Curve were completed. CDOT's Contractor (Walsh/II In One JV) completed the South leaf of the Wells Street Bridge.</li><li>▪ The second extended line cut for the Wells Street Bridge is scheduled for April 26, 2013 –May 6, 2013.</li></ul>	Ongoing

#### Delay Explanation:

- Change Order 1 extended the Substantial Completion Date from January 1, 2013 to May 15, 2013 for work at Tower 18. Tower 18 work will be coordinated with the two 9 day line cuts for the CDOT Wells Street Bridge Project.
- Hubbard Curve work will also be coordinated with the two 9 day line cuts for the CDOT Wells Street Bridge Project.



# Project Title: Traction Power Systems Upgrades and Improvements

## Managing Department: Power & Way Construction

Justification of Need:	Substation equipment is obsolete and has exceeded its current lifespan
Priority of Project:	High
Total Project Budget:	\$56,918,563.00
Construction Contract Value:	\$46,684,000.00
Earned to Date:	0%
Percent Change Orders to Construction Contract:	0%
Percent Time Used to Date:	23.24%
Funding Source:	State Capital Program
Estimated Start Date/Estimated Length of Project:	NTP issued September 30, 2012
Designer of Record:	Laramore, Douglass and Popham(LDP)
Construction Manager/General Contractor:	STV (CM), F.H. Paschen (GC)
Project Manager:	Barney Gray (GM); David Heard (PM)

<b>Detailed Overview of Scope:</b>
Construct Three (3) New Traction Power Substations namely, Farwell, Armitage, Hill  Modify Orleans Switch Room Modify Weed Switch Room Modify Sedgwick Substation



# Project Title: Traction Power Systems Upgrades and Improvements

## Managing Department: Power & Way Construction

Impact on Customers:	59 Tracks Out of Service. 9 Single Tracks, and 6 Reroutes. Street and lane closures around worksites, Curtailed access to resident garages(at Armitage)
Benefit to System:	Reduced Traction Power related Train Defects, improved reliability for revenue service, and improved safety.
Benefit to Community:	Improved reliability for revenue service and improved safety.
Impact on Accessibility:	None.
Estimated # of Jobs Created:	40
Customer Communication Need:	Construction Activity Notices will be needed to alert businesses and residents to weekend, night work and power outages.

<b>Comparable Projects:</b>
<ul style="list-style-type: none"><li>• NA</li></ul>



# Project Title: Traction Power Systems Upgrades and Improvements

## Managing Department: Power & Way Construction

### Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"><li>▪ Farwell – Contractor installed sheeting wall and is currently excavating embankment in preparation for Tie-Backs installation. Installed Visual Barrier.</li><li>▪ Armitage – ComEd currently completing power relocation, Divane installing conduit and brackets to facilitate ComEd relocation efforts.</li><li>▪ Armitage Tie-House Asbestos abated and demolition started, Lead abatement of columns started and ongoing.</li><li>▪ Hill – Construction fence installed, ComEd completed relocation of electric poles, RCN temporary relocation of cables ongoing.</li></ul>	Ongoing

#### Delay Explanation:

- Contractor did not complete City of Chicago permits on schedule and did not initially coordinate utility relocations. Contractor submitting recovery schedule.





# Project Title: Dan Ryan Track Renewal and Station Improvements

## Managing Department: Power & Way Construction

Justification of Need:	The existing ties, rail and track components, as well the underlying ballast and drainage systems have reached or exceeded their useful life. In addition, this project is necessary to provide accessibility at all of the Dan Ryan stations and to improve customer experience at these stations.	
Priority of Project:	High	
Total Project Budget:	\$425M	
Funding Source:	RTA/IDOT CTA-2012-LI	
Designer of Record:	T.Y. Lin International; TranSystems Corporation	
Construction Manager:	Parsons Brinckerhoff	
Project Manager:	Robert Wittmann (GM); Brittany Dyra (PM)	
	<b>Track Renewal</b>	<b>Station Improvements</b>
Construction Contract Value:	\$220,166,000	\$43,875,000
Earned to Date:	\$7.9M	\$0.0M
Percent Change Orders to Construction Contract:	0.0%	0.0%
Percent Time Used to Date:	23.7% (as of March)	34.8% (as of March)
Estimated Start Date/Estimated Length of Project:	Notice To Proceed: October 4, 2012 Substantial Completion: October 24, 2014	Notice To Proceed: December 21, 2012 Substantial Completion: October 6, 2013
General Contractor:	Kiewit Infrastructure Co.	F.H. Paschen, S. N. Nielsen & Associates, LLG



# Project Title: Dan Ryan Track Renewal and Station Improvements

## Managing Department: Power & Way Construction

Impact on Customers:	The Dan Ryan Red Line branch from Cermak to 95 <sup>th</sup> will be shutdown for 154 days from May 19 <sup>th</sup> , 2013 to October 20, 2013. There may be single track outages prior to the line cut to perform preparatory work.
Benefit to System:	Reduced maintenance costs; Improved reliability; New infrastructure
Benefit to Community:	Improved customer travel times by eliminating slow zones; New elevators at Garfield, 63 <sup>rd</sup> and 87 <sup>th</sup>
Impact on Accessibility:	Garfield, 63 <sup>rd</sup> and 87 <sup>th</sup> stations will be accessible.
Estimated # of Jobs Created:	1150
Customer Communication Need:	Preliminary outreach started last fall. A comprehensive outreach plan will be implemented to ensure all customers clearly understand travel alternatives and construction impacts.

- Detailed Overview of Scope:**
- The limits of the project are the South subway portal near 16<sup>th</sup>/Clark on the north to approximately 95<sup>th</sup> Street on the south and including portions of the 18<sup>th</sup> Connector.
  - Replacement of deteriorated track components, including new running rail, ties, fasteners, ballast, and drainage improvements. Structural work includes expansion joint replacement, new waterproofing, concrete repairs. Systems work includes contact rail replacement, new supplemental negative return, temporary relocation and/or replacement of existing signal and communications infrastructure.
  - Rehabilitation of various architectural, civil, structural, mechanical and electrical elements at eight (8) stations along the Dan Ryan Red Line branch: Cermak/Chinatown, Sox/35<sup>th</sup>, 47<sup>th</sup>, Garfield, 63<sup>rd</sup>, 69<sup>th</sup>, 79<sup>th</sup>, and 87<sup>th</sup>. This work includes interior and exterior painting, platform canopy repairs, lighting and window repairs, and station cleaning.
  - Construction of new elevators at Garfield, 63<sup>rd</sup> and 87<sup>th</sup> stations.
  - New railing at the 69<sup>th</sup> St. bus bridge.



# Project Title: Dan Ryan Track Renewal and Station Improvements

## Managing Department: Power & Way Construction

### Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"> <li>▪ Station Contractor's Baseline Schedule under review.</li> <li>▪ Track Contractor continues pre-validation testing of the signal system.</li> <li>▪ Track and Station Contractors continue field surveys of existing conditions.</li> <li>▪ Station Contractor is preparing key submittals in order to obtain approval for production of the elevators.</li> <li>▪ Progress of Key Track Materials:               <ul style="list-style-type: none"> <li>• Oak Ties – 33,280 (51%) of 65,000 received; on schedule</li> <li>• Ballast - 42,000 tons (21%) of 195,500 tons received; ahead of schedule</li> <li>• Rail – 203,412 LF (100%) of 203,412 LF received; complete</li> <li>• Contact Rail – 0 (0%) of 107,000 LF received; on schedule</li> <li>• Signal Cable – 0 (0%) of 504,000 LF received; on schedule</li> <li>• Traction Power Cable – 0 (0%) of 70,000 LF received; on schedule</li> </ul> </li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• N/A</li> </ul>		



# Project Title: Dan Ryan Track Renewal and Station Improvements

## Managing Department: Power & Way Construction



**Unloading of granite ballast from rail cars**

# Project Title: Dan Ryan Track Renewal and Station Improvements

## Managing Department: Power & Way Construction



**Storage of pre-plated ties**

# Project Title: Bus Hoist Replacement Program – Phase 1

## Managing Department: Facilities Construction

Justification of Need:	The existing bus hoists are beyond their useful life and many are not functioning.
Priority of Project:	High
Bus Hoist Equipment Contract Value:	\$1,668,052
Construction Contract Value:	\$2,130,676
Construction Value Earned to Date:	\$526,307
Percent Change Orders to Construction Contract:	0%
Percent Time Used to Date:	40%
Funding Source:	FTA and RTA Grants
Estimated Start Date/Estimated Length of Project:	NTP 11/21/12 and the anticipated completion date is 8/16/13.
Designer of Record:	TranSystems Corporation
Construction Manager/General Contractor:	Jacobs (CM), Paul Borg Construction (GC), Stertil-Koni (Equipment)
Project Manager:	Steve Mascheri (GM); Shawn Riley (PM)

**Detailed Overview of Scope:**

Replacement of bus maintenance lifts including drainage, electrical work, and maintenance pads.  
Project has been sequenced to mitigate interference to CTA Bus Operations.



# Project Title: Bus Hoist Replacement Program – Phase 1

## Managing Department: Facilities Construction

Impact on Customers:	N/A
Benefit to System:	Improved capacity for maintenance facilities and reliable equipment for bus operations.
Benefit to Community:	N/A
Impact on Accessibility:	N/A
Estimated # of Jobs Created:	25
Customer Communication Need:	N/A

<b>Comparable Projects:</b>
<ul style="list-style-type: none"><li>N/A</li></ul>



# Project Title: Bus Hoist Replacement Program – Phase 1

## Managing Department: Facilities Construction

### Construction Progress

Phase	Description	Status
Phase 1	<ul style="list-style-type: none"><li>▪ Project has been sequenced to mitigate interference to Bus Operations Forest Glen – Work at 4 of 7 pits has begun – 2 lifts installed South Shops – Work at 2 of 4 pits has begun – 2 lifts installed 77<sup>th</sup> Garage – Work at 2 of 11 pits has begun</li> <li>▪ Existing pits and slabs have been removed.</li> <li>▪ Underground plumbing has been completed at 77<sup>th</sup>. Pit slab and walls have been poured and are preparing for slab on grade pour.</li> <li>▪ Pit slabs, walls, and slab on grade have been poured at Forest Glen and South Shops.</li></ul>	Ongoing

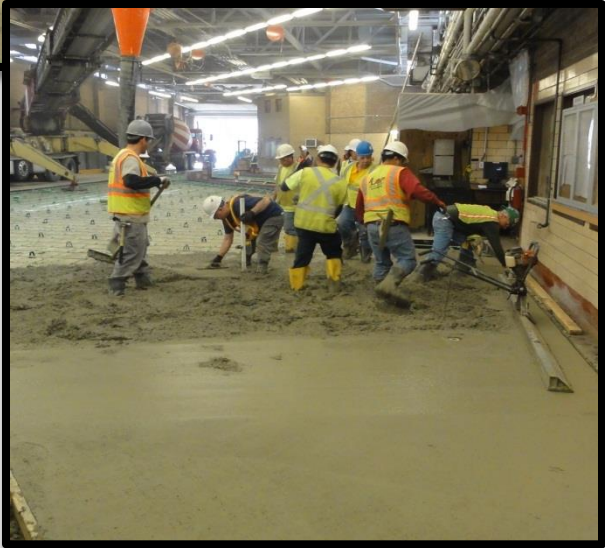
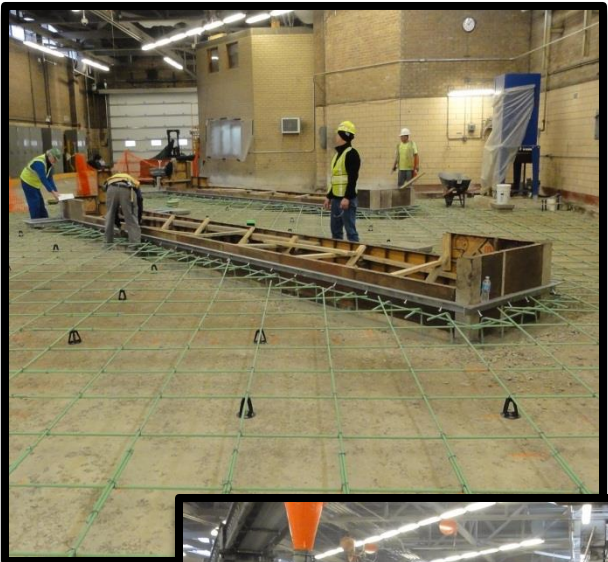
#### Delay Explanation:

Elevation differential in underground drainage has resulted in the requirement to place new drainage lines as opposed to tying into existing drainage lines.





# Project Title: Bus Hoist Replacement Program Managing Department: Facilities Construction

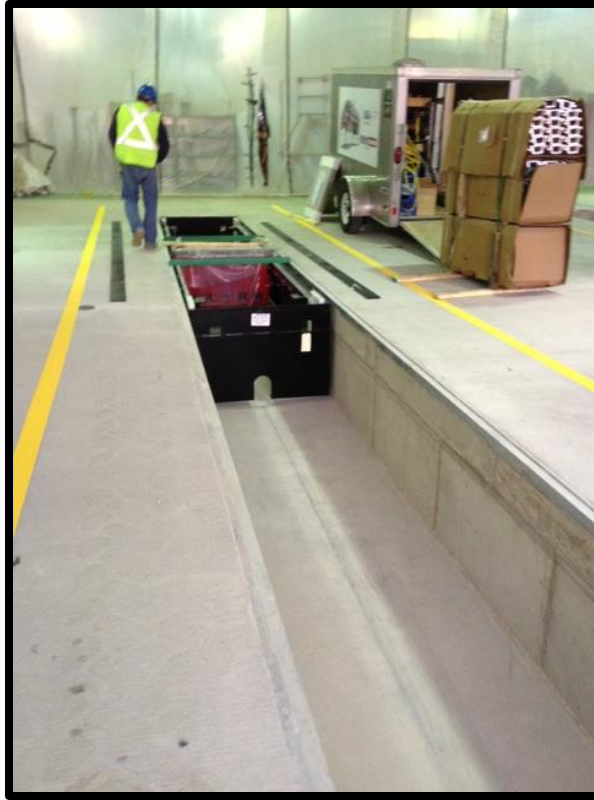


Forest Glen Bus Garage – Installing Floor Slab and Installing /Testing Lift Equipment



# Project Title: Bus Hoist Replacement Program – Phase 1

## Managing Department: Facilities Construction



South Shops Garage – Pouring Concrete Floor Slab and Installing Lift Equipment

# Project Title: Bus Hoist Replacement Program

## Managing Department: Facilities Construction

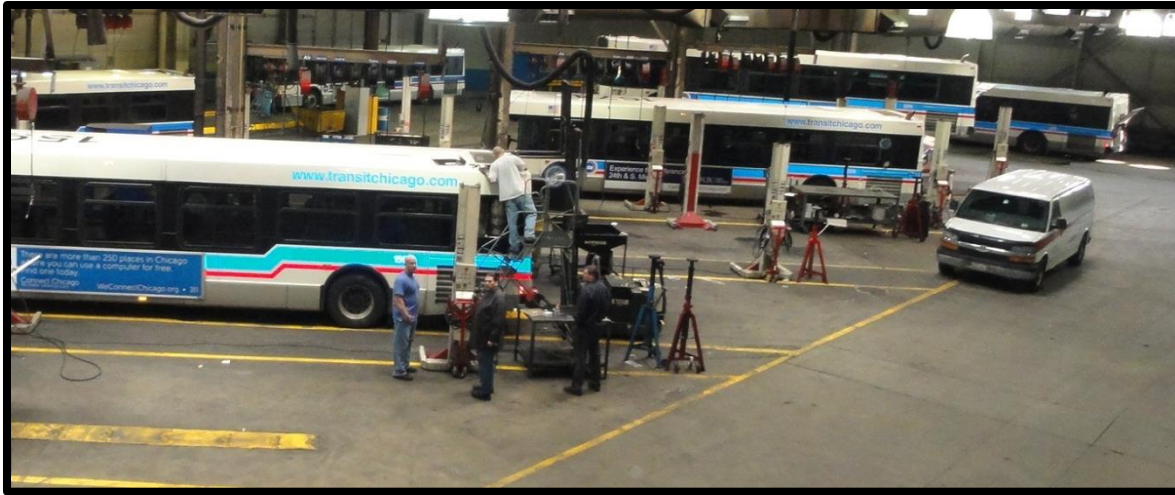


Articulated Bus Lift – 77th



# Project Title: Bus Hoist Replacement Program – Phase 2

## Managing Department: Facilities Construction



Kedzie Garage – Before Construction Pictures



# Project Title: Green Line Reliability Improvements

## Managing Department: Facilities Construction

Justification of Need:	Infrastructure Improvements to the Green Line in support of the Red Line South line cut.
Priority of Project:	High
Construction Contract Value:	\$16,720,862
Construction Value Earned to Date:	\$7,615,198.42
Percent Change Orders to Construction Contract:	0%
Percent Time Used to Date:	50%
Funding Source:	FTA and RTA Grants
Estimated Start Date/Estimated Length of Project:	NTP 11/21/12 and Anticipated completion date is 5/19/13.
Designer of Record:	CTA
Construction Manager/General Contractor:	Jacobs/PB (CMs)/ F.H. Paschen, Kiewit Infrastructure (GCs)
Project Manager:	Steven Mascheri (GM); Pedro Hurtado & Charles Freeman (PMs)

<p><b>Detailed Overview of Scope:</b></p> <ul style="list-style-type: none"> <li>• Track Replacement – Englewood Branch of Green Line and Old Incline at 17<sup>th</sup> Street</li> <li>• Garfield Station – Bus terminal parking lot, auxiliary stair installation, boulevard curb cut</li> <li>• 63<sup>rd</sup>/Ashland Station – Roof replacement, station renewal, lighting upgrades, stair replacement</li> </ul>
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# Project Title: Green Line Reliability Improvements

## Managing Department: Facilities Construction

Impact on Customers:	Weekend track closures on Green Line,  Partial station closures at 63 <sup>rd</sup> /Ashland  Weekend bus reroutes for Green Line track work
Benefit to System:	Improved capacity for maintenance facilities and reliable equipment for bus operations.
Benefit to Community:	N/A
Impact on Accessibility:	N/A
Estimated # of Jobs Created:	110
Customer Communication Need:	Notifications for weekend track work, weekend street closures.

<b>Comparable Projects:</b>
<ul style="list-style-type: none"><li>N/A</li></ul>



# Project Title: Green Line Reliability Improvements

## Managing Department: Facilities Construction

### Construction Progress

Phase	Description	Status
Track work	<ul style="list-style-type: none"><li>• Approximately 7500 feet of ties and 2800 feet of footwalk on the Englewood branch of the Green Line to be replaced.</li><li>• Approximately 1000 feet of track on the 17<sup>th</sup> Street incline to be replaced.</li></ul>	Ongoing
Garfield	<ul style="list-style-type: none"><li>• Construct a bus terminal turnaround.</li><li>• Auxiliary exit on either side of station.</li><li>• Miscellaneous facility improvements to facilitate alternative service during the Red Line South line cut.</li></ul>	Ongoing
63 <sup>rd</sup> /Ashland	<ul style="list-style-type: none"><li>• Station roof replaced</li><li>• Staircase replaced</li><li>• Station painted, lights relamped</li></ul>	Ongoing

#### Delay Explanation:

No delay

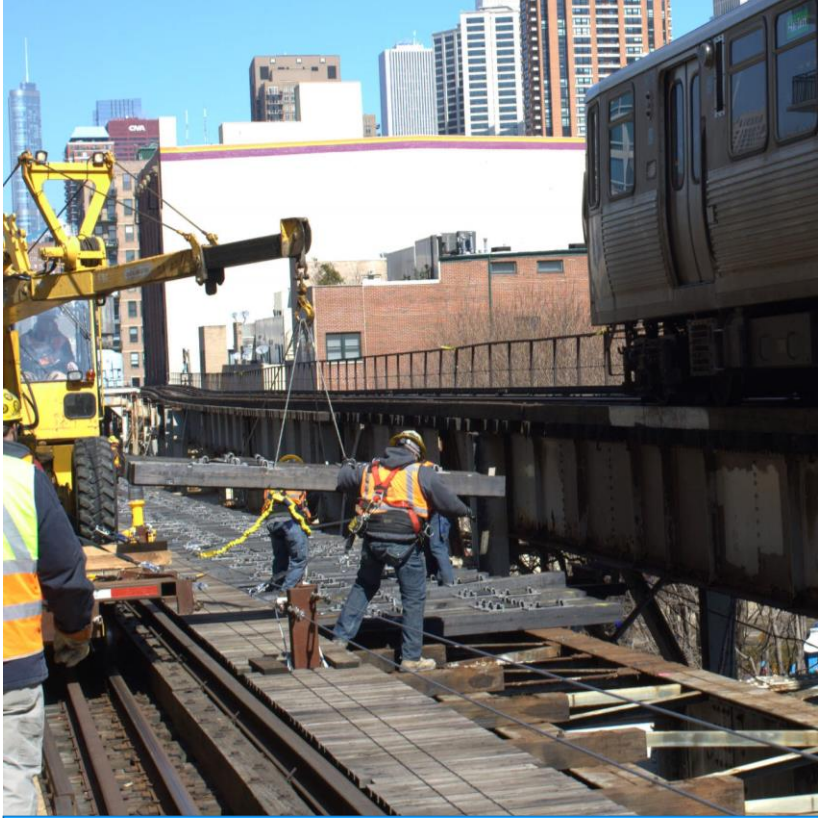


# Project Title: Green Line Reliability Improvements – Track Renewal

Managing Department: Facilities Construction



Englewood Track Renewal



Incline Track Renewal





# Project Title: Green Line Reliability Improvements – Garfield Station

## Managing Department: Facilities Construction



**Garfield Station: Bus Lot Being Poured and Auxiliary Stairs Being Built**

# Project Title: Green Line Reliability Improvements – 63<sup>rd</sup>/Ashland Station

Managing Department: Facilities Construction



**Stair Replacement**



**Roof Replacement**