

# **Construction Project Briefing**

**October 14, 2015**



# Today's Presentation

- **Traction Power**
  - ✓ **Kimball/Princeton/State Substations**
- **95<sup>th</sup> Street Terminal Improvement Program**
- **Wilson Transfer Station, Track, and Structure Reconstruction**
- **Ravenswood Loop Connector Track Reconstruction**
- **North Main Line/Purple Line Express – Track Improvement Project**



# Project Title: Traction Power Systems Upgrades and Improvements Kimball, Princeton, and State Substation Projects

Justification of Need:	Substation equipment is obsolete and has exceeded its current lifespan
Priority of Project:	High
Total Project Budget:	\$34,726,123
Construction Contract Value:	\$25,634,144
Earned to Date:	60%
% Change Orders to Construction Contract:	0%
Percent Time Used to Date:	91%
Funding Source:	Bonds
Estimated Start Date/Estimated Length of Project:	Design NTP - October 1 <sup>st</sup> , 2013 Start of Construction (240 days after NTP) – May 29 <sup>th</sup> , 2014 Substantial Completion (800 days after NTP) – December 10 <sup>th</sup> , 2015
Designer of Record:	Parsons Transportation Group
Construction Manager/General Contractor:	STV (CM), / Clark Construction
Project Manager:	Barney Gray (GM); Teresa Llorente (PM)

## Detailed Overview of Scope:

Rehabilitation of existing buildings and building envelopes to a state of good repair at Kimball, Princeton and State. Replace existing AC/DC conversion equipment, getaway cables, enclosures, and switches with new equipment, cables, enclosures, and switches. Perform an existing conditions survey of feeder cables and section tie switches within the Kimball Yard. Enhance the negative return system on the ballasted portion of the Brown Line between Kimball Yard and the Western Avenue Incline.



# Project Title: Traction Power Systems Upgrades and Improvements Kimball, Princeton, and State Substation Projects

Impact on Customers:	Three single tracks, and two reroutes. Street and lane closures around worksites, Brown Line crossing impacts.
Benefit to System:	Improve traction power capacity reduced traction power related train defects, improved reliability for revenue service, and improved safety.
Benefit to Community:	Improved reliability and safety.
Impact on Accessibility:	None.
Estimated # of Jobs Created:	49
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 Kimball, Princeton, and State Substation Projects

## Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"><li>▪ Kimball – Installation of second lineup completed. Field testing of equipment ongoing. Installation of interior light fixtures, mechanical and plumbing work and installation of courtyard steel and mesh panels completed.</li><li>▪ Princeton - Field testing and commissioning of second lineup completed. Installation of DC dielectric floor completed; installation of DC lineup continues.</li><li>▪ State – Painting of interior walls and installation of interior light fixtures completed. Installation of DC dielectric floor began. Demo of traction power equipment ongoing. Fabrication and factory testing of traction power equipment completed. Installation of first lineup completed. Interior mechanical, electrical, structural/architectural work continues.</li></ul>	Ongoing

**Delay Explanation:**

- N/A



# Project Title: Traction Power Systems Upgrades and Improvements Kimball, Princeton, and State Substation Projects



**Kimball Substation: Installation of Courtyard Steel Mesh Panels**



# Project Title: Traction Power Systems Upgrades and Improvements Kimball, Princeton, and State Substation Projects



**State Substation: Area isolated for DC Dielectric Floor Installation**





# Project Title: 95<sup>th</sup> Terminal Improvement Program

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:	\$240 M
Construction Contract Value:	Advance Package 1 (AP1): \$2,482,588 Advance Package 2 (AP2): \$23,330,834
Earned to Date Through End of August:	Advance Package 1: 100% Advance Package 2: 53%
Percent Change Orders to Construction Contract:	Advance Package 1: (0.3%) Advance Package 2: 1.2%
Percent Time Used Through End of September:	Advance Package 1: 100% Advance Package 2: 100%
Funding Source:	Federal, State, Bond
Estimated Start Date/Estimated Length of Project:	Advance Package 1: NTP Issued June 6, 2014 / 180 days Advance Package 2: NTP Issued July 24, 2014 / 300 days
Designer of Record:	Parsons Brinckerhoff, AP1 and AP2
Construction Manager/General Contractor:	Walsh/II In One JV, AP1 and AP2
Owners Representative:	Jacobs/SQN JV
Project Manager:	Katrina Denny (PM), Brittany Dyra (GM)

**Detailed Overview of Scope:**

The 95th Terminal 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.





# Project Title: 95<sup>th</sup> Terminal Improvement Program

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 <sup>th</sup> 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:	3,120 (Direct, Indirect and Induced), 652 (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.

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



# Project Title: 95<sup>th</sup> Terminal Improvement Program

## Construction Progress

Phase	Description	Status
<b>Construction</b> Advance Package 2: Dan Ryan Retaining Walls	<ul style="list-style-type: none"> <li>▪ Work continues on the northwest quadrant (Wall 2) and northeast quadrant (Wall 6).</li> <li>▪ All concrete work at southwest quadrant (Wall 1) was completed.</li> <li>▪ Installed portions of the jack and bore casing on the west side.</li> <li>▪ Concrete encased fiber optic ductbank installation continues on the east side.</li> </ul>	Ongoing
<b>Close-Out</b> Advance Package 1: Dan Ryan Tower Lights and Sign Relocation	<ul style="list-style-type: none"> <li>▪ Documentation for Final Acceptance is being reviewed.</li> <li>▪ Final Pay Application is under review.</li> </ul>	Ongoing
<b>Procurement</b>	<ul style="list-style-type: none"> <li>▪ Request for Proposals for Design Build Services was advertised on April 30, 2015. Proposals were received on August 18, 2015 and are under evaluation.</li> </ul>	Ongoing

<b>Delay Explanation:</b>
N/A.



# Project Title: 95<sup>th</sup> Terminal Improvement Program



**AP2: Backfill of East Side Jacking Pit (Wall 6)**





# Project Title: 95<sup>th</sup> Terminal Improvement Program



**AP2: South Bus Bridge Back Wall Reinforcement (Wall 1)**



# Project Title: 95<sup>th</sup> Terminal Improvement Program



**AP2: Jack and Bore Casing Installation on East Side (Wall 2)**





# Project Title: Wilson Transfer Station, Track & Structure Reconstruction

Justification of Need:	The Station is functionally obsolete and does not allow for optimal transit operations
Priority of Project:	High
Total Project Budget:	\$206 M
Construction Contract Value:	\$ 152,370,000
Earned to Date:	17%
Percent Change Orders to Construction Contract:	(0.8 %)
Percent Time Used:	34%
Funding Source:	Federal, State, Bond and TIF
Estimated Start Date/Estimated Length of Project:	NTP 7/25/14; Substantial Completion 1/10/18
Designer of Record:	HNTB
Construction Manager/General Contractor:	Arcadis/Walsh/II In One JV
Project Manager:	Pedro Hurtado (PM), John Titzer (GM)

**Detailed Overview of Scope:** The station will replace the badly deteriorated station that was built in 1923. The station will have multiple entrances/exits and will include the following features:

- Two (2) new 26 foot – 10 car concrete island platforms with full canopies
- New main station located on the south side of Wilson Ave, new auxiliary entrance/exit at Sunnyside Ave. and a new auxiliary entrance/exit on the north side of Wilson
- New elevators, escalators, lighting, signage, fare control, security cameras and art work
- Replace old existing elevated track structure with new track structure to accommodate the new station platform and the necessary infrastructure to support the new track alignment.



# Project Title: Wilson Transfer Station, Track & Structure Reconstruction

Impact on Customers:	There will be minimum impact to CTA customers
Benefit to System:	<ul style="list-style-type: none"> <li>• New modern, more spacious and accessible stationhouse with three (3) entrances</li> <li>• Upgraded track structure infrastructure and signals for more reliable service</li> <li>• New transfer point between Red and Purple express rail lines</li> </ul>
Benefit to Community:	<ul style="list-style-type: none"> <li>• Modern facility with new system upgrades</li> <li>• Easy access entrances through three (3) entry points</li> <li>• Bigger platforms that will accommodate higher capacity for passengers to avoid overcrowding</li> <li>• Platform canopies to protect customers from elements</li> <li>• New ADA accessible station</li> </ul>
Impact on Accessibility:	Station will be fully accessible upon completion
Estimated # of Jobs Created:	560
Customer Communication Need:	<ul style="list-style-type: none"> <li>• Construction activity notices will be provided to inform businesses and residents regarding temporary stations and construction impacts (noise, dust, street/alley impacts) throughout the project.</li> </ul>

<b>Comparable Projects:</b>
<ul style="list-style-type: none"> <li>• 95<sup>th</sup> Station – Red Line</li> </ul>





# Project Title: Wilson Transfer Station, Track & Structure Reconstruction

## Construction Progress

Phase	Description	Status
<b>Construction</b>	<b>Track Structure Foundations:</b> <ul style="list-style-type: none"> <li>A total of 57 caissons have been completed out of the 60 needed for Stage I. There are 3 caissons remaining to be drilled near Leland Ave. along with column's pedestals.</li> </ul>	Ongoing
	<ul style="list-style-type: none"> <li>Temporary shoring tower installations continues at north end of project.</li> </ul>	Ongoing
	<b>Steel Bents Structure:</b> <ul style="list-style-type: none"> <li>To date 21 new steel bent structures and track stringers have been installed out of the 31 needed for stage 1.</li> </ul>	Ongoing
	<b>Concrete:</b> <ul style="list-style-type: none"> <li>Concrete track deck framing and rebar installation for track 1 have started. Framing started at south end in preparation for 1<sup>st</sup> elevated track pour.</li> <li>New concrete foundations for new ramps at Sunnyside entrance have started.</li> </ul>	Ongoing



# Project Title: Wilson Transfer Station, Track & Structure Reconstruction



**New Track 1 structure**





# Project Title: Wilson Transfer Station, Track & Structure Reconstruction



**New track 1 deck framing/rebar installation**





# Project Title: Wilson Transfer Station, Track & Structure Reconstruction



**New structural steel bent installation**



# Project Title: Ravenswood Loop Connector Track Reconstruction

Justification of Need:	Ties and rail beyond their useful life and require replacement
Priority of Project:	High
Total Project Budget:	\$57,243,294
Construction Contract Value:	\$40,346,442
Earned to Date:	85.5% (as of 9/15/15)
Percent Change Orders to Construction Contract:	0%
Percent Time Used to Date:	74.5% (as of 9/1/15)
Funding Source:	FTA/IDOT/CTA
Estimated Start Date/Estimated Length of Project:	NTP issued 10/3/14; substantial completion 12/22/15
Designer of Record:	T.Y. Lin
Construction Manager/General Contractor:	Kiewit Infrastructure Company (GC) Parsons Brinkerhoff (CM)
Project Manager:	Steven Mascheri (GM) Bill Polacek (PM)

## Detailed Overview of Scope:

Replacement of ties and rail between from the south limit of the Armitage station to the south limit of the Merchandise Mart station. Work will be performed under a series of weekend line cuts.



# Project Title: Ravenswood Loop Connector Track Reconstruction

Impact on Customers:	Fifteen (15) weekend line cuts in 2015. Limits of line cuts will vary between Armitage and the Merchandise Mart/Clark and Lake.
Benefit to System:	Improved reliability of track conditions, smoother ride for passengers.
Benefit to Community:	Improved reliability and travel times.
Impact on Accessibility:	None.
Estimated # of Jobs Created:	80
Customer Communication Need:	Construction activity notices will be provided to alert businesses and residents to weekend, night work.

<b>Comparable Projects:</b>
<ul style="list-style-type: none"><li>Blue Line (Milwaukee) Track Renewal</li></ul>







# Project Title: Ravenswood Loop Connector Track Reconstruction



**Contractor installing new ties**



# Project Title: Ravenswood Loop Connector Track Reconstruction



**Contractor Installing Contact Rail**



# Project Title: NML – Purple Line Express – Track Improvement Project

Justification of Need:	The last major renewal of these tracks occurred in the early-mid 1970's. Aside from the spot replacement of a few ties along this track, the majority of ties along track 1 & 4 have reached the end of their useful life.
Priority of Project:	High
Total Project Budget:	\$28,396,026
Construction Contract Value:	\$19,803,757
Earned to Date:	27%
% Change Orders to Construction Contract:	0%
Percent Time Used to Date:	55%
Funding Source:	CTA Bonds, Federal, PBV
Estimated Start Date/Estimated Length of Project:	NTP – Issued May 18, 2015 Substantial Completion (190 days after NTP) – November 28, 2015
Designer of Record:	CTA Engineering
Construction Manager/General Contractor:	Parsons Brinkerhoff (CM), / Kiewit Infrastructure (GC)
Project Manager:	Kevin Loughnane (GM); Charles Freeman (PM)

## Detailed Overview of Scope:

- Replacement of approximately 16,500 timber ties, plates and fasteners
- Restoration of track alignment, profile and cross-leveling
- Ballast removal, grading, replacement, compaction and dressing
- Tie and fastener replacement at the Berwyn Crossovers Tracks 1 and 2
- Replacement of approximately 5500 linear feet of running rail on Track 4 from Lawrence to north of Bryn Mawr.
- Furnish and install new 115 lb. jointed rails, complete with joint bars, rail to rail joint bonds, fasteners.



# Project Title: NML – Purple Line Express – Track Improvement Project

Impact on Customers:	There will be some noise while work is being performed. Red and Purple Line service will experience impacts during weekend work.
Benefit to System:	Existing slow zones will be removed and allow for faster run times from Evanston to downtown. There will be improved reliability for revenue service, and improved safety.
Benefit to Community:	Improved reliability and safety and faster run times from Evanston to downtown.
Impact on Accessibility:	None.
Estimated # of Jobs Created:	100
Customer Communication Need:	Neighborhood aldermen and other community officials have been notified. Construction activity notices have been distributed to alert businesses and residents.

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



## Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"><li>• Pre-plating ties to prepare for installation.</li><li>• Hand rails installed along track 4.</li><li>• Surveys have been conducted along both tracks 1 and 4.</li> <li>• Tie replacement: completed tie replacement from Lawrence to Thorndale on track four.</li></ul>	Completed Completed Completed  On-going

### Delay Explanation:

- Currently on-time on-schedule.







**Tamping Machine**





**Track Four Tie Replacement**