

# **Construction Project Briefing**

**December 11, 2013**



# Today's Presentation

- **Traction Power - Farwell/Armitage/Hill Substations**
- **Bus Hoist Replacement Program**
  - ✓ **Phase 1 – Forest Glen, South Shops, 77<sup>th</sup> Street Bus Garage**
  - ✓ **Phase 2 – Kedzie Bus Garage**
  - ✓ **Phase 3 – North Park Garage**
  - ✓ **Phase 4 – Chicago and 103<sup>rd</sup> Garage**



# 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Justification of Need:	Substation equipment is obsolete and has exceeded its current lifespan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:	17%
Percent Change Orders to Construction Contract:	0%
Percent Time Used to Date:	55%
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



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Impact on Customers:	Nine single tracks, and six reroutes. Street and lane closures around worksites, curtailed access to resident garages (at Armitage).
Benefit to System:	Additional traction power capacity reduced traction power related train defects, improved reliability for revenue service, and improved safety.
Benefit to Community:	Improved safety.
Impact on Accessibility:	None.
Estimated # of Jobs Created:	89
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>



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### Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"><li data-bbox="324 291 1528 458">▪ Farwell – Concrete work continues for the remaining portions of walls to complete the structural work for the substation. The 2<sup>nd</sup> floor concrete walls and roof have been completed. Work will continue with masonry and site utilities. Roofing work and exterior framing work will continue. The interior work will proceed with painting and dielectric flooring installation.</li><li data-bbox="324 501 1528 668">▪ Armitage – CTA track column replacement work continues with earth retention installation, excavation, lagging and bracing installation followed by temporary shoring in order to remove and replace twenty-seven column foundations. Initial drilling and H-Pile installation has revealed unknown existing conditions that requires the contractor to re-sequence the work, but has not stopped progress at the site.</li><li data-bbox="324 711 1528 982">▪ Hill – The concrete operating floor has been completed for the majority of the building. Masonry work has progressed rapidly with the concrete block 1<sup>st</sup> floor structural wall installation. The masonry work will continue with the façade brick and stone finishes. While the building is progressing, site work will also be completed for utilities and getaway ductbank. The pre-cast roof plank installation will also be completed while masonry is being finished.<ul style="list-style-type: none"><li data-bbox="421 919 1528 982">▪ Sedgwick – Cable support brackets and switch platforms have been installed ahead of schedule and will continue along the rail feeder route.</li></ul></li></ul>	Ongoing

#### Delay Explanation:

- CDOT OUC has reviewed Hill duct bank earth retention system design and provided permit approval.
- Unforeseen underground conditions has been encountered within CTA Right of Way at Armitage Substation.



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**Farwell Substation 2<sup>nd</sup> floor wall rebar installation**

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## Managing Department: Power & Way Construction



**Farwell Substation west wall pour**

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## Managing Department: Power & Way Construction



Armitage Substation earth retention system installation

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## Managing Department: Power & Way Construction



**Hill Substation east and north wall concrete block installation**

# Project Title: Bus Hoist Replacement Program

## 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			
Construction Phase	Phase 1: 77 <sup>th</sup> /SS/ Forest Glen	Phase 2: Kedzie	Phase 3: North Park	Phase 4: Chicago/103 <sup>rd</sup>
Bus Hoist Equipment Contract Value:	\$1,668,052	\$1,163,892	\$779,769	\$1,066,901
Construction Contract Value:	\$2,663,345	\$3,145,143	\$1,869,630	\$2,820,651
Value Earned to Date (Construction and Hoists):	\$4,133,816	\$2,653,521	\$2,199,001	\$0
Percent Change Orders to Construction Contract:	25%	0%	0%	0%
Percent Time Used to Date:	95%	80%	83%	0%
Estimated Start and Completion Date:	NTP 11/21/12 Projected completion 10/18/13.	NTP 3/4/13 Projected completion 12/20/13.	NTP 6/24/13 Projected completion 3/05/14.	NTP 9/10/13 Projected completion 7/09/14.
Designer of Record:	TranSystems Corporation			
Contractor	Paul Borg	Kiewit	F.H. Paschen	F.H. Paschen
Project Manager:	Steve Mascheri (GM); Shawn Riley (PM); Jacobs (CM)			
Funding Source:	FTA and RTA Grants			

<b>Detailed Overview of Scope:</b>
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:	80 (phases 1 thru 4)
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 minimize impact to Bus Operations and Maintenance.</li> </ul> <p>Forest Glen – 7 lifts installed. Close out in progress. Underground piping repairs are complete.</p> <p>South Shops – 4 lifts installed and operational. Close out in progress. Repairs on 4 additional pits underway.</p>	Construction
Phase 2:	77 <sup>th</sup> Garage – 11 lifts installed and in use by the facility. Close out in progress.	Construction
Phase 3:	<ul style="list-style-type: none"> <li>Kedzie Garage – 12 lifts total: 8 lifts installed, working on the last 4 lifts. Work on the wash pit and inspection pit are 85% Complete. Concrete pits at the last 4 bays are being completed. Lifts scheduled to be installed by Mid-December 2013.</li> </ul>	Construction
Phase 4:	<ul style="list-style-type: none"> <li>North Park Garage – 13 lifts total: 5 lifts installed, work ongoing at 4 more lifts. Lifts at bays 6-9 will be installed by Mid-December.</li> <li>103<sup>rd</sup> and Chicago Garages – NTP issued 9/10/13. Demolition for phase 1 has started.</li> </ul>	Construction

#### Delay Explanation:

Phase 1: Elevation differential in underground drainage has resulted in the requirement to place new drainage lines as opposed to tying into existing drainage lines

Phase 2: Phase 2 date extended to better accommodate installation of hoists and minimize impact to bus operations.

Phase 3: Phase 3 dates extended to better accommodate installation of hoists and minimize impact to bus operations.

Phase 4: Phase 4 dates extended to better accommodate installation of hoists and minimize impact to bus operations.



# Project Title: Bus Hoist Replacement Program

## Managing Department: Facilities Construction

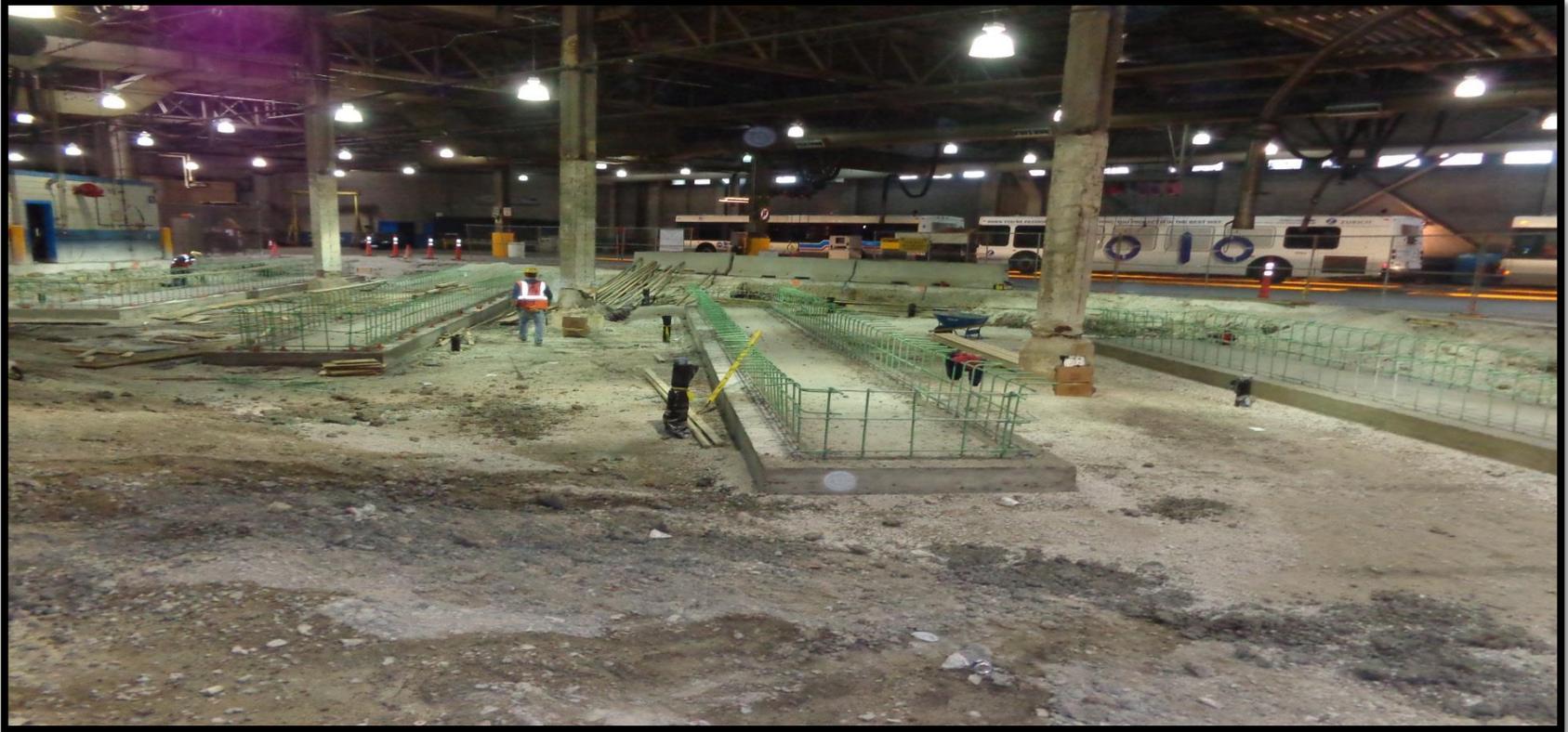


**Chicago/103<sup>rd</sup> - Excavation**



**North Park – Bays 6 – 9 Pit Walls**

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



**Kedzie – Bays 1-4 Pit Forming**