

# **Construction Project Briefing**

**June 11, 2014**



# Today's Presentation

- **Traction Power - Farwell/Armitage/Hill Substations**
- **18<sup>th</sup> Connector Track and Structure Renewal**
- **Harrison Station Rehabilitation**
- **Bus Hoist Replacement Program**
  - ✓ **Phase 1 – Forest Glen, South Shops, 77th Street Bus Garage**
  - ✓ **Phase 2 – Kedzie Bus Garage**
  - ✓ **Phase 2 – North Park Garage**
  - ✓ **Phase 2 – Chicago and 103rd Garage**
- **Milwaukee Blue Line Track Renewal**



# Project Title: Traction Power Systems Upgrades and Improvements

|   |  |
|---|--|
| Justification of Need:                            | Substation equipment is obsolete and has exceeded its current lifespan |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:                                   | 52%  |
| Percent Change Orders to Construction Contract:   | 0%   |
| Percent Time Used to Date:                        | 74%  |
| Funding Source:                                   | State Capital Program  |
| Estimated Start Date/Estimated Length of Project: | NTP issued August 30, 2012; substantial completion 810 days after NTP  |
| Designer of Record:                               | Laramore, Douglass and Popham (LDP)                                    |
| Construction Manager/General Contractor:          | STV (CM), F.H. Paschen (GC)  |
| Project Manager:                                  | Barney Gray (GM); Premal Vora (PM)                                     |

**Detailed Overview of Scope:**

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

|                              |   |
|------------------------------|---|
| 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.                        |

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



# Project Title: Traction Power Systems Upgrades and Improvements

## Construction Progress

| Phase        | Description   | Status  |
|--------------|---|---------|
| Construction | <ul style="list-style-type: none"><li data-bbox="324 294 1456 365">▪ Farwell – Exterior masonry work on the west wall has begun. Traction power equipment is installed. Site utilities are being installed.</li><li data-bbox="324 408 1466 551">▪ 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. Exterior column foundation replacement is complete.</li><li data-bbox="324 594 1514 708">▪ Hill – Dielectric flooring installation is complete. Traction power equipment is installed. Site utilities are being installed. Ductbank work is continuing, with earth retention installation and excavation, followed by conduit installation.</li></ul> | Ongoing |

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| <b>Delay Explanation:</b>   |
| <ul style="list-style-type: none"><li data-bbox="57 1008 1702 1079">• Unforeseen underground conditions and a high water table have been encountered within CTA Right of Way at Armitage Substation, creating a delay and requiring site dewatering prior to interior column excavation work.</li><li data-bbox="57 1093 1717 1165">• Unsuitable soils and unforeseen underground conditions have been encountered within CTA Right of Way in the Hill Ductbank installation.</li></ul> |



# Project Title: Traction Power Systems Upgrades and Improvements

## Managing Department: Power & Way Construction



**Farwell Substation West Wall**

# Project Title: Traction Power Systems Upgrades and Improvements Managing Department: Power & Way Construction



Farwell Substation south end

# Project Title: 18<sup>th</sup> Connector Track and Structure Renewal

|   |   |
|---|---|
| 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. |
| Priority of Project:                              | High  |
| Total Project Budget:                             | \$425M  |
| Construction Contract Value:                      | \$220,129,367   |
| Earned to Date:                                   | \$196.7M  |
| Percent Change Orders to Construction Contract:   | 0.0%  |
| Percent Time Used to Date:                        | 81% (as of May)   |
| Funding Source:                                   | RTA/IDOT CTA-2012-LI; City of Chicago TIF   |
| Estimated Start Date/Estimated Length of Project: | Notice To Proceed: October 4, 2012<br>Substantial Completion: October 24, 2014  |
| Designer of Record:                               | T.Y. Lin International; TranSystems Corporation   |
| Construction Manager:                             | Parsons Brinckerhoff  |
| Project Manager:                                  | Brittany Dyra (GM)  |
| General Contractor:                               | Kiewit Infrastructure Co.   |



# Project Title: 18<sup>th</sup> Connector Track and Structure Renewal

## Construction Progress

| Phase        | Description  | Status  |
|--------------|--|---------|
| Construction | Kiewit Infrastructure Co. (KIC) is performing work along the 18 <sup>th</sup> Connector. The scope of this work includes replacement of various track components including ties, rail, ballast, drainage, contact rail and the installation of a new walkway. In addition, KIC will complete structure painting. | Ongoing |

### Delay Explanation:

- N/A



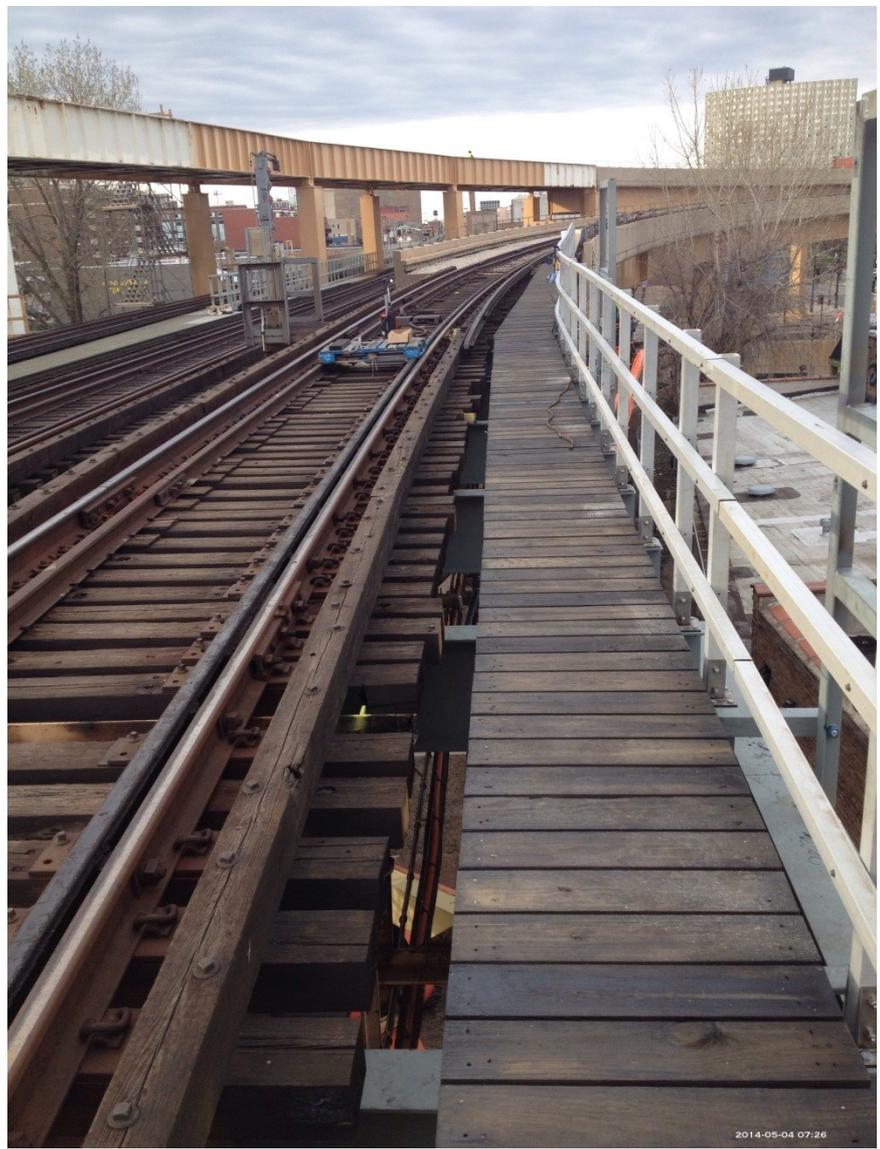
# Project Title: 18<sup>th</sup> Connector Track and Structure Renewal



Panel of new track being set during the second weekend line cut



# Project Title: 18<sup>th</sup> Connector Track and Structure Renewal



**New southbound walkway near Tower 17 (looking south)**



# Project Title: Harrison Station Rehabilitation

|   |   |
|---|---|
| Justification of Need:                            | The station is old and suffers from extensive leaking and water damage                      |
| Priority of Project:                              | High  |
| Total Project Budget:                             | \$10,000,000  |
| Construction Contract Value:                      | \$6,400,000   |
| Earned to Date: (thru April)                      | 20.0%   |
| Percent Change Orders to Construction Contract:   | 0%  |
| Percent Time Used to Date:                        | 42%   |
| Funding Source:                                   | TIF   |
| Estimated Start Date/Estimated Length of Project: | NTP issued November 26 <sup>th</sup> , 2013;<br>Final Acceptance scheduled for October 2014 |
| Design/Build Contractor                           | Kiewit Infrastructure (DBC) Altus Works (Lead Design Subconsultant)                         |
| Construction Manager:                             | Parsons Brinkerhoff (CM),   |
| Project Manager:                                  | Steven Mascheri (GM); Charles Freeman (PM)  |

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| <p><b>Detailed Overview of Scope:</b></p> <p>New station finishes including:</p> <ul style="list-style-type: none"> <li>• New flooring, wall finishes, signage upgrades</li> <li>• Lighting replacement (LED), lighting backup system fed from CTA substations</li> <li>• New stair enclosures at Harrison entrances</li> </ul> |
|---|



# Project Title: Harrison Station Rehabilitation

|                              |  |
|------------------------------|--|
| Impact on Customers:         | One 42 day Polk entrance closure from April thru May<br>One 42 day Harrison entrance closure from June thru July<br>Various weekend station closures             |
| Benefit to System:           | This project will mitigate the water infiltration problem at both entrances to the station platform and provide a safer, more user friendly fare control design. |
| Benefit to Community:        | Improved safety/customer comfort/finishes  |
| Impact on Accessibility:     | None.  |
| Estimated # of Jobs Created: | 72   |
| Customer Communication Need: | Construction activity notices will be needed to alert businesses, schools, and residents to weekend work, night work, and service interruptions.                 |

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| <b>Comparable Projects:</b>   |
| <ul style="list-style-type: none"> <li>Station renovation portion of the North Main Line Station Renovation Project (2012)</li> </ul> |



# Project Title: Harrison Station Rehabilitation

## Construction Progress

| Phase        | Description  | Status  |
|--------------|--|---|
| Construction | <p>Polk Street Entrance –</p> <ul style="list-style-type: none"> <li>▪ Mezzanine wall tile has been replaced.</li> <li>▪ Mezzanine flooring has been replaced.</li> <li>▪ Mezzanine lighting removed and new conduits being run</li> <li>▪ Water-proofing and crack injections have been applied</li> <li>▪ New trench drain bases have been installed</li> </ul> <p>Harrison Street Entrance –</p> <ul style="list-style-type: none"> <li>▪ Location of the source of the water infiltration, management of water infiltration, replacement of the wall surfaces, flooring surfaces, and new fare equipment installation. Installation of two (2) new entry Kiosks on the East and West entrances at street level.</li> </ul> <p>Platform work -</p> <ul style="list-style-type: none"> <li>▪ Platform floor has been removed and in process of being replaced</li> <li>▪ Platform painting ongoing</li> <li>▪ Platform lighting conduit being installed</li> </ul> | <p>Under Construction</p> <p>Polk entrance closure: April – May '14</p> <p>Harrison entrance closure: June – July '14</p> <p>Weekend station closures</p> |

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| <b>Delay Explanation:</b>                               |
| <ul style="list-style-type: none"> <li>• N/A</li> </ul> |



# Project Title: Harrison Station Rehabilitation



**Polk Mezzanine Water Mitigation**



**Mezzanine Crack Injection**



# Project Title: Harrison Station Rehabilitation



**Polk Mezzanine to Street New Tile Installation**



# Project Title: Bus Hoist Replacement Program

|  |   |   |   |   |
|--|---|---|---|---|
| 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/<br>Forest Glen                                       | Phase 2: Kedzie                                 | Phase 2: North Park                             | Phase 2:<br>Chicago/103 <sup>rd</sup>               |
| Bus Hoist Equipment<br>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<br>(Construction and Hoists): | \$4,288,084   | \$4,227,808.00                                  | \$2,551,989                                     | \$3,126,492   |
| Percent Change Orders to<br>Construction Contract: | 25%   | 3%  | 0%  | 0%  |
| Percent Time Used to Date:                         | 99%   | 99%   | 95%   | 65%   |
| Estimated Start and<br>Completion Date:            | NTP 11/21/12<br>Projected completion<br>10/18/13.                                   | NTP 3/4/13<br>Projected completion<br>12/20/13. | NTP 6/24/13<br>Projected completion<br>3/05/14. | NTP 9/10/13<br>Projected<br>completion<br>09/07/14. |
| 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  |   |   |   |

**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

|                              |   |
|------------------------------|---|
| 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

## Construction Progress

| Phase    | Description   | Status       |
|----------|---|--------------|
| Phase 1: | <ul style="list-style-type: none"> <li>▪ Forest Glen – Close out in progress.</li> <li>▪ South Shops – Close out in progress.</li> <li>▪ 77<sup>th</sup> Garage –Close out in progress.</li> </ul>  | Closeout     |
| Phase 2: | <ul style="list-style-type: none"> <li>▪ Kedzie Garage – 12 lifts total: 12 lifts installed. Punch list and substantial completion have been issued.</li> </ul>   | Close Out    |
|          | <ul style="list-style-type: none"> <li>▪ North Park Garage – 13 lifts total: 13 lifts installed. Punch list and substantial completion have been issued.</li> </ul>   | Punch list   |
|          | <ul style="list-style-type: none"> <li>▪ 103<sup>rd</sup> and Chicago Garages –9 lifts total: 9 have been installed. Phase 2 for wash and inspection is 40% complete. Substantially complete with wash bays and inspection bays by September 2014.</li> </ul> | Construction |

| Delay Explanation:  |
|---|
| <p>Phase 1: Due to the elevation of the existing drainage lines they could not be reused and new lines needed to be installed.</p> <p>Phase 2: Equipment installation dates were extended to better accommodate installation of hoists and minimize impact to bus operations. Three week delay at 103<sup>rd</sup> Garage due to failed drainage (sump pump) equipment.</p> |



# Project Title: Bus Hoist Replacement Program



**Chassis Wash Bay Pour – Chicago Garage**

# Project Title: Milwaukee Blue Line Track Renewal

|   |  |
|---|--|
| Justification of Need:                            | The existing ties and track components have reached or exceeded their useful life, resulting in slow zones between Damen Station and Kimball Subway. |
| Priority of Project:                              | High   |
| Total Project Budget:                             | \$30,264,684   |
| Construction Contract Value:                      | \$20,395,680 (Design/Build)  |
| Earned to Date:                                   | 23% (design and construction) thru March 2014  |
| Percent Change Orders to Construction Contract:   | 0%   |
| Percent Time Used to Date:                        | 55% thru June 11, 2014   |
| Funding Source:                                   | FTA/IDOT   |
| Estimated Start Date/Estimated Length of Project: | NTP Issued August 30, 2013; Substantial Completion January 31, 2015 (NTP + 519 Days)   |
| Designer of Record:                               | HW Lochner (for Kiewit Infrastructure Co.)   |
| Construction Manager/General Contractor:          | Parsons Brinckerhoff (CM), Kiewit Infrastructure Co. (DBC)   |
| Project Manager:                                  | John Titzer (GM); William Polacek (PM)   |

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| <p><b>Detailed Overview of Scope:</b></p> <ul style="list-style-type: none"> <li>• Improvements to 18,680 track feet along the elevated portion of the Logan Square Connector on the O'Hare Blue Line.</li> <li>• Scope includes replacement of ties, plates, timber guard, other track material and footwalk from North of Damen Station to the Kimball Subway Portal.</li> <li>• Damen/North Ave reverse curves will be reconstructed to increase speed through the curve.</li> </ul> |
|---|



# Project Title: Milwaukee Blue Line Track Renewal

|                              |  |
|------------------------------|--|
| Impact on Customers:         | Ten line cuts and two single tracks. Street and lane closures around worksites, curtailed access to resident garages under the right of way. Bus shuttles required on line cut weekends. |
| Benefit to System:           | Reduced maintenance costs; Improved reliability; New infrastructure  |
| Benefit to Community:        | Improved customer travel times by eliminating slow zones   |
| Impact on Accessibility:     | None.  |
| Estimated # of Jobs Created: | 82   |
| Customer Communication Need: | Construction activity notices will be needed to alert businesses and residents to weekend, night work and power outages.   |

**Comparable Projects:**

- Englewood Green Line Track work
- Ravenswood-Loop Connector Project



# Project Title: Milwaukee Blue Line Track Renewal

## Construction Progress

| Phase                      | Description  | Status                           |
|----------------------------|--|----------------------------------|
| Design<br>Design<br>Design | <ul style="list-style-type: none"> <li>▪ Milestone 1 – RFP Validation</li> <li>▪ Milestone 2 – 90% Design</li> <li>▪ Milestone 3 – 100% Design</li> </ul>  | Complete<br>Complete<br>Complete |
| Construction               | <ul style="list-style-type: none"> <li>▪ Contractor has completed five weekend line cuts to date. Approximately 59% of track work has been completed or 10,940 track feet.</li> </ul>  | Complete                         |
| Construction               | <ul style="list-style-type: none"> <li>▪ Contractor is preparing for the next two weekend line cuts which will occur between Western and Logan Square Stations:</li> <li>▪ WE #6 – May 30<sup>th</sup></li> <li>▪ WE #7 – June 6<sup>th</sup></li> </ul> | Ongoing                          |

|   |
|---|
| <b>Delay Explanation:</b>                               |
| <ul style="list-style-type: none"> <li>• N/A</li> </ul> |



# Project Title: Milwaukee Blue Line Track Renewal



**Tie Installation near North Avenue**



# Project Title: Milwaukee Blue Line Track Renewal



**Completed Track at Damen Curve**

