Chicago Regional Environmental and Transportation Efficiency Program (CREATE) Update

William C. Thompson, P.E.
CREATE Railroad Program Manager
Association of American Railroads
CREATE Update

- INTRODUCTION
- HISTORICAL PERSPECTIVE
- CREATE PROGRAM DESCRIPTION
- CURRENT STATUS OF THE PROGRAM
- CHALLENGES
- CONCLUSION & DISCUSSION
“Chicago and Northeastern Illinois have been the railroad hub of the nation for more than 150 years. This plan will serve as a blueprint for continued investment in and operation of the railroads”

- Mayor Richard M. Daley
What is CREATE?

CREATE is a $1.5 billion program designed to improve transportation flow through Chicago focusing on:

- Freight trains
- Separation of freight & commuter trains at 6 key junctions
- Elimination of 25 grade crossings (grade separations)

It is a cooperative project involving the

- 6 major North American freight carriers
- METRA
- The City of Chicago (CDOT)
- Illinois Department of Transportation (IDOT)
- US Department of Transportation (FHWA & FRA & FTA)

CREATE is an acronym for Chicago Region Environmental And Transportation Efficiency program.
Chicago Rail Infrastructure

- 16,000 acres, twice the area of O’Hare
- 78 yards, including 21 intermodal (rail-truck)
- 2,800 route-miles of track
- 12 commuter rail routes
- 1,100 viaducts and bridges

Daily Activity

- 1,200 trains (500 freight, 700 passenger)
- 37,500 rail cars processed
- 20,000 truck moves through intermodal gates
Chicago: The Nation’s Transportation Hub

- World’s 3rd busiest intermodal hub. Growing 12%+ annually.
- 1/3 of all freight rail traffic converges on Chicago daily.
- Rail network key part of national, regional and local economy.
- In 20 years freight rail volume in Chicago will grow 80%.
- If rail capacity is not addressed, Chicago will lose $2 billion in production over the next two decades.
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In response to the crisis, the Chief Operating Officers formed the Chicago Planning Group (CPG)

- The Group is comprised of operating representatives from METRA, Amtrak, BNSF, BRC, CN, CP, CSXT, IHB, NS, UP

Objectives of the CPG

- Ensure Chicago “Terminal” Became Fluid and Remained Current
- Identify Processes in Chicago Area That Impact Train Operations
- Develop Strategies Relieve Operational Issues
“It’s easy to get the players.
Gettin’em to play together, that’s the hard part”

Casey Stengel
Chicago Transportation Coordination Office

- Staffed with full time transportation (Superintendent) officers from: BNSF, BRC, CN, CPR, CSX, IHB, NS & UP
- Permanent Space at METRA Spring 2000
- Coordinate Carriers’ Conference Calls Twice Daily
- Participate in Quarterly ISA Negotiation and Review Sessions
- Responsible for Actions of Chicago Alert Plan
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New or Improved Connection Locations
13 Total Cook County Outside Chicago

6 Chicago Emergency Crossings

9 Total Chicago Crossings

3 Outside Cook County
“D’yer ever feel you’re on the verge of an incredible breakthrough?”
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# CREATE Program Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Estimated CREATE Program</strong></td>
<td>$1,532 M</td>
</tr>
<tr>
<td><strong>To Date</strong></td>
<td></td>
</tr>
<tr>
<td>Railroad’s (mapping/public involvement)</td>
<td>$2.5 M</td>
</tr>
<tr>
<td>State of Illinois (5 consultant contracts)</td>
<td>$10.0 M</td>
</tr>
<tr>
<td>FRA (mapping - research)</td>
<td>$500,000</td>
</tr>
<tr>
<td>Amtrak</td>
<td>$250,000</td>
</tr>
<tr>
<td>Federal SAFETEA-LOU (pending assignments)</td>
<td>$100.0 M</td>
</tr>
</tbody>
</table>
CREATE Operating and Engineering Organization and Process

Railroad Industry Organization
- SOMC
- Chicago Planning Group
- Chicago Transportation Coordination Office
- CREATE Program Manager
- CREATE Railroad Design Group

Joint with CDOT & IDOT
- CREATE Management Committee
- CREATE Mapping Committee
- CREATE Engineering Committee
CREATE Mapping Committee

Abby Clark – CSX
Brent Mason – NS
Carole D'Aoust Martin – CN
Earl Wacker – CSX / CTCO
Mike Garcia – IDOT
Bill Thompson – AAR
CREATE Mapping Committee

Accomplishments – Railroad Industry Contract

- Developed base mapping and surveying strategy, specifications and plans using Light Detection and Ranging (Lidar) and Global Positioning System (GPS)
- RFP, hired consultant (HNTB & subs Chance / Optram) and implemented
- Data and photos delivered to IDOT consultants per CREATE agreement

Lessons Learned

- Horizontal tolerance using Lidar of 3 inches is a very tight specification
- Risk taking is a lot of work and can pay off
CREATE Mapping Committee

Benefits

• Significant improvement vs. conventional in safety, train delay due to track time and cost

Forward efforts

• Finalize data storage and organization strategy – web solution
Mapping Output - Orthophoto (P-1)
Mapping Output - Digital Terrain Map (P-1)
CREATE Railroad Design Group

Clyde Stack – BNSF
David Orrison – NS
Dave Crader – CN
Gary Bates – UP
Gray Chandler – CSX
Joe Lorenzini – Metra

Mike Franke – AMTRAK
Nick Montangano – IHB
Randy Smith – BRC
Ray Strelesky – CP
Bill Thompson – AAR (CHAIR)
CREATE Railroad Design Group

Accomplishments

• Worked with CTCO to develop scope and conceptual designs for railroad projects
• Developed initial cost estimate and construction schedule for railroad projects
• Developing master schedule for railroad projects

Lessons Learned

• Never holdback, PPPPP & Leverage
CREATE Railroad Design Group

Benefits

• Continued refinement of process and projects

Forward efforts

• Ensure operational requirements are met
• Review of all designs to ensure compliance with railroad requirements
• Monitor scope, constructability, schedule, operational requirements and cost
• Construct railroad projects
Acquire Property
Approx. 2.22 Acre Parcel
Owner: Carniglia Reality Co.

Install (3) No. 11 HTTO (2 LH, 1 RH)
Retire #10 LH x-over

Const. 171 T.F. - By IHB
Const. 934 T.F.
Relocate Signal Bridge - By IHB

Shift 342 T.F.
Remove 487 I.F. of Fence
Install No. 10 LH POTO - By IHB
CREATE Engineering Committee

IDOT
- **John Schwalbach**
- Mike Garcia – GIS+
- Walt Zyznieuski - ECAD

CDOT
- Joe B. Alonzo
- Merrill Travis - consultant

Railroads
- Bill Thompson
- Earl Wacker
- Railroad Design Group (optional)

FHWA
- Paul Schneider
  (New relationship)
CREATE Engineering Committee

Accomplishments

- Continuous communication between project managers
- Continuous review of consultant output and monitor scope
- Improved understanding of the FHWA and environmental requirements
- Address MAJOR cross functional issues

Lessons Learned

- Impacted groups meet regularly & involve all affected parties early
- Trust, integrity and respect very important
- Standard processes and Best Practices
CREATE Engineering Committee

Benefits

• Communications = continued progress = success

Forward efforts

• Develop financial control mechanism
• Coordinate on developing issues that impact CREATE (i.e. CTA future Airport Express)
• Continue to monitor technical aspects of public involvement
• Project Controls – document control, version control, collaboration……..
Engineering Committee Output - Proposed Alignment METRA over the NS, CN & Dan Ryan (P-1)
Engineering Committee Output - Proposed Cross Section METRA over the Dan Ryan (P-1)
<table>
<thead>
<tr>
<th>No</th>
<th>Entry Date</th>
<th>Project</th>
<th>Risk</th>
<th>Issue</th>
<th>Solution</th>
<th>Issue Resolved</th>
<th>Resolution</th>
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<tbody>
<tr>
<td>1</td>
<td>April 2005</td>
<td>WA-3</td>
<td>LOW</td>
<td>Air quality analysis.</td>
<td>June 28, 2005</td>
<td>Benesch/Huff &amp; Huff completed the analysis. ECAD documents updated to reflect the results.</td>
<td></td>
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<td>3</td>
<td>April 2005</td>
<td>B-3 and WA-3</td>
<td>HIGH</td>
<td>FHWA to decision on special waste.</td>
<td>No</td>
<td></td>
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</table>
Engineering Committee Output – External Communication Tool for Public Involvement (P-4)
Engineering Committee Output - Communication Tool & Leverage (CTA Airport Express & C-6)
Current Status of the CREATE Program

- Projects Underway – IDOT Contracts
  - TranSystems Corporation: P-1
  - Edwards & Kelcey Design Services: P-2, P-3, & EW-2
  - Hanson Professional Services: Beltway Corridor
  - Alfred Benesch & Company: B-1 & 3, EW-4, WA-3 & 5
  - Parsons Transportation Group, Inc: Central Corridor

20 projects underway – Design 7% to 25% complete
( ) = Track Ownership/Control
Distances shown are between signals
Beltway Corridor - Hanson Professional Services
**CREATE Master Schedule**

### BNSF Projects

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Original Duration</th>
<th>Duration % Complete</th>
<th>Start Date</th>
<th>Finish Date</th>
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<tbody>
<tr>
<td>CREATE Program</td>
<td>10246</td>
<td></td>
<td>06/28/05 A</td>
<td>11/03/09</td>
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<tr>
<td>Western Avenue Corridor</td>
<td>10244</td>
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<td>06/20/05 A</td>
<td>11/03/09</td>
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<td>WAA - BNSF Horseshoe</td>
<td>10246</td>
<td>7.62%</td>
<td>03/15/05 A</td>
<td>11/03/09</td>
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<tr>
<td><strong>Conceptual Design</strong></td>
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<tr>
<td><strong>Scope Review</strong></td>
<td>201</td>
<td>33%</td>
<td>03/15/05 A</td>
<td>04/07/05</td>
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<tr>
<td><strong>Scope Approval</strong></td>
<td>798</td>
<td>9%</td>
<td>04/07/06</td>
<td>07/27/06</td>
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<tr>
<td>Prepare Scope Package For CREATE Approval Process</td>
<td>201</td>
<td>33%</td>
<td>03/15/05 A</td>
<td>04/07/05</td>
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<tr>
<td>Primary Railroad Submittal To CTDO</td>
<td>0</td>
<td>0%</td>
<td>04/28/05</td>
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<tr>
<td>CTDO Review And Approval</td>
<td>150</td>
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<tr>
<td>Railroad Design Group Constructability Review And Approval</td>
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<td>05/01/05*</td>
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<td>05/15/05</td>
<td></td>
</tr>
<tr>
<td>CREATE Management Committee Review And Approval</td>
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<td>06/01/05</td>
<td></td>
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<tr>
<td>CREATE Stakeholders Committee Review And Approval</td>
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<td>06/01/05</td>
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<tr>
<td>Preliminary Engineering</td>
<td>1536</td>
<td>0%</td>
<td>01/17/06 A</td>
<td>11/02/05</td>
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<tr>
<td>Environmental</td>
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<td><strong>ECAD</strong></td>
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<td>Design Engineering (Track &amp; Signal)</td>
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<td>Bridge Evaluation</td>
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<td><strong>Procurement</strong></td>
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<tr>
<td>Material Acquisition</td>
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<td><strong>Construction</strong></td>
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<td>0%</td>
<td>11/03/09</td>
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</tr>
<tr>
<td>Construction</td>
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<td>11/03/09</td>
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<td><strong>Cut Overs (Track)</strong></td>
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<tr>
<td><strong>Cut Overs (Signal)</strong></td>
<td>552</td>
<td>0%</td>
<td>11/03/09</td>
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<tr>
<td>WAA - Conduit Tower Elimination</td>
<td>944</td>
<td>1.33%</td>
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<td><strong>Conceptual Design</strong></td>
<td>568</td>
<td>63.15%</td>
<td>02/20/05 A</td>
<td>04/10/05</td>
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<td><strong>Scope Review</strong></td>
<td>201</td>
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<td>03/14/08</td>
<td></td>
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<tr>
<td>Prepare Scope Package For CREATE Approval Process</td>
<td>201</td>
<td>5%</td>
<td>03/14/08</td>
<td></td>
</tr>
<tr>
<td><strong>Scope Approval</strong></td>
<td>201</td>
<td>5%</td>
<td>04/14/08</td>
<td></td>
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<tr>
<td>Primary Railroad Submittal To CTDO</td>
<td>0</td>
<td>0%</td>
<td>04/14/05</td>
<td></td>
</tr>
<tr>
<td>CTDO Review And Approval</td>
<td>10</td>
<td>0%</td>
<td>04/17/05</td>
<td></td>
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<tr>
<td>Railroad Design Group Constructability Review And Approval</td>
<td>10</td>
<td>0%</td>
<td>04/18/05</td>
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<tr>
<td>Create Engineering Committee Review And Approval</td>
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<td>06/03/05</td>
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<tr>
<td><strong>BNSF</strong></td>
<td>546</td>
<td>9%</td>
<td>01/17/06 A</td>
<td>06/03/05</td>
</tr>
</tbody>
</table>
Systematic, Project Expediting, Environmental Decision-making

SPEED

A New Strategy for CREATE Project Development Consistent with NEPA
Developed by FHWA and IDOT

- Addresses the entire CREATE Program
- Supports Systematic Decision Making
- Accelerates Low Risk Component Projects
- Assesses Potential Environmental Impacts
CREATE/NEPA SUCCESS

Project Development / NEPA Assessment Strategy

CREATE

- Implement Projects without Delay
- Increase Opportunities
- Maximize Benefits

NEPA

- Public Confidence in the Process
- Avoid or Minimize Impacts
- Maximize Environmental Benefits
Key Design Elements

- Minimize Project Limits & Impacts
- Constructability of Proposed Structures & Retaining Walls
- Clearance & Grade
- Track Geometrics
- Modifications to Existing Bridges & Structures
- Existing Rail Crossings
- Signaling
- Roadways
- Detours
- Aesthetics
Construction Staging – Big Deal for Railroads

Staging Options – the delicate operational balance

- Offline Construction Allowing Uninterrupted Rail and Construction Operations
- Railroad Detours and Uninterrupted Construction
- Restricted Railroad and Construction Operations
- Staged Construction During Scheduled Railroad Outages

Coordination with nearby public projects
Offline Construction Allowing Uninterrupted Rail and Construction Operations
Restricted Railroad and Construction Operations
Staged Construction During Scheduled Railroad Outages & Windows of Available Time
Web Site:

www.CreateProgram.org
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