ILLINOIS HIGH-SPEED RAIL
CHICAGO TO ST. LOUIS

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IDOT Chicago - St. Louis High Speed Rail Program Management

Lessons Learned



Phil Pasterak, PE – Parsons Brinckerhoff

Illinois Department of Transportation

UNION PACIFIC

PB PARSONS BRINCKERHOFF 125 YEARS

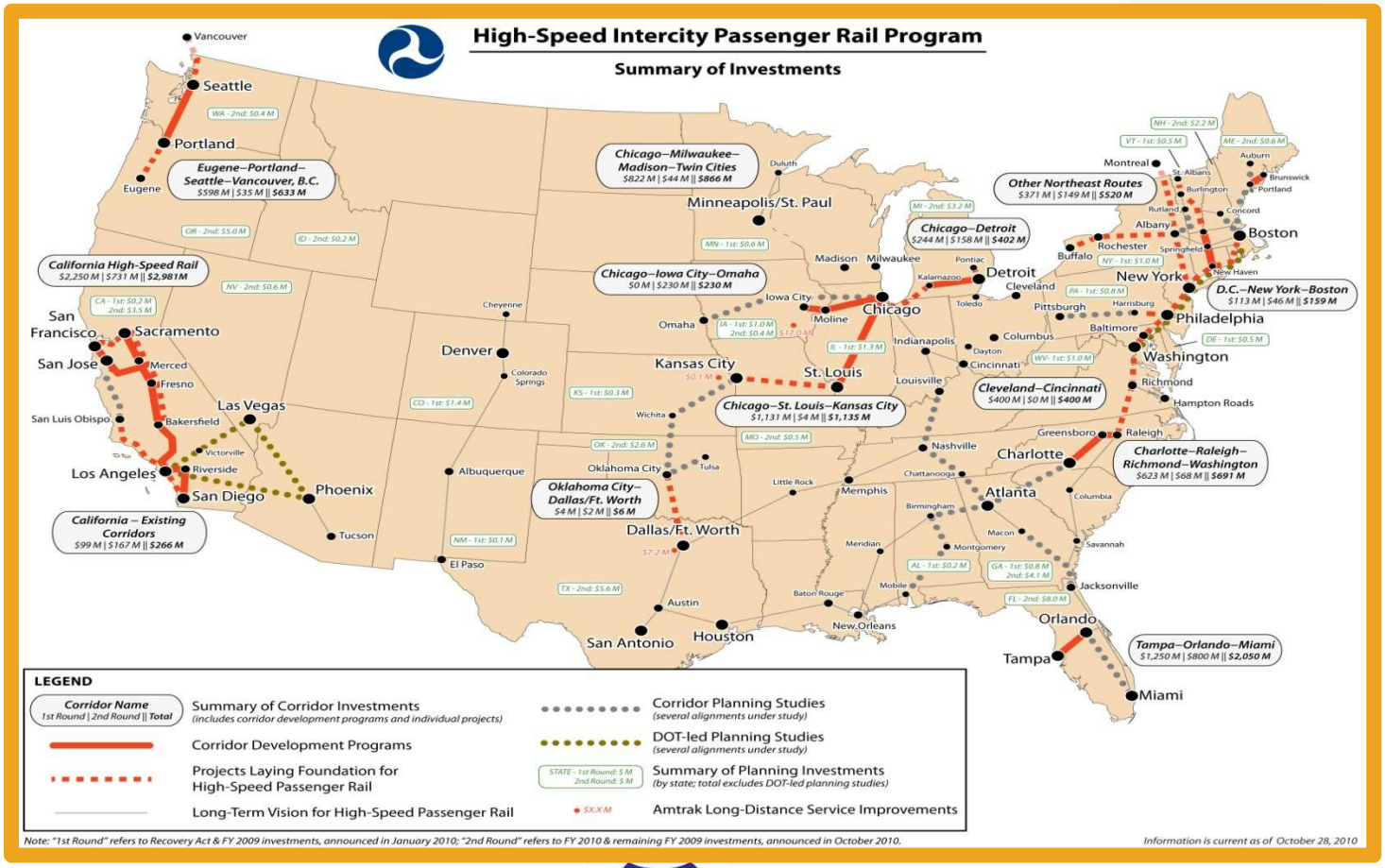
Agenda

- Program Description
- Construction Status
- Program Benefits
- Lessons Learned

Program Description



National High-Speed and Intercity Rail Vision



Source: www.fra.dot.gov

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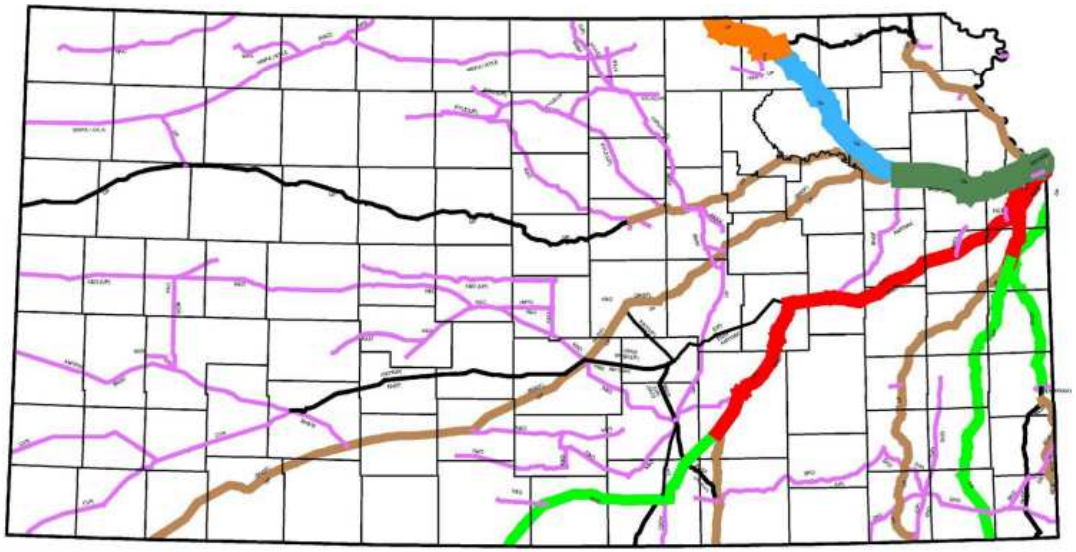
Missouri HSIPR Projects

- 2009: $31 million from ARRA:
  - second rail bridge over the Osage River
  - Kirkwood crossover
  - safety improvements at highway/rail crossings (west of Sedalia)
  - preliminary engineering on six future projects
- Terminal Railroad Track Improvements
- Highway/Rail Crossing Hazard Elimination
- State Rail Plan
- New Trainsets (Four-state application)
- St. Louis Merchants Bridge Replacement (Upgrade)



Kansas HSIPR Projects

- 2010: Amtrak evaluation of new passenger service over freight lines
  - Extension of existing service from OKC/Ft. Worth to Newton to connect with existing Amtrak service
  - New service between Ft. Worth and Kansas City
- 2011:Service Development Plans Oct. 2011 by KDOT and Oklahoma DOT
  - Operations/schedules
  - Ridership and revenue forecasts
  - Estimation of public benefits
  - Financial statements



- DOTs and PB are gathered in Topeka as we speak for working session

Illinois: Why the Chicago to St. Louis Corridor?

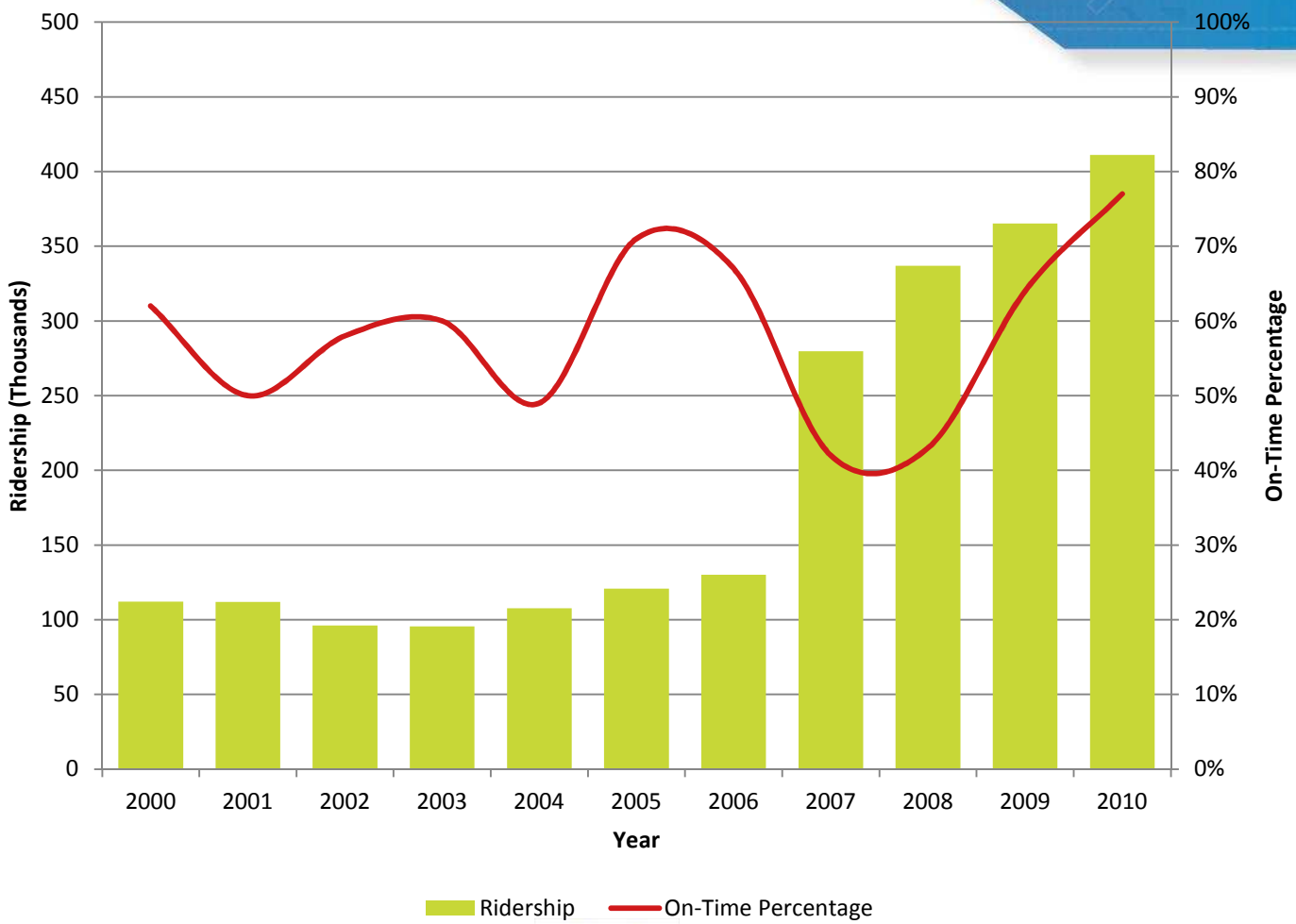


- HSR development on the corridor since 1980's
- Previously completed studies (2004 ROD)
- Sizeable ridership at intermediate stations

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Historic Ridership and Reliability



Initial Program Budget: $1.2 Billion

» Track & Structures	$558 million
» Real Estate	$ 15 million
» Stations	$ 40 million
» Rolling Stock / Equipment	$211 million
» Signaling & Communications	$153 million
» Miscellaneous	$ 50 million
(Grade Crossing Approaches, Bridges, Fencing, etc)	
» Professional Services	$175 million
(Program Management, Environmental / Design, Construction Oversight)	
Total:	$1,202 million

Additional Supplemental (under negotiation): $248 million

Key Program Milestones

2010 - 2012

- Track reconstruction and upgrades

2011

- Procurement process begins for new high-speed rail locomotives and cars

2012

- Operation of trains at higher speeds between Dwight and Pontiac

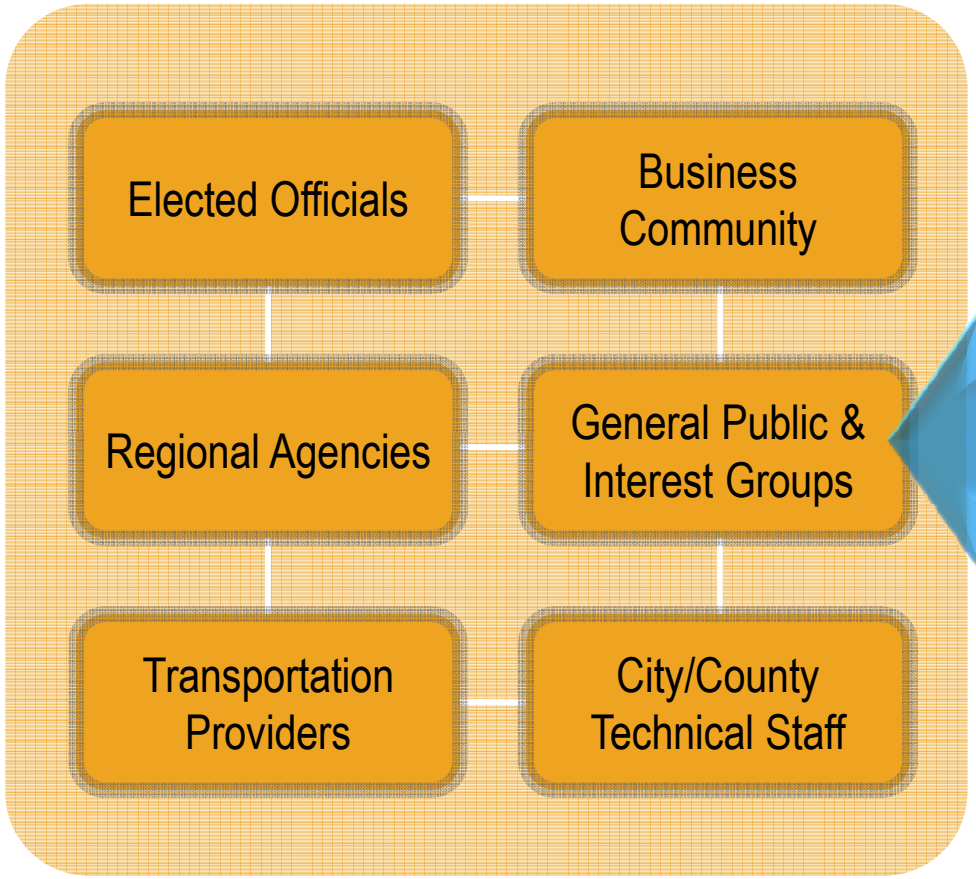
2017

- Anticipated project completion

Slide 10

p1 pasterak, 08/30/2011

Who's Involved?



Project Partners

- Illinois Department of Transportation (IDOT)
- Federal Railroad Administration (FRA)
- Union Pacific Railroad (UPRR)
- UPRR Contractors/Consultants
- Amtrak: Service Provider
- Illinois Commerce Commission (ICC)
- Stakeholders

Project Management Consultant (PMC)

- Parsons Brinckerhoff (PB)

Additional Consultants

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Construction



Construction Coordination

- UP responsible for track/signal/bridge delivery
  - Six weeks from 2010 agreement to construction
- PMC field team focus on oversight and verification
- Invoicing meeting FRA requirements a critical task
- IDOT will contract stations, equipment, etc



Construction Overview

- One of the first construction projects in the HSIPR Program
- In 2010 upgraded 76.5 miles of existing main line track
- Continued in 2011 upgrading 114.4 miles of existing main line track



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Track Renewal Train (TRT)

- Installs up to 6,500 ties in a 11-12 hour workday (1-2 miles per day)
  - Amtrak Bused Around TRT
  - Increased Production up to 40%
- Related turnout, crossing, structures, ditching work



Interim Grade Crossing Improvements





- 2010 – 69 Road Crossings
- 2011 – 89 Road Crossings

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New Construction

- Remaining 2011 Plan
  - Replacement of Culverts on Existing Main Line
  - Odell Siding Reconstruction
- 2012 – 2014
  - Complete TRT work in 2012
  - Signal / Crossing Upgrades
  - Reconstruct Existing Sidings
  - Construct 32 Miles 2nd ML
  - Reconstruct interlockers



Overall Program Benefits



Benefits

» Safety

- Enhanced grade crossing warning: four quadrant gates and pedestrian gates (subject to federal and state approvals)
- Implementation of cab signaling on limited segment, and PTC



Benefits (continued)

» Economic and Community

- New or restored stations
- Improved transportation connections at stations
- Business opportunities for rail and station construction, train operation and maintenance
- Improve the movement of people, goods, and services



Benefits (continued)

» Economic and Community

- Creation of approximately 6,000 jobs*
- 80,000 new tourists will visit Chicago each year*
- Over the first ten years, tourists will spend $320 million*
- State and local tax revenues will increase by $120 million*



*Source: Metropolitan Planning Council

Benefits (continued)

» New Passenger Cars and Locomotives

- Purchase of six new high-speed train sets
- New state-of-art coach and business class seating
- Premium onboard amenities: Wi-Fi, variable message signs, food/beverage service and automated announcements



Benefits (continued)

» Environmental

- Improves air quality and energy efficiency
- Reduces greenhouse gases
- Reduces Illinois's demand for oil



Benefits (continued)

» Service Reliability and Time Savings

- Existing five daily round trips will include three high-speed round trips
- On-time performance of at least 80 %
- Estimated one way travel time of approximately 4 ½ hours



Lessons Learned



Start Early on Agreements

- Involved IDOT, UP, FRA, Amtrak
- Initial focus was IDOT/UP; relationships are key
- Outline/big picture approach was successful
- Groundbreaking nature of agreements meant numerous obstacles



Coordinate Planning and Design



The players:

- UP and UP contractors
- IDOT, Program Manager (PMC), and additional support consultants
- Local agencies

Generally:

- IDOT deals with PE (parties agree scope/budget)
- UP completes design

Environmental Clearance is Critical

- UP handles permits
- IDOT handles NEPA documents (CE, EA, EIS)
- FRA requires full NEPA compliance to enter final design



Grade Crossing Upgrades Require Teamwork

- Extensive and thorough crossing diagnostics
- Four-quad gates at all crossings
- Extensive private/farm crossing improvements
- Funding challenges to address all desired improvements



Special Features Required for 110mph Running

- 20-mile test segment planned for 2012 supported by cab signal installation
- PTC by 2015 delivered by UP
- Curve/spiral designs selected for high ride quality while accommodating balanced condition for freight at 60 mph
- FRA Class 6 standards



Get Your Information from the Source

» For additional information:

- Visit www.idothsr.org for specific information and to comment on the Illinois High-Speed Rail project.
- Visit www.connectthemidwest.com for Midwest High-Speed Rail information.
- Project Hotline **1-855-IDOT-HSR (436-8477).**

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Questions?



2011 Pull Ahead Work

- Q Tower to Wann No. 1 Main Line
  - Approximately 18 Mi.
  - 20,185 Concrete Ties
  - 79,284 L.F. Rail
  - 337 Cars of Ballast
  - 11 Road Crossings



Program is Comprised of Multiple Projects
(FRA Contributions Indicated)



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Track Upgrades

- 2010 Upgrades – 76.5 Mi.
  - 201,116 Concrete Ties
  - 753,252 L.F. Rail
  - 3,900 Cars of Ballast
- 2011 Upgrades – 95.6 Mi.
  - 245,450 Concrete Ties
  - 981,792 L.F. Rail
  - 5,800 Cars of Ballast



Why Not Faster?

» Jog, Run, Sprint Philosophy

Jog
60-80 mph



Run
90-125 mph



Sprint
150-220 mph



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