Beginning Year 3 of Congestion-Relief Program

- Governor’s $5.3 billion Congestion-Relief Program (CRP) to reduce travel times by:
  - Rebuilding/Restoring nearly the entire system
  - Widening many miles of major roads
  - Converting 20 barrier toll plazas to Open Road Tolling
  - Building 12.5 mile extension of I-355 to serve fast-growing Will County
By the Numbers

- $2.6 billion awarded by end of 2006
  - $1.98 in construction
  - $500 million in professional services
  - $120 million in other costs (utilities, right of way, misc.)
  - Program is 49% committed

- Real benefits – real quick!
  - Approximately $1 billion in completed work in 2006
CRP Accomplishments

- Open Road Tolling at 20 mainline plazas in less than two years
CRP Accomplishments

**Rebuild & Widen**
- I-394 to 167th St.
- 31 lane miles
- $250 million

**Rebuild & Widen**
- IL 59 to Naperville Rd.
- 27.6 lane miles
- $57 million

**Rubblization**
- IL 251 to U.S. 30
- 124 lane miles
- $42 million
Rubblization Video
CRP Accomplishments

South Extension Quickly Becoming a Reality

- All contracts underway, procured within budget & on schedule for 2007 completion
- 12.5 miles of new interstate in 3 years
- 3,900 full and part-time professional and construction staff
- 10.2 million cubic yards of earth work
- 410,000 cubic yards of concrete
- 230,000 tons of HMA
National Recognition

- #1 Top Road Project
- #6 Top Bridge Project

Des Plaines River Valley Bridge

I-55 Interchange
Looking Ahead

- Additional $700 million to be awarded in 2007

- Nearly $1 billion in completed work expected in 2007
  - I-355 South Extension
  - South Tri-State Phase II Advance Work
  - I-88 Rebuild & Widen Advance Work
Pavement Basics

- Tollway historically has used jointed concrete pavement

- Many types of pavement being used and considered for CRP improvements

- Basic selection criteria include consideration of:
  - Current and Future Traffic Volume
  - Soil Conditions
  - Drainage and Environmental Issues
  - Maintenance of Traffic
Basic Pavement Types

- **Jointed Concrete**
  - 15-foot jointed sections (Industry norm)
  - Potential use of bituminous base course or adjust pavement design

- **Continuously Reinforced Concrete (CRC)**
  - Reinforced with steel throughout (no joints)
  - Generally most expensive initial cost and lowest life cycle maintenance cost
  - Best overall life cycle cost

- **Asphalt Pavement (Shoulders & Mainline)**
  - Initial cost generally cheaper than concrete
  - Cannot be poured during cold weather
  - Higher life-cycle maintenance costs

Tollway uses IDOT D1 sub-grade aggregate (recycled materials)
Pavement Selection

**GOAL:**

*Most cost effective design to achieve 30-year pavement life with minimum disruption to traffic.*
Optimizing Structural Materials

- **High-Performance Concrete**
  - Micro silica added to reduce corrosion
  - Used on mainline and high-traffic bridge decks
  - More expensive initially but lower life cycle and maintenance costs
  - Incorporating IDOT specs for cold- and hot-weather usage

- **Quick-Curing Concrete**
  - High traffic volume areas
  - 3 hour vs. multi-day/week cure time
  - More expensive
  - Used for emergency repairs
Optimizing PCC Pavement Materials

- Original PCC pavement is already recycled, where can more be found and stored?
- Few if any changes
Optimizing HMA Pavement Materials

- Go Greener with most all mixes
  1. Using existing RAP in no or low load mixes
  2. Using fractionated RAP in mainline mixes
  3. Using Ground Tire Rubber (GTR) modifiers in mainline SMA mixes
Studies to Optimize HMA Materials

Analysis of:

- GTR modified mixes
  - Dense graded surface mixes
  - SMA surface mixes
  - Open graded friction course mixes

- Shoulder and stabilized sub-base HMA mixes using increased RAP content as it exists today

- Shoulder and mainline full depth HMA mixes with higher contents of fractionated RAP

- Mainline SMA mixes using imported trap rock, GTR modifiers, fractionated fine graded RAP and no fibers
“A” Quality Stone

- Use it to benefit both the contractor and Tollway

- Existing Tollway overlays and shoulders with premium stone for easier RAP processing
Future HMA Needs by the Tollway

- More than 2,400,000 tons for mainline shoulders
- More than 900,000 tons for mainline SMA’s
- More than 1,500,000 tons for mainline binder courses
- More than 900,000 tons for stabilized sub-bases
- More for temporary pavements & ramps
- More for future rehabilitation projects
- More space to be provided for RAP processing and storage
More HMA In Place of PCC?
Getting Tollway Construction Information

- Construction Section – illinoistollway.com - for details by road
- 1-800-TOLL-FYI - daily lane closure info
- Roadway & overhead signs, including DMS
- More info on travel times & incidents
  - Dynamic message signs (DMS)
  - gcmtravel.com
- Sign up for E-mail updates
  - Traffic – nbc5.com
  - Construction – illinoistollway.com
THANK YOU

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