RTA – REGIONAL FUNDING AND OVERSIGHT OF THREE SERVICE BOARDS

- Chicago Transit Authority (CTA) – nation’s 2\textsuperscript{nd} largest agency by trips
- Metra – 4\textsuperscript{th} largest commuter rail agency by trips, largest by track miles
- Pace – largest suburban bus operator
- RTA – 3\textsuperscript{rd} largest transit market by trips, 2\textsuperscript{nd} largest by rail network size
- Total ~$155 billion in assets
RTA’S CONDITION ASSESSMENT PROGRAM

HISTORY

• Bedrock Improvement Program (BIP), 1987
• Capital Asset Model (1995)
• Regional Transportation Asset Management System (RTAMS), 2006
• 2007 RTA MBC Strategic Plan and Legislation Reform
• 2010 Baseline Condition Assessment Report
• 2013 Strategic plan identifies SGR as key objective

CURRENT PROGRAM (CH2M HILL)

• Regional asset inventory (type, age, location, utilization, riders served)
• Annual condition assessment program (sample)
• COST needs analysis and investment prioritization tool
• Annual Condition Assessment Report
• Monthly meetings with Service Boards, RTA and consultant staff
STRATEGIES FOR PROGRAM

• Agency commitment and advocacy over the long-haul – RTA Legislation and Strategic Plan
• Close collaboration with Service Boards and other stakeholders
• Development and refinement of inventories, condition assessments
• Deployment of Capital Optimization Support Tool (COST)
• Outreach to Decision Makers
PREPARATION FOR MAP-21 LEGISLATION

- Inventory
- Decision Support/Prioritization
- Asset Condition
- Performance Measures
Assessment determines the future replacement, rehabilitation, and capital maintenance costs.

Clarifies strategic investment to bring facilities into a State of Good Repair (SGR).

Assists the RTA to obtain needed capital funding.
CURRENT ASSESSMENT EVOLUTION

Baseline Assessment

2012 Assessment

2013 Assessment

2014 Assessment

2015 Assessment

2016 Assessment

Year 1

Year 2

Year 3

Year 4

Year 5


Current Status: Well underway in “Year 3”
SERVICE BOARD INVENTORIES ARE CONTINUOUSLY BEING IMPROVED

- Quantification, valuation and useful lives
- 15,000 assets and increasing
- Over 1 million data points
- Service Board Individual efforts

2013 Report Results

10-Year Needs

- Backlog $ 20.0 B
- Normal Replacement 8.0 B
- Rehabs 4.4 B
- Capital Maintenance 1.0 B
- Total Needs $ 33.4 B
APPROACH TO CONDITION IS BOTH PREDICTIVE AND IN-FIELD SAMPLING

Using Computerized Maintenance Management System (CMMS) / Enterprise Asset Management System (EAM)
- Planned capital replacements, mid-life and other rehabilitations
- In-field reports for deficiencies
- Reliability centered maintenance

Condition Assessments
- Using Decision Tools (Predictive)
- Using In-Field Observations

Sampling
0% → FTA Decay Curves → Agency-calibrated Decay Curves
ASSET CONDITION BY CATEGORY

- Facilities: $5.7 B
- Guideway Elements: $20.1 B
- Stations: $12.2 B
- Systems: $5.9 B
- Vehicles: $10.9 B

Legend:
- Excellent
- Good
- Adequate
- Marginal
- Worn
## DECISION SUPPORT/PRIORITIZATION

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<th>Application</th>
<th>Description</th>
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| **Unconstrained Needs**      | • Condition Assessment Reports  
                                | • No funding limit                                                           |
| **Constrained Needs**        | • “What-if” analysis for backlog, conditions…  
                                | • Prioritization required as limited funding                                 |
| **Conditions Today and Tomorrow** | • Current distribution of assets conditions and ages  
                                | • Future distribution of assets conditions and ages (depending on funding)  |
| **Budget Support**           | • Prioritized expenditures for next five-year period Impact of proposed budget and Capital Program support |
RTA CAPITAL PRIORITIZATION SUPPORT TOOL (COST)

• Tool to support prioritization of regional capital needs:
  – Preservation / SGR
  – Enhancement
  – Expansion

• Supports Annual SGR Report for Region
  – What is our current SGR backlog?
  – How will changes in priorities and funding impact the backlog, conditions and performance?

• Support needs based capital planning
• Developed jointly with service boards: CTA, Metra and Pace
• Approach to be shared with TERM Lite Model

RTA’s COST is Based on FTA’ TERM Lite Model
MULTI-CRITERIA PRIORITIZATION

- Asset prioritization scored based on select criteria
  - Each criteria scored independently
  - Criteria scores weighted and summed to determine total score

**RTA Decision Tool: Multi-Criteria Decision Analysis (MCDA) Scoring**

- **Asset Condition:** Declining condition yields higher points score
- **Number of Riders Impacted:** Based on number of riders served by asset location
- **Reliability Impact:** Reduced risk of service failures / disruptions
- **Safety Impact:** Reduced risk of injuries, fatalities, property damage
- **O&M Cost Impact:** Impact on Operating & Maintenance costs

Weighted Average Total Investment Score:
DISCUSSION OF TARGETS IS ONGOING

FINANCIAL

- Backlog
- 10 Year Needs
- Required Annual Funding to Attain Specific Goals (e.g. Full SGR in 20 years)

SGR PERFORMANCE

- Asset Condition Distribution
- Age Distribution
- Assets Exceeding Useful Life
- Percent Assets in SGR

Regional Backlog Projections ($B)

Age Distribution of Assets by Category: Metra

Percent of Assets Exceeding Useful Life
FUNDING AND CONDITION SCENARIO ANALYSIS

Expected vs. Required Annual Funding to Attain Specific Investment Goals ($Billions)

- **Expected RTA Funding**: $0.71
- **Maintain Backlog**: $0.63
- **20 Years to Full SGR**: $2.35
- **10 Years to Full SGR**: $3.35

Unfunded vs. Funded

- **Unfunded**
  - Expected RTA Funding: $0.71
  - Maintain Backlog: $0.63
  - 20 Years to Full SGR: $1.64
  - 10 Years to Full SGR: $2.64

- **Funded**
  - Expected RTA Funding: $0.71
  - Maintain Backlog: $0.71
  - 20 Years to Full SGR: $0.71
  - 10 Years to Full SGR: $0.71
WHERE ARE WE NOW?

- **Decision Tool:** Estimates needs for individual assets
- **Real World:** SB’s group related asset needs into projects
- **Asset to Project:** Seeks to group related assets with SGR needs into logical project groupings (i.e. within the tool)
OUTREACH TO DECISION MAKERS

• RTA presents the region’s Capital Asset Needs to the RTA Board annually

• RTA also presents the region’s Condition Assessment to the RTA Board annually as part of the performance measures report

• Ongoing outreach to Service Boards and their management; CMAP and FTA

• Getting America to Work (GATW)
GETTING AMERICA TO WORK

- **Members:** 99 transit agencies and more

- **New Members**
  - Virginia Railway Express (VA)
  - Alaska Mobility Coalition (AK)
  - Greater Lynchberg Transit Company (VA)
  - Harrisburg Capital Area Transit (PA)

- **Support Transit Parity**
- [http://www.gettingamericatowork.com](http://www.gettingamericatowork.com)
RTA ASSET MANAGEMENT PROGRAM

FIN

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