Planning to Programming (P2P)

ADOT Vision for Performance Based Programming
What is Planning to Programming

- P2P allows ADOT to assess our assets and prioritize projects so the State receives the largest return on investment, while focusing limited resources to improve:
  - Safety
  - Infrastructure Condition
  - Congestion Reduction
  - System Reliability
  - Freight Movement and Economic Vitality
  - Environmental Sustainability
Linking Planning to Programming

Statewide Transportation System Planning Process

Strategic Investments
- Preservation
- Modernization
- Expansion

Development Program
- Preservation Funding Levels
- Modernization Expansion

Delivery Program
- Years 1-5
- Projects

System Performance
- Annual Performance Report
- Performance Measures
- System Analysis
Strategic Corridor Program

- Strategic Recommendations
  - Preservation
  - Modernization
  - Expansion
- Long Range Plan Update
Performance Framework Overview

- Primary Measures
  - Corridor Performance Segment Maps
  - Project Life Cycle and Risk Analysis
- Secondary Measures
  - Itemized Performance-Based Needs
  - Package Solution Sets
- Drill Down Analysis: Identify Contributing Factors
- Corridor Vision Objectives
- P2P Link and Recommended Program
Performance Summary

Performance Index Summary

I-40 Corridor Study: MP 0 to MP 196

Performance Index Scale

<table>
<thead>
<tr>
<th></th>
<th>Pavement</th>
<th>Bridge</th>
<th>Mobility</th>
<th>Safety</th>
<th>Freight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corridor</td>
<td>0.88</td>
<td>0.95</td>
<td>0.97</td>
<td>0.63</td>
<td>0.88</td>
</tr>
<tr>
<td>Segment</td>
<td>0.81</td>
<td>0.95</td>
<td>0.97</td>
<td>0.63</td>
<td>0.88</td>
</tr>
<tr>
<td>Average</td>
<td>0.83</td>
<td>0.95</td>
<td>0.97</td>
<td>0.63</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Average Index: 0.83

Performance Index Summary

I-40 Corridor Segments:
- Segment 40-1: C4 Border to SR 167 Ti (MP 0 - 10)
- Segment 40-2: SR 167 Ti to Kingman Area (MP 11 - 42)
- Segment 40-3: Kingman Area (MP 43 - 55)
- Segment 40-4: Kingman Area to U.S. 395 Ti (MP 55 - 74)
- Segment 40-5: U.S. 395 Ti to Silver Springs Rd Ti (MP 75 - 90)
- Segment 40-6: Silver Springs Rd Ti to Cross Mountain Rd Ti (MP 90 - 100)
- Segment 40-7: Cross Mountain Rd Ti to Anvil Rock Rd Ti (MP 100 - 108)
- Segment 40-8: Anvil Rock Rd Ti to Sedona Area (MP 109 - 120)
- Segment 40-9: Sedona Area to Kanab Fork, Area (MP 120 - 143)
- Segment 40-10: Ash Fork Area to Williams Area (MP 143 - 160)
- Segment 40-11: Williams Area (MP 160 - 165)
- Segment 40-12: Williams Area to Blythe Area (MP 165 - 184)
- Segment 40-13: Blythe Area to Flagstaff Area (MP 194 - 196)
- Segment 40-14: Flagstaff Area (MP 196 - 200)
Linking Planning to Programming

Statewide Transportation System Planning Process

Development Program
YEARS 6-10
Preservation Funding Levels Modernization Expansion

Delivery Program
YEARS 1-5
Projects

System Performance
Annual Performance Report Performance Measures System Analysis

ADOT
Annual Performance Report

- Highlights the condition of the state system annually for key performance measurement areas:
  - Bridge
  - Pavement
  - Safety
  - Mobility

- Updated Performance information will be part of the Tentative Program Package in January
Overall Highway Bridge Condition

Year

Percent of Bridges


Overall Bridge Condition 2014

Overall Bridge Condition (2014)

- Good
- Fair
- Poor

State Highway System

District 1

District 2

District 3

District 4

District 5

District 6

ADOT
Total Fatal and Serious Injury Crashes

- Fatal
- Serious Injury

Segments at Safety Index Condition

- Below Average
- Slightly Below Average
- Slightly Above Average
- Above Average

Safety Index - Fatal and Serious Injury Crash Rate 2012-14

- Below Average Crash Rate
- Slightly Below Average Crash Rate
- Slightly Above Average Crash Rate
- Above Average Crash Rate

Transportation Board District

- District 1
- District 2
- District 3
- District 4
- District 5
- District 6

State Highway System
Planning to Programming Process

Planning

- MPD Project Nominations
- ITD Project Nominations
  - Bridge
  - Pavement
  - Safety
- District Workshops
  - Combine Projects / Prioritize Projects by
    Pavement Preservation, Bridge Preservation,
    Modernization, and Expansion
- Project Prioritization
  - Policy, Technical, and District Scores

Programming

- Tentative Program
- Board and Public Outreach
- Final Program Approval
- ADOT Delivery Program

Complex Projects
- Program PA / DCR

Not Programmed

ADOT Delivery Program

Design

Construction

Maintenance
Overall Pavement Condition - Interstate

- Good (IRI < 75)
- Fair (75 < IRI < 104)
- Poor (IRI > 104)

Overall Pavement Condition - Non-Interstate

- Good (IRI < 95)
- Fair (95 < IRI < 170)
- Poor (IRI > 170)
# Pavement Group Nominations

$1.2 Billion in Pavement Preservation Needs provided:

## Draft List for FY 19 Projects and Beyond

<table>
<thead>
<tr>
<th>Priority</th>
<th>DistrictName</th>
<th>ProjectName</th>
<th>HighwayID</th>
<th>Route</th>
<th>M_BMP</th>
<th>M_EMP</th>
<th>Dir</th>
<th>Length</th>
<th>AADT</th>
<th>Truck %</th>
<th>Proposed Treatment</th>
<th>Estimate(000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PRESCOTT</td>
<td>Los Altos Dr. to Kerkes St</td>
<td>126</td>
<td>U60</td>
<td>109</td>
<td>110.47</td>
<td>NULL</td>
<td>1.47</td>
<td>13615</td>
<td>14</td>
<td>RR3*AC + FR</td>
<td>$2,533</td>
</tr>
<tr>
<td>2</td>
<td>YUMA</td>
<td>E of Mohawk to SW of Dateland</td>
<td>1</td>
<td>I8</td>
<td>55.56</td>
<td>66</td>
<td>NULL</td>
<td>10.44</td>
<td>9728</td>
<td>25</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$22,395</td>
</tr>
<tr>
<td>3</td>
<td>SAFFORD</td>
<td>Jct I-10 to Jct US-191</td>
<td>141</td>
<td>UY191</td>
<td>86.89</td>
<td>90.11</td>
<td>NULL</td>
<td>3.22</td>
<td>239</td>
<td>45</td>
<td>RR3*AC + FR</td>
<td>$2,410</td>
</tr>
<tr>
<td>4</td>
<td>TUCSON</td>
<td>SW of Maricopa to S of Stanfield</td>
<td>1</td>
<td>I8</td>
<td>147.58</td>
<td>158.48</td>
<td>NULL</td>
<td>10.9</td>
<td>5263</td>
<td>26</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$22,666</td>
</tr>
<tr>
<td>5</td>
<td>YUMA</td>
<td>Avenue 36E to MP 46</td>
<td>1</td>
<td>I8</td>
<td>37.09</td>
<td>46</td>
<td>NULL</td>
<td>8.91</td>
<td>10065</td>
<td>23</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$18,739</td>
</tr>
<tr>
<td>6</td>
<td>TUCSON</td>
<td>SR 587 TO SR 387</td>
<td>2</td>
<td>I10</td>
<td>175.39</td>
<td>186.65</td>
<td>NULL</td>
<td>11.26</td>
<td>51488</td>
<td>17</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$23,146</td>
</tr>
<tr>
<td>7</td>
<td>FLAGSTAFF</td>
<td>Pipeline Rd to Air Park</td>
<td>9</td>
<td>S64</td>
<td>205</td>
<td>213</td>
<td>NULL</td>
<td>8</td>
<td>5171</td>
<td>13</td>
<td>RR3*AC + FR</td>
<td>$5,800</td>
</tr>
<tr>
<td>8</td>
<td>YUMA</td>
<td>Beacon Rd to East of Riverside Dr</td>
<td>33</td>
<td>S95</td>
<td>148.3</td>
<td>155</td>
<td>NULL</td>
<td>6.7</td>
<td>4731</td>
<td>16</td>
<td>RR3*AC + FR</td>
<td>$7,343</td>
</tr>
<tr>
<td>9</td>
<td>GLOBE</td>
<td>W of Rim Tank to W of Canyon Day</td>
<td>16</td>
<td>$73</td>
<td>324</td>
<td>330</td>
<td>NULL</td>
<td>6</td>
<td>991</td>
<td>9</td>
<td>RR3*AC + FR</td>
<td>$3,661</td>
</tr>
<tr>
<td>10</td>
<td>YUMA</td>
<td>East of YU/MA County Line</td>
<td>1</td>
<td>I8</td>
<td>82</td>
<td>96</td>
<td>NULL</td>
<td>14</td>
<td>14112</td>
<td>21</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$29,446</td>
</tr>
<tr>
<td>11</td>
<td>TUCSON</td>
<td>JCT I-10 to Genenatas</td>
<td>19</td>
<td>$77</td>
<td>68.05</td>
<td>72.2</td>
<td>NULL</td>
<td>4.15</td>
<td>38332</td>
<td>8</td>
<td>RR3*AC + FR</td>
<td>$7,819</td>
</tr>
<tr>
<td>12</td>
<td>YUMA</td>
<td>W of Aztec to E of Aztec (MP71- 82.00 EB, 72-82 WB)</td>
<td>1</td>
<td>I8</td>
<td>71</td>
<td>82</td>
<td>E</td>
<td>11</td>
<td>10893</td>
<td>24</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$22,085</td>
</tr>
<tr>
<td>13</td>
<td>YUMA</td>
<td>Dome Rock Rd to NE of Scaddan Wash</td>
<td>2</td>
<td>I10</td>
<td>11.71</td>
<td>24</td>
<td>NULL</td>
<td>12.29</td>
<td>20038</td>
<td>19</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$24,678</td>
</tr>
<tr>
<td>14</td>
<td>YUMA</td>
<td>Gila Bend - County Line</td>
<td>26</td>
<td>$85</td>
<td>0</td>
<td>16</td>
<td>NULL</td>
<td>16</td>
<td>1460</td>
<td>17</td>
<td>RR3*AC + FR</td>
<td>$11,575</td>
</tr>
<tr>
<td>15</td>
<td>TUCSON</td>
<td>Jct Valencia Rd to Exit 101 (110 Eastbound)</td>
<td>5</td>
<td>I19</td>
<td>58.83</td>
<td>62.84</td>
<td>NULL</td>
<td>4.34</td>
<td>74785</td>
<td>6</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$9,840</td>
</tr>
<tr>
<td>16</td>
<td>FLAGSTAFF</td>
<td>Old Creek ViewPoint to I 17</td>
<td>76</td>
<td>S89</td>
<td>389.6</td>
<td>398.87</td>
<td>NULL</td>
<td>9.27</td>
<td>4452</td>
<td>11</td>
<td>RR3*AC + FR</td>
<td>$5,872</td>
</tr>
<tr>
<td>17</td>
<td>GLOBE</td>
<td>Superior to Gila County Line</td>
<td>126</td>
<td>U60</td>
<td>225.87</td>
<td>2363</td>
<td>NULL</td>
<td>9.43</td>
<td>7341</td>
<td>11</td>
<td>RR3*AC + FR</td>
<td>$8,125</td>
</tr>
<tr>
<td>18</td>
<td>SAFFORD</td>
<td>Benson Bypass(EB 303-69.307.9, WB 30324-307.9)</td>
<td>2</td>
<td>I10</td>
<td>303.24</td>
<td>307.9</td>
<td>NULL</td>
<td>4.66</td>
<td>16035</td>
<td>26</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$9,800</td>
</tr>
<tr>
<td>19</td>
<td>PRESCOTT</td>
<td>Jct SR-89A to S Chino Valley</td>
<td>30</td>
<td>$89</td>
<td>319.27</td>
<td>324.2</td>
<td>NULL</td>
<td>4.93</td>
<td>19363</td>
<td>7</td>
<td>RR3*AC + FR</td>
<td>$5,882</td>
</tr>
<tr>
<td>20</td>
<td>YUMA</td>
<td>MP 135 to MA/PN County Line</td>
<td>1</td>
<td>I8</td>
<td>134.55</td>
<td>141</td>
<td>NULL</td>
<td>6.45</td>
<td>5697</td>
<td>31</td>
<td>RR(5'TL, 3'PL) + FR</td>
<td>$13,566</td>
</tr>
</tbody>
</table>
Planning to Programming Pilot District Workshops

Pilot Workshops Schedule:

- Southeast District - September 22nd, 2015
- Northwest District - October 22nd, 2015
- Northcentral District - December 15th, 2015
- Southwest District - January 20th, 2016
- Southcentral District – February (Date TBD)
- Northeast District – March (TBD)
Increased Coordination Benefits Example

Potential I-17 New River to Sunset Point Capacity Expansion Project:

- Initial expansion project recommendation cost = $105,000,000
- Three additional alternatives being considered including three options that may lead to $74,000,000 in savings
- $3,450,000 in deferred Safety projects identified that may have been otherwise rendered not useful if an expansion project on the New River to Sunset Point segment proceeds

Follow-up meeting with District being scheduled for January
Planning to Programming Process

Planning

MPD Project Nominations

ITD Project Nominations
  Bridge  Pavement  Safety

District Workshops
  Combine Projects / Prioritize Projects by Pavement Preservation, Bridge Preservation, Modernization and Expansion

Project Prioritization
  Policy, Technical, and District Scores

Programming

Tentative Program

Board and Public Outreach

Final Program Approval

ADOT Delivery Program

Design

Construction

Maintenance

Not Programmed

Complex Projects – Program PA / DCR
Planning to Programming
Project Prioritization Process

Statewide Preservation Projects

Statewide Modernization Projects

Statewide Expansion Projects

Applied Evaluation Criteria
(50% Weight = 100 Possible Points Per Category)
- Pavement Preservation
- Bridge Preservation
- Modernization
- Expansion

Policy
(50% Weight = 100 Possible Points)
- Economic Drivers
- Safety
- Mobility

Preservation Projects Prioritized List
Modernization Projects Prioritized List
Expansion Projects Prioritized List
Linking Planning to Programming

Statewide Transportation System Planning Process

Strategic Investments
- Preservation
- Modernization
- Expansion

Development Program
YEARS 6-10
- Preservation Funding Levels
- Modernization Expansion

Delivery Program
YEARS 1-5
- Projects

1 YEAR

System Performance
- Annual Performance Report
- Performance Measures
- System Analysis

ADOT
Greater Arizona Tentative 5-Year Highway Delivery Program (FY16- FY20)

- Expansion: 8%
- Modernization: 24%
- Preservation: 68%

(RIC)
- Non-Highway: 10%
- Expansion: 27%
- Preservation: 34%
- Modernization: 29%

Tentative 2016-2020 Five-Year Transportation Facilities Construction Program

Projects:
- Cities and Towns
- State Highway System
- County Boundary
- State Boundary

Prepared by:
Arizona Department of Transportation
Transportation Planning Division
Transportation Analysis and Research
February 2013
January 2014