“The Value of Pavement Preservation From the County Perspective”

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Western Region Vice President
National Association of County Engineers
Director, Transportation and Land Management Agency
County of Riverside, California
 National Association of County Engineers (NACE)
  “Local Roads Matter Campaign”
 County Engineers Association of California (CEAC)
  “Local Streets and Roads Needs Assessment”
 Riverside County Experience
local roads matter!
National Association of County Engineers

to trade
to families
in times of crisis
to healthcare
to seniors
to schools
to revitalization
to business
to the economy
to YOU!
local roads matter!
National Association of County Engineers

- 25% of America’s highways are owned by State & Federal Government
- 75% or 2.9 Million Miles of America’s highways are owned by counties, cities and townships
- 49% of our nation’s bridges are owned by State & Federal Government
- 51% of our nation’s bridges are owned by local government
# USDOT Bureau of Transportation Statistics
## Condition of U.S. Roadways by Functional System

<table>
<thead>
<tr>
<th>Functional Class</th>
<th>Total Miles In U.S.</th>
<th># of Miles Reporting to Pavement Condition Report</th>
<th>% Reporting Miles that are Poor to Fair</th>
<th># Reporting Miles that are Poor to Fair</th>
<th>% Share of Total Poor to Fair Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RURAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interstate</td>
<td>30,360</td>
<td>30,512</td>
<td>22.8</td>
<td>6,957</td>
<td>2.0</td>
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<tr>
<td>Other Principal Arterial</td>
<td>94,766</td>
<td>94,500</td>
<td>34.6</td>
<td>32,697</td>
<td>9.4</td>
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<tr>
<td>Minor Arterials</td>
<td>135,296</td>
<td>134,914</td>
<td>46.6</td>
<td>62,870</td>
<td>18.1</td>
</tr>
<tr>
<td>Major Collectors</td>
<td>419,437</td>
<td>378,753</td>
<td>64.9</td>
<td>245,811</td>
<td>70.5</td>
</tr>
<tr>
<td>Minor Collectors</td>
<td>262,899</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Local</td>
<td>2,045,000</td>
<td>--</td>
<td>--</td>
<td>--</td>
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</tr>
<tr>
<td><strong>Rural Total</strong></td>
<td>2,987,758</td>
<td>638,753</td>
<td>54.5</td>
<td>348,335</td>
<td>100.0</td>
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<tr>
<td><strong>URBAN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interstate</td>
<td>16,132</td>
<td>15,899</td>
<td>39.8</td>
<td>6,328</td>
<td>3.2</td>
</tr>
<tr>
<td>Other Expressways</td>
<td>10,913</td>
<td>10,659</td>
<td>49.5</td>
<td>5,276</td>
<td>2.7</td>
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<tr>
<td>Other Principal Arterials</td>
<td>63,282</td>
<td>61,064</td>
<td>70.5</td>
<td>43,050</td>
<td>21.8</td>
</tr>
<tr>
<td>Minor Arterials</td>
<td>104,033</td>
<td>101,637</td>
<td>66.9</td>
<td>67,995</td>
<td>34.4</td>
</tr>
<tr>
<td>Collectors</td>
<td>109,555</td>
<td>106,843</td>
<td>70.0</td>
<td>74,790</td>
<td>37.9</td>
</tr>
<tr>
<td>Local</td>
<td>740,273</td>
<td>--</td>
<td>--</td>
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<td>--</td>
</tr>
<tr>
<td><strong>Urban Total</strong></td>
<td>1,044,368</td>
<td>296,102</td>
<td>66.7</td>
<td>197,439</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Urban and Rural Total</strong></td>
<td>4,032,126</td>
<td></td>
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</tbody>
</table>

The fatality rate on local roads is twice that on the interstate system. Inadequate traffic controls and signals, poor pavement conditions and problems with geometry and alignment all contribute to an unacceptable safety record that requires national attention and investment.
local roads matter!
National Association of County Engineers

- Over 56% of fatal crashes (23,260 in 2007) occur on rural roadways
- NACE supports a “Toward Zero Fatalities” policy goal that seeks a 50% reduction in fatalities and serious injuries during the next authorization period
  - Improving the Highway Safety Improvement Program (HSIP) and dedicating increased HSIP funding to local road safety improvements
  - Continuing the High Risk Rural Road Program (HRRR) and increasing the authorization level to $1 billion
  - Streamlining FHWA project review and approval for local road safety improvements that do not involve capacity increases, acquisition of real estate, and are under $500,000 in value
The Congressionally chartered National Surface Transportation Policy and Revenue Study Commission estimates:

- Need $240 billion annually for 10 years in Federal funding for highway, road and bridge infrastructure

- Current spending is $68 billion annually

- One-time stimulus American Recovery and Investment Act of $26.7 billion
NACE Legislative Reauthorization Positions:

- Support an aggressive Safety Program for making local Roads Safer through a “Toward Zero Fatalities” policy goal

- Implement Project Streamlining for Low Cost Safety Improvement Projects

- Preserve and enhance the set aside for Federal Highway Bridge Replacement and Rehabilitation Program (HBRRP)

- Support Congressional action for legislation to raise the federal gas tax in the next reauthorization an additional 10 cents to achieve a $73 billion program by 2015

- Promote alternative funding, such as Tolls, Public–Private Partnerships and Vehicle Miles Traveled
**NACE Emphasis on Pavement Preservation**

Nearly half of NACE affiliate state associations have already begun communicating the importance of our nation’s roads.

<table>
<thead>
<tr>
<th>Needs Assessment Reports and Documents</th>
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<tbody>
<tr>
<td>Arizona</td>
</tr>
<tr>
<td>Indiana</td>
</tr>
<tr>
<td>Michigan</td>
</tr>
<tr>
<td>New Jersey</td>
</tr>
<tr>
<td>North Dakota</td>
</tr>
<tr>
<td>Oklahoma</td>
</tr>
<tr>
<td>Washington</td>
</tr>
</tbody>
</table>

To learn more about the nationwide needs assessments, visit “Local Roads Matter” on the NACE Website: http://www.countyengineers.org/LRM/index.html
Let’s act as if they do.

- It is time to address all of our nation’s highway and bridge investment needs, from the commuter’s driveway to the interstate and home again.

- Create a strong partnership between federal, state and local governments.

- We can restore balance and proportionality in road funding through an effective and thoughtful surface transportation re-authorization.
Objective: Report condition of local road system and quantify funding

Key Questions:

1. What are the existing pavement conditions?

2. How much will it cost to bring pavements to an acceptable level?

3. How much will it cost to maintain pavements at optimal conditions?

4. How much is the funding shortfall and what are the solutions?

81% of California’s pavements are owned by cities and counties!
Typical Pavement Deterioration

Spending $2 on pavement preservation before this point...

...eliminates or delays spending $60-$100 on rehabilitation or reconstruction here.

40% Drop in Quality

40% Drop in Quality

75% of Life

12% of Life

5
10
15
20
25

Time (years)

PCI

Good-Excellent

At-Risk

Poor

Failed

$2/sy

$15-40/sy

$40-70/sy

$60-100/sy
Pavement Preservation – the sensible approach

- Cost effective use of taxpayer money
- Preserve and maintain roads in good condition
- Deteriorated roads are more expensive to repair
- Study costs developed to achieve good pavement condition or Best Management Practices (BMP)
- Improve pavement to condition that only requires preventative maintenance, i.e., slurry seals, chip seals, thin overlays
- More environmentally friendly than pavement rehabilitation or reconstruction
- Least impact on public mobility and commerce
## Total 10 Year Shortfall ($B)

<table>
<thead>
<tr>
<th>Transportation Asset</th>
<th>10 Year Needs</th>
<th>Existing Funding</th>
<th>10 Year Shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavements</td>
<td>$ 70.5</td>
<td>$ 14.2</td>
<td>($ 56.3)</td>
</tr>
<tr>
<td>Essential Components</td>
<td>$ 29.1</td>
<td>$ 6.8</td>
<td>($ 22.6)</td>
</tr>
</tbody>
</table>

**Total Shortfall** $78.9

Equivalent to a 53 cent per gallon gas tax increase.
Riverside County has 7,300 square miles and is the 4th largest county in California.

- 1990 Population: 1.17 million
- 2000 Population: 1.55 million
- 2010 Population: 2.24 million
- 2035 Projection Population: 3.60 million
# Nationally 11\textsuperscript{th} Largest County by Population

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>STATE</th>
<th>POP (M)</th>
<th>COUNTY SEAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LA</td>
<td>CA</td>
<td>9.80</td>
<td>Los Angeles</td>
</tr>
<tr>
<td>2. Cook</td>
<td>IL</td>
<td>5.20</td>
<td>Chicago</td>
</tr>
<tr>
<td>3. Harris</td>
<td>TX</td>
<td>4.07</td>
<td>Houston</td>
</tr>
<tr>
<td>4. Maricopa</td>
<td>AZ</td>
<td>4.02</td>
<td>Phoenix</td>
</tr>
<tr>
<td>5. San Diego</td>
<td>CA</td>
<td>3.05</td>
<td>San Diego</td>
</tr>
<tr>
<td>6. Orange</td>
<td>CA</td>
<td>3.02</td>
<td>Santa Ana</td>
</tr>
<tr>
<td>7. Kings</td>
<td>NY</td>
<td>2.50</td>
<td>Brooklyn</td>
</tr>
<tr>
<td>8. Dallas</td>
<td>TX</td>
<td>2.49</td>
<td>Dallas</td>
</tr>
<tr>
<td>9. Miami-Dade</td>
<td>FL</td>
<td>2.48</td>
<td>Miami</td>
</tr>
<tr>
<td>10. Queens</td>
<td>NY</td>
<td>2.30</td>
<td>Queens</td>
</tr>
<tr>
<td><strong>11. RIVERSIDE</strong></td>
<td><strong>CA</strong></td>
<td><strong>2.20</strong></td>
<td><strong>RIVERSIDE</strong></td>
</tr>
<tr>
<td>12. San Bernardino</td>
<td>CA</td>
<td>2.02</td>
<td>San Bernardino</td>
</tr>
</tbody>
</table>
How large is Riverside County?
Riverside County Transportation Priorities for 2600 Mile Road System

- Improve Safety
- Maintain Existing Road System (Pavement Preservation)
- Expand Road System to Accommodate Growth and Promote Economic Development
Federal and State Funds

- 1993 – Last Federal Fuel Tax Increase
- 1994 – Last State Gas Tax Increase
- 2002 – State Voters Approved Proposition 42
  - Dedicated Sales Tax to Transportation
- 2011 – State Approved Prop 42/Gas Tax Swap
Measure “A”

- Measure extended by the voters in November 2002 – 30 year extension starting in 2009 through 2039.
- Generate about $4.5 Billion over 30 years.
TUMF Program Basics

Western County TUMF (WRCOG)
- Established in 2003
- Will generate about $5 Billion in transportation funding assessed to new development in Western Riverside County to fund roads, bridges, interchanges, transit
- Improvements needed by 2035

Coachella Valley TUMF
- Established in 1989
- Based on Priority Network
- Projected to generate $600 – 700 Million
Riverside County Integrated Project 2003

- Balance population growth and transportation needs with habitat and endangered species protection
- New County General Plan
- Transportation Corridor Mobility Plan
- Multi-Species Habitat Conservation Plan
Riverside County
10-Year Transportation Improvement Program Valued at $1.5 Billion

- Create Jobs
- Promote Economic Development
- Improve County Road Safety
- Maintain County Road System
- Replace Deficient Bridges
- Expand Major Arterials, Highways and Interchanges
Riverside County Historical PCI (Pavement Condition Index)*

95/96 96/97 97/98 98/99 99/00 00/01 01/02 02/03 03/04 04/05 05/06 06/07 07/08 08/09 09/10

67 66 69 70 70 70 70 70 71 71 70 70 70 71 72

Countywide
Road Miles Treated vs. PCI Trend

Preservation includes Chip Seal, Slurry Seal, and Cape Seal.
Rehabilitation includes Overlays and Reconstruction.
Funding vs. PCI Trend

Preservation includes Chip Seal, Slurry Seal, and Cape Seal. Rehabilitation includes Overlays and Reconstruction.
Action Plan –

- Implement Pavement Preservation Strategy to Stretch Funding Dollars
- Increase Transportation Funding
- Create Strong Partners at Federal, State and Local Level
- Get the Message Out to all levels of government: Increase Transportation Funding!

Thank you.