

# KING COUNTY BRIDGES AND ROADS TASK FORCE

Roads Services Division Financial Review  
September 16, 2015

# Road Services Funding Needs

- Review of the estimated funding needs for KCDOT Road Services
  - BERK retained to review the basis the funding scenarios presented in the 2014 Strategic Plan
- Also provide some context for the needs discussion by comparing King County with other local jurisdictions

# BERK's Charge

- Review the estimates of need that are the basis for the Strategic Plan Funding Scenarios
- In particular, we reviewed:
  - ▣ Data and inputs
  - ▣ Models
  - ▣ Methods
  - ▣ Assumptions
- Where appropriate, we were to identify opportunities to improve or refine the estimates

# 2014 Strategic Plan Road Services

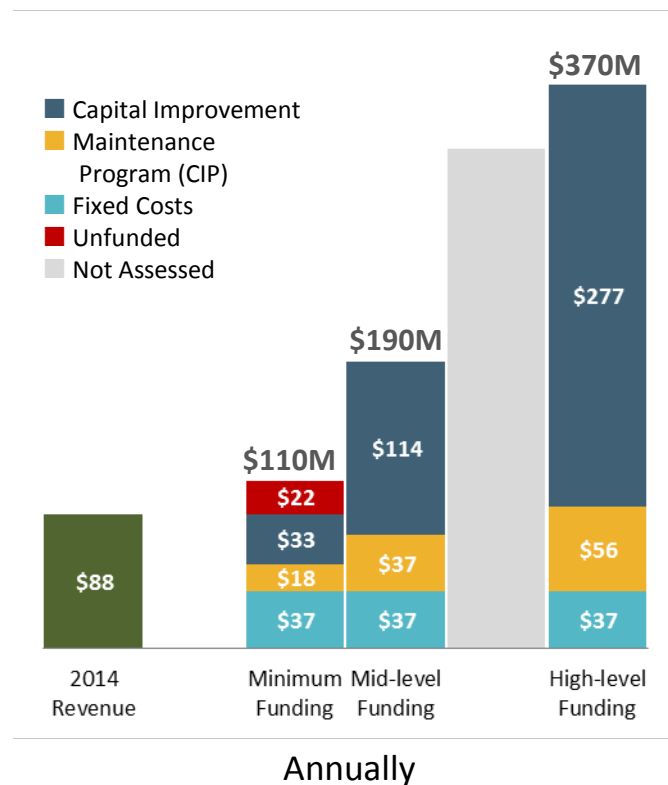
- Funding needs were estimated based on **best available information** in 2012:
  - Actual expenditures (primarily used to derive unit costs)
  - Quantity, type and condition of facilities
  - Subject matter expert knowledge
  - Defined current needs (Transportation Needs Report and other internal documents)
- Future funding scenarios were based on funding to achieve level-of-service or investment goals
- Future needs do not account for the impact of weather-related damage or other potential natural disasters

## Components of the Estimates

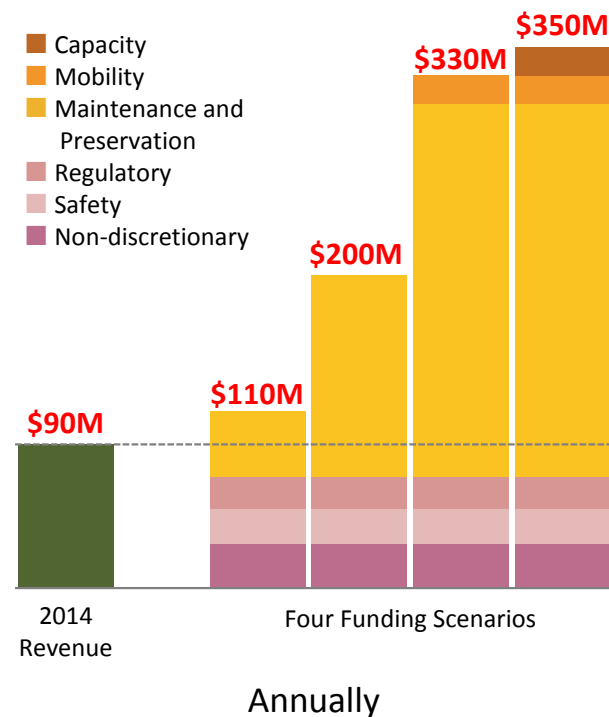
- Fixed Costs:
  - Core operating structure
- Maintenance
  - Roadway cleaning and clearing
  - Traffic features
- Capital Investments (CIP):
  - Roadway reconstruction
  - Roadway surfacing
  - Bridges
  - Fish culvert and drainage
  - Safety Improvements
  - Capacity/Mobility
  - Debt service
  - Program contingency

# KCDOT's Financial Model and SPRS Need

## KCDOT RSD Needs Model 2014



## Strategic Plan Road Services 2014 Update



# Overarching Findings

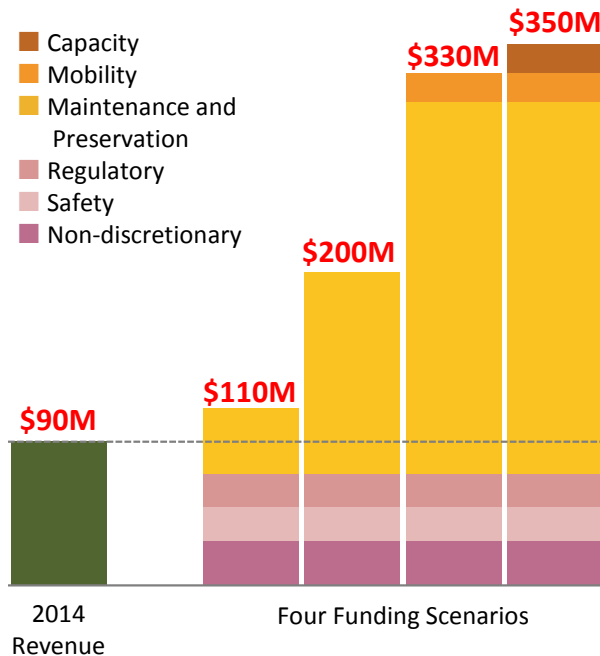
- ❑ The estimates were based on reasonable methods and assumptions
- ❑ While the estimation approach varied for some cost elements, this was done to reflect best available information at the time
- ❑ Many assumptions were based on actual cost experience with appropriate adjustments based on input from subject matter experts
- ❑ Estimates reflect current understanding of asset condition and capital replacement needs
- ❑ The funding scenarios reasonably reflect planning-level costs to achieve service and investment goals

# Refined Estimates

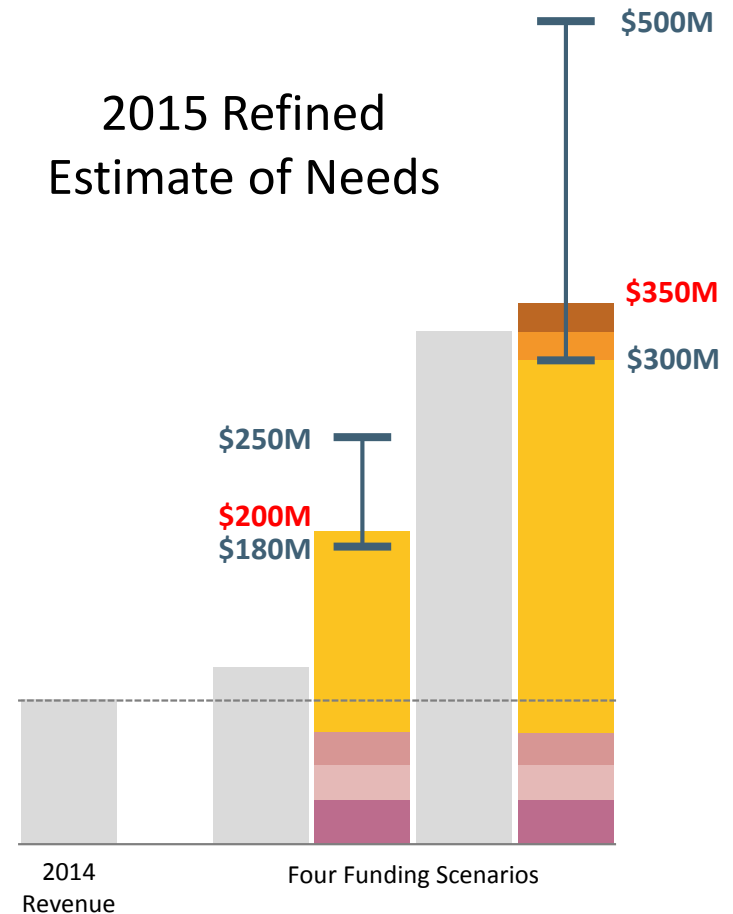
- BERK identified several areas where estimates might be refined and/or potential risks captured
- Areas where refinements were suggested:
  - Unit costs updated for some program elements
  - Refined the way certain programs were annualized
  - Cost escalation treatment was standardized
  - Some gaps were identified in program estimates
  - Some assumptions carried more risk
- Results in a range of potential funding need to achieve the service and investment goals identified for each funding scenario

# SPRS Need and Refined Estimates

## Strategic Plan Road Services 2014 Update



## 2015 Refined Estimate of Needs





# Final Conclusions

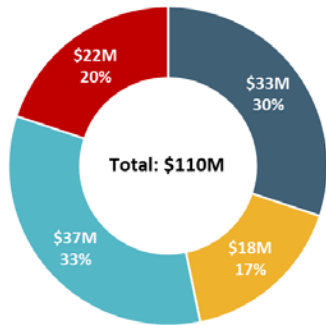
- At a planning level, Road Services Division's need estimate is reasonable, though it is better understood as a point within a potential range
  - Condition data reflects current situation
  - Other uncertainties will drive actual future costs:
    - Costs will be improved as projects go through design
    - Unit costs will change over time
    - Potential future governance changes will likely change both available revenues and system needs
    - Priorities may need to change based on regulatory and/or new policy direction
- The Strategic Plan estimates are a reasonable basis to support policy-level funding discussions

# Funding Scenarios

Breakdown of spending for each funding scenario

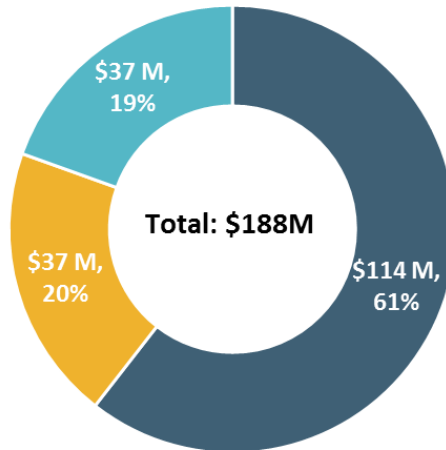
# Annual Funding Level Scenarios

Fixed Costs Maintenance Capital Improvement Program (CIP) Unfunded Costs



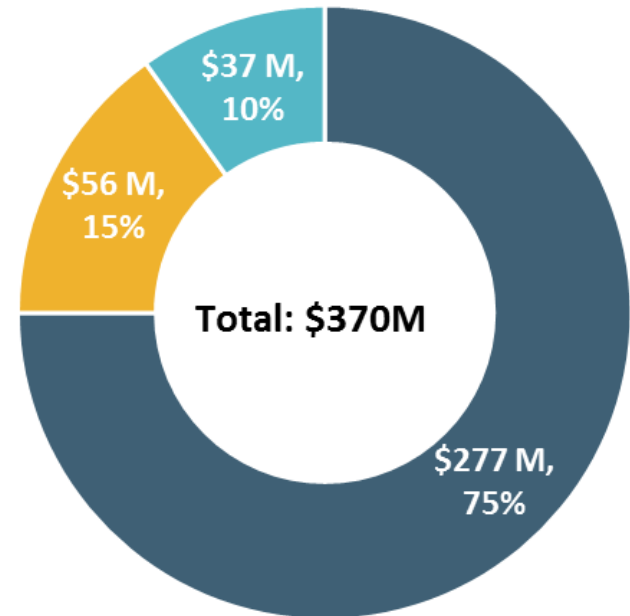
## Minimum Funding

Manage risk in a declining system



## Mid-level Funding Scenario

Moderate the decline in asset condition



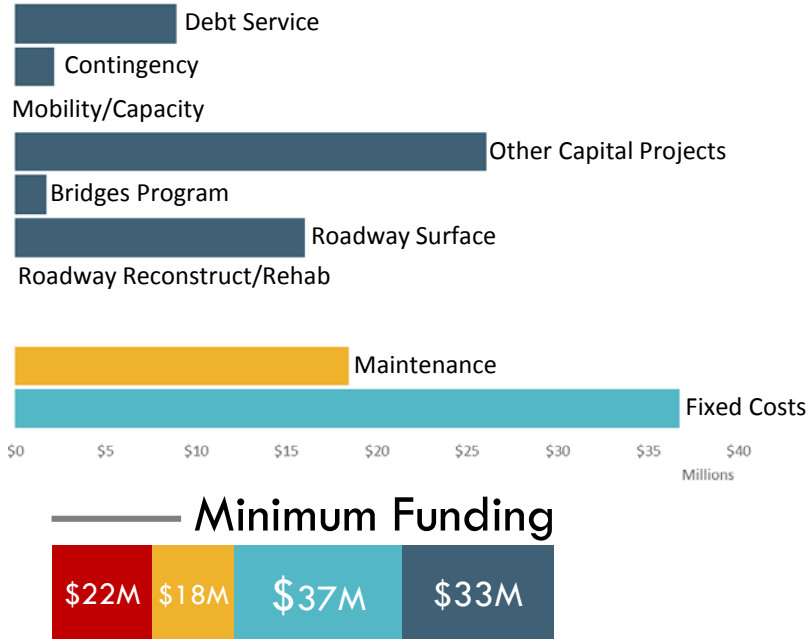
## High-level Funding Scenario

Approximately what is needed to maximize life cycles plus addressing some mobility and capacity needs

Annual funding scenarios from detailed program data; slightly different than totals that appeared in 2014 Strategic Plan

# Annual Funding Level Scenarios:

## Minimum Funding



This funding scenario:

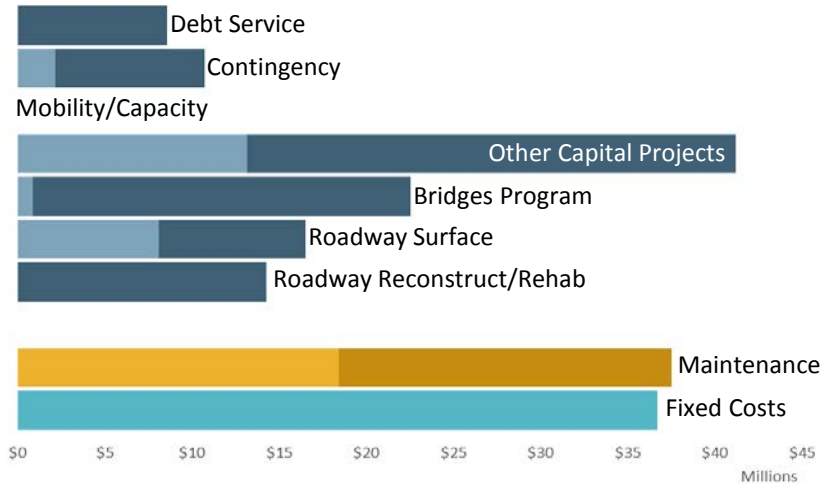
- Only provides 80% of the estimated minimum funding requirement
- Moderately increases to maintenance
- Begins to pay down 2014 known CIP backlog
  - Will not keep up with expected additional projects
- Does not increase capacity or mobility



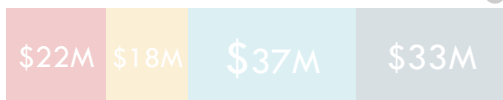
Minimum funding – with substandard and decline asset conditions, growing backlogs, very limited capital replacement, and increased risk

# Annual Funding Level Scenarios:

## Mid-level Funding



Minimum Funding

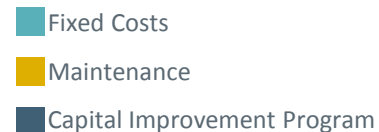


Mid-level Funding

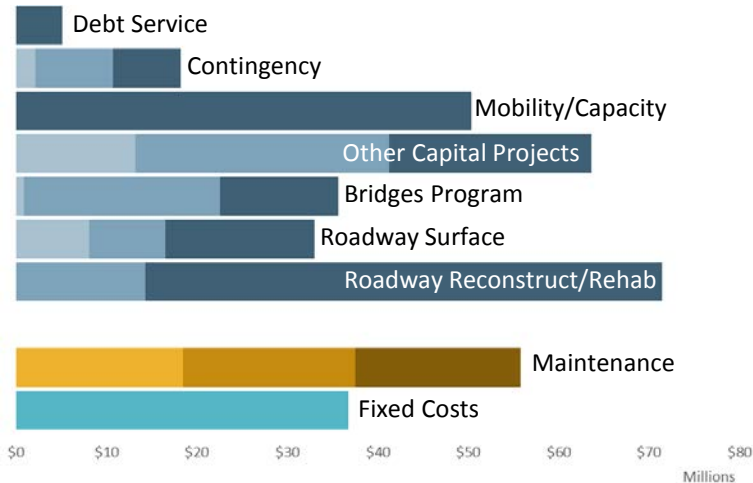


This funding scenario:

- Doubles maintenance spending
- Begins to pay down 2014 known backlog
  - Will not keep up with expected additional capital projects
- Does not increase capacity or mobility



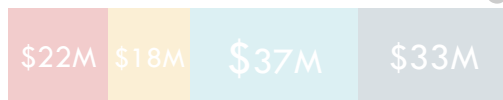
# Annual Funding Level Scenarios: High-level Funding



This funding scenario:

- Fully funds maintenance
- Can pay down known 2014 backlog to manageable levels
  - Funding can also be prioritized for additional projects
  - Or can be used to for capacity and mobility projects

Minimum Funding



Mid-level Funding



High-level Funding



- Fixed Costs
- Maintenance
- Capital Improvement Program

# Context

Funding needs in broader context

# Comparison: Inventory and Population

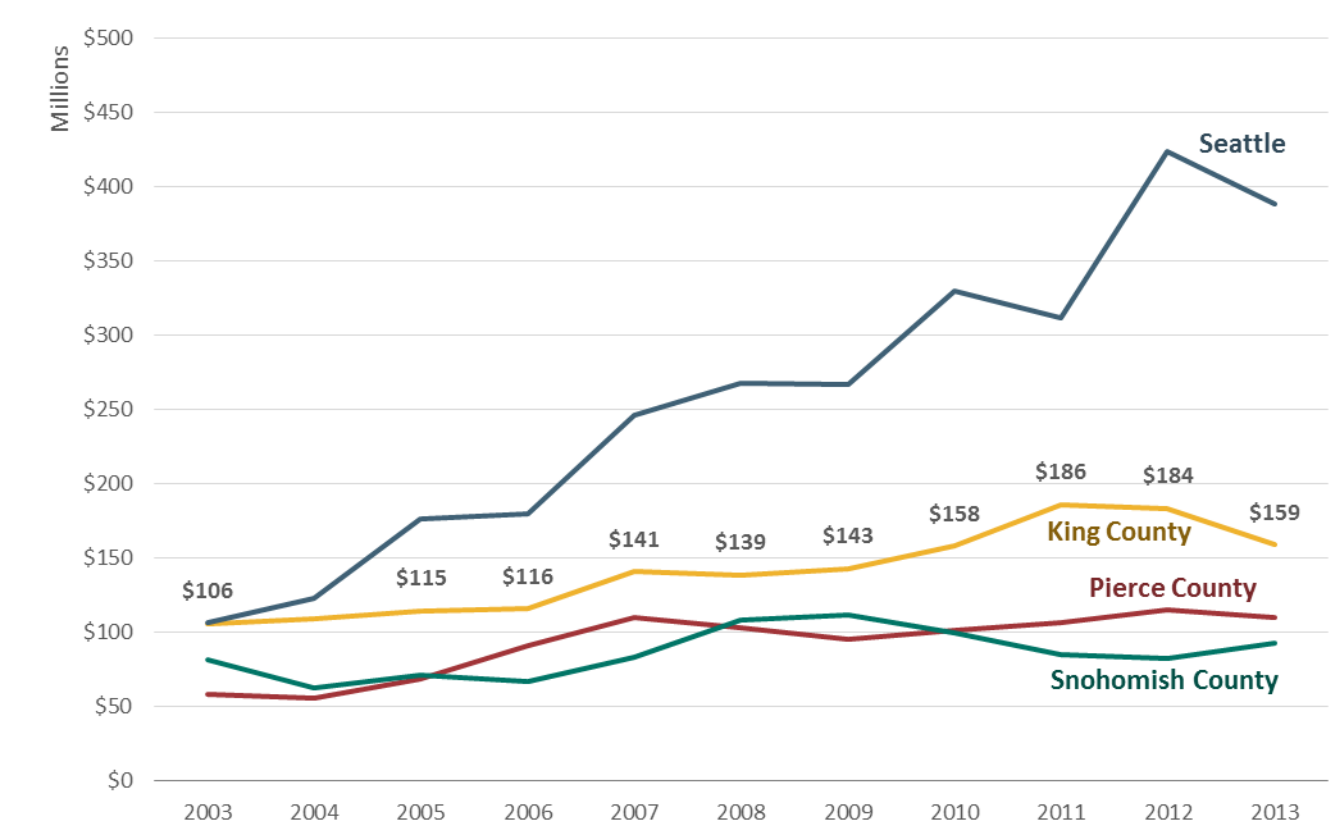
	Counties			City of
	King	Pierce	Snohomish	Seattle
<b>Roads (Lane Miles)</b>	2,961	3,100	3,257	3,954
<b>Arterial Roads (Lane Miles)</b>	961	1,420	1,028	1,547
<b>Bridges</b>	181	141	200	122
<b>Population (2014)*</b>	252,050	381,970	320,335	668,342
<b>Service Area (Sq. Miles)</b>	1,704	1,520	1,950	83

Note: County populations are for unincorporated areas only; road statistics do not include traffic volume

Source: Washington State OFM and U.S. Census Bureau, 2015. King County DOT, Pierce County Public Works, Seattle DOT, and Snohomish DOT.



# Comparisons: Expenditures (2013\$)



Source: BERK, 2015 using: Washington State DOT County Road and City Street Revenues and Expenditures Database, 2003-2013

# Infrastructure Challenges Nationwide

- The funding challenges facing King County are not unique in the region or around the country
- Nationally, local governments are dealing with:
  - Capital replacement needs related to infrastructure built to support the post-war building boom
  - ASCE 2013 Report Card for America's Infrastructure
    - Overall: D+, Bridges: C+, Roads: D
  - TRIP Report found that more than ¼ of urban roads are in substandard condition