

# Topeka Asset Management System

Department of Public Works

September 28, 2020



*City of Topeka*

# Agenda

- Asset Management System Overview and Updates
- Pavement Management Program Updates



## Definitions

**Assets**—are something with potential value to an organization and for which the organization has a responsibility (Municipality owned and contributed)

**Asset system**—group of assets that interact and/or are interrelated so as to deliver a required business function or service

**Asset management**—coordinated activities of an organization to realize value from assets

**Asset management system**—set of interrelated and interacting elements of an organization to establish policies, objectives and processes

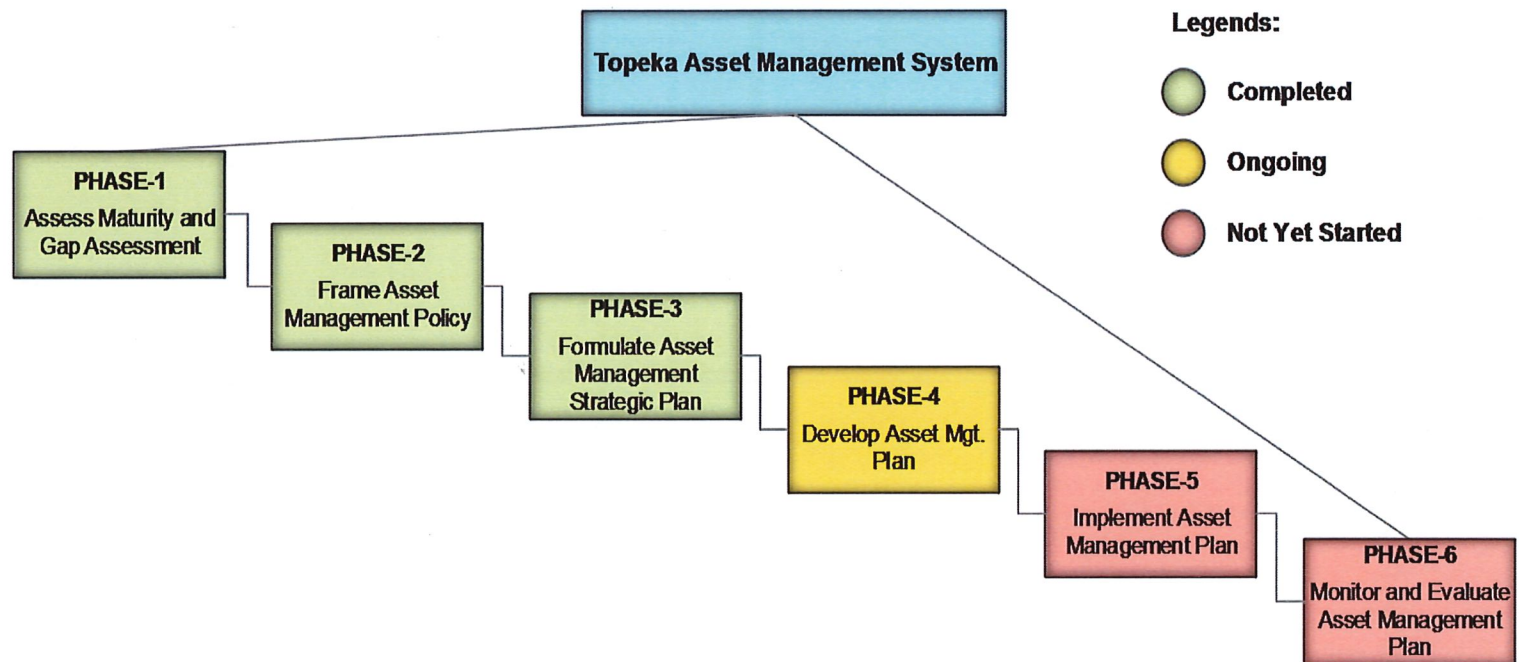
**Pavement condition index**—is a numerical rating of the pavement condition based on the type, extent, and severity of distresses



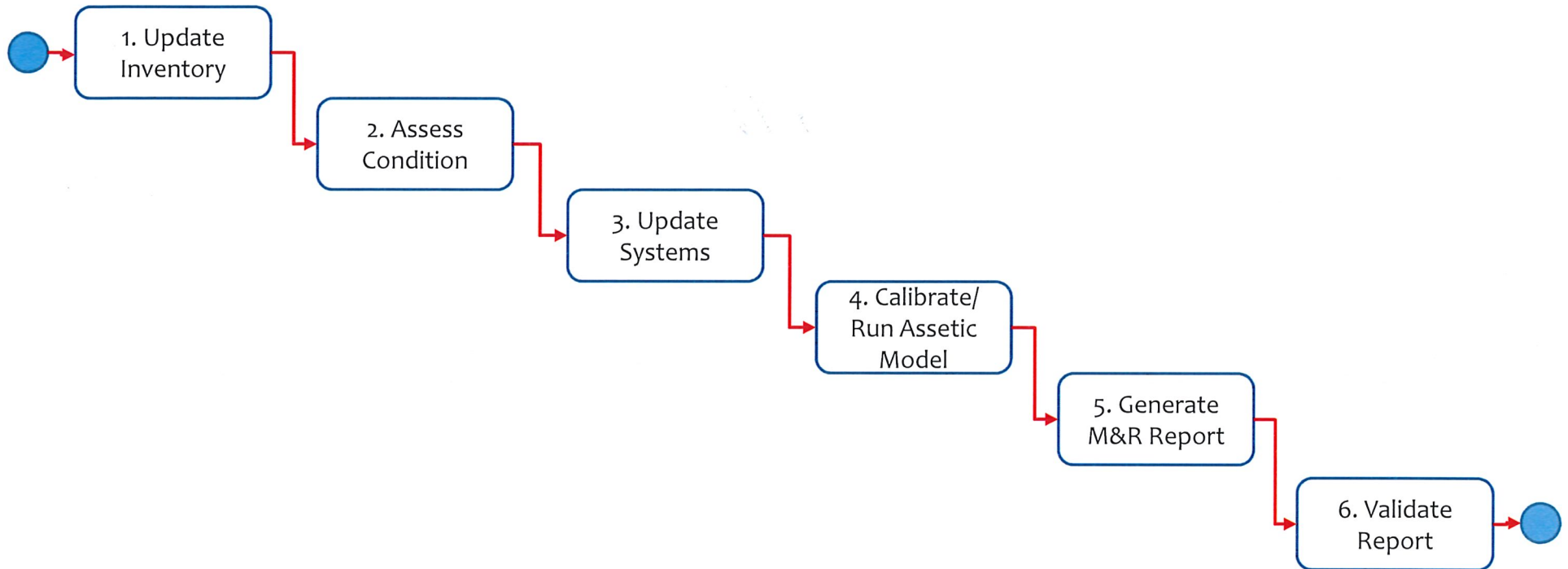
# Asset Management System Overview and Updates

## Service Areas:

- Street
- Bridge
- Traffic
- Facility
- Fleet
- Water
- Wastewater
- Stormwater

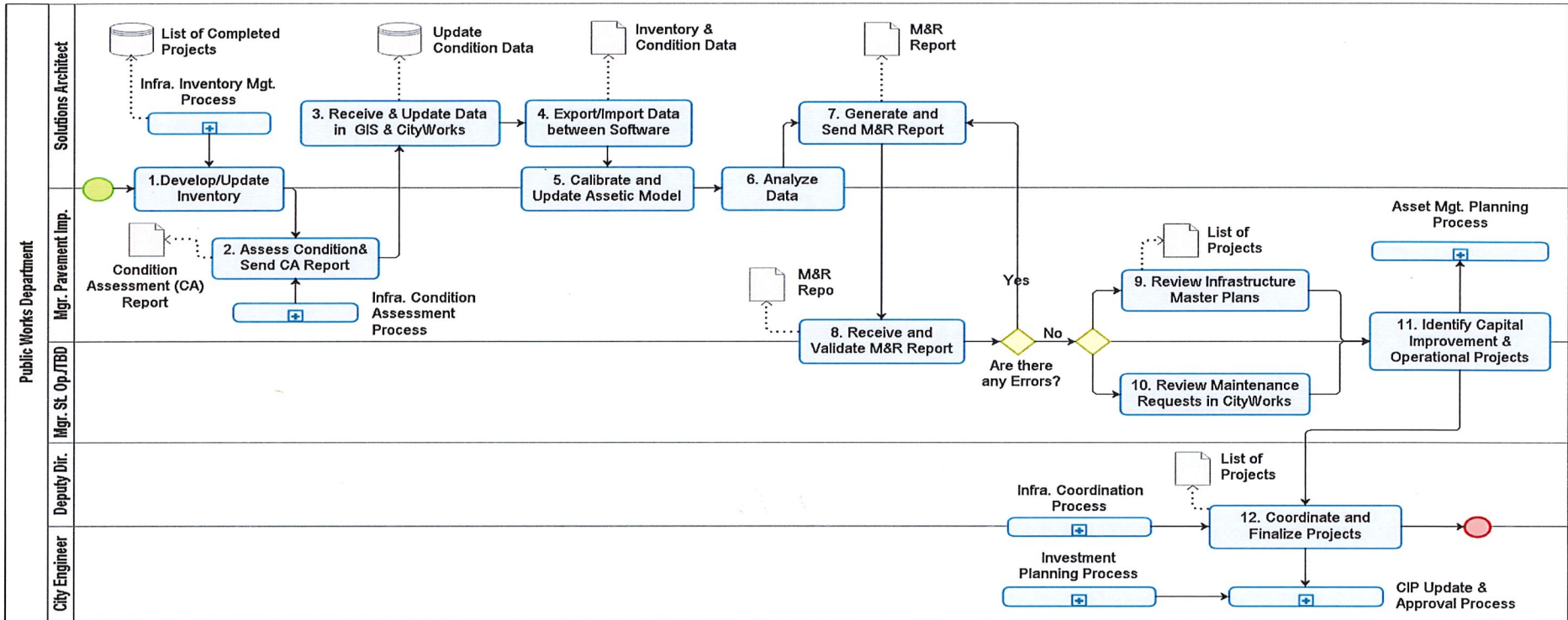


# Infrastructure Planning Process (Abstract)





# Infrastructure Planning Process (Detailed)



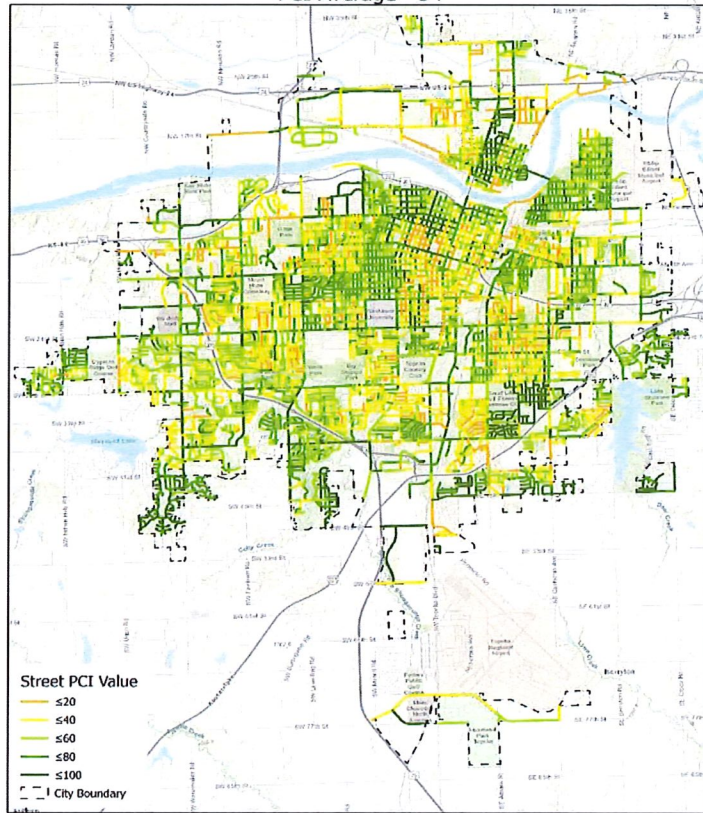
# Pavement Management Program Updates



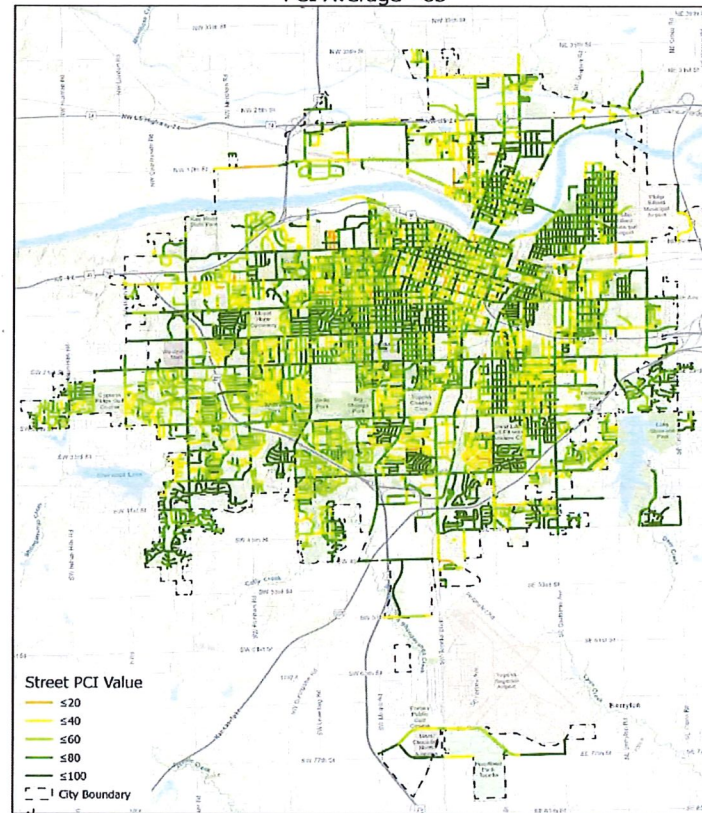
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# Pavement Management Program – Condition Assessment

Topeka 2016  
PCI Average - 54



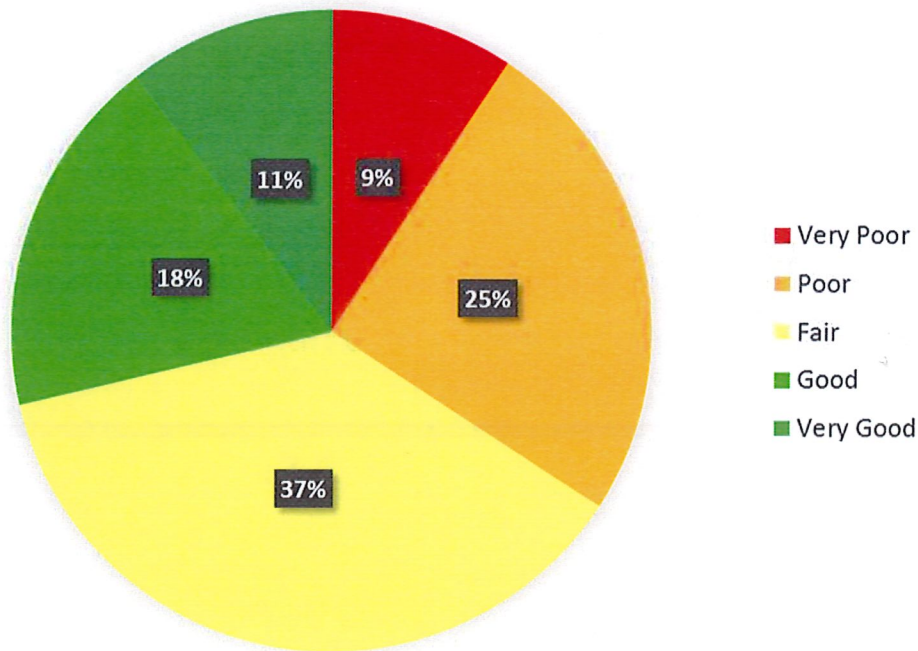
Topeka 2019  
PCI Average - 65



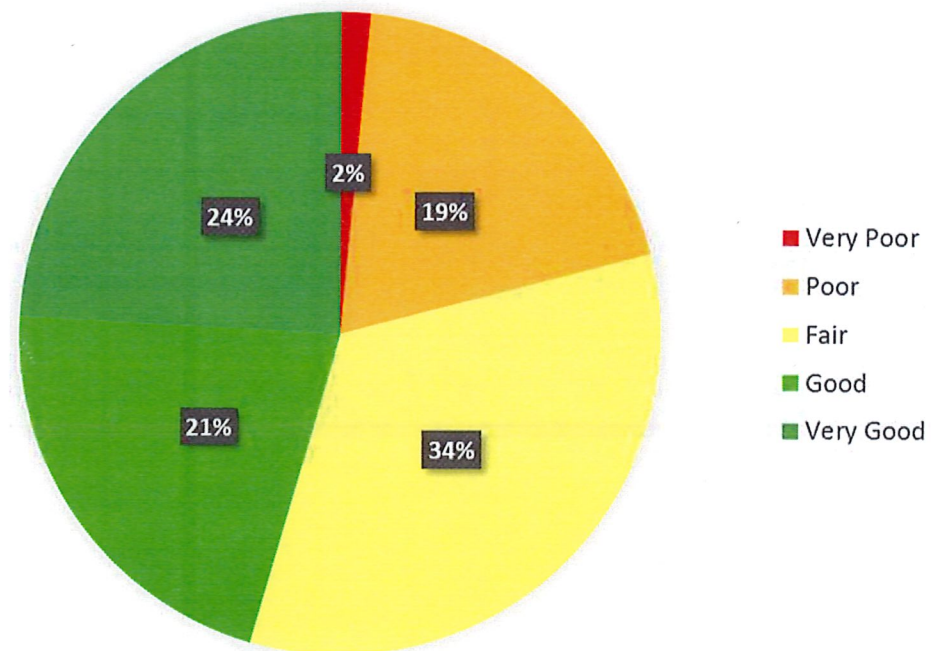


# Pavement Management Program – Condition Assessment

Condition 2016

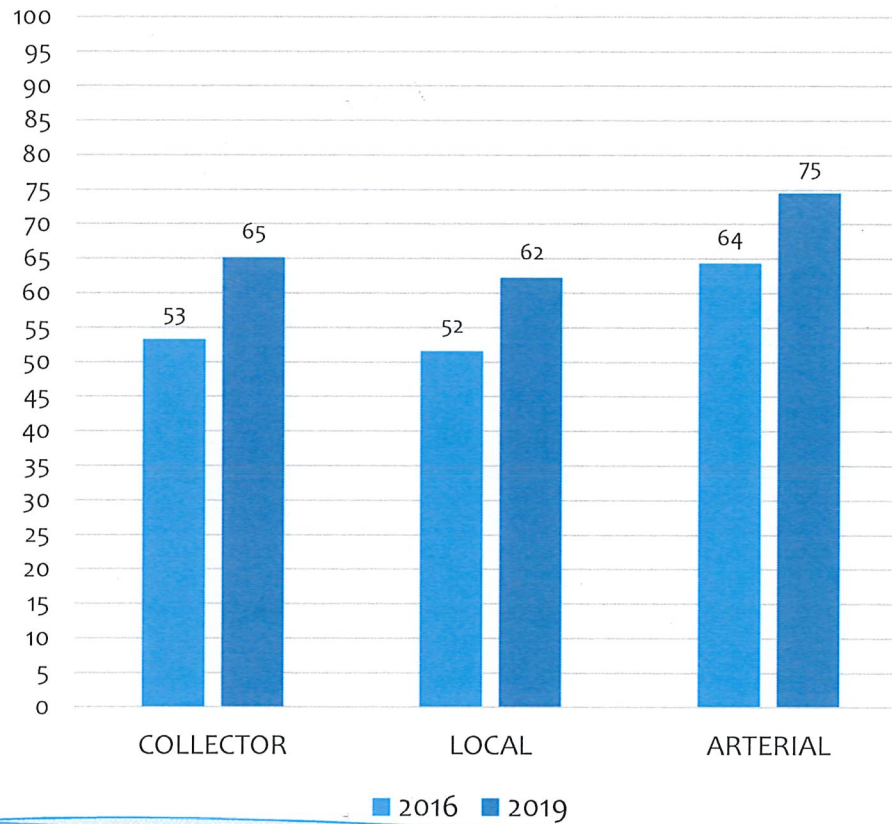


Condition 2019



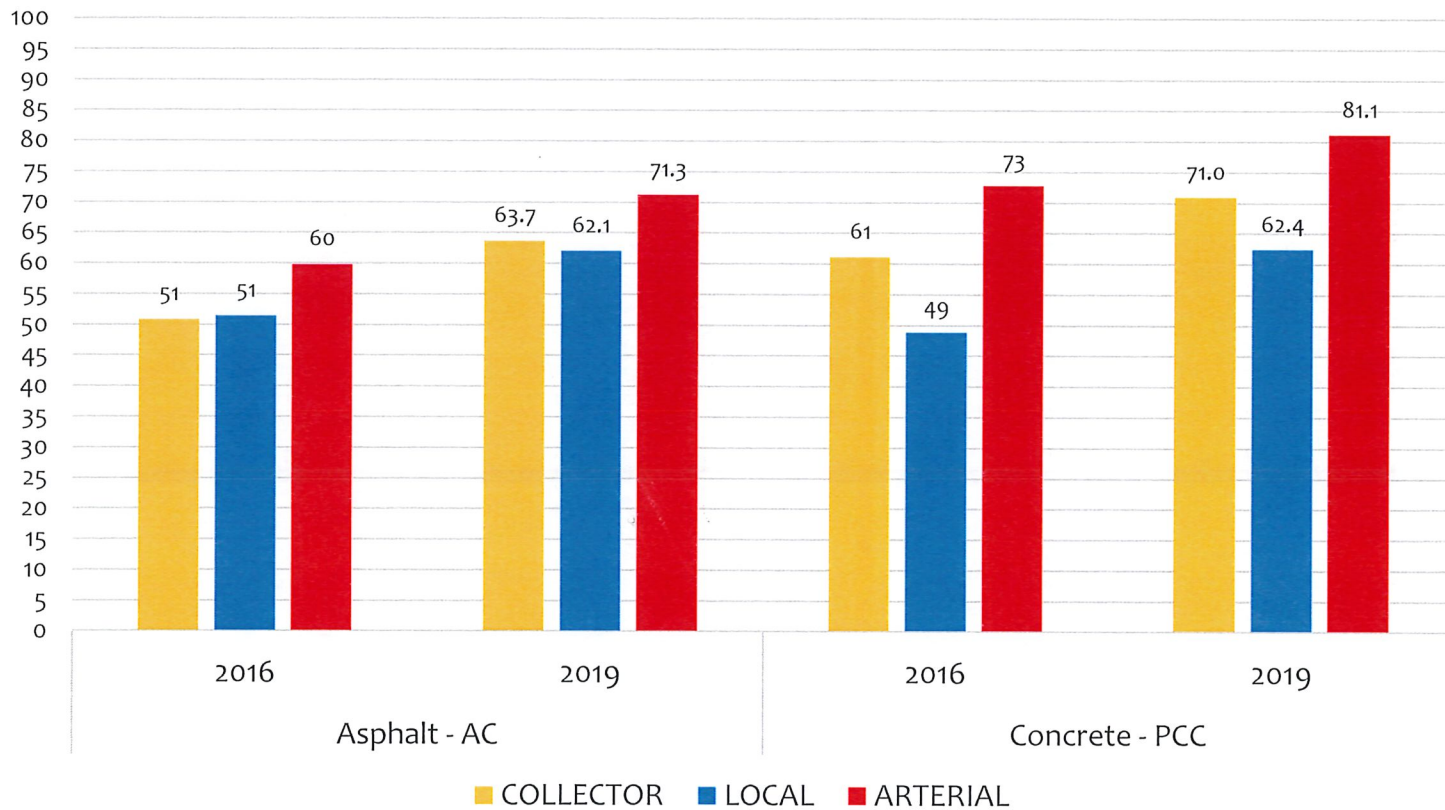
# Pavement Management Program – Condition Assessment

PCI Road Class 2016 vs. 2019



# Pavement Management Program – Condition Assessment

## PCI Comparison Road Class & Surface 2016 vs. 2019



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# Pavement Management Program – Existing Approach to Street Prioritization

- Manual prioritization
  - No treatment – PCI 86 and above
  - Preventative maintenance – PCI 56-85
  - Rehabilitation – PCI 20-55
  - Reconstruction – PCI 0-20
- Condition maps
- Input from street operations





# Pavement Management Program – Street Prioritization Approach Moving Forward

- Computerized Assetic – based project prioritization
- Service criteria – Pavement condition index
- Treatment trigger criteria - road class and surface type
- Scenario analysis – Constrained budget scenario
- Capital works program – Treatment type, cost, and schedule
- Visualize and validate
- Discuss with street operations and finalize



# Pavement Management Program – Treatment Triggers Criteria – Decision Making

Pavement Condition Index vs. Treatments



Treatments Over Asset Lifecycle



THANKS



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