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)

1. Update Inventory
2. Assess Condition
3. Update Systems
4. Calibrate/Run Assetic Model
5. Generate M&R Report
6. Validate Report
Infrastructure Planning Process (Detailed)
Pavement Management Program Updates
Pavement Management Program – Condition Assessment

Topeka 2016
PCI Average - 54

Topeka 2019
PCI Average - 65
Pavement Management Program – Condition Assessment

Condition 2016

- Very Poor: 9%
- Poor: 25%
- Fair: 37%
- Good: 18%
- Very Good: 11%

Condition 2019

- Very Poor: 2%
- Poor: 19%
- Fair: 34%
- Good: 24%
- Very Good: 21%
Pavement Management Program – Condition Assessment

PCI Road Class 2016 vs. 2019

<table>
<thead>
<tr>
<th>Category</th>
<th>2016</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collector</td>
<td>53</td>
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<tr>
<td>Local</td>
<td>52</td>
<td>62</td>
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<tr>
<td>Arterial</td>
<td>64</td>
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Pavement Management Program – Condition Assessment

PCI Comparison Road Class & Surface 2016 vs. 2019

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2019</th>
<th>2016</th>
<th>2019</th>
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<tbody>
<tr>
<td>Asphalt - AC</td>
<td>51</td>
<td>60</td>
<td>63.7</td>
<td>62.1</td>
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<tr>
<td>Concrete - PCC</td>
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<td>49</td>
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<td>71.0</td>
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City of Topeka
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
## Pavilion Management Program – Treatment Triggers Criteria – Decision Making

### Pavement Condition Index vs. Treatments

<table>
<thead>
<tr>
<th>Pavement Condition Index, PCI</th>
<th>New</th>
<th>Degrades to Score 2</th>
<th>Surface Seal (1/2)</th>
<th>Degrades to Score 3</th>
<th>Surface Seal and Patch (1/2)</th>
<th>Degrades to Score 4</th>
<th>Mill and Overlay (1/1)</th>
<th>Degrades to Score 2</th>
<th>Surface Seal (2/2)</th>
<th>Degrades to Score 3</th>
<th>Surface Seal and Patch (2/2)</th>
<th>Degrades to Score 6</th>
<th>Reconstruct</th>
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<tr>
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**Treatments Over Asset Lifecycle**
THANKS