Topeka Signal System
Current Program Annual $ = $885,000

Cost per intersection @ 5 per year = $185,000

Most recent intersection costs = $275,000

Enhanced technology

Structures designed for 40 year life

- Should be replacing 5 per year
- Technology, conduits, wiring not lasting that long

ADA requirements: sidewalk improvements and increased number of structures
Define Problem:

- COT is NOT on a 40 year replacement cycle

Why?

- Funding limitations?

Variables ↔ cause and effect

Amount of money committed ~ Number of Signals in the system

inverse relationship
Impacts to System Size

<table>
<thead>
<tr>
<th>Total System # in 2041</th>
<th>Total # Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$500,000.00</td>
<td>66</td>
</tr>
<tr>
<td>$750,000.00</td>
<td>99</td>
</tr>
<tr>
<td>$1,000,000.00</td>
<td>132</td>
</tr>
<tr>
<td>$1,250,000.00</td>
<td>165</td>
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</tbody>
</table>

Legend:
- Total System # in 2041
- Total # Removed
Annual Cost
40 year Cycle

<table>
<thead>
<tr>
<th>Annual Cost</th>
<th># Replaced per Year</th>
<th># Removed per Year</th>
</tr>
</thead>
<tbody>
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Other ways to handle intersection traffic

- Medians
- R-cut
- 2 way Stop + ped crossing
Other considerations
that impact how we choose to handle intersection traffic

- Intersection capacity (as a function of people throughput, not vehicle throughput per Complete Streets)
- Costs of conducting signal warrant analyses and physically removing signals. Cost of changing how intersection traffic is handled. Costs of maintenance.
- Safety (Goal is overall decrease in number of fatal and serious injury crashes, with multi-modal considerations)
- Traffic flow changes including delays & congestion and changing habits (resident complaints). Cost to upgrade signal capabilities (technology)
- Capacity of future projects to make changes
2021 Signal Replacements Program

Replace
- 10th street @ Washburn and Lane
- 21st & Randolph

Study
- 9th & Quincy
- 7th & Jackson
- 5th & Jackson
- 4th & Jackson
- Huntoon & Tyler

Remove
Based on Study Results and available funds

Next Steps

Consider the idea that we currently fund a 100-intersection signal system

Consider our desire for enhanced signal capability

Consider implications of a smaller signal system than what we currently have