RIDGE AVENUE CORRIDOR TRAFFIC ISSUES
CHURCH STREET TO HOWARD STREET

January 22, 2018
BACKGROUND

• 2007 – Traffic Signals Modernized

  21 Signals Interconnected
  ▪ Ridge (Mulford to Church) – 10
  ▪ Church (Asbury to Orrington) – 6
  ▪ Davis (Asbury to Benson) – 4
  ▪ Asbury/Dempster - 1

• 2008 – Roadway Rehabilitation

• Average Daily Traffic
  ▪ Ridge – Estimated 15,000 – 20,000
  ▪ Major Side Streets: Estimated 5,000 – 12,000
BACKGROUND

- Speed Limit – 30 mph
  - Average Speed – 26 mph
  - 85th percentile – 34 mph (15% travel faster)

- School Speed Limit 20 mph - adjacent to:
  - Oakton School
  - Roycemore schools

- School Crossing Guards
  - Lake
  - Greenleaf
  - Oakton
  - Austin
  - Hull
ISSUES

• Accidents:
  ✓ Lack of Turn Lanes and Left Turn Signals
  ✓ Pedestrian/Student Crossings
  ✓ Traffic Flow
  ✓ Speeds
  ✓ Lane Widths
  ✓ Visibility of Post Mounted Traffic Signals
## ACCIDENT HISTORY

<table>
<thead>
<tr>
<th>Ridge intersection with:</th>
<th>2003-2005 per year average</th>
<th>2012-2016 per year average</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oakton (split-phase)</td>
<td>14</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Main (split-phase)</td>
<td>13</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Greenleaf</td>
<td>15</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Dempster (north/south left turn restrictions)</td>
<td>15</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Greenwood (no signal)</td>
<td>12</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Lake</td>
<td>20</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>Grove (no signal)</td>
<td>13</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Davis (one-way)</td>
<td>15</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Church (one-way)</td>
<td>26</td>
<td>21</td>
<td>21</td>
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<tr>
<td>Total</td>
<td>143</td>
<td>145</td>
<td>154</td>
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</tbody>
</table>
ACTIONS TAKEN 2016 - 2017

- Installed four (4) Speed Feedback signs as part of Safe Routes to School to alert drivers regarding their speed and request to slow down.

- Allowed left turns from southbound Green Bay to eastbound Emerson as part of Emerson/Ridge/Green Bay project to relieve pressure on Ridge.

- Turn restrictions at Ridge/Grove & Ridge/Greenwood to address accidents.

- EPD increased enforcement of speeds and traffic regulations.
ACTIONS TAKEN 2016 – 2017 (cont.)

• Increase in all-red traffic signal intervals to address red light running related right-angle accidents.

• Posted ‘left turns yield to oncoming traffic’ signs on Ridge at Lake and at Greenleaf.

• Trimmed tree branches in front of signals to address visibility.

• Posted ‘caution, watch for oncoming left turning traffic’ on Ridge at Lake.
OPTIONS – Non-Traffic Signal Related

• Reduce speed limit to 25 mph
• Continue enforcement
• Speed camera installation
• Trim trees at traffic signals
OPTIONS – Traffic Signal Related

Split-phase Ridge/Lake and Ridge/Greenleaf Signals

- Similar to Ridge/Main and Ridge/Oakton Operation.
- Add left turn arrows on the northbound and southbound directions.
- Traffic in one direction will move while the other direction is stopped.

Benefits:
- Easier to make left turns
- Some reduction in left turning traffic accidents. Accidents will still occur as most are due to driver behavior.

Impacts:
- Flow of traffic on Ridge interrupted
- Traffic back-up during morning and afternoon peak hours
- Traffic may move to other streets such as Asbury
- Sheridan Road construction detoured traffic will add to back-ups

Estimated Cost: $10,000 per intersection (work will be done by staff electricians and traffic signal vendor)
OPTIONS – Additional Engineering Analysis

Review would include other issues brought up at other intersections and in the corridor:

- Left turn signals/ left turn lanes on major side streets (Lake, Greenleaf, Dempster, Main, Oakton)
- Pedestrian signal upgrades
- Installation of mast-arm signals to improve visibility
- Need to retime signals in the corridor and system

Estimated Cost for Consultant Study/Analysis: $75,000 - $100,000

Estimated Cost for Intersection Improvements: $100,000 - $300,000 per intersection, depending on scope of improvements