175th/199th/223rd Street Corridor

Length
- 175th Street: 12 miles
- 199th Street: 14 miles
- 223rd Street: 9 miles

Key Developments:
- BNSF Intermodal Facility
- CenterPoint Intermodal Center
- New Century Air Center

Figure 14-14: Traffic Volumes along 175th/199th/223rd Streets
DESCRIPTION OF THE CORRIDOR
175th Street, 199th and 223rd Street are two-lane roadways that provide for east-west travel through southern Johnson County and northern Miami County. 175th Street connects with I-35 near Gardner and stretches east to its terminus at Metcalf Avenue just east of US-69. West of I-35, 175th Street becomes US-56, which is discussed on pages 87 through 89. 199th Street also intersects I-35, just to the south of Gardner, then runs east through the community of Spring Hill to its terminus at State Line Road. 223rd Street connects to K-7/US-169 on the south side of Spring Hill and continues to the east where it ends at S. Holmes Road in Missouri.

175th, 199th and 223rd Streets are each under local jurisdiction in the unincorporated portions of Johnson and Miami Counties and in the cities of Overland Park and Olathe. 175th and 199th Streets are shown in the County Arterial Road Network Plan (CARNP) as parkways. There is an opportunity for one of these three roadways to become a connector between US-69 in Kansas and I-49/US-71 in Missouri.

KEY DEVELOPMENT INFORMATION
Most of the major development will occur along 175th Street and 199th Street. These streets are located in one of the fastest growing areas in the 5-County region. Major developments include the BNSF Intermodal Facility and the New Century AirCenter. By the year 2040, these corridors will be impacted by very high population growth projected in the area between I-35 and US-69. This area is likely to take on a more suburban character with some potential at key intersections for warehouse/distribution center development.

Due to continuous growth and development into southern Johnson County, the need for a new major east-west route has been extensively studied. The CARNP concluded that east-west travel movements would need to be served by improving existing roadways. 175th and 199th Streets were the two roadways identified as the primary corridors to serve this need.

Additionally, an east-west corridor through this area could possibly become a connection between US-69 in Kansas and I-49/US-71 just across the state line in Missouri. There is the potential for employment growth and increased truck traffic in this area, attributed to the BNSF Intermodal Facility just west of I-35 and the CenterPoint - KCS Intermodal Center along I-49/US-71 in Kansas City, MO, and associated warehouse developments. One of these routes could provide improved connectivity from southern Johnson County to population and employment centers in Missouri. Connectivity between US-69 and I-49/US-71 would require cooperation with the Missouri Department of Transportation. Some of this potential demand could be served by planned improvements to 199th Street, but this area should be re-evaluated in the future to track growth and manage travel demand in this corridor.

TRAFFIC
Projections of future traffic growth for the year 2040, on the two-lane 175th and 199th Streets, showed significant potential for congestion. Traffic volumes on 175th Street are expected to increase by 160 percent of current vehicles per day, on 199th Street traffic volumes are expected to increase by 400 percent, and on 223rd Street traffic volumes are expected to increase by 42 percent of current vehicle counts. These traffic projections are likely to put significant strain on the capacity of existing roadways.

The analysis completed as part of the 5-County Study suggests for the regional movement of traffic, not all three streets need to be widened during the study’s timeframe.

CORRIDOR CONNECTIONS
The 175th Street, 199th Street and 223rd Street roadways connect with the primary north-south corridors running through southern Johnson County and northern Miami County. The projection for 2040 shows significant congestion occurring at the 175th Street and I-35 interchange. There is also significant congestion projected on US-69 north of the 175th Street interchange. The at-grade intersections of K-7 with 175th and 199th could also be significantly impacted by increased future traffic flows along the two corridors. The 223rd Street connections to K-7/US-169 and to US-69 are not expected to be congested.
RECOMMENDED STRATEGIES

The continued maintenance and operation of existing roadways and transit services must occur before other strategies are implemented on all three roadways.

A variety of strategies were considered to improve current and future traffic operations on 175th, 199th, and 223rd Streets through the year 2040. These strategies are shown in Table 14-22. Strategies that are recommended as part of a corridor package are shaded in blue; strategies that were not recommended during the time period 2020 to 2040 are not shaded. Each strategy was assigned an identifier code of a letter and number that are shown on the 175th, 199th, and 223rd Streets corridor map. An “S” indicates a system management strategy, a “D” indicates a demand management strategy, and a “C” indicates an added capacity strategy.

The table shows how each strategy scored for the criteria used to evaluate each of the 9 Desired Outcomes.

Stakeholders determined that the 9 Desired Outcomes should be used in making transportation investment decisions. The total score for each strategy was determined by multiplying the individual outcome score by a weighting factor that was established by stakeholders for that desired outcome. The total cost is given in year 2020 dollars and includes the construction/implementation cost and 10 years of maintenance/operation cost. The Benefit Ratio was determined by dividing the Total Score by the Total Cost in Smillions.

Increased Capacity Strategies

These strategies increase the traffic-carrying capacity of a roadway through adding lanes, modifying interchanges, and constructing new roadways.

C1: Widen 199th Street to a four-lane arterial street from US-56 to I-49/US-71. Each of the three street corridors showed the potential for increased traffic volumes that would require widening. 199th Street scored the highest of the three and is therefore recommended.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Desired Outcomes (weighting factor*** - Total Score</th>
<th>Total Cost ($millions)*</th>
<th>Benefit Ratio**</th>
<th>Decade</th>
</tr>
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<tbody>
<tr>
<td>Operate and maintain existing roads and bridges</td>
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<td></td>
<td></td>
<td>2020-2030</td>
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<tr>
<td>C1</td>
<td>Widen 199th Street from a 2-lane to a 4-lane arterial street from US-56 to I-49/US-71</td>
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<td>10.0</td>
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<td>C2</td>
<td>Widen 175th Street from a 2-lane to a 4-lane arterial street from I-35 to I-49/US-71</td>
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<td>C12</td>
<td>Widen 223rd Street to a 4-lane arterial from K-7/US-169 to I-49/US-71</td>
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<td>S26 Access Management</td>
<td>4.9</td>
<td>5.6</td>
<td>3.3</td>
<td>3.5</td>
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<td>D37 Bicycle and pedestrian facilities</td>
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<td>3.7</td>
<td>3.3</td>
<td>3.3</td>
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<tr>
<td>C61 Widen 223rd Street to a 4-lane arterial from K-7/US-169 to US-69</td>
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Table 14-22: 175th/199th/223rd Street Corridor Strategy Package

*Total Cost is in 2020 dollars and includes costs for constructing/implementing the strategy and 10 years of operation and maintenance costs.  
**Benefit Ratio is determined by dividing the Total Score of the strategy by the Total Cost in Smillions. It provides a way to compare strategies.  
***The numbers in parenthesis below each Desired Outcome indicate the weight assigned as determined through stakeholder input.