





I-35 Xpress – Bus on Shoulder

January 24, 2013
Kansas Senate Standing Committee on Transportation

Getting you there is our **BUS**iness!

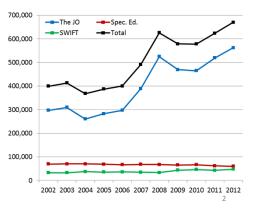
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About Johnson County Transit



- The JO: 15 fixed routes operating in Johnson County and throughout KC Metro
- Daily Ridership: 2,200 in FY 2012 (2,800 on peak days)
- FY 2012 ridership was 8.3% higher than FY 2011 and 22% higher than FY 2010
- JCT also operates Special Edition and Sheltered Workshop Industrial Fixed Transportation (SWIFT)

JCT Ridership – FY 2002 to FY 2012

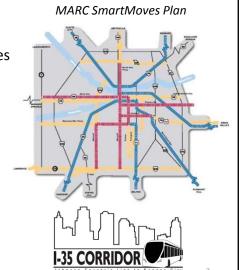


Johnson County Transit

Bus on Shoulder Background



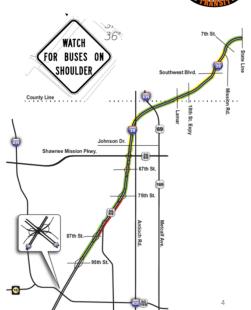
- I-35 Commuter Rail
- I-35 Fixed Guideway Alternatives Analysis
- I-35 Bus on Shoulders Study Phase I
- I-35 Bus on Shoulders Study Phase II
 - Early Implementation Project



Approval and Implementation



- Conclusion: BOS can be used safely and effectively on I-35.
- Successful implementation in other regions.
- Generally between 95th Street and state line – some segments have a six-month evaluation period
- Shoulder modifications:
 - Relocate guardrail
 - Add signage and pavement markings
 - Replace drainage inlets
- Travel time savings and improvement in reliability.



Legislative Approval



House Bill No. 2561 was passed in 2010 to allow transit buses to operate on certain right shoulders; amending K.S.A. 8-1517. Components of the bill include:

- The secretary of transportation may authorize transit buses to be operated upon the right shoulders of city connecting links and other highways in the state highway system in <u>Johnson county</u>.
 - Only if the speed of traffic on such connecting link or highway has been reduced to less than 35 miles per hour.
- Drivers of transit buses being operated upon the shoulder shall:
 - Not exceed the traffic speed by more than 10 miles per hour; and
 - Yield to merging, entering and exiting traffic and to other vehicles on the shoulder.
- Annually, report to the legislature concerning the implementation and operation of the program.
- Sec. 2. K.S.A. 8-1517 was amended to include (3) below:
 - (a) The driver of a vehicle may overtake and pass upon the right of another vehicle only under the following conditions:
 - (3) a transit bus authorized under and being operated in accordance with the provisions of section 1, and amendments thereto.

Operational Details



- Uses shoulders during peak periods when traffic is moving slower than 35 mph.
- Buses using shoulders do not travel more than 35 mph. Buses do not travel more than 10 mph above traffic.
- Buses must yield to any vehicle entering, merging or exiting through the shoulder.
- Buses must re-enter the mainline where the shoulder is obstructed (vehicle debris, incident, etc).



BoS in Minneapolis

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Four commuter express routes that are allowed to use the shoulders of I-35 to bypass traffic under specific conditions: Route 661/B – Olathe Xpress Route 670/L – Gardner-OP Xpress Route 673/N – South OP Xpress Route 678/S – Shawnee Xpress The launch of BoS is the result of years of planning and regional coordination, involving: Johnson County Transit (JCT) Kansas Department of Transportation (KDOT) Kansas Highway Patrol (KHP)

Public Education & Marketing



Activities to explain and promote BoS (October 2011 - January 2012):

Mid-America Regional Council (MARC)Support from various Johnson County

municipalities

- Focus groups to help fine-tune message
- Radio advertisements
- Local presentations
- Local news coverage
- Outreach to current riders
- Marketing videos to explain and promote service
- High visibility of test run and driver training sessions
- KC Scout message boards
- "Media Day" at JCT



Since implementation, public response has generally been positive:

 Most frequent comment: "Why aren't drivers using the shoulders more?" or "Why does my bus not use the shoulder?"

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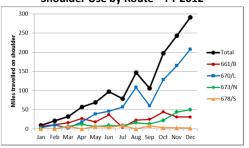
BoS Operations



In the first year of operation (2012):

- A total of 472 buses used the shoulders of I-35, travelling approximately 1,348 miles on the shoulder.
- All four *Xpress* routes have used the shoulder, and shoulder use increased dramatically since beginning the service.
- No BoS-related safety incidents have been reported.

Shoulder Use by Route - FY 2012



Shoulder Use by Segment – FY 2012

| Segment | Southbound | Northbound |
|--------------------|------------|------------|
| I-635 to Lamar | 99 | 57 |
| Antioch to I-635 | 126 | 66 |
| Johnson to Antioch | 192 | 57 |
| 67th to Johnson | 252 | 37 |
| 75th to 67th | 222 | 38 |
| US-69 to 75th | 108 | 25 |
| 87th to US-69 | 24 | 13 |
| 95th to 87th | 14 | 1 |
| Total | 1037 | 294 |

Ridership



Xpress ridership in FY 2012 increased by 10.4 percent compared to FY 2011, compared to 8.3 percent for *The JO* system as a whole.

Xpress Ridership by Route - FY 2012

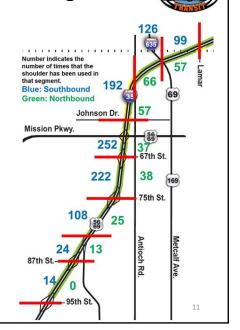
| Route | FY 2011 | FY 2012 | % Change |
|--------------------------------|---------|---------|----------|
| 661/B - Olathe Xpress | 68,112 | 71,064 | 4.3% |
| 670/L - Gardner-OP Xpress | 38,556 | 44,862 | 16.4% |
| 671/LN * | 2,164 | 0 | -100.0% |
| 673/N - South OP Xpress | 29,733 | 39,126 | 31.6% |
| 678/S - Shawnee Xpress | 18,040 | 17,867 | -1.0% |
| Xpress Total | 156,605 | 172,919 | 10.4% |
| The JO Other Routes | 362,916 | 389,471 | 7.3% |
| The JO Total (includes Xpress) | 519,521 | 562,390 | 8.3% |

^{*} 671/LN was eliminated at the end of FY 2011, with trips added to 670/L and 673/N



Travel Time Savings

- An estimated 2.5 minutes are saved each time a bus is able to use the shoulder for at least a two-mile segment (approx. 10% of travel time).
- This travel time savings is limited due to the relatively short segment where BoS is allowed (8 miles) and speed restrictions (10 mph speed differential).
- Buses using the shoulder are better able to maintain schedules and reduce late arrivals.
- Schedule and routing adjustments to *Xpress* routes in downtown Kansas City have also saved an additional four to six minutes on each trip.



The JO Xpress Transit Stations



Enhanced transit stations at the following Park & Ride locations:

- Strang Line Park & Ride (Heartland Church)
- Great Mall Park & Ride
- Sheridan & Kenwood Park & Ride (Mid-America Nazarene University)
- 137th & Antioch Park & Ride (Palazzo 16 Theatre)
- 151st & Antioch Park & Ride (Blue Valley Baptist Church)







The JO Xpress Transit Stations



Construction Photos - Dec. 2012 & Jan. 2013









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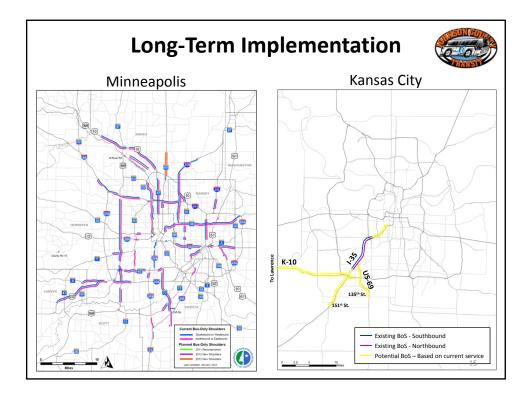
Lessons Learned



- An extensive public outreach effort and a coordinated message helped the public understand the service.
- Explain project goals and expectations in order to build public support.
- Learn from other regions that have implemented BoS service.
- Driver training is critical to achieving safe and effective implementation.
- Buy-in and assistance from project partners is essential; KDOT and KHP provided crucial training assistance.
- Create and improve processes for debris removal.



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BoS: Long-Term Implementation



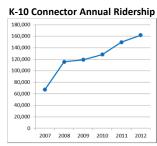
- <u>I-35</u>: Lamar to Cambridge Circle (State Line) in Wyandotte County
 - Improvements have been designed but no legislative approval
 - Will provide the largest potential for travel time savings and be used by the most routes
- I-35: 151st Street to 95th Street
- <u>U.S. 69</u>: 135th Street to I-35 merger (87th Street)
- <u>K-10 / I-435</u>: west of Quivira to Lawrence, served by the popular *K-10 Connector* route.

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K-10 Connector



- Commuter express service connecting the University of Kansas in Lawrence to Johnson County Community College and KU-Edwards in Overland Park
- All-day service Monday-Friday
 - 30-minute frequency during peak hours
 - 60-minute frequency in midday and evening
- Reduced schedules in summer and school breaks
- Provided 162,000 passenger trips in FY 2012
- 1,200 passengers on peak days (Aug-Sept)







K-10 Connector November 2012 passenger survey found that: 78% of trips are for school, 16% for work, 6% for social/recreation/other 54% live in Douglas County, 39% live in Johnson County, 7% other Bus-on-Shoulder on K-10 Highway would improve service reliability due to traffic congestion or incidents. Molecular on traffic congestion or incidents. Passengers by Zip Code 1-2 264 total 3-5 responses 6-8 9-20 21-41

Questions & Comments







Getting you there is our **BUS**iness!

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