KANSAS CITY INTERNATIONAL (KCI) AIRPORT

Public Transit Services Action Plan

KCATA   MARC MID-AMERICA REGIONAL COUNCIL   Kimley»Horn

Executive Summary

The Kansas City Area Transportation Authority (KCATA) and the Mid-America Regional Council (MARC) collaborated on this Kansas City International (KCI) Airport Public Transit Services Action Plan to evaluate public transit options to serve growing transportation demands to and from the airport in light of the opening of the new KCI single terminal in 2023. This Plan evaluates demand for transit access to KCI across the entire Kansas City region, including both KCI employees and travelers. This Plan is specifically focused on transit service that could be implemented in a short timeframe, although it is envisioned that service options could ultimately be replaced by more premium service such as rail.

DEMAND FOR PUBLIC TRANSIT TO KCI

Currently, the only fixed-route public transit service to KCI is a RideKC bus route that operates once per hour and takes an hour to travel between the airport and downtown Kansas City, Missouri (KCMO). This service is supplemented by a recently launched app-based, on-demand microtransit service, IRIS, that operates the entire limits of KCMO as well as within the Cities of North Kansas City, Gladstone, Riverside, and Liberty in the Northland.

A robust Needs Assessment was conducted including a data-driven analysis of travel demand, extensive conversations with targeted stakeholder focus groups, outreach to the general public, and a review of airport transit service for peer cities. The table to the right summarizes these needs across (1) KCI employees and (2) KCI travelers.

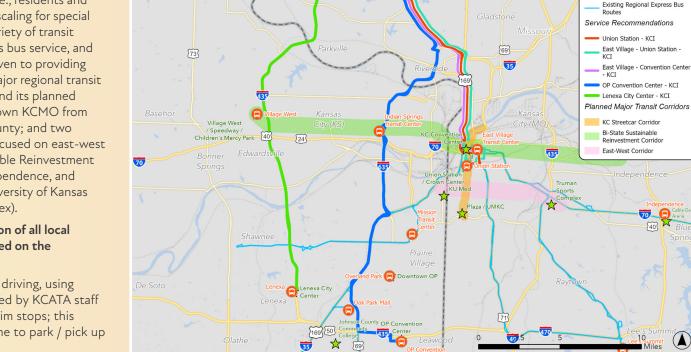| User Group	Identified Transit Service Needs	Potential Targeted Geographic Locations
KCI Employees	• Improved service frequency (i.e., 30- or 15-minute headways). • Better alignment with employee shift times • Free or affordable fares (i.e., $10 one-way IRIS fare does not accommodate a daily commuter) and parking. • Wider geographic coverage to access existing employees, especially across the Northland beyond the I-29 corridor. • Better access to potential employee pools in other jurisdictions. • Improved safety or perception of safety. • Competitive travel times with driving + parking.	• Existing employee home locations in Northland east of I-29, especially along the Barry Road and Oak Trafficway corridors. • Potential employee pools, such as Kansas City, Kansas (KCK), eastern Jackson County, Platte City, Leavenworth, or St. Joseph.
KCI Travelers (Residents, Business Travelers, Visitors)	• Express (i.e., point-to-point) service. • Frequent service (30-minute headways or better). • Consistent/reliable service. • Cost-effective (not necessarily free, but more affordable than private for-hire transportation or TNCs) • Baggage-accessible buses. • Convenient drop-off/pick-up at both ends of trip. • Connections to regional high-capacity transit (e.g., streetcar). • Clean / safe buses. • Well-advertised / branded service.	• Downtown KCMO - most notably the Convention Center area and Union Station / Crown Center area. • Johnson County – most notably, the Overland Park Convention Center area or the Lenexa City Center area • Other potential locations such as Village West in KCK, Independence Center in Independence, Missouri, etc..

SERVICE ALTERNATIVES AND CONSIDERATIONS

Based on the identified service needs and stakeholder input, the project team developed and evaluated a series of alternative service options for (1) employee-focused service and (2) traveler-focused service (i.e., residents and visitors), with the consideration given to scaling for special events. The project team considered a variety of transit modes, including local bus service, express bus service, and microtransit. Special consideration was given to providing connections with existing and planned major regional transit investments, including the KC Streetcar and its planned extensions; express bus routes to downtown KCMO from Johnson County and eastern Jackson County; and two planned high-capacity transit corridors focused on east-west travel in the region (the Bi-State Sustainable Reinvestment Corridor between KCK, KCMO, and Independence, and the East-West Corridor between the University of Kansas Health System and Truman Sports Complex).
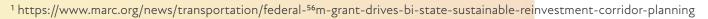
The project team conducted an evaluation of all local and express bus service alternatives based on the following factors:

- ✅ **Travel time competitiveness** versus driving, using assumptions for travel speeds provided by KCATA staff and assumed dwell times at any interim stops; this would account for terminal times (time to park / pick up a rental car / hail a TNC/cab).

- ✅ **Planning-level costs** for capital (fleet) and operations using KCATA-provided planning worksheets.

- ✅ **Assessment of potential ridership demand**, considering adjacency to metro area population, jobs, hotel rooms, and KCI employee home locations.

Following the evaluation of service alternatives and discussions with the Project Advisory Team (PAT), the project team identified **express bus service to downtown KCMO** and **Johnson County (with potential interim stops in KCK)** as recommended initial service options for implementation. These alternatives were among the highest-scoring in the evaluation and were supported by the Project Advisory Team.

[1] https://www.marc.org/news/transportation/federal-56m-grant-drives-bi-state-sustainable-reinvestment-corridor-planning

[2] https://ridekc.org/planning/eastwesttransit

Identified Express Bus Routes from Downtown KCMO and Johnson County

IMPLEMENTATION CONSIDERATIONS

Routes and Stops

- In order to be competitive with other modes, most notably driving, express bus service to KCI should be point-to-point service between a major regional pickup/drop-off point and KCI and follow the regional freeway network. At most, one interim stop should be provided in order for service to remain competitive. Note that any stop, including endpoints, will require several minutes of layover time to accommodate loading and unloading of baggage.

- At the KCI terminal, the preferred location for pick-up and drop-off is within the commercial lanes where RideKC and charter buses currently pick up (Signposts 2A through 2C). Note that if multiple transit routes are providing service to KCI resulting in multiple buses laying over at the same time in the commercial curb space, capacity for passenger pick-up/drop-off may become a constraint.

- Express bus service between downtown KCMO and KCI should pick up and drop off at either Union Station (preferred) or the Convention Center area. An additional connection to the East Village Transit Center, which connects or is planned to connect to major regional transit investments, should also be considered.

- Express bus service from Johnson County to KCI should pick up and drop off at either Overland Park Convention Center, which has nearby hotels, businesses and convention center space, or the Lenexa City Center area with denser mixed-use development. Each route could include an additional connection in KCK directly along the route, which would connect to the existing State Avenue bus service and the planned Bi-State Sustainable Reinvestment corridor.

- Direct connections from other regional destinations to KCI could be opportunities for future service implementation after evaluating the success of starter route service from downtown KCMO or Johnson County. Several regional destinations, such as Independence and Lee's Summit, are currently served by express bus routes that tie into the East Village Transit Center that could allow for transfers to a downtown KCMO-based service to KCI.

Ridership

- Based on an analysis of KCI employee home locations, jobs and population in close proximity to proposed stops, and hotel rooms in the vicinity of proposed stops, the downtown KCMO alternatives would have the highest ridership potential.

Service Span and Frequency

- Service to KCI should operate at a 30-minute frequency (essentially peak service all day) and operate 18 hours per day, from 5 a.m. to 11 p.m., seven days of the week. These service hours are focused on KCI travelers and should align better with some employee shift times; service hours could be expanded further to accommodate all employee shift times but would likely need to encompass near 24-hour service.

- Based on these assumptions, most proposed service options would require a 120-minute cycle (round trip including layovers) and 4 vehicles operating at a time; however, a route only between Union Station and KCI could likely operate with a 90-minute cycle and 3 vehicles.

Fleet

- Currently, nearly all buses operated by KCATA and Johnson County Transit are either diesel or compressed natural gas (CNG), although both have obtained or are in the process of obtaining a limited number of battery electric buses (BEBs). Given the route length and proposed service hours for service to KCI, BEBs would not be able to operate continuously through an entire day and would need to be replaced multiple times throughout the day.

- Stakeholders and the general public emphasized that express bus service to KCI should be a "premium" service that is comfortable, includes luggage storage, and minimizes delay with efficient boarding at pick-up and drop-off (i.e., large center-door boarding; app-based or off-vehicle fare payment).

Additional Capital Investments

- Additional amenities will be needed at pick-up and drop-off sites, including at the KCI terminal. This should include branded wayfinding signage, covered shelters, benches, lighting, on-site security, digital message signs, crosswalks within any parking areas, bicycle racks, and pedestrian connectivity around the facility including a wide pedestrian space adjacent to the pick-up and drop-off point.

- As new express bus service to KCI will likely require additional vehicles to be acquired; these vehicles will also generate a need for additional space at maintenance facilities to store, fuel/charge, and maintain these vehicles.

Advertising / Branding

- Stakeholders emphasized that ridership for a new premium transit service to KCI will be driven in part by marketing and awareness of service. Service will need to be well-advertised in order to raise awareness of its existence.

- Recommended branding elements include operating under the RideKC brand (e.g., "RideKC Airport MAX" or "RideKC Airport Express"); advertising within the airport terminal; and targeted outreach to potential riders (including KCI employees) through a variety of media (e.g., online ads, TV, social media).

Cost Estimate

- The proposed express bus service options are estimated to have an initial capital cost (fleet, signage and amenities at pick-up and drop-off points, and advertising campaign) of approximately $6 million to $8 million, with an additional $3 million to $6 million in annual operating costs. This assumes the use of diesel or CNG buses.

- For 10 years of service, a total investment estimate ranges from just over $50 million (for service between Union Station and KCI that requires fewer buses) to more than $80 million (service originating in Johnson County and including interim stops in KCK). If a more premium service option is desired such as BRT or rail, the capital and operations costs would be significantly more expensive than express bus service. For example, based on a high-level review of comparable systems, the 10-year investment for BRT would be more than $400 million and for LRT would be more than $5 billion; further more detailed assessments would be needed to refine these cost estimates

Route	Fleet Costs ($millions)		Total Capital Cost ($millions)	Annual O&M Cost ($millions)	10-Year Program Cost ($millions)
	Buses Needed (incl/ Spares)	Fleet Cost (Diesel/ CNG)			
Union Station – KCI	4	$2.6	$6.6	$3.7	**$51.0**
East Village – Convention Center – KCI	5	$3.3	$7.3	$4.6	**$62.5**
East Village – Union Station – KCI	5	$3.3	$7.3	$4.5	**$61.3**
OP Convention Center – KCI	5	$3.3	$7.3	$5.9	**$78.1**
OP Convention Center – Indian Springs – KCI	5	$3.3	$7.3	$6.0	**$79.3**
Lenexa City Center – KCI	5	$3.3	$7.3	$5.6	**$74.5**
Lenexa City Center – Village West – KCI	5	$3.3	$7.3	$5.8	**$76.9**

Total capital cost includes additional capital costs (pick-up/drop-off amenities, promotion of service)

10-year cost estimates assume a 4% annual inflation/escalation.
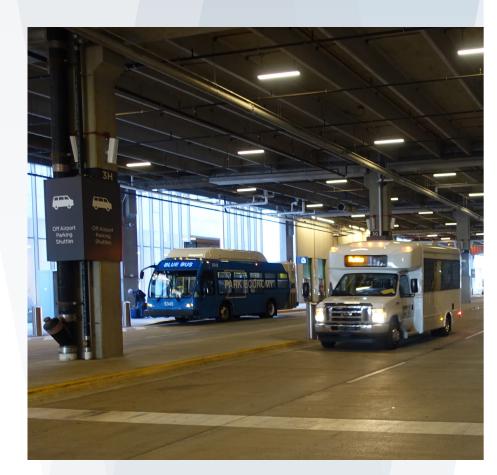
Funding

- The operator could consider applying for various discretionary federal grant programs; however, these programs are highly competitive, and some programs such as the Capital Investment Grant (CIG) program would likely not be applicable. Alternatively, pursuing MARC sub-allocated federal funding programs is a common mechanism for local transit capital expansions, although these are not typically applicable for operation of services.
- At a local level, KCATA currently lacks a designated regional funding source and relies heavily on two sales taxes through KCMO. Outside of KCMO, no dedicated revenue sources exist.
- Fare revenue should be considered a source of operations funding, as stakeholders emphasized that express bus service to KCI should be considered premium service that warrants collecting fares.
- Additional potential revenue sources include potentially utilizing the Downtown Transit Development District, public-private partnerships, naming rights, parking fees, fees charged to KCI concessionaires or airlines, or fees charged to adjacent hotels at pick-up and drop-off locations.

Scalability for Special Events

- Considerations for scalability of service for special events need to account for additional fleet needs, additional operators, storage and maintenance of vehicles, and contractual issues (i.e., collective bargaining considerations for operators and mechanics). Both KCATA and Johnson County Transit staff have expressed current constraints in terms of both fleet and operator availability. Stakeholders expressed anecdotal concerns about more stringent commercial driver's license (CDL) requirements and low operator pay as barriers to being able to hire more operators quickly.
- Stakeholder feedback strongly indicated that the only special events that would requiring scaling of service would be major events such as the World Cup or another event drawing tens of thousands of out-of-town guests via air travel (e.g., a major political party convention).

Title VI Considerations

- Any service operated by a provider receiving federal funds will be required to meeting Title VI (of the Civil Rights Act of 1964) requirements to ensure that any changes to service to not discriminate or disproportionately impact based on race, color, or national origin. However, if no changes are made to existing service and the new service is open to the general public, this should not result in any Title VI impacts.
- Scaling of service to meet high periods of demand (e.g., special events) could have Title VI implications if this results in reductions to service elsewhere, particularly to identified disadvantaged populations.

NEXT STEPS

Implementation of improved transit service to KCI will be dependent on several next steps, most notably funding.

- ☑ **Identify lead agency(s):** a regional partner or partner(s) must step forward to fund and lead the service. This could be an individual jurisdiction (e.g., KCMO, Johnson County) or combination of jurisdictions.

- ☑ **Identify funding source(s):** this will significantly impact the implementation timeline, as without a funding reserve that can immediately be accessed, any subsequent procurement timelines may be delayed. Several MARC and federal funding sources have once-per-year or less frequent rounds of funding (as opposed to a rolling basis) and require documentation for applying for funding in advance.

- ☑ **Identify service operator(s):** for any new service being operated, an operator must be identified and contracted with.

  - It is recommended that express bus service between downtown KCMO and KCI be operated by KCATA under the RideKC brand (e.g., "RideKC Airport MAX" or "RideKC Airport Express") given the acceptance of the RideKC brand across the regional service providers.

  - It is recommended that express bus service between Johnson County and KCI be operated by Johnson County Transit, but also under the RideKC brand (e.g., "RideKC Airport Express – Overland Park").

  - Any enhancements to existing service, such as increasing headways or hours of service for RideKC Route 229, should continue to operated by the existing provider.

  - This effort should include confirming that the operator has the ability to store, fuel, and maintain buses at its existing facility.

- ☑ **Procure vehicles:** if new vehicles need to be procured (i.e., if the operating agency does not have available spare buses meeting the specified needs for airport traveler service such as center-door loading), it is recommended to assume a minimum of two years for procurement of buses. Diesel buses may be able to be procured more quickly. Modifications to vehicles for enhanced service, such as retrofitting to provide luggage storage or wrapping of vehicles, will also need to be procured.

- ☑ **Secure commitments for terminus locations:** the lead agency should coordinate with jurisdictions where pick-up and drop-off points will be located to identify preferred locations; this may also include coordination with private entities such as Union Station.

- ☑ **Procure necessary capital improvements at KCI and at terminus locations:** procure and provide any amenities not present at pick-up and drop-off points, such as branded wayfinding signage, covered shelters, benches, lighting, on-site security, digital message signs, crosswalks within any parking areas, bicycle racks, and pedestrian connectivity around the facility.

- ☑ **Advertise and promote service:** in advance of service initiation, conduct a targeted advertising campaign using a variety of media platforms.

- ☑ **Begin operations.**