



KERN REGIONAL TRANSIT

# BAKERSFIELD SERVICE ANALYSIS

## Final Report

June 2012



**BAKERSFIELD SERVICE ANALYSIS FINAL REPORT**  
Kern Regional Transit

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# 1 INTRODUCTION

This analysis was conceived in response to the Metropolitan Bakersfield Transit System Long-Range Plan. That plan, developed by Nelson\Nygaard, recommended a series of changes to Golden Empire Transit District (GET) fixed-route service. These recommendations, which are now in the process of implementation, could have a number of implications for Kern Regional Transit (KRT) service, including:

- **Connections to Transit Centers.** While the plan would in the near term retain the Downtown and Southwest Transit Centers, the primary points of connection between GET and KRT services, it would increase GET service to the recently opened transit center at Bakersfield College, and would establish a fourth transit center at California State University, Bakersfield (CSUB). The CSUB transit center may not be operational for some time; however, service to the campus would be increased in the interim.
- **Connections to new "Rapid" Service.** Rapid bus service similar to that operated in Los Angeles would be introduced. Rapid service would be significantly faster than existing local bus service, would operate more frequently, and would serve high-demand crosstown corridors, enabling relatively fast travel across the City of Bakersfield to and from close to 50 locations. One route would connect Bakersfield College to CSUB via the Mt. Vernon, California and Stockdale corridors, while the other would connect Oildale to CSUB via the Chester and Ming corridors (as well as the Downtown and Southwest Transit Centers).
- **Connections to Other Routes.** Remaining routes would be reconfigured to make them more direct, with fewer time-consuming turns, and would further be made faster by reducing numbers of stops. These routes would provide broad coverage, serving a range of destinations across the city that are not served by KRT, and many would operate on relatively frequent 30-minute headways.

The Long-Range Plan also includes mid-term and long-term service plans calling for further reconfigurations of GET service including retirement of the Downtown and Southwest Transit Centers and replacement of the former with a new transit center at the proposed California High-Speed Rail station (if it is built, as has been planned, adjacent to the existing Amtrak station near downtown), improved frequency and coverage on GET routes, upgrade and expansion of Rapid bus service (with potential eventual conversion to light rail), "enhanced" KRT service to Delano, Tehachapi and Taft, new GET regional service in two existing KRT corridors, Arvin-Bakersfield and Wasco-Bakersfield, and commuter rail to Wasco, Arvin and Buttonwillow. These recommendations were highly conceptual; *while this analysis focuses on implications of the near-term recommendations.*

The primary objectives of this analysis are to determine whether KRT might be able to take advantage of the GET changes to:

- improve service for its own customers, and
- reduce operating costs.

The GET changes present a number of intriguing possibilities for KRT. Most obvious among these is the creation of new transit centers near the edges of Bakersfield that would be connected to the core of the city by Rapid service. KRT routes serving Bakersfield now universally serve the Downtown Transit Center; some also serve the Southwest Transit Center. Termination of some

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services at outlying transit centers could enable buses to "turn back" and avoid center-city congestion, allowing more frequent service or, potentially, reducing costs. However, some riders would be required to transfer and pay an additional fare.

Alternately, KRT routes might simply be adjusted to serve different stops or follow different alignments in response to the GET changes. While these changes might not reduce operating costs or frequencies, they could improve customer service by ensuring that KRT service was coordinated with GET service.

Following this introduction are six chapters:

- GET Recommendations
- Data Collection
- Passenger Survey
- Route Profiles
- Recommendations
- Implementation

The passenger survey described in the Data Collection and Passenger Survey chapters was conducted on-board all KRT vehicles, including Dial-a-Ride, although only responses received on Intercity routes were subjected to analysis. The ridership counts described in the Data Collection and Route Profiles chapters were conducted only on Intercity routes (and did not include the **Buttonwillow route, which is not operated by First Transit, KRT's primary contractor**). The Recommendations and Implementation chapters focus on Bakersfield.

## 2 GET RECOMMENDATIONS

The Metropolitan Bakersfield Transit System Long-Range Plan's short-term service plan is currently scheduled for implementation in October. Details of the plan can be found in the project's final report. Elements of the plan relevant to this analysis are briefly described in the following paragraphs.

The plan would reconfigure GET's route network and add a fourth transit center, at CSU Bakersfield. Routes would be organized into five categories, key elements of which can be found in Figure 2-1 below.

**Figure 2-1 GET Service Categories**

Category	Frequency (minutes)			Average Stop Spacing
	Mon-Fri 6am-7pm	Mon-Fri 7pm-11pm	Sat-Sun 7am-7pm	
Rapid	15	15	15	2/3 mile
Crosstown	30	60	30	1/4-1/6 mile
Express	varies	varies	varies	varies
Circulator	60	--	60	1/3-1/4 mile
Circulator Express	60	--	60	1/3-1/4 mile; varies (by segment)

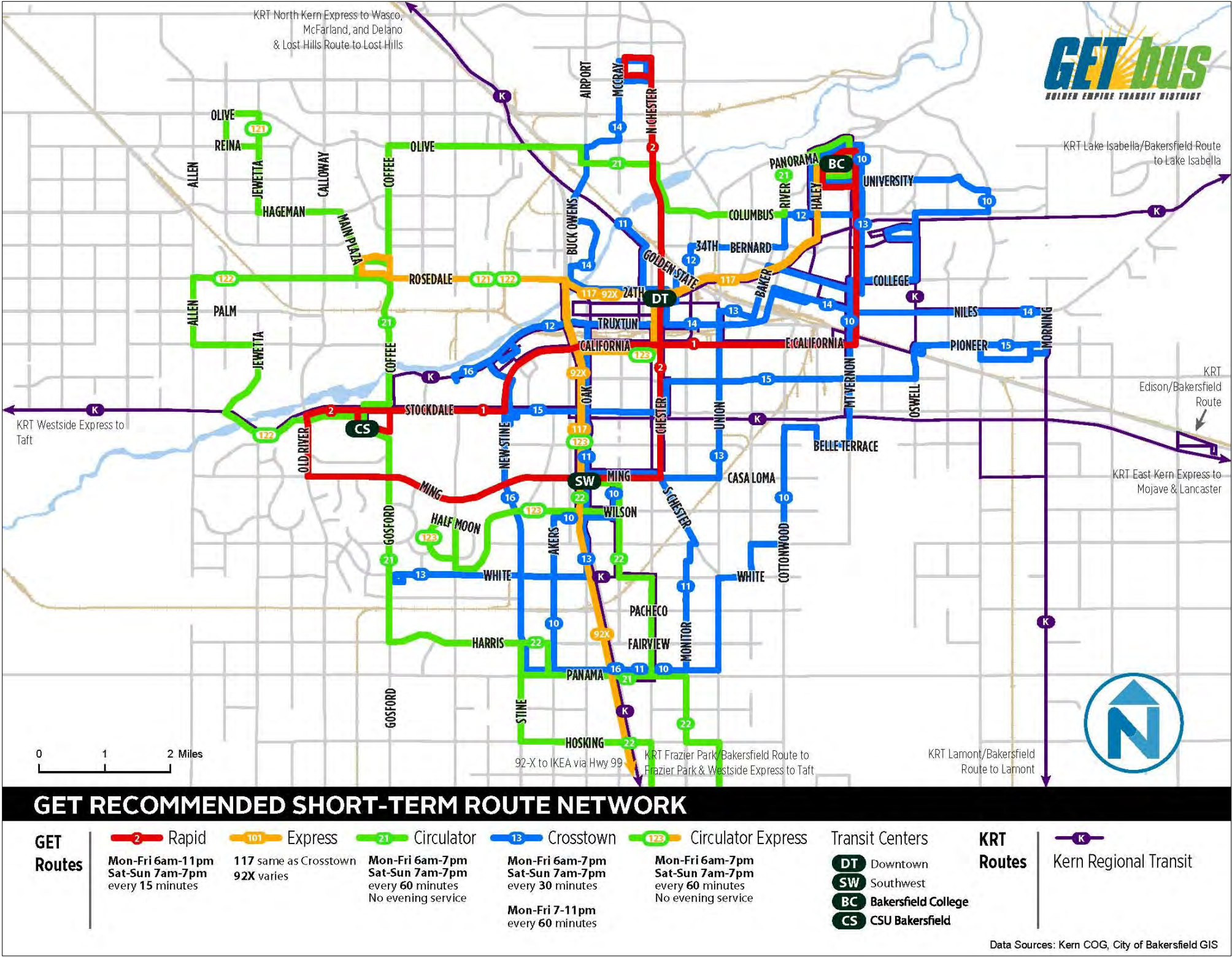
As Figure 2-1 indicates, Rapid routes would provide the highest levels of service, by far. Due to their relatively wide stop spacing and other recommended measures such as transit priority at traffic signals, Rapid routes would also be significantly faster than other routes.

Express routes, meanwhile, would also make few stops and would be quite fast. Express Route 117 and Crosstown routes would operate on relatively frequent half-hourly headways during the day.

Route alignments are shown in Figure 2-2 on the following page.



Figure 2-2 GET Route Map



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Most major destinations would be served by Rapid or Crosstown routes.

All but two routes would serve transit centers (and once Route 16 is combined with Route 12, following capital improvements to enable a westbound stop on Truxtun Avenue at Commercial Way, Route 15 will be left as the only route not serving a transit center). Transit centers served by each route are shown in Figure 2-3.

**Figure 2-3 Transit Centers Served by Each Route**

Route	Transit Centers Served			
	Downtown	Southwest	Bakersfield College	CSU Bakersfield
1			X	X
2	X	X		X
10		X	X	
11	X	X		
12	X		X	
13		X	X	
14	X			
15				
16				
21			X	X
22		X		
X-92	X			
117	X	X	X	
121	X			
122	X			X
123	X	X		

The new CSU Bakersfield Transit Center would be located at Don Hart Drive East and Kroll Way, **in the campus's northeastern corner. It would be accessible from both Stockdale Highway and Gosford Road**, and the intersections of Stockdale and Don Hart and Gosford and Kroll are each signalized. In the interim, buses may continue to use the existing stop on Don Hart Drive West, or potentially temporary stops near the new transit center location.

As was mentioned previously, these recommendations are currently scheduled for implementation in October. New schedules have not yet been developed.

## 3 DATA COLLECTION

While this analysis is focused on KRT service in Bakersfield, data were collected on all intercity routes because it was determined that such data might prove useful to KRT even if not directly relevant to this analysis. All data will be provided to KRT under separate cover.

Two types of data collection were performed: an on-board passenger survey and counts of boardings and alightings at each stop.

### PASSENGER SURVEY

On-board surveys were distributed on all KRT vehicles on Wednesday, Thursday, Saturday and Sunday between February 29 and March 4, 2012. The survey was available in both English and Spanish. Approximately 1,200 responses were received<sup>1</sup>, of which approximately 13 percent were in Spanish. The survey form can be found in Appendix A.

#### Content

Participants were asked ten questions about the trip they were currently making. They were asked about: the routes they were currently aboard, the origins and destinations of their trips, transfers from and to GET routes, priorities for service improvements, fare payment types and amounts, frequency of KRT ridership, trip purposes, and use of mobility devices.

Route-level data will be provided separately. This analysis focuses on systemwide findings.

#### Representativeness

Of 1,034 responses clearly identifying the intercity route on which the survey was completed, over one-quarter were collected on KRT's highest-ridership route, the East Kern Express. In general, numbers of surveys collected on each route roughly reflected share of ridership. The number and percentage of surveys collected by route is listed in Figure 3-1 below.

**Figure 3-1 Surveys Collected by Route**

Route	Surveys Collected	Percentage
East Kern Express	273	26%
Lamont - Bakersfield	172	17%
Kern River Valley	151	15%
North Kern Express	120	12%
Westside Express	113	11%
Lake Isabella - Bakersfield	74	7%
Mojave - California City	46	4%
Frazier Park-Bakersfield	34	3%

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<sup>1</sup> Including responses received on Dial-a-Ride vehicles. Only those received on Intercity routes (a total of 1,085 responses) were subjected to analysis.

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Lost Hills-Bakersfield	16	2%
Boron - Mojave	15	1%
Lamont - Weedpatch	15	1%
Mojave - Ridgecrest	5	0%

## BOARDINGS AND ALIGHTINGS

In order to determine detailed patterns of ridership data on KRT Routes, Nelson\Nygaard administered an effort to collect passenger boarding and alighting information at all stops on all KRT routes. Boardings and alightings were observed on 100 percent of a full service day for one weekday, Saturday and Sunday on all applicable routes, between February 29 and March 4, 2012. For most routes, data was collected on a Wednesday, with some routes being completed on a Thursday.

Boardings and alighting counts were captured by KRT operators who were provided forms, giving stop locations for each route. In advance of this data collection, operators participated in an hour-long training session on the study methodology and detailed instructions on how to conduct **boarding and alighting counts**. Operators were asked to record “ons” and “offs” at each stop and also provide additional information as needed. In addition, information on flag stops was recorded using annotated maps on select routes.

Upon completion of the data collection, all information was entered into electronic spreadsheets for tabulation and analysis.

## 4 PASSENGER SURVEY

The on-board survey form can be found in Appendix A. Following are key findings from analysis of responses on Intercity routes. Note that the Lost Hills-Bakersfield route is not included in sections below where route-level analysis was conducted because very few (16) responses were received on this route, and none in the areas for which route-level analyses were conducted.

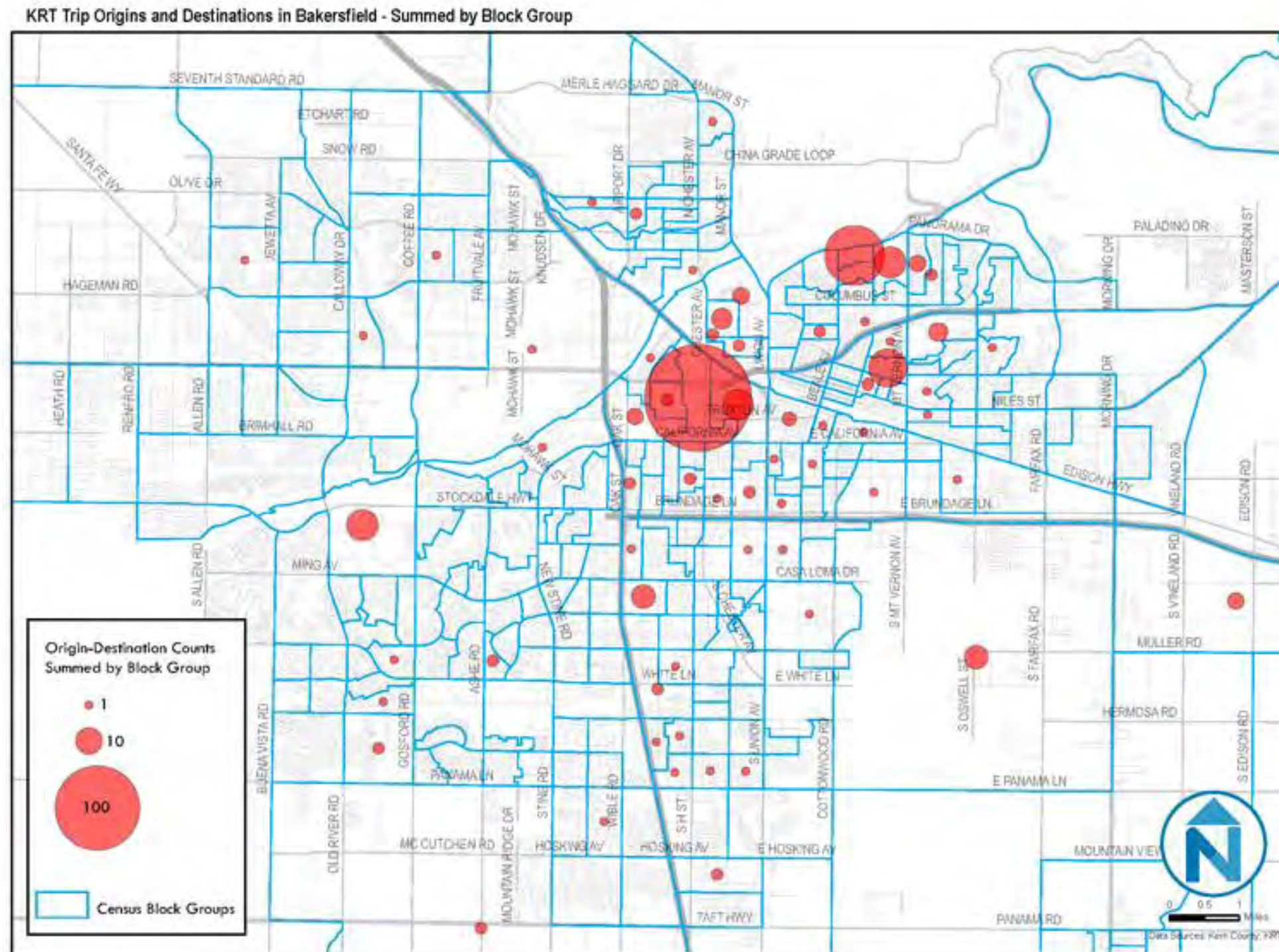
### ORIGINS AND DESTINATIONS

Survey respondents were asked to provide the locations of the ultimate origins and destinations of their trips. While some respondents instead provided the location where they boarded or would be alighting their KRT buses, these responses nonetheless provide insight into the travel markets currently served by KRT.

A total of 1,031 respondents provided an origin, and 944 provided a destination. Systemwide, 22 percent of those who provided an origin identified Bakersfield as their origin city (note: some locations may be near but not within the city limits of Bakersfield), while 34 percent of those who provided a destination identified Bakersfield. These origin and destination points are illustrated in Figure 4-1 on the following page, **which groups locations by U.S. Census Bureau “block group”** (in other words, actual origin and destination points are in the vicinity).



**Figure 4-1 Origins and Destinations by Block Group**





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As Figure 4-1 illustrates, Downtown Bakersfield is by far the most common origin and most common destination in Bakersfield. This is misleading, however, as many respondents identified the Downtown Transit Center as their ultimate origin or destination, **or simply stated “Chester Avenue.” Altogether, these accounted for 52 of 80 locations within downtown. Nonetheless, 28** locations remained within the greater downtown area (exclusive of Amtrak and Bakersfield High School), a not-insignificant number.

Outside of downtown, the most common locations were Bakersfield College (48 origins or destinations), followed by Kern Medical Center (14), CSU Bakersfield (12), Bakersfield Memorial Hospital and the immediate area (8), and East Hills Mall (5). Of these locations, only the Memorial Hospital area is not directly served by KRT; under the GET recommendations, all locations including Memorial Hospital would be served by frequent KRT routes connecting to the Downtown Transit Center.

(Incidentally, route-level analysis of origins and destinations was conducted and was incorporated into the recommendations development process. That analysis is not summarized here for purposes of both clarity and statistical significance.)

## TRANSFERS

212 survey respondents, or approximately 20 percent of respondents on intercity routes, said they had transferred or would be transferring between KRT and GET routes as part of their trips. Figure 4-2 shows numbers of transfers between the routes for each route pair. Route pairs with ten or more transfers are identified by darker gray shading, while pairs with between five and nine transfers are identified using lighter gray shades. For purposes of clarity, respondents who said they might be transferring to any of two or more routes have been excluded.

**Figure 4-2 Transfers From and To GET Routes**

KRT	GET															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17
EKX	1	4	1	5	4	--	2	5	2	--	6	2	1	2	--	1
FP	--	1	--	2	3	--	--	1	--	--	--	--	--	--	--	1
LI	--	1	1	2	4	--	--	3	1	1	1	--	--	--	--	1
LM	--	4	5	7	15	1	6	12	3	--	4	--	2	2	--	1
NKX	3	2	3	9	6	--	1	9	6	--	--	--	--	2	--	11
WEX	--	9	--	1	2	--	1	5	4	--	2	--	3	1	3	--

Abbreviations: EKX=East Kern Express, FP=Frazier Park-Bakersfield, LI=Lake Isabella-Bakersfield, LM=Lamont-Bakersfield, LH=Lost Hills-Bakersfield, NKX=North Kern Express, WEX=Westside Express

As Figure 4-2 indicates, transfer activity is heaviest on the relatively short Lamont-Bakersfield route, to and from GET routes 5 and 8, both of which cross the Lamont-Bakersfield line in East Bakersfield and provide access to a variety of locations. Activity is also heavy between the North Kern Express and Route 17, which connects the Downtown Transit Center to the Southwest Transit Center and to Bakersfield College. In general, activity is heaviest between the busiest KRT routes and busiest GET routes.

## PRIORITIES FOR IMPROVEMENT

Participants were asked which improvement to routing and scheduling they would most like to see. Because many respondents chose more than one option, there were more responses (1,913) to this question than total responses. The most popular by a relatively wide margin was increased Sunday service, followed by later service on weekday evenings, as shown in Figure 4-3.

**Figure 4-3 Service Improvement Most Wanted**

Service Improvement Most Wanted	Percentage
More Sunday Service	22%
Later Evening Weekday Service	18%
Add Midday Service	15%
More Saturday Service	15%
Earlier Weekday Service	12%
Additional Areas	11%
Other	8%

## Service in Additional Areas

As part of the previous question, participants were asked to identify additional areas where service should be provided. Respondents listed a variety of locations, including cities, streets, intersections, and specific destinations such as stores. They also sometimes listed locations that are already served, potentially indicating that they felt *more* service was needed. The following list includes locations that were identified two or more times.

### East Kern Express

- Antelope Valley Mall
- Lancaster (Lancaster City Park)
- Mojave
- California City
- Palmdale
- Ridgecrest
- Rosamond

### Frazier Park-Bakersfield

- Lebec Post Office
- Pine Mountain (Pine Mountain Club)
- Frazier Park bookstore

### Lake Isabella

- *No locations were repeated.*

### **Lamont-Bakersfield**

- Columbus Street and Mt. Vernon Avenue
- Chester Avenue
- Valley Plaza
- DD's Discount store
- Arvin
- Bakersfield
- Niles
- Oswell and Pico Avenues

### **North Kern Express**

- Bakersfield College
- Shafter
- Wasco

### **Westside Express**

- Taft Heights
- Dustin Acres

## **Comments**

Respondents were also provided with space to identify improvements other than those listed. While improved frequency (during different periods) was the subject of three of the five options listed, several used the space to request improved frequency. Other common responses had to do with crowding, reliability, speed of service, and connections to other transit services. Following is a summary of comments made on routes serving Bakersfield.<sup>2</sup>

### **East Kern Express**

- Larger and more buses to alleviate overcrowding
- Earlier weekend service
- Improved reliability
- Improved transit connections
- Improvements to alleviate overcrowding on dial-a-ride services

### **Frazier Park-Bakersfield**

- Larger buses
- Consider skipping stops on buses running late
- Extend last trip of the day to Southwest Transit Center

---

<sup>2</sup> All comments which are redundant because they duplicate stated options (earlier weekday service, more Saturday service, etc.), are excluded. All comments will be provided to staff.

### **Lake Isabella**

- Improve cleanliness
- Provide storage space for bicycles and luggage
- Make additional weekday stops

### **Lamont\Bakersfield**

- Improve reliability
- Offer monthly passes
- Offer an alternate route which does not go to Bakersfield College and East Hills Mall (no alternative routings were specified)
- More service to Bakersfield College Provide schedules aboard buses
- Operate more service to alleviate overcrowding
- Make additional stops
- Have all buses operate through to Arvin

### **North Kern Express**

- Improve reliability
- Coordinate schedule with northbound Amtrak departures from Wasco

### **Westside Express**

- Improve reliability
- Provide toilets
- Provide limited-stop service to Taft

## **PAYMENT**

The vast majority of respondents to this question said they had paid their fares in cash. Only about one in ten used prepaid tickets or another method of payment. Percentages are shown in Figure 4-4.

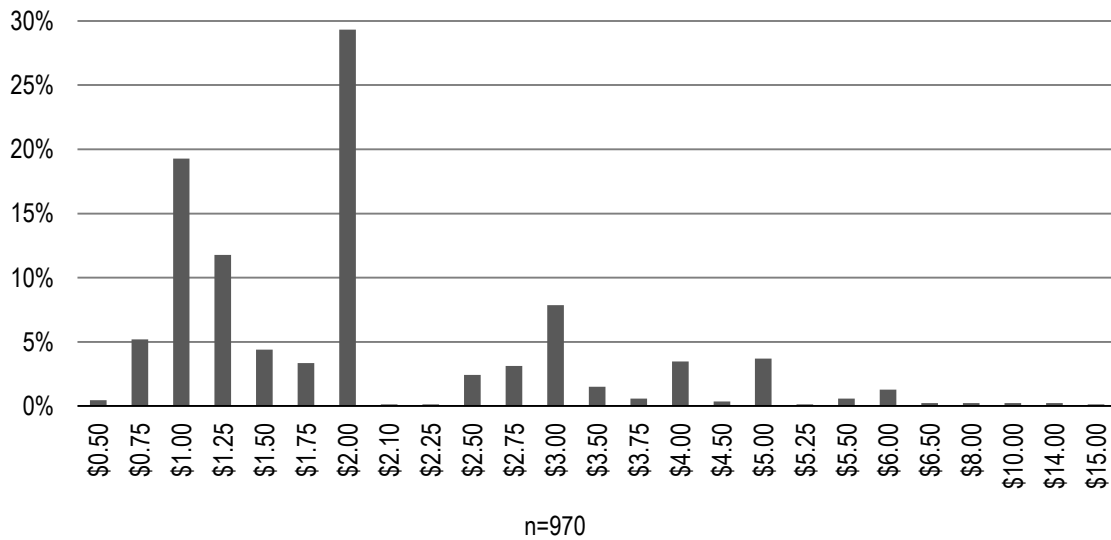
**Figure 4-4 Payment**

Payment Type	Percentage
Cash	89%
Pre-paid Ticket	10%
Other	<1%

KRT non-discount fares for Intercity service are distance-based, ranging from \$1 to \$5. Among respondents who paid in cash, close to half said they had paid either \$2 or \$1. The weighted average fare paid was \$2.11; however, a large majority of respondents, 72 percent, said they had paid \$2 or less. A few respondents said they had paid more than the maximum one-way fare of \$5, indicating that they may have included non-KRT trip costs such as fares paid on connecting GET routes. Details of responses are shown in Figure 4-5.

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**Figure 4-5 Fare Paid in Cash**



## FREQUENCY OF RIDERSHIP

Approximately two-thirds of respondents (64 percent) to this question said they were regular riders, using the system two or more times a week. This and other responses are shown in Figure 4-6.

**Figure 4-6 Frequency of Ridership**

Frequency of Ridership	Percentage
2 or more times a week	64%
Once a week	11%
1-3 times a month	18%
Less than once a month	7%

## TRIP PURPOSE

Respondents were asked to identify the purposes of their trips. Again, there were more responses to this question (1,293) than total responses, indicating that some had identified multiple purposes. Trip purposes were relatively evenly distributed; shopping was the most popular choice, followed by home- and work-bound trips. Findings are shown in Figure 4-7.

**Figure 4-7 Trip Purpose**

Trip Purpose	Percentage
Shopping	20%
Home	18%
Work	18%

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Medical	17%
College/University	15%
School (K-12)	6%
Recreation	6%

## MOBILITY DEVICES

Participants were asked about their use of personal mobility aids. Approximately 11 percent of respondents said they used a mobility device. Of these, 49 percent reported using some form of wheelchair, and 14 percent said they used scooters. The remainder said they used a device other than those listed (see next section). Findings are shown in Figure 4-8.

**Figure 4-8 Mobility Devices**

Mobility Device	Percentage
Other	39%
Manual Wheelchair	20%
Power Wheelchair	20%
Scooter	14%
Reclining Wheelchair	6%

## Other Mobility Devices

Of the respondents who indicated they used a mobility device other than those listed, a plurality (13 percent of all mobility responses) said they used a cane. **This was followed by “bicycle” (not a mobility device for the mobility-challenged, but a mobility aid nonetheless).** Other aids identified included crutches, strollers, service dogs, braces, shopping baskets or bags, and walkers. Findings are shown in Figure 4-9.

**Figure 4-9 Other Mobility Devices**

Other Mobility Devices <sup>3</sup>	Percentage of Other Mobility Devices	Percentage of Total Mobility Devices
Cane	33%	13%
Bicycle	29%	11%
Crutches	9%	4%
Stroller	9%	4%
Dog/forearm crutch and service dog	7%	3%
Leg mobilizer/foot brace	4%	2%
Shopping baskets/bags/buggy	4%	2%

<sup>3</sup> For devices where a respondent list cane/crutches or cane/walker, we took the more conservative approach and disaggregated by adding the count to the mobility device which likely requires more time for accessing the bus (e.g. crutches and a walker).



**BAKERSFIELD SERVICE ANALYSIS FINAL REPORT**  
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Walker	4%	2%
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## 5 ROUTE PROFILES

This section describes each KRT Intercity route, providing information about service characteristics and performance. Maps of daily boardings and alightings at every stop along each route can be found in Appendix B. Figure 5-1 compares the routes to each other and the systemwide average using key productivity and cost-effectiveness metrics.

**Figure 5-1 Performance at a Glance<sup>4</sup>**

	Passengers per Revenue Hour	Operating Cost per Passenger	Subsidy per Passenger	Farebox Recovery Ratio
<i>Systemwide Average</i>	9.77	\$7.34	\$5.56	24.7%
<b>Bakersfield Routes</b>				
East Kern Express	15.08	\$4.82	\$2.16	56.3%
Edison-Bakersfield	1.07	\$67.67	\$66.74	1.4%
Frazier Park-Bakersfield	2.68	\$27.08	\$24.68	9.1%
Lake Isabella-Bakersfield	7.36	\$9.87	\$7.41	25.5%
Lamont-Bakersfield <sup>5</sup>	14.25	\$5.16	\$4.18	19.8%
Lost Hills-Bakersfield	3.41	\$21.31	\$19.67	7.9%
North Kern Express	16.27	\$4.46	\$2.32	49.1%
Westside Express	5.77	\$12.58	\$10.69	15.4%
<b>Other Routes</b>				
Boron-Mojave	5.81	\$12.49	\$10.62	15.3%
Kern River Valley	12.02	\$6.04	\$5.19	14.4%
Lamont-Weedpatch	3.94	\$18.43	\$17.81	3.4%
Mojave-California City	10.83	\$6.71	\$5.92	12.0%
Mojave-Ridgecrest	2.78	\$25.91	\$23.02	11.4%

<sup>4</sup> All data are Fiscal Year 2012 year-end projected, provided by KRT.

<sup>5</sup> Seven-day-a-week data unavailable; calculation based on weekday, Saturday and Sunday data.

## BAKERSFIELD ROUTES

### East Kern Express

The East Kern Express is KRT's highest-ridership route and has the highest farebox recovery ratio at an impressive 56 percent. It is also its longest, with round-trip travel time of approximately five-and-a-half hours.

As its name suggests, the route connects Bakersfield to cities in eastern Kern County, as far east and south as Lancaster, where it connects to Metrolink, the Los Angeles-area commuter rail system. In Bakersfield, it serves major destinations on the city's east side and downtown.

Operating characteristics and ridership are shown in Figure 5-2.

**Figure 5-2 East Kern Express Route Overview**

	Weekday	Saturday	Sunday
Span	4:00am - 10:00pm	4:00am – 7:00pm	9:25am – 7:00pm
Frequency	2-3 hours	4-5 hours	4 hours
Daily Round Trips	8	3	2
Daily Boardings	601	164	135

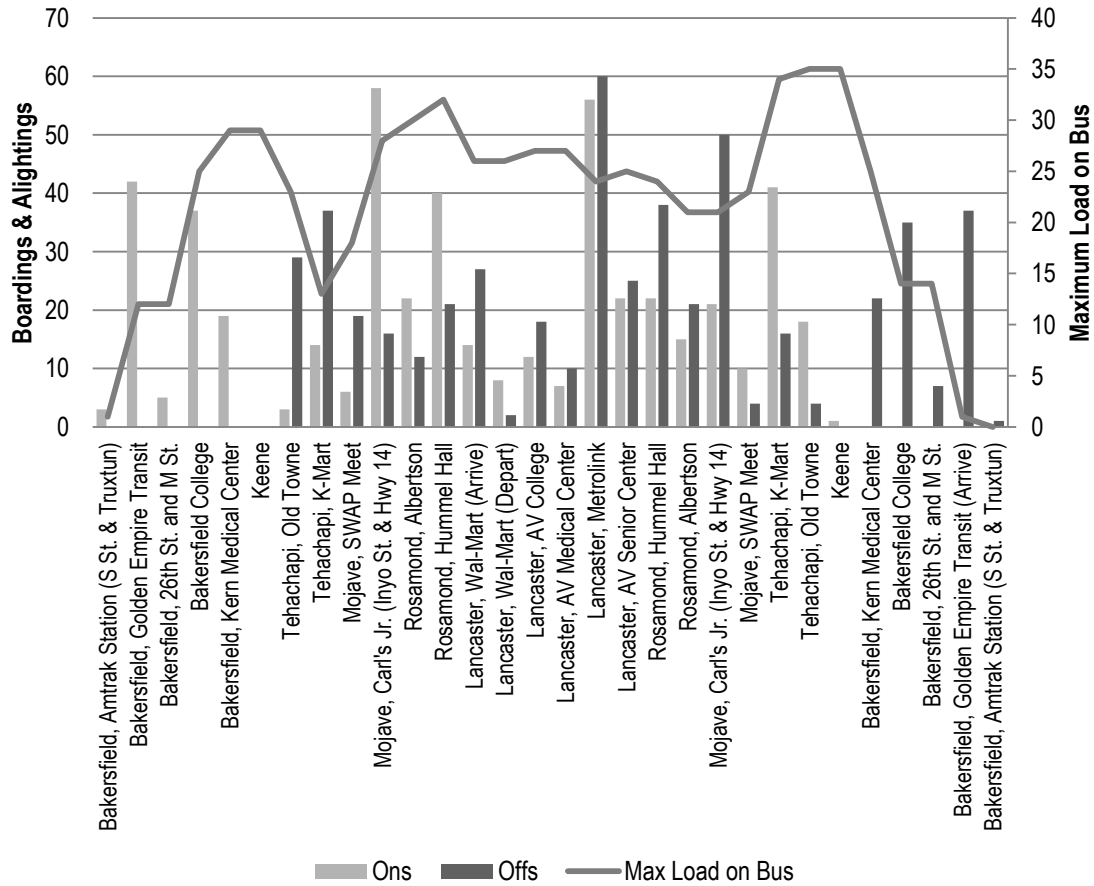
Figures 5-3 through 5-6 show total boardings and alightings by stop for weekdays, weekday supplemental trips between Mojave and Lancaster, Saturdays and Sundays, as well as maximum loads observed departing each stop.

The stops with the highest numbers of boardings and alightings are at the Lancaster Metrolink Station and at the Carl's Jr. restaurant in Mojave, a major transfer point for other routes serving eastern Kern County. In Bakersfield, the busiest stop is the Downtown Transit Center, followed by Bakersfield College.

While buses are generally less crowded in Bakersfield, near the end of the line, loads of up to nearly 30 passengers on a single bus were observed in Bakersfield.

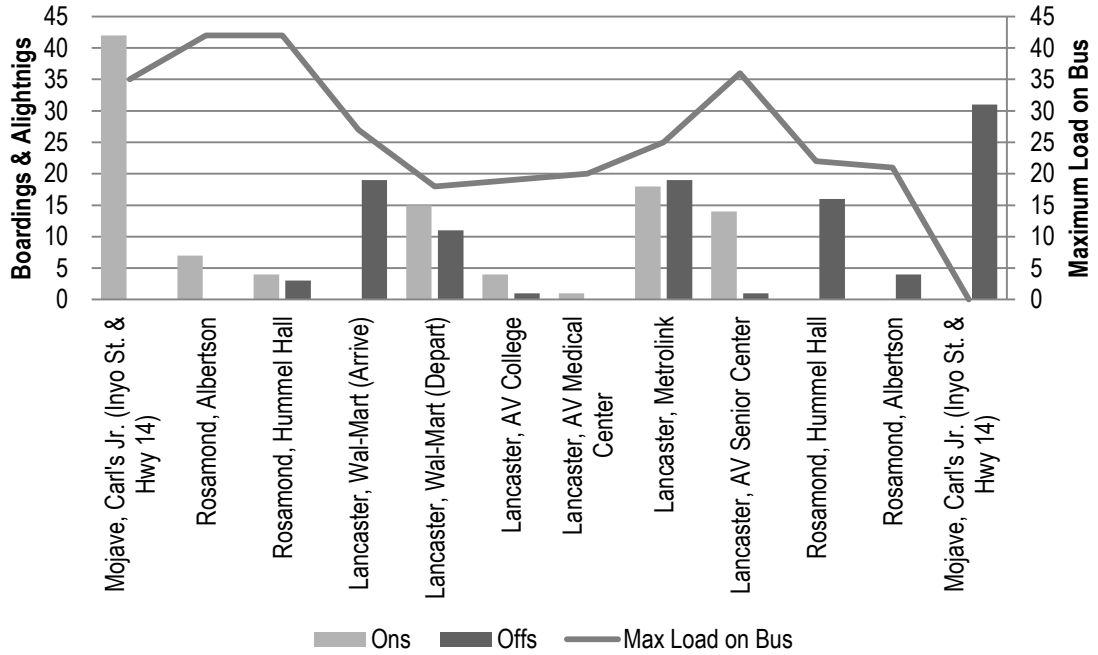
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**Figure 5-3 East Kern Express Boardings, Alightings and Maximum Load (Weekday)**



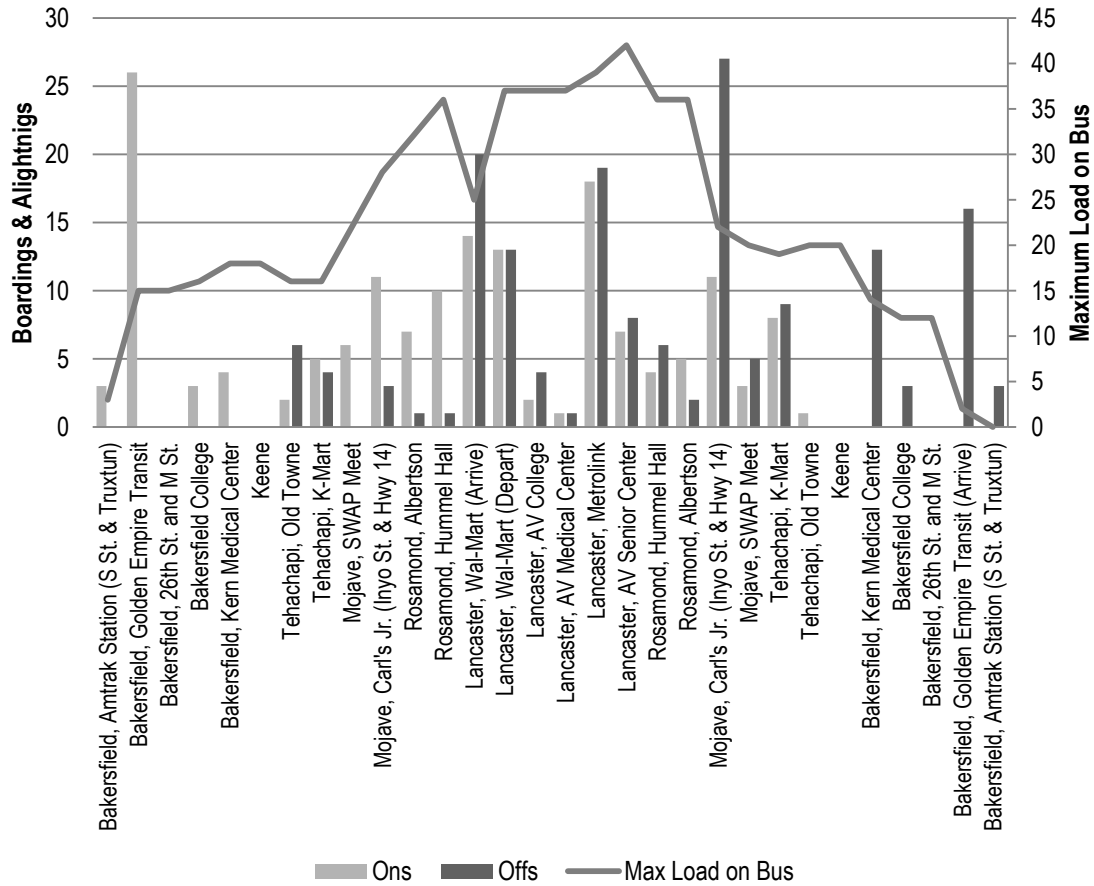
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**Figure 5-4 East Kern Express Boardings, Alightings and Maximum Load (Supplemental Weekday Trips)**



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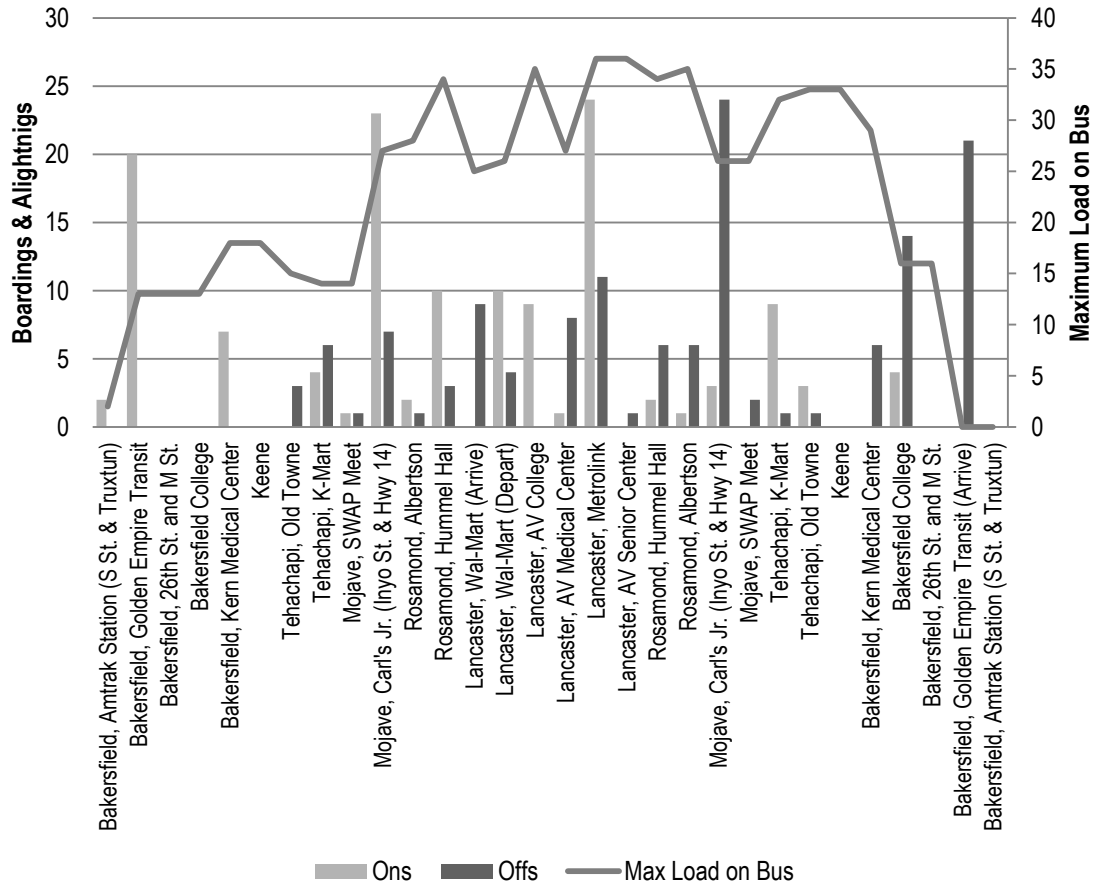
**Figure 5-5 East Kern Express Boardings, Alightings and Maximum Load (Saturday)**





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**Figure 5-6 East Kern Express Boardings, Alightings and Maximum Load (Sunday)**



## Edison-Bakersfield

The Edison-Bakersfield route provides service between downtown Bakersfield and the community of Edison, just east of the city. Operating characteristics and ridership are shown in Figure 5-7.

**Figure 5-7 Edison – Bakersfield Route Overview**

	Wednesday
Span	8:00am – 4:46pm
Frequency	3-4 hours
Daily Round Trips	3

On the day on which it was observed, no boardings or alightings were recorded on this route.

## Frazier Park-Bakersfield

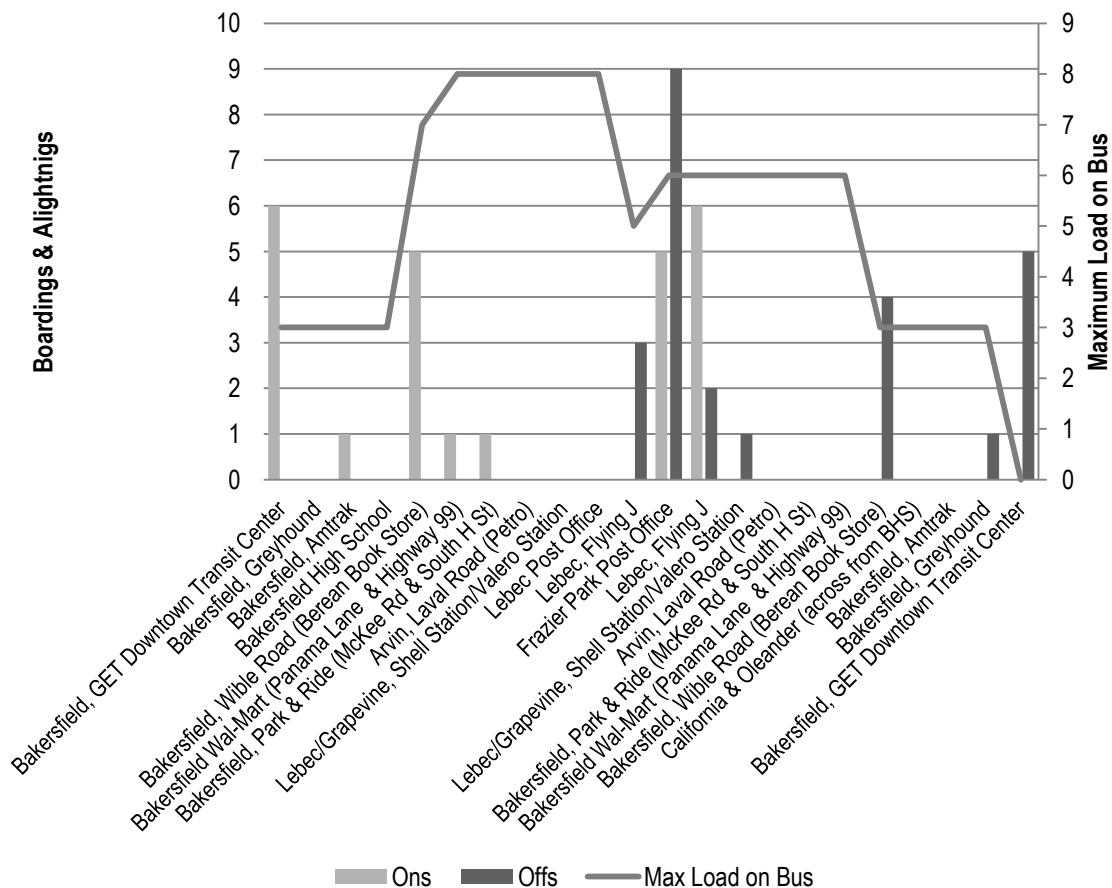
This route serving mountain communities in southern Kern County is one of the lowest-ridership in the KRT system. Operating characteristics and ridership are shown in Figure 5-8.

**Figure 5-8 Frazier Park-Bakersfield Route Overview**

	Weekday	Saturday
Span	4:40am – 8:57pm	4:40am – 8:57pm
Frequency	3-4 hours	3-4 hours
Daily Round Trips	4	4
Daily Boardings	25	33

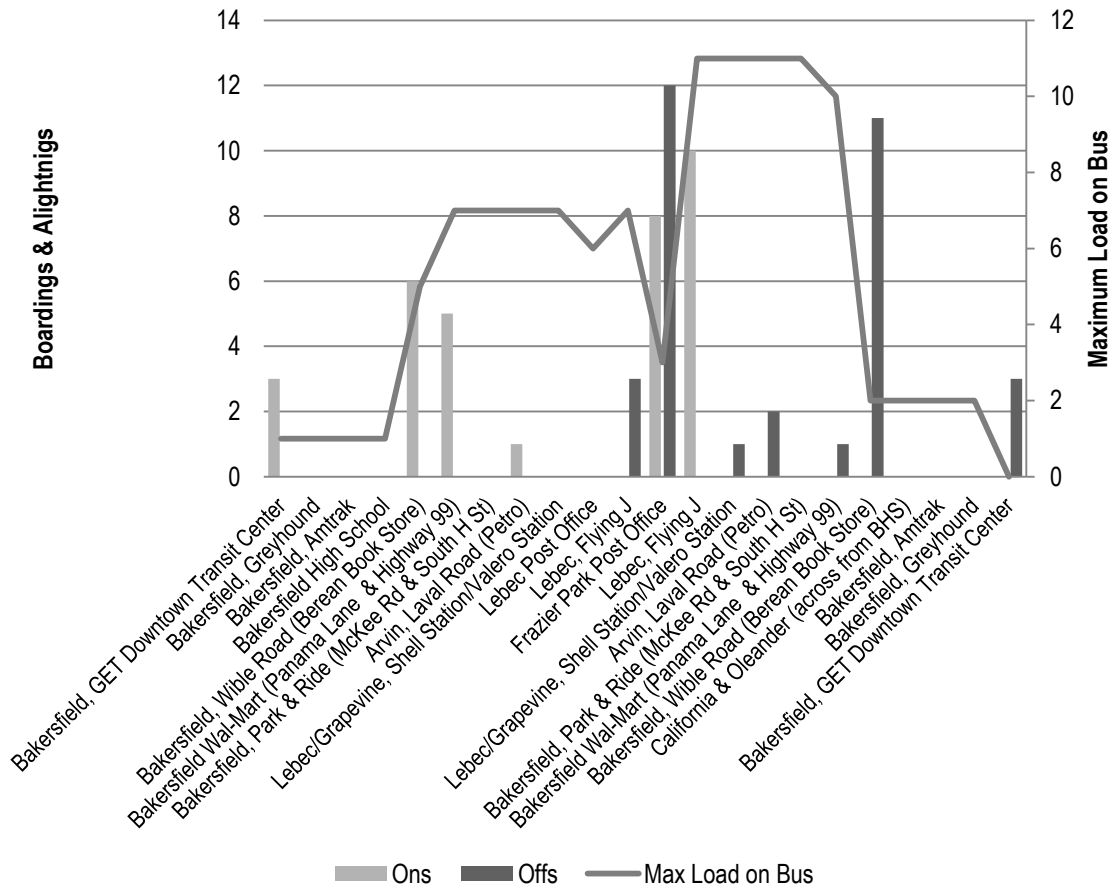
Figures 5-9 and 5-10 show total boardings and alightings by stop for weekdays and on Saturdays, as well as maximum loads observed departing each stop.

**Figure 5-9 Frazier Park-Bakersfield Boardings, Alightings and Maximum Load (Weekday)**



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**Figure 5-10 Frazier Park-Bakersfield Boardings, Alightings and Maximum Load (Saturday)**



## Lake Isabella-Bakersfield

A moderate-ridership route, this service provides connections between Bakersfield and Lake Isabella, where connections can be made to the Kern River Valley. Operating characteristics and ridership are shown in Figure 5-11.

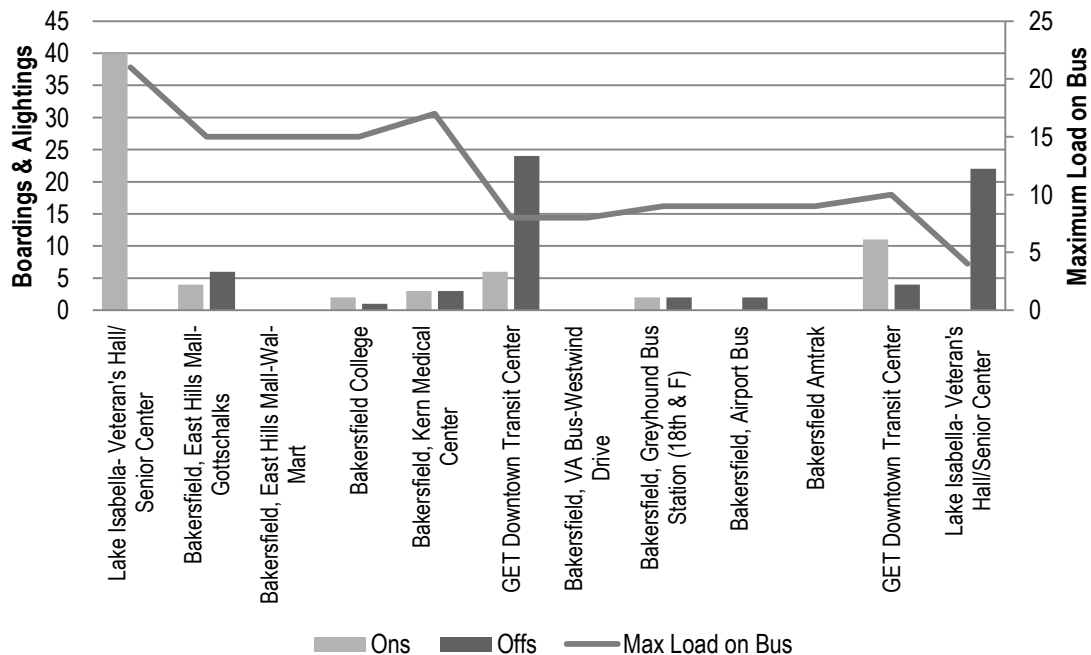
**Figure 5-11 Lake Isabella-Bakersfield Route Overview**

	Weekday	Saturday
Span	6:00am – 6:30pm	6:00am – 6:30pm
Frequency	3-4 hours	3-4 hours
Daily Round Trips	4	4
Daily Boardings	68	73

Figures 5-12 and 5-13 show total boardings and alightings by stop for weekdays and on Saturdays, as well as maximum loads observed departing each stop.

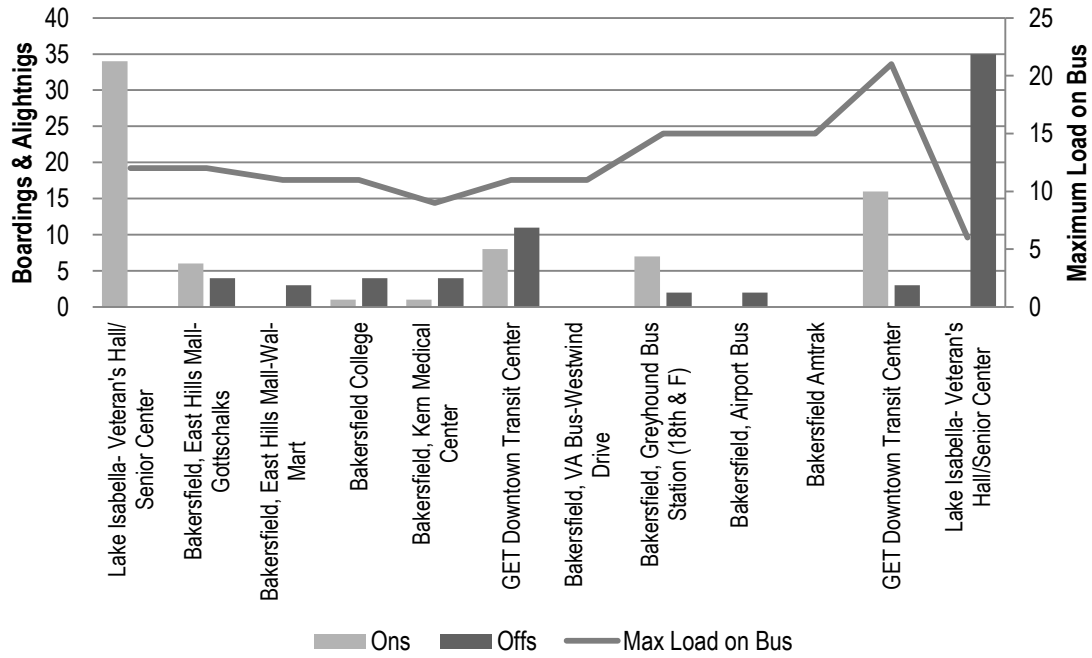
The busiest stop on this route is at the Veteran's Hall and Senior Center in Lake Isabella, followed by the Downtown Transit Center. On this route, which serves the mountains to the east of Bakersfield, there are slightly more boardings on Saturdays than on an average weekdays.

**Figure 5-12 Lake Isabella-Bakersfield Boardings, Alightings and Maximum Load (Weekday)**



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**Figure 5-13 Lake Isabella-Bakersfield Boardings, Alightings and Maximum Load (Saturday)**





## Lamont-Bakersfield

The Lamont-Bakersfield route is one of the more successful in the KRT system. It is also one of the most frequent, with peak headways of 45 minutes. Operating characteristics and ridership are shown in Figure 5-14.

**Figure 5-14 Lamont – Bakersfield Route Overview**

	Weekdays	Saturday	Sunday
Span	5:55am – 10:21pm* (no evening service on Friday)	5:55am – 7:35pm	8:00am – 7:45pm
Frequency	45 mins – 2 hrs	45 mins – 2 hrs	1 – 2 hrs
Daily Round Trips	13 <sup>6</sup>	11	9
Daily Boardings	299	208	n/a <sup>7</sup>

Figures 5-15 through 5-17 show total boardings and alightings by stop for weekdays, on weekday evenings when two limited-stop trips are made, and on Saturdays, as well as maximum loads observed departing each stop.

Somewhat atypically for KRT routes serving Bakersfield, high levels of activity can be found at several Bakersfield stops, including Bakersfield College and Kern Medical Center in addition to the Downtown Transit Center. On Saturday, East Hills Mall and Niles Plaza are popular stops.

Maximum observed loads were as high as 35 passengers on a single bus, in East and Southeast Bakersfield.

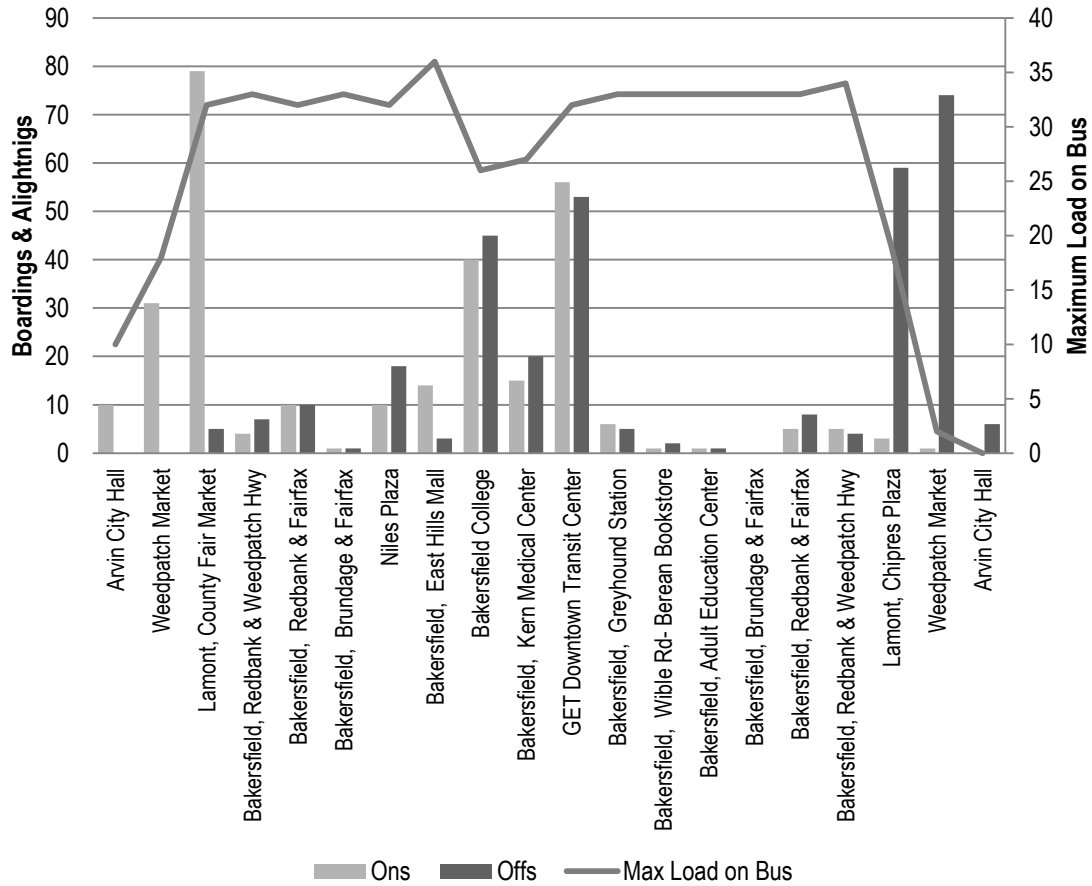
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<sup>6</sup> Including two limited-stop evening trips.

<sup>7</sup> Sunday service was not included in this analysis.

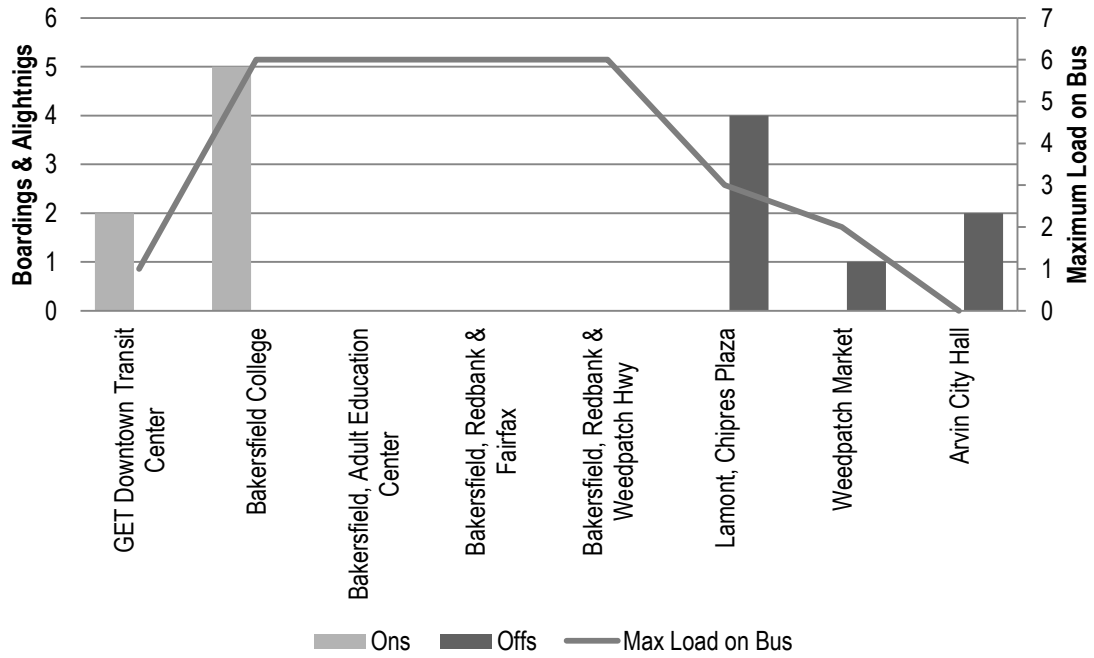
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**Figure 5-15 Lamont-Bakersfield Boardings, Alightings and Maximum Load (Weekday)**



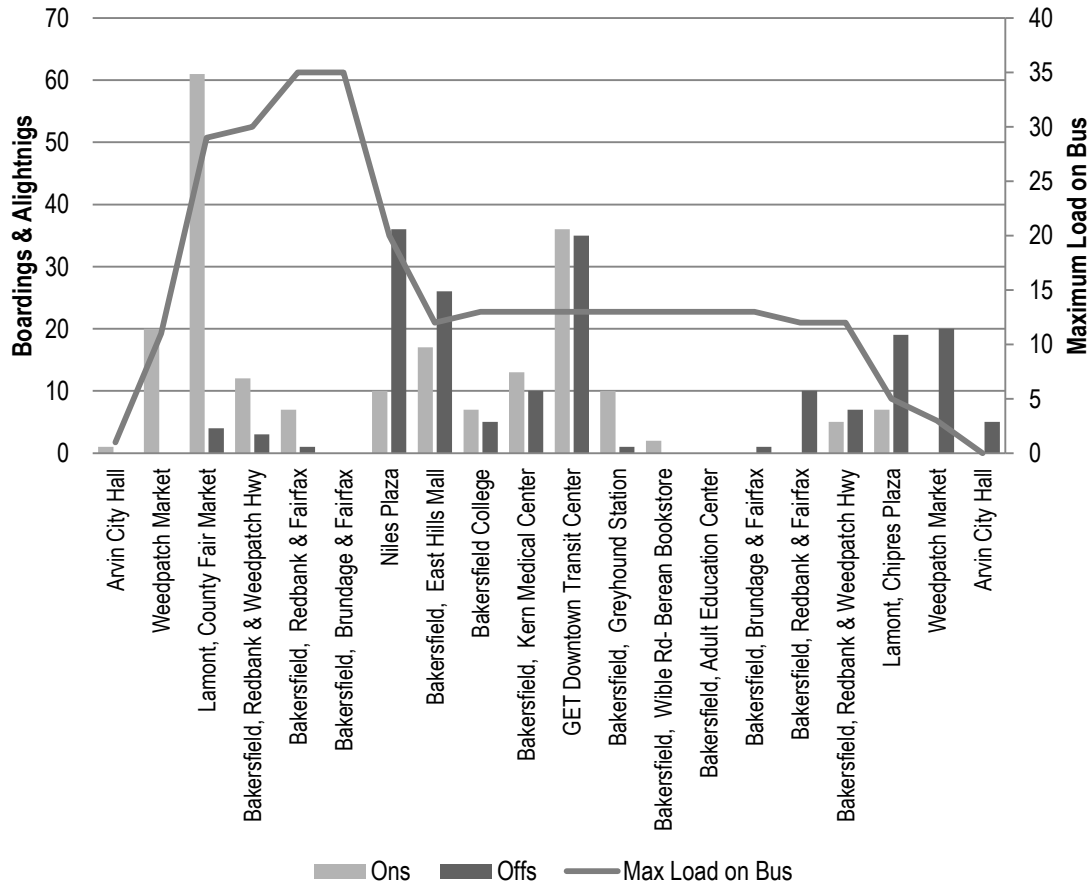
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**Figure 5-16 Lamont-Bakersfield Boardings, Alightings and Maximum Load (Weekday Evening)**



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**Figure 5-17 Lamont-Bakersfield Boardings, Alightings and Maximum Load (Saturday)**



## Lost Hills-Bakersfield

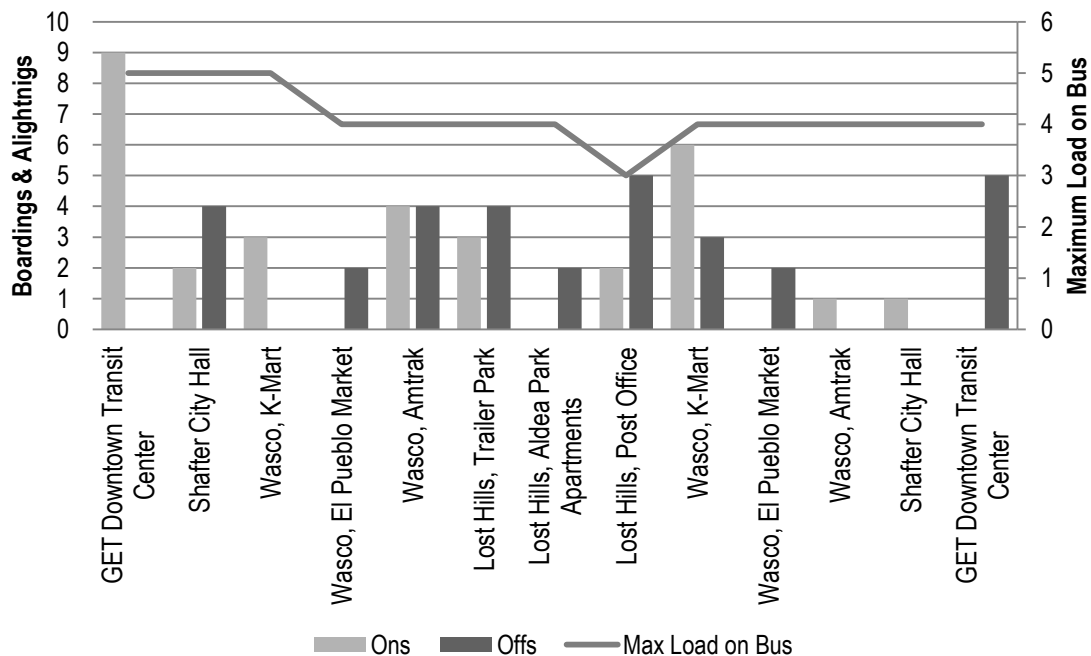
Another relatively low-ridership route, the Lost Hills-Bakersfield (aka Lost Hills-Bakersfield Intercity, or simply Lost Hills Intercity) service overlaps with the North Kern Express for much of its route. The Lost Hills route makes just a single stop in Bakersfield, at the Downtown Transit Center. The service operates just two days per week. Operating characteristics and ridership are shown in Figure 5-18.

**Figure 5-18 Lost Hills-Bakersfield Route Overview**

	Thursday	Saturday
Span	7:05am – 7:21pm	8:00am – 5:50pm
Frequency	1 AM peak, 2 midday, 2 PM peak (hourly)	1 AM peak, 1 midday, 1 PM peak
Daily Round Trips	5	3
Daily Boardings	31	20

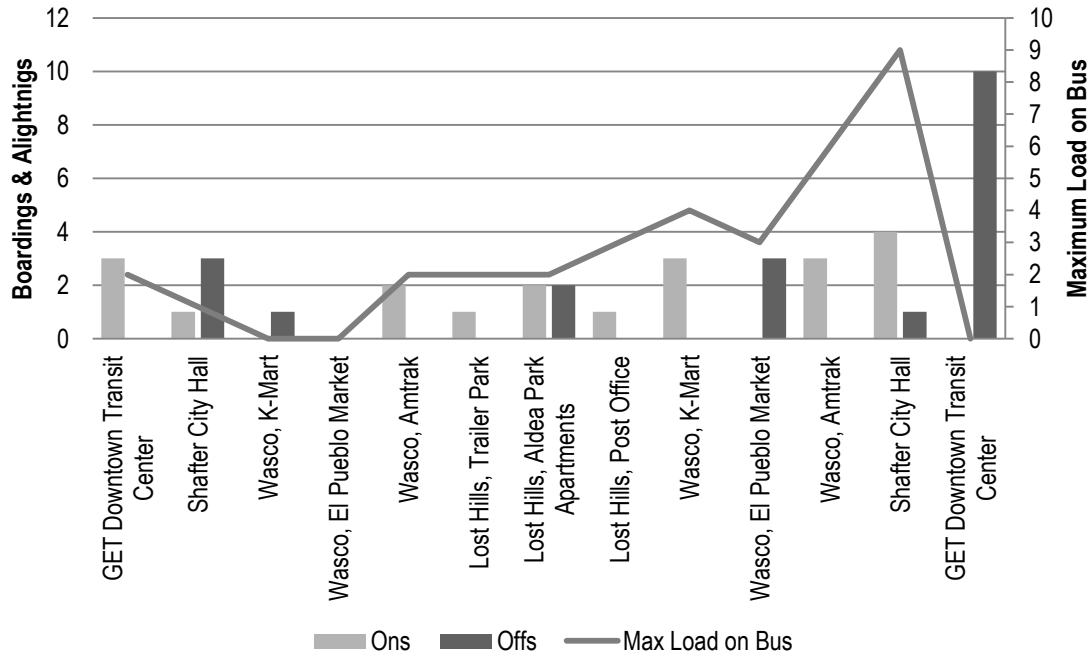
Figures 5-19 and 5-20 show total boardings and alightings by stop for Thursdays and on Saturdays, as well as maximum loads observed departing each stop.

**Figure 5-19 Lost Hills-Bakersfield Boardings, Alightings and Maximum Load (Thursday)**



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**Figure 5-20 Lost Hills-Bakersfield Boardings, Alightings and Maximum Load (Saturday)**



## North Kern Express

The North Kern Express is KRT's most productive route, providing connections between Bakersfield, Shafter, Wasco, McFarland and Delano seven days a week. Operating characteristics and ridership are shown in Figure 5-21.

**Figure 5-21 North Kern Express Route Overview**

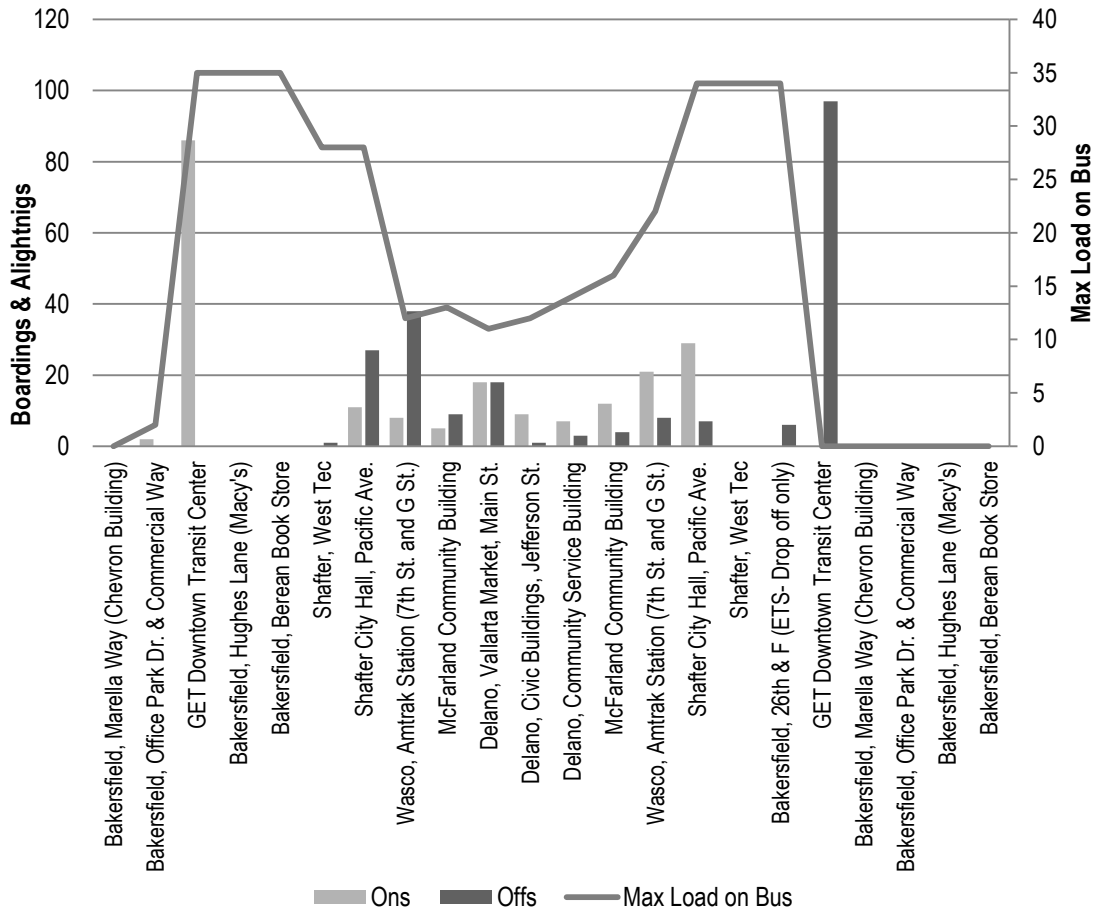
	Weekday	Saturday	Sunday
Span	5:55am – 7:50pm	7:00am – 6:45pm	7:00am – 6:45pm
Frequency	1-3 hours (hourly in AM and PM peak)	1 AM peak, 1 midday, 1 PM peak	1 AM peak, 1 midday, 1 PM peak
Daily Round Trips	7	3	3
Daily Boardings	208	166	117

Figures 5-22 through 5-24 show total boardings and alightings by stop for weekdays, on Saturdays and on Sundays, as well as maximum loads observed departing each stop.

**The route's busiest stop by far is the Downtown Transit Center.** Interestingly, there is relatively little activity at remaining Bakersfield stops, although there is some activity at stops adjacent to Valley Plaza on weekends. Loads approaching 40 passengers were observed on this route in Bakersfield.

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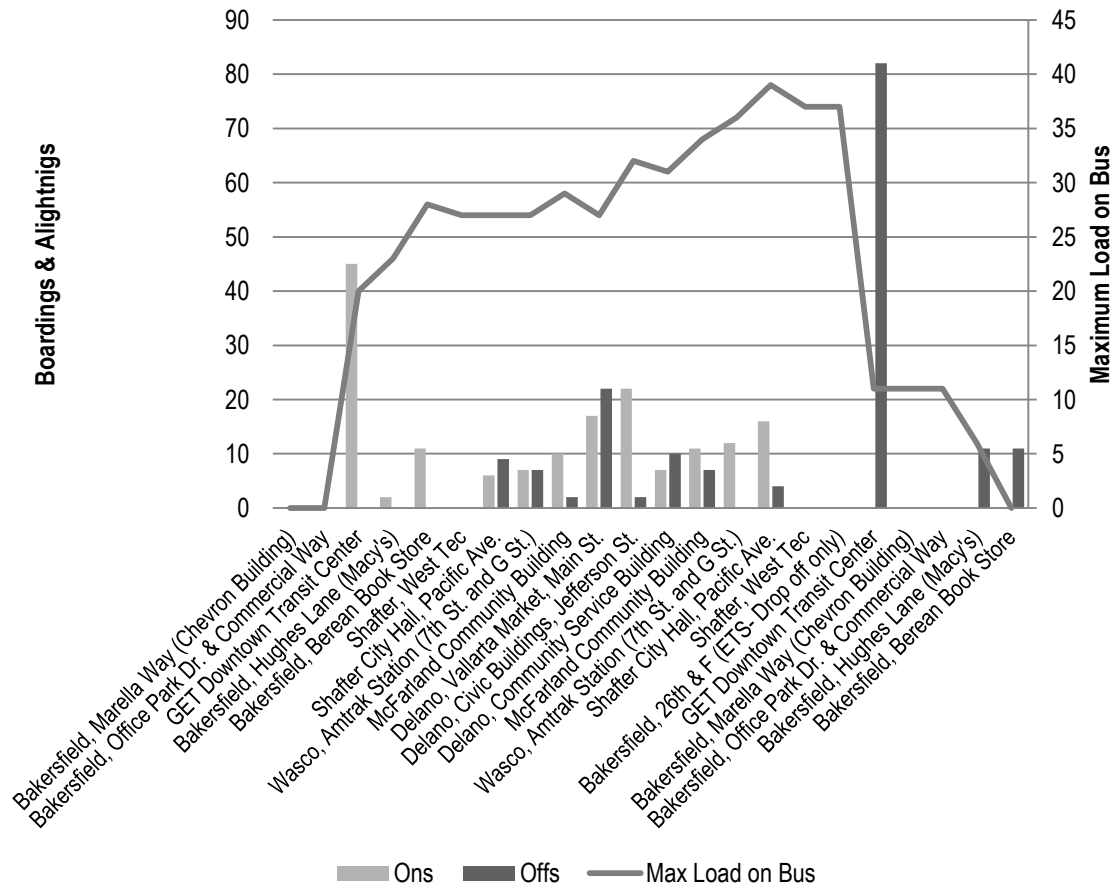
**Figure 5-22 North Kern Express Boardings, Alightings and Maximum Load (Weekday)**





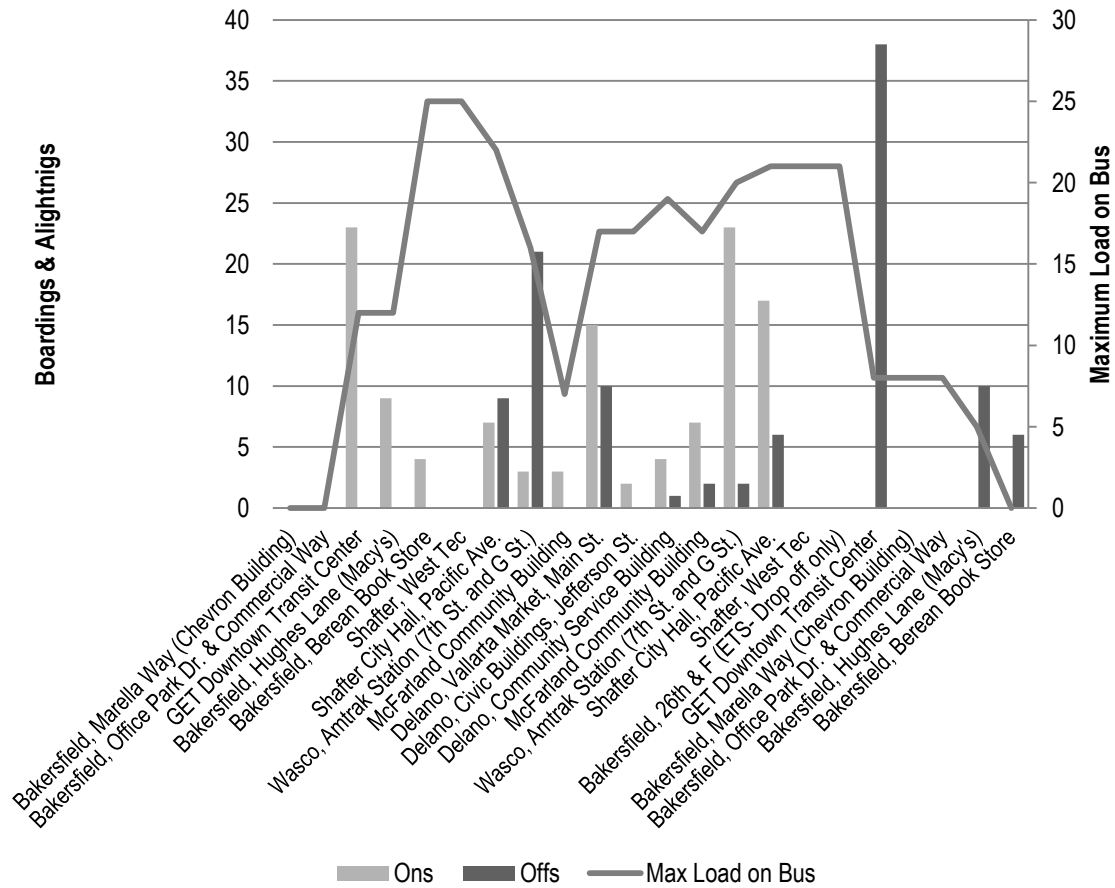
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**Figure 5-23 North Kern Express Boardings, Alightings and Maximum Load (Saturday)**



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**Figure 5-24 North Kern Express Boardings, Alightings and Maximum Load (Sunday)**



## Westside Express

The Westside Express is a modestly successful route providing service between Bakersfield and Taft and along among KRT routes, making stops on the west side of Bakersfield. Operating characteristics and ridership are shown in Figure 5-25.

**Figure 5-25 Westside Express Route Overview**

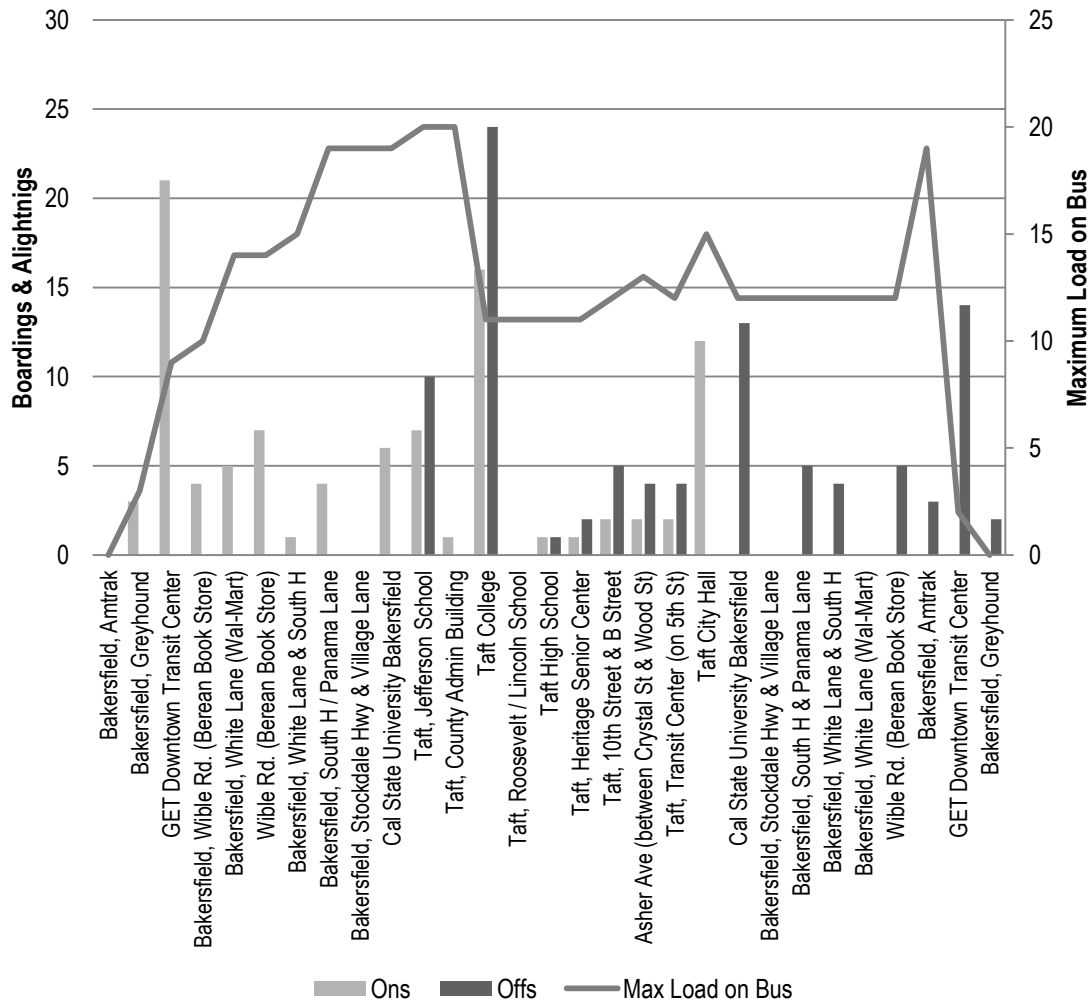
	Weekday	Saturday
Span	4:50am – 8:35pm	8:00am – 7:53pm
Frequency	2 AM Peak, 2 Midday, and 1 PM Peak trip	1 AM Peak, 1 Midday, and 1 PM Peak trip
Daily Round Trips	5	3
Daily Boardings	95	32

Figures 5-26 and 5-27 show total boardings and alightings by stop for weekdays and on Saturdays, as well as maximum loads observed departing each stop.

**On weekdays, Taft College is this route's busiest stop, following by the Downtown Transit Center.** CSU Bakersfield is a relatively busy stop. Ridership is far lower on Saturdays than on weekdays.

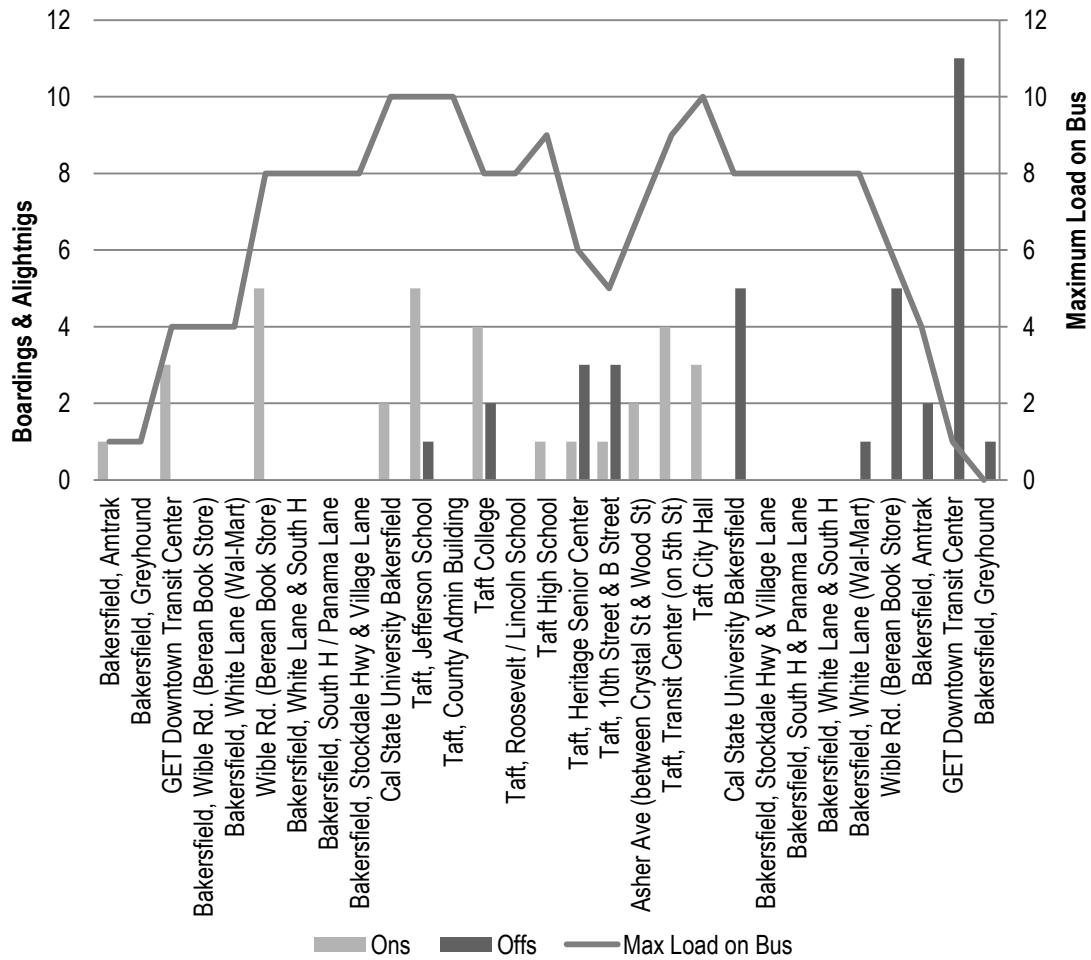
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**Figure 5-26 Westside Express Boardings, Alightings and Maximum Load (Weekday)**



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**Figure 5-27 Westside Express (Saturday)**



## OTHER ROUTES

### Boron-Mojave

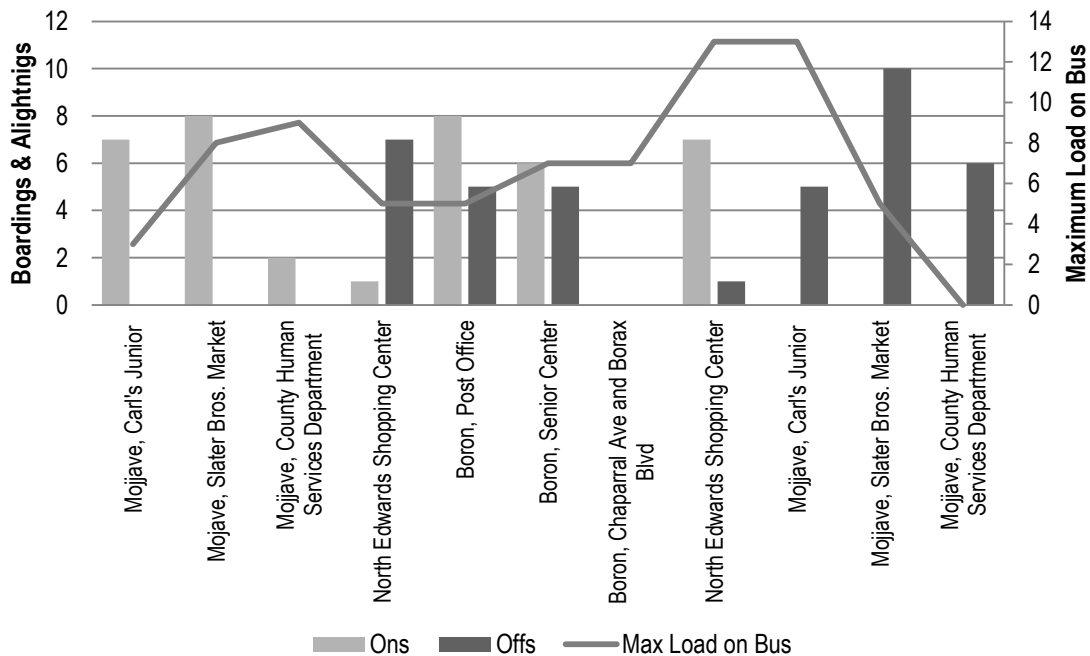
The Boron-Mojave route operates one day a week between the towns in eastern Kern County. Operating characteristics and ridership are shown in Figure 5-28.

**Figure 5-28 Boron-Mojave Route Overview**

	Wednesday
Span	4:40am – 6:15pm
Frequency	4 hours
Daily Round Trips	5
Daily Boardings	39

Figure 5-29 shows total boardings and alightings by stop, as well as maximum loads observed departing each stop.

**Figure 5-29 Boron-Mojave Boardings, Alightings and Maximum Load (Wednesday)**



## Kern River Valley

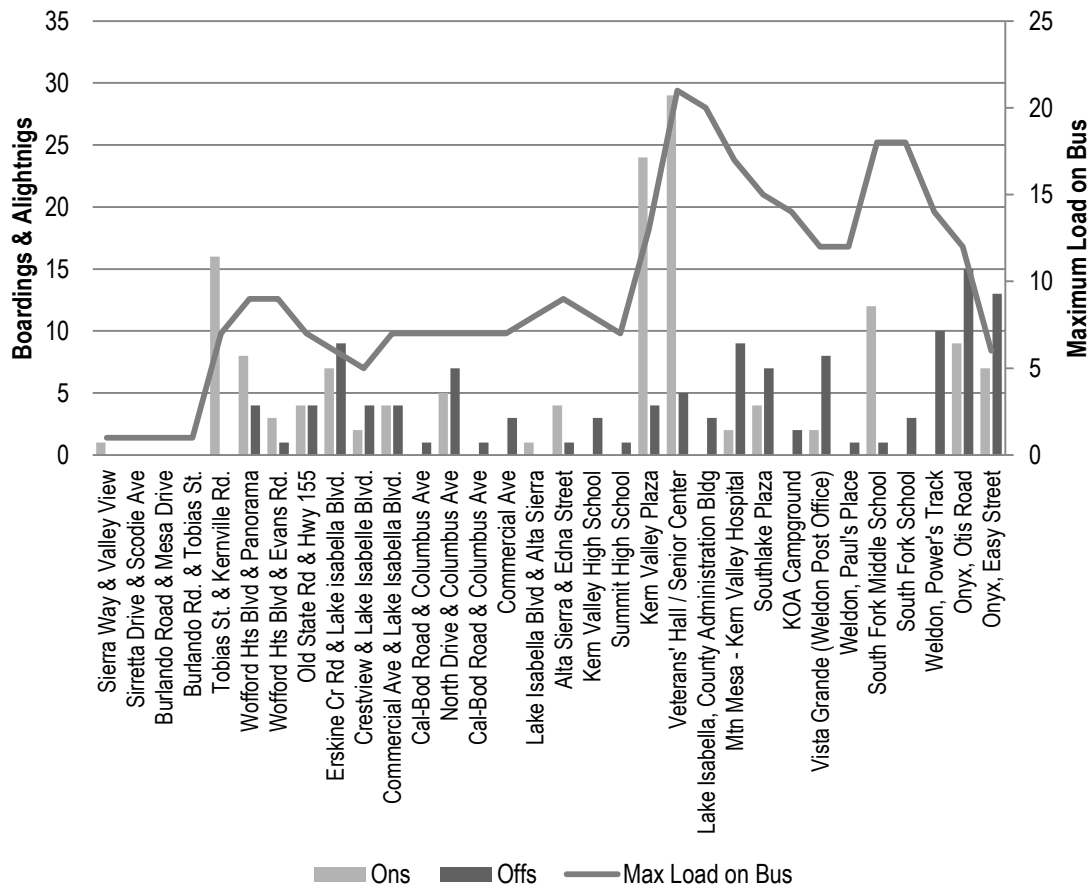
The Kern River Valley route is **KRT's** strongest-performing line that does not serve Bakersfield. Instead, it serves the communities around Isabella Lake (in the town of Lake Isabella, it connects to the Lake Isabella-Bakersfield route). Its alignment and schedule are somewhat complex, with many “short turn” trips serving segments of the route. Operating characteristics and ridership are shown in Figure 5-30.

**Figure 5-30 Kern River Valley Route Overview**

	Weekday	Saturday
Span	5:20am – 7:52pm	5:20am – 7:52pm
Frequency	1 hr – 90 mins	1 hr – 90 mins
Daily Round Trips	17	17
Daily Boardings	230	159

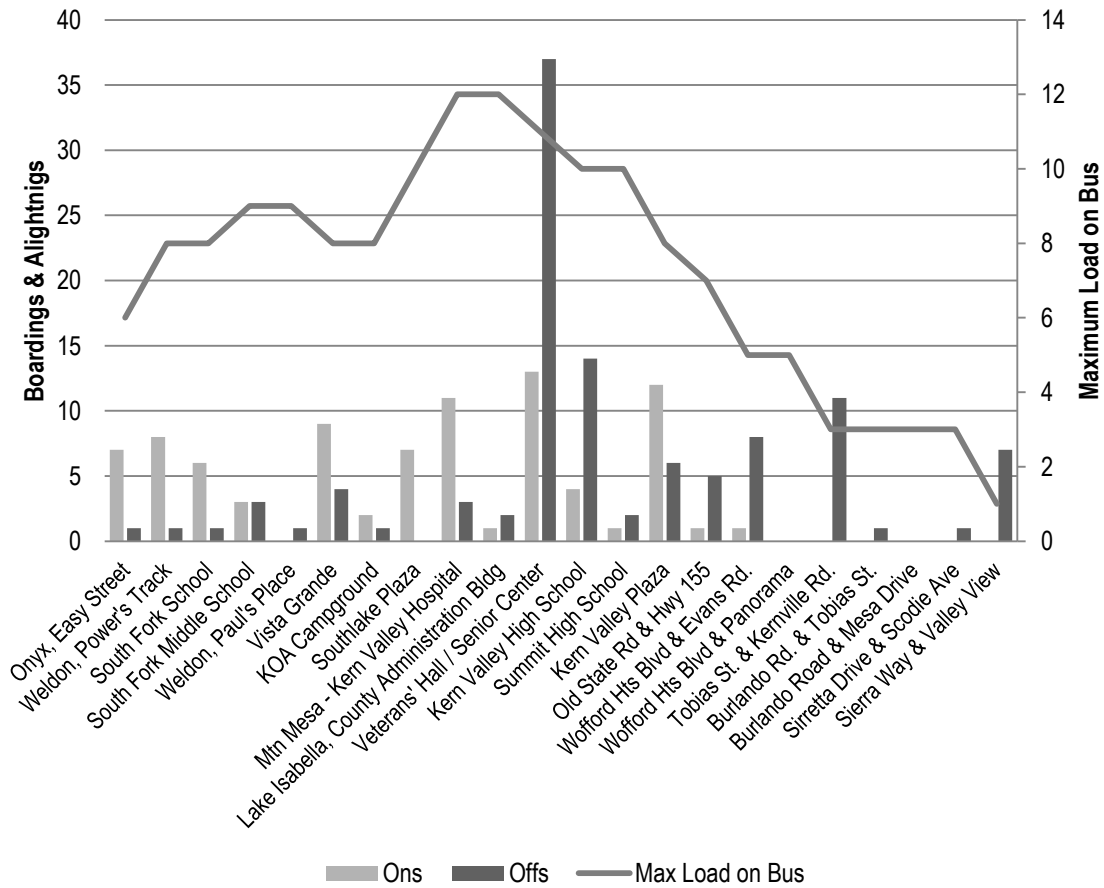
Figures 5-31 through 5-34 show total boardings and alightings by stop in each direction for weekdays and on Saturdays, as well as maximum loads observed departing each stop.

**Figure 5-31 Kern River Valley Boardings, Alightings and Maximum Load (Weekday Eastbound)**



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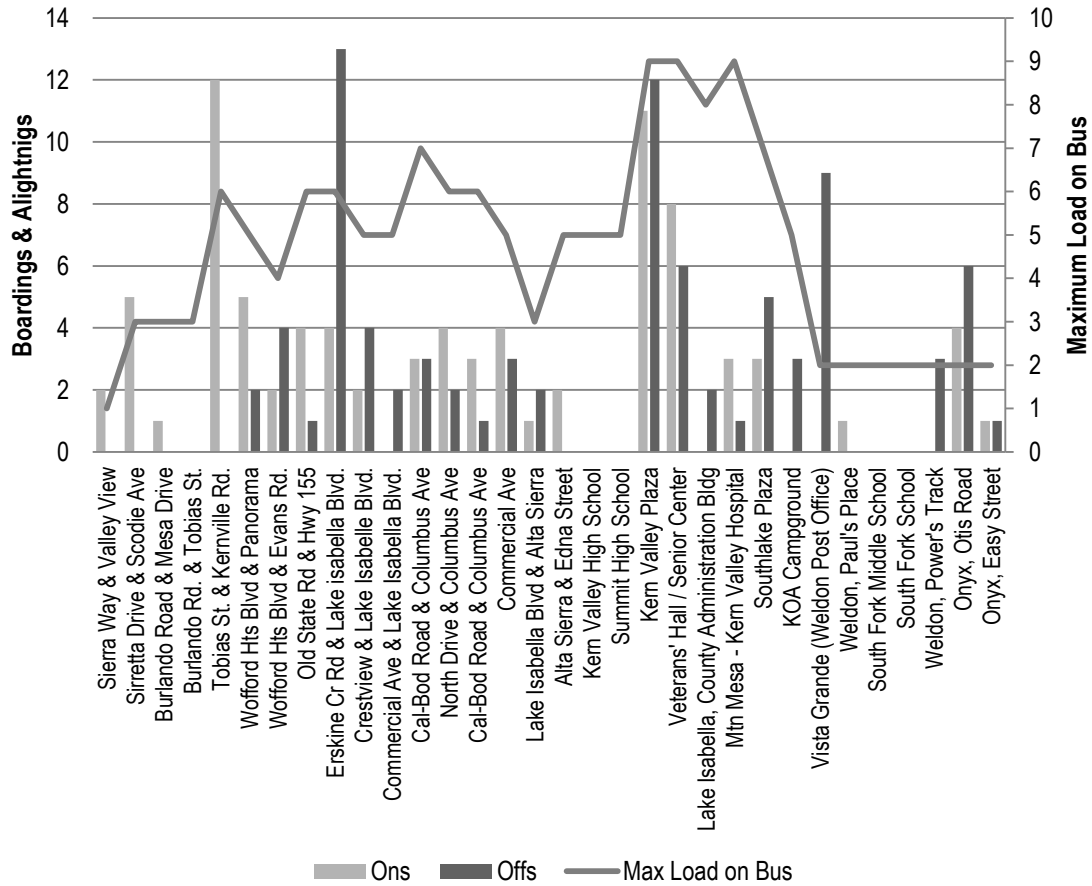
**Figure 5-32 Kern River Valley Boardings, Alightings and Maximum Load (Weekday Westbound)**





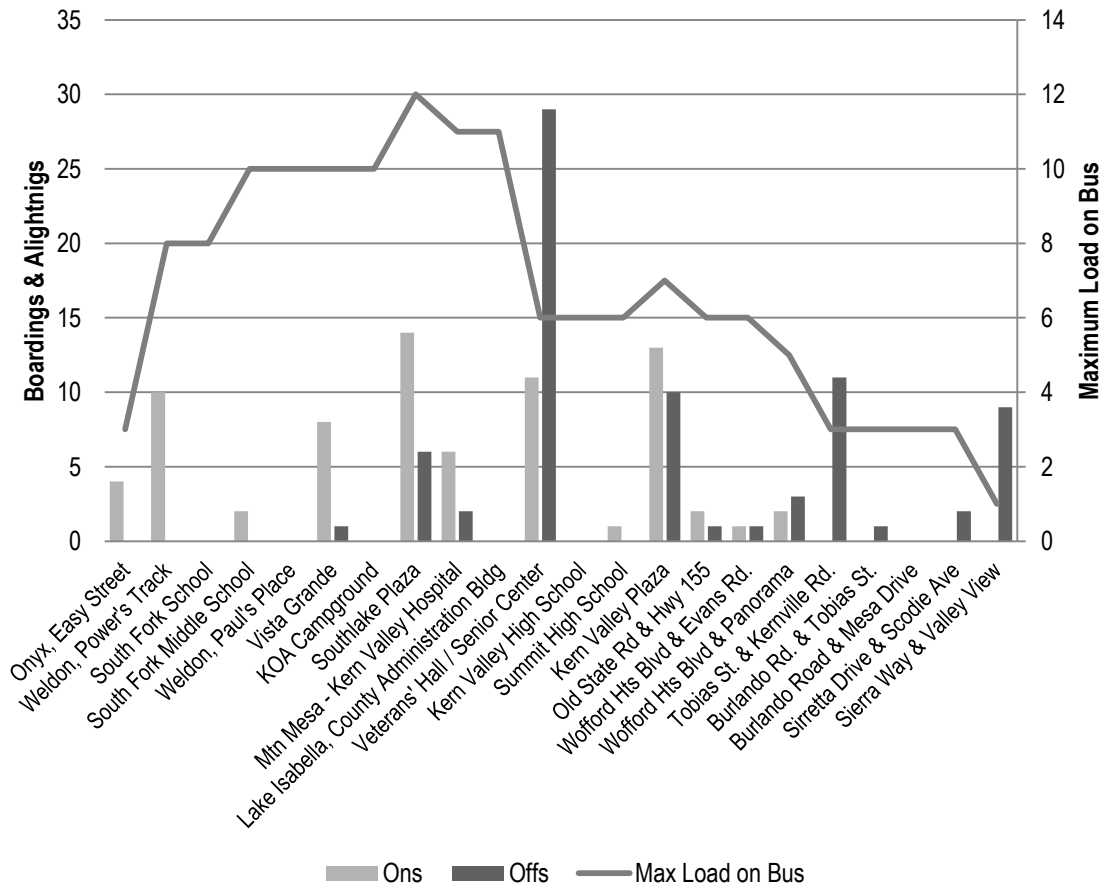
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**Figure 5-33 Kern River Valley Boardings, Alightings and Maximum Load (Saturday Eastbound)**



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**Figure 5-34 Kern River Valley Boardings, Alightings and Maximum Load (Saturday Westbound)**



## Lamont-Weedpatch

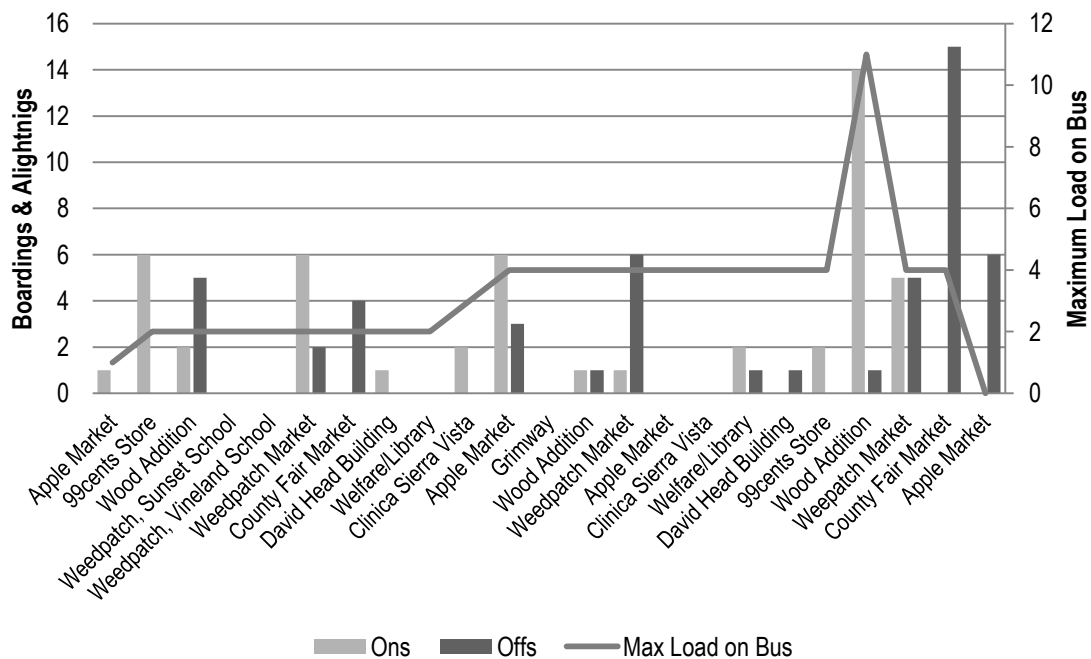
This short route connecting the communities southeast of Bakersfield is a relatively weak performer with a complicated alignment. Operating characteristics and ridership are shown in Figure 5-35.

**Figure 5-35 Lamont – Weedpatch Route Overview**

	Weekday	Saturday
Span	5:30am-6:55pm	5:30am-6:55pm
Frequency	1 – 2 hrs	1 – 2 hrs
Daily Round Trips	10	10
Daily Boardings	49	62

Figures 5-36 through 5-37 show total boardings and alightings by stop in each for weekdays and on Saturdays, as well as maximum loads observed departing each stop.

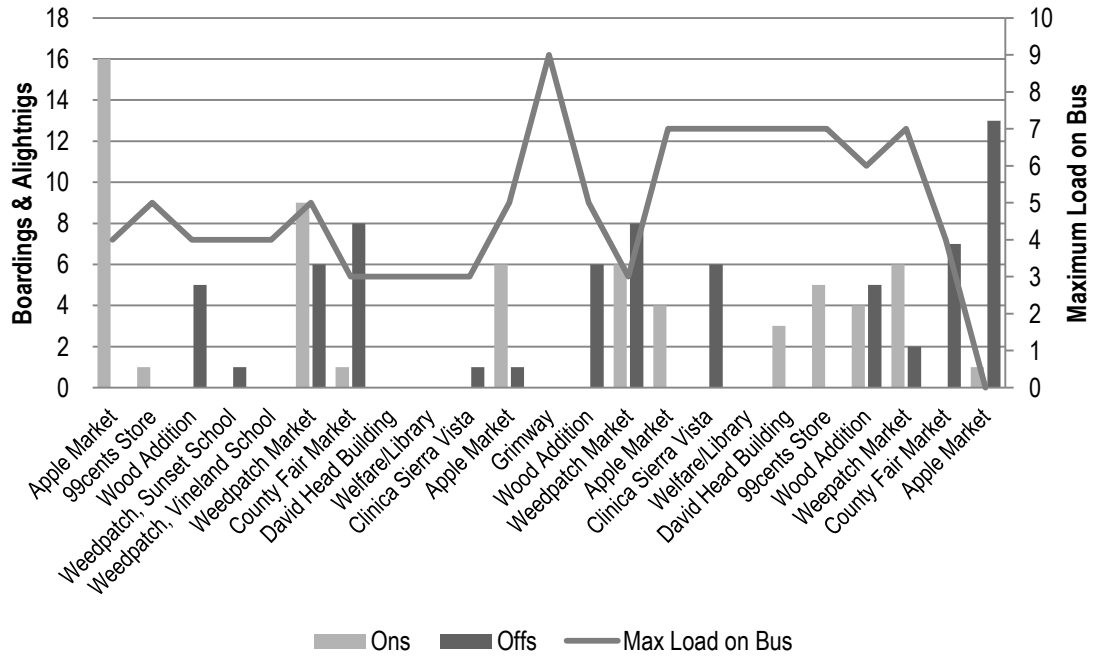
**Figure 5-36 Lamont-Weedpatch Boardings, Alightings and Maximum Load (Weekday)<sup>8</sup>**



<sup>8</sup> All stops not denoted as Weedpatch are in Lamont.

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**Figure 5-37 Lamont-Weedpatch Boardings, Alightings and Maximum Load (Saturday)<sup>9</sup>**



<sup>9</sup> All stops not denoted as Weedpatch are in Lamont.

## Mojave-California City

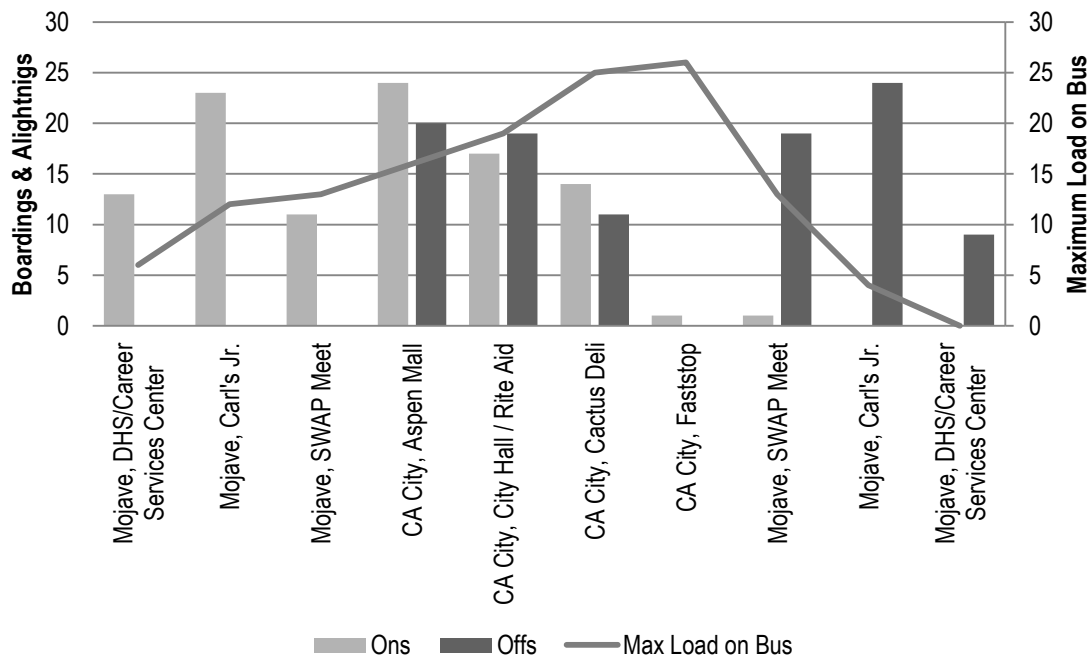
The Mojave-California City route provides service between the eastern Kern County communities, and is a moderate performer. Operating characteristics and ridership are shown in Figure 5-38.

**Figure 5-38 Mojave-California City Route Overview**

	Weekday	Saturday
Span	6:15am – 7:45pm	6:15am – 7:45pm
Frequency	2-3 hours	2-3 hours
Daily Round Trips	7	3
Daily Boardings	104	33

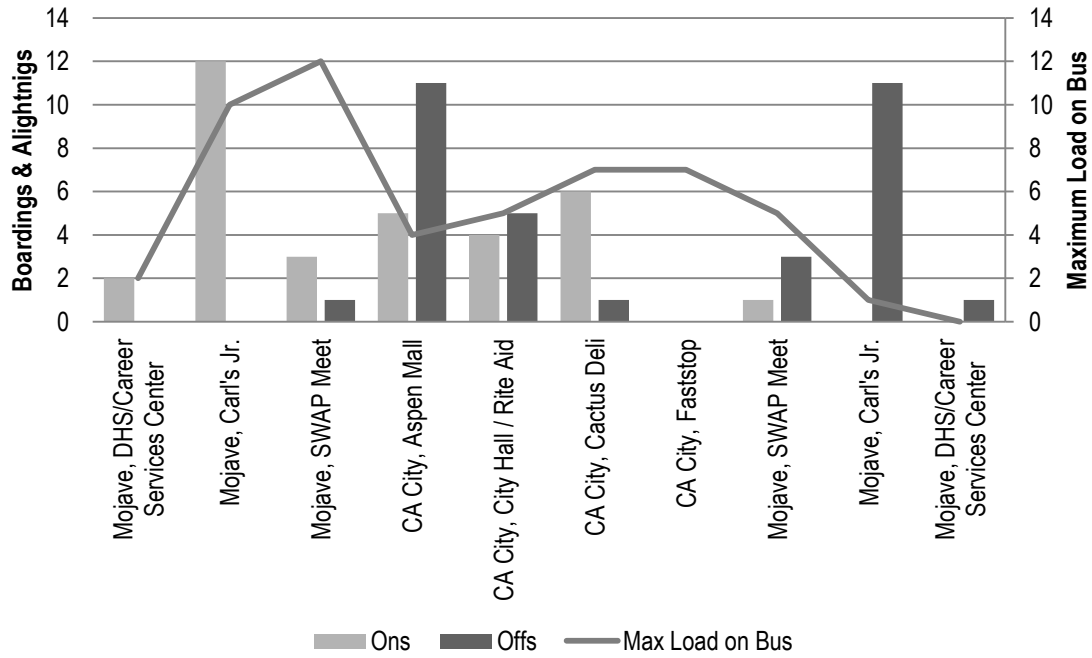
Figures 5-39 and 5-40 shows total boardings and alightings by stop for weekdays and on Saturdays, as well as maximum loads observed departing each stop.

**Figure 5-39 Mojave-California City Boardings, Alightings and Maximum Load (Weekday)**



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**Figure 5-40 Mojave-California City Boardings, Alightings and Maximum Load (Saturday)**



## Mojave-Ridgecrest

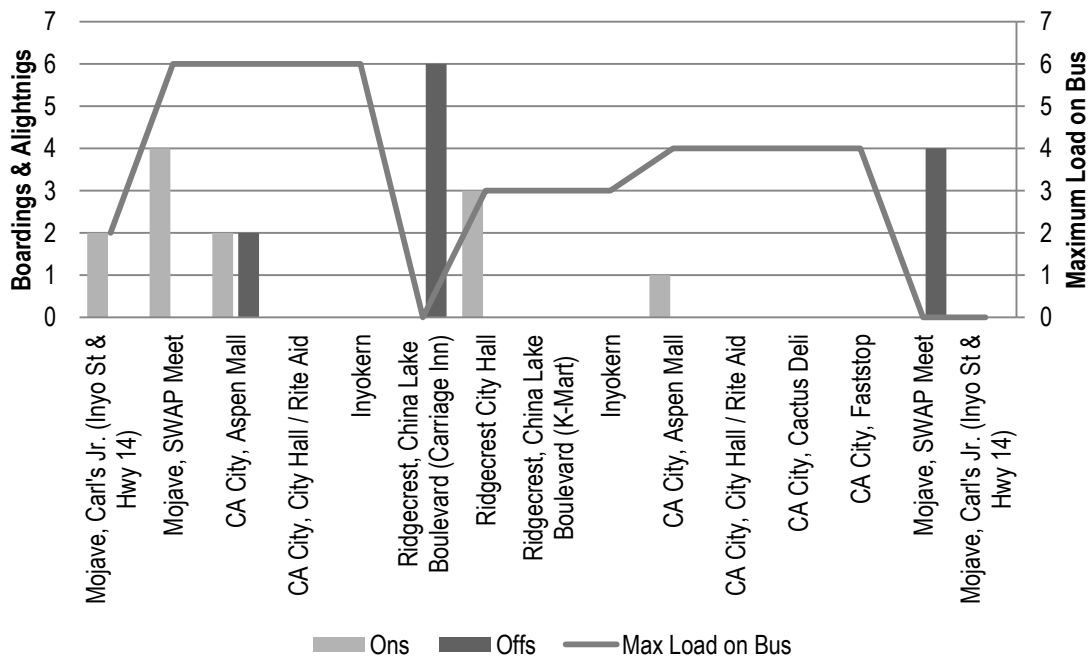
The Mojave-Ridgecrest route connects the eastern Kern County communities Mondays, Wednesdays and Fridays and is a relatively weak performer. Operating characteristics and ridership are shown in Figure 5-41.

**Figure 5-41 Mojave-Ridgecrest Route Overview**

	Mon/Wed/Fri
Span	4:20am – 8:32pm
Frequency	2 trips
Daily Round Trips	2
Daily Boardings	12

Figure 5-42 shows total boardings and alightings by stop, as well as maximum loads observed departing each stop.

**Figure 5-42 Mojave-Ridgecrest Boardings, Alightings and Maximum Load (Weekday)**



## 6 RECOMMENDATIONS

In determining KRT's response to the GET service changes, two related customer service issues should be addressed: access and fares. These issues are related because there is no fare agreement between KRT and GET: passengers transferring from one system to the other must pay full fares. **GET's non-discount cash fare is \$1.25, and full-price 31-day passes are \$36.** Because KRT has distance based fares, inter-agency fares and transfers are challenging although it is recommended that strategies be explored for creative ways to address this complex issue.

Conceivably, KRT routes serving Bakersfield could simply make connections to GET at transit centers and provide access to destinations throughout Bakersfield via transfers to GET; however, KRT riders would incur significant additional expense, as well as the inconvenience of changing buses (studies have found that riders perceive time spent waiting for transit as significantly longer than it is in reality) and the additional travel time required with a local-stop, rather than an express service. **Conversely, KRT's Intercity express services cannot be expected to make frequent local stops within Bakersfield; either operating costs would increase, or frequencies would be reduced.** Somewhere on a spectrum between these two points lies the proper balance between **"one-seat ride" direct connectivity and service relying almost entirely upon connections.**

It is important, in determining a response, to acknowledge the tension between costs for KRT and cost and convenience for **customers.** **If stops were reduced or routes shortened, KRT's costs** could be reduced, but at the expense of some passengers. Alternately, time savings might be reinvested in additional service, providing a benefit for customers.

Ultimately, these decisions must be made on the basis of a conversation about priorities. KRT staff must determine to what extent imposition of additional fare and inconvenience on some passengers would be justified and offset by reduced operating costs, faster trips or more frequent service.

A few additional considerations that went into development of the draft recommendations:

- **Connections to Transit Centers.** Obviously, it is important to serve GET transit centers in order to provide connections. However, **GET's transit centers**, unlike some of those operated by other agencies, are also uniformly adjacent to sites that are major destinations in their own right: Downtown Bakersfield, Valley Plaza Mall, Bakersfield College and CSU Bakersfield<sup>10</sup>.
- **Connections to GET Rapid Routes.** Route 2 will serve the Downtown Transit Center, which is served by every KRT route operating in Bakersfield. Route 1, however, will bypass downtown on California Avenue, and also will not serve the Southwest Transit Center.
- **Connections to Destinations Throughout Bakersfield.** For the Metropolitan Bakersfield Transit System Long-Range Plan, boarding-and-alighting data was collected for all GET routes, as well as existing and projected land use and demographic data. These data should inform KRT routing decisions.
- **Natural Routing Opportunities.** While KRT routes generally make stops only on the "near" side of Bakersfield (for example, the east side if the route operates to the east of

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<sup>10</sup> New GET Route 117, like the existing Route 17, will provide express connections between Bakersfield College, the Downtown Transit Center and the Southwest Transit Center, and it will operate until 11 p.m. weekdays.



Bakersfield), they often follow circuitous alignments through the city. In some cases, changes to GET service may make more direct routings possible.

## **POLICY AND PRACTICE CHANGES**

While this analysis is focused on changes to KRT's route network to respond to changes to the GET route network, and is thus somewhat limited in its scope, analysis of GET operating practices suggests a few policy and practice changes that are worthy of consideration.

### **Fare Policy**

As was mentioned previously, there is no fare agreement between KRT and GET. Some years ago, Nelson\Nygaard researched opportunities for fare reciprocity between the two agencies, but it **was ultimately determined that KRT's distance-based fare system would complicate any such arrangement.** Both agencies have also dealt with funding challenges in recent years. Nonetheless, survey results indicate that about 20 percent of all KRT Intercity riders transfer to or from GET to complete their trips. Given the limited numbers of stops KRT makes within Bakersfield, GET routes effectively function as extensions of KRT service, and some sort of reduced-fare transfer option could only serve to increase ridership on both systems. Further study is beyond the scope of this effort, but we recommend that staff from the agencies explore the options, either through a new study or via direct discussions.

### **Scheduling Practices**

Assessment of KRT schedules suggests that the agency's scheduling practices might be refined in a number of ways:

- **Variants.** Many KRT routes serve different stops on different trips. There is nothing wrong with this practice, which is common in the industry; indeed, there are many good reasons to vary schedules, including peak periods for different activities (commuting to work or school, or shopping). Variations can, however, reduce user understanding, and in some instances there is no readily apparent reason for variations in KRT schedules. For example, just three of the 11 daytime trips on the Lamont-Bakersfield route serve Valley Plaza and **GET's Southwest Transit Center, with the result that a passenger on that route alighting at 10:10 a.m. would not be able to take a return bus from the same location until 5:35 p.m.** While we have not developed new schedules as part of this analysis, we would recommend that KRT staff, using the data provided as part of this analysis as well as their own knowledge of travel patterns, review their schedules to determine whether all deviations from the base pattern are necessary.
- **Timing.** Upon publication of new GET schedules, KRT will, obviously, need to adjust its schedules accordingly in order to ensure continued timed connections to GET routes at **transit centers, where GET services "pulse" or synchronize arrivals and departures.** For a system such as KRT with relatively long headways, reliably timed connections are critical – **KRT must be "part of the pulse."** As the new GET routes will operate on "clockface" headways of 15, 30 and 60 minutes, this will afford KRT the opportunity to depart the Downtown Transit Center, the proposed terminal for all Bakersfield routes, "on the hour" or "on the half-hour."

## Passenger Information Practices

Finally, KRT could improve customer service in a number of ways, ranging from the relatively inexpensive to somewhat costlier:

- **Spanish Language Schedules.** Roughly one in eight surveys collected on KRT buses for this study were completed in Spanish, indicating that a large number of KRT riders are not proficient or comfortable in English. Producing Spanish-language versions of KRT **printed materials would be a relatively inexpensive way to expand the agency's outreach** into the community.
- **Google Transit.** Google Transit is a powerful trip planning and online mapping tool that could improve the transit experience for existing KRT customers, while also making information available to a new market of potential riders. **Google's free trip planner** presents transit users (and prospective users) with an online tool similar to the driving directions that many Internet users are already familiar with. Google Transit makes public transportation easy to navigate and removes an element of the unknown that acts as a barrier for many potential users.

As a first step toward Google Transit implementation, the coordinates of each KRT bus stop location would have to be established. KRT or consultant staff could collect this information in the field using a hand-held global positioning system (GPS) device. Once bus stop coordinates are collected, the major elements of the Google Transit implementation process are:

- Submit a request to Google to participate in the Google Transit Partner Program
- Code all current routes and bus stops to meet General Transit Feed Specifications (GTFS)
- Designate a URL to host the KRT Google Transit feed
- Validate the KRT Google Transit feed through the Google Feed Validator Program
- Coordinate internal Google testing of the validated KRT Google Transit feed
- Launch the KRT Google Transit feed

Such an effort might be conducted in coordination with GET, which according to KRT staff is currently in the process of submitting its stop information. At the very least, KRT information might be provided for Bakersfield stops shared with GET. Consultants also exist who specialize in assisting transit operators in implementation of Google Transit<sup>11</sup>.

An additional benefit of Google Transit implementation is that once data is made publicly available, smartphone application developers may design and distribute customized applications making the data available to the public in a variety of formats and on various platforms at no additional cost to the operator. While this practice is currently largely limited to major metropolitan areas, it is likely that such activity will increase and spread over time, particularly if, as is rumored, the new Apple Maps application to be included in Apple's iOS6 operating system for the iPad and iPhone does not include transit

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<sup>11</sup> More information about a pioneering implementation of Google Transit some years ago at Sage Stage, a rural transit operator in Modoc County in Northern California, can be found at the following webpages:

<http://www.reconnectingamerica.org/resource-center/browse-research/2009/northern-california-google-transit-feasibility/study>

[http://www.fta.dot.gov/documents/FTA\\_Report\\_No.\\_0006.pdf](http://www.fta.dot.gov/documents/FTA_Report_No._0006.pdf)

information, but rather allows developers to create their own local applications using GTFS for submission to the company's App Store.

- ***Real-time Arrival Information.*** GPS-based tracking of transit vehicle locations and regular transmissions of projected wait times to LCD displays at stops and smartphone applications has become commonplace among urban and even many suburban transit operators. One might assume that the cost to install such a system would be prohibitive, yet much of the cost is a factor of system size (i.e., many costs are *per-vehicle* and *per-stop*), meaning that costs for small operators should be much lower than for larger operators. The potential advantages of such a system for KRT, with its relatively infrequent arrivals, are obvious, as the practical and psychological value of knowing when “your bus” will arrive is amplified when missing one’s bus might result in a two- or three-hour wait for the next arrival.

## ROUTE RECONFIGURATIONS

The following recommendations focus on stops within Bakersfield, and on primary stop patterns.

### All Routes

GET currently operates a variety of service patterns within Downtown Bakersfield. Analysis of boarding-and-alighting and origin-and-destination data suggests that these could be streamlined in the following ways:

- To the extent possible, routes terminating downtown should terminate at the Downtown Transit Center.
- Routes should serve destinations from the following list that are on the “near” side of downtown (e.g., routes approaching from the east via Truxtun Avenue would stop at the Amtrak Station and Bakersfield City Hall):
  - Amtrak Station
  - Greyhound Station
  - Airport Bus of Bakersfield/Department of Motor Vehicles (the existing North Kern Express stop at 26<sup>th</sup> and F streets could be relocated to the existing GET stops between 30<sup>th</sup> Street and Golden Gate Avenue).
  - San Joaquin Community Hospital
  - 26<sup>th</sup> and M streets (KRT offices)
  - Bakersfield City Hall
  - Mercy Hospital (Chester and Truxtun avenues)
- All downtown destinations except the DTC should be served by request only (in the inbound direction if not in both directions).

Passengers **continuing to destinations on the “far” side of downtown** could do so using GET routes, which under the recommendations would serve all of the above destinations except the Greyhound station, which is a short walk, only about four-tenths of a mile or an eight-minute walk for an able-bodied adult from the DTC.

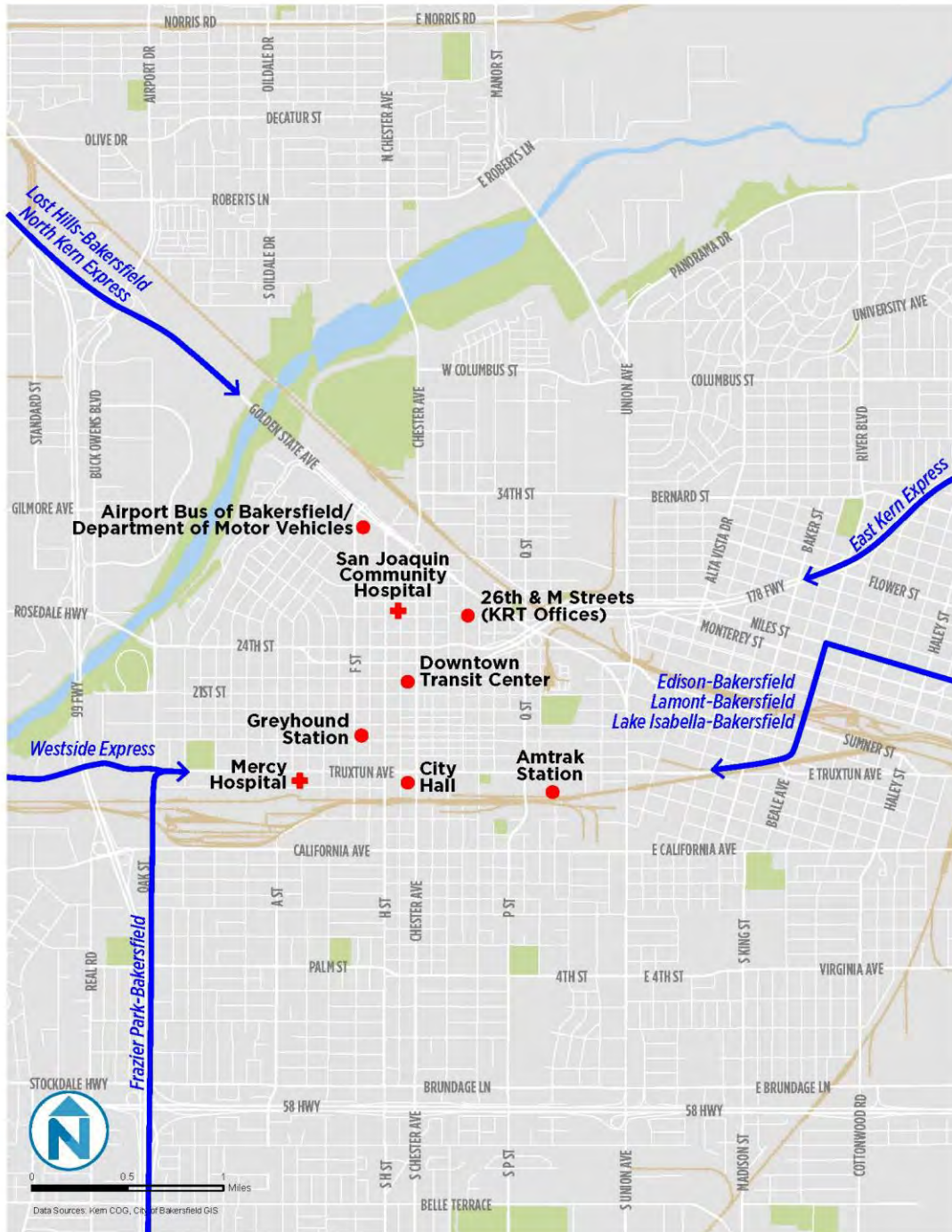
This recommendation would result in more KRT stops in downtown Bakersfield (eight) than exist today (five); arguably, GET service could be relied upon to provide connections to all locations other than the DTC and Greyhound station. However, a policy of serving all downtown stops

except the DTC by request only should not add substantially to travel times, and may result in net reductions. Furthermore, it would simplify service for users.

Proposed stops and “**approach angles**” of routes (assuming realignments recommended in the following section) are shown in Figure 6-1.

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**Figure 6-1 Recommended Downtown Bakersfield Stops**



## East Kern Express

Only minor changes are recommended to the East Kern Express, one of KRT's most successful routes. First, stops should be added on Mt. Vernon Avenue adjacent to East Hills Mall, as this would not require a change in alignment and would provide access to the Mall area via a short walk. Second, per the previous recommendation regarding downtown service, stops should be added at San Joaquin Community Hospital, and the existing Amtrak stop should be eliminated (GET Route 14, operating every 30 minutes, can provide connections to Amtrak). Unlike other routes, the East Kern Express would continue through to and terminate at the Greyhound station, as Caltrans requires the station be served as a condition of the route's Federal Transit Administration funding.

Recommended Bakersfield stops are shown in Figure 6-2.

**Figure 6-2 Bakersfield Stops: East Kern Express**

To Bakersfield
Kern Medical Center
East Hills Mall (Mt. Vernon Ave)
Bakersfield College
26 <sup>th</sup> & M (R)
San Joaquin Community Hospital (R)
Downtown Transit Center (Chester Ave)
Greyhound Station
From Bakersfield
Greyhound Station
Downtown Transit Center (Chester Ave)
San Joaquin Community Hospital (R)
26 <sup>th</sup> & M (R)
Bakersfield College
East Hills Mall (Mt. Vernon Ave)
Kern Medical Center

(R) by request only

## Edison-Bakersfield

On the day on which this route was observed for ridership activity, there were no boardings over the course of three trips. It is a short route, making just two fixed stops (in addition to flex stops) in Edison, a small community just east of Bakersfield, before continuing into Bakersfield. It is also a relatively new route, and new transit markets often take some time to develop. For this reason, discontinuation of the route is not recommended. However, if a market does not develop over the next year or so, KRT staff might consider more cost-effective alternatives. Staff have indicated that a request-stop diversion of the East Kern Express, which passes by Edison, could cause on-time performance problems on that busy route. However, KRT operates dial-a-ride service in

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Bakersfield for medical trips only. While expansion of that program might prove problematic for policy, procedural and/or funding reasons, it would likely be more cost-effective to provide demand-responsive service to Edison than to provide fixed-route service, and everyday demand-responsive service would represent a major improvement for users over the existing one-day-a-week service. In the meantime, we would recommend one minor change to the route: elimination of the stop at California and Chamberlain Avenues, which will be a short ride away from Kern Medical Center on the frequent Rapid Route 1 following the GET service changes.

Recommended Bakersfield stops are shown in Figure 6-3.

**Figure 6-3 Bakersfield Stops: East Kern Express**

To Bakersfield
Niles Plaza
East Hills Mall (Wal-Mart)
Kern Medical Center
Amtrak Station <b>(R)</b>
Bakersfield City Hall <b>(R)</b>
Downtown Transit Center (Chester Ave)
From Bakersfield
Downtown Transit Center (Chester Ave)
Bakersfield City Hall <b>(R)</b>
Amtrak Station <b>(R)</b>
Kern Medical Center
East Hills Mall (Wal-Mart)
Niles Plaza

**(R)** by request only

## Frazier Park-Bakersfield

This route follows a relatively direct path into and out of Downtown Bakersfield; therefore only minor changes are recommended, consistent with the downtown stops configuration previously recommended: the Amtrak stop to the east would be eliminated, and the Bakersfield High School stops would be replaced by stops at Mercy Hospital. A stop would also be added at California Avenue allowing connections to GET Rapid Route 1. (Note: Early morning trips currently do not make south-side stops, or make them only on request; we would recommend that the Southwest Transit Center be served by all trips during GET operating hours).

Recommended Bakersfield stops are shown in Figure 6-4.

**Figure 6-4 Bakersfield Stops: Frazier Park-Bakersfield**

To Bakersfield
McKee & South H Park & Ride <b>(R)</b>
Panama Lane Wal-Mart



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Southwest Transit Center (Wible Rd)
Oak & California
Mercy Hospital <b>(R)</b>
Greyhound Station <b>(R)</b>
Downtown Transit Center (Chester Ave)
<b>From Bakersfield</b>
Downtown Transit Center (Chester Ave)
Greyhound Station <b>(R)</b>
Mercy Hospital <b>(R)</b>
Oak & California
Southwest Transit Center (Wible Rd)
Panama Lane Wal-Mart
McKee & South H Park & Ride <b>(R)</b>

**(R)** by request only

## Lake Isabella-Bakersfield

Upon entering Bakersfield, this route first makes two stops at East Hills Mall (except early mornings) before proceeding north to Bakersfield College, then returning south to Kern Medical Center before continuing west to downtown. The east-side stops are relatively well-used, but are served only in the westbound direction, so a one-hour trip from Lake Isabella to Bakersfield College in the westbound direction is a 90-minute trip in the reverse direction. We recommend that the east-side stops be served in both directions. As a single bus serves this route, this may require schedule changes, and a longer span of service. To reduce travel time somewhat, the East Hills Mall stops can be consolidated, and if necessary, East Hills Mall could be served using the GET stops on Mt. Vernon Avenue. We also recommend that downtown stops be reconfigured as previously recommending, excepting those stops that according to staff must be retained (the Veterans Affairs Clinic on Westwind Drive and the Airport Bus of Bakersfield stop).

Recommended Bakersfield stops are shown in Figure 6-5.

**Figure 6-5 Bakersfield Stops: Lake Isabella-Bakersfield**

<b>To Bakersfield</b>
East Hills Mall (Wal-Mart)
Bakersfield College
Kern Medical Center
Amtrak Station <b>(R)</b>
Bakersfield City Hall <b>(R)</b>
Downtown Transit Center (Chester Ave)
<b>From Bakersfield</b>
Downtown Transit Center (Chester Ave)



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Airport Bus of Bakersfield/DMV <b>(R)</b>
Veterans Affairs Clinic Westwind Drive <b>(R)</b>
Bakersfield City Hall <b>(R)</b>
Amtrak Station <b>(R)</b>
Kern Medical Center
Bakersfield College
East Hills Mall (Wal-Mart)

**(R)** by request only

## Lamont-Bakersfield

While this is one of KRT's most successful routes, four changes are recommended. First, downtown stop patterns should be reconfigured consistent with our previous recommendation. Second, a stop should be added on Mt. Vernon Avenue adjacent to East Hills Mall. Third, a stop should be added at California Avenue and Oak Street to allow connections to the western segment of GET Rapid Route 1. And fourth, we believe all trips should serve the Southwest Transit Center, Adult Education Center, and Brundage Lane and Fairfax Road. The latter two are secondary destinations; however, if one is traveling from the Southwest Transit Center toward Redbank and Fairfax roads, they require only a minor deviation and no deviation, respectively. This is nonetheless likely to require elimination of one of the eleven daytime trips; as an alternative, it might be preferable to simply not serve the Southwest Transit Center, Adult Education Center, and Brundage Lane and Fairfax Road, and let these locations be served by connections to GET routes. In any case, evening service need not be altered.

Recommended Bakersfield stops are shown in Figure 6-6.

**Figure 6-6 Bakersfield Stops: Lamont-Bakersfield**

To Bakersfield
Redbank & Weedpatch Hwy
Redbank & Fairfax
Brundage & Fairfax
Niles Plaza
Bakersfield College
East Hills Mall (Mt. Vernon)
Kern Medical Center
Amtrak Station <b>(R)</b>
Bakersfield City Hall <b>(R)</b>
Downtown Transit Center (Chester Ave)
From Bakersfield
Downtown Transit Center (Chester Ave)
Greyhound Station <b>(R)</b>

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Mercy Hospital <i>(R)</i>
Oak & California
Southwest Transit Center (Wible Rd)
Adult School
Brundage & Fairfax
Redbank & Fairfax
Redbank & Weedpatch Hwy

*(R)* by request only

## Lost Hills-Bakersfield

In Bakersfield, this route stops only at the Downtown Transit Center. We would recommend addition of downtown stops as previously identified.

Recommended Bakersfield stops are shown in Figure 6-7.

**Figure 6-7 Bakersfield Stops: Lost Hills-Bakersfield**

To Bakersfield
Airport Bus of Bakersfield/DMV <i>(R)</i>
San Joaquin Community Hospital <i>(R)</i>
Downtown Transit Center (Chester Ave)
From Bakersfield
Downtown Transit Center (Chester Ave)
San Joaquin Community Hospital <i>(R)</i>
Airport Bus of Bakersfield/DMV <i>(R)</i>

*(R)* by request only

## North Kern Express

This is KRT's most productive route, and only two changes are recommended. One, a pair of near-side downtown stops should be added, consistent with our earlier recommendation (these would replace the existing request-only stop at 26<sup>th</sup> and F streets; it should be noted that a request-only stop near the DMV office is already planned to be added). Two, the part-time deviations to Marella Way and Office Park Drive and Commercial Way should be eliminated, as there is virtually no activity at these stops, and they can be accessed via GET. (Note: The Commercial Way stop serves the DaVita dialysis clinic, and KRT may wish to retain some service to this stop.) Weekend deviations to Valley Plaza and the Southwest Transit Center should continue.

Recommended Bakersfield stops are shown in Figure 6-8.

**Figure 6-8 Bakersfield Stops: North Kern Express**

To Bakersfield
Airport Bus of Bakersfield/DMV <i>(R)</i>

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San Joaquin Community Hospital <i>(R)</i>
Downtown Transit Center (Chester Avenue)
<b>From Bakersfield</b>
Downtown Transit Center (Chester Avenue)
San Joaquin Community Hospital <i>(R)</i>
Airport Bus of Bakersfield/DMV <i>(R)</i>

*(R)* by request only

## Westside Express

The Westside Express currently follows a circuitous route through Bakersfield: after entering the city from the west on Stockdale Highway, on most trips it stops at CSU Bakersfield and near the corner of Stockdale and California Avenue. However, it then travels south on Highway 99 as far as Panama Lane (White Lane on weekends) before reversing direction to make several South Bakersfield stops. Eventually, it arrives downtown. On the return trip, it travels south to White Lane in most cases before reversing direction.

Introduction of two Rapid lines serving CSU Bakersfield might appear to make the Westside Express a prime candidate for truncation, and indeed, those traveling downtown may choose to transfer to Line 2 at CSU for a faster trip (scheduled mid-day travel time between CSU and the Downtown Transit Center on the Westside Express is 54 minutes; Line 2 should make the same journey in approximately 36 minutes). However, there is some activity at the south side stops, and GET service to this area from CSU and downtown would be limited.

Instead, we recommend two realignment options that would shorten travel times while maintaining some access to the White and Panama stops:

- **Option 1, “the loop” would have buses continue east from a new stop just west of** Stockdale and California into downtown via California, Oak Street and Truxtun Avenue before traveling south as far as the Southwest Transit Center, from which point GET Route 22 can provide connections to the White and Panama stops, and Routes 10 and 11 can provide additional connections to the Panama Wal-Mart. Buses could then use Ming Avenue to reach CSU Bakersfield.
- **Option 2, “the straight line” would continue to serve the far south-side stops, but using a** streamlined alignment: like Option 1, it would travel directly from CSU Bakersfield to downtown, then south to the Southwest Transit Center; however, it would continue from this point to White Lane and Panama Lane, where it would terminate. It would then return to downtown following the same alignment.

Option 1 would significantly reduce travel times, potentially allowing for addition of a sixth daily trip. Option 2 would be shorter than the current alignment, but likely not enough to allow for an additional trip.

Recommended Bakersfield stops are shown in Figures 6-9 and 6-10.

**Figure 6-9 Bakersfield Stops: Westside Express (Option 1)**

<b>To Bakersfield</b>
CSU Bakersfield

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Stockdale & California
Mercy Hospital <b>(R)</b>
Greyhound Station <b>(R)</b>
Downtown Transit Center (Chester Avenue)
<b>From Bakersfield</b>
Downtown Transit Center (Chester Ave)
Greyhound Station <b>(R)</b>
Mercy Hospital <b>(R)</b>
Southwest Transit Center (Wible Rd)
CSU Bakersfield

**(R)** by request only

**Figure 6-10 Bakersfield Stops: Westside Express (Option 2)**

<b>To Bakersfield</b>
CSU Bakersfield
Stockdale & California
Mercy Hospital <b>(R)</b>
Greyhound Station <b>(R)</b>
Downtown Transit Center (Chester Avenue)
Southwest Transit Center (Wible Rd)
White Lane Wal-Mart
White Lane & South H
Panama Lane Wal-Mart
<b>From Bakersfield</b>
Panama Lane Wal-Mart
White Lane & South H
White Lane Wal-Mart
Southwest Transit Center (Wible Rd)
Downtown Transit Center (Chester Ave)
Greyhound Station <b>(R)</b>
Mercy Hospital <b>(R)</b>
Stockdale & California
CSU Bakersfield

**(R)** by request only

## NEW AND ELIMINATED STOPS

Figure 6-11 shows stops that would be served by regular weekday trips (Hughes Lane adjacent to Macy's at Valley Plaza would be served on weekends by the North Kern Express). All of these locations except four – the Greyhound Station, Brundage Lane and Fairfax Avenue, Redbank Road and Fairfax, and Redbank and Weedpatch Highway – would also be served by GET, meaning that riders on KRT routes that do not serve the location could access it using a transfer. (One key transfer, to the Amtrak station, could be made from the Downtown Transit Center using GET Route 14.)

**Figure 6-11 Bakersfield Stops: All Routes**

Stop	Route						
	East Kern Express	Frazier Park-Bakersfield	Lake Isabella-Bakersfield	Lamont-Bakersfield	Lost Hills-Bakersfield	North Kern Express	Westside Express
<i>Transit Centers</i>							
Downtown Transit Center (Chester Ave)	X	X	X	X	X	X	X
Southwest Transit Center (Wible Rd)		X		X			
Bakersfield College	X		X				
CSU Bakersfield							X
<i>Downtown Stops</i>							
26 <sup>TH</sup> & M	X						
Airport Bus of Bakersfield/DMV					X	X	
Amtrak Station			X	X			
Bakersfield City Hall			X	X			
Greyhound Station		X		X			X
Mercy Hospital		X		X			X
San Joaquin Community Hospital	X				X	X	
<i>East Stops</i>							
East Hills Mall (Mt. Vernon Ave)	X						
East Hills Mall (Wal-Mart)			X				
Kern Medical Center	X		X				
<i>Southeast Stops</i>							
Adult School				X			
Brundage & Fairfax				X			
Niles Plaza				X			
Redbank & Fairfax				X			

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Redbank & Weedpatch Hwy				X			
<i>South Stops</i>							
McKee & South H Park & Ride		X					
Oak & California		X		X			
Panama Lane Wal-Mart		X					(x) <sup>12</sup>
White Lane & South H							(x)
White Lane Wal-Mart							(x)
<i>West Stops</i>							
Stockdale & California							X

As the figure illustrates, a few existing stops would be eliminated. These stops would be served by GET routes as shown in Figure 6-12. Two stops – Stockdale Highway and Village Lane, and East Hills Mall near the former Gottschalk’s store – would be replaced by new and existing stops within walking distance. Two more stops, on White Lane at South H Street and by the Wal-Mart at Hughes Lane, would be eliminated under alignment Option 1 for the Westside Express.

**Figure 6-12 Eliminated Bakersfield Stops & GET Connections**

Stop	GET Routes	Connect from:	Connect at:
Bakersfield High School	1	East Kern Express Lake Isabella-Bakersfield	Kern Medical Center
		Frazier Park-Bakersfield Lamont-Bakersfield	Oak & California
		Westside Express	Stockdale & California
California Ave & Chamberlain Ave	1	East Kern Express Lake Isabella-Bakersfield	Kern Medical Center
		Frazier Park-Bakersfield Lamont-Bakersfield	Oak & California
		Westside Express	Stockdale & California
Marella Way	12, 16	All Routes	Downtown Transit Center
		Westside Express	Stockdale and California
Office Park & Commercial Way	1,16	East Kern Express Lake Isabella-Bakersfield	Kern Medical Center
		Frazier Park-Bakersfield Lamont-Bakersfield	Oak & California
		Westside Express	Stockdale & California

<sup>12</sup> “(x)” designates stops that would be served by the Westside Express under Option 2 only; under Option 1, the White Lane stops would be eliminated altogether. GET Route 22 will provide connections to White Lane from the Southwest Transit Center.

Figure 6-13 shows new stops that would be necessary to implement these recommendations. All locations are along planned GET routes; it should be possible for KRT to share these stops provided that stops shared with high-frequency routes (in particular Rapid routes 1 and 2, which will run every 15 minutes) are made long enough to accommodate two buses simultaneously.

**Figure 6-13 New Bakersfield Stops**

Location	GET Route
Airport Bus of Bakersfield/DMV	11
Bakersfield City Hall	14
East Hills Mall (Mt. Vernon Ave)	1,10,13
Mercy Hospital	12
Oak & California	11
San Joaquin Community Hospital	2
Stockdale & California	1

## LONGER-TERM CONSIDERATIONS

While this analysis has focused on recommended service changes for KRT to respond to the changes planned for GET in the near term, the Metropolitan Bakersfield Transit System Long-Range Plan also features mid- (2021-2025) and long-term (2026-2035) service plans calling for additional changes to GET service in order to accommodate future growth (and assuming additional funding). These changes would impact KRT, and any long-term planning efforts conducted by KRT should, at a minimum, incorporate an awareness of major elements of these plans. These are briefly summarized here, and described in more detail in the Long-Range Plan Final Report.

- ***Downtown Transit Center Location.*** If a California High-Speed Rail station is built in or near Downtown Bakersfield (current plans call for it to be located adjacent to the existing Amtrak station near Truxtun and Union Avenues), the intermodal transfer facility at this **station will become GET's central transfer hub, replacing the existing Downtown Transit Center.** KRT routes would need to be reconfigured to serve this location (under the recommendations in this document, only select routes would serve the existing Amtrak station).
- ***Southwest Transit Center Retirement.*** The Long-Range Plan calls for both the Downtown and Southwest Transit Centers to be retired by 2020 (if a high-speed rail station does not exist by that time, the life of the Downtown Transit Center might be extended). This would reduce the need for service to the Southwest Transit Center area, although Valley Plaza would presumably remain a major destination (even if the mall site were to be redeveloped, any redevelopment would likely be a major destination in its own right). In general, transit centers would be deemphasized, and more connections would be made at **intersections throughout the city (see "Expanded GET Network" below).**
- ***Expanded GET Network.*** The mid- and especially the long-term plan call for substantial increases in KRT service. The route network would be reconfigured to make it more of a

“grid”-based system rather than a radial network; it would feature more direct crosstown routes and less of a reliance on transit centers. In order to enable relatively convenient connections (as mid-route connections cannot be as easily timed as connections at transit centers, which serve as terminals for most routes), more frequent service would be provided. For KRT, this might mean less service to transit centers, and less of a need to time connections to GET routes.

- ***BRT and Possible LRT Service.*** Over time, the Long-Range Plan calls for Rapid bus service to be incrementally upgraded, first to more fully featured “Bus Rapid Transit” (BRT) service with bus-only lanes, then, potentially, to Light Rail Transit (LRT) service. Short-term Routes 1 and 2 would continue to exist, but would be supplemented by a new Route 3 overlapping with Route 2 along Chester Avenue and extending south along South H Street to Taft Highway. These services would operate on improved frequencies, making connections between them and KRT services more convenient and potentially allowing KRT to reconfigure some services to “feed” into the BRT or LRT lines.
- ***“Enhanced” KRT Service.*** The mid-term service plan calls for more frequent KRT operation in the East Kern Express, North Kern Express and Westside Express corridors. Some routing changes are suggested: commuter rail is anticipated to serve Wasco and Shafter, which would allow KRT to operate along Highway 99 to Delano; more frequent East Side Express service might only be provided as far east as Tehachapi (or perhaps more logically given ridership data collected through this effort, Mojave); and Westside Express service might operate along Gosford Road and the Westside Parkway.
- ***GET Service in KRT Corridors.*** The mid-term plan also calls for new GET routes operating within the Lamont-Bakersfield corridor (to Arvin) and in the Buttonwillow corridor (to the Frito-Lay facility on Highway 58). KRT would presumably eliminate its service in the former corridor, although limited service to Buttonwillow might remain. Additionally, the mid-term plan calls for commuter rail service within the high-speed rail corridor north to Wasco, presumably allowing for reconfiguration of North Kern Express service (see previous item), and the long-term plan calls for commuter rail service to Buttonwillow and to Arvin.



## 7 IMPLEMENTATION

While new schedules and operating cost estimates have not been developed, it is anticipated that the recommended route changes would be relatively revenue neutral: one minor route would be discontinued, one trip would likely be eliminated from the Lamont-Bakersfield schedule, and one trip might be added to the Westside Express, depending on alignment. Start and end times might also vary slightly depending on changes to travel times.

Similarly, there should be no capital expense required.

While some policy and procedural changes (e.g. scheduling changes) would have no cost associated with them, there could be minor costs associated with others (Spanish-language materials) and potentially larger costs associated with others (a fare agreement with GET, Google Transit and real-time arrival implementation information).

KRT would need to work with GET and City of Bakersfield staff to implement some recommendations, including sharing of stops with GET and additional layover space adjacent to the Downtown Transit Center (if a large number of buses were to layover on the west side of the facility, it might be desirable to change some alignments in the immediate area so that buses did **not have to “double back” to serve the Chester Avenue stop**).

# APPENDIX A PASSENGER SURVEY

Figure A-1 English Survey



## Kern Regional Transit On-Board Survey

Name of Route \_\_\_\_\_

You only need to complete this survey one time. If you are offered this survey on another day, you do not need to fill out. Thank you!

- 1) What is the name of the route you are riding today?  
Route \_\_\_\_\_
- 2) Where did you begin your trip today? (your home, work, or other place you visited, not the bus stop; you can use any of the following formats)  
Place name (for example: Bakersfield Memorial Hospital)  
\_\_\_\_\_  
Address (for example: 420 34<sup>th</sup> Street, Bakersfield):  
\_\_\_\_\_  
Nearest intersection  
(for example: 34<sup>th</sup> Street & San Dimas Street, Bakersfield):  
\_\_\_\_\_  
\_\_\_\_\_
- 3) Where is the final destination of your trip? (Your work, home, or the place you are going to, not the bus stop; you can use any of the following formats).  
Place name (for example: Bakersfield Memorial Hospital):  
\_\_\_\_\_  
Address (for example: 420 34<sup>th</sup> Street, Bakersfield):  
\_\_\_\_\_  
Nearest intersection  
(for example: 34<sup>th</sup> Street & San Dimas Street, Bakersfield):  
\_\_\_\_\_  
\_\_\_\_\_
- 4) Did you transfer to this bus from a GET bus?  
☐ No      ☐ Yes →  
If yes, please provide GET Route # \_\_\_\_\_
- 5) Will you transfer to another GET bus to get to your final destination?  
☐ No      ☐ Yes →  
If yes, please provide GET Route # \_\_\_\_\_
- 6) KRT will be evaluating opportunities to improve its routing and scheduling. What ONE improvement would you most like to see?  
☐ <sub>1</sub> Earlier weekday service  
☐ <sub>2</sub> More Saturday service  
☐ <sub>3</sub> Later evening weekday service  
☐ <sub>4</sub> More Sunday service  
☐ <sub>5</sub> Additional mid-day service  
☐ <sub>6</sub> Service in additional areas → Where? \_\_\_\_\_  
☐ <sub>7</sub> Other (please specify): \_\_\_\_\_
- 7) How did you pay for this trip?  
☐ <sub>1</sub> Cash      ☐ <sub>2</sub> Pre-Paid Ticket  
☐ <sub>3</sub> Other (please specify): \_\_\_\_\_  
If you paid with cash, how much did you pay for this trip?  
\$ \_\_\_\_\_
- 8) How frequently do you typically ride KRT?  
☐ <sub>1</sub> Less than once a month      ☐ <sub>2</sub> Once a week  
☐ <sub>3</sub> 1-3 times a month      ☐ <sub>4</sub> Two or more times a week
- 9) What is the purpose of this trip?  
☐ <sub>1</sub> Home      ☐ <sub>2</sub> Shopping  
☐ <sub>3</sub> Work      ☐ <sub>4</sub> Medical  
☐ <sub>5</sub> School (K-12)      ☐ <sub>6</sub> Recreation  
☐ <sub>7</sub> College/University      ☐ <sub>8</sub> Personal business  
☐ <sub>9</sub> Other: \_\_\_\_\_
- 10) Do you use any of the following mobility devices?  
☐ <sub>1</sub> Manual wheelchair      ☐ <sub>2</sub> Power Wheelchair  
☐ <sub>3</sub> Scooter      ☐ <sub>4</sub> Reclining Wheelchair  
☐ <sub>5</sub> Other (Please specify) \_\_\_\_\_

Figure A-2 Spanish Survey



## Encuesta a Bordo de Kern Regional Transit

Nombre de la Ruta \_\_\_\_\_

Sólo es necesario completar esta encuesta una vez. Si se le ofrece esta encuesta otro día, no es necesario llenarla. ¡Gracias!

- 1) ¿Cuál es el nombre de la ruta que usted está tomando hoy?

Ruta \_\_\_\_\_

- 2) ¿Desde dónde empezó su viaje hoy? (Su casa, trabajo u otro lugar que visitó, no la parada de autobús; puede utilizar cualquiera de los siguientes formatos).

Nombre del lugar (por ejemplo: Bakersfield Memorial Hospital)

Dirección (por ejemplo: 420 34th Street, Bakersfield):

Intersección más cercana (Por ejemplo: la calle 34 y San Dimas Street, Bakersfield):

- 3) ¿Cuál es el destino final de su viaje? (Su trabajo, hogar, o el lugar al que usted va, no la parada de autobús; puede utilizar cualquiera de los siguientes formatos).

Nombre del lugar (por ejemplo: Bakersfield Memorial Hospital)

Dirección (por ejemplo: 420 34th Street, Bakersfield):

Intersección más cercana (Por ejemplo: la calle 34 y San Dimas Street, Bakersfield):

- 4) ¿Realizó una transferencia a este autobús de un autobús GET?

☐ No ☐ Sí →

En caso afirmativo, por favor indique la ruta, GET Ruta # \_\_\_\_\_

- 5) ¿Va a transferir a otro autobús GET para llegar a su destino final?

☐ No ☐ Sí →

En caso afirmativo, por favor indique la ruta, GET Ruta # \_\_\_\_\_

- 6) KRT estará evaluando oportunidades para mejorar sus rutas y horarios. ¿Cuál es la UNA mejora la que más le gustaría ver?

- ☐ 1 Servicio entre semana más temprano  
☐ 2 Más servicio los sábados  
☐ 3 Servicio entre semana más tarde por las noches  
☐ 4 Más servicio los domingos  
☐ 5 Servicio adicional de mediodía  
☐ 6 Servicio en áreas adicionales → ¿Dónde?  
\_\_\_\_\_  
☐ 7 Otra (por favor especifique): \_\_\_\_\_

- 7) ¿Cómo pagó por este viaje?

- ☐ 1 Dinero en efectivo ☐ 2 Boleto prepagado  
☐ 3 Otro (por favor especifique): \_\_\_\_\_

Si usted pagó con dinero en efectivo, ¿cuánto pagó por este viaje?

\$ \_\_\_\_\_

- 8) ¿Qué tan frecuentemente toma KRT típicamente?

- ☐ 1 Menos de una vez al mes ☐ 2 Una vez a la semana  
☐ 3 1-3 veces al mes ☐ 4 Dos o más veces a la semana

- 9) ¿Cuál es el propósito de este viaje?

- ☐ 1 Casa ☐ 2 Compras  
☐ 3 Trabajo ☐ 4 Médico  
☐ 5 Escuela (K-12) ☐ 6 Recreación  
☐ 7 Colegio/Universidad ☐ 8 Negocios personales  
☐ 9 Otro: \_\_\_\_\_

- 10) ¿Utiliza cualquiera de los siguientes aparatos de movilidad?

- ☐ 1 Silla de ruedas ☐ 2 Silla de ruedas eléctrica  
☐ 3 Escúter ☐ 4 Silla de ruedas reclinable  
☐ 5 Otro (Por favor especifique): \_\_\_\_\_

## **APPENDIX B      RIDERSHIP MAPS**

On the following pages are maps showing daily numbers of boardings and alightings at each stop along every KRT route. Weekday data were collected on a Wednesday or Thursday. All data were collected between February 29 and March 4, 2012.



Figure B-1 Ridership: East Kern Express (Weekday)

KRT Ridership: East Kern Express

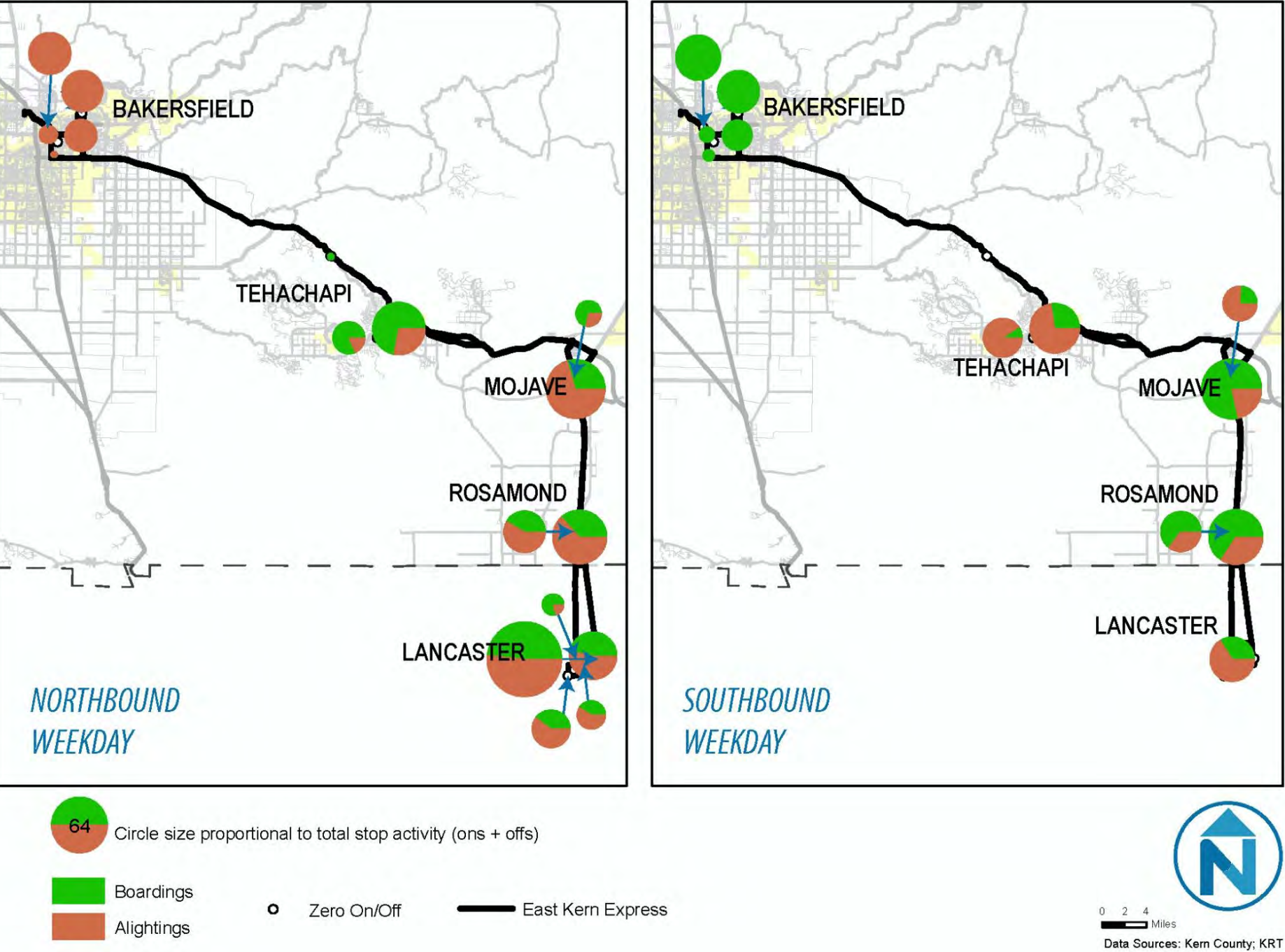


Figure B-2 Ridership: East Kern Express (Supplemental Weekday Trips)

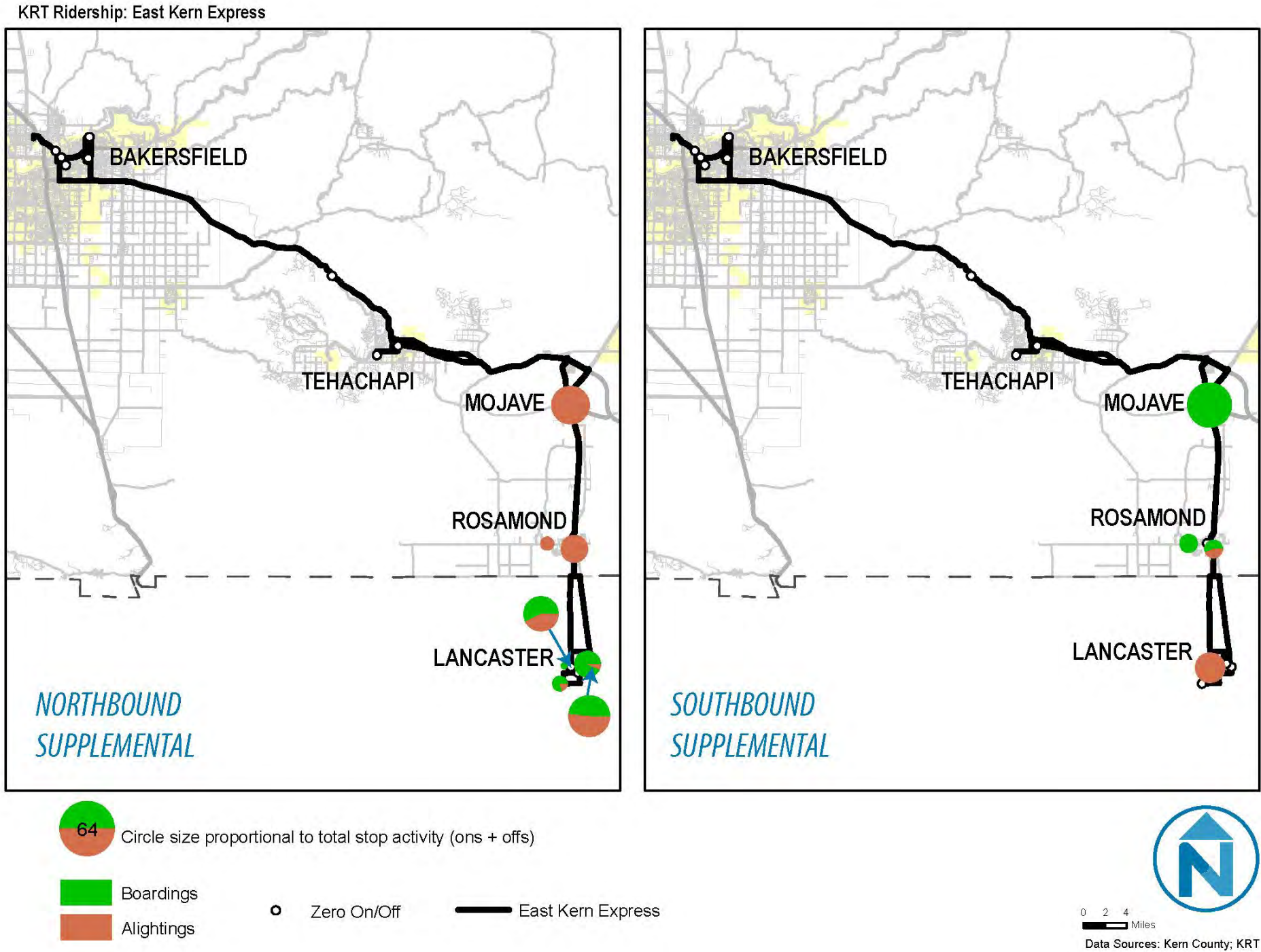




Figure B-3 Ridership: East Kern Express (Saturday)

KRT Ridership: East Kern Express

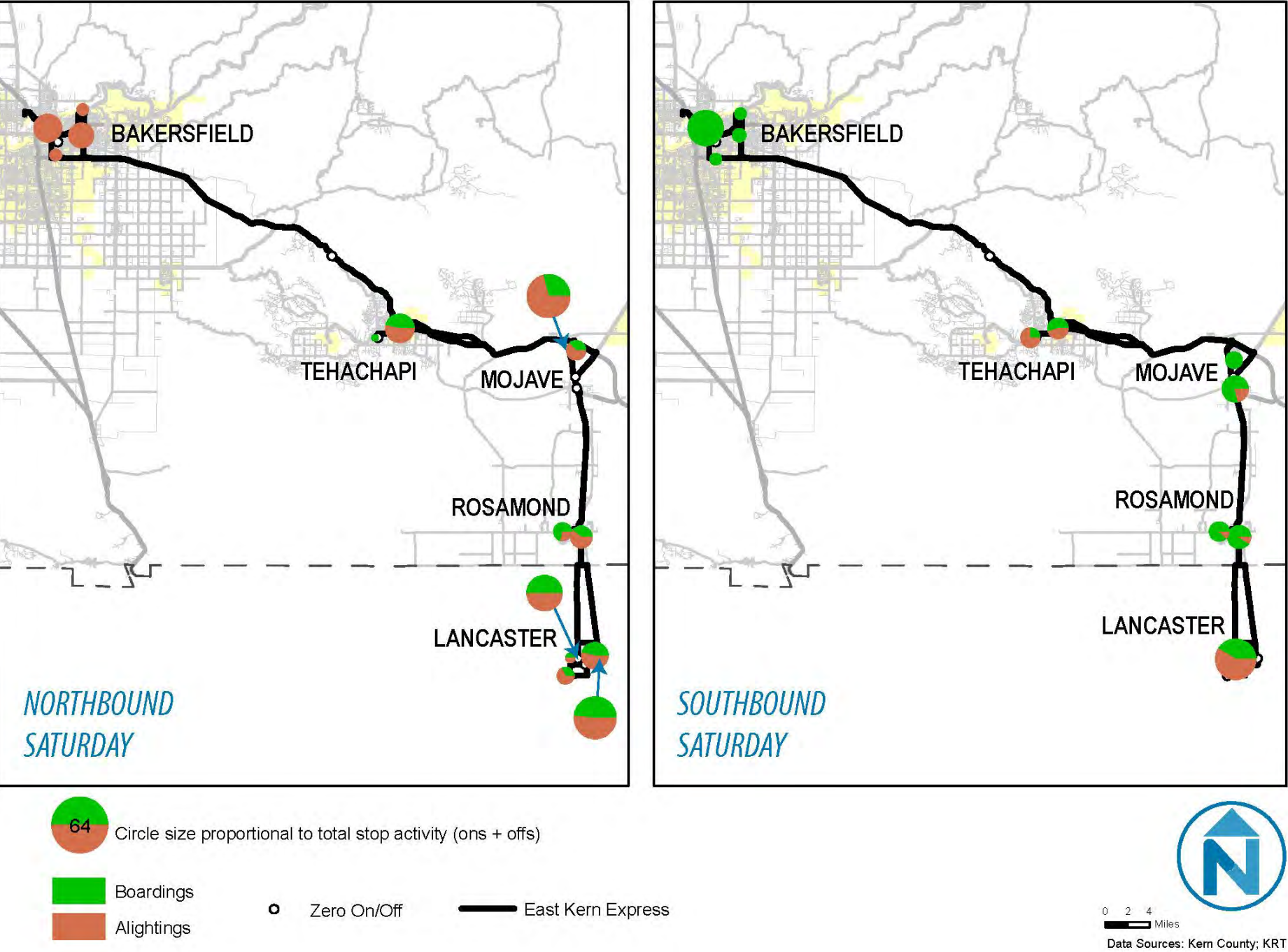
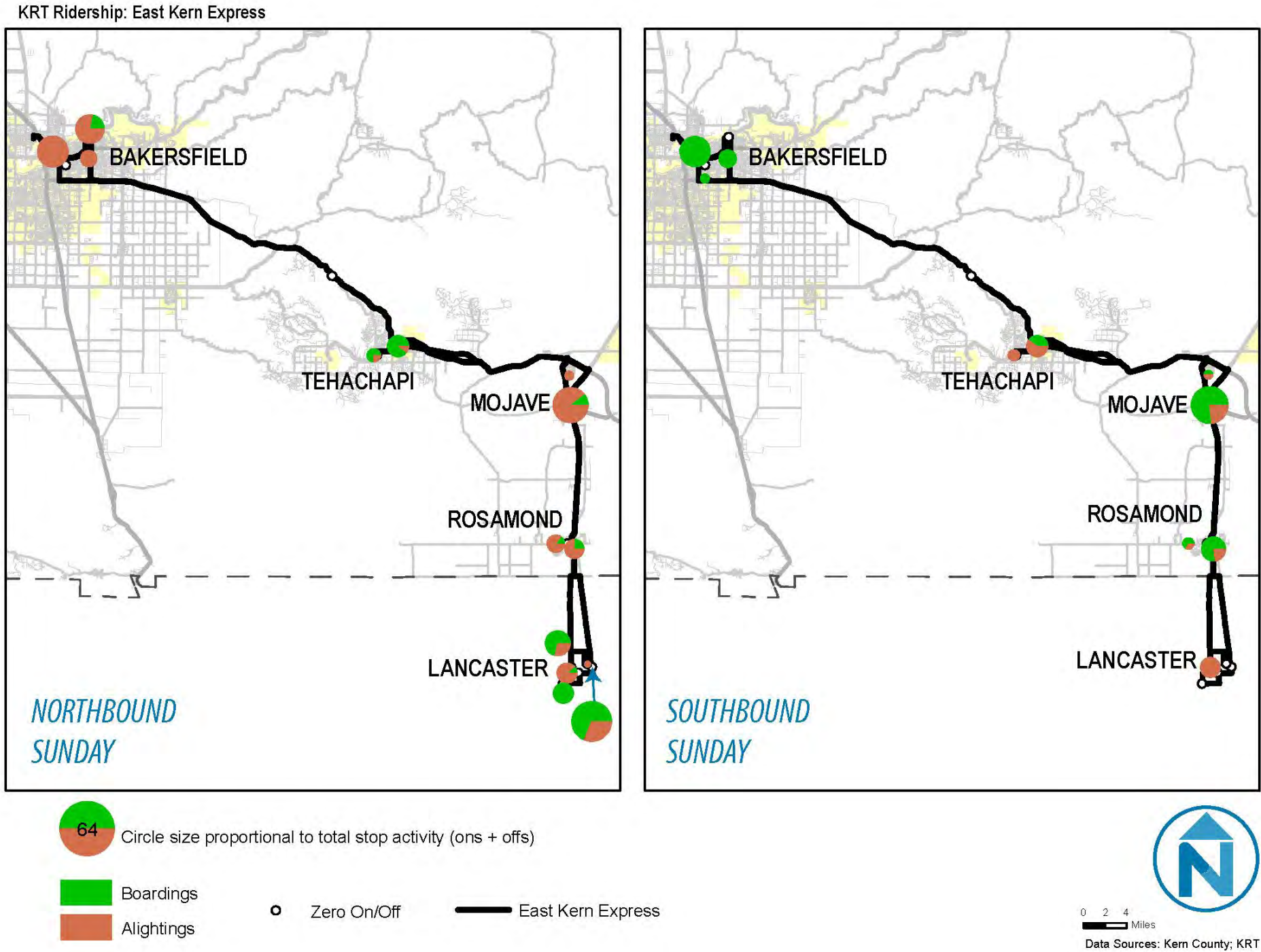


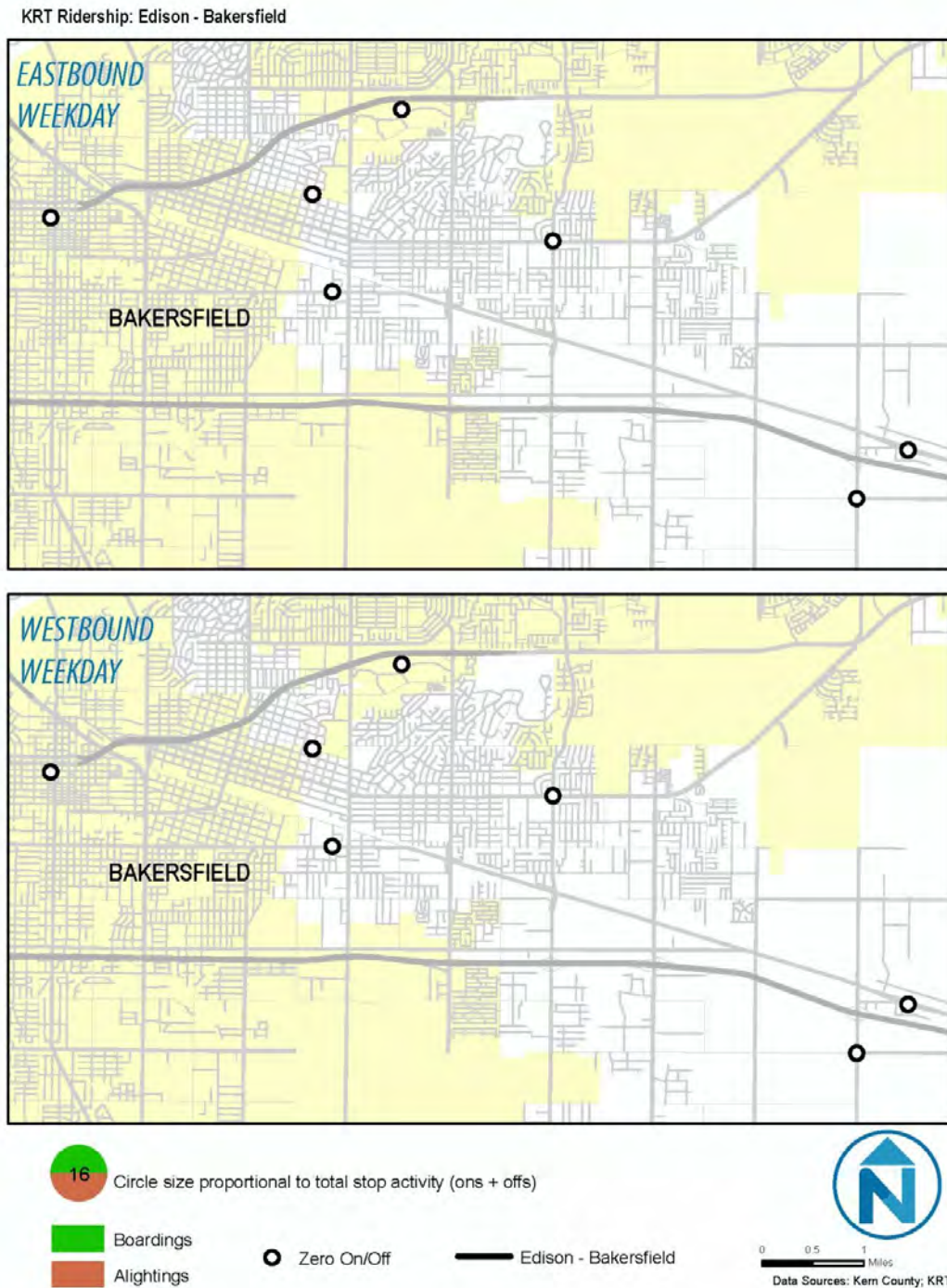
Figure B-4 Ridership: East Kern Express (Sunday)





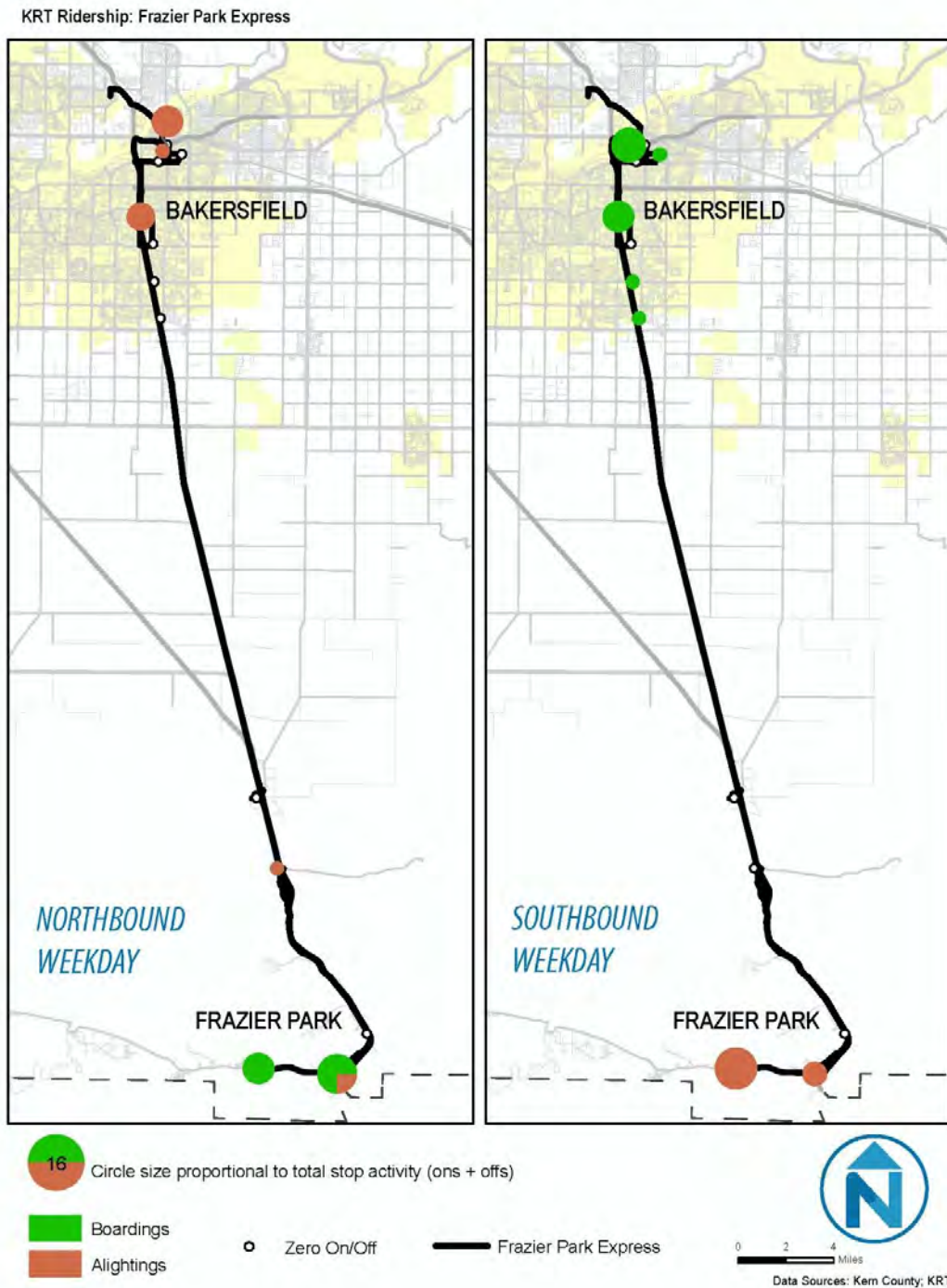
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**Figure B-5 Ridership: Edison-Bakersfield (Wednesday)**



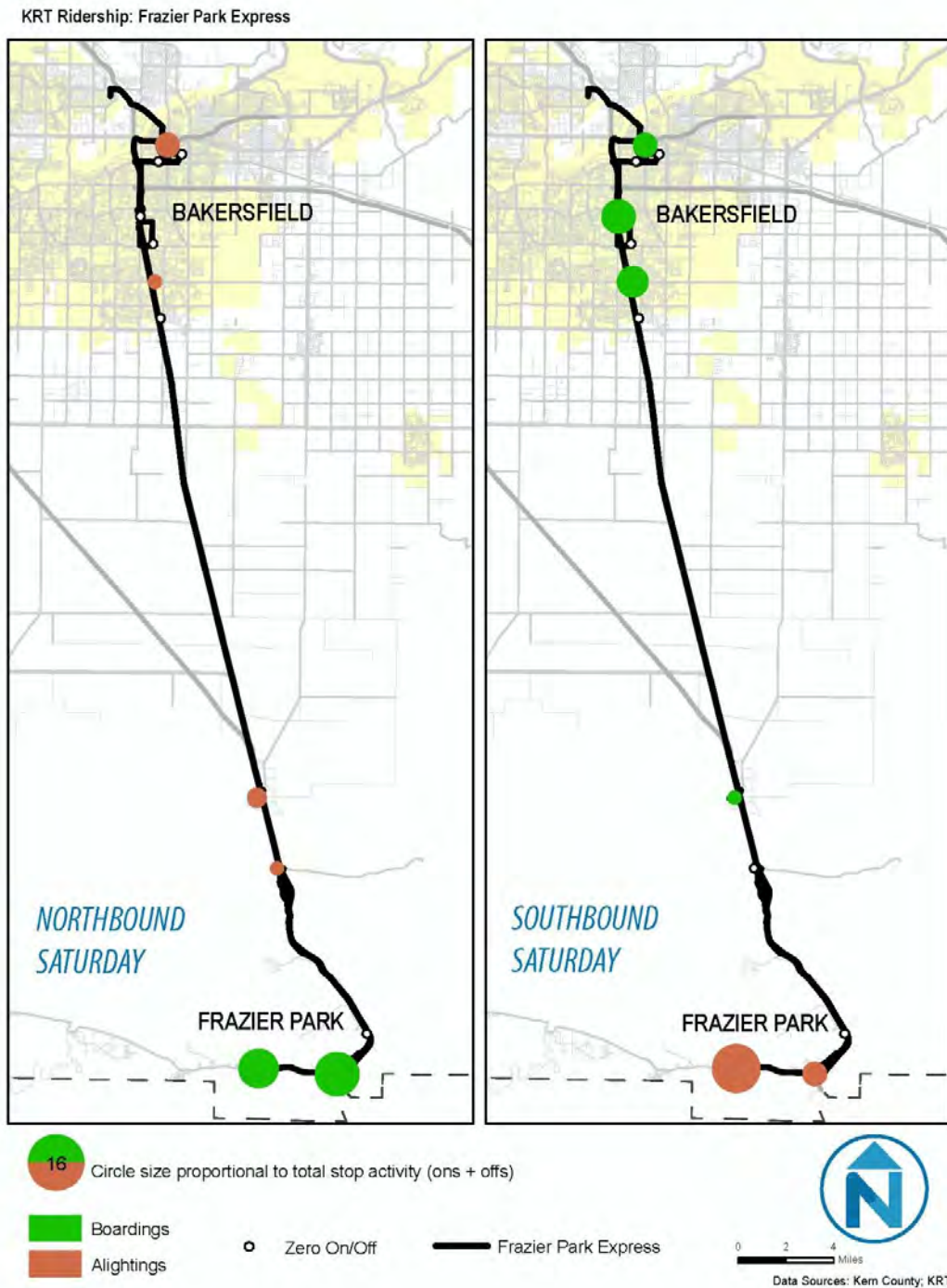
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**Figure B-6 Ridership: Frazier Park-Bakersfield (Weekday)**



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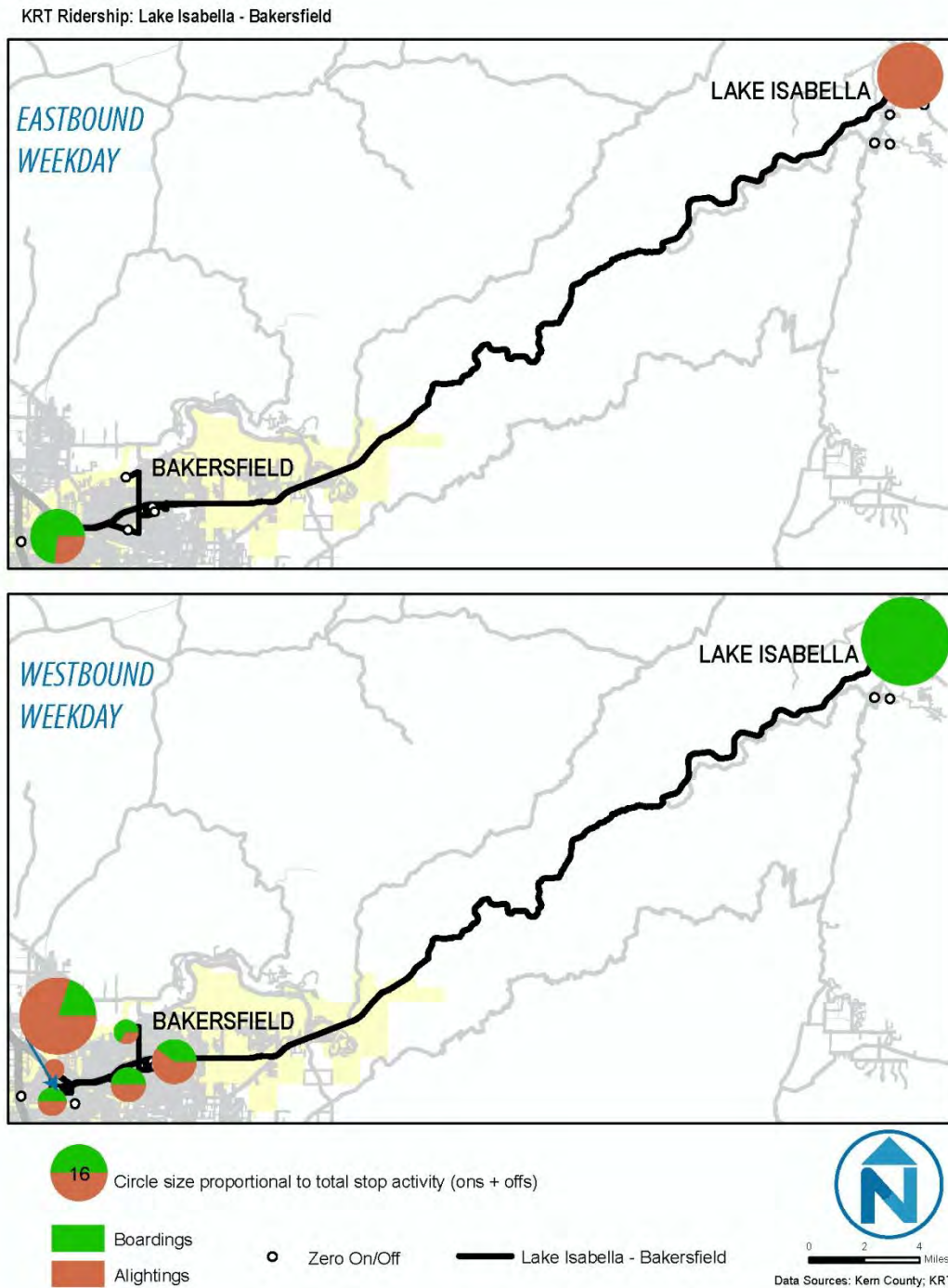
**Figure B-7 Ridership: Frazier Park-Bakersfield (Saturday)**





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**Figure B-8 Ridership: Lake Isabella-Bakersfield (Weekday)**



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**Figure B-9 Ridership: Lake Isabella-Bakersfield (Saturday)**

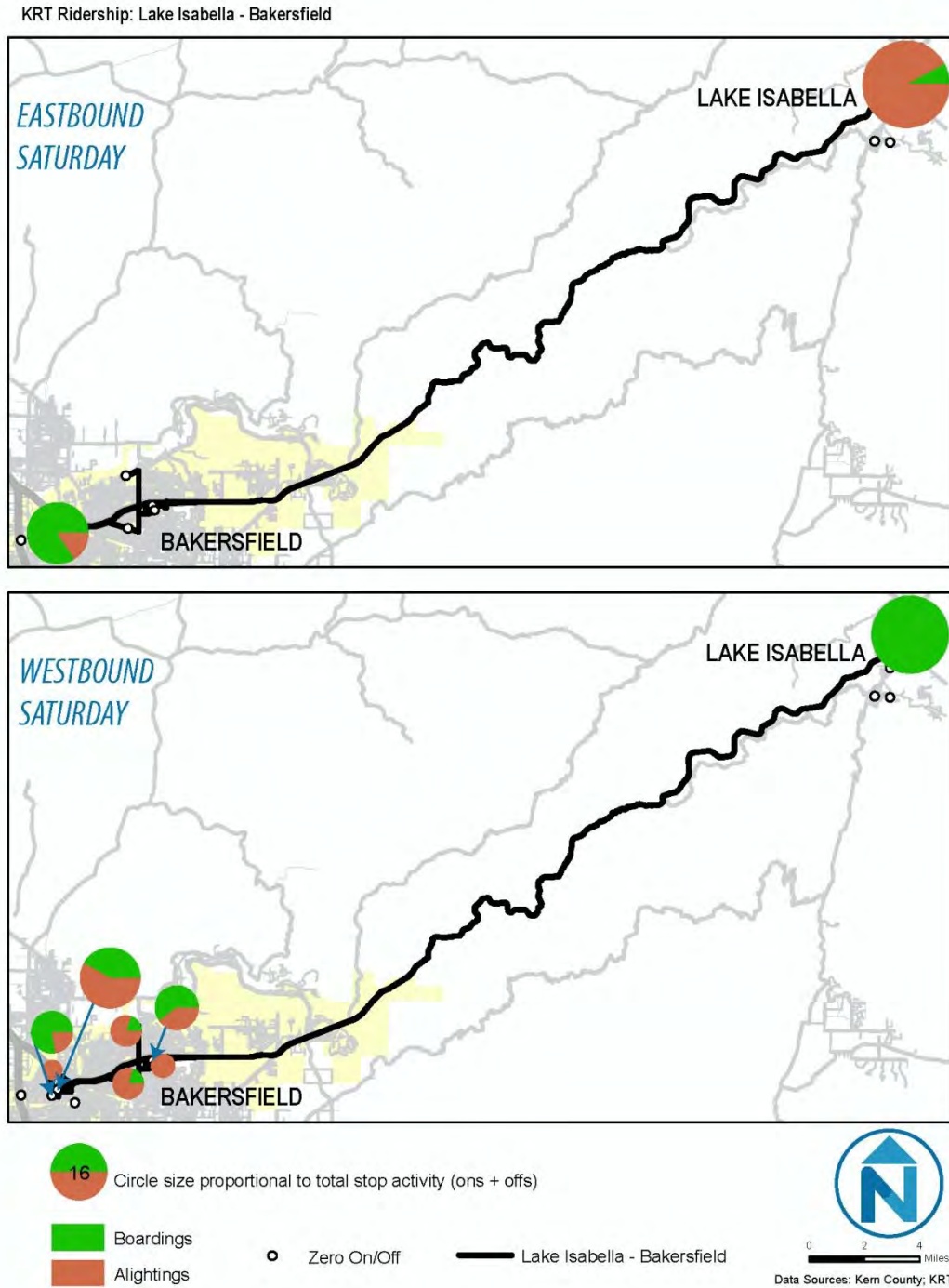




Figure B-10 Ridership: Lamont-Bakersfield (Weekday)

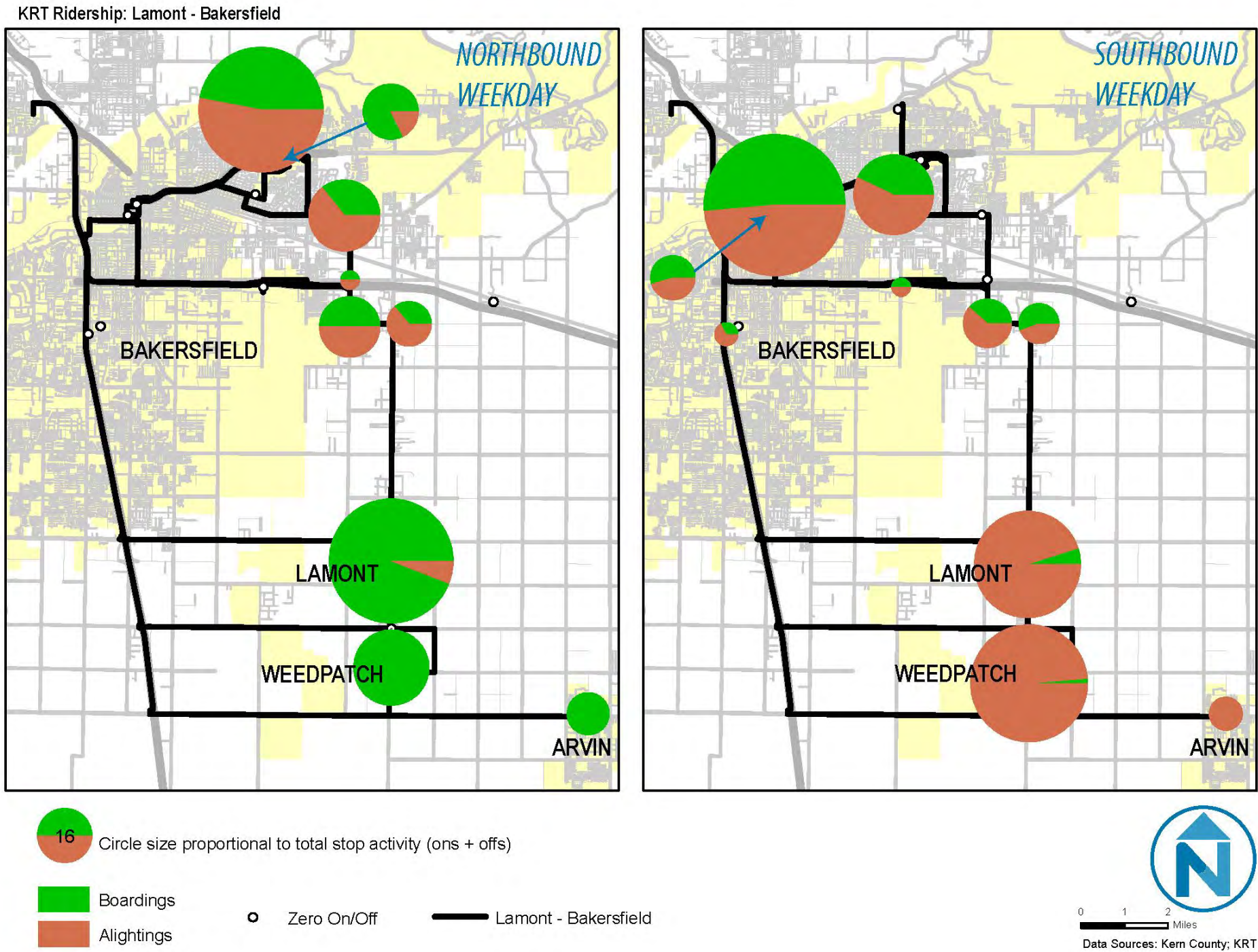




Figure B-11 Ridership: Lamont-Bakersfield (Weekday Evening)

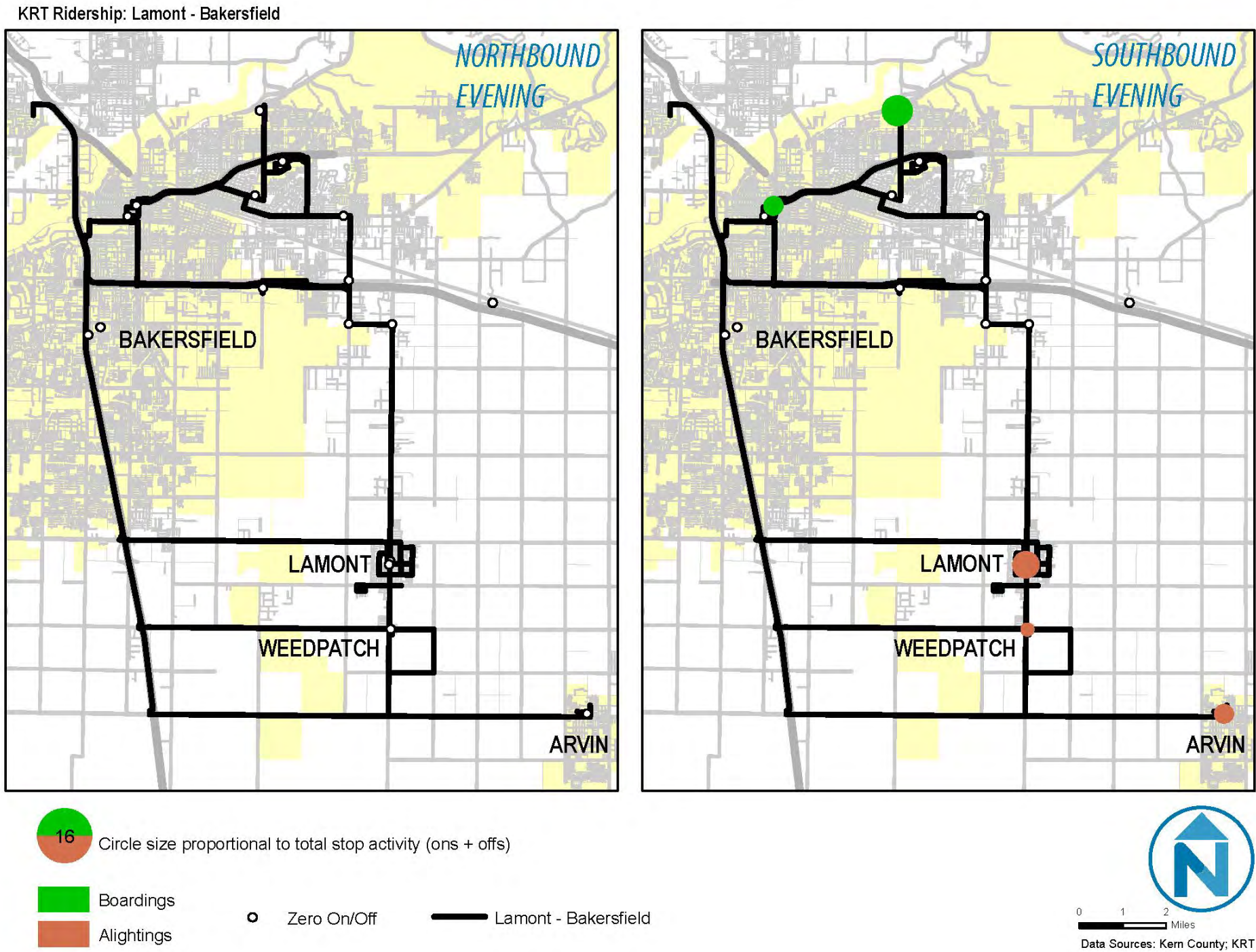
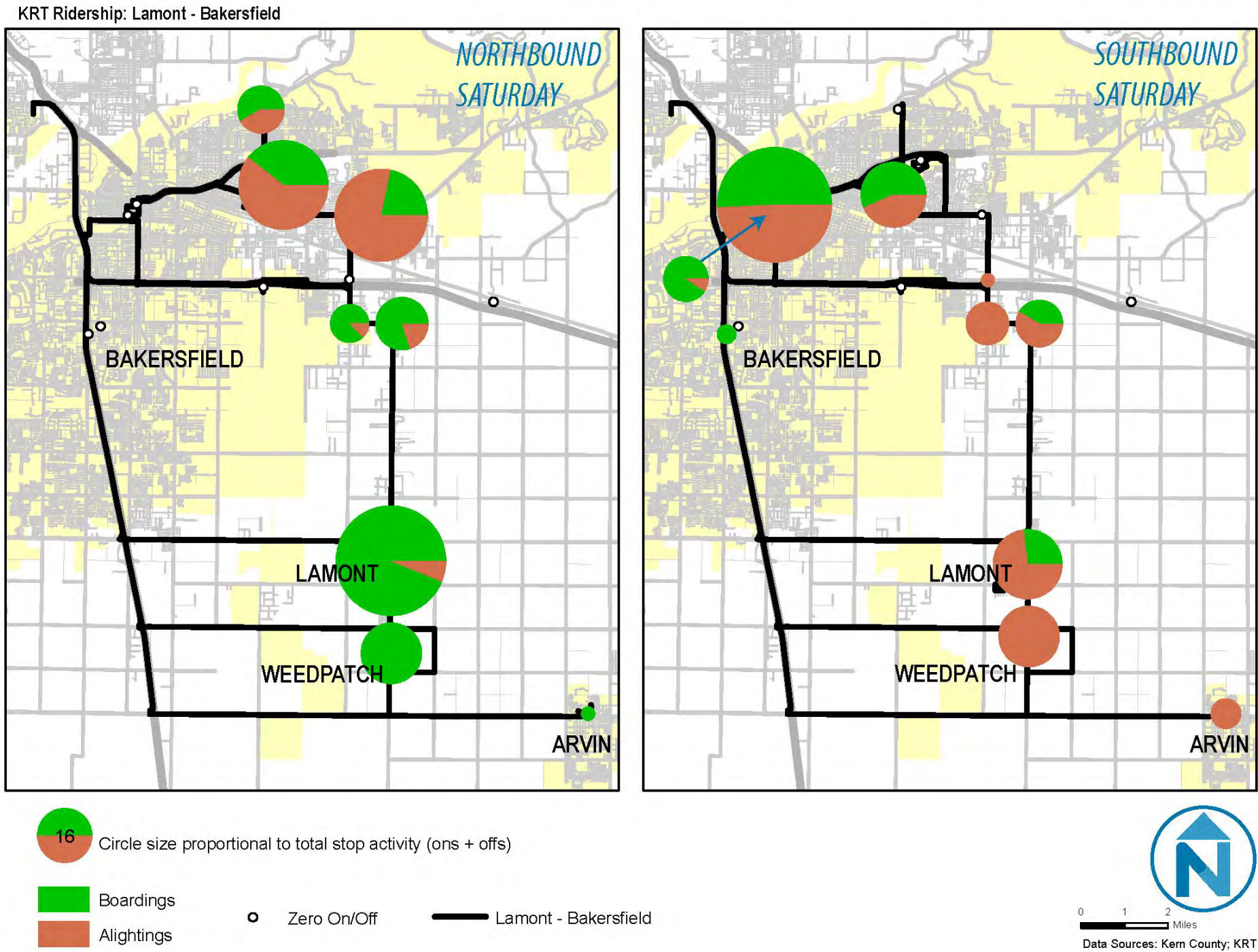




Figure B-12 Ridership: Lamont-Bakersfield (Saturday)





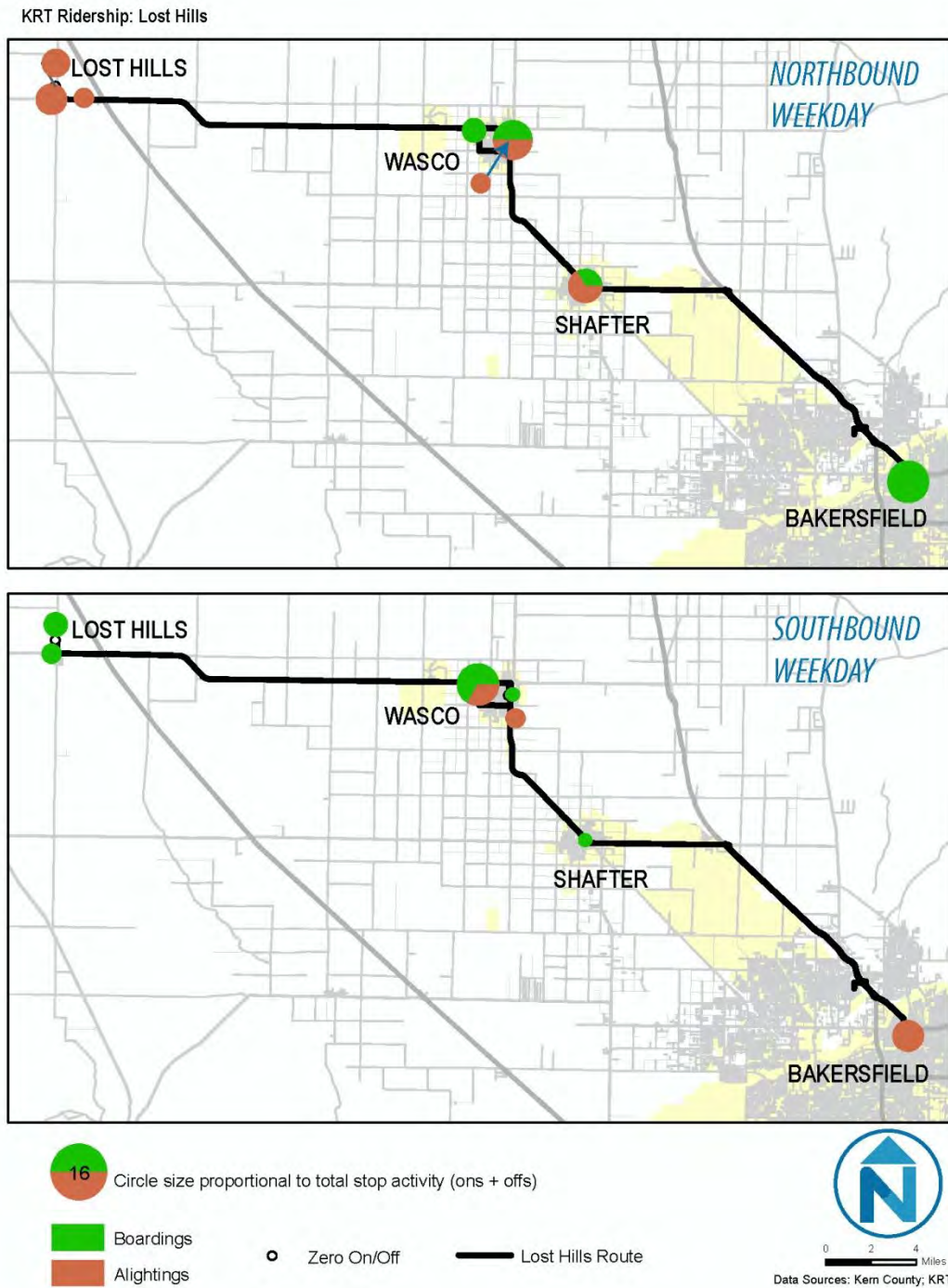
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**Figure B-13 Ridership: Lamont-Weedpatch**



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**Figure B-14 Ridership: Lost Hills-Bakersfield (Thursday)**



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**Figure B-15 Ridership: Lost Hills-Bakersfield (Saturday)**

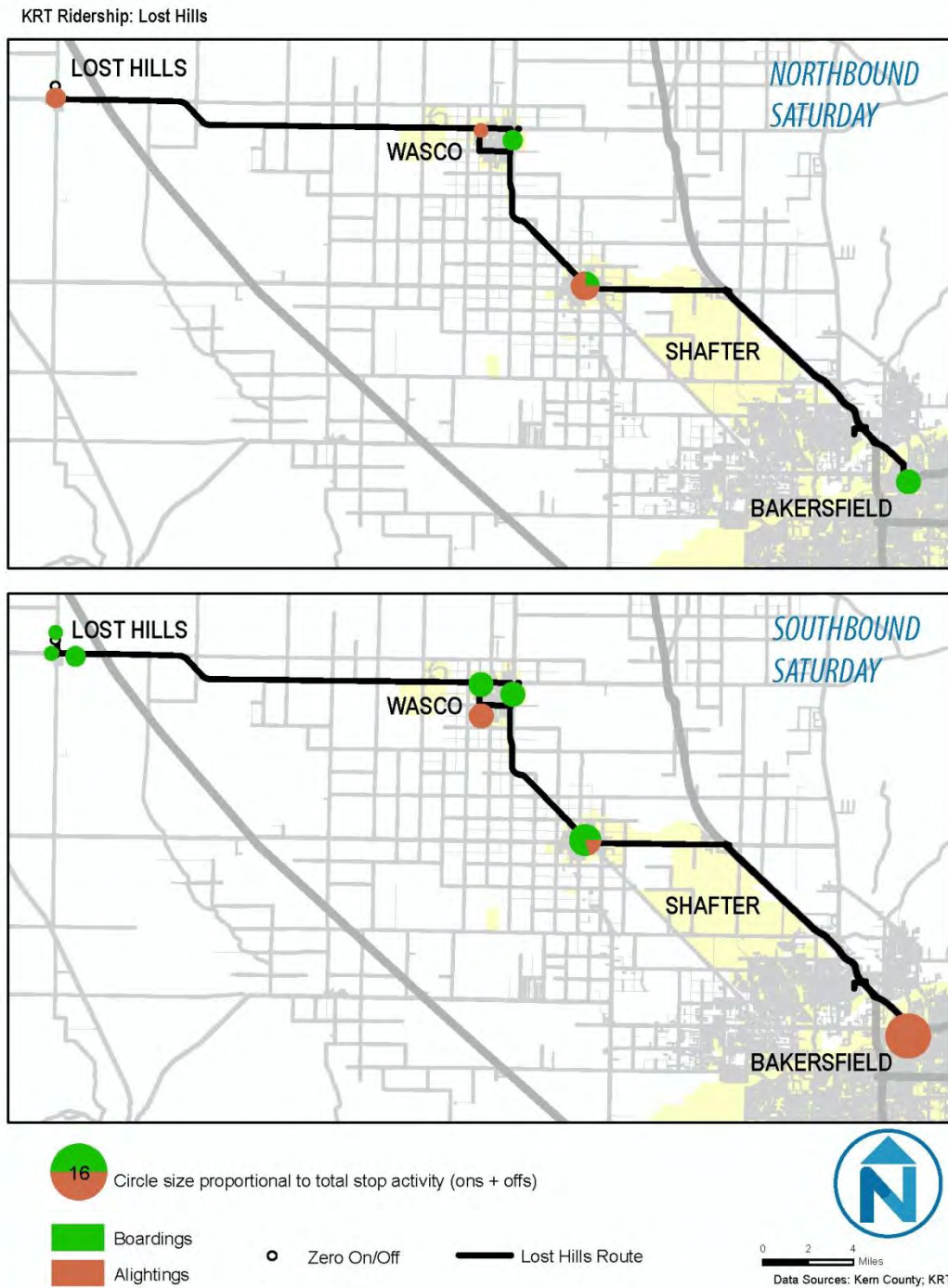




Figure B-16 Ridership: North Kern Express (Weekday)

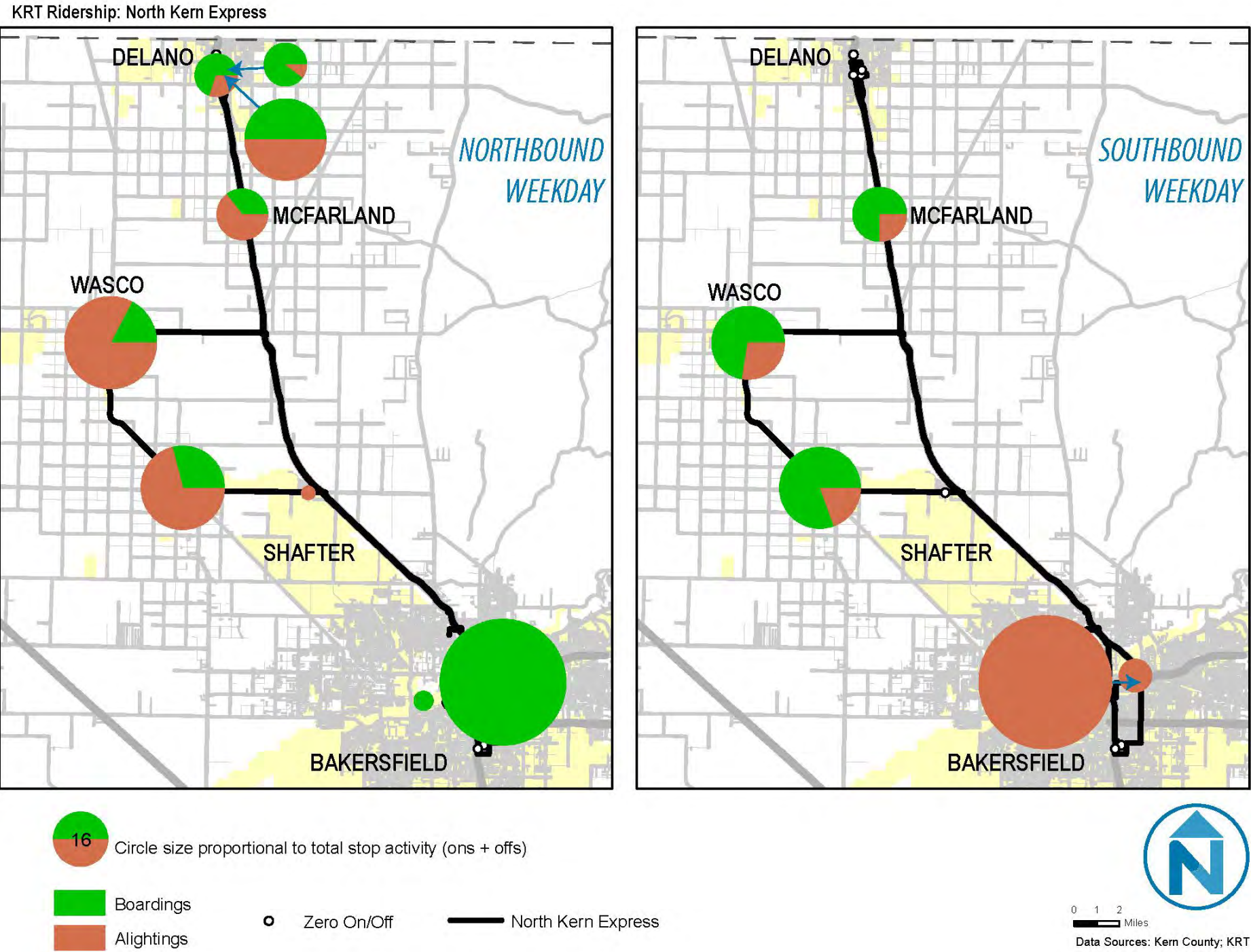
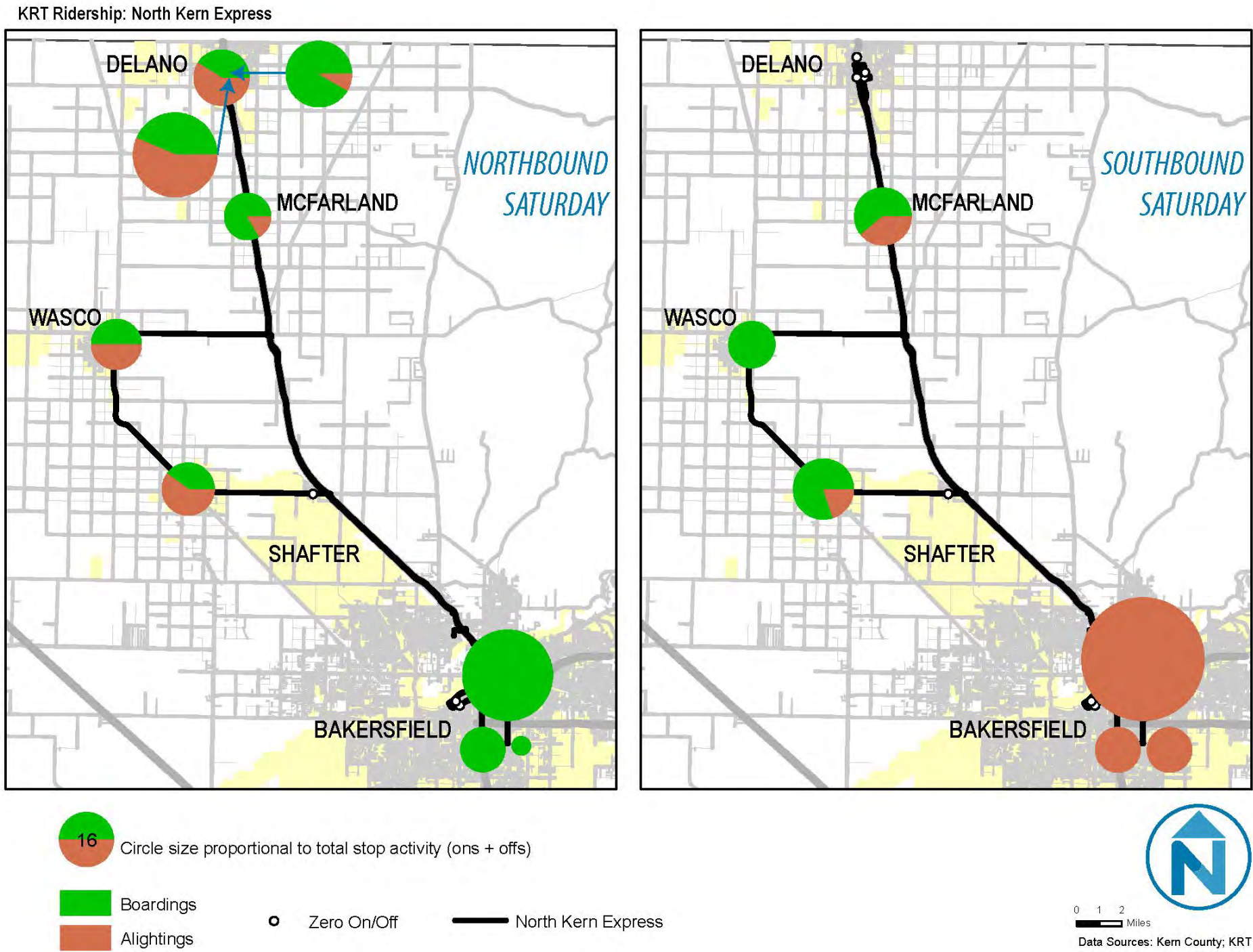


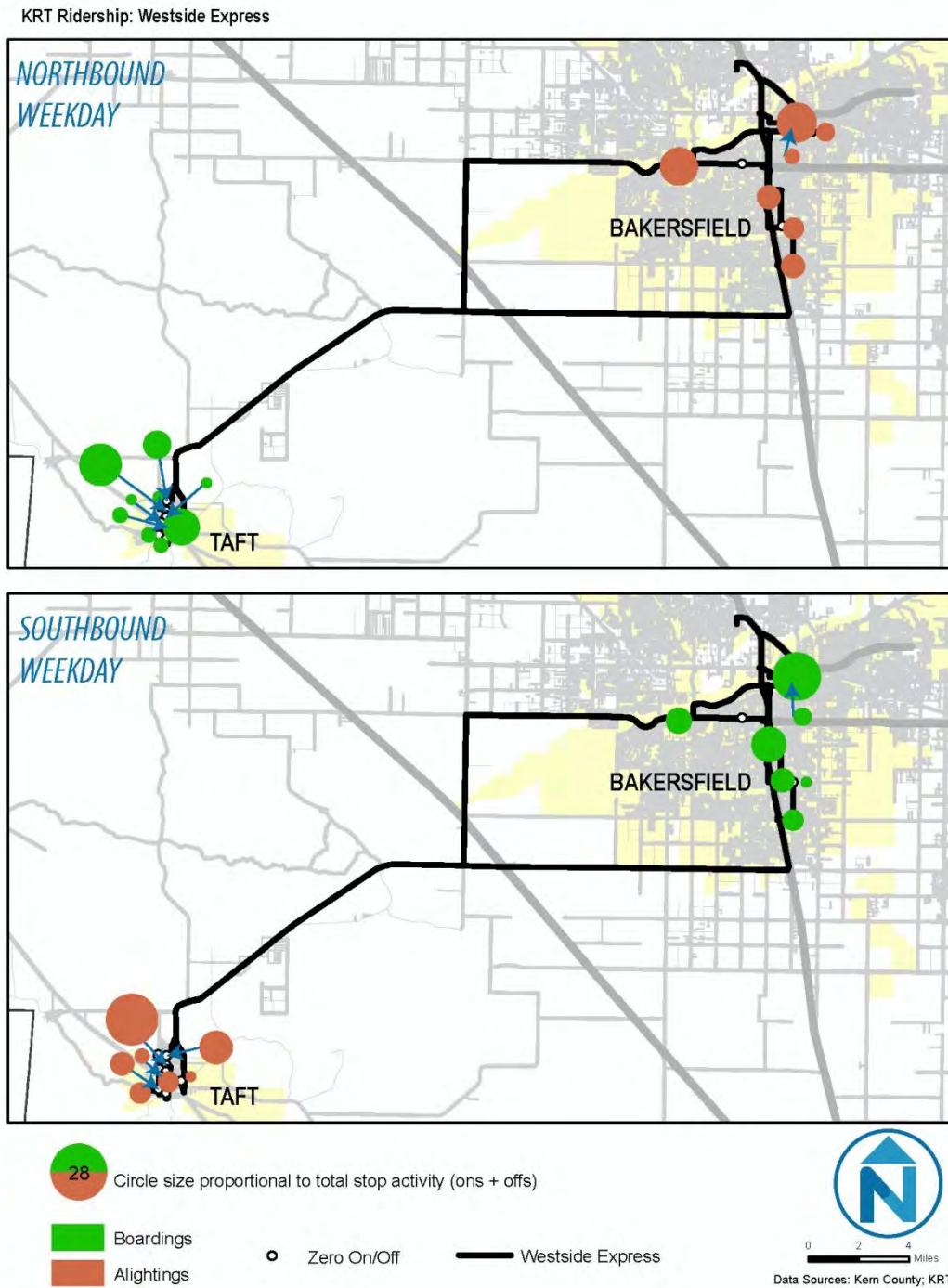
Figure B-17 Ridership: North Kern Express (Saturday)





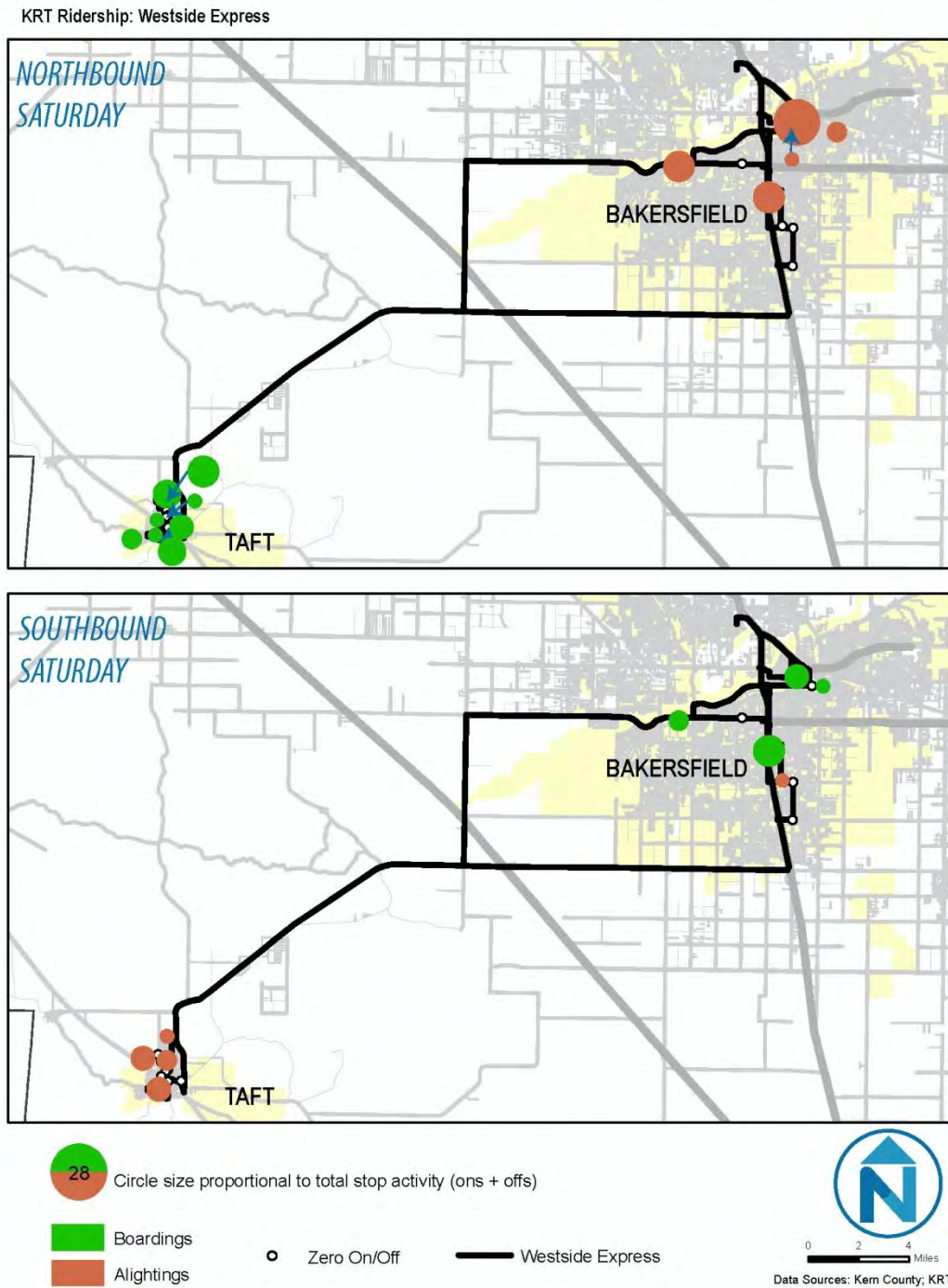
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**Figure B-18 Ridership: Westside Express (Weekday)**



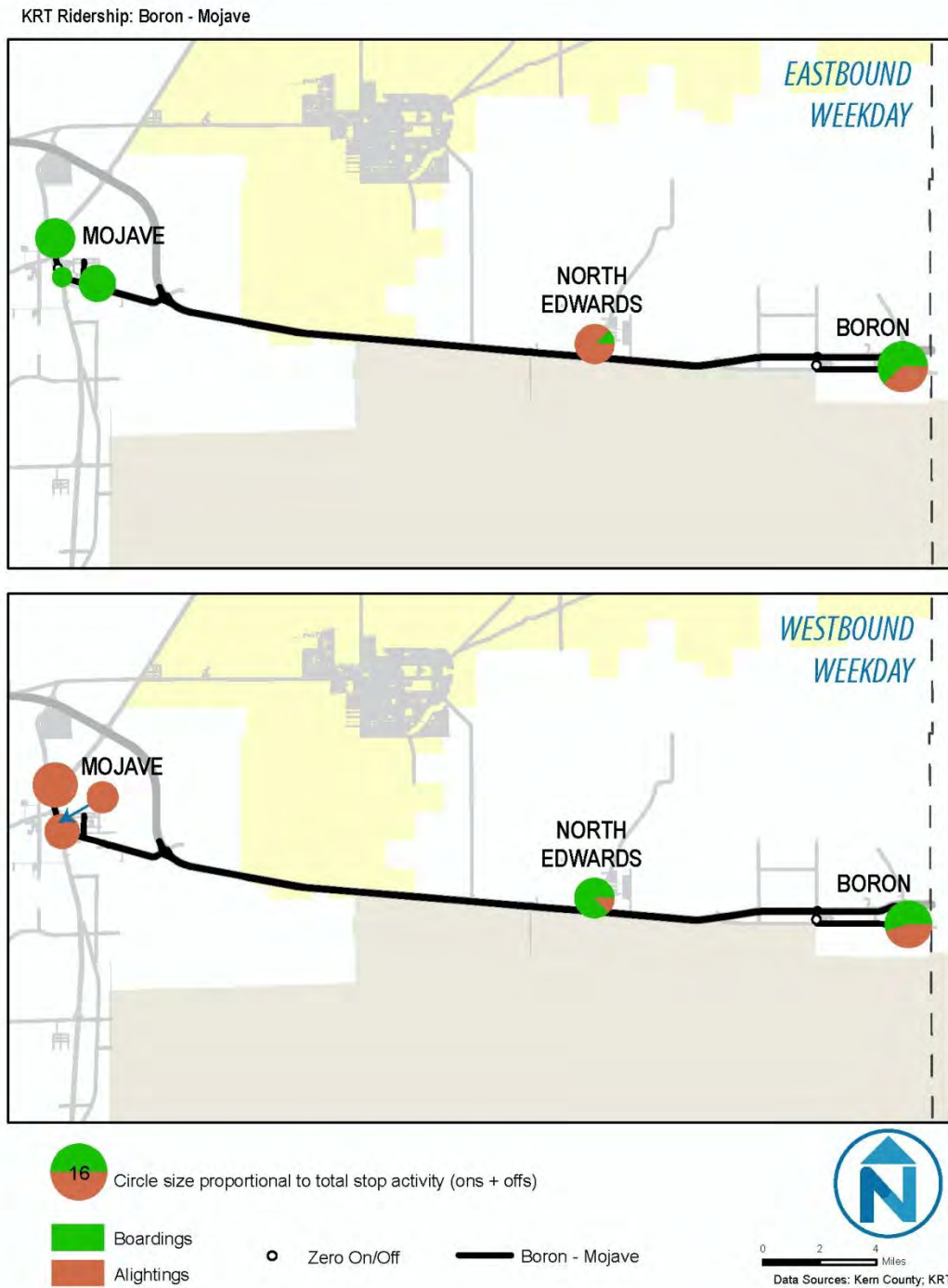
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**Figure B-19 Ridership: Westside Express (Saturday)**



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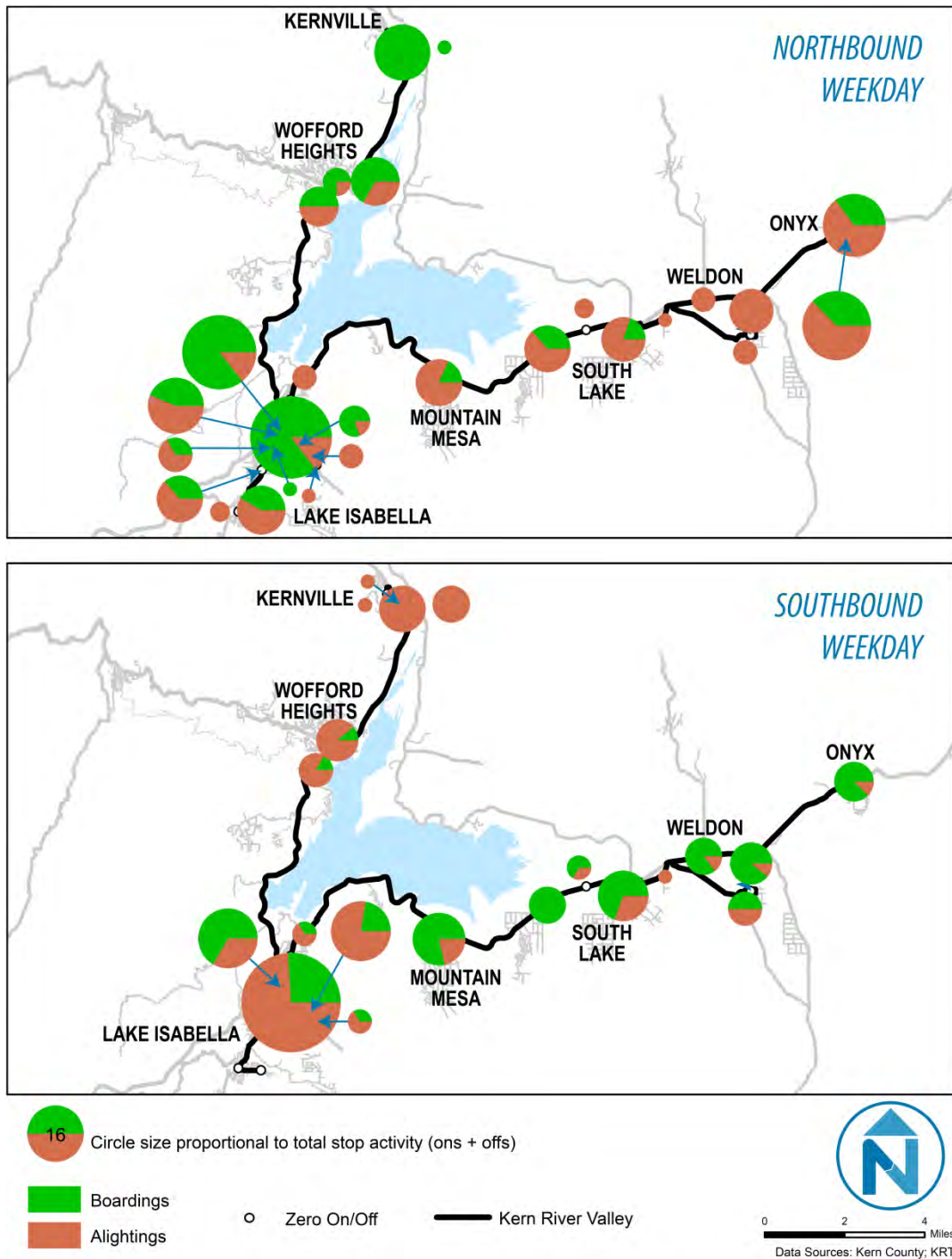
**Figure B-20 Ridership: Boron-Mojave (Wednesday)**





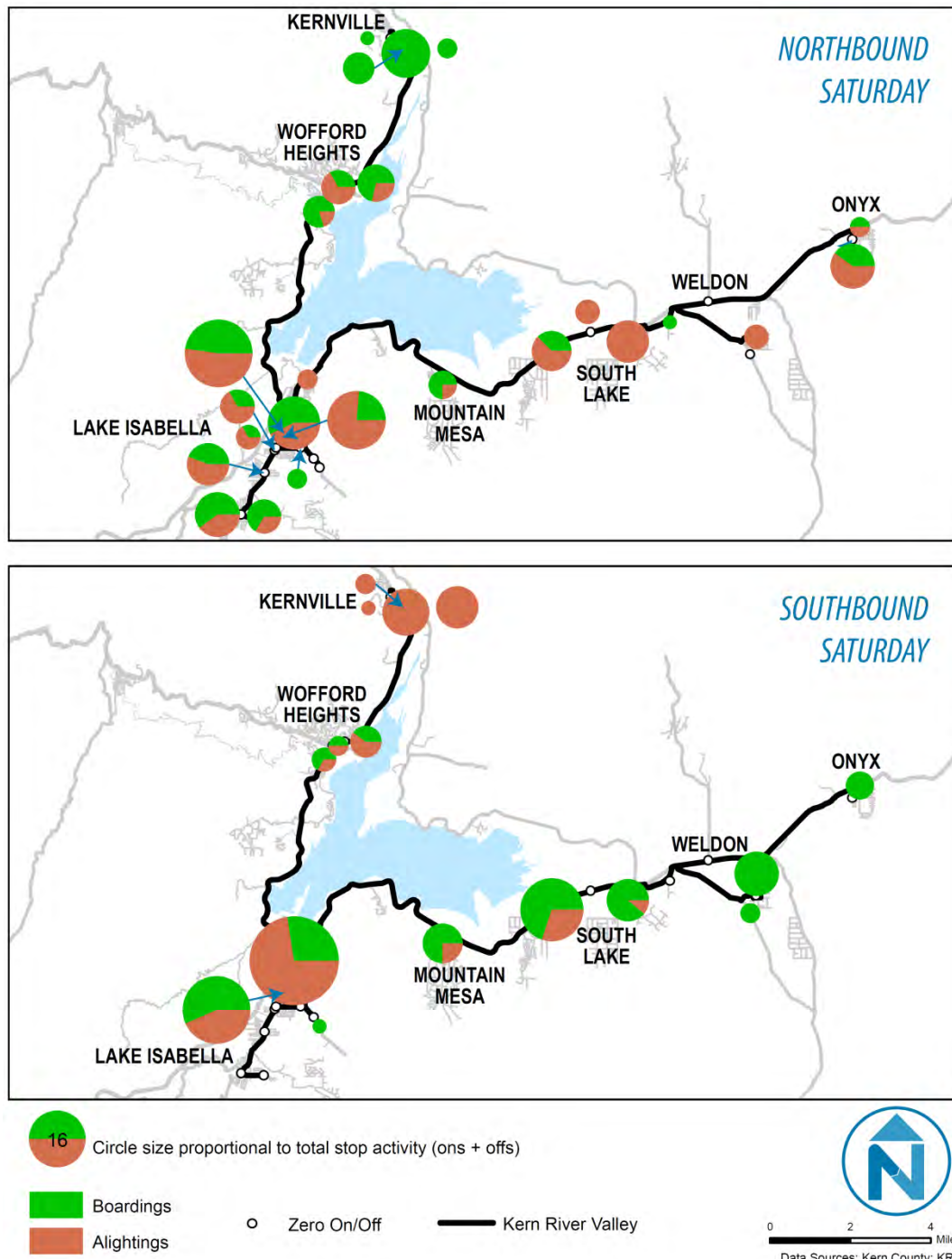
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**Figure B-21 Ridership: Kern River Valley (Weekday)**



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**Figure B-22 Ridership: Kern River Valley (Saturday)**



Alta Sierra?

**Figure B-23 Ridership: Lamont-Weedpatch**

# BAKERSFIELD SERVICE ANALYSIS FINAL REPORT

## Kern Regional Transit

KRT Ridership: Lamont - Weedpatch



Figure B-24 Ridership: Mojave-California City (Weekday)

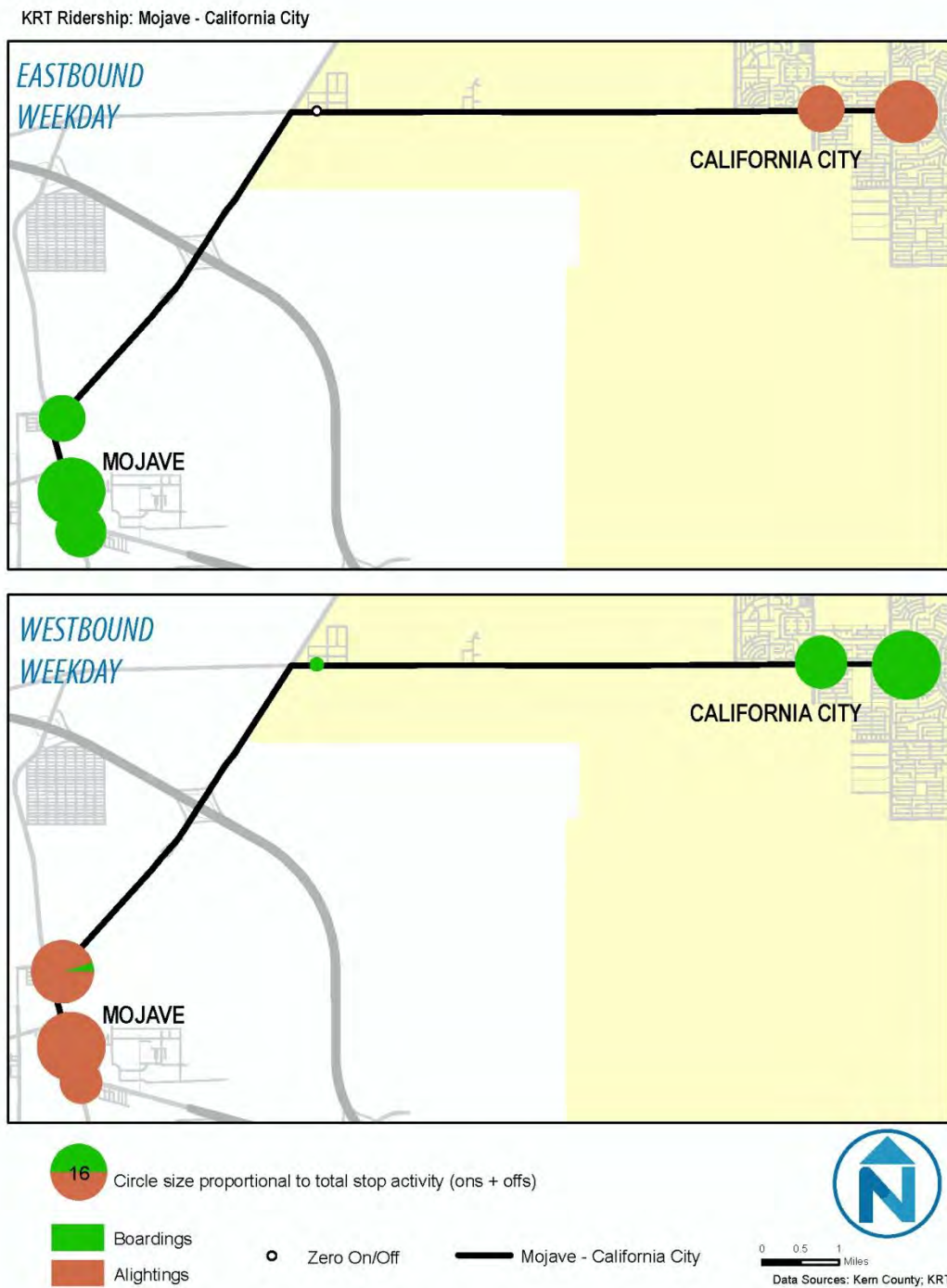




Figure B-25 Ridership: Mojave-California City (Saturday)

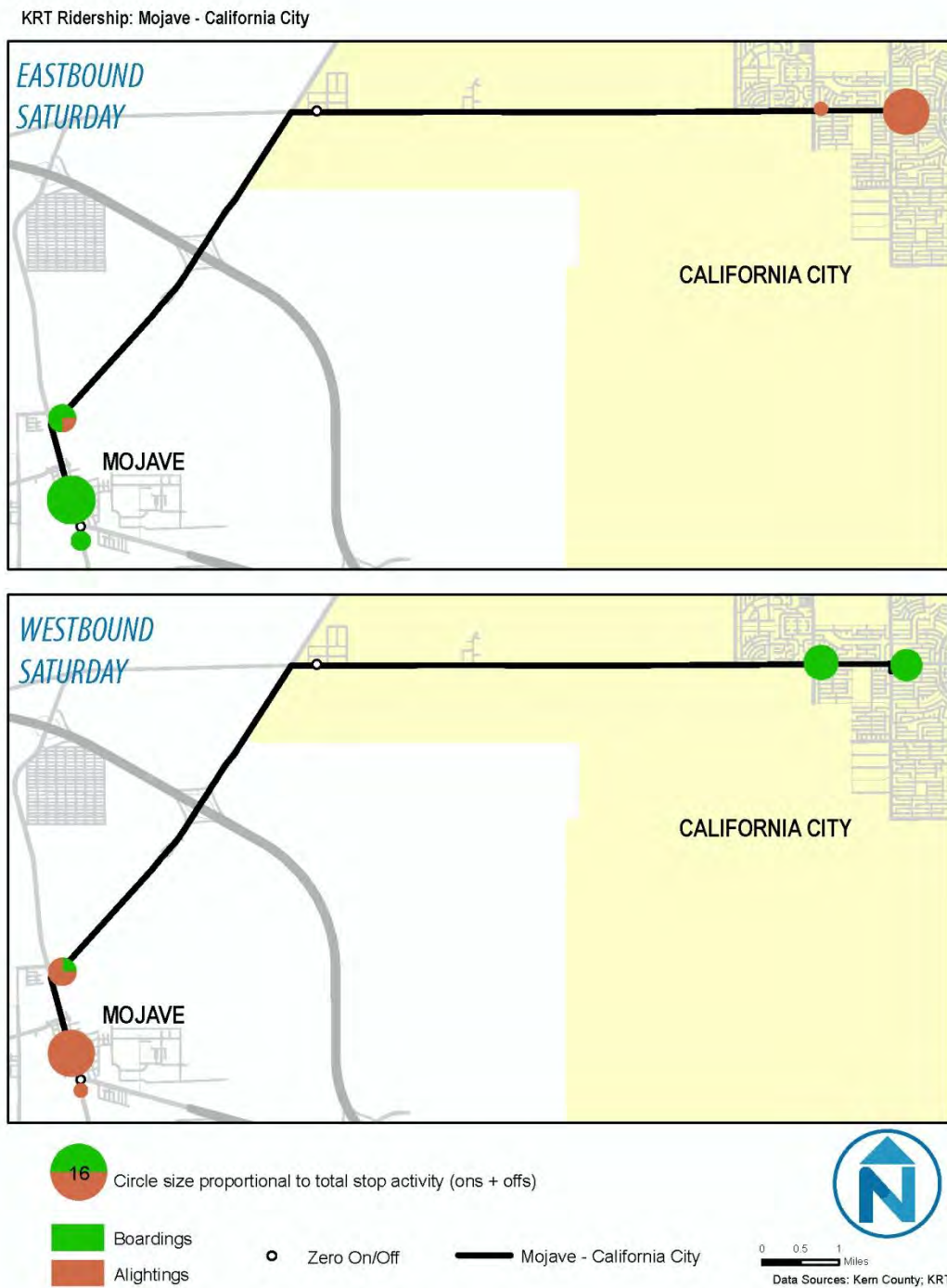


Figure B-26 Ridership: Mojave-Ridgecrest (Monday, Wednesday, and Friday)

