



THE LOCALLY PREFERRED ALTERNATIVE

February 2015 FINAL



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1.0 Executive Summary

The Locally Preferred Alternative is a combination mixed traffic / dedicated lane BRT route that will connect the GVSU Allendale campus with the GVSU CHS campus along Lake Michigan Drive, Fulton Street, and Monroe Street, as shown in Figure 1-1. More details about the alignment and potential station locations can be found in Section 7 of this report.

The service will operate more frequently, for more days per week, for more months per year than the current Route 50 and 51 service. This improved service level will accommodate increasing demand from GVSU students and encourage local residents to consider transit as an attractive daily alternative to driving.

The LPA reflects the outcomes of technical analyses and input heard from community participants, and is responsive to the five corridor transportation needs defined in the project Purpose and Need Statement (available under separate cover):

- Provide additional corridor capacity to reduce overcrowding.
- Create high-capacity service with room to accommodate additional transit trip-making in the future.
- Support economic revitalization at corridor station locations.
- Increase multi-modal access to key regional destinations, including downtown and the Medical Mile.
- Connect with Silver Line service, providing access to high-capacity transit serving Central Station and Division Street Corridor.

The key outcomes of the alternative development and evaluation process were:

- **Use higher-capacity buses.** Using larger buses while maintaining six-minute peak headways will provide additional capacity to meet current demand while accommodating continued ridership growth in the corridor.
- **Optimize station locations.** By reducing the number of stations, removing route deviations from the main corridor, and the integration of dedicated lanes / transit-signal priority, the LPA will offer measurable time savings for transit trips in the corridor.
- **Target use of dedicated lanes.** In certain segments of the corridor, dedicated lanes were not found to be cost-effective (not a significant ridership gain for significantly higher capital costs), or were found to result in significant, negative traffic or parking impacts. Mixed traffic operations in these

The Locally Preferred Alternative

Length: 13.3 miles

Number of Stations: 14

Frequency of Service:

Every 6 minutes (peak)

Every 10 – 15 minutes (off-peak)

Number of BRT Vehicles: 13

Capital Costs: \$64.2M

Annual Operating Cost:

\$3.8M (*Annual system cost +3.1%*)

Average Daily Ridership:

13,000 (+13% over Routes 50 + 51)

Cost Effectiveness:

\$0.68 per rider (*FTA Rating = High*)

Station-Area Population Density:

3,364 people per sq. mi. (average)

Station-Area Job Density:

9,271 jobs per sq. mi. (average)

Key Corridor Demographics:

Zero-Car Households: 16%

Low-Income Households: 31%

Minority Population: 24%

segments will generate ridership and economic development benefits while minimizing or avoiding negative impacts.

- **Operate on Monroe Street through downtown.** The LPA will operate along Monroe Street through downtown Grand Rapids – rather than along a north-south route on the western side of the Grand River – because the Monroe Street alignment will generate higher levels of ridership, will provide connectivity to the recently-opened Silver Line BRT service, and will offer the opportunity to co-locate with some of the Silver Lane stations and dedicated lane operations.
- **Consider future extensions.** The LPA will operate from Kirkhof Center on GVSU's Allendale Campus to the GVSU CHS Campus on the northeast side of downtown Grand Rapids. Future Laker Line extensions westward to downtown Allendale and eastward to Plymouth Avenue may be considered as a second phase – or extension – of the Laker Line in future years.

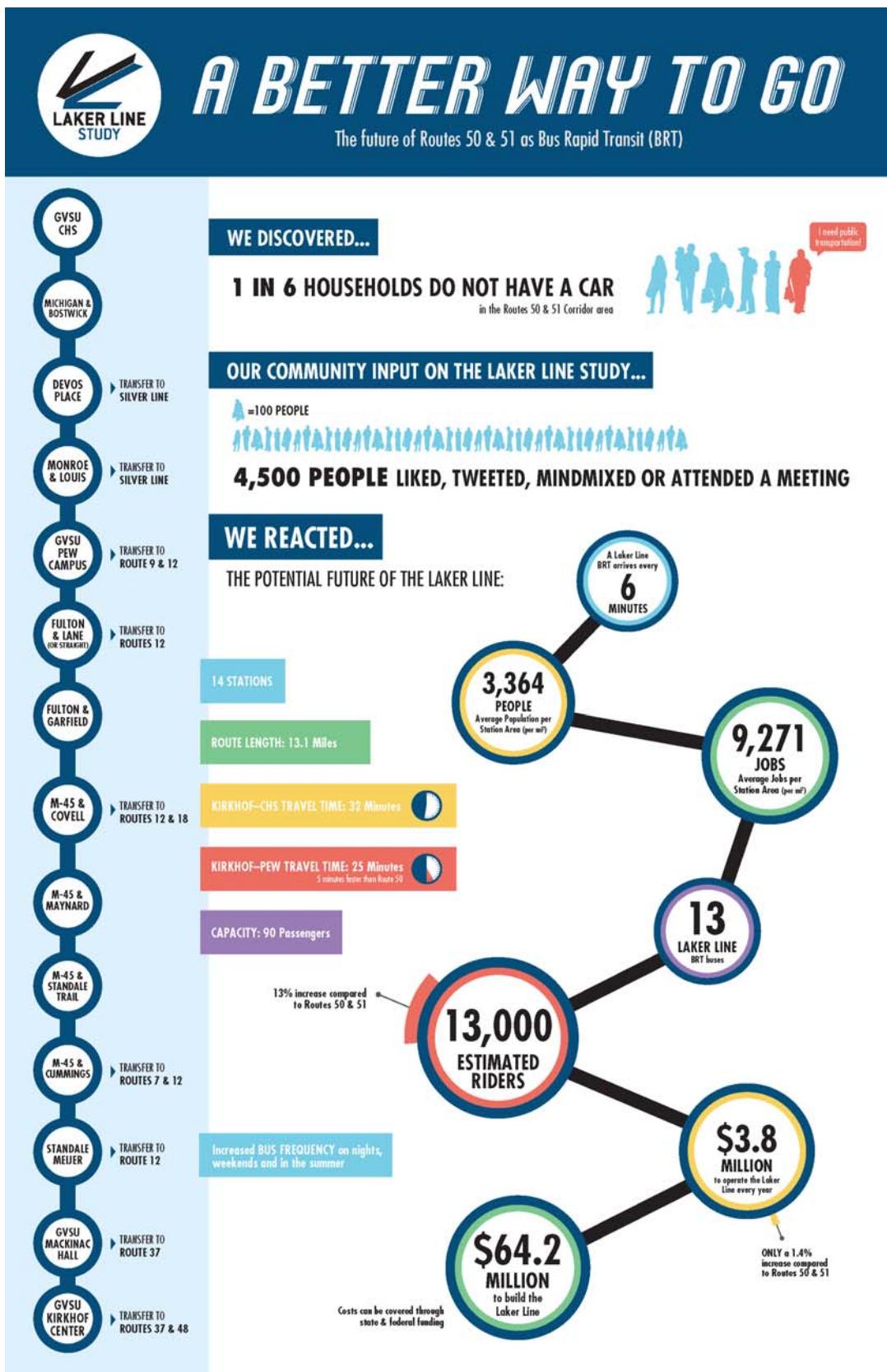
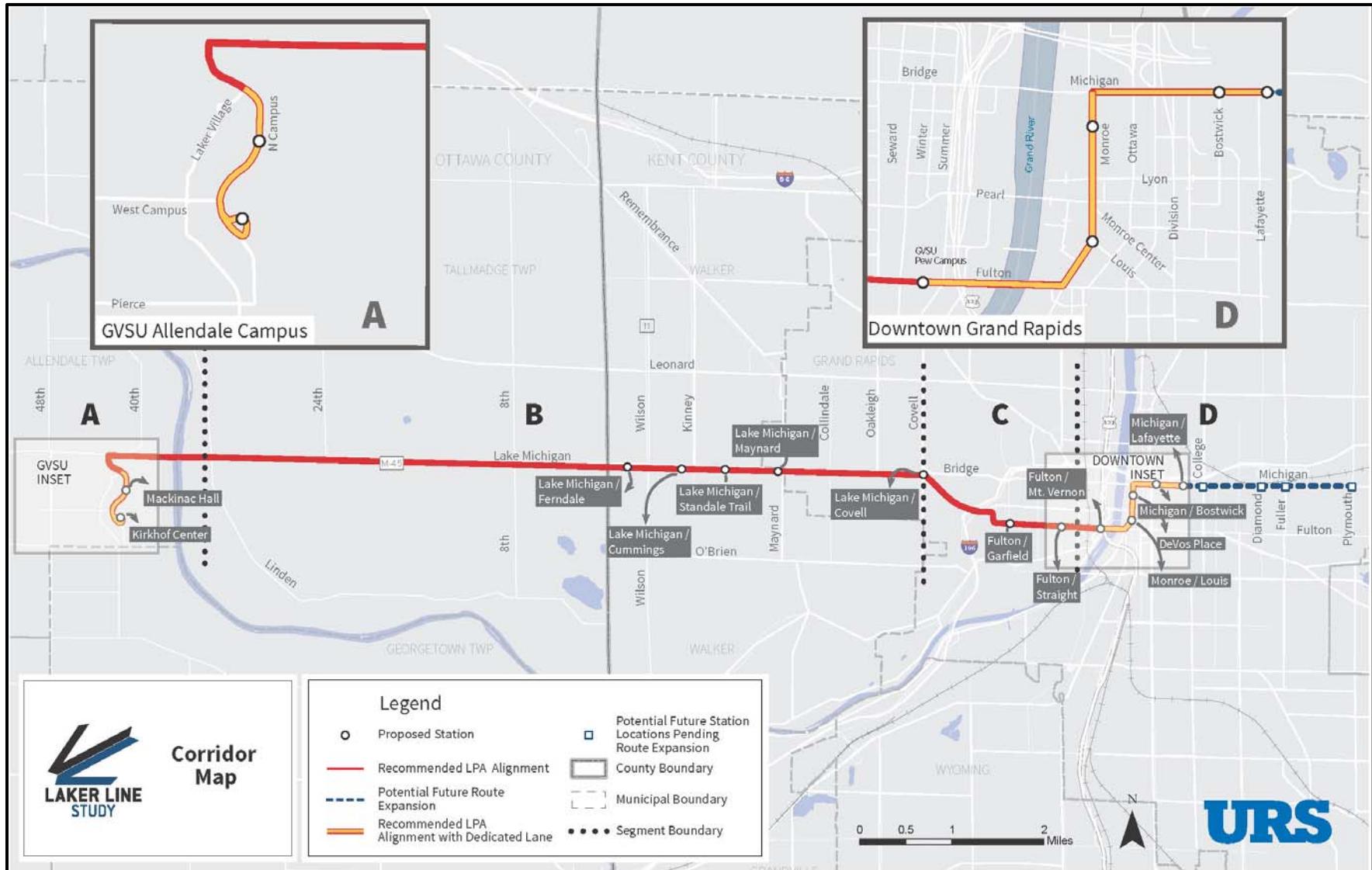


Figure 1-1: The Laker Line Locally Preferred Alternative



2.0 Introduction

2.1 Project Description

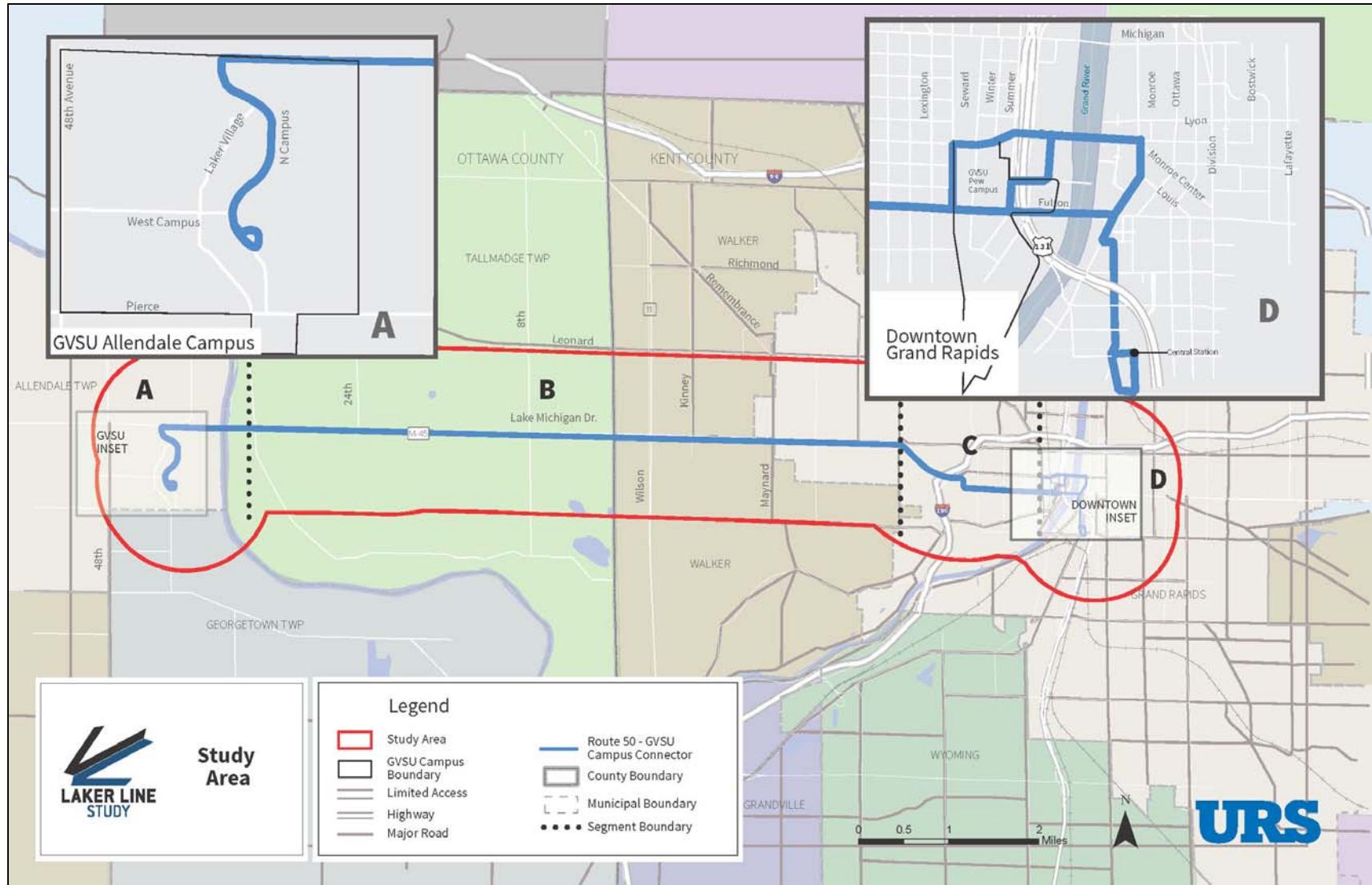
The Laker Line Study represents a crucial early step toward developing higher quality transit service along one of the most important corridors for the Grand Rapids region. The Laker Line study corridor extends west from Downtown Grand Rapids to the Allendale campus of Grand Valley State University (GVSU), a distance of approximately 15 miles. In between, it encompasses Grand Rapids' west side neighborhoods, the Standale district of Walker, and Tallmadge Township.

This corridor is already served by high-quality local bus service that is utilized by a growing number of GVSU students as well as residents and employees. The primary goal of the Study will be to determine whether, and which, transit enhancements could better meet the corridor's travel needs and support the long-term transportation and land use vision of both the local communities and the major institutional stakeholders. The project duration is 15 months, starting in summer 2013 and ending in fall 2014. The lead agency is the Interurban Transit Partnership or "The Rapid", and its funding partner is the Federal Transit Administration (FTA). Other partners and stakeholders involved in the study are:

- Grand Valley State University (GVSU)
- Grand Valley Metropolitan Council (GVMC)
- City of Walker
- City of Grand Rapids
- Allendale Township
- Tallmadge Township
- Ottawa County
- Kent County
- Michigan Department of Transportation

The Study has resulted in a Locally Preferred Alternative (LPA) for inclusion in the Grand Valley Metro Council's (GVMC's) long range transportation plan (see Section 1 and 7 of this report), following recommendation by the Policy Committee and approval by the Rapid Board of Directors.

Figure 2-1: Laker Line Study Corridor



2.2 Project Process

In order to evaluate the different transit modes and alignment options and identify a preferred alternative, the Laker Line Study followed a three-step method.

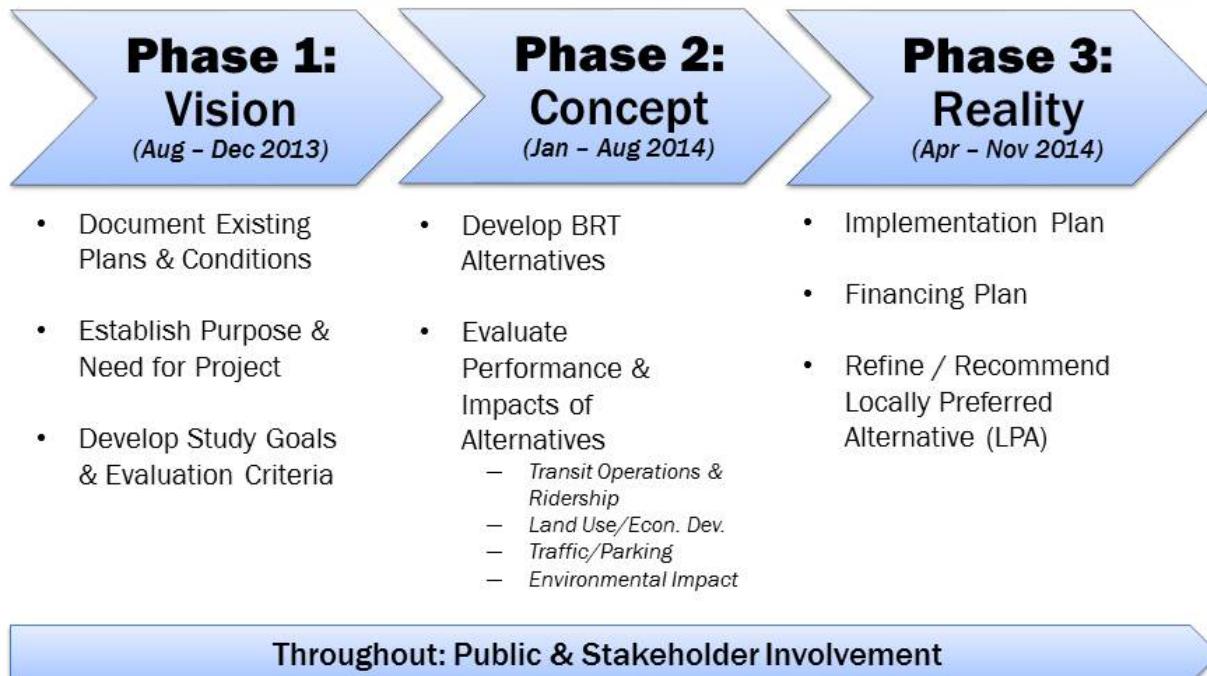
- The first step (“Fatal Flaw Analysis”) assessed each mode and alignment relative to overall implementation viability.
- The second step (“Detailed Evaluation”) assessed the modes and alignments that passed the Fatal Flaw Analysis.
- The alternative(s) that fared best against the detailed criteria in this second step was identified as Preferred Alternative(s) and was further refined in the third step (“Refine LPA/Small Starts Analysis”). The Locally Preferred Alternative was identified at the conclusion of the third step.

The evaluation criteria associated with each step are a combination of quantitative and qualitative performance measures. The Fatal Flaw phase applied fewer and broader measures, including information from previous corridor studies.

The Detailed Evaluation phase applied more and finer performance measures, and the third step evaluated the Preferred Alternative(s) against federal criteria to determine the Locally Preferred Alternative. This three-step process resulted in the identification of an LPA that not only meets locally-identified project purpose and needs, but that is also competitive for federal funding.

The project process and schedule is shown in Figure 2-2 below.

Figure 2-2: Project Process and Timelines



2.3 Project Decision-Making

The project was led by the Rapid and was supported by two committees who provided technical guidance and policy oversight: the project Advisory Committee and the Policy Committee. These committees, whose roles and responsibilities are shown in Figure 2-3, worked with the Rapid and community stakeholders to develop a Locally Preferred Alternative that is responsive to local need for transportation investment within the Laker Line corridor while being competitive for federal capital funding.

The LPA must be recommended by the Advisory Committee to the Policy Committee, who then recommends it to the Rapid Board of Directors. The Rapid Board then must approve the LPA before recommending its inclusion in the Grand Valley Metropolitan Council's Long Range Transportation Plan.

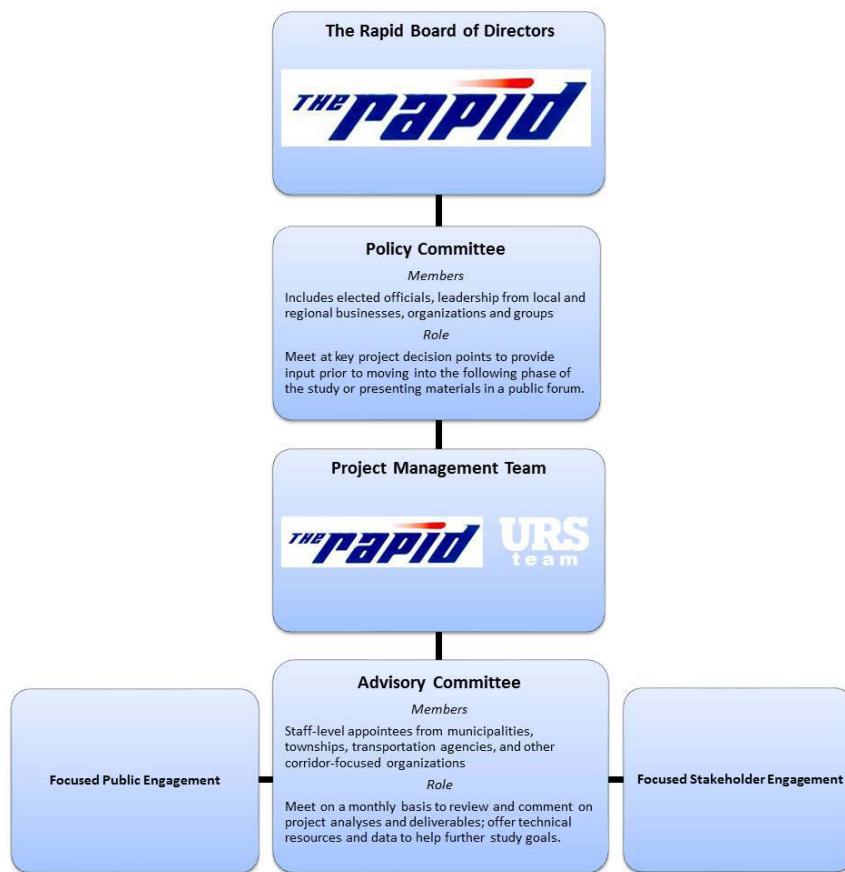
2.4 Summary of Public involvement

Public involvement for the Laker Line ACE was varied and thorough, providing opportunities for face-to-face interaction, on-line forums and social media exchanges. Each phase leading to the definition and evaluation of alternatives offered various tools and techniques to gather input and feedback as the study progressed. Essential to the success of the public involvement process has been a nimble approach, flexing to the needs of the stakeholders. An on-line engagement platform was used to provide 24-hour access, offering continuous opportunities to offer input and provide feedback about such topics as mode choice, alignment preferences, service needs, and lane configurations. Other non-traditional forms of engagement included pop-up vinyl decals adorning an existing BRT station providing details about the Laker Line Study and the Locally Preferred Alternative. Traditional outreach included open houses, neighborhood meetings, business association meetings, stakeholder interviews, and station area planning workshops. The following provides a summary of outreach activities organized by project phase.

Phase 1: Purpose and Need-Public involvement activities undertaken during Phase I of the project between September 2013 and January 2014 included:

- A series of 13 stakeholder interviews with representatives from public and private institutions, the business and development community, disability advocates, and community interests along the corridor.
- Three public open houses attended by 240 people
- 26,169 emails sent updating students, faculty and staff about the project
- MindMixer on-line forum with 733 visitors, 3467 page views, 78 ideas and 132 comments

Figure 2-3: Project Decision-Making Process



- Website, Facebook, and email distribution list
- News releases and media coverage
- Newsletter, FAQ, and infographic

Phase 2: Alternatives Development-Public involvement activities undertaken during Phase II of the project between February 2014 and June 2014 included:

- Three public open houses attended by 191 people
- 711 postcards sent to property owners along the corridor
- 26,169 emails sent updating students, faculty and staff about the project
- Six neighborhood meetings attended by 95 people
- MindMixer on-line forum with 2320 visitors, 8897 page views, 201 ideas and 344 comments
- Website, Facebook, and email distribution list
- News releases and media coverage
- Newsletter, FAQ, and infographic

Phase 3: Detailed Definition of Alternatives-Public involvement activities undertaken during Phase III of the project between July 2014 and November 2014 included:

- One public open houses attended by 95 people
- 26,169 emails sent updating students, faculty and staff about the project
- Three station area planning meetings attended by 54 people
- MindMixer on-line forum with 3270 visitors, 11,768 page views, 206 ideas and 397 comments
- Website, Facebook, and email distribution list
- News releases and media coverage
- Infographic
- Pop-up exhibit of locally-preferred alternative during ArtPrize on Silver Line BRT Station seen by thousands of visitors

Specific tallies for social media:

- Twitter: 66 followers; 10 mentions; 133 tweets
- Facebook: 699 friends; combined weekly reach 2970; 107 posts

2.4.1 Public Involvement Results

Participant-derived ideas, input, and feedback were instrumental in developing the Laker Line Locally Preferred Alternative. Key input derived from the public resulted in the following results during the evaluation and alternative development:

1. The Laker Line alignment and routing does not connect to the regional hub, Central Station
2. The Laker Line alignment connects into the downtown and entertainment core of Grand Rapids
3. The Laker Line alignment connects to the Cook-DeVos Center for Health Sciences (CHS) and future expansion may continue east along the Medical Mile
4. The Laker Line Bus Rapid Transit vehicles will be articulated, accommodating not only more riders (since crowding is the primary complaint of the existing service), but articulated buses will also accommodate more bikes (another common complaint)
5. The Laker Line alignment will connect to the M-45/Standale Trail tunnel providing a regional, multi-modal, non-motorized trail connection
6. The Laker Line street configuration through the West Fulton Business district maintains on-street parking as preferred by resident, and business and property-owner feedback

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-
7. The Laker Line street configuration through the Grand Valley State University Main Campus includes the transformation of the North-South Campus Drive to a multi-modal, transit only corridor helping to lessen the dangerous vehicle-pedestrian conflicts that exist today that also result in bus delays and stacking

3.0 Project Purpose and Need

3.1 Project Purpose & Need

The purpose of the Laker Line Study was to identify and implement the transit enhancement strategy that will improve connectivity between downtown Grand Rapids and Grand Valley State University, the largest university in the region; provide support for development and redevelopment planning by the corridor communities; mitigate the traffic, parking and other community impacts from the growing amount of travel in the corridor; and capitalize on the potential environmental, community and social benefits of increased transit usage.

- **Project Need #1: Existing corridor bus service has experienced significant ridership growth and is at capacity during peak times of the day.** Driven by the growth of GVSU and its Pew Campus in downtown Grand Rapids, ridership of corridor bus services has grown by a factor of 16 in the past decade. The primary bus route (#50) serving the corridor now has more than 12,000 riders per day on an average weekday during the semester.
- **Project Need #2: Continued growth in travel demand will need to be accommodated in the corridor.** Additional planned expansion of GVSU student base and downtown facilities, as well as the projected residential and employment growth of corridor communities (particularly the City of Walker and Allendale Township), indicates that there will be even greater transportation demand need in the future. There is a need to accommodate this demand without negatively impacting local communities. For example, corridor institutions and stakeholders, in particular GVSU, have identified a need to reduce on-site parking facilities to support efficient land uses and prioritize pedestrian access and circulation.
- **Project Need #3: Corridor communities and the development community are actively planning transit-supportive land uses.** Reacting to increased demand for student and senior housing as well as community goals for place-based revitalization, community planners and the development community have advanced plans for the corridor that incorporate higher development densities, mixed uses, and pedestrian-oriented design elements that could be supported by investment in rapid transit.
- **Project Need #4: Regional planning for the Grand Rapids metropolitan area highlights the need for improved multi-modal travel options and the accompanying potential for economic growth and environmental benefits.** Growth strategies for the region and the concentration of jobs downtown highlight the need to increase the utilization of alternative modes such as transit to both allow for concentrated employment growth and development of additional urban living options aimed at young professionals. Additionally, increased use of modes such as transit may have significant positive impacts on environmental factors such as air quality and energy usage.
- **Project Need #5: Transit system planning in the region highlights the need for improved connectivity between high-capacity transit corridors.** With the implementation of the SilverLine BRT project and plans for a downtown streetcar, The Rapid's plan for their future transit system will rely on greater connectivity of transit routes at multiple points within downtown Grand Rapids rather than the current route structure that relies on one centralized transfer point (Central Station) located on the southwest side of the downtown.

The needs above have been utilized throughout the study in the development of transit alternatives and evaluation of preferred options.

3.2 Goals and objectives

Based on documentation of project purpose and need as well as input from stakeholders and the public, the following five goals and related objectives were established for the Laker Line Study.

Table 3-1: Goals and Objectives

Goal	Objectives
Increase the efficiency, attractiveness and utilization of transit for all users	<ul style="list-style-type: none"> • Provide reliable, frequent service that improves the experience of existing customers • Accommodate and attract new customers to the service (not just GVSU students) to help shift current and future corridor travel away from the automobile • Provide capacity for future growth • Provide improved passenger amenities and infrastructure • Improve pedestrian and non-motorized access to corridor stations • Ensure sufficient and well-designed park-and-ride access to the system • Ensure safe and comfortable transit services and facilities for all users
Catalyze and support economic development	<ul style="list-style-type: none"> • Support the economic development and revitalization efforts of local communities • Support regional economic development through enhanced access to employment concentrations, particularly in downtown Grand Rapids • Support institutional and key stakeholder planning efforts, particularly strategic growth planning for the campuses of GVSU • Support local and regional goals for compact, mixed-use development along the corridor
Contribute to regional equity, sustainability and quality of life	<ul style="list-style-type: none"> • Promote a more efficient and sustainable transportation system that reduces energy usage, pollution and costs of living • Increase mobility and accessibility for challenged populations • Provide opportunities for placemaking and enhanced character in corridor communities • Minimize impacts to low-income and minority communities • Minimize neighborhood and property impacts • Minimize impacts to historical, cultural and natural resources
Enhance connectivity of the corridor to the regional transportation network	<ul style="list-style-type: none"> • Support regional planning efforts for a more balanced, multi-modal transportation network in the region • Coordinate with existing and planned transit services, including the Silver Line BRT and downtown Streetcar • Ensure connectivity to services connecting travelers to destinations within and beyond the study corridor • Provide for acceptable traffic operations and parking options in the corridor • Enhance connections to non-motorized transportation
Develop and select an implementable and community-supported project	<ul style="list-style-type: none"> • Define and select transit improvements with strong public, stakeholder and agency support • Define and select transit improvements that are cost-effective and financially feasible, both in the short- and long-term • Define and select transit improvements that are competitive for Federal Transit Administration funding

3.3 Evaluation Criteria

The table below presents the evaluation criteria used during the alternatives evaluation. Note that each successive step links to the overall goals established for the study, and builds upon the criteria from the previous step, ensuring a consistent rating throughout.

Table 3-2: Evaluation Criteria by Phase

	Tier 1 Fatal Flaw (qualitative analysis)	Tier 2 Detailed Evaluation (quantitative)
GOAL: Increase the efficiency, attractiveness and utilization of transit for all users	Ridership capacity	Ridership Number of passengers per service-hour Estimated vehicle hours travelled (VHT) Ability to provide appropriate transit capacity
GOAL: Catalyze and support economic development	Land use / economic development	Compatibility with local and regional plans Connects activity centers Land use and economic development opportunities
GOAL: Contribute to regional equity, sustainability and quality of life	Environmental impacts	Consistent with existing community character Environmental impacts/benefits
GOAL: Enhance connectivity of the corridor to the regional transportation network	-	Access provided to the community Potential right-of-way impacts Bicycle and pedestrian safety Parking and traffic impacts
GOAL: Develop and select an implementable and community-supported project	Capital cost Community support	Capital and operating and maintenance costs Cost effectiveness Community support

4.0 Fatal Flaw Analysis

4.1 Introduction

The Fatal Flaw Analysis was structured to efficiently identify the alternatives that do not meet the project purpose and need or goals and objectives, and to remove them from further consideration in future phases of the project. This initial level of screening focuses on two areas:

- Transit modes
- Alignments

The analysis followed a two-step process: first, transit modes were subjected to evaluation; second, the alignments were subjected to evaluation within the context of the successful modes.

This initial screening was intended to rely on readily available information and focus on high-level, qualitative assessment of modal and alignment options as a means to evaluate a comparatively large number of alternatives. In cases where there is not sufficient information to dismiss modes or alignments from further consideration, those options were recommended for continuation into the Detailed Definition and Evaluation phase of the project.

A series of evaluation criteria were developed to assess each alternative's ability to meet the stated project purpose and need, and its ability to ultimately be competitive for federal funding. Each of the modal and alignment options were evaluated against the criteria and rated as "best," "good," "fair," or "poor;" the modal and alignment options were rated in relation to each other.

In some cases, several sub-criteria supported a mode or alignment option's "overall assessment" against an evaluation criterion. Sub-criteria are sometimes a mix of the "poor" to "best" ranking system in combination with other qualitative or quantitative characteristics; in these cases, the sub-criteria were aggregated and the mode or alignment option was assigned an "overall assessment" on the "poor" to "best" scale.

Modes and alignments that received one or more "poor" ratings were removed from consideration in future phases of alternative definition and evaluation.

4.2 Screening of Modes

4.2.1 Modes Considered

Transit can be provided through a variety of modes; however, not all modes are appropriate for all environments, so the first step of this Fatal Flaw was to identify the modes that are appropriate for the Laker Line corridor and to screen out those that are not.

Table 4-1: Transit Modes

Mode	Typical Characteristics	Example Service
No Build	<ul style="list-style-type: none"> Mixed traffic operations Frequent (six-minute) peak hour service; 60-minute service on weekends Single (40-foot) low-floor, diesel buses* Stops spacing varies between ¼-mile and more than a mile Stations vary between enclosed facilities (Rapid Central Station) and concrete pads <p>* <i>The Rapid is in the process of shifting its current bus fleet from diesel to compressed natural gas (CNG) vehicles. While Laker Line vehicle decisions will be made in subsequent phases of this project, it is assumed that any bus vehicles purchases will be consistent with system wide fleet vehicle decisions.</i></p>	Grand Rapids, MI Route 50 
BRT Low	Substantial corridor-based investment that emulates rail fixed guideway service, including: <ul style="list-style-type: none"> Defined stations Traffic signal priority for transit vehicles Frequent bidirectional service for a substantial part of weekday and weekend days At the discretion of the FTA, any other features that support the transit investment (the majority of which does not operate in a separated right-of-way during peak periods) Typical corridor length of five to 20 miles 	Kansas City, MO MAX 
BRT High	<ul style="list-style-type: none"> Exclusive bus lanes Level boarding at high quality stations 60-foot buses that have multiple doors, sleek styling, and onboard visual/automated next stop announcements Wide stop spacing (typically one mile) and frequent, seven-day-a-week service Branded service through use of a distinct name, logo, color scheme, bus wrap, and set of visual identifiers Off-board fare payment Signal priority “Real time” bus arrival information available at stations and through web/mobile apps on desktop computer or smartphone Typical corridor length of five to 20 miles 	Cleveland, OH HealthLine 

Mode	Typical Characteristics	Example Service
Streetcar	<ul style="list-style-type: none"> • Rail tracks embedded within mixed traffic lanes • Overhead electrical system • Level boarding at high-quality stations • Single car trains • Stops spaced $\frac{1}{4}$ - $\frac{1}{3}$ mile apart • Frequent service • Off-board fare payment • Signal priority • “Real time” bus arrival information available at stations and through web/mobile apps on desktop computer or smartphone • Typical corridor length of two to five miles 	<p>Portland, OR Streetcar</p> 
Light Rail	<ul style="list-style-type: none"> • Exclusive rail corridor or tracks embedded within lane of roadway • Overhead electrical system • Level boarding at high-quality stations • One to four car trains • Stops spaced one mile apart • Frequent service • Off-board fare payment • “Real time” bus arrival information available at stations and through web/mobile apps on desktop computer or smartphone • Typical corridor length of 10 to 20 miles 	<p>Minneapolis, MN Hiawatha</p> 

4.2.2 Mode Screening Results

The table below summarizes the results of the initial screening of modes. Modes with one or more “poor” rating will be removed from further definition and evaluation in subsequent phases of the study.

Table 4-2: Summary of the Initial Screening of Modes

	Ridership Capacity	Consistency with Local Plans and Policies	Economic Development	Environmental Impacts	Capital Costs	Community Support
No Build	Good	Fair	Fair	Best	Best	Fair
BRT Low	Good	Best	Good	Best	Good	Best
BRT High	Fair	Good	Best	Good	Good	Best
Streetcar	Good	Poor	Poor	Poor	Poor	Poor
Light Rail	Fair	Poor	Fair	Poor	Poor	Fair

As shown in the table below, the No Build, BRT Low and BRT High are recommended for more detailed definition and evaluation in subsequent project phases.

Table 4-3: Modes for Detailed Definition and Evaluation of Alternatives

Modes	Overall Assessment
No Build	Pass
BRT Low	Pass
BRT High	Pass
Streetcar	Fail
Light Rail	Fail

4.3 Screening of Alignments

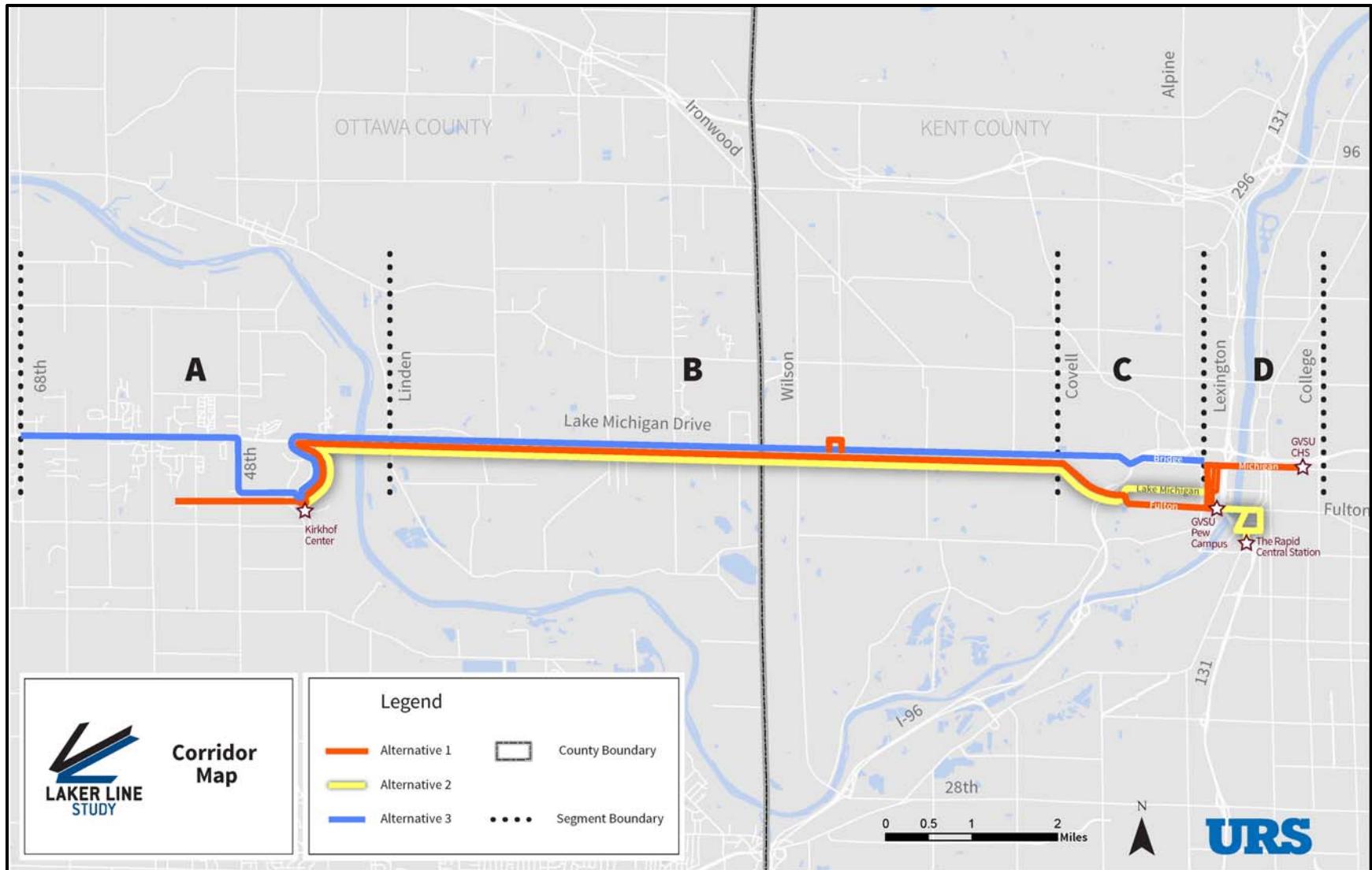
4.3.1 Alignments Considered

The Laker Line corridor stretches from the Grand Valley State University campus in Allendale to downtown Grand Rapids. The corridor has been divided into four segments to facilitate the comparison of alignment alternatives along the length of the corridor. The segment boundaries are identified in the table below; a maps depicting the corridor segment and alignment alternatives are included as Figure 4-1 on the following page.

Table 4-4: Laker Line Corridor Segment Boundaries

Corridor Segment	Boundaries	Alternatives
Segment A	68 th Avenue to Linden Drive	A1, A2, A3
Segment B	Linden Drive to Covell Avenue	B1
Segment C	Covell Avenue to Lexington Avenue	C1, C2, C3
Segment D	Lexington Avenue to College Avenue (with potential service east along Michigan Street past College Avenue)	D1, D2

Figure 4-1: Fatal Flaw Analysis: Alternative Alignments



4.3.2 Results of Alternative Screening

The table below summarizes the results of the initial screening of alignments. Modes with one or more “poor” overall ratings were removed from further definition and evaluation in subsequent phases of the study. Segments A1, A2, B1, C1, and D1 were recommended for more detailed definition and evaluation in subsequent project phases.

While Segment D2 did not receive any “poor” ratings, it was removed from further consideration in future phases of the project because it does not meet the mobility and development objectives of the project. Specifically, connectivity to other Rapid routes at Central Station was not found to be a major project benefit, and an alignment and terminus on the southern side of downtown Grand Rapids would be a missed opportunity to serve major existing employment centers and future destinations that are currently under planning and/or development along the west side of downtown Grand Rapids and along Michigan Avenue. Additional alignment options between Fulton Street and Michigan Avenue (in addition to a Seward or Summer/Winter Avenues alignment) were deferred for consideration in the next phase of project development.

Table 4-5: Summary Results of the Initial Screening of Alignments

Segment	Land Use	Mobility and Connectivity	Environmental Impacts	ROW Accommodation	Community Support
A1	Good	Good	Fair	Good	Good
A2	Good	Good	Good	Good	Best
A3	Poor	Best	Fair	Good	Fair
B1	Best	Best	Good	Good	Best
C1	Best	Good	Good	Fair	Best
C2	Poor	Good	Fair	Fair	Fair
C3	Poor	Good	Fair	Fair	Fair
D1	Good	Good	Good	Fair	Best
D2	Good	Good	Good	Fair	Best

Table 4-6: Alignments for Detailed Definition and Evaluation of Alternatives

Segment	Overall Assessment
A1	Pass
A2	Pass
A3	Fail
B1	Pass
C1	Pass
C2	Fail
C3	Fail
D1	Pass
D2	Pass – Removed from Consideration

5.0 Detailed Definition of Alternatives

5.1 Alternatives for Detailed Definition

The key physical and service elements of the transit alternatives that advanced through the Fatal Flaw screening of the Laker Line Study were refined and documented in the Detailed Definition of Alternatives report, which is available under separate cover. The key characteristics used to define each detailed alternative included:

- Service plan
- Stop spacing
- Stop facilities
- Runningway
- Transit vehicles
- Fare collection
- Technology and customer information
- Identity and branding
- Maintenance facility

The detailed alternatives are summarized below.

5.1.1 Detailed Mode Alternatives

The detailed mode alternatives included:

- No Build Alternative
- BRT in Mixed Traffic
- BRT in a Dedicated Side Lane
- BRT in a Dedicated Center Lane

5.1.2 Detailed Alignment Alternatives

Figure 5-1 illustrates the alignment options that were studied during the initial screening phase and recommended for detailed development:

- **Segment A** (68th Avenue to Linden Drive)
 - A1 (residential developments on west side of GVSU Allendale campus through GVSU campus on Campus Drive to Lake Michigan Drive)
 - A2 (GVSU Allendale Campus along Campus Drive to Lake Michigan Drive)
- **Segment B** (Linden Drive to Covell Avenue along Lake Michigan Drive)
- **Segment C** (Covell Avenue to Lexington Avenue along Lake Michigan Drive and Fulton Street)
- **Segment D** (Lexington Avenue to College Avenue)
 - D1 (Fulton Street to Bridge Street along Seward or Winter/Summer Avenues; east along Bridge Street to Michigan Street to GVSU CHS or potentially extended to Plymouth Avenue)
 - D2 (Fulton Street to Monroe Street to Michigan Street to GVSU CHS or potentially extended to Plymouth Avenue; the extension to Plymouth Avenue is referred to as the Eastern Extension throughout this report)

For purposes of the detailed definition phase, it was assumed that each mode alternative would maintain consistent runningway operations for the length of the corridor. For instance the BRT in a Dedicated Side Lane would operate in a dedicated side lane from Segment A through Segment D.

The characteristics of each detailed alternative are summarized in Table 5-1.

Figure 5-1: Detailed Alternatives Phase Corridor Map

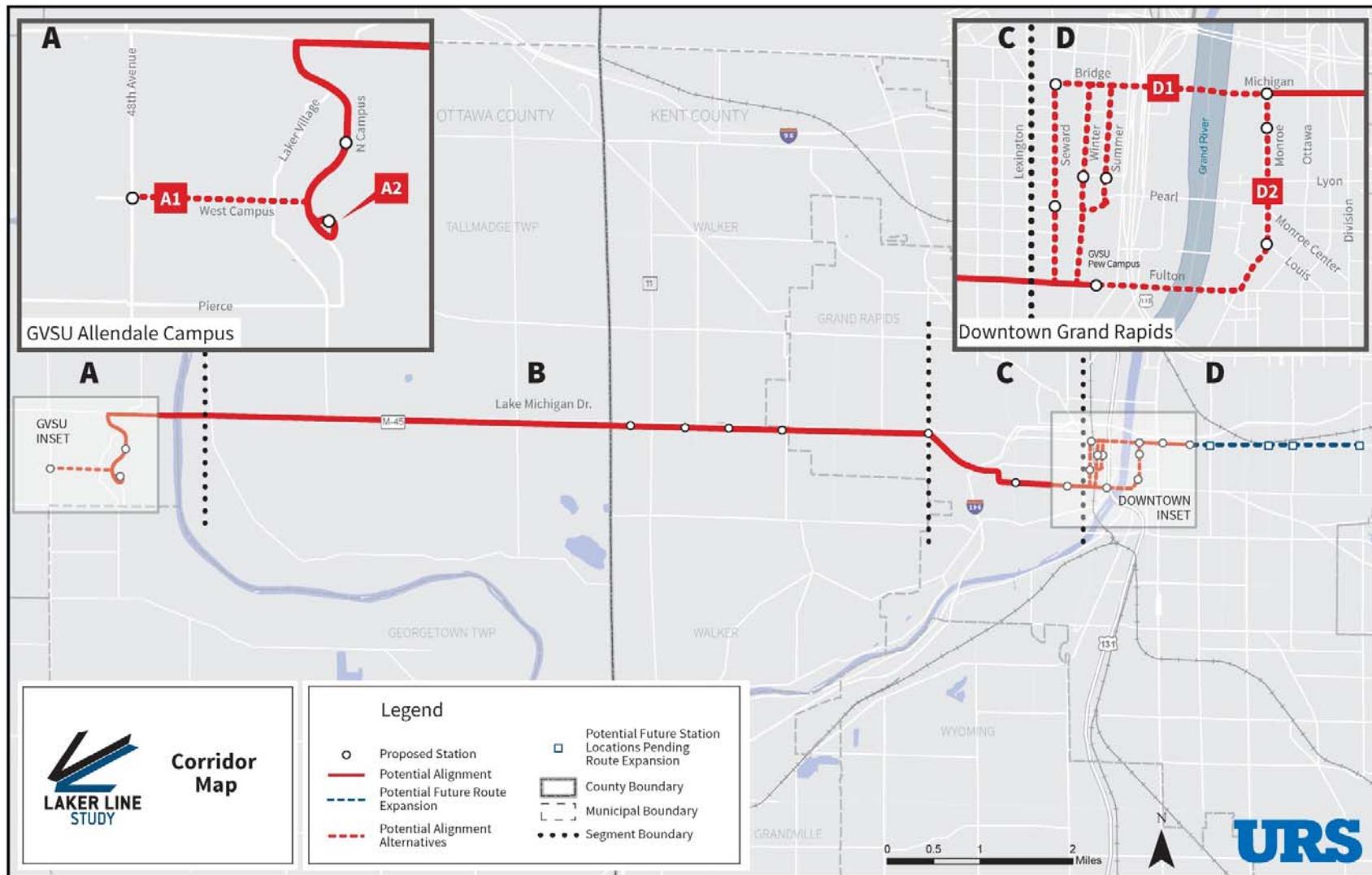


Table 5-1: Summary of Detailed Alternatives

	No-Build	BRT in Mixed Traffic	BRT in Dedicated Side Lane	BRT in Dedicated Center Lane
Service Plan	Same as existing bus routes / services	Substantial change in service levels throughout week (ie, weekend service) and year (ie, not just school semesters) and routing that connects GVSU Allendale to Pew Campus and CHS		
Stop Spacing	No changes to Route 50 stop location or spacing	Station locations altered to maximize ridership activity and community development impact. Fewer overall stations for rapid transit line. Stations generally spaced 1/2 mile to 1 mile apart.		
Stop Facilities	No changes from existing	Station shelters and associated facilities to include level boarding, ticket vending machines, customer information, seating, and other features.		
Runningway	Operates in mixed traffic		Operates in dedicated side-running lane throughout corridor	Operates in dedicated center-running lane throughout corridor
Transit Vehicles	Uses existing 40-foot bus vehicles	Uses 60-foot articulated buses with right-door loading		Uses 60-foot articulated buses with right- and/or left-door loading
Fare Collection	No change from existing fare system and policy	All rapid transit fares paid off-vehicle		
Technology/Customer Info	Uses existing technology and customer info	Integration of next-bus variable message signs at stations, online/mobile customer information, and traffic-signal priority for bus vehicles in corridor, similar to approach for Silver Line		
Identity and Branding	No modifications to service branding	Unique identity and branding elements integrated into vehicles, stations and associated service materials, similar to approach for Silver Line		
Maintenance Facility	Utilizes existing maintenance facility			

6.0 Detailed Evaluation of Alternatives

A combination of quantitative and qualitative evaluation criteria were used to assess the degree to which each of the detailed alternatives met project goals, as stated in the project Purpose and Need Statement.

For purposes of the detailed evaluation, the alternatives were divided into three elements: modes, segments and configurations (the combination of modes and runningways within a segment). This three-part evaluation process facilitated a “mix-and-match” approach to the corridor elements by applying element-specific evaluation criteria to identify key differentiators that guided their combination into one mode/alignment along the length of the corridor.

The Detailed Evaluation of Alternatives Report (available under separate cover) presents details of each alternative's performance against these criteria; detail of the evaluation methodology and outcomes included in the tech memo appendices to that report. Results of the Detailed Evaluation are summarized in Tables 6-1 through 6-3.

Table 6-1: Detailed Evaluation Criteria and Results - Modes

Laker Line: Summary of Detailed Evaluation of Alternatives - MODES					
	Criteria Category / Metric	No Build	BRT in Mixed Traffic	BRT in Dedicated Side Lane	BRT in Dedicated Center Lane
Goal 1	Ridership projections				
	total ridership (2014)	11,456 (Rtes 50+51)	12,446 (D1) 12,951 (D2)	12,591 (D1) 13,032 (D2)	
	non-GVSU ridership (2014)	-	2,632 (D1) 3,135 (D2)	2,776 (D1) 3,219 (D2)	
	GVSU ridership (2014)	-	9,810	9,810	
	new systemwide transit trips compared to no-build (2014)	-	732 (D1) 991 (D2)	834 (D1) 1,021 (D2)	
Goal 3	ridership by transit-dependents (2014)	-	794 (D1) 819 (D2)	857 (D1) 881 (D2)	
	Safety impacts				
	reduced number of vehicular crashes compared to No Build alternative	-	8 per 100 years (D1) 7 per 100 years (D2)	2 per 100 years (D1) 4 per 100 years (D2)	
	Environmental impacts				
	change in transportation energy usage (btu per year)	-	-5,639 (D1) -4,739 (D2)	-7,356 (D1) -5,882 (D2)	
Goal 5	regional air quality impacts				
	Carbon Monoxide (kg per year)	-	-4,754 (D1) -766 (D2)	-8,562 (D1) -3,302 (D2)	
	Mono-Nitrogen Oxides (kg per year)	-	365 (D1) 336 (D2)	159 (D1) 198(D2)	
	Volatile Organic Compounds (kg per year)	-	-131 (D1) -4 (D2)	-267 (D1) -95 (D2)	
	Particulate Matter (2.5) (kg per year)	-	33 (D1) 21 (D2)	30 (D1) 20 (D2)	
	Greenhouse Gases (Carbon Dioxide Equivalents) (tons per year)	-	-429 (D1) -375 (D2)	550 (D1) 456 (D2)	
	Operations and maintenance cost (systemwide costs)	\$32.5M (annual system)	+\$634,000 (D1) +\$447,000 (D2)	+\$569,700 (D1) +\$369,200 (D2)	
	Capital costs (2013 dollars)	\$12.2M	\$50.5M (D1) \$45.3M (D2)	\$83.0M (D1) \$75.7M (D2)	\$79.1M (D1) \$72.9M (D2)
	Cost effectiveness (annual trips / annualized cost)	-	\$0.63 (D1) \$0.55 (D2)	\$0.89 (D1) \$0.79 (D2)	\$0.87 (D1) \$0.83 (D2)
	Community and stakeholder support				
	input from open houses, website, MindMixer, community meetings*	2	4	3	1

* 4=strongly agree, 3=agree, 2=disagree, 1=no comment

Table 6-2: Detailed Evaluation Criteria and Results - Segments

Laker Line: Summary of Detailed Evaluation of Alternatives - SEGMENTS								
	Criteria Category / Metric	A1	A2	B	C	D1	D2	East Ext.
Goal 2	Station-area population and employment densities							
	2010 population in proposed station areas (average)	1,065	1,080	1,772	5,152	3,495	3,129	4,033
	2035 population in proposed station areas (average)	3,303	3,400	2,183	6,616	5,217	4,476	4,435
	2010 employment in proposed station areas (average)	127	175	576	1,910	13,307	18,971	4,530
	2035 employment proposed station areas (average)	339	332	695	1,386	15,718	22,264	5,297
Goal 3	Development potential							
	potential to catalyze development within station areas (average)	Low	Low	Med	Med	High	Med	High
Goal 4	Low-income and non-white populations' access to the transit network							
	low-income station area population (average)	2,000	2,068	148	792	1,361	1,486	974
	percent of low-income station area population (average)	74%	74%	9%	27%	33%	36%	24%
	minority station area population (average)	359	370	142	1,209	1,619	1,543	1,148
	percent of minority station area population (average)	13%	13%	9%	41%	39%	37%	29%
	zero-car households in station areas (average)	190	196	106	650	966	1,117	577
Goal 5	Cultural/historic impacts							
	number of proximate cultural resources	0	0	1	2	26	26	1
Goal 6	Connectivity to transit network							
	number of Rapid routes connected to within segment	2	2	3	2	6	6	4
Goal 7	Community and stakeholder support							
	input from open houses, website, MindMixer, community meetings*	3	4	3	3	3	3	3

* 4=strongly agree, 3=agree, 2=disagree, 1=no comment

Table 6-3: Detailed Evaluation Criteria and Results: Configurations

Laker Line: Summary of Detailed Evaluation of Alternatives - CONFIGURATIONS															
	Criteria Category / Metric			A1				A2				B			
	No Build	BRT in Mixed Traffic	BRT in Dedicated Side Lane	BRT in Dedicated Center Lane	No Build	BRT in Mixed Traffic	BRT in Dedicated Side Lane	BRT in Dedicated Center Lane	No Build	BRT in Mixed Traffic	BRT in Dedicated Side Lane	BRT in Dedicated Center Lane			
Goal 4	Bicycle and pedestrian mobility impacts														
	impacts on existing bike and ped facilities*	0	1	2	2	0	1	2	2	0	1	2	2		
	compliance with bike and ped plans	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Traffic impacts			LOS impacts	Low	Low	Low	Low	Low	Low	Low	Low	Low	High	High
	Parking impacts			number of on-street spaces removed	none	none	none	none	none	none	none	none	none	none	none
	Right-of-way impacts			right-of-way acquisition requirements	none	limited	limited	limited	none	none	limited	limited	none	none	limited
	input from open houses, website, MindMixer, community meetings**	2	3	2	1	1	1	4	4	1	3	3	2		
Goal 5	Community and stakeholder support														

	Laker Line: Summary of Detailed Evaluation of Alternatives - CONFIGURATIONS																	
	Criteria Category / Metric			C				D1				D2				East Extension		
	No Build	BRT in Mixed Traffic	BRT in Dedicated Side Lane	BRT in Dedicated Center Lane	No Build	BRT in Mixed Traffic	BRT in Dedicated Side Lane	BRT in Dedicated Center Lane	No Build	BRT in Mixed Traffic	BRT in Dedicated Side Lane	BRT in Dedicated Center Lane	No Build	BRT in Mixed Traffic	BRT in Dedicated Side Lane			
Goal 4	Bicycle and pedestrian mobility impacts																	
	impacts on existing bike and ped facilities*	0	1	2	2	0	1	2	2	0	1	2	2	0	1	2	2	
	compliance with bike and ped plans	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Traffic impacts			LOS impacts	Low	Low	Low	Low	Low	Low	Low	Low	Med	Med	Low	Med	Med	
	Parking impacts			number of on-street spaces removed	none	none	163	none	none	317	none	none	257	none	none	163		
	Right-of-way impacts			right-of-way acquisition requirements	none	none	limited	limited	none	limited	limited	none	limited	limited	none	none	limited	limited
	input from open houses, website, MindMixer, community meetings**	1	4	3	2	1	3	2	2	1	3	3	3	1	4	3	2	
Goal 5	Community and stakeholder support																	

* 0 = no impact, 1 = some positive impact, 2 = significant positive impact

** 4=strongly agree, 3=agree, 2=disagree, 1=no comment

6.1 The Preferred Alternative

Based on this detailed evaluation of alternatives, a Preferred Alternative emerged that is a combination of modes, segments and configurations within the Laker Line corridor that was responsive to the need for transportation investment within the corridor (as defined in the Purpose and Need Statement) and which would be competitive for federal funding.

The Preferred Alternative was BRT operating in a combination of mixed traffic and dedicated transit lanes between an end-of-line station at the Kirkhof Center on GVSU's Allendale campus and an end-of-line station at GVSU's CHS campus. Based on the analysis of cost, ridership, safety, and transportation network operations impacts and other factors documented in this report, the combination of runningways described below would attract a comparable number of riders and offer similar travel times as dedicated lane operations - without the additional capital cost and impacts to vehicular traffic and on-street parking.

- **Segments A and B:** The Laker Line will operate on a dedicated transitway between Kirkhof Center and Ravine Center on the GVSU Allendale Campus before operating in mixed traffic with Transit Signal Priority (TSP) technology along Lake Michigan Drive through Walker and Standale. TSP will extend green signals and shorten red signals as a Laker Line bus approaches an intersection, which supports service reliability and schedule adherence.
- **Segment C:** East of I-196, the Laker Line will continue mixed traffic operations along Fulton Street, although service within this segment may be converted to dedicated lane operations (center- or side-running) in future project planning and design phases.
- **Segment D:** The Laker Line will operate in a dedicated side-running transit lane between GVSU's Pew and CHS campuses, crossing the Grand River on the Fulton Street Bridge before turning north on Monroe Street and east on Michigan Street and terminating at the GVSU CHS campus. The Laker Line will co-locate in the Silver Line's dedicated lanes along Monroe Street.
- **Eastern Extension:** The Laker Line Preferred Alternative terminates at GVSU's CHS campus, but, as development patterns and employment densities intensify eastward along Michigan Street, expansion of the Laker Line to Plymouth may be explored in future project phases.

Preliminary stop locations of the Preferred Alternative, which were modified during the refinement of the Preferred Alternative and may be further modified during the environmental clearance process, are:

- Kirkhof Center
- Mackinac Hall
- Standale Meijer
- M-45 / Cummings
- M-45 / Kinney
- M-45 / Maynard (park-and-ride)
- M-45 / Covell
- Fulton / Garfield (Zoo)
- Fulton / Straight
- Pew Campus (Fulton / Mount Vernon)
- Lake Michigan Drive / Pearl / Monroe / Louis
- Bridge / Michigan / Monroe / DeVos (also a Silver Line station)
- Michigan / Monroe
- Michigan Bostwick (also a Silver Line station)
- GVSU CHS / Lafayette

7.0 The Locally Preferred Alternative

The Locally Preferred Alternative is a combination mixed traffic / dedicated lane BRT route that will connect the GVSU Allendale campus with the GVSU CHS campus along Lake Michigan Drive, Fulton Street, and Monroe Street, as shown in Figure 7-1.

Beginning at the Kirkhof Center on the GVSU Allendale campus, the Laker Line will operate on a dedicated transitway (buses only) along Campus Drive to Ravine Center, at which point it will transition to mixed traffic operations on Lake Michigan Drive (M-45) through Walker and Standale and into the west side of Grand Rapids. The Laker Line will follow Lake Michigan Drive east of Covell Avenue onto Fulton Street, where it will continue eastward towards the GVSU Pew Campus. Heading east of Pew Campus, the Laker Line will operate in a dedicated transit lane (buses and right-turning cars only) as it crosses the Fulton Street Bridge to Monroe Street before heading east on Michigan Street to the GVSU CHS Campus.

Preliminary station locations have been identified and will continue to be refined through the environmental clearance process in subsequent project phases. These station locations are shown in Figure 7-1 and are described in Table 7-1. Renderings of stations / runningway configurations at three locations along the corridor are shown in Figures 7-2 through 7-4. Each station has been categorized as a “type,” linked with major activity generators, and evaluated for planning considerations. This inventory creates a framework for stakeholders to use when refining station locations and considering station area land use and development opportunities during future project phases. The Laker Line can do more than connect riders between stations - it can connect stations to the surrounding community.

The service will operate more frequently, for more days per week, for more months per year than the current Route 50 and 51 service. This improved service level will accommodate increasing demand from GVSU students and encourage local residents to consider transit as an attractive daily alternative to driving.

The LPA reflects the outcomes of technical analyses and input heard from community participants, and is responsive to the five corridor transportation needs defined in the project Purpose and Need Statement (available under separate cover):

- Provide additional corridor capacity to reduce overcrowding.
- Create high-capacity service with room to accommodate additional transit trip-making in the future.
- Support economic revitalization at corridor station locations.

The Locally Preferred Alternative

Length: 13.3 miles

Number of Stations: 14

Frequency of Service:

Every 6 minutes (peak)

Every 10 – 15 minutes (off-peak)

Number of BRT Vehicles: 13

Capital Costs: \$64.2M

Annual Operating Cost:

\$3.8M (*Annual system cost +3.1%*)

Average Daily Ridership:

13,000 (+13% over Routes 50 + 51)

Cost Effectiveness:

\$0.68 per rider (*FTA Rating = High*)

Station-Area Population Density:

3,364 people per sq. mi. (average)

Station-Area Job Density:

9,271 jobs per sq. mi. (average)

Key Corridor Demographics:

Zero-Car Households: 16%

Low-Income Households: 31%

Minority Population: 24%

- Increase multi-modal access to key regional destinations, including downtown and the Medical Mile.
- Connect with Silver Line service, providing access to high-capacity transit serving Central Station and Division Street Corridor.

The key outcomes of the alternative development and evaluation process were:

- **Use higher-capacity buses.** Using larger buses while maintaining six-minute peak headways will provide additional capacity to meet current demand while accommodating continued ridership growth in the corridor.
- **Optimize station locations.** By reducing the number of stations, removing route deviations from the main corridor, and the integration of dedicated lanes / transit-signal priority, the LPA will offer measurable time savings for transit trips in the corridor.
- **Target use of dedicated lanes.** In certain segments of the corridor, dedicated lanes were not found to be cost-effective (not a significant ridership gain for significantly higher capital costs), or were found to result in significant, negative traffic or parking impacts. Mixed traffic operations in these segments will generate ridership and economic development benefits while minimizing or avoiding negative impacts.
- **Operate on Monroe Street through downtown.** The LPA will operate along Monroe Street through downtown Grand Rapids – rather than along a north-south route on the western side of the Grand River – because the Monroe Street alignment will generate higher levels of ridership, will provide connectivity to the recently-opened Silver Line BRT service, and will offer the opportunity to co-locate with some of the Silver Lane stations and dedicated lane operations.
- **Consider future extensions.** The LPA will operate from Kirkhof Center on GVSU's Allendale Campus to the GVSU CHS Campus on the northeast side of downtown Grand Rapids. Future Laker Line extensions westward to downtown Allendale and eastward to Plymouth Avenue may be considered as a second phase – or extension – of the Laker Line in future years.

Figure 7-1: The Laker Line Locally Preferred Alternative

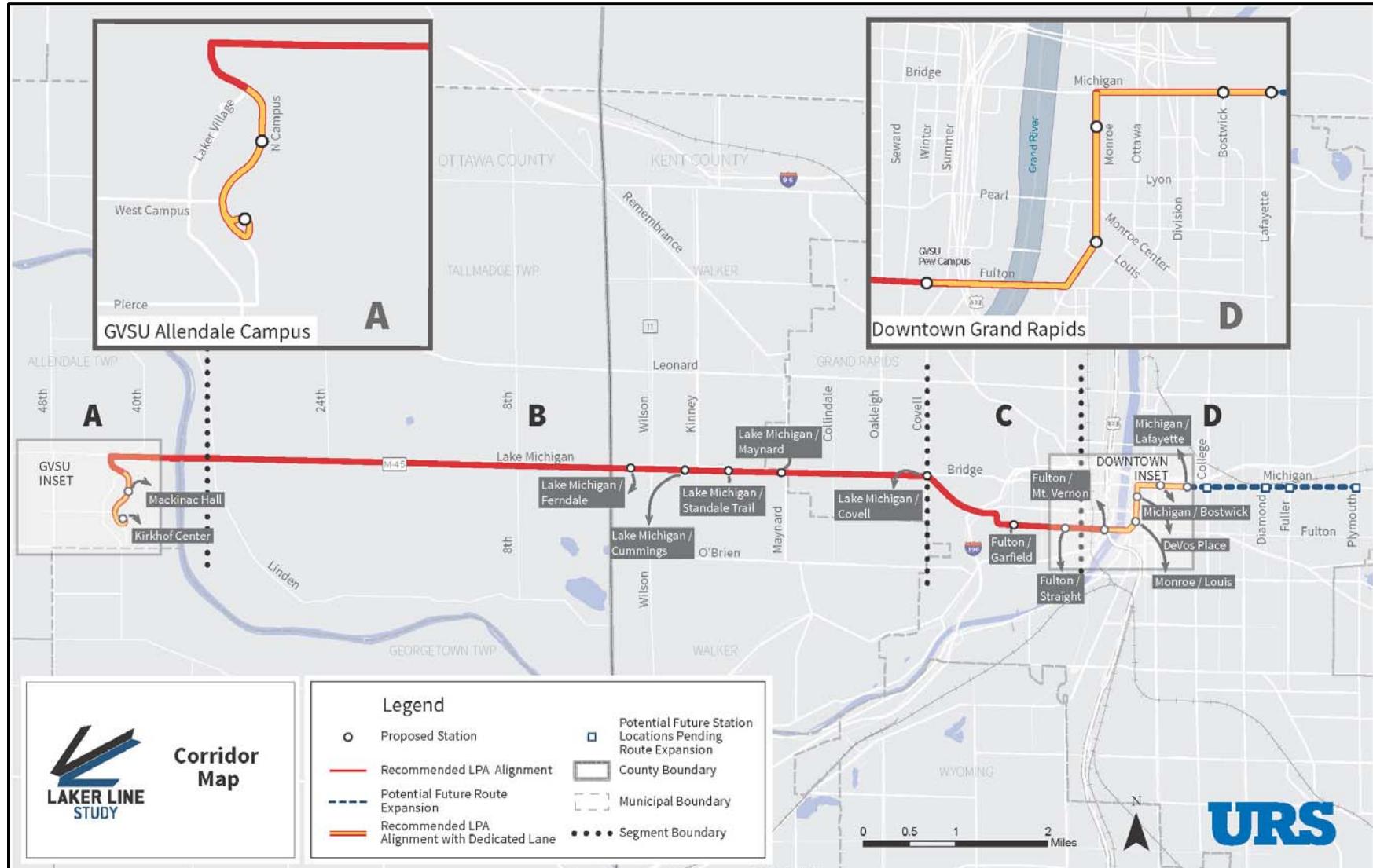


Table 7-1: Recommended LPA Station Locations

Station	Type	Jurisdiction	Major Activity Center(s)	Planning & Design Considerations
Kirkhof Center (GVSU Allendale)	Transit Hub	Allendale	GVSU Allendale Campus	<ul style="list-style-type: none"> • Station will be transit transfer facility with connections to GVSU campus shuttles
Mackinac Hall (GVSU Allendale)	Local Access	Allendale	GVSU Allendale Campus	<ul style="list-style-type: none"> • Station will be highly-utilized during the day; need for pedestrian and bicycle safety considerations
Lake Michigan / Ferndale	Regional Access / Park and Ride	Walker	Standale Meijer Park and Ride (existing)	<ul style="list-style-type: none"> • Existing park-and-ride usage at Meijer may need to be expanded to accommodate demand • Potential sites for transit-supportive development opportunities southwest of station
Lake Michigan / Cummings	Local Access	Walker	Community Center & Fire Station	<ul style="list-style-type: none"> • Existing parking lot behind community center used for park and ride access to Route 50 • Local planning suggests opportunity for “main street” development around Cummings intersection
Lake Michigan / Standale Trail	Local Access	Walker	--	<ul style="list-style-type: none"> • Planned trail underpass at location will provide pedestrian access across M-45 • Improved pedestrian connections to nearby apartment complexes and neighborhoods may be needed
Lake Michigan / Maynard	Regional Access / Park and Ride	Grand Rapids	Park and Ride (planned)	<ul style="list-style-type: none"> • New park-and-ride facility planned for northeast corner of Maynard and M-45; may include adjacent residential or mixed-use development • Improved pedestrian connections to nearby apartment complexes and neighborhoods may be needed
Lake Michigan / Covell	Local Access	Grand Rapids	Union High School	<ul style="list-style-type: none"> • Complex intersection; detailed design study needed to find appropriate station site
Fulton / Garfield	Local Access	Grand Rapids	John Ball Park Zoo	<ul style="list-style-type: none"> • Garfield seen as key development node in local plans • Community has expressed need to curtail “hide-and-ride” parking in adjacent residential neighborhoods

Station	Type	Jurisdiction	Major Activity Center(s)	Planning & Design Considerations
Fulton / Lane (or Straight)	Local Access	Grand Rapids	-	<ul style="list-style-type: none"> • Intersections seen as key development nodes in local plans • Community has expressed need to curtail “hide-and-ride” parking in adjacent residential neighborhoods
Fulton / Mount Vernon (GVSU Pew)	Transit Hub	Grand Rapids	GVSU Pew Campus	<ul style="list-style-type: none"> • Expected to be highly-utilized station location, will need to provide adequate waiting facilities and access features • Connections assumed needed to local service travelling to Central Station
Monroe / Louis	Downtown / Employment Center	Grand Rapids	Van Andel Arena	<ul style="list-style-type: none"> • Interlined station with Silver Line BRT • Downtown district station along Monroe likely to see high utilization rate
Monroe / DeVos Place	Downtown / Employment Center	Grand Rapids	DeVos Place	<ul style="list-style-type: none"> • Interlined station with Silver Line BRT • Downtown district station along Monroe likely to see high utilization rate
Michigan / Bostwick (Medical Mile)	Downtown Employment Center	Grand Rapids	Spectrum Health	<ul style="list-style-type: none"> • Interlined station with Silver Line BRT • Primary station for Medical Mile access likely to see high utilization rate
Michigan / Lafayette (GVSU CHS)	Downtown / Employment Center	Grand Rapids	GVSU CHS Campus	<ul style="list-style-type: none"> • Development potential exists • Connectivity to other local service likely to be an important consideration at this service end-point

Figure 7-2: Potential Station and Runningway Configuration: GVSU Mackinac Hall Station



Figure 7-3: Potential Station and Runningway Configuration: Lake Michigan / Standale Trail Station



Figure 7-4: Potential Station and Runningway Configuration: Fulton / Garfield Station



8.0 Next Steps

8.1 Approval and Adoption of the LPA

At a joint project committee meeting on November 7, 2014, the Project Management Team and Advisory Committee recommended the LPA to the Policy Committee, who (following their approval) recommended it to the Rapid Board of Directors. The Rapid Board of Directors approved the LPA on December 17, 2014, and will request (following completion of the environmental review process described in Section 8.2) that GVMC adopt it into the region's fiscally-constrained long-range transportation plan (LRTP).

8.2 National Environmental Policy Act

The Rapid has begun preliminary work to ensure the compliance with the National Environmental Policy Act (NEPA). The first step in this process will be to work with the FTA to make a Class of Action (COA) Determination. At this time it is anticipated that the COA for this project will either be a Categorical Exclusion (CE) or an Environmental Assessment (EA). The COA will depend upon the final LPA and the potential impacts of the LPA. The Rapid anticipates receiving a COA determination in Spring 2015.

The COA will affect the estimated time required to complete the appropriate NEPA documentation. A CE would likely take approximately six months to complete, wrapping up in the summer of 2015. However, an EA is anticipated to take longer, approximately one year, and would be completed in the winter of 2015/2016. Following the completion of the NEPA process the Rapid will work with its project partners, in particular GVMC, to incorporate the LPA for the Laker Line Corridor into its long range transportation plan.

8.3 Request to Entry into Small Starts

It is anticipated that the Laker Line project will be funded through a portion of the FTA's Capital Investment Program, commonly known as Small Starts. This requires the Rapid to request entry into the Small Starts Project Development program from the FTA. This can be done either during or following the completion of the NEPA process. The Rapid anticipates applying to enter Small Starts in time to be included in the President's FY 2017 budget; the deadline for this is expected to be in September 2015.

8.4 Project Development

Following the completion of the NEPA process, the Rapid will conduct final engineering and vehicle procurement during the Small Starts Project Development phase. The final design will be developed from the Preliminary Engineering completed for NEPA. The Project Development phase prepares the final plans, specifications and bid package for construction of the Rapid.

8.5 Expedited Grant Agreement/Construction

The Rapid will work with the FTA to develop an Expedited Grant Agreement, with the grant expected in the winter of 2016/2017. An Expedited Grant Agreement is the means by which the FTA provides funds for the capital costs of Small Starts projects. It will identify the maximum federal share and capital cost for the project.

Upon receipt of the Expedited Grant Agreement the Rapid will begin the construction of the Laker Line in approximately the late winter/early spring of 2017. Construction is anticipated to take two construction seasons, or approximately 18 months. Following construction the Laker Line would open for revenue service in 2018.

8.6 Project Funding

The funding for the Laker Line project will likely require a combination of federal and state funding. These funding sources will likely include FTA Small Starts funds and matching funds from the Michigan Department

of Transportation Comprehensive Transportation Fund (MDOT CTF). However, throughout the NEPA and Project Development phases the Rapid will continue to explore additional funding sources.



RAPID BOARD OF DIRECTORS RESOLUTION OF PROJECT APPROVAL

INTERURBAN TRANSIT PARTNERSHIP BOARD

RESOLUTION NO. 7

Fiscal Year 2015

Moved and supported to adopt the following resolution:

WHEREAS, the Interurban Transit Partnership (ITP) has successfully concluded the Laker Line Bus Rapid Transit (BRT) Advanced Conceptual Engineering (ACE) phase with a Locally Preferred Alternative (LPA) recommendation by the Laker Line Advisory & Policy Committees, and;

WHEREAS, the ITP has completed extensive public outreach and meetings with various community, business, and institutional stakeholders along the study corridor.

THEREFORE, BE IT RESOLVED, that the ITP Board hereby approves the Laker Line BRT LPA, that it be included in the Grand Valley Metro Council's (GVMC) long range transportation plan, and to submit a grant application to the Federal Transit Administration (FTA) for funding through the Capital Investment Program, Project Development for Small Starts.

CERTIFICATE

The undersigned, duly qualified and acting Secretary of the Interurban Transit Partnership Board, certifies that the foregoing is a true and correct copy of a resolution adopted at a legally convened meeting of the Interurban Transit Partnership Board.

Robin Crothers
Robin Crothers, Board Secretary

Dec. 17, 2014
Date



LETTERS OF PROJECT SUPPORT



City of Grand Rapids, Michigan

OFFICE OF THE MAYOR

GEORGE K. HEARTWELL
MAYOR

January 13, 2015

Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth, SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences building on Michigan Street.

As demonstrated by the *Laker Line Study*, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, serving a daily average of more than 12,000 riders per day when GVSU is in session. The City of Grand Rapids recognizes the value the Laker Line BRT will bring to the community while improving the quality of life for our residents and businesses along the corridor.

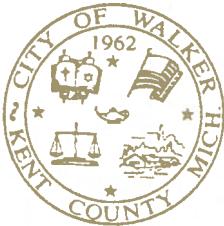
Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority, level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas BRT vehicles will reduce toxic emissions while enhancing the region's air quality.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of the City of Grand Rapids, I offer my support for The Rapid's application. Please contact me should you require additional assistance.

Sincerely,

George K. Heartwell



CITY of WALKER

4243 Remembrance Road, N.W.
Walker, Michigan 49544
(616) 453-6311

January 12, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

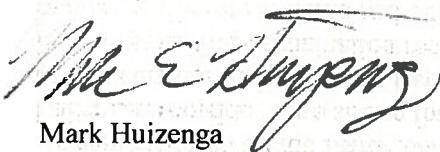
As demonstrated by the *Laker Line Study*, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, serving a daily average of more than 12,000 riders per day when GVSU is in session. Our organization recognizes the value the Laker Line BRT will bring to the community while improving the quality of life for residents and businesses in the corridor.

Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority (TSP), level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas (CNG) BRT vehicles will reduce toxic emissions while enhancing the region's air quality.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of the Walker City Commission, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,



Mark Huizenga

Mayor



County of Ottawa

Board of Commissioners

Joseph S. Baumann
Chairperson

Gregory J. DeJong
Vice-Chairperson

12220 Fillmore Street, Room 310, West Olive, Michigan 49460

West Olive (616) 738-4898

Fax (616) 738-4888

Grand Haven (616) 846-8295

Grand Rapids (616) 662-3100

Website: www.miOttawa.org

February 4, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

As demonstrated by the *Laker Line Study*, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, serving a daily average of more than 12,000 riders per day when GVSU is in session. Our organization recognizes the value the Laker Line BRT will bring to the community while improving the quality of life for residents and businesses in the corridor.

Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority (TSP), level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas (CNG) BRT vehicles will reduce toxic emissions while enhancing the region's air quality.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of Ottawa County, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,

Joseph S. Baumann
Chair, Ottawa County Board of Commissioners

January 28, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

3600 Camelot Drive SE Grand Rapids, MI 49546
(616) 949-1100 tel (616) 949-7865 fax
www.dakc.us

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga,

On behalf of Disability Advocates of Kent County, I would like to wholeheartedly support The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). As you know, Disability Advocates is the federally-recognized center for independent living for Kent County, as defined by the Rehabilitation Act of 1973 and its amendments. In our role, we work hard to achieve the vision of an accessible community for all where persons with disabilities can live full and exciting lives. We applaud The Rapid for its work day in and day out in support of that vision and greatly endorse the forward progress of the Laker Line BRT as another example of your commitment to this vision.

As demonstrated by the *Laker Line Study*, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, serving a daily average of more than 12,000 riders per day when Grand Valley State University is in session. Our organization recognizes the value the Laker Line BRT will bring to the community while improving the quality of life for residents, with and without disabilities, and businesses in the corridor.

Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority (TSP), level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas (CNG) BRT vehicles will reduce toxic emissions while enhancing the region's air quality. The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Finally, as the Silver Line stations demonstrate, we are very confident that the stations will be fully accessible to persons with all types of disabilities. Outstanding, reliable, first class public transit is essential for stimulating outstanding, reliable, and first-class places to live, work, and play.

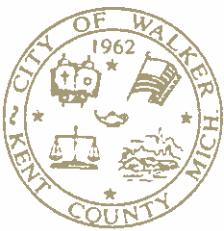
On behalf of Disability Advocates of Kent County, I offer our support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me should you have any questions about this letter of support or Disability Advocates.

Sincerely;



Dave Bulkowski
Executive Director





CITY of WALKER

4243 Remembrance Road, N.W.
Walker, Michigan 49544
(616) 453-6311

January 20, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

Please accept this letter as an expression of our support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

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The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of the Walker/Standale Downtown Development Authority, we support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,

A handwritten signature in black ink that reads "Doug Cramer".

Mr. Doug Cramer, Chairman
Walker/Standale DDA



January 13, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

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The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of Downtown Grand Rapids, Inc., I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,

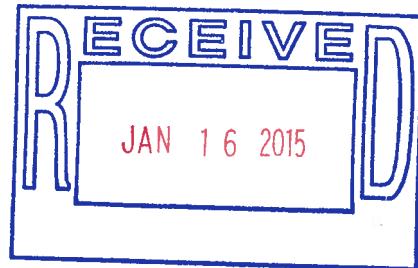
Kristopher Larson, AICP

President & CEO



January 13, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005



Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

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The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of the Grand Rapids Area Chamber of Commerce, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Baker".

Rick Baker, President/CEO



GRAND VALLEY STATE UNIVERSITY

January 13, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

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The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of Grand Valley State University, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Very respectfully,

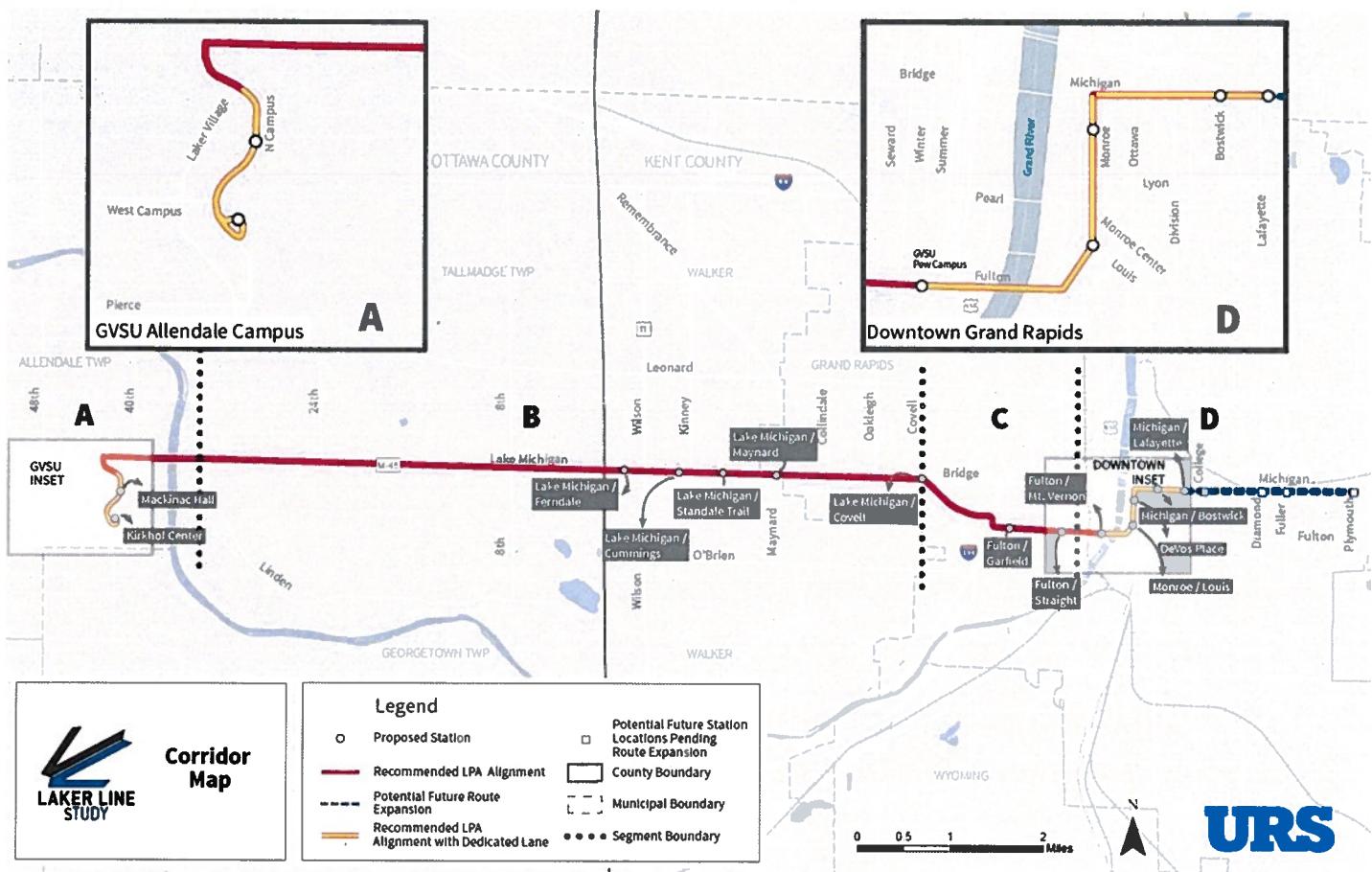
A handwritten signature in blue ink that reads "Thomas J. Haas".

Thomas J. Haas
President

Thomas J. Haas
President

LAKER LINE BUS RAPID TRANSIT (BRT) ALIGNMENT DESCRIPTION

- **Segments A and B:** The Laker Line will operate on a priority bus lane between Kirkhof Center and Ravine Center Drive on the GVSU Allendale Campus before operating in mixed traffic with Transit Signal Priority (TSP) technology along Lake Michigan Drive through Walker and Standale. TSP will extend green signals and shorten red signals as a Laker Line bus approaches an intersection, which supports service reliability and schedule adherence.
- **Segment C:** East of I-196, the Laker Line will continue mixed traffic operations along Fulton Street into downtown Grand Rapids.
- **Segment D:** The Laker Line will operate in a dedicated side-running transit lane between GVSU's Pew and CHS campuses, crossing the Grand River on the Fulton Street Bridge before turning north on Monroe Avenue and east on Michigan Street and terminating at the GVSU CHS campus at the intersection of Lafayette Avenue. The Laker Line will share the Silver Line's existing dedicated lanes during peak hours along Monroe Avenue.
- **Future Extension:** The Laker Line proposed alignment terminates at GVSU's CHS campus, however, as development patterns and employment densities intensify eastward along Michigan Street, expansion of the Laker Line to Plymouth Avenue may be explored in future project phases.





BOARD CHAIR
Dan Koorndyk

BOARD VICE CHAIR
Jim Saalfeld

BOARD MINORITY VICE CHAIR
Carol Hennessy

COMMITTEE CHAIRS

Finance:
Jim Saalfeld

Legislative:
Shana Shroll

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Tom Antor
Mandy Bolter
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Candace Chivis
Diane Jones
Matt Kallman
Harold Mast
Roger Morgan
Stan Ponstein
Stan Stek
Jim Talen
Dick Vander Molen
Ted Vonk
Harold Voorhees

January 14, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

BOARD OF COUNTY COMMISSIONERS

300 Monroe Avenue N.W.
Grand Rapids, Michigan 49503
Administrative Office (616) 632-7580
Fax (616) 632-7585
www.accessKent.com

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

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Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority (TSP), level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas (CNG) BRT vehicles will reduce toxic emissions while enhancing the region's air quality.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of the Kent County Board of Commissioners, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,

A handwritten signature in black ink that reads "Dan Koorndyk".

Dan Koorndyk,

Chair, Board of Commissioners



955 Wealthy St. SE
Grand Rapids, MI 49506
616.808.3788
localfirst.com

Local First Board

Mary O'Neill
Chair
Atomic Object

Emily Loeks
Vice Chair
Celebration! Cinema

Jeff Koeze
Treasurer
Koeze Company

Katey Romence
Romence Gardens
& Greenhouses

Monica Steinle
616 Development

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VanDuren Irving
West Insurance

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Vice Chair
Celebration! Cinema

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Koeze Company

Kerry Olvera
Supermercado Mexico

Craig Clark
Clark Communications

Mike Chase
Eikenhout, Inc.

Founder Emeritus

Guy Bazzani
Bazzani Associates

Executive Director

Elissa S. Hillary

January 16, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

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Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority (TSP), level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas (CNG) BRT vehicles will reduce toxic emissions while enhancing the region's air quality.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of Local First, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,

Elissa S. Hillary
Executive Director
Local First



January 19, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

**Re: Locally Preferred Alternative (LPA) and Small Starts
Project Development for the Laker Line Study**

Dear Mr. Varga:

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

As demonstrated by the Laker Line Study, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, serving a daily average of more than 12,000 riders per day when GVSU is in session. Our organization recognizes the value the Laker Line BRT will bring to the community while improving the quality of life for residents and businesses in the corridor.

Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority (TSP), level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas (CNG) BRT vehicles will reduce toxic emissions while enhancing the region's air quality.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of Meijer, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,

Mark Murray
Co-CEO



STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

RICK SNYDER
GOVERNOR

KIRK T. STEUDLE
DIRECTOR

February 12, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth Avenue SW
Grand Rapids, Michigan 49503

Dear Mr. Varga:

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transportation Administration (FTA) Small Starts Program for the Laker Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU's) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

As demonstrated by the Laker Line Study, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, servicing a daily average of more than 12,000 riders when GVSU is in session. The Michigan Department of Transportation (MDOT) recognizes the value the Laker Line BRT will bring to the community, providing travel options, while improving the quality of life for residents and businesses in the corridor.

As presented in The Rapid's project analysis to date, investment in BRT could increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority, level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas BRT vehicles will reduce toxic emissions while enhancing the region's air quality.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first-class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of MDOT, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please continue to maintain close communications with MDOT's Grand Region Engineer, Roger Safford (saffordr@michigan.gov), and the Office of Passenger Transportation Administrator, Sharon Edgar (edgars@michigan.gov), as the project continues to unfold.

Mr. Peter Varga
Page 2
February 12, 2015

If you have any further questions, please contact either me or Sharon L. Edgar, Administrator, Office of Passenger Transportation, at (517) 373-0471.

Sincerely,



Kirk T. Steudle
Director

January 21, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

**Re: Locally Preferred Alternative (LPA) and Small Starts Project Development
for the *Laker Line Study***

Dear Mr. Varga,

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

Michigan State University College of Human Medicine (MSU) expanded from its East Lansing campus to Grand Rapids in 2010 and the headquarters of the medical school is now located at the Secchia Center on Michigan Street as a part of the medical mile. We currently have 380 medical school students and over 120 faculty and staff located in the Secchia Center, including the area hospitals and the Van Andel Research Facility in that vicinity. Later this year, we hope to break ground for a new research facility which will be located at the corner of Michigan and Monroe (on the proposed route for the Laker Line). The research facility will house around 260 researchers, graduate students, and research staff and is proposed to open in 2018.



College of
Human Medicine

Office of the Dean

Secchia Center
15 Michigan Street NE
Grand Rapids MI 49503

616-233-1678
Fax: 616-234-2625
www.chm.msu.edu

As demonstrated by the *Laker Line Study*, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, serving a daily average of more than 12,000 riders per day when GVSU is in session. Our organization recognizes the value the Laker Line BRT will bring to the community while improving the quality of life for residents and businesses in the corridor.

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The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of Michigan State University, College of Human Medicine, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process.

Please contact me or my staff should you require additional assistance.

Sincerely,



Marsha D. Rappleby, MD
Dean



January 14, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth, SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the Laker Line Study

Dear Mr. Varga,

The Right Place, Inc. is a regional economic development organization whose leadership extends into 13 West Michigan counties. Our 3 year strategic plan calls for the development of infrastructure as an essential element for the success of economic development in this region. We view the operation of The Rapid, and its expansion incorporating The Laker Line as infrastructure necessary for the development and redevelopment of hundreds of properties along the LPA. Building more road lane capacity to move more vehicle traffic or to increase employee mobility is not a reasonable or affordable option. The Laker Line will connect Grand Valley State University's downtown campuses with the main Allendale campus some 15 miles to the west, with at least 12,000 riders every day travelling the Rapid's transit services campus connections.

We endorse the LPA and will support your efforts to secure further project implementation funding through the federal Small Starts Program. The Laker Line BRT will foster new in-fill development and be important for attracting new employees who will work both at the University and the many private companies along the LPA corridor.

If you need any further assistance, please feel free to contact me.

Sincerely,

Birgit M. Klohs
President & CEO



February 3, 2015

Spectrum Health System
100 Michigan Street NE
Grand Rapids, MI 49503-2560

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga,

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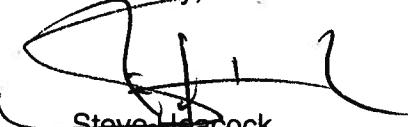
As demonstrated by the *Laker Line Study*, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, serving a daily average of more than 12,000 riders per day when GVSU is in session. Our organization recognizes the value the Laker Line BRT will bring to the community while improving the quality of life for residents and businesses in the corridor.

Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority (TSP), level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas (CNG) BRT vehicles will reduce toxic emissions while enhancing the region's air quality.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of Spectrum Health I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,


Steve Heacock
Senior Vice President, Public Affairs/Research

January 22, 2015

Mr. Peter Varga, CEO

Interurban Transit Authority (The Rapid)

300 Ellsworth SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

Please accept this letter as an expression of our support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus through downtown Grand Rapids to GVSU's Cook-DeVos Center of Health Sciences (CHS) building on Michigan Street.

As demonstrated by the *Laker Line Study*, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, serving a daily average of more than 12,000 riders per day when GVSU is in session. Our neighborhood collaborative recognizes the value the Laker Line BRT will bring to the community while improving the quality of life for residents and businesses in the corridor.

Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority (TSP), level boarding, and off-board fare payment.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of The Westown Collaborative, I offer our support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,

Andrew Sisson

West Fulton Business Association

February 12, 2015

Mr. Peter Varga, CEO
Interurban Transit Authority (The Rapid)
300 Ellsworth SW
Grand Rapids, MI 49503-4005

Re: Locally Preferred Alternative (LPA) and Small Starts Project Development for the *Laker Line Study*

Dear Mr. Varga:

Please accept this letter as an expression of my support for The Rapid's application to enter the Federal Transit Administration (FTA) Small Starts Program for the Laker Line Bus Rapid Transit (BRT). The Laker Line alignment is proposed from Grand Valley State University's (GVSU) Allendale campus traveling down our business corridor on Fulton Street, north on Monroe to GVSU's Cook-DeVos Center for Health Sciences on Michigan Street.

As demonstrated by the *Laker Line Study*, the proposed alternative will provide numerous benefits to the community. The Laker Line corridor has a strong foundation of population, employment, and activities. It also has the highest transit ridership of any corridor in the six-city Rapid service area, serving a daily average of more than 12,000 riders per day when GVSU is in session. Our organization recognizes the value the Laker Line BRT will bring to the community while improving the quality of life for residents and businesses in the corridor.

Investment in BRT would increase capacity and efficiency along the corridor. Larger, articulated buses can seat up to 60 passengers comfortably, and BRT travel times are faster and more reliable by utilizing technologies including transit signal priority (TSP), level boarding, and off-board fare payment. Furthermore, the use of compressed natural gas (CNG) BRT vehicles will reduce toxic emissions while enhancing the region's air quality.

The robust BRT stations will be designed to fit within the context of the surrounding location while encouraging nearby redevelopment opportunities. Excellent, reliable, first class public transit is essential for stimulating excellent, reliable, and first-class places to live, work, and play.

On behalf of West Fulton Business Association, I offer my support for The Rapid's application to enter the Laker Line BRT project into the FTA's Small Starts Project Development Program and the environmental review process. Please contact me or my staff should you require additional assistance.

Sincerely,



Lisa Haynes
President
West Fulton Business Association