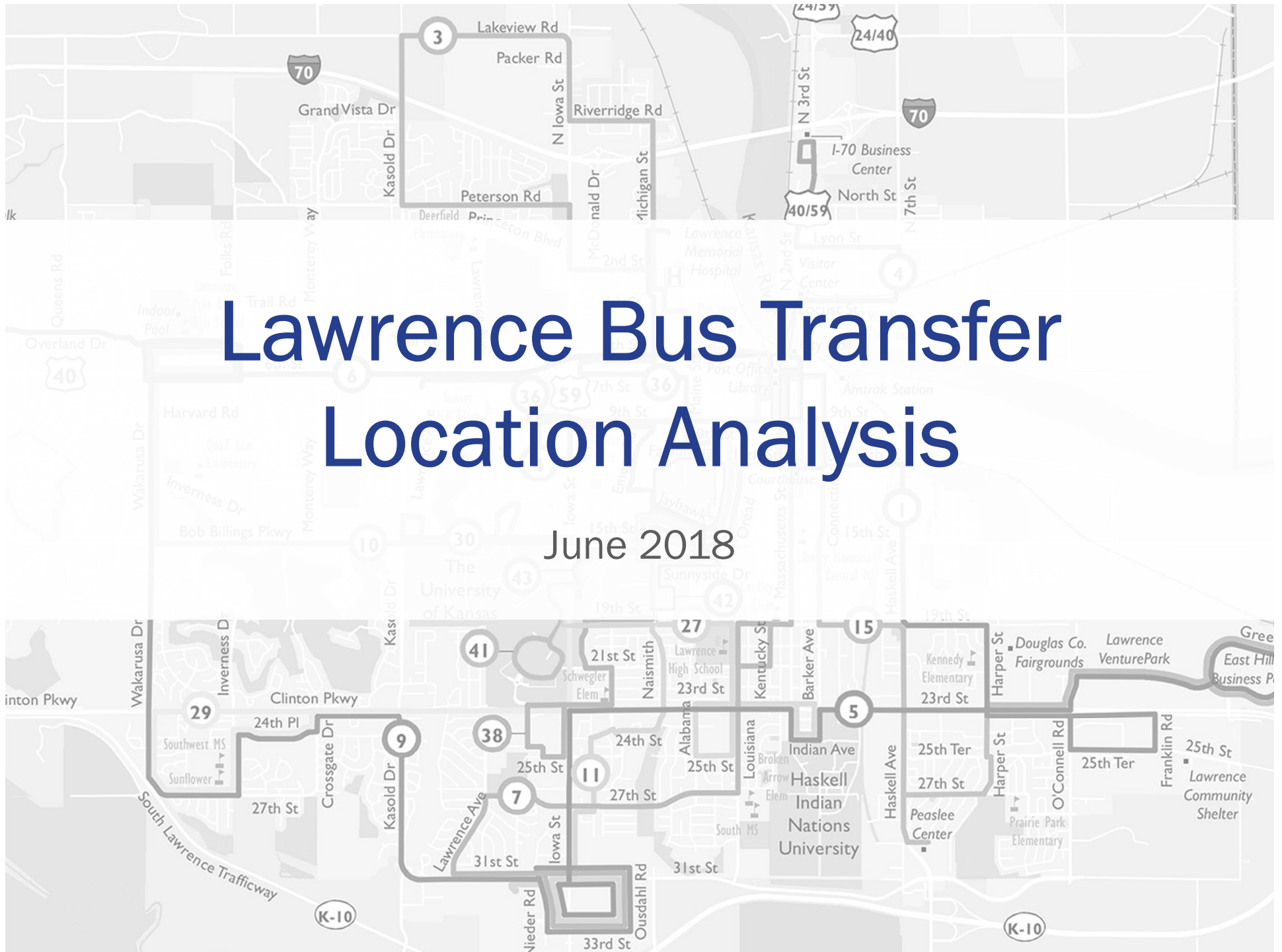


Lawrence Bus Transfer Location Analysis

June 2018



Study Team

Sarah Frost – Project Manager



Lisa Koch – Public Involvement



Mark Swope – Transit Planning

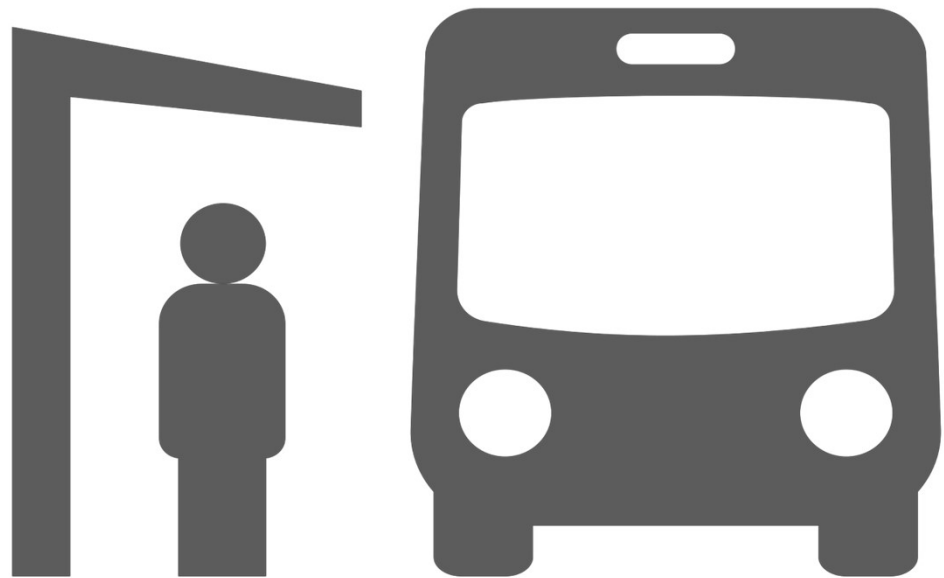


Study Purpose

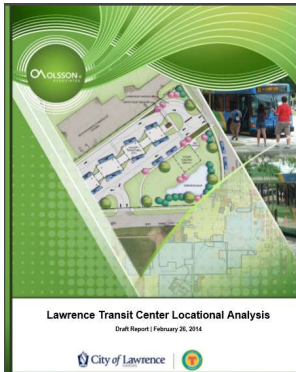
Lawrence Transit conducted an analysis to identify location(s) where **bus transfers** can be made to allow the transit system to operate more **efficiently and effectively**.

A bus transfer location allows riders to make easy connections between routes.

Convenient connections between routes makes the entire system more accessible and efficient.



Previous Planning Efforts



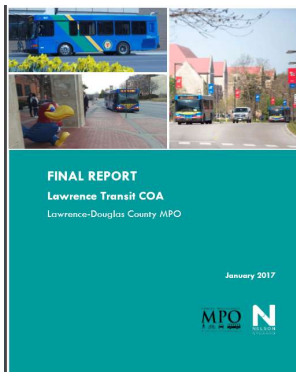
Lawrence Transit Center Location Analysis, 2014

- Spatial analysis using Geographic Information Systems (GIS)
- Demographics
- Transit-related parameters
- Two sites evaluated in detail
- Most feasible was 2021 Stewart Avenue
- Neighborhood traffic and mitigation efforts



2016 TIGER Application

- Result of funding opportunity
- Focused on Lot 90 on the University of Kansas Campus
- Multimodal
- Neighborhood traffic and environmental efforts
- No funding awarded



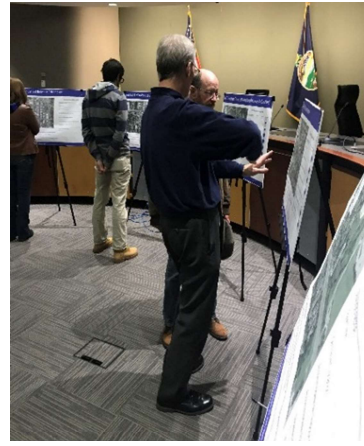
Comprehensive Transit Operations Analysis, 2016

- Identify the strengths and weaknesses of the existing system
- Operating data and information

Public Input



Public Meeting #1
August

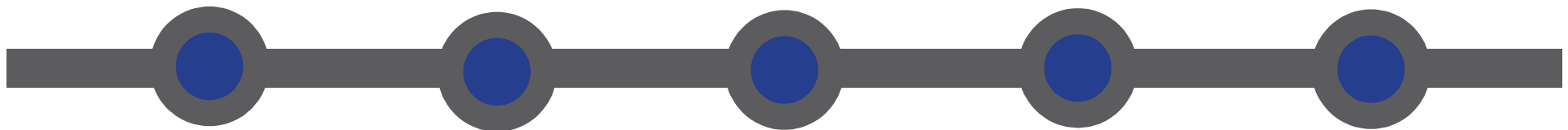


Lawrence Listens Survey #2
October



Public Meeting #2
November

Lawrence Listens Survey #3
November



Community Goal Setting

Refining Goals and Selection Criteria

Reviewing Selected Locations

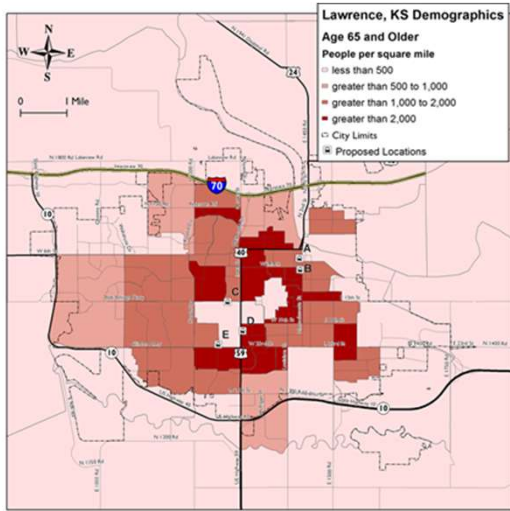
Stakeholder Input

- One-on-One Commissioner Meetings
- Lawrence School District
- Private Property Owners
- University of Kansas Endowment
- KU Design and Construction Management
- KU Site Council

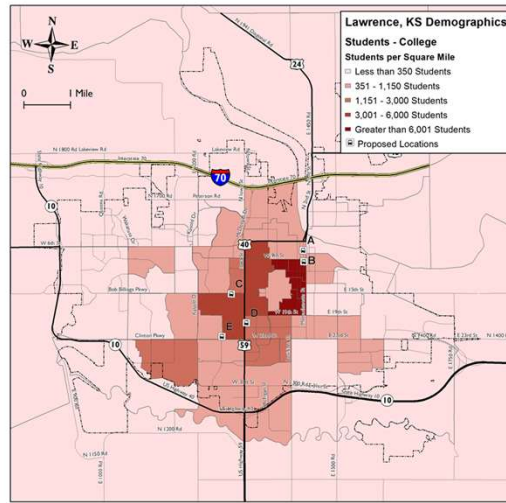
Site Goals and Characteristics

- Travel Time
- Centralized Location
- Indoor Facility
- Fleet Operations
- Outside of Residential Neighborhoods
- Acquisition Costs
- Ease of Constructability

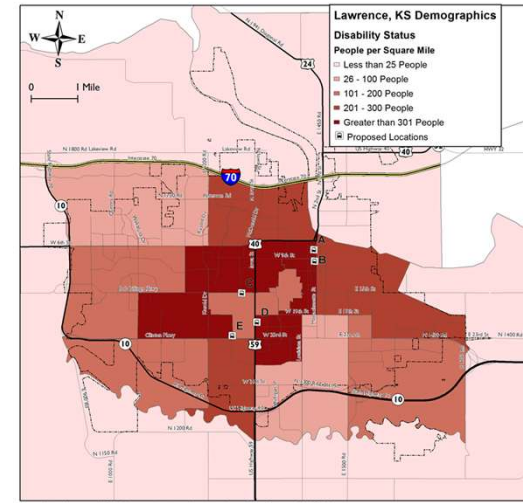
Demographic Analysis



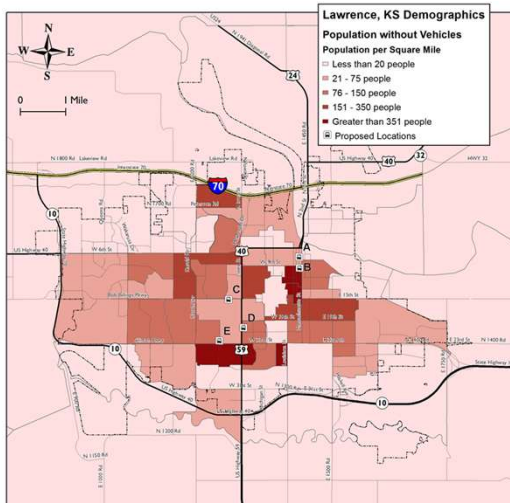
Source: City of Lawrence, KS GIS, Census.gov American Community Survey 5-Year Estimates, 2011-2015



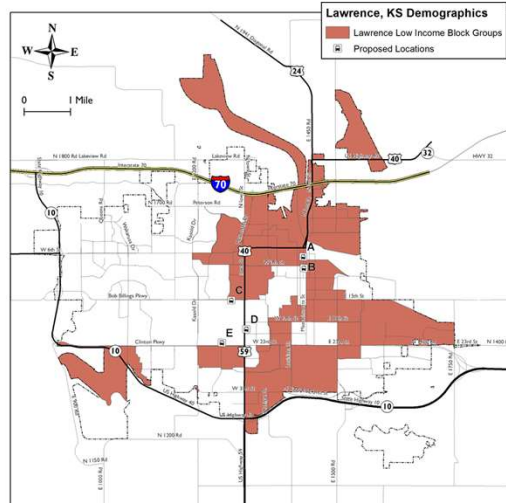
Source: City of Lawrence, KS GIS, Census.gov American Community Survey 5-Year Estimates, 2011-2015



Source: City of Lawrence, KS GIS, Census.gov American Community Survey 5-Year Estimates, 2011-2015



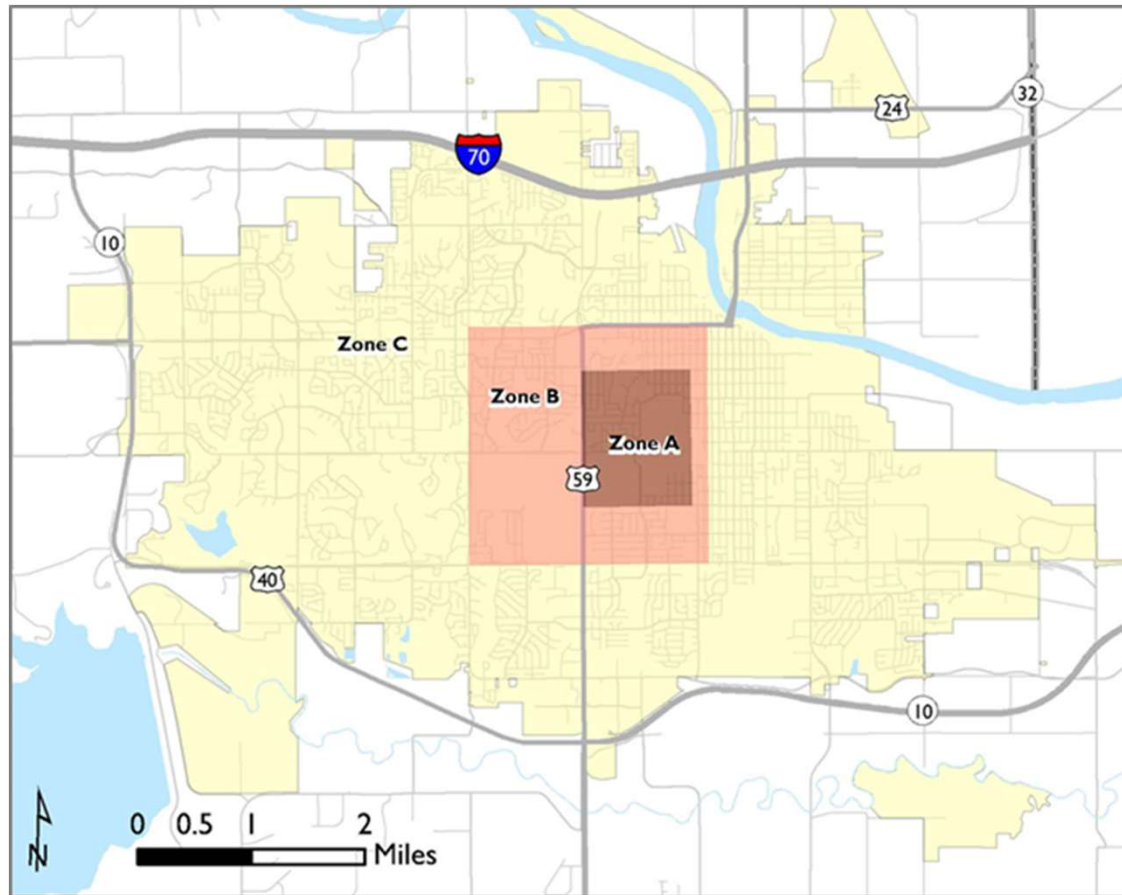
Source: City of Lawrence, KS GIS, Census.gov American Community Survey 5-Year Estimates, 2011-2015



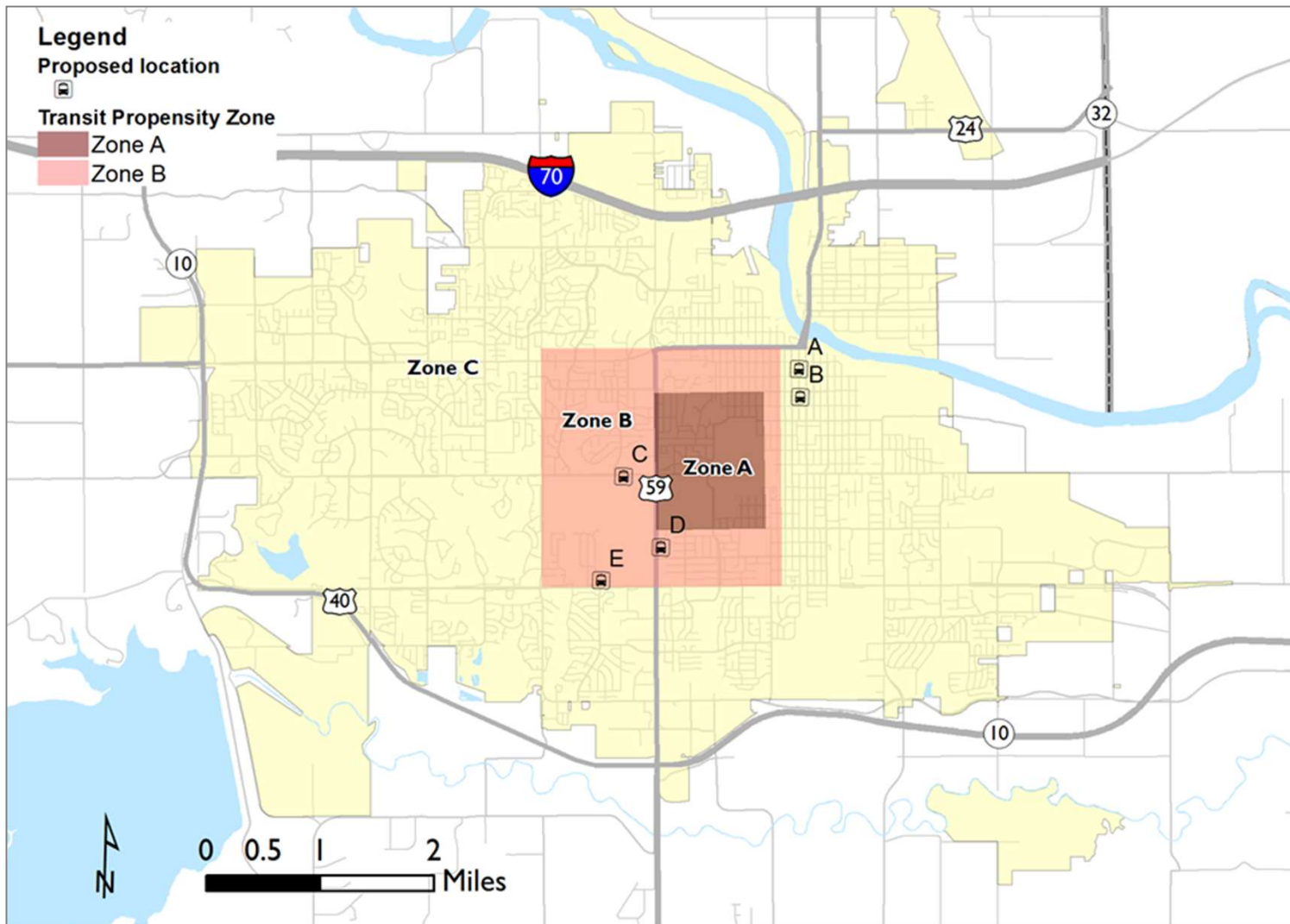
Source: City of Lawrence, KS GIS, Census.gov American Community Survey 5-Year 2004-2010 Low and Moderate Income Summary Data, US Department of Housing and Urban Development

Common transit-dependent populations are generally clustered in the core of the community.

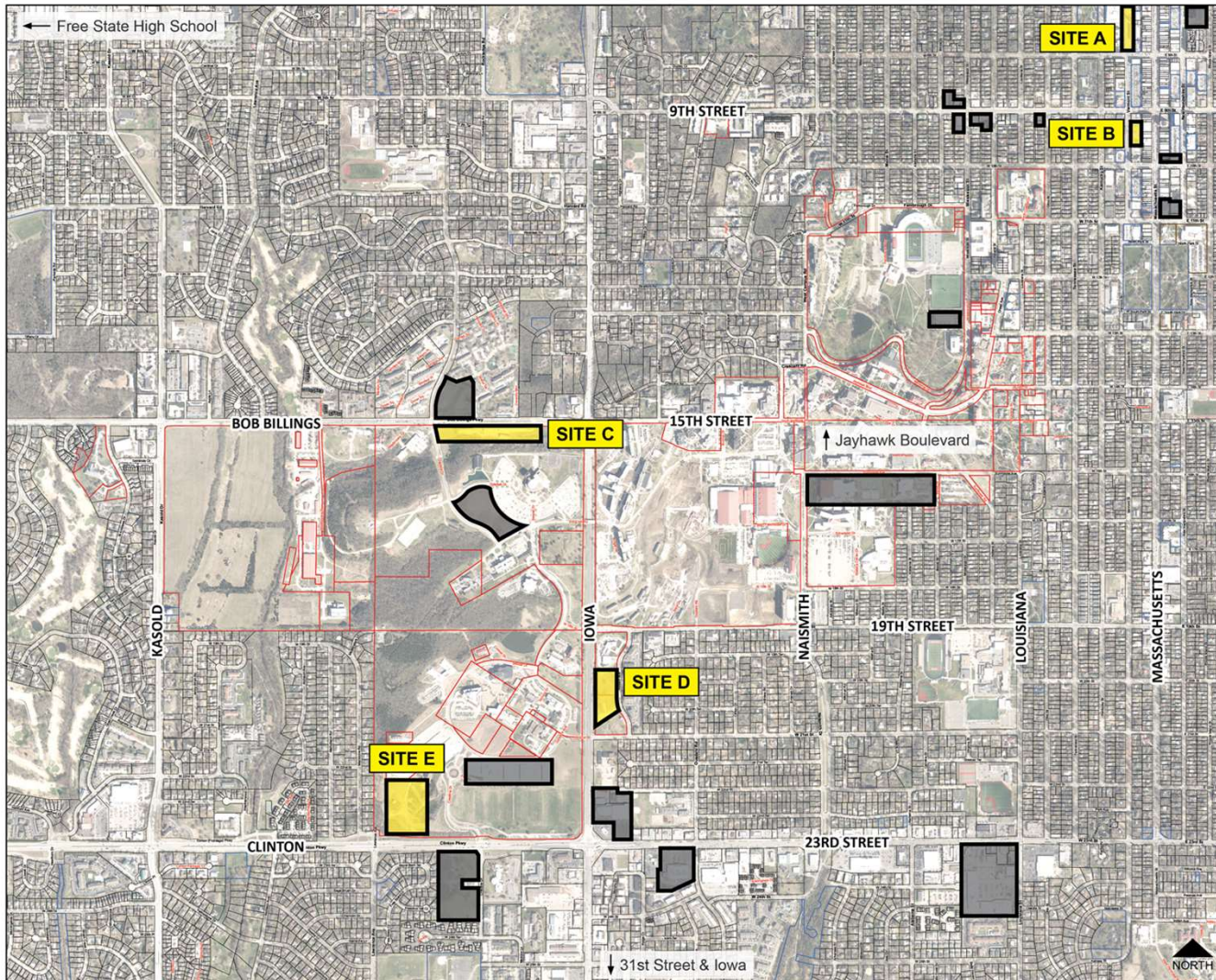
Transit Propensity Zone



Transit Propensity Zone



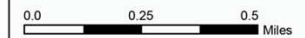
Identifying Candidate Sites



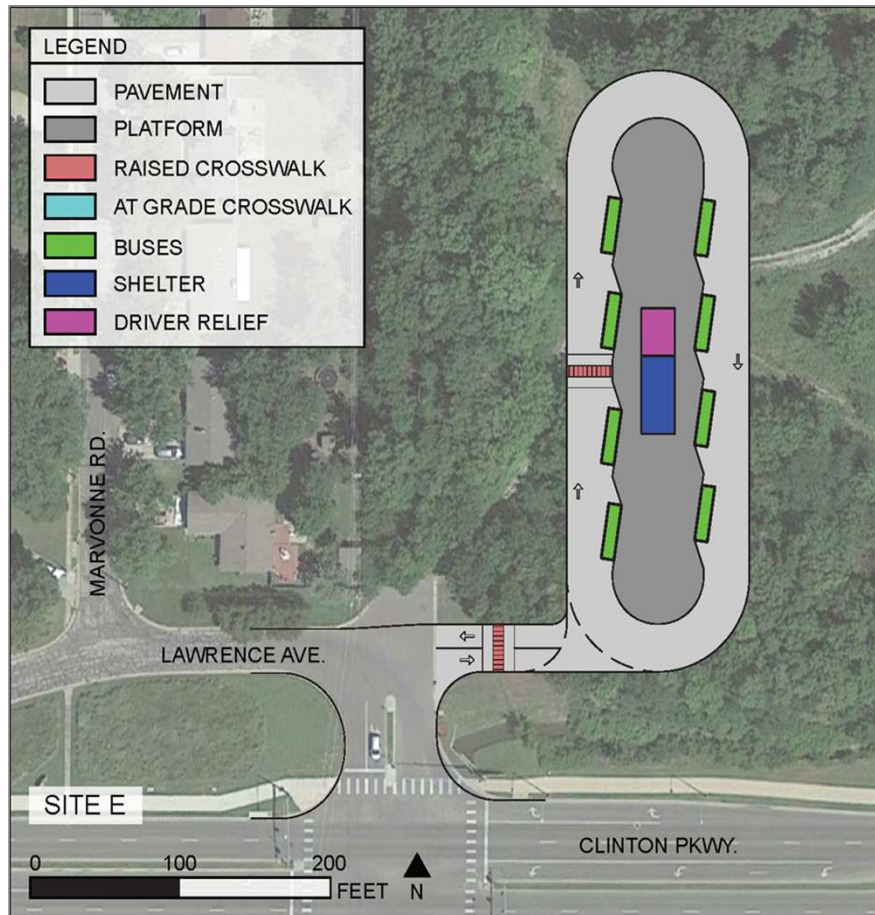
Bus Transfer Location Analysis Lawrence, Kansas

- Site A**
Vermont Street between
7th Street and 8th Street
- Site B**
Lot 5 on Vermont Street between
9th Street and 10th Street
- Site C**
Southeast corner of Bob Billings
Parkway and Crestline Drive
- Site D**
1941 Stewart Avenue between
19th Street and 20th Street
- Site E**
Northeast corner of Clinton Parkway
and Lawrence Avenue

- Potential Site
- Potential Other Sites Reviewed
- University of Kansas
- City of Lawrence
- Douglas County
- Other Parcel

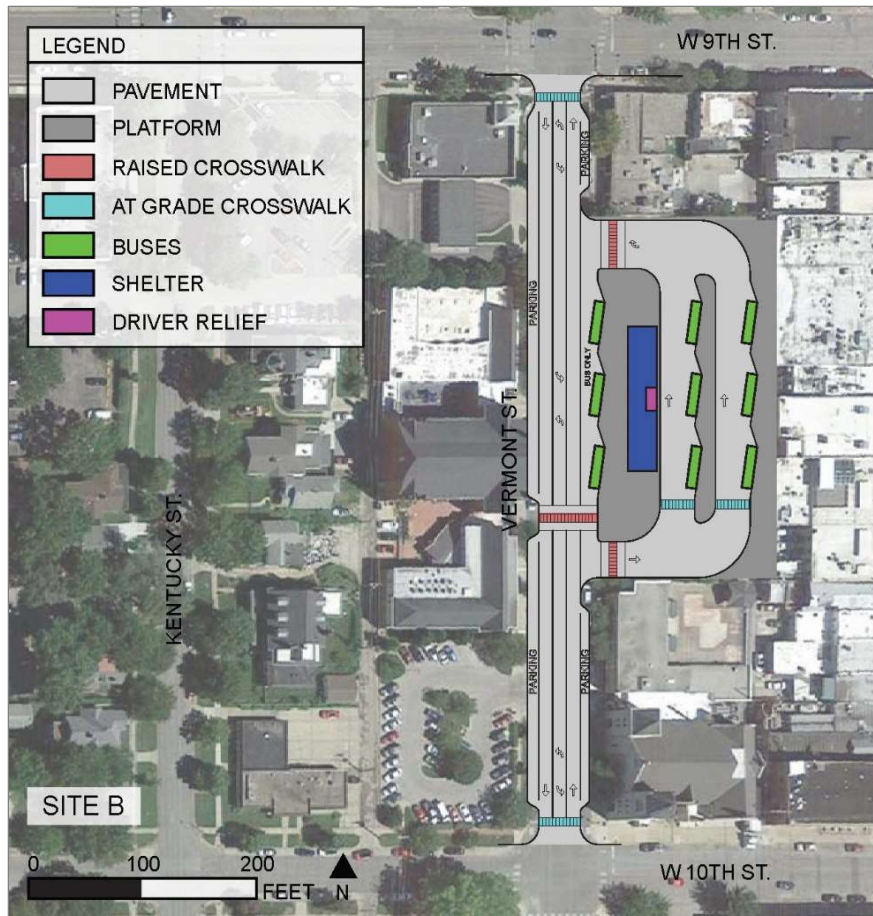


Northeast Corner of Clinton Parkway and Lawrence Avenue



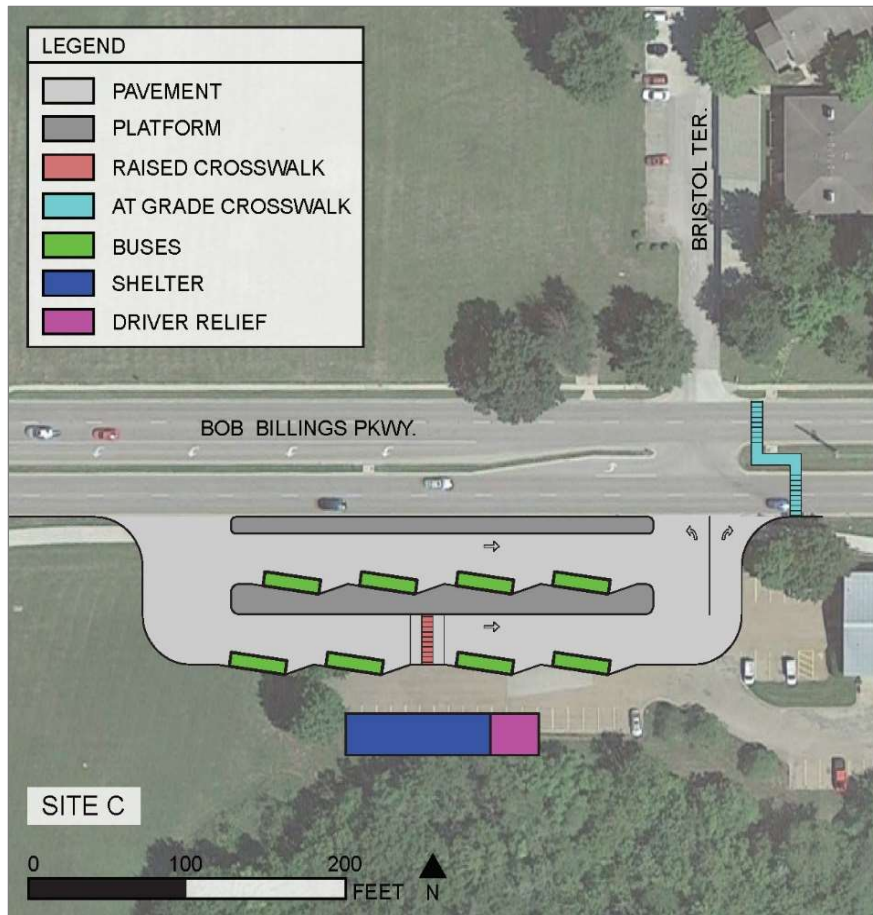
- Not centrally located to areas in the city such as University of Kansas.
- Could moderately reduce travel times for some transit users.
- Could accommodate an indoor facility.
- Provide enough room for bus access and maneuverability.
- Currently owned by the KU Endowment Association.
- Site is heavily wooded and would require substantial clearing, grubbing and grading.
- Located adjacent to a stream and low area that are classified as Waters of the U.S. per the Corps of Engineers.
- During this study, this site was presented with official opposition from the Marvonne Meadows Neighborhood in December 2017 due to its location adjacent to this residential area.

Lot 5 on Vermont Street between 9th Street and 10th Street



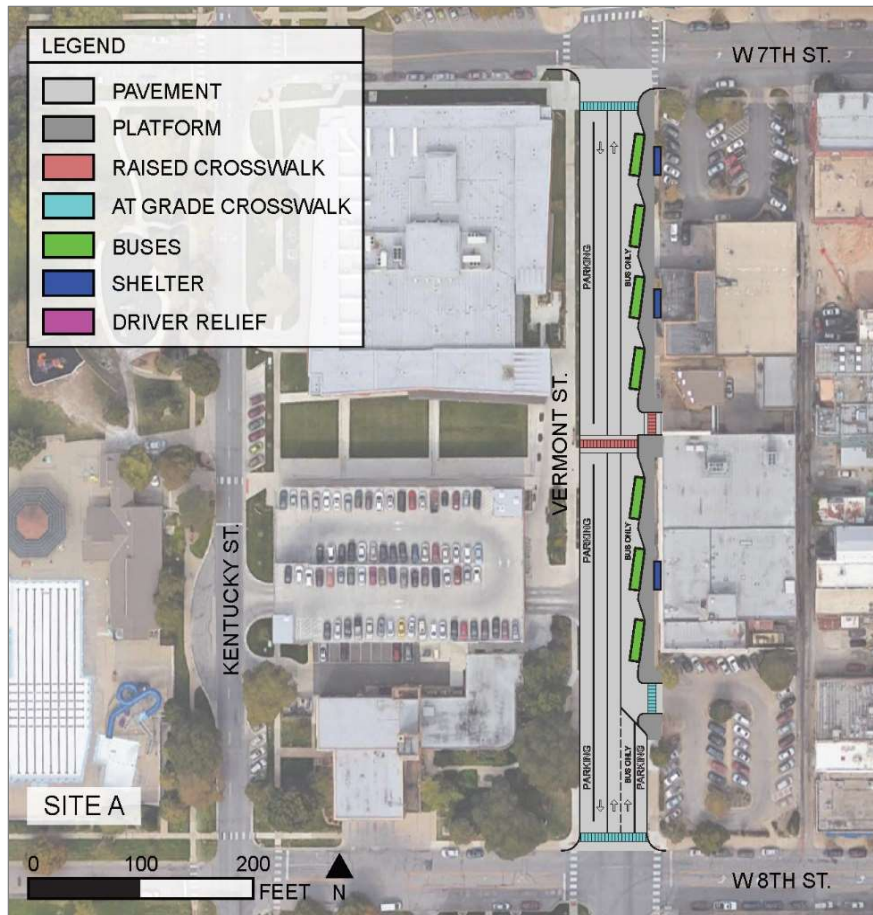
- Maintains current travel times.
- Not centrally located to areas in the city such as the University of Kansas.
- If modified, it could accommodate an indoor facility.
- Maneuverability within the site and ingress/egress would be challenging.
- Located outside of primarily residential neighborhoods.
- The city currently owns the property.
- Possibility of developing this location as a multi-use site through a potential public-private partnership.
- Construction costs would be high.

Southeast Corner of Bob Billings Parkway and Crestline Drive



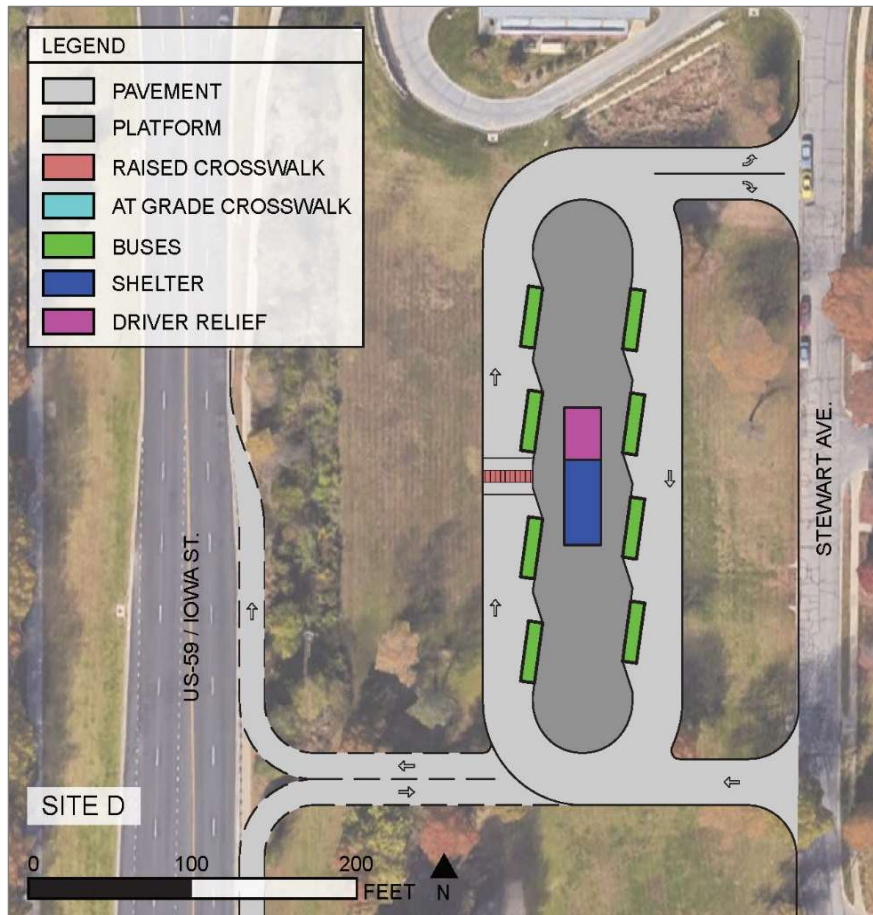
- Somewhat central in relation to the major activity centers in the city such as the University of Kansas.
- Could potentially reduce travel time over the current location.
- The site can easily accommodate an indoor facility.
- Adequate access and maneuvering of fleet vehicles. However, ingress/egress traffic patterns would need to be further evaluated.
- Located primarily outside of residential areas.
- The site is owned by the University of Kansas.
- The University prefers developing this site as part of a gateway to west campus.

Vermont Street between 7th Street and 8th Street



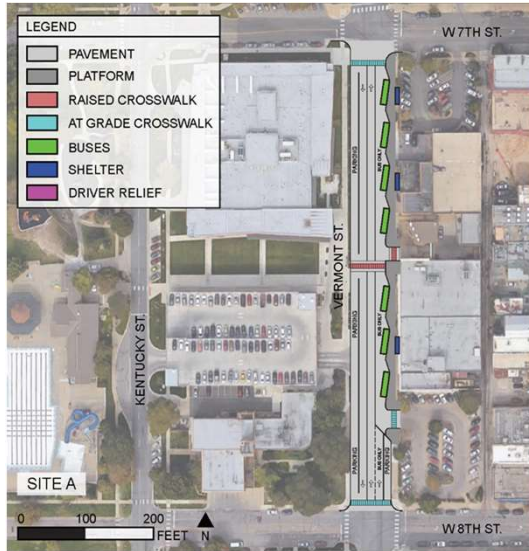
- Maintains current travel times.
- Not centrally located to areas in the city such as the University of Kansas.
- Cannot accommodate an indoor facility with its current configuration.
- Could accommodate canopies for waiting transit users.
- Single-file along the curb for the length of the block, causing potential challenges for buses entering or exiting adjacent to occupied spots.
- Saw-tooth arrangement will allow for buses to enter and exit bays.
- May not accommodate future growth which could potentially require the acquisition of the adjacent parking lot in order to provide adequate space.
- Located outside of residential neighborhoods.
- The property is currently owned by the City of Lawrence.
- Pedestrian safety is a concern.

1941 Stewart Avenue between 19th Street and 20th Street

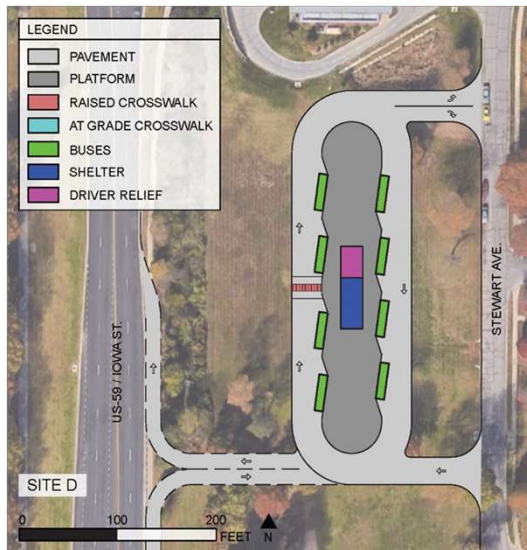


- Strongly supported by the University of Kansas.
- Of the five candidate sites, it is the most centrally located.
- Likely reduce travel time over the current transfer location.
- Four acres site could adequately accommodate an indoor facility.
- Accommodates bus movements on site.
- Additional traffic analysis should be considered in order to understand the full traffic impacts the facility poses to existing streets and neighboring land uses.
- Located in a residential area, but design factors such as right-in/right-out access off of Iowa Street have been considered that could potentially reduce traffic impacts.
- Currently owned by the KU Endowment Association.
- Construction impacts would include grading of the site.

Further Evaluation



Vermont Street between
7th Street and 8th Street



1941 Stewart Avenue between
19th Street and 20th Street