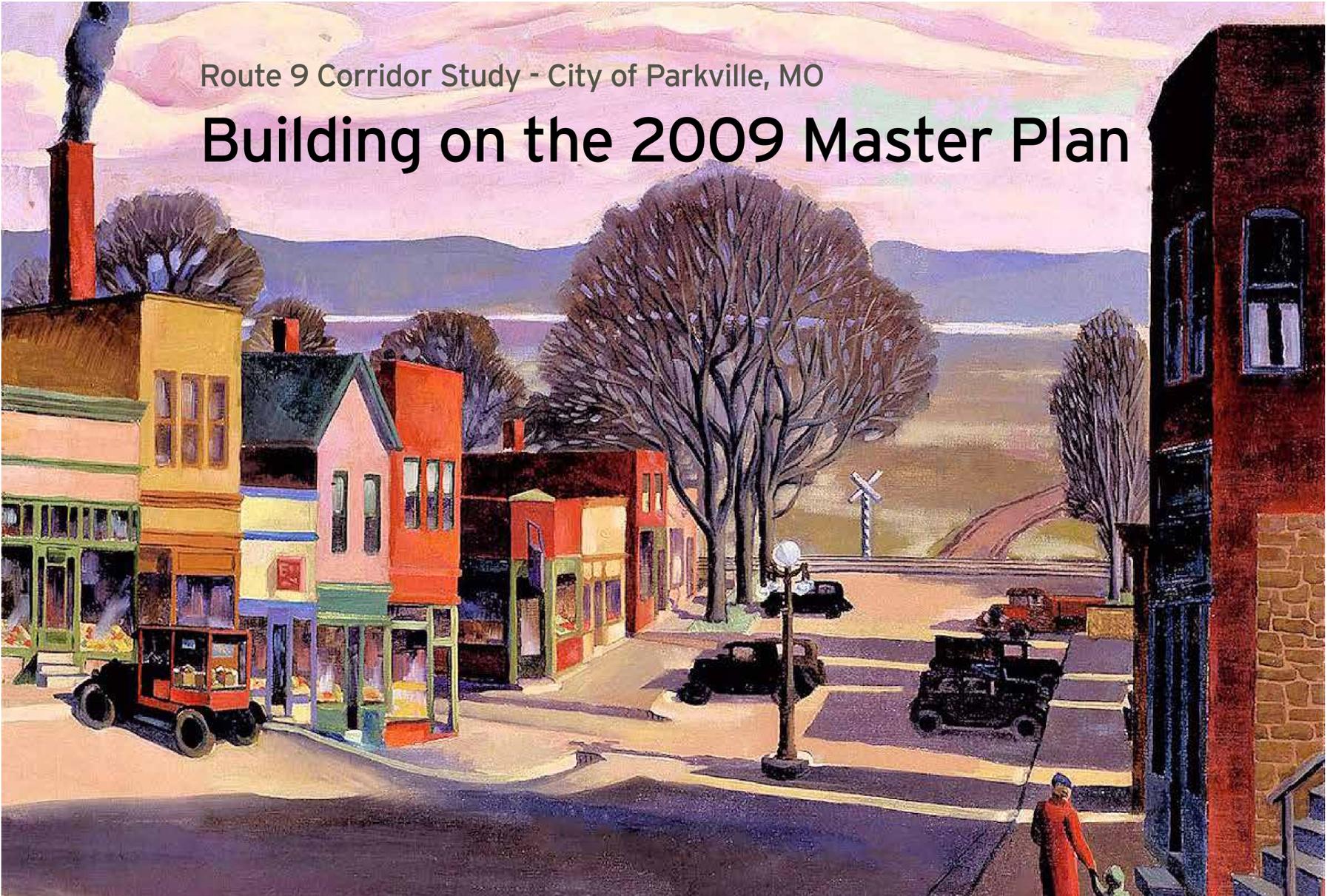


Building on the 2009 Master Plan

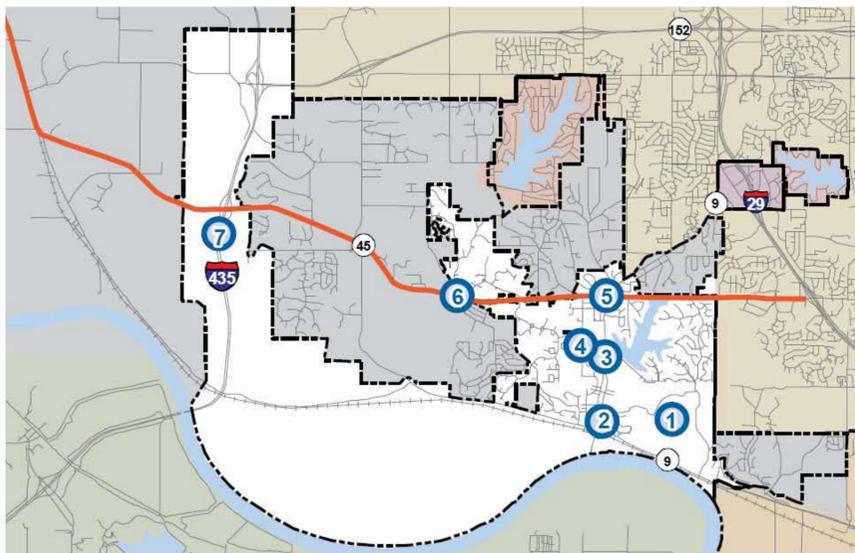


The 2009 Parkville Master Plan set the stage for improvements to Route 9, identifying focus areas for investment, outlining connectivity improvements for all modes of transportation, and recommending detailed analysis for Downtown, Route 9, and other strategic areas.

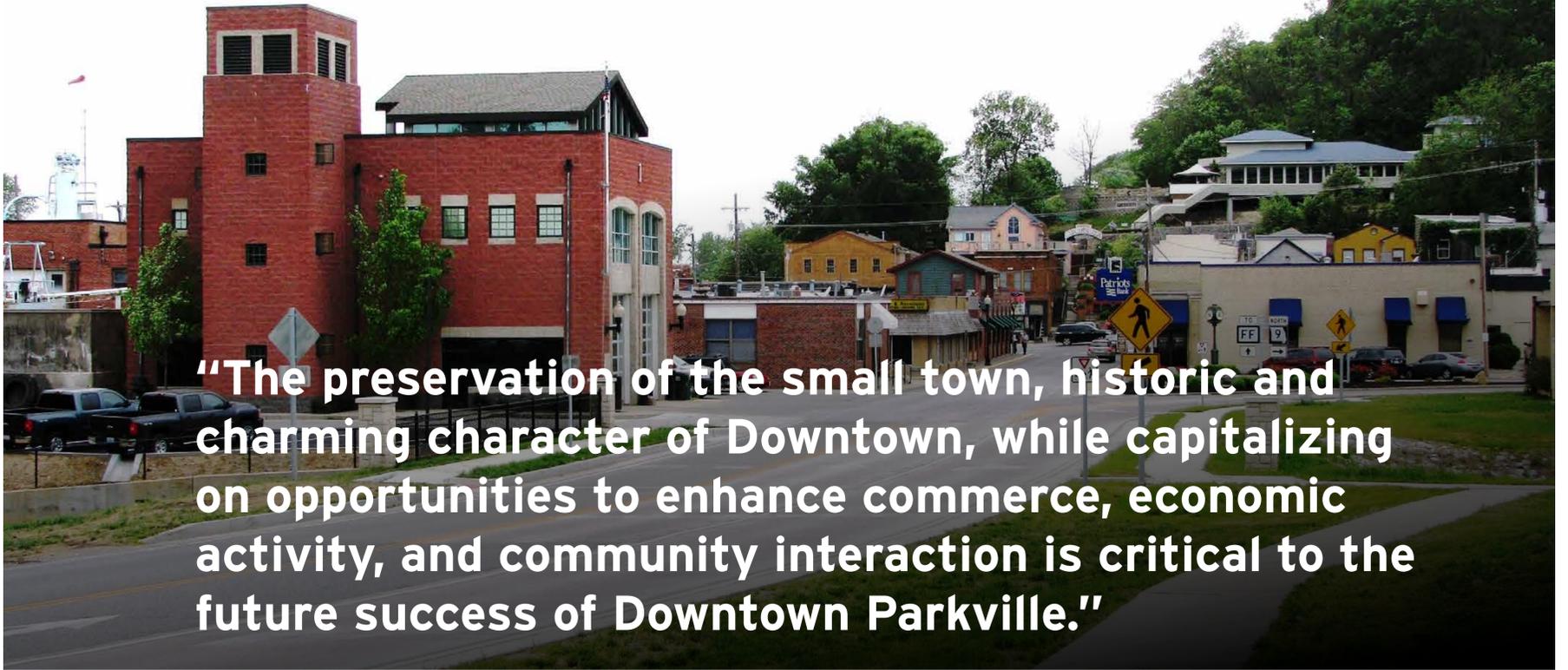
Key Recommendations

- Promote a built environment through building form, scale, placement and architectural design to provide a sense of place and reinforce the street as civic space.
- Provide a well-designed and interconnected mix of vibrant neighborhoods, parks and green space, schools and civic institutions, businesses and employment centers.
- Enhance the character downtown through its built environment, pedestrian realm, streetscape, entrance gateways and intimate civic spaces.
- Strengthen the connectivity and relationship between downtown and surrounding neighborhoods, educational institutions and riverfront park spaces.
- Promote strategic residential development creating a critical mass for downtown businesses.
- Promote strategic reinvestment.
- Provide a balanced interconnected street network that provides connectivity between neighborhoods, provides multiple travel routes, reduces the number and length of automobile trips and conserves energy through fewer and shorter automobile trips.
- Provide alternative context-sensitive street design standards that respect local topography, minimize the amount of impervious surfaces, conserve open space and protect natural features and water quality.
- Provide convenient access to a framework of transportation alternatives, including pedestrian and bicycle systems, public transit and multi-modal transportation options that reduce dependence upon the automobile.

Development / Reinvestment Nodes



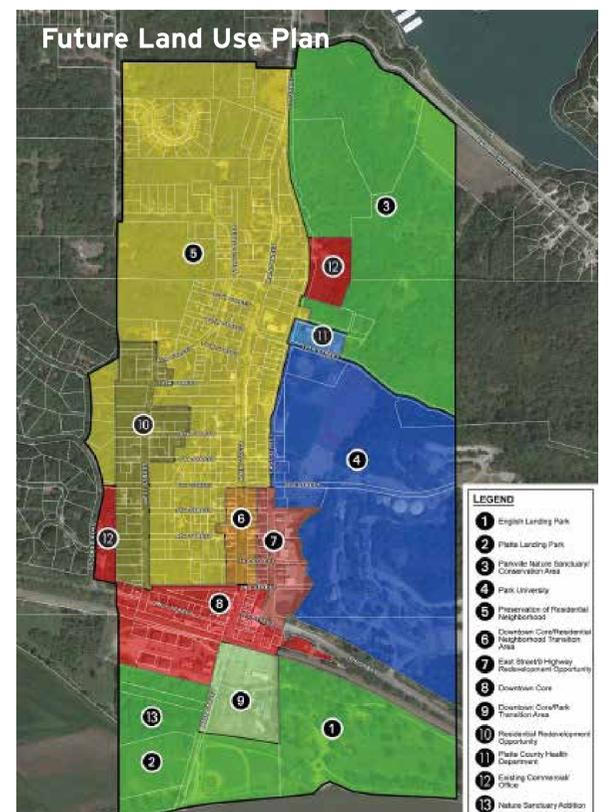
Vision Downtown Parkville



"The preservation of the small town, historic and charming character of Downtown, while capitalizing on opportunities to enhance commerce, economic activity, and community interaction is critical to the future success of Downtown Parkville."

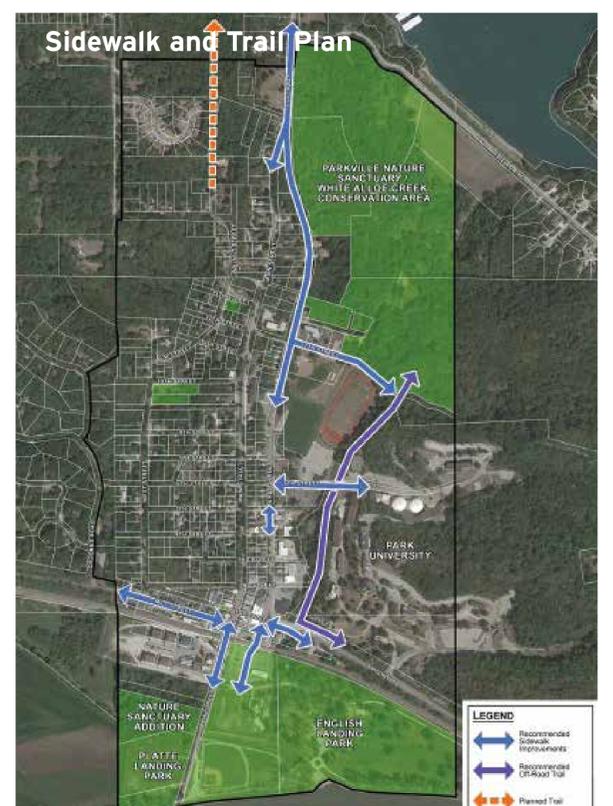
Key Recommendations

- Expand the boundaries of the Downtown commercial shopping district in a way that complements the character and mix of uses that already exist.
- Encourage the Downtown Commercial district to provide a more balanced mix of services that meet both the needs of the community and out-of-town visitors.
- Improve connectivity by enhancing the pedestrian environment in Downtown Parkville.
- Preserve and protect vehicular flow in and around Downtown.
- Prepare a Design Guideline that provides direction and guidance for the redevelopment of East Street so that it fits with the desired Downtown character.
- Develop a streetscape redevelopment plan in the commercial core of Downtown to address the worn and tired existing streetscape.



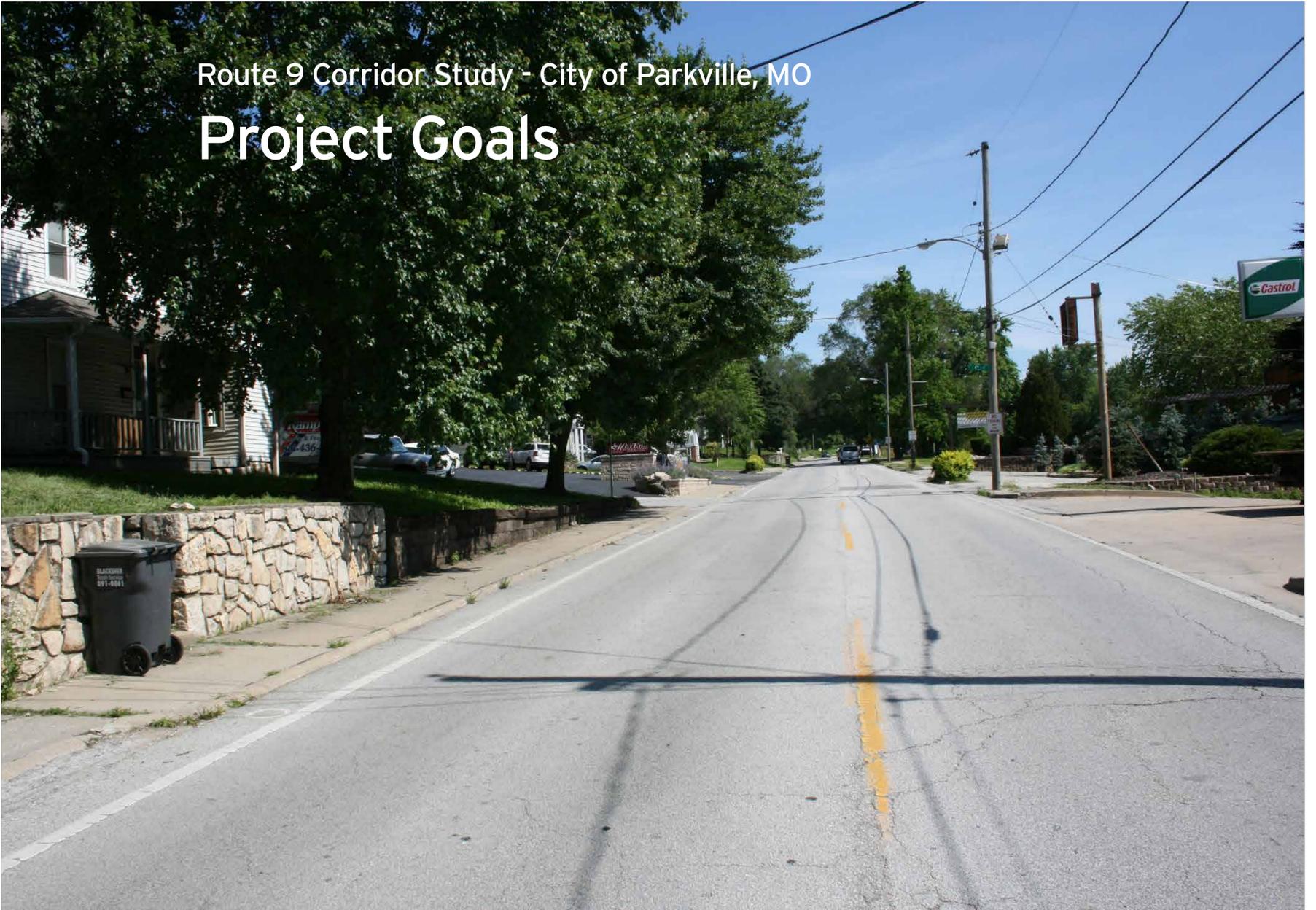
Redevelopment of East Street

"The 9 Highway/East Street corridor, from 1st Street to 6th Street, represents an excellent redevelopment opportunity that could serve as a catalyst for future growth and investment in Downtown Parkville. Given its significance within the transportation network of Parkville, a reimagined East Street could improve community connectivity, create additional commercial critical mass by effectively doubling the Downtown commercial area, and safely and efficiently move vehicular and pedestrian traffic, while also helping 9 Highway fit better into the Downtown character desired by the community."



Route 9 Corridor Study - City of Parkville, MO

Project Goals



Objectives:

What do we want to accomplish?

- Mitigate safety and capacity issues, and minimize traffic conflicts, on Route 9.
- Enhance aesthetics and pedestrian movements, particularly in proximity to Downtown Parkville and Park University.
- Accommodate compatible new development and redevelopment along the corridor.
- Reduce future construction costs by facilitating the reservation of right-of-way for future improvements.
- Position the participating public entities to compete in future transportation grant cycles for eligible improvements in the corridor.

Guiding Principles:

What informs our decisions?

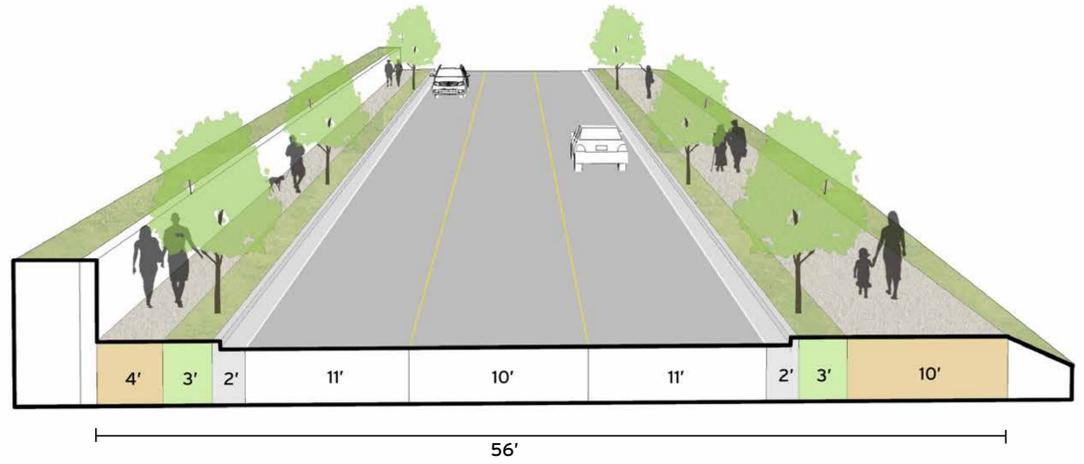
- Focus on making connections in all directions and at multiple scales.
- Preserve and enhance the vitality of Downtown Parkville as the economic and community center of the City.
- Respect the character of Parkville.
- Emphasize the long-term vitality of all proposed improvements to the corridor.
- Minimize negative impacts on adjacent property owners.
- Appreciate the importance of parks and natural resources to Parkville.
- Create and support opportunities for compatible economic development.
- Balance the needs of commuters with local needs such as pedestrian access, aesthetics, and convenient access to commercial properties.

General Design Recommendations

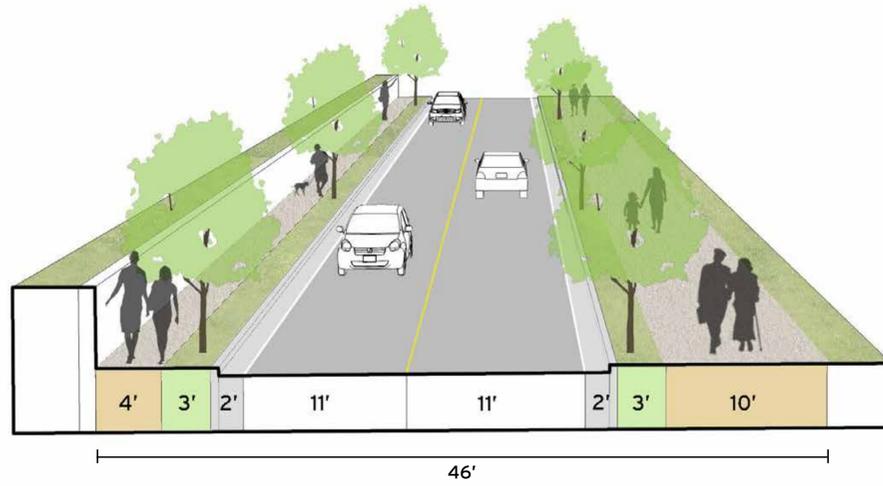
The goals of the Route 9 Corridor Study include addressing capacity and traffic flow issues. At the same time, improvements are intended to enhance aesthetics and accommodations for pedestrians and cyclists. All of these needs must be met within a constrained road right-of-way.

Based on an analysis of the various benefits and tradeoffs provided, as well as the preferences identified at the first public meeting, the project team recommends a roadway configuration that includes a sidewalk on the west side of the street and a ten foot wide multi-use path on the east. In some locations three lane are recommended, while two lanes are proposed for locations with fewer turn movements.

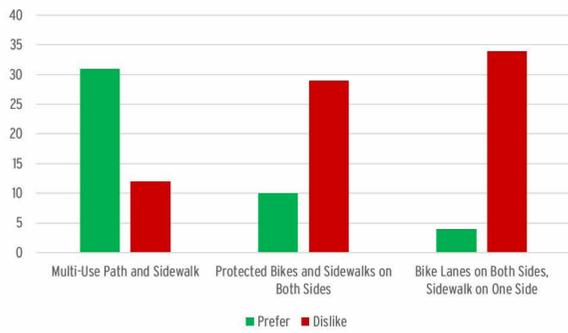
3 Lanes, Shared Multi-Use Path & Sidewalk



2 Lanes, Shared Multi-Use Path & Sidewalk



Roadway Alternatives - Public Meeting Results



Looking North near Clark Avenue - Existing Conditions



Looking North near Clark Avenue - Potential Improvements



North Traffic Signal

CHALLENGE: Traffic Signal Location

With commercial businesses, public facilities, residential neighborhoods, and expanding development all generating vehicle trips on northern sections of Route 9, traffic volumes create challenges at multiple intersections today in the area of Parkville Commons. For example, it can be difficult to make turns from side streets at peak traffic times. As growth continues, these challenges, delays, and conflicts will worsen.

RECOMMENDATION: Provide New Signal at Clark Avenue

The project team analyzed traffic volume data and crash data for four intersections to explore the viability of a new traffic signal. A new signal at Clark Avenue is warranted based on future traffic volumes and also the preferred location based on feedback at the first public meeting. The recommended design includes a street stub for future connection to the east to serve future potential development or if a connection to 62nd street becomes desirable. Traffic calming measures along 63rd street can help to guide traffic through Parkville Commons to the new signal and reduce traffic speeds within the retail area.

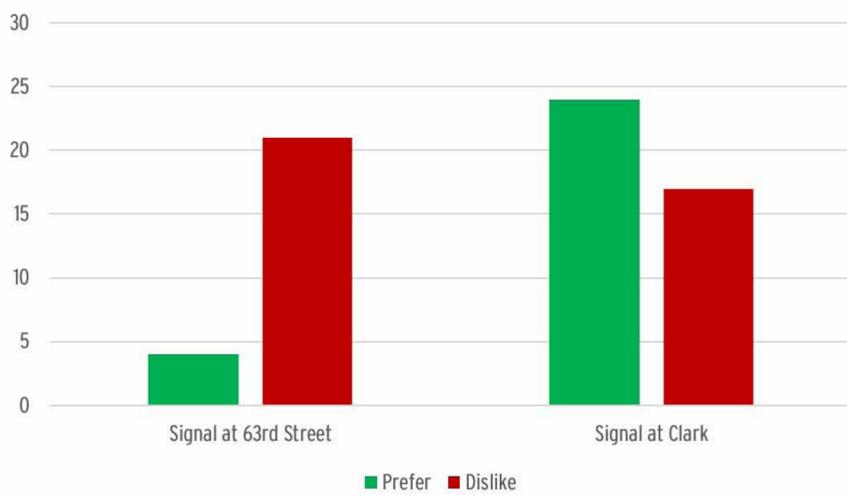
Intersection Traffic Volume

Future 2035	R9 & Lewis	R9 & 63rd	R9 & 62nd	R9 & Clark
AM				
Major Street - Total of Both Approaches, vph	1200	1173	1131	1106
Minor Street - High Volume Approach, vph	89	59	13	95
PM				
Major Street - Total of Both Approaches, vph	1806	1832	1810	1716
Minor Street - High Volume Approach, vph	106	63	5	149

Intersection Crash Data

Crash Records		2010	2011	2012	2013	2014	Total
Property-Damage Only	R9 & Lewis St		3		2		5
	R9 & 63rd St			1	1	2	4
	R9 & 62nd St			1			1
	R9 & Clark Ave		1		1	1	3
Injury	R9 & Lewis St						0
	R9 & 63rd St			2			2
	R9 & 62nd St		1				1
	R9 & Clark Ave						0
Total		0	5	4	4	3	16

North Traffic Signal - Public Meeting Results



Signal Options

Lewis Street

- Future traffic warrants signal
- Spacing too close to Route 45

63rd Street

- Future traffic warrants signal
- Connects to many businesses & houses

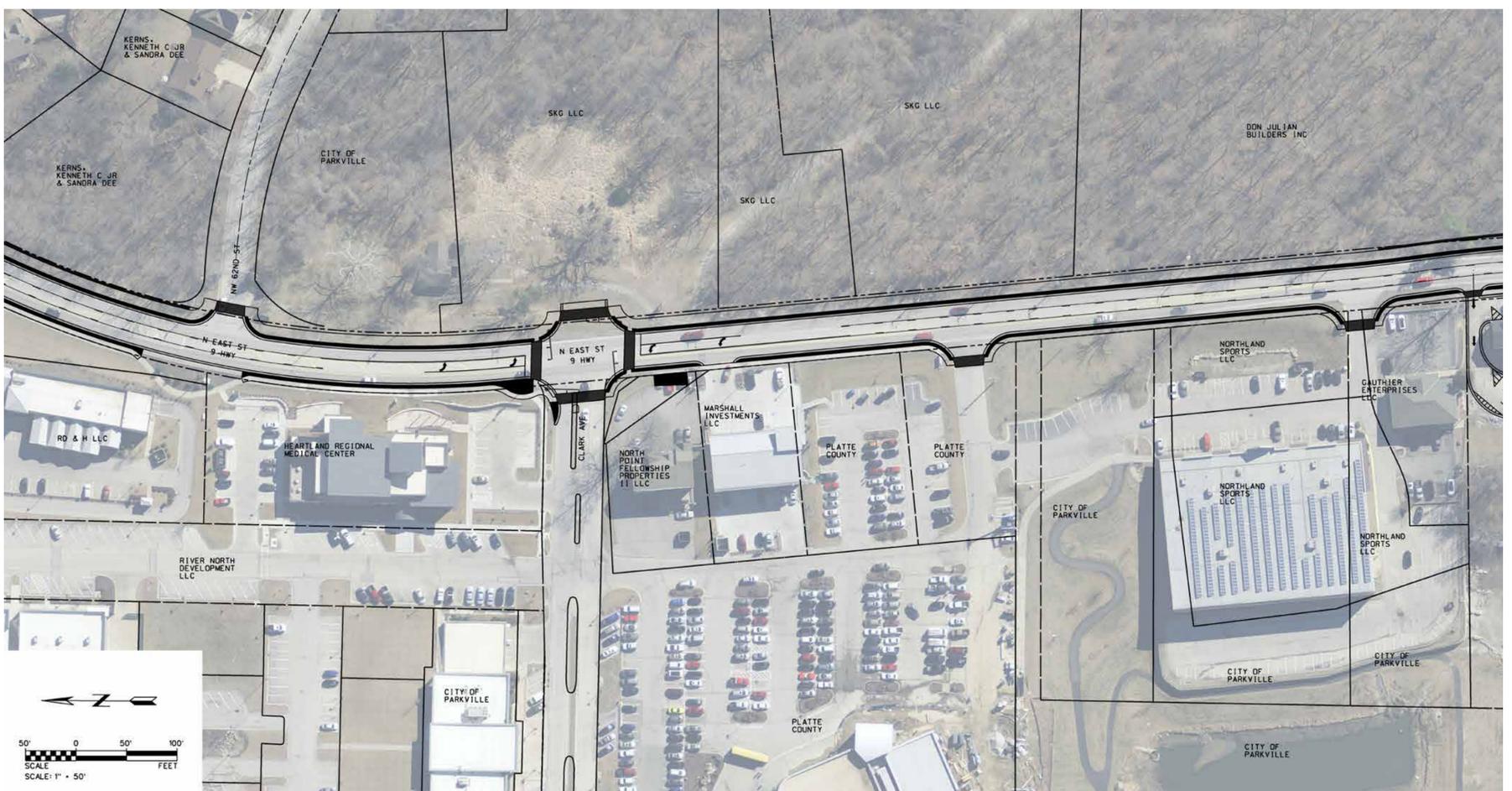
62nd Street

- Not warranted for signal
- Only connection for 69 houses

Clark Avenue

- Future traffic warrants signal
- Community Center & City Hall generate many trips

Proposed Design



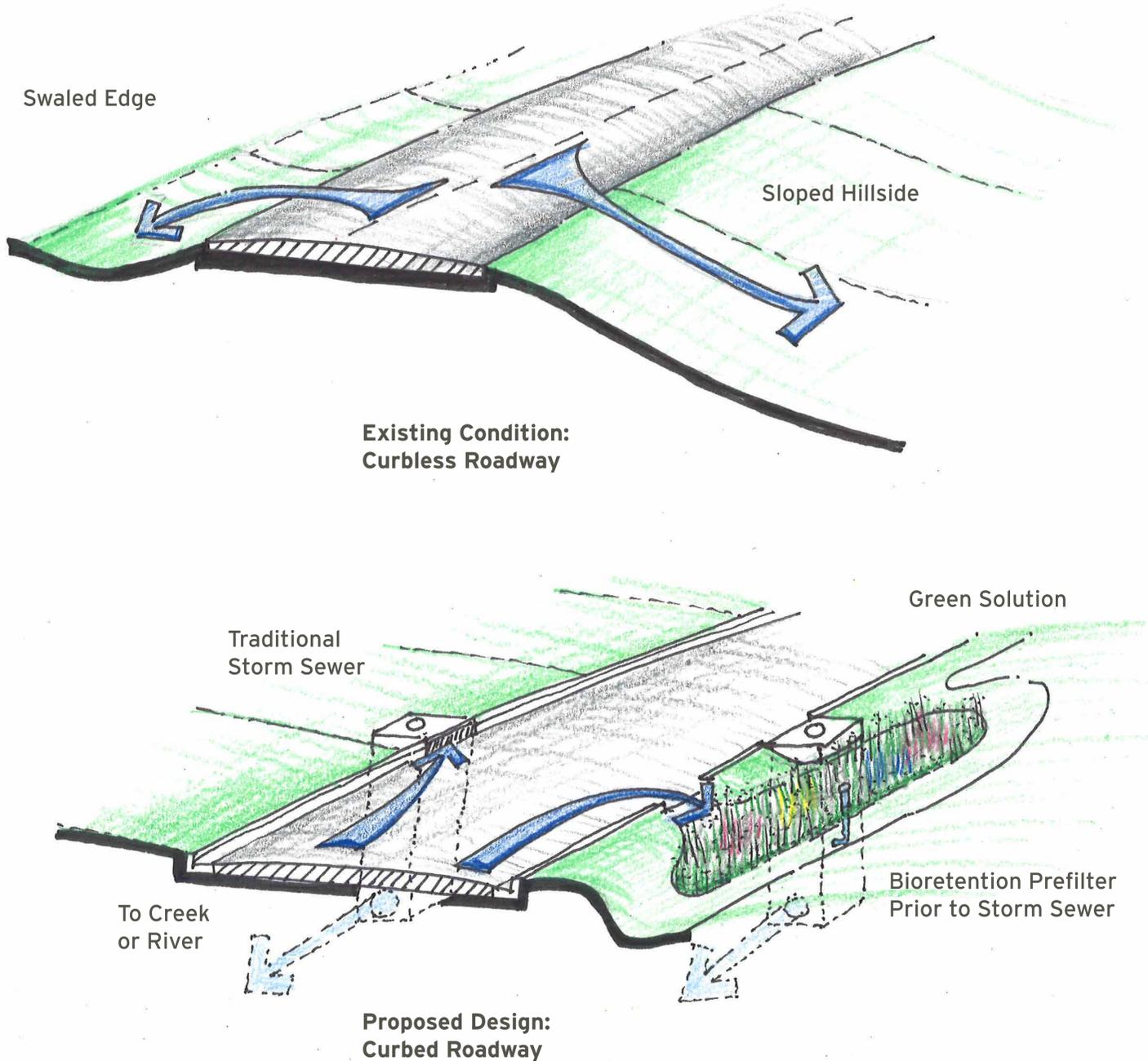
Drainage

CHALLENGE: Drainage Issues

Today, most of Route 9 lacks curbs, which results in stormwater runoff that flows from the road directly onto adjacent properties. In some cases, this runoff creates drainage issues for property owners.

RECOMMENDATION: Capture Runoff

The proposed design of Route 9 will include curbs, drains, bioswales, and other stormwater infrastructure along its entire length, ensuring that stormwater is captured, treated, and conveyed without negative impacts to adjacent properties. These improvements should virtually eliminate drainage issues related to runoff from Route 9.



Walnut Grove Cemetery

CHALLENGE: Walnut Grove Cemetery is Close to the Road

Walnut Grove Cemetery is located close to the existing Route 9 roadway, providing limited space for additional infrastructure along the roadway.

RECOMMENDATION: No Impact on Walnut Grove Cemetery

The recommended design for Route 9 fits within the existing right-of-way adjacent to Walnut Grove Cemetery. All proposed improvements will be located outside of the line of the existing retaining wall, and there will be no impacts on the adjacent cemetery.



Driveway Access

CHALLENGE: Uncontrolled Access

Several portions of Route 9 have open access along the entire frontage, meaning that cars could drive onto or off of Route 9 from any point along the adjacent property. In one section of Route 9 between Clark Avenue and NW Lakeview Drive, there is over 700 feet of uncontrolled access. This condition impacts pedestrian safety and comfort, and also increases the potential for traffic accidents and conflicts.

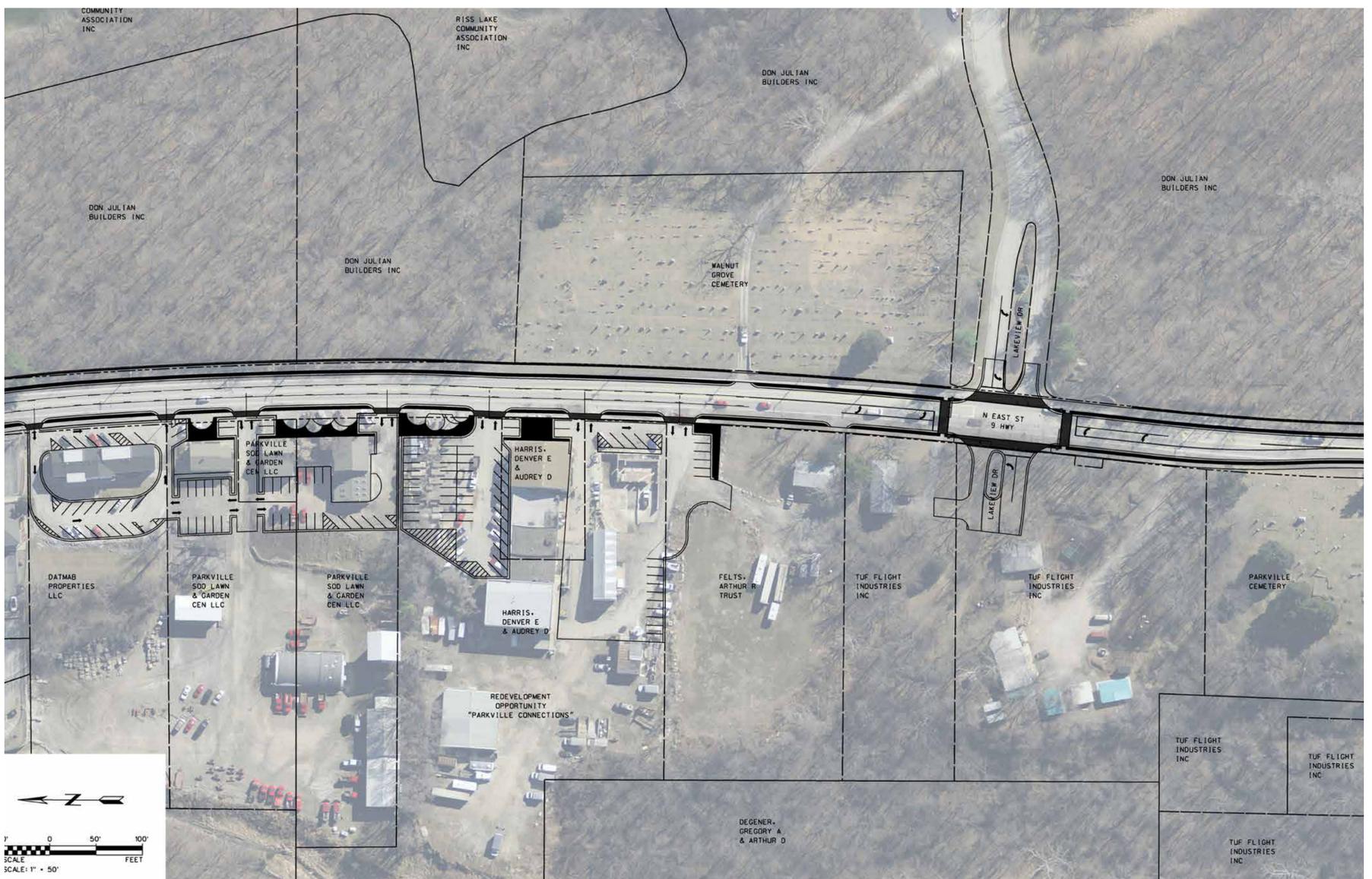
RECOMMENDATION: Focus Access on Existing Driveways

The recommended design for Route 9 focuses access on existing driveways. This configuration is simpler for pedestrians and clearer for motorists. The recommended design preserves all existing driveways and most existing parking. The project team has worked with adjacent property owners to identify design solutions that improve Route 9 while maintaining the function of adjacent properties. The recommended design reflects the outcomes of those conversations.

Large sections of Route 9 have no barrier between the roadway and parking/pedestrians.



Proposed Design



Main Street Intersection

CHALLENGE: Main Street Intersection Visibility and Turn Movements

Today, Main Street intersects Route 9 at a shallow angle, which makes it difficult to turn and difficult to see approaching vehicles. Steep topography and adjacent homes limit options for realigning the roadway to intersect at a better angle.

RECOMMENDATION: Modify Existing Main Street Intersection

The recommended design for Route 9 modifies the Main Street intersection through paint, curbs, and a slightly straightened approach to improve visibility and make it simpler to navigate the intersection. These improvements are located within existing right-of-way. In the future, a reconfiguration of Main Street is possible that would route it parallel to Route 9 until intersecting with new development further north. In this future configuration, Main Street could route south of Parkville Cemetery and connect to a new intersection at Lakeview Drive. This long term solution would require additional grading work and some property acquisition.

Proposed Design



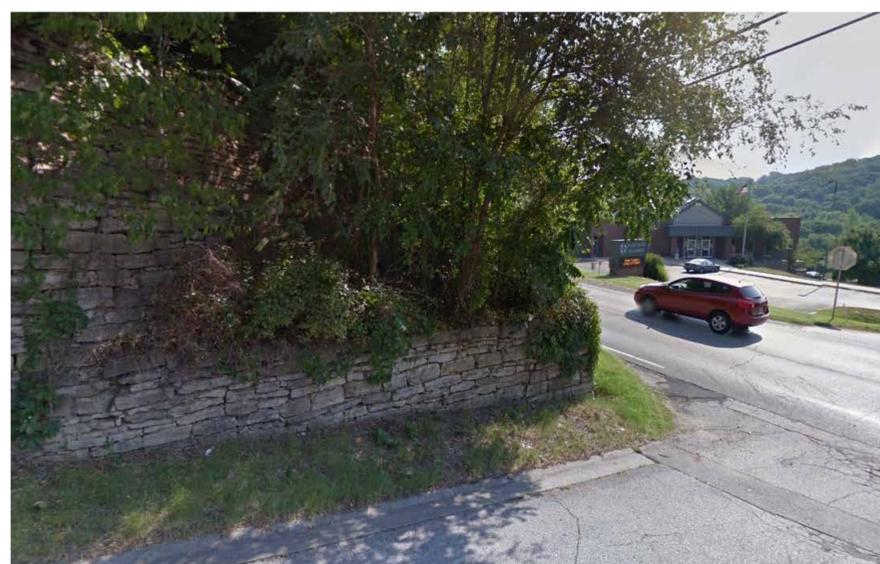
12th Street Intersection

CHALLENGE: 12th Street Intersection Visibility

The existing retaining wall on the northwest corner of the intersection of Route 9 and 12th Street creates visibility challenges for drivers on 12th Street crossing or turning onto Route 9.

RECOMMENDATION: Reconstruct Retaining Wall

Rebuilding the existing retaining wall to improve visibility around the corner addresses the safety challenges at this intersection without requiring a realignment of the roadway.



Downtown

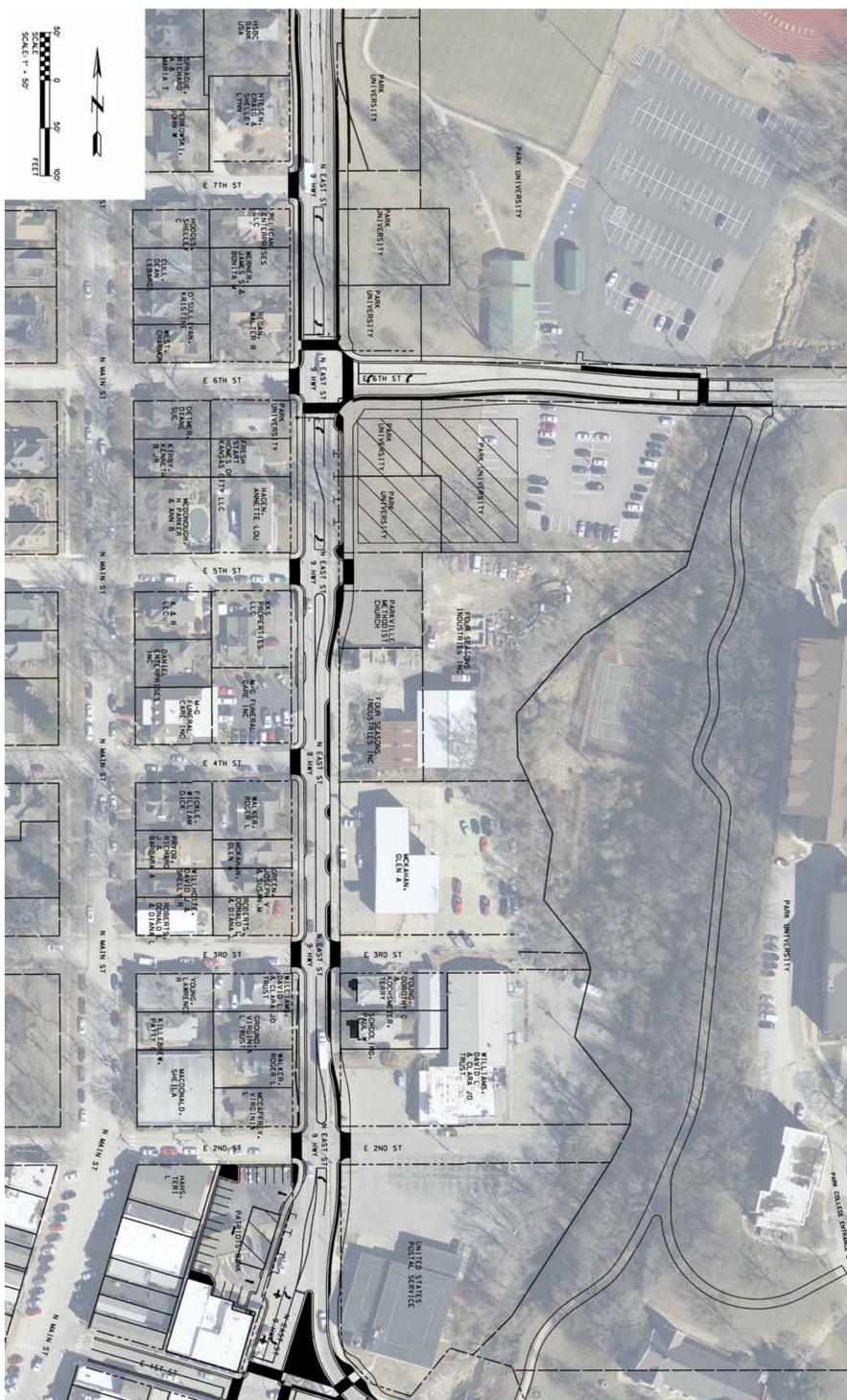
CHALLENGE: Narrow Roadway Width in Downtown

Downtown Parkville is the location where pedestrian and bicycle activity is greatest, and where the existing roadway conditions are most narrow. Within the constrained limits of Route 9 in the Downtown area, improvements that support future development goals could be disruptive to existing property owners.

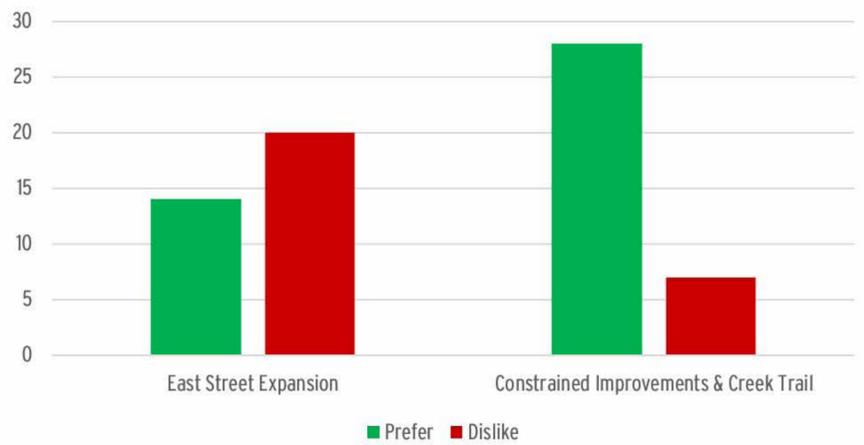
RECOMMENDATION: New Features Within Existing Constraints

The project team recommends a design for Route 9 in the Downtown area that achieves long term project goals to improve traffic flow, pedestrian and bicycle amenities, and future development potential while minimizing impacts on existing properties. The recommended design incorporates a new signal at 1st Street, and turn lanes at 2nd, 5th, and 6th Streets to significantly improve the flow of traffic through the area. By maintaining two lanes between 2nd and 5th Street, the design is able to incorporate a new sidewalk and multi-use pathway with minimal impact to adjacent properties. The proposed design also includes improvements to White Aloe Creek Trail.

Proposed Design



Downtown Roadway Options - Public Meeting Results



Looking South at 5th Street - Existing Conditions



Looking South at 5th Street - Potential Improvements



Looking North at 2nd Street - Existing Conditions



Looking North at 2nd Street - Potential Improvements



1st Street Intersection

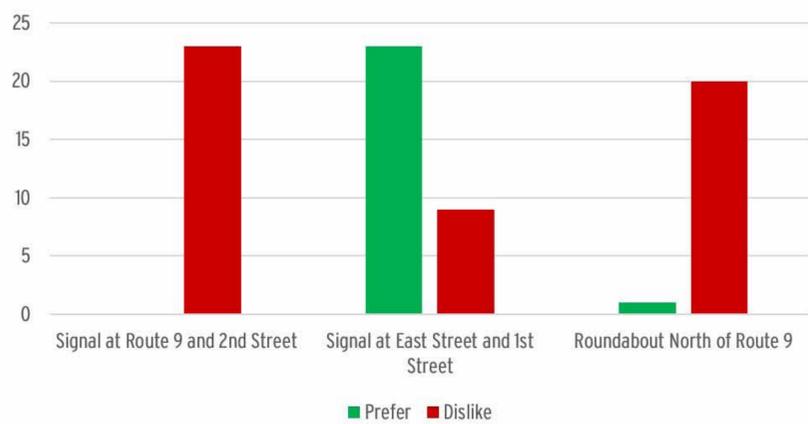
CHALLENGE: Traffic Backs Up at 1st Street at Peak Times

The unusual configuration of the 1st Street intersection functions today, but does result in traffic backups in multiple directions when traffic is heavy. Downtown Parkville is a critical center of activity along Route 9, but the current configuration of the 1st Street intersection is not ideal for drivers or pedestrians.

RECOMMENDATION: New Signal at East Street and 1st Street

The project team conducted travel time analysis of several intersection options for Route 9 in Downtown Parkville based on 2010 and forecast 2035 conditions. A new signal at 1st street is recommended based on the anticipated travel time savings in both the AM and PM peak travel times today and in the future. A signal at East Street and 1st Street is also the preferred configuration based on feedback at the first public meeting.

1st Street Intersection - Public Meeting Results



Pedestrian Crossing

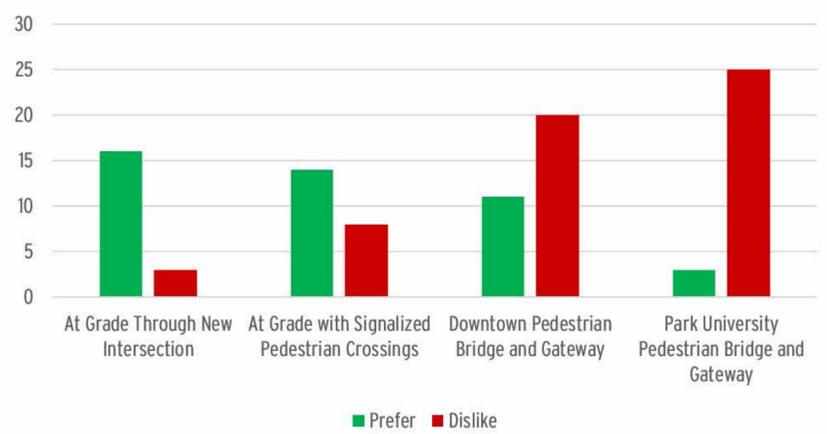
CHALLENGE: Access to English Landing Park & Existing Trail

The railroad and other barriers prevent a clear connection to English Landing Park and the Missouri Riverfront Trail, which provides important regional connectivity for pedestrians and cyclists.

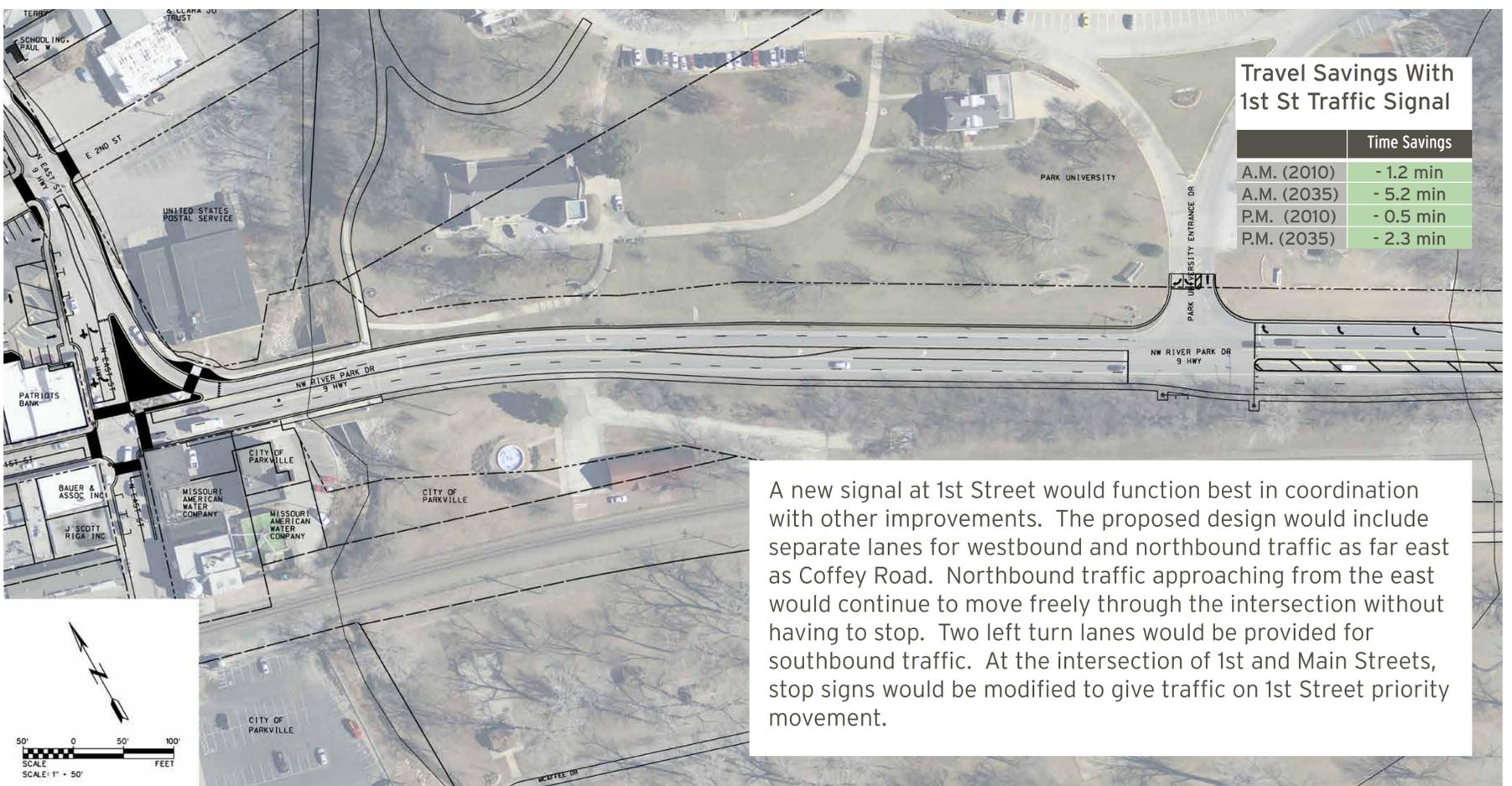
RECOMMENDATION: Connection Through New 1st Street Intersection

The project team explored several options for at-grade crossings and pedestrian bridges to connect pedestrian and bicycle facilities along Route 9 to the Missouri Riverfront Trail. Because it is a lower-cost option, and because it directs activity through Downtown Parkville, the project team recommends at-grade connections through a new intersection at 1st Street. This recommendation also reflects feedback provided at the first public meeting.

Pedestrian Crossing - Public Meeting Results



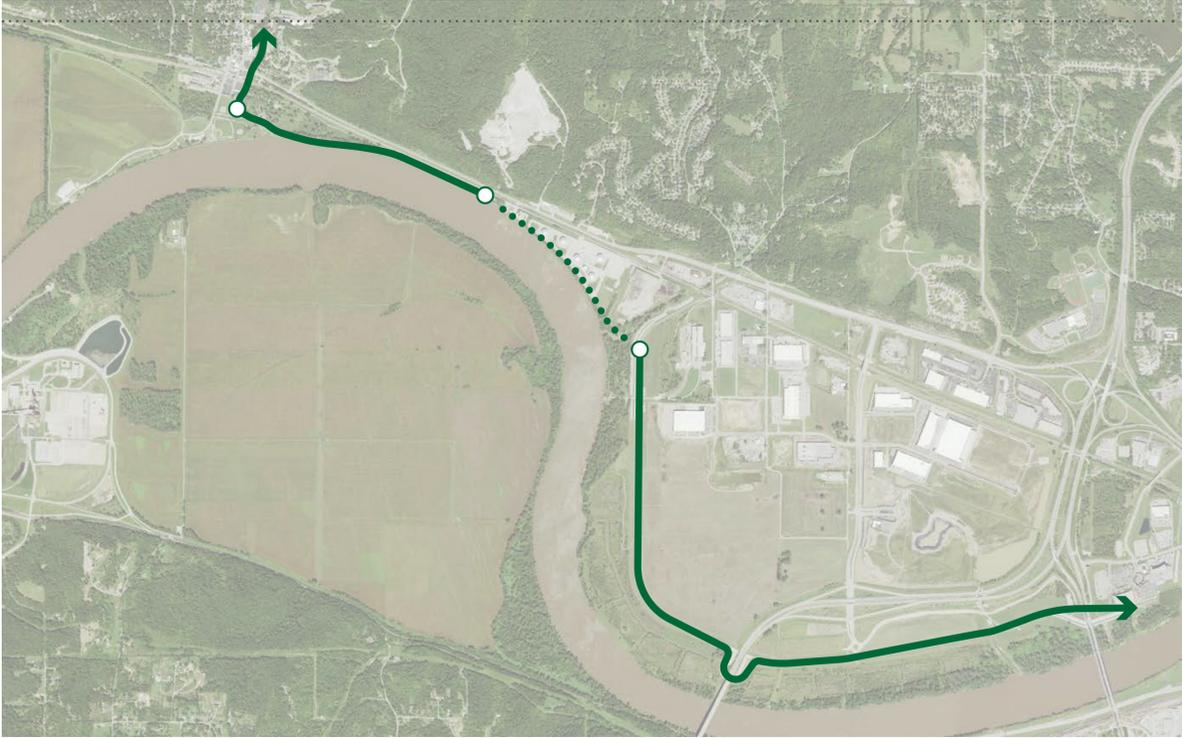
Proposed Design



A new signal at 1st Street would function best in coordination with other improvements. The proposed design would include separate lanes for westbound and northbound traffic as far east as Coffey Road. Northbound traffic approaching from the east would continue to move freely through the intersection without having to stop. Two left turn lanes would be provided for southbound traffic. At the intersection of 1st and Main Streets, stop signs would be modified to give traffic on 1st Street priority movement.

East of Downtown Parkville

Connections to Riverside and Beyond



Regional connectivity is critical to the success of trail infrastructure. Connecting these two segments of the Missouri Riverfront Trail will help implement the regional MetroGreen plan, which will ultimately connect the Parkville and Riverside trails to Downtown Kansas City and other Northland trails, such as the Line Creek Trail or the planned Vivion Road Trail. Negotiations to obtain trail easements are currently underway, which will help advance this trail connection.

Additional Improvements to Route 9

Additional turn lanes on Route 9 onto Coffey Road will help improve vehicular flow and safety for drivers.



An analysis of traffic volume supports the construction of a new signal at Maddox Road.



Project Segments



Segment 1: Route 45 to 62nd Street

- Three-lane urban section
- Enclosed storm system
- Complete street elements
- Project cost estimate: **\$726,800**



Segment 2: 62nd Street to Parkville Athletic Complex

- Construct signal at Clark Avenue
- Coordinate with pedestrian crossing
- Allow for future connection on east side of intersection
- Traffic calming along 63rd Street
- Project cost estimate: **\$786,400**



Segment 3: Parkville Athletic Complex to Lakeview Drive

- Three-lane urban section
- Complete street elements
- Define driveway access locations
- Provide frontage "slip" lane where possible
- Work with property owners for parking modifications
- Project cost estimate: **\$1,263,000**



Segment 4: Lakeview Drive to 13th Street

- Two-lane urban section
- Complete street elements
- New Main Street connection
- Project cost estimate: **\$2,815,000**



Segment 5: 13th Street to 12th Street

- Two-lane urban section
- Complete street elements
- Retaining wall reconstruction
- Side street sidewalks
- Turn lanes
- Project cost estimate: **\$393,700**



Segment 6: 12th Street to 7th Street

- Three-lane urban section
- Complete street elements
- Retaining wall reconstruction
- Side street sidewalks
- Turn lanes
- Project cost estimate: **\$675,000**



Segment 7: 7th Street to 5th Street

- Three-lane urban section
- Complete street elements
- Retaining wall reconstruction
- Side street sidewalks
- Intersection improvements at 6th Street
- Project cost estimate: **\$554,600**



Segment 8: 5th Street to 2nd Street

- Two-lane urban section
- Complete street elements
- Retaining wall reconstruction
- Side street sidewalks
- White Aloe Creek Trail
- Project cost estimate: **\$290,600**



Segment 9: 2nd Street to White Aloe Creek

- Signalized intersection
- Complete street elements
- Must be coordinated with other project segments
- Project cost estimate: **\$707,500**



Segment 10: White Aloe Creek to Park University Drive

- Complete street elements
- Lane widening
- Signal modification
- Must be coordinated with other project segments
- Project cost estimate: **\$258,500**



Segment 11: Park University Drive to Coffey Road

- Lane widening
- Future trail connection
- Project cost estimate: **\$2,300,000**



Segment 12: Coffey Road to Maddox Road

- Lane widening
- Future trail connection
- Signalized intersection
- Geometric improvements
- Project cost estimate: **\$351,000**

Total Estimated Project Cost: \$11,122,100

Financing Opportunities

As the project design is refined and costs for project segments are established, the project team will begin to identify potential strategies to finance and implement the proposed improvements for Route 9. These strategies include identifying a wide range of funding options from public grant opportunities to private partnerships. A financing strategy for the City must identify a feasible path to project implementation that maintains and strengthens the fiscal health of the City.

Defining Funding Options

Existing Revenues

- The City will evaluate its long-term budget plans to identify any appropriate revenues that could be applied to the project.

Future Grants

- The City will pursue grant opportunities at the local, state, and federal levels, including MARC STP and CMAQ funds.

Project Specific Revenue Opportunities

- New investment and development along the corridor that benefits from Route 9 improvements could also help to finance the project. Special district options include Community Improvement District (CID), Transportation Development District (TDD), TIF, and others.

New Citywide Revenue Opportunities

- In the future, the City may have revenue opportunities that do not exist today that could help to fund the Route 9 project over time.

Defining a Financing Strategy

Option 1: Pay as you go

- With a pay-as-you-go strategy, the City programs revenues as they become available to build out the project incrementally over time.

Option 2: Debt Financing

- With debt financing, the City can use identified funding streams to borrow in order to complete the project more quickly and accelerate the benefits it can provide.
- Debt financing can include traditional bond markets, but there are also opportunities for very low interest borrowing through venues such as the Missouri Transportation Finance Corporation Loan program.

Next Steps

Project Schedule

