

Carmel Complete: a complete streets/multimodal system plan that is a community-based, smart transportation plan providing policy guidance to integrate and balance traditional and multimodal transportation facilities with both existing and desired land use patterns, and supporting sustainable development and improved quality of life. A complete streets/multimodal system incorporates walking, bicycling, and transit access within an idealized transportation network that supports placemaking within districts and along their connecting corridors.

Smart Transportation supports



economic development



mode shift



active living



green infrastructure



Carmel Multimodal System Goals



Relate Transit to Economic Development

Leverage transportation infrastructure to concentrate land use intensity and economic development opportunities, with emphasis on supporting and reinforcing Carmel's core districts.



Facilitate Active Living

Continue to create a transportation network that incorporates and integrates health-supportive transportation choices that encourage walkable and bikeable trips for recreation and transportation.



Encourage Mode Shift to Transit

Provide transportation options that offer easy-to-use public transportation for commuting and daily activities, with emphasis on walkable and bikeable distances. Establish a transportation interface between intra-city and regional transit. Enable a measurable shift from auto-dominated transportation toward a more balanced and sustainable overall system.



Incorporate Green Infrastructure

Continue to incorporate stormwater management practices and urban tree canopy features into the public transportation infrastructure to improve the environmental quality of life and reduce the environmental footprint of the transportation system.

Consultant:

Storow Kinsella Associates Inc
Indianapolis, Indiana

August 4, 2010

Carmel Multimodal System Benefits

Travel Benefits

Reduced travel time, reduced vehicle miles traveled, reduced localized traffic congestion, improved level of service (LOS), improved operational transit efficiency, increased bicycle use and improved pedestrian accessibility and safety.

Social Benefits

Transportation alternatives for low-income, elderly, and youth populations, safe routes to schools, healthier lifestyles, 24 hour/7 day activity, revitalized and accessible public space, and increased social interaction.

Environmental Benefits

Improved air quality, reduced storm water runoff by reducing pavement, improved water quality by utilizing green infrastructure, decreased reliance on oil, and reduction in energy consumption.

Economic Benefits

Increased housing choice near multimodal routes and stops, accessible development opportunities, increased taxable values and property values, TIF and bond options to leverage private funds for infrastructure development, spurred entrepreneurial interest, reduced disincentives to property investments, and efficient use of scarce resources.

Place Benefits

Neighborhood and business nodes become centers for schools, libraries, local shopping, local dining, and increased housing choice. The public places and right-of-way of districts evolve into aesthetic urban spaces that become unique places based on local heritage and culture, creating community.

Smart Growth

Smart transportation systems support smart growth by encouraging less dependence on the personal automobile and allowing a community to grow in an economically, environmentally, and socially responsible way.

Neighborhood Organizing Element

A pedestrian system provides a physical infrastructure and open space network that encourages social interaction.

Improved Mobility

Multimodal transportation systems create independence and transportation options for those who can not drive, or those that choose not to drive.

Safe Routes to School (SR2S)

If children walk to school, they become familiar with their neighborhoods and a healthy lifestyle is instilled as a way-of-life. Newly passed federal legislation creates a funding source for SR2S efforts.

Links to Public Gathering Places

Multimodal transportation systems connect districts with central nodes (concentrated, mixed-use areas), provide a stage for public activities, and create community.

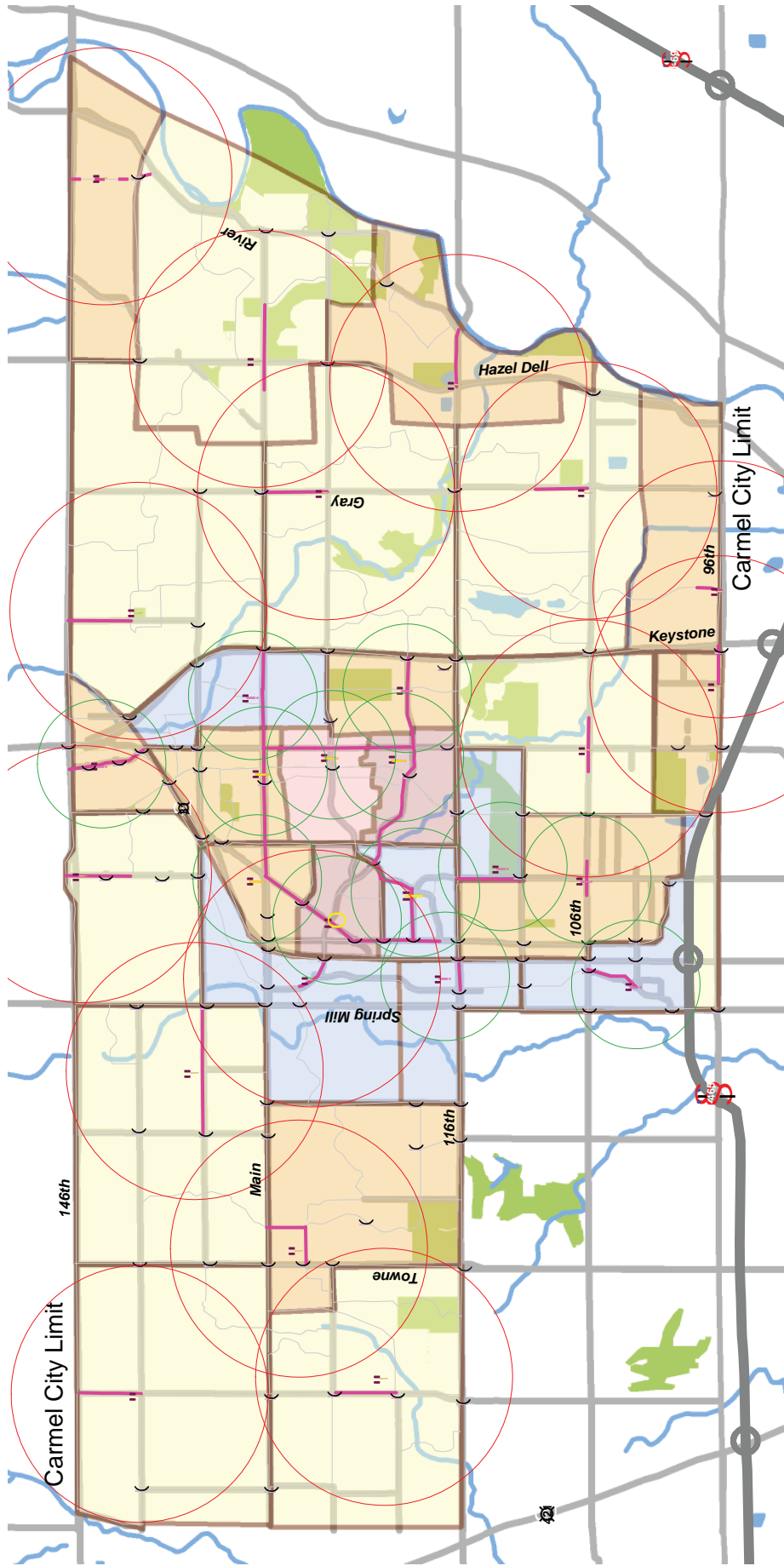
Healthy Lifestyles

The Center for Disease Control has determined that automobile-reliant communities have led to epidemic levels of obesity and diabetes. Walkable and bikeable communities reverse that trend.

Reduce Gridlock, Reinforce Districts

Progressive communities realize that the way to alleviate rush hour gridlock is not to build more roads, but to reduce the number of vehicles on the street. By developing connected sidewalks and bicycle facilities, effective transit, and unique community places, people will change their driving habits in favor of an active lifestyle.





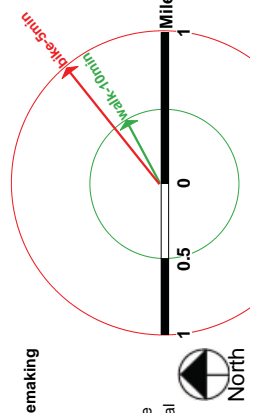
ED 1 Multimodal Development Districts and Nodes
Carmel Multimodal System Plan

DRAFT - April 16, 2010

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- Nodes & Transitions**
- () Multimodal Transitions
 - Transit Center (Preferred)
 - Transit Center (Alternate)
 - Nodes Phase 1
 - Nodes Phase 2
 - Nodes Phase 3

- Multimodal Corridor Placemaking**
- Placemaking
 - - Proposed Placemaking
- District Typologies**
- Campus
 - Central Business
 - Transit Oriented
 - Village Mixed Use
 - Village Residential



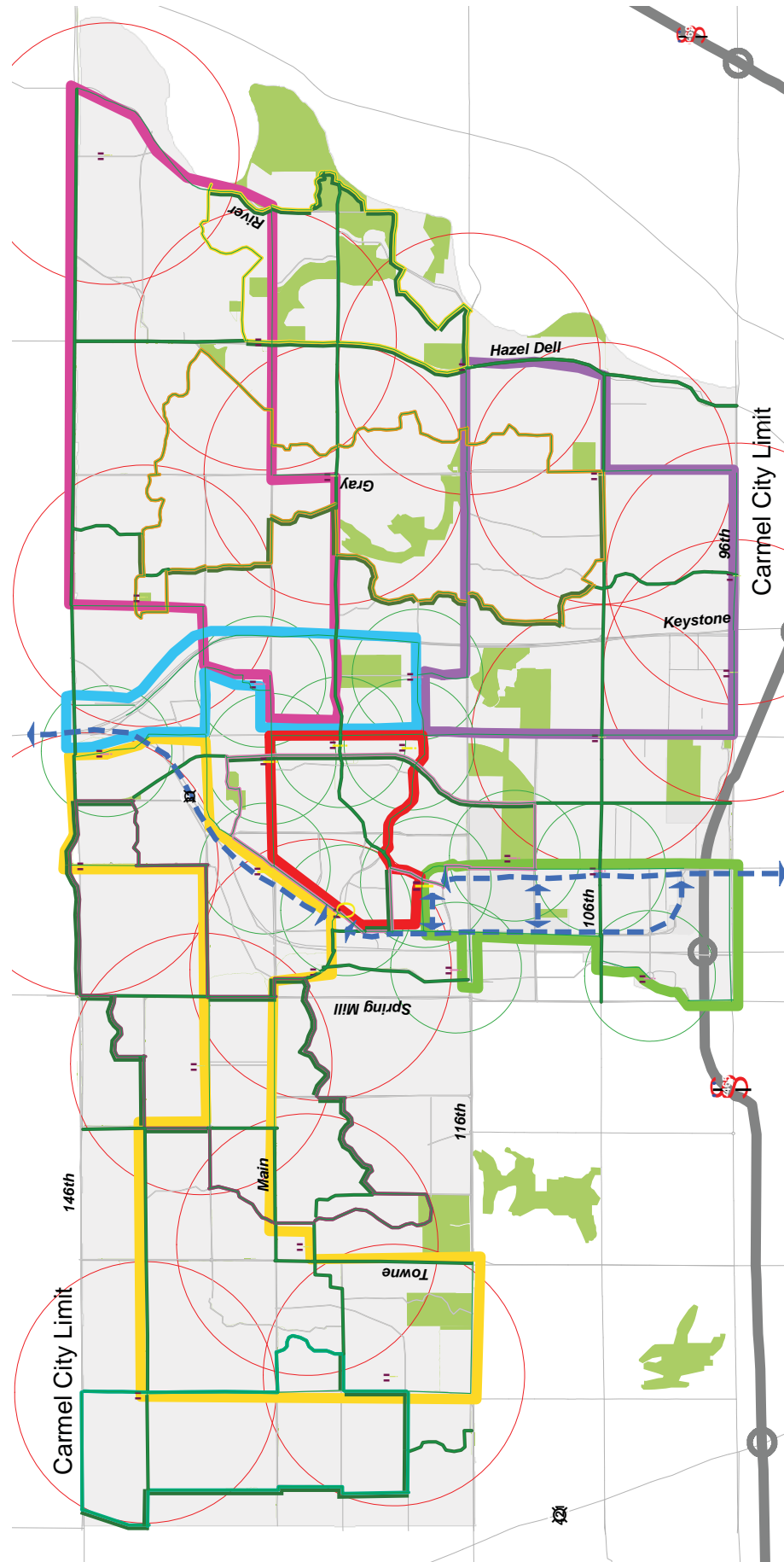
Relating Transit to Economic Development

The Carmel Multimodal System Plan is the existing pattern of districts and the thoroughfares that define and connect them to each other and to the region. The plan designates these districts according to multimodal district typologies.

District center nodes create neighborhood centers for schools, libraries, local shopping, local dining and increased housing choice. These clustered amenities support the convergence of transportation modes accessible in less than ten minutes by foot within the Carmel Core, and by bike outside the core.

Two nodes are candidates for a transit center to connect the multimodal network to regional transit systems.





Encouraging Mode Shift to Transit

The Carmel Multimodal System Plan proposes a multiple loop transit circulator network scaled to the spacing and density character of the identified multimodal districts. The system's central transit circulator connects the closely spaced destinations of Carmel's developing core area, including the Arts District and City Center, with a transit center for regional connections.

The proposed system interfaces with the Carmel Access Bikeways providing interdistrict multimodal connectivity. A corresponding pedestrian system at the nodes provides a physical infrastructure that encourages social interaction.

Inclusive transportation systems create independence and transportation options for those that do not drive.

MS 2 Multimodal Circulator Network

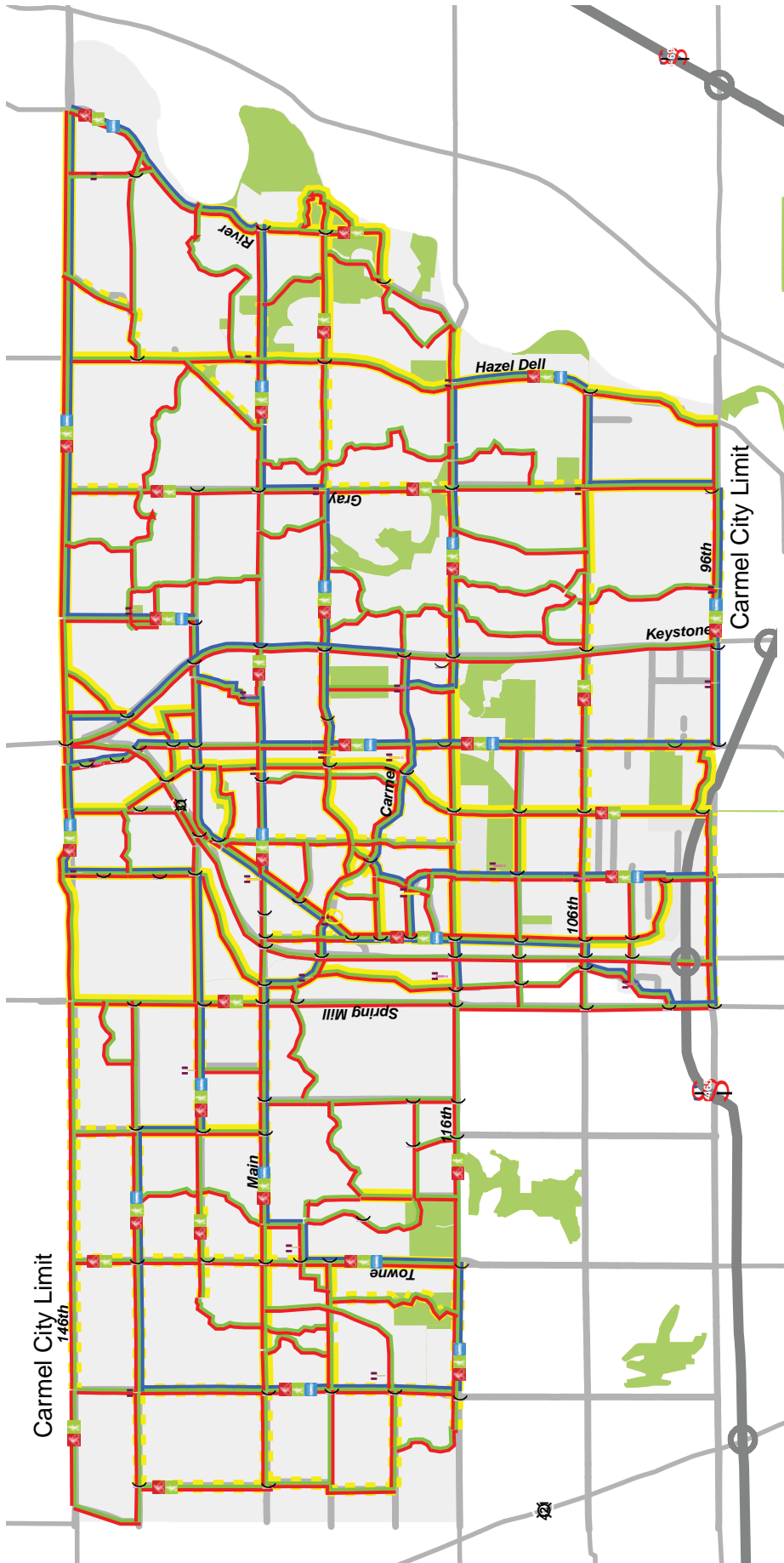
Carmel Multimodal System Plan

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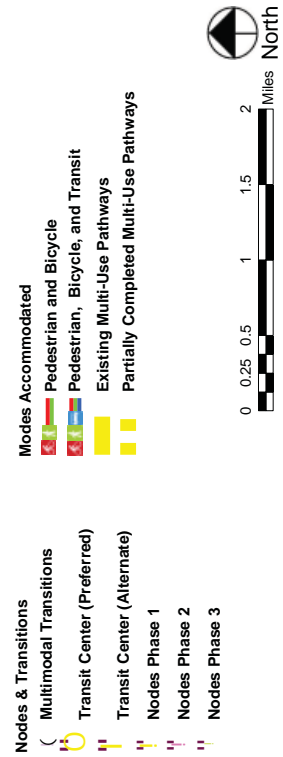


Facilitating Active Living

The Center for Disease Control has determined that automobile-reliant communities have led to epidemic levels of obesity and diabetes. Walkable, bikable and transit-supportive communities reverse that trend.

The Carmel Multimodal System Plan integrates current bike/ped initiatives with more extensive transit facilities, supporting a Complete Street philosophy encouraging Carmel's nodes to become accessible and interconnected by walking, bicycling, and transit.

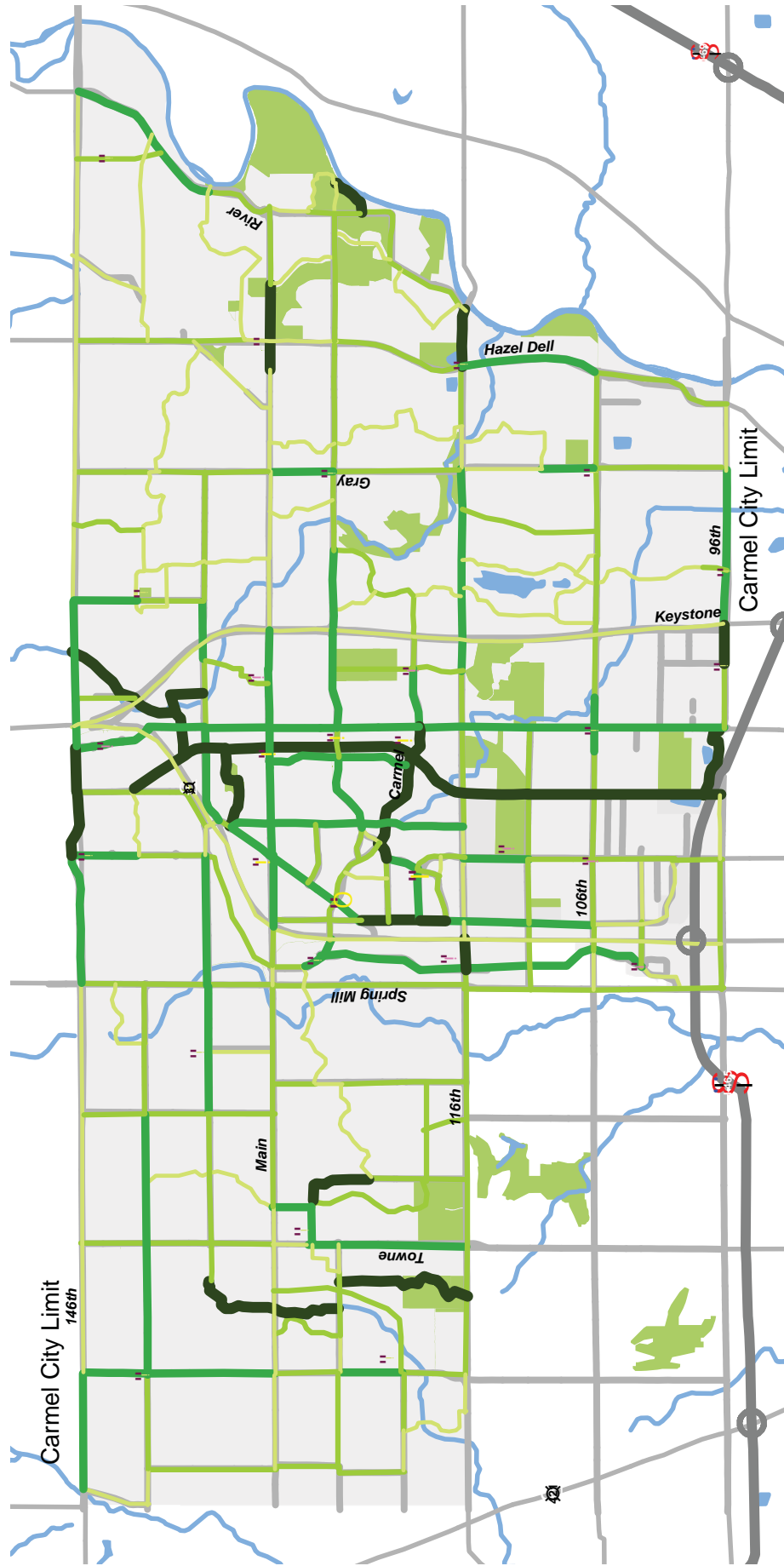
Completion of the network and development of the identified nodes will occur in phases based on respective proximity to the central circulator loop.



Carmel Multimodal System Plan
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4 Green Infrastructure Network
Carmel Multimodal System Plan

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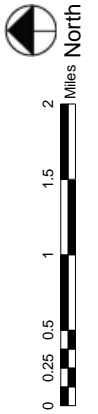
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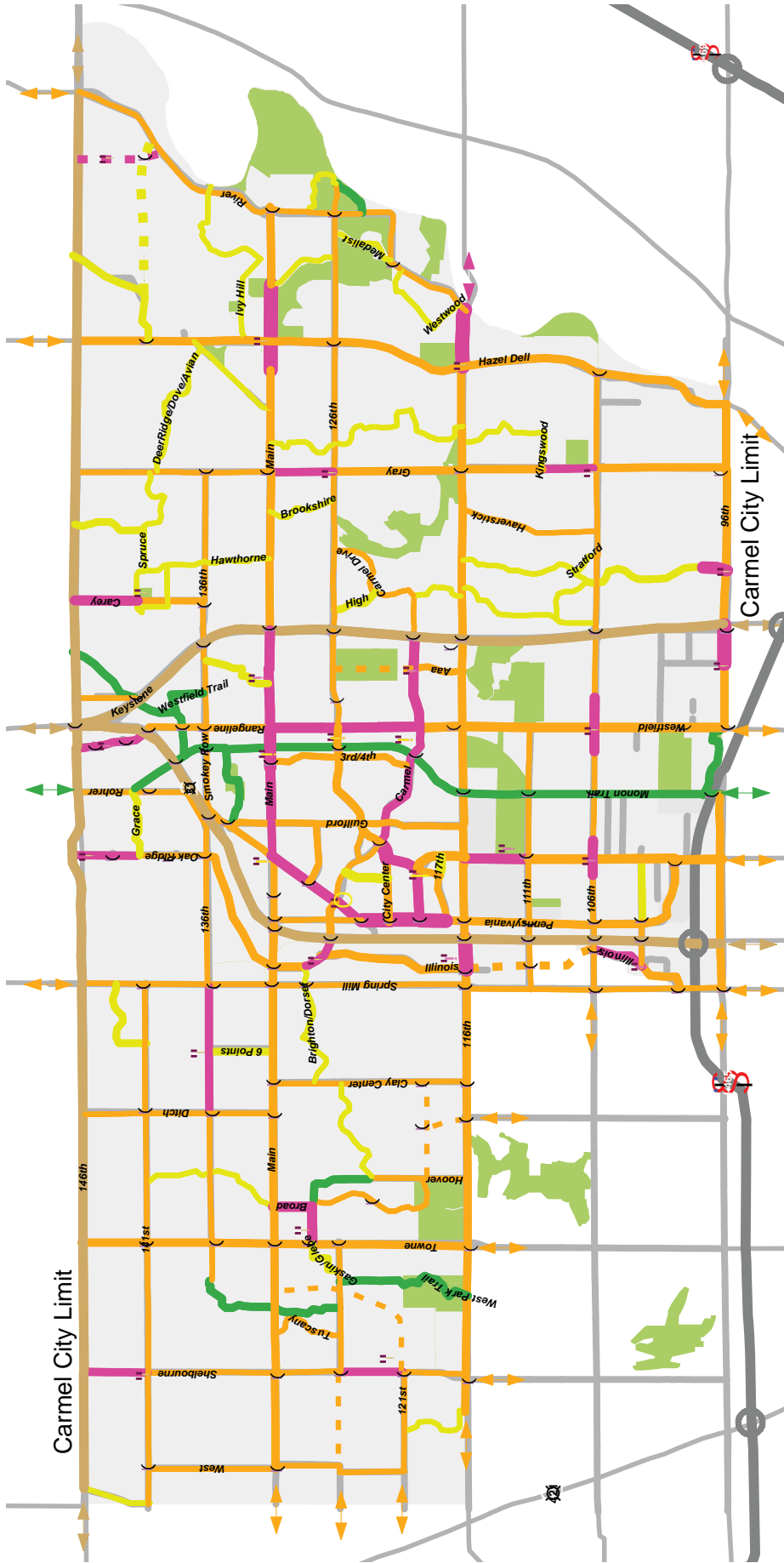
Incorporating Green Infrastructure

Corridor typologies derive green infrastructure benefits from urban forestry, stormwater management, and traffic management strategies. Incorporating sustainable, green solutions into the places and connections of the multimodal system will create sustainable sites, water efficiency, increased energy performance, and wise use of materials and resources, resulting in a sustainable Carmel community.

Benefits consider factors such as CO2 reduction, energy savings through heat island cooling, and reduction of Vehicle Miles traveled (VMT) with its associated CO2, & stormwater runoff mitigation. Similar benefits accrue to improved access to commuter transit.

- Green Infrastructure Benefit**
- Green Elements (Least)
 - Green Connectors
 - Green Corridors
 - Green Restorations (Greatest)
- Nodes & Transitions**
- Transit Center (Preferred)
 - Transit Center (Alternate)
 - Nodes Phase 1
 - Nodes Phase 2
 - Nodes Phase 3

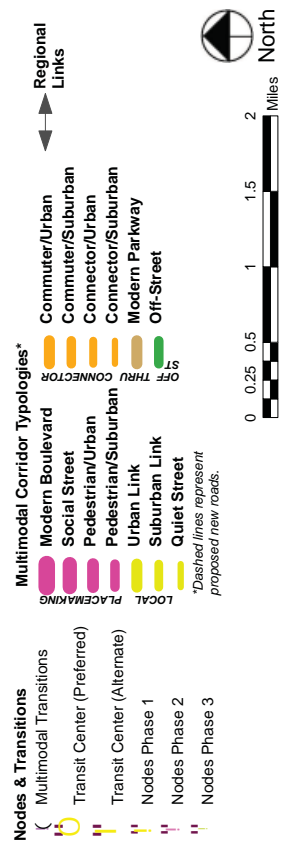




Achieving Mission

The Multimodal Corridor and Public Space Network map identifies Carmel's existing and potential district nodes and the connectivity network that will provide bicycle, pedestrian and transit access to and between them.

The connectivity network is defined using the multimodal corridor typologies adopted by the Indianapolis MPO. The system development strategy is to encourage transit-supportive, walkable-scale density at these nodes through public space design guidance and targeted infrastructure investment. Placemaking along the corridors and at the nodes will support Carmel's evolution into a unique place based on local and unique heritage.



5 MC Carmel Multimodal Corridor and Public Space Network Carmel Multimodal System Plan

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Carmel Multimodal System General Recommendations

The Creation of Places

- Guide development opportunities towards node-based, transit-supportive placemaking in existing and developing districts.
- Reinforce those nodes through linked transit and land use policies that guide viable market-driven strategies.

The Development of Place Connections

- Commit to near-term continuance of the regional express bus to downtown Indianapolis with phased development of advanced rapid transit system connections to all regional destinations.
- Develop a first phase introduction of a Central Circulator serving the Carmel Core while linking it to a new regional transit center.
- Expand the bicycle and pedestrian network emphasizing linkages to the identified district and neighborhood nodes.
- Develop a design and brand identity that is consistent with a high-quality user experience, a sustainable multimodal system within a 21st century community.

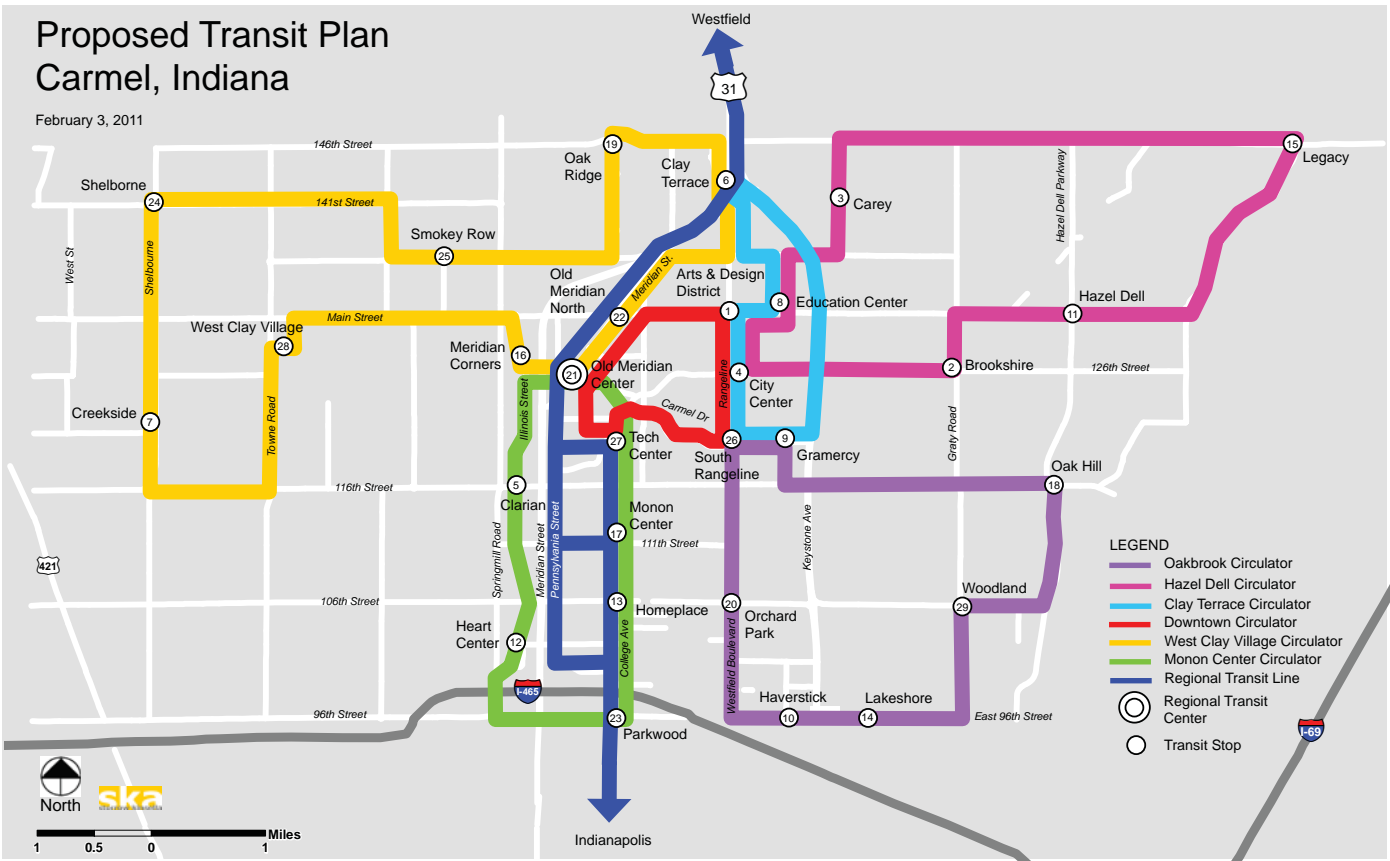
Implementation Strategies

The plan includes a funding and implementation strategy:

- Pursue a locally funded system based on related development.
- Implement based on federal guidelines to be eligible for possible federal funding and to integrate with regional efforts.
- Investigate funding sources, which are included in the plan for reference.

Action Plan

- A. Adopt and integrate pertinent plans.
- B. Promote, advocate and implement the Regional Transit Connection and Phase 1 Circulator recommendations.
- C. Plan and design a Transit Center and its dependent Transit-Oriented District.
- D. Continue to support Green and Active Infrastructure.
- E. Take advantage of On-Going/As Needed Activities (Opportunistic Node & Corridor Development).
- F. Implement Phases 2 & 3 once success is established with Phase 1.



Carmel Transit Diagram

Nodes are district-centered destination clusters that function as points of access to the proposed transit system’s circulators and regional transit connections. The system plan phases in the development of the nodes and transit routes to ensure cost-effectiveness and to build ridership.

Summary of Carmel Transit Phasing Recommendations

Recommended phasing of targeted development, nodes and placemaking corridors:

Phase 1

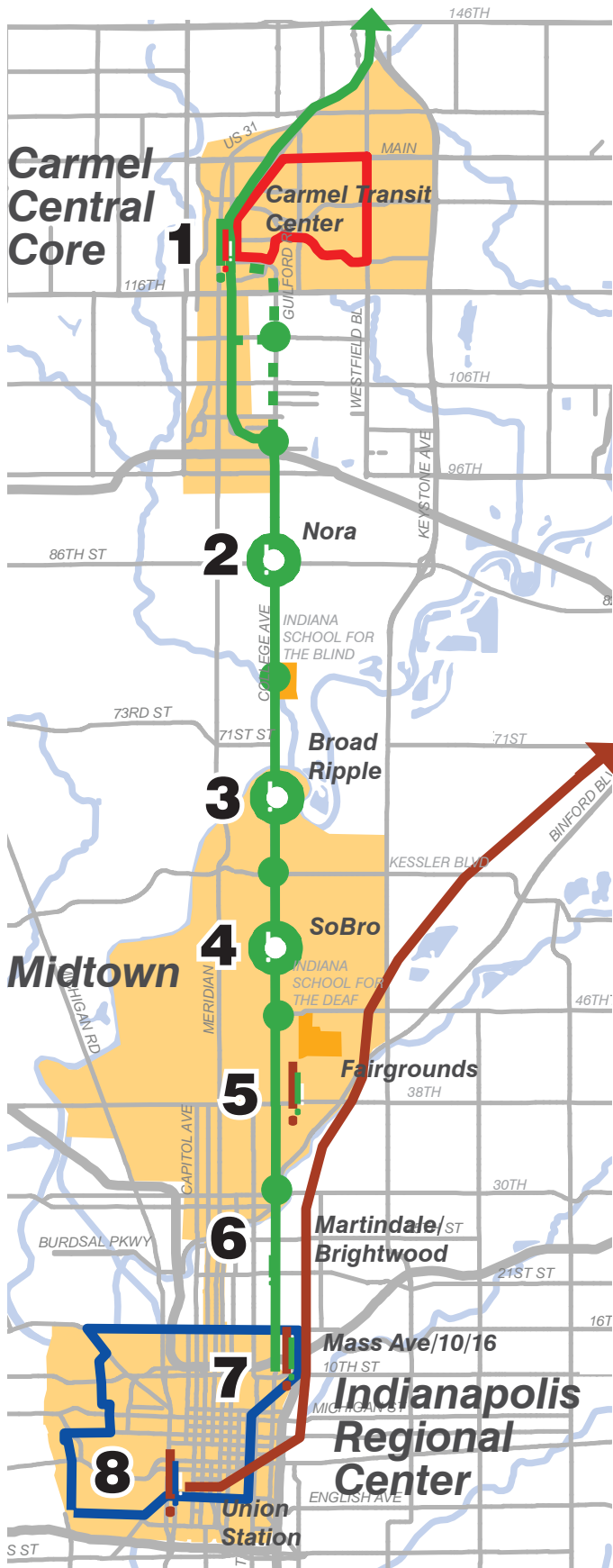
Downtown Circulator and associated nodes and corridors serving: Carmel-3rd, North College, Old Meridian Center (proposed transit center), Old Meridian North, Old Town, and the Performing Arts Center.

Phase 2

Monon Center and Clay Terrace Circulators and associated nodes and corridors serving: Clarian, Clay Terrace, Central Park West-Monon Center, Education Center, Gramercy-Merchant Square, Heart Center-Parkwood, and Homeplace.

Phase 3

The Oakbrook and Hazel Dell Circulators serving: Carey, Creekside, Haverstick-96th, Hazel Dell, Lakeshore-96th, Legacy, Meridian Corners, Oak Ridge, Mohawk-Gray, Oak Hill, Southeast Carmel, Shelborne, Smokey Row-6 Points, West Clay Village, Woodland-Gray.



College Avenue Regional Transit Corridor Tram Route/stop-supported Development Nodes

- 1 Carmel Transit Center Hub**
A Regional Transit Center in the US 31 Corridor, providing Carmel Circulator connections to the City Center and emergent Carmel/Hamilton County multimodal districts and nodes.
- 2 Nora**
Retail and residential destination cluster and transit interface with 86th Street Corridor destinations.
- 3 Broad Ripple Village**
Arts/entertainment/residential mixed use village and regional destination. Potential Westfield Boulevard/62nd Street crosstown transit to IMA/Butler/Glendale districts.
- 4 SoBro**
South of Broad Ripple stop provides access to active and vital retail, restaurants and mix of housing options.
- 5 State Fairgrounds**
Regional transfer stop to and from the NE Rapid Transit line. Potential to offer park and ride facility opportunities.
- 6 Martindale/Brightwood**
Emergent model mixed-use “Green” neighborhood growth and revitalization area with crosstown transit interface potential.
- 7 Mass Ave/16th/East 10th Hub**
Intense entertainment, employment, residential and arts district; a regional destination. A TOD hub for crosstown transit transfers to the East 10th Street corridor, the 16th Street corridor’s Clarian/Med Center and the proposed Regional Center Circulator.
- 8 Union Station Regional Hub**
Regional, state and national connections to and from Central Indiana and the airport in the heart of downtown Indianapolis.

- Proposed NE Rapid Transit Line
- Proposed Regional Center Circulator
- Proposed College Avenue Streetcar
- Alternative Route for Streetcar
- Proposed Carmel Central Circulator
- Proposed Transit Hub
- Proposed Transit Stop
- District



College Ave Regional Transit Concept





Portland, OR

Envision a Modern Lifestyle

Amy lives near Mass Ave, but works at Sallie Mae. Alex lives in Broad Ripple but works downtown. Ralph and Linda want to locate in Indy, but have to accommodate both jobs, one in Carmel and one downtown.

Kari lives downtown Indy. D.J. lives in Carmel. Lisa lives in SoBro - Friday night they rendez-vous for wine and dinner in Broad Ripple then head to the Carmel Performing Arts Center without the hassle of driving and parking.

Rick likes to ride his bike to work on the Monon, but does not like having to ride home after dark if he works late.

All these people and thousands more will choose to live and work near the corridor, not adding to auto congestion. Smart Transportation provides live, work and play choices.

College Avenue Route

A College Avenue transit corridor offers many advantages to Carmel, Indianapolis and the Central Indiana region.

Features of a Carmel/Indianapolis Regional Connection:

- Supports one of the busiest and most heavily populated corridors in Indiana.
- Over 100,000 jobs along the corridor which connects the two largest employment centers of Indiana.
- Creates economic development opportunity by leveraging the investment in Carmel as an asset for Central Indiana, while creating new opportunities between Carmel and the Indianapolis Downtown.
- Reinforces existing investment patterns in land use and transportation, including the US 31 corridor and the North Side Business development areas.
- Reinforces historic land use patterns supporting traditional village centers like Broad Ripple and other transit-ready nodes with mixed uses within easy walking distance of the corridor.
- Accesses key Central Indiana destinations within 15 minutes of the corridor: Lucas Oil Stadium, IMA, Carmel Performing Arts Center, Victory Field, Butler University, Monon Community Center and Carmel Central Park, Conseco Field House, the Zoo, IUPUI, Indianapolis Art Center, State Fairgrounds, Carmel Arts and Design District, Mass Ave, Children’s Museum, Ivy Tech, Broad Ripple,.....



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modern Streetcar in South Broad Ripple (SoBro)