

M E M O R A N D U M

To: Amy Doll, ICF WAM

From: Thomas Brennan

Date: January 6, 2010

Subject: Final Transportation Policy Options Memorandum (deliverable 5b)

The purpose of this memorandum is to present policy options and potential transportation improvements for the Riverfront Crossings District that will address specific local issues while serving as a Smart Growth case study for other communities recovering from natural disaster. The memo presents an overview of the study area, a review of relevant studies, and specific transportation policy options. The included policy options have been developed and vetted through consultant review of local conditions, on site meetings with staff and stakeholders, and a series of public meetings held in Iowa City during November 2009.

I. Introduction

This section provides an overview of the Riverfront Crossings District and its related redevelopment efforts.

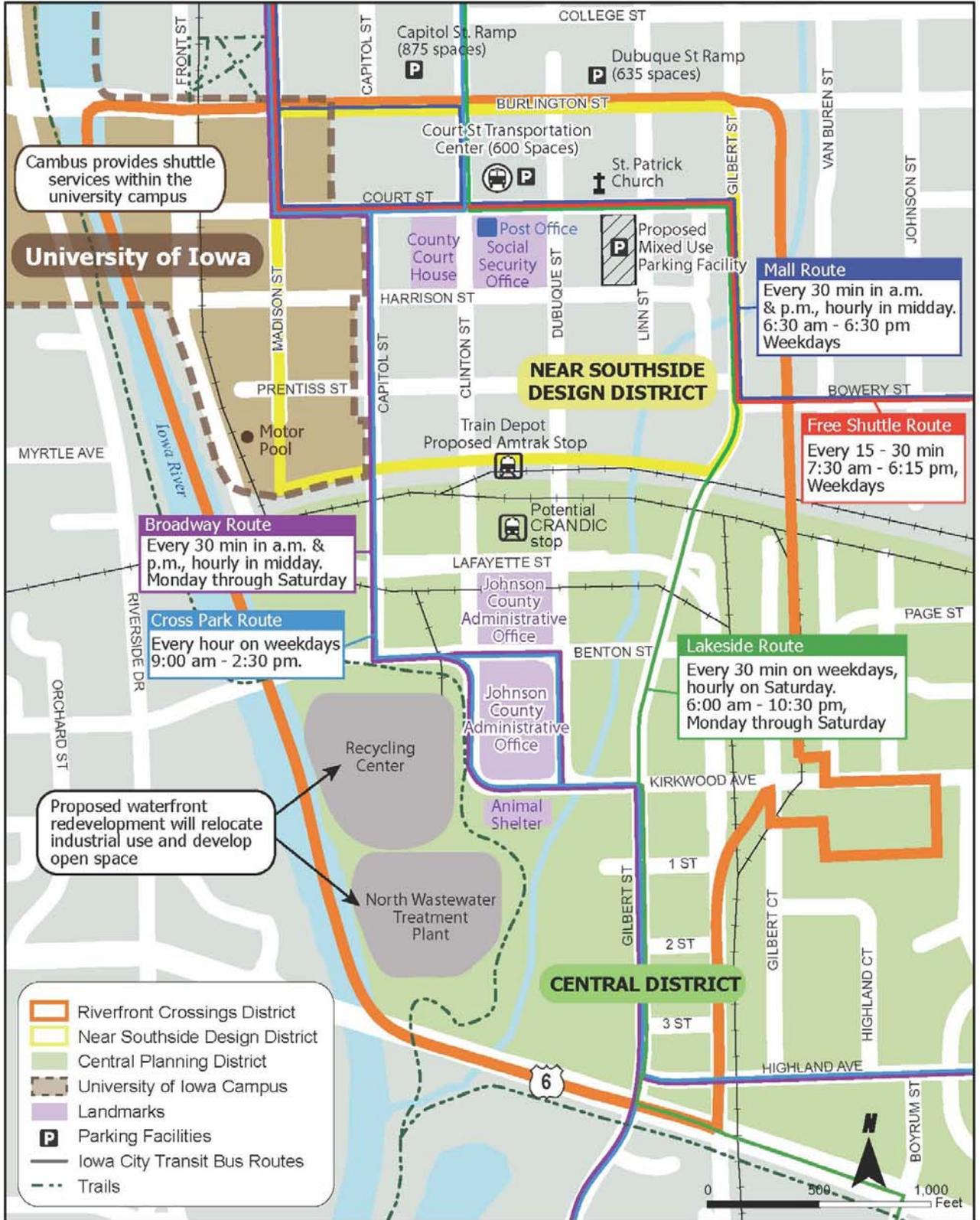
Overview of Study Area

The Riverfront Crossings District is bounded by Burlington Street / State Highway 1 on the north, State Highway 6 on the south, South Van Buren / Boyrum Streets on the east, and the Iowa River on the west. There are two Iowa City designated planning districts that fall within the Riverfront Crossings District: the Near Southside (to the north) and the Central District to the south. The Near Southside is north of the Iowa Interstate Railroad, south of Iowa City Central Business District and adjacent to the University of Iowa campus. The southern part of the study area, between the Iowa Interstate Railroad and Highway 6, lies in the Central District. (See Figure 1).

The study area houses a broad mix of land uses, ranging from single-family to high-density residential, office, commercial, warehouse / light industrial, and public institutional uses. The Riverfront Crossings District developed an industrial character starting in the early days of the city, reinforced by its proximity to the railroad yards and train depot. Today, retail, office, and service establishments, many locally owned, predominate on South Gilbert Street and Kirkwood Avenue; businesses cite high visibility, comparatively low rents, and on-site parking as positive attributes of the location.¹ The building scale and pedestrian orientation along Kirkwood Avenue is similar to a traditional main street. The remainder of the area has a mix of industrial and intensive commercial uses, including a concentration of auto repair business south of Kirkwood Avenue, residential apartments, and public institutional uses.

¹ Central District Plan, October 21, 2008.

Figure 1 Riverfront Crossings District



Residential development within the study area is concentrated in the northeastern part of the District. While surrounding neighborhoods to the north and east have a mix of older homes and more recent ranch-style houses, many original dwellings in the study area have been converted to small office/business use or to multifamily residential uses. Apartment buildings along South Van Buren Street largely house University of Iowa students.

The University of Iowa has approximately 30,000 enrolled students and is the largest employer in the region, with 18,000 employees. The University is located on either side of the Iowa River with the southeastern portion of the campus located in the Riverfront Crossings District.

Major activity centers in the District include:

- University of Iowa facilities, including the physical plant and motor pool
- Court Street Transportation Center
- North Wastewater Treatment Plant
- Johnson County Courthouse, Administrative Offices, and Jail
- U.S. Post Office
- Iowa City Animal Care Center
- Old Train Depot (proposed location for New Amtrak Station)
- School District Administration Building
- St Patrick's Church
- Federal Building.

District Redevelopment

The Iowa River crested 9.5 feet above flood stage in Iowa City in June 2008, inundating bridges, roadways, and the North Wastewater Treatment Plant, releasing wastewater that had only undergone primary treatment. Three of the five arterial street crossings of the Iowa River were closed by the flood, impeding emergency services and access to downtown. Citywide, hundreds of housing units and over 20 University of Iowa buildings were damaged. Within the study area flooding affected properties north of Highway 6 and west of South Dubuque Street.

The flood has prompted consideration of setting aside properties in the floodplain for much-needed open space as redevelopment occurs. New open space is proposed where the North Wastewater Treatment Plant and Recycling Center are currently located. It is expected that development of trails and new park space will encourage redevelopment and reinvestment in the area.

The District also stands to benefit from proposed rail improvements. The Iowa Department of Transportation is working with Amtrak to initiate new regional inter-city passenger rail service between Iowa City and Chicago via the Quad Cities. One of the locations being discussed for the Iowa City station is the 1898 Chicago, Rock Island and Pacific Railroad Passenger Station on Wright Street, which is located in the middle of the Riverfront Crossings District.

In addition, new commuter-oriented passenger rail service is being considered in the Iowa City and Cedar Rapids Corridor on the Cedar Rapids and Iowa City Railway Company (CRANDIC) lines. This corridor is well located to serve commuters traveling from Cedar Rapids, North Liberty, and Coralville to Iowa City's Downtown and University of Iowa. Currently, there are no stops in the project area, although the line runs through the District and a stop has been proposed for an area north of Lafayette Street, between Clinton and Dubuque Streets and in the northwest corner of the study area.

These new regional rail stops may serve as a catalyst for redevelopment and foster a change in existing land use patterns. If these services are implemented, the District would be well positioned for transit-oriented development (TOD) and could support higher density mixed-use development in the vicinity of these transportation facilities. It could lead to an intensification of commercial uses along South Gilbert Court and a corridor of commercial and urban mixed-use along Gilbert Street. Moreover, there could be positive spillover effects to support denser, mixed-use, pedestrian-oriented development.

In addition to the potential offered by new transportation improvements, the District has already been transforming, especially in the northern area, due to the gradual extension of downtown into the District. Land in the northern portion of the District is being developed to support demand for Downtown housing. It is likely that demand for services and retail will follow, although Iowa City requirements to build ground floor retail space has create a short term glut of small retail opportunity. The University of Iowa is currently developing a new recreation facility just south of Burlington and is considering an adjacent site for the development of a new performing arts center to replace a facility damaged during the floods.

ICF's *Task 2 Market Overview Memo* suggests that the Riverfront Crossings District would be well positioned to satisfy growing demand for housing in Iowa City and regionally because it can support higher-density infill housing. Due to its location it is well positioned to attract a downtown housing market demographic. The Riverfront Crossings District is poised to redevelop into a mixed-income, mixed-use, transit-oriented, urban neighborhood that will likely appeal to a range of populations, including the "creative class."

II. Literature review

This section provides a short summary of existing relevant transportation planning documents, especially those that pertain to transit needs as well as parking conditions and policies. The following is a brief summary of these documents including selected findings or extracts that relate to this effort.

Iowa City Comprehensive Plan

Iowa City's comprehensive plan, *Beyond 2000*, was adopted in 1997. The Comprehensive Plan envisions Iowa City as a community of compact, pedestrian-oriented neighborhoods with neighborhood focal points and commercial centers. It encourages diverse housing types, transit supportive densities and a mix of land uses in neighborhood centers and the downtown area. The plan aims to accommodate all modes of transportation on the street system and supports the continuation of interconnected grid streets to reduce congestion on main roads and provide

more direct routes for travel. All of these characteristics support pedestrian conditions and access to transit.

The Plan divides the city into ten districts for planning purposes. The Riverfront Crossings District falls within the Central and Downtown Planning Districts. The Central District Plan and Near Southside Design Plan (within the Downtown District) have been completed and provide a more detailed vision for these areas.

Iowa City Central District Plan

The Central District Plan was adopted in October 2008. It covers the portion of the study area south of the Iowa Interstate Railroad. The plan's goals and objectives for the Riverfront Crossings District, in Subarea C of the district, include:

- Improve traffic flow, including intersection improvements on Gilbert Street at Highway 6 and Kirkwood Avenue; possible turn lanes on Gilbert Street; and studying whether direct east-west access between Benton and Gilbert Streets is desirable / feasible.
- Support economic vitality, including preserving on-street parking on Kirkland Avenue and providing street crossings and pedestrian-scale lighting to improve safety.
- Introduce residential uses to the area to support commercial uses and expand opportunities for living near employment and transit.
- Encourage riverfront development to support economic vitality and quality of life.

The Plan's overall transportation goals and objectives include those to: improve traffic circulation while preserving neighborhood character; mitigate on-street parking issues; improve bicycle and pedestrian connectivity; make public transit more user friendly; and establish passenger rail service on the CRANDIC rail line and Iowa Interstate Railroad.

Near Southside Design Plan

The northern part of the study area includes the Near Southside area, a 20-block area directly south of downtown Iowa City that is within the Downtown Planning District. The Near Southside Design Plan, adopted in 1995, anticipates mixed-use development south of Court Street and includes streetscape improvements, parking, civic projects, and building design concepts to create a "unifying sense of place." The plan would redesign Burlington Street to improve connectivity between downtown and the Near Southside and extend downtown street design south to Court Street. It would also create a distinct retail cluster around the former Rock Island Depot and provide a more human-scale for high-density residential development in the district.

Long Range Multi-Modal Transportation Plan (2007-2035)

Transit Plan

The Johnson County Council of Governments (JCCOG) is responsible for transit planning and grant administration in the Iowa City Urbanized Area, which includes Coralville Transit, Iowa City Transit, and University of Iowa service (CAMBUS). The plan includes an overview of current transit services, transit performance, funding sources, Title VI Analysis, a demographic overview of the Urbanized Area, goals and objectives, identified needs, and future directions.

The plan identifies the following public transit needs:

- There is little or no public transit service during the late night and early morning hours, weekends and holidays. These shortcomings limit job opportunities that operate 24/7 or during off-peak hours. The plan spells out an objective for Iowa City Transit and Coralville Transit to develop a joint subsidized cab ride program that meets the transportation needs of individuals working late night hours and Sundays and holidays. Another objective specifies that Iowa City Transit provide more late night and weekend service to the commercial areas on South Riverside Drive, Pepperwood, Sycamore Mall, and downtown Iowa City.
- Public transit may be inconvenient for some due to time-consuming rides due to long wait and trip times.

The Plan states the following future goals and directions for Iowa City Transit:

- Preserving the existing level of Iowa City Transit service. It is expected that the downtown/University of Iowa Hospitals and Clinics employment center will remain the principal market, although newly developing areas with higher density housing and a moderate income demographic profile may be considered for new service.
- It is recognized that the level of transit service can impact mode choice. Transit service every 10-15 minutes can compete with motor vehicle transportation, but Iowa City Transit is unlikely to operate at these levels in the foreseeable future due to fiscal constraints.
- Iowa City Transit will continue to evaluate innovations such as the free-fare transit shuttle.
- Transit and parking policies will continue to be evaluated together. For example, the downtown transit shuttle was successful in reducing the number of persons living close to downtown that were driving and parking in downtown municipal parking facilities.

Rail Plan

The JCCOG Motor Carrier and Rail Plan presents current and proposed improvements for motor carrier traffic and rail service. JCCOG assists member governments with planning, programming, and constructing improvements to the arterial street system that include special accommodations for large trucks where appropriate. Improvements to the freight rail system are primarily generated by the private sector, although JCCOG has occasionally assisted with rail system improvements through state and federal grant programs. The plan outlines proposed passenger rail services on the CRANDIC lines, as also described in the Cedar-Iowa River Rail Transit Project Feasibility Study.

Bicycle and Pedestrian Plan

The JCCOG Urbanized Area Bicycle Plan of 1994 resulted in over 40 miles of separated trails and 30 miles of wide sidewalks. An early focus was to provide crossings of high-volume streets, the Iowa River, and railroad tracks. The current long-range plan emphasizes trail and sidewalk improvements for better connectivity. JCCOG also released a draft Bicycle Master Plan for the region in June 2009 that makes specific policy and infrastructure recommendations; it was adopted by Iowa City and other cities in the region in July 2009.

JCCOG adopted a Complete Streets Policy in 2006, requiring new or reconstructed roads to accommodate bicycle and pedestrian travel if the cost is not disproportionate to the need or probable use. It also recognizes that “to allow people to travel by bike or by foot to work, to the store, and to run everyday errands, pedestrian and bicycle-friendly land use strategies are important,” with a mix of uses within walking or bicycling distance of each other.

Feasibility Study on Proposed Amtrak Service from Chicago to Iowa City

The Iowa DOT/Amtrak study evaluates the feasibility of developing Amtrak service between Chicago and Iowa City, and is an addendum to a previous feasibility study looking at service between Chicago and the Quad Cities.

The report states that there is a former Rock Island passenger station in Iowa City now being used for non-rail purposes that could potentially be used as the Iowa City Amtrak station. It is located on Wright Street between Clinton and Dubuque Streets in the heart of the study area. According to the report, “it would require significant capital work to be made ready for use as an Amtrak stop and its availability for such use is unknown.” In addition, if Amtrak service were to terminate at Iowa City, an overnight storage track of sufficient length with ample parking and certain other requirements would be required. An overnight storage track might be made available at Iowa City’s rail yard or the switching track east of Maiden Lane might be used.

Cedar-Iowa River Rail Transit Project Feasibility Study

The purpose of this study was to determine the feasibility of establishing regularly scheduled passenger rail service and / or special event excursion rail service over existing trackage of the Cedar Rapids and Iowa City Railway Company (CRANDIC). Three potential services were evaluated:

- **Daily commuter services between Eastern Iowa Airport (with a bus connection to downtown Cedar Rapids) and Iowa City:** Service implementation would require various degrees of infrastructure improvement and the acquisition of railroad passenger equipment.
- **Daily commuter service between North Liberty and Iowa City:** Service implementation would require various degrees of infrastructure improvement and the acquisition of railroad passenger equipment.
- **Special Event Excursion service:** The study found immediate potential to undertake Special Event Excursion service or regularly scheduled tours on the CRANDIC Hills Line between Eastern Iowa Airport, Iowa City, and Hills.

Rebuild Iowa Reports

The Rebuild Iowa Office (RIO) and Rebuild Iowa Advisory Commission (RIAC) were established to coordinate the flood recovery effort statewide. One of the Commission’s long-term objectives for infrastructure is to “Build new infrastructure that is safer, stronger, smarter and more protected in future disasters and incorporate smart growth and energy efficiency principles.” RIO’s Community and Regional Recovery Planning team released a proposal for a statewide integrated

planning system in July 2009.² One element of the proposal is a set of ten “Smart Planning Principles.”

According to RIO, participants in its public input forums and survey felt that limited public transportation restricted people’s options to seek assistance, get back to work, or move to safer ground and that a sustainable and efficient public transportation system should be given high priority in the recovery process.

Long-term Community Recovery Strategy

The Long-Term Community Recovery Strategy for Iowa City identifies specific opportunities for recovery. The project most relevant to the study area is consolidation of the North Wastewater Treatment facility, located in the southwestern corner of the study area, into the South Wastewater Treatment Facility. The Iowa City Central District Plan (see above) calls for flood mitigation strategies and development of a high-density residential neighborhood in place of the treatment plant, adjacent to existing rail service.

Iowa City Zoning Code and Map

The zoning code was updated in 2008 and supports more compact, pedestrian-oriented development in areas in or close to the Downtown, the University, and in commercial areas. The latest version of the zoning code reduces the number of parking spaces required for some commercial and industrial land uses as it previously required more parking spaces for commercial and industrial uses than was necessary. This amendment supports commercial areas in adapting to new businesses over time and using under-utilized parking lots for more productive uses.

III. Existing Conditions

Transit Existing Conditions

Public transit in the study area is primarily provided by Iowa City Transit, which operates on a hub-and-spoke route system. Its hub is located at the Downtown Iowa City Transit Interchange, located at Washington and Clinton Streets, a couple of blocks north of the study area. In addition, the area is served by CAMBUS, University of Iowa’s shuttle system, and Coralville Transit, serving the City of Coralville, north of Iowa City.

Iowa City Transit

Iowa City Transit is the primary transit provider for the City of Iowa City. Five of Iowa City Transit’s 17 routes serve the Riverfront Crossings District:

- **Broadway Route:** This route operates between the southeastern corner of the study area to the northwest corner, including Highland Avenue, Gilbert Street, Capitol Street, Madison Street, and Clinton Street. It serves the University of Iowa along the eastern side of the Iowa River. On weekdays, the route operates every 30 minutes during the morning and evening peak periods and hourly during the midday and night-time. Weekday service runs from 6:30 AM to 11:00 PM. On Saturday, service operates hourly from 6:15 AM to 7:00 PM.

² See http://www.rio.iowa.gov/community_recovery/green_paper.html

- **Free Shuttle:** The Southside Free Shuttle route serves the northern portion of the study area and travels on Gilbert Street, Court Street, and Madison Street; in addition it serves areas in downtown Iowa City. It operates every 15-30 minutes throughout the day from 7:30 AM to 6:15 PM on weekdays. This route was created in order to reduce the number of university students driving short distances to campus and occupying downtown parking spaces.
- **Cross Park Route:** The Cross Park Route operates north-south within the study area, serving Madison Street, Clinton Street, Court Street, Capitol Street, Benton Street, Kirkwood Avenue, Gilbert Street, and Highland Avenue. Service operates hourly on weekdays from 9:00 AM to 2:30 PM.
- **Lakeside Route:** This route travels between the study area and areas to the southeast. It serves Clinton Street, Court Street, and Gilbert Street. On weekdays, service operates every 30-60 minutes from 6:00 AM to 10:30 PM. On Saturday, service operates hourly between 6:00 AM and 7:30 PM.
- **Mall Route:** This route serves the northern portion of the study area and the malls to the southeast, along Lower Muscatine Road and Highway 6. Service operates on weekdays every 30 minutes during the morning and afternoon and hourly during the midday from 6:30 AM to 6:40 PM.

Fare Structure

The base fare on Iowa City Transit is 75 cents. Regular riders are encouraged to purchase a monthly bus pass, which saves money and offers the convenience of not needing exact fare when boarding the bus. Iowa City Transit offers a \$25 unlimited ride 31-day pass and a \$6.50/10 ride ticket book. There is a K-12 31-day pass available for \$20 and a student semester pass for \$80 for persons attending the University of Iowa or Kirkwood Community College. There is a monthly pass for University of Iowa faculty/staff for \$23 per month. Free transfers are issued to allow passengers to make a complete one-way trip from one part of town to another.

Revenue

Property taxes are the primary local source of revenue for Iowa City Transit. Fare revenue and state and federal funding provide the balance of funding for Iowa City Transit. The Court Street Transportation Center will also add about \$300,000 annually to transit revenue.

User Experience

The following observations have been made regarding the quality of the transit user's experience based on cursory research and discussions with city representatives:³

- **Bus stop amenities:** Outside of the major transit facilities, most of Iowa City Transit's bus stops in the study area do not have shelters, benches, or other passenger amenities that provide a comfortable waiting area for bus riders. There is no bike parking at bus stops and relatively few people use bikes to access bus service given the compact size of the city.

³ John Yapp, Transportation Planner, Johnson County Council of Governments

- **Bus stop signage and information:** Bus stops have relatively small signs, which may be difficult to identify for those who aren't accustomed to taking transit. Customer information at bus stops includes a route diagram and schedule, but does not include a system map.
- **Customer information:** The City of Iowa City's website provides basic information about routes, schedules, and fare structure. In addition, schedules are also available at City Hall, Iowa City's Public Library, area hospitals, IMU Campus Information Center and Iowa City Transit buses.

CAMBUS

CAMBUS is the University of Iowa's fare-free shuttle system and provides 3.7 million rides annually. It consists of 13 routes operating Monday through Friday and three weekend routes during the academic year. This service is focused on serving the university campus, including parking facilities, on-campus residence halls, family housing, academic buildings, and the University of Iowa Hospitals and Clinics. Although there is ongoing interest in expanding the CAMBUS service area to include off-campus, private student apartment complexes, this will remain in the purview of Iowa City Transit.

CAMBUS currently provides service every 15 minutes and will evaluate expanding service to 10-minute intervals. The University parking system has instituted a transit pass program on Iowa City Transit to provide an incentive for transit use.

Regional Connectivity

Iowa City transfers and monthly passes are honored by the Coralville Transit System, and Iowa City honors transfers and monthly passes from Coralville. The Transit Plan section of the Long Range Transportation Plan found that there "is already a seamlessness between Coralville Transit, Iowa City Transit, and CAMBUS that makes it very easy for riders to transfer from one busy system to another at no expense." These services are well coordinated as all systems converge at the Downtown Transit Interchange, share maintenance services, coordination of routes to avoid service duplication, honor monthly passes between systems, and make joint vehicle purchases.

Parking Existing Conditions

This section outlines existing on-street and off-street parking facilities in the study area, parking demand, as well as parking policies and management.

Parking Facilities and Management

The Parking Services Division of the Iowa City Transportation Services Department oversees the operation of parking garages, parking lots, and on-street (metered) parking. The Division enforces parking regulation in the central business district, while the Police Department enforces parking regulations in residential areas.

The City of Iowa City manages five parking structures, one of which is located in the study area, as well as on-street parking. The study area is served by the Court Street Transportation Center, which includes 600 parking spaces; of these spaces 525 permits have been allocated (300 to the University of Iowa and 225 to others). In addition, there are 252 public metered parking spaces. A recent study of the metered parking spaces found that they are approximately 46% utilized.

Leased spaces help to fund Iowa City Transit by creating a fuel reserve fund to offset unexpected increases in the price of fuel and potentially to expand service. One of the primary purposes of the Court Street Transportation Center is to act as a catalyst for redevelopment in the area.

The City of Iowa City is planning to build a new mixed-use parking structure at the former site of St. Patrick's Church School, located on the block bounded by Court Street, Linn Street, Harrison Street, and Dubuque Street. The facility will include three components: 500-600 parking spaces, approximately 25,000-35,000 square feet of commercial space (retail and office), and 40-90 workforce housing units. It is intended that the facility be an attractive urban building that fits into the Southside Redevelopment Area.

Parking Demand

A 2007 parking demand study estimates that there will be an increased parking demand of 1,032 parking spaces, given planned redevelopment projects in the area. According to the study, redevelopment of the north side of the 100 block of Burlington Street (Moen property) will create an additional demand of approximately 185 spaces.

These projections make the following assumptions:

- There is a demand of one parking space for each downtown residential bedroom.
- For office and commercial space, parking demand is 1 space per 1,000 square feet.
- For projects in the conceptual stage, parking demand was based on recent downtown projects of similar scale, or on concept plans generated by private developers.

According to the Central District Plan, neighborhoods near the Downtown and University experience on-street parking shortages due to commuters seeking free parking.

University of Iowa

The University of Iowa has approximately nine parking lots in the District. The University's Capitol Street Ramp, located just outside of the study area on the north side of Burlington Street, has 875 parking spaces.

The Long Range Transportation Plan states that commuter parking facilities will expand on the University of Iowa campus. CAMBUS, the University's shuttle system, is an integral part of the University's parking system and is important for taking students and faculty to outlying parking lots. The University parking and transit divisions are organized within the same department and under a single University administrator to facilitate coordination. The University parking system has instituted a transit pass program with Iowa City Transit and Coralville Transit for students, faculty and staff in order to manage the demand for parking.

Parking Code

Recent code revisions in December 2008 reduced the number of parking spaces required for some commercial and industrial land uses in order to support redevelopment efforts. It recognizes that half-used parking lots could be more productively used for redevelopment or open space. In addition, it supports locating public parking facilities in strategic locations and limiting private surface lots or structures in order to prevent compromising the pedestrian-friendly character of the Downtown.

The existing code supports denser mixed-use redevelopment in the following ways:

- **Parking maximums:** Certain areas and zones of the City are subject to a limit on the amount of parking provided in order to “foster compact, pedestrian-oriented areas adjacent to residential neighborhoods.” The maximum parking standards are a tool to prevent the development of excessive parking capacity at a site. The code recognizes that by doing so it makes land available for building area, open space, pedestrian amenities and other productive uses. Currently, there is one land use type—the Central Business Support Zone (CB-5)—in the northern part of the district that has parking maximums.
- **Parking minimums:** There are minimum parking requirements for land uses throughout the study area, except for the Central Business Support Zone (CB-5), which has parking maximums and parking minimums only for household living uses. A minor modification may be granted in CB-5 housing units if they are affordable housing programs. Otherwise, parking minimums are required for all other land uses throughout the district. As stated above, although parking minimums are in effect, parking requirements for commercial and industrial were recently reduced.
- **Parking impact fees:** In the Near Southside Parking Facility District, a parking facility impact fee may be required in lieu of providing all or a portion of on-site parking.
- **Shared parking:** The zoning code reduces the total number of parking spaces required by up to 50 percent if the uses sharing the parking are not normally open, used or operated during the same hours. The reduction is not allowed for Residential Uses without an approved parking demand analysis.

Bicycle and Pedestrian Existing Conditions

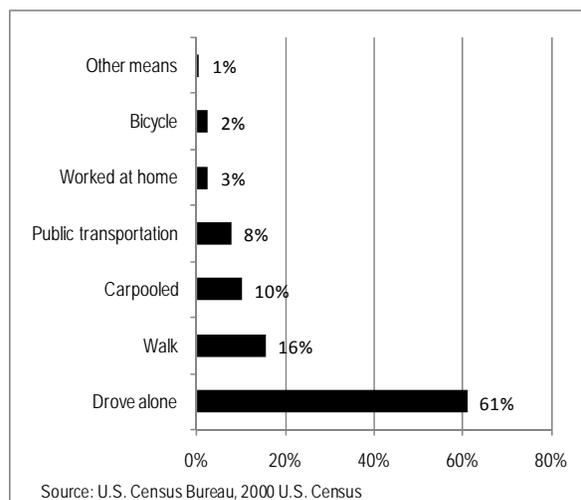
This section presents an overview of the bicycle and pedestrian environment and infrastructure in the Riverfront Crossings District. It discusses existing and missing linkages between key downtown locations and evaluates bike and pedestrian connectivity to transit service.

Walking and Bicycling in Iowa City

A relatively large share of residents (26%) walk, ride public transportation, or bicycle to work, as demonstrated in Figure 1. Most notably, 16% of Iowa City residents walk to work, compared to 4% statewide.

In contrast, only 2% of Iowa City commuters travel by bicycle, although a University of Iowa study estimated that 10% of commuters ride bicycles near the downtown campus.⁴ A one-hour count of campus bike racks found 2,195 bikes or 3% of Iowa City population. These measures demonstrate that central

Figure 1 Commute to Work, Iowa City, 2000



⁴ Iowa City Central District Plan, October 21, 2008.

Iowa City is well-suited to walking, but that bicycling is comparatively unattractive for commuting to work. Iowa City was recently designated as a Bronze-level Bicycle Friendly Community by the League of American Bicyclists, recognizing its recent adoption of the regional Bicycle Master Plan, creation of new on-street bicycle facilities in downtown, and support of bicycle encouragement programs.⁵

Existing Bicycle and Pedestrian Conditions and Policies

The Riverfront Crossings District is bounded by State Highways 1 and 6, which were among the least bicycle-friendly corridors according to public input for the regional Bicycle Master Plan.⁶ The Iowa Interstate Railroad bisects the District and creates an additional barrier to north-south connectivity. The Highway 1 and Benton Street bridges over the Iowa River provide bicycle and pedestrian facilities; however, there is no bike and pedestrian facility on the Highway 6 Bridge.

Off-Street Facilities for Bicyclists and Pedestrians

The regional multi-use trail network is well developed and serves longer distance trips for both bicyclists and pedestrians. The Iowa River Corridor Trail runs along the Iowa River and passes through the southwestern corner of the Riverfront Crossings District, providing a good north-south bicycle and pedestrian route. However, it leaves the District at Benton Street to cross to the west side of the Iowa River. An east-west trail exists on Highway 6 east of the Iowa River for slightly less than one mile, on the southern edge of the district. A continuation of the trail is planned to both the east and west. In 2006, wayfinding signs were installed on the regional trail system.

Most new and reconstructed arterial streets in the Iowa City region have a single, wide sidewalk that accommodates bicycles, including Highway 6 on the southern edge of the District. Right-of-way constraints on Highway 1 / Burlington Street precluded this approach in downtown Iowa City.

On-Street Bicycle Facilities

On-street bicycle facilities in Iowa City have consisted primarily of shared roadways and wide curb lanes (at least 12-feet) on new or reconstructed arterial streets. Bike lanes were removed in Iowa City in the early 1990s, prompted by bicycle advocates who did not want to constrain bicyclists to bike lanes and "share the road" signs were installed on many of these streets.⁷ In July 2009 "sharrows," or shared lane arrows, were marked on College Street east of Gilbert Street. Sharrows are marked on a shared roadway to position cyclists a safe distance from opening car doors and to encourage motorists to drive further to the left in the travel lane. A combination of sharrows and bike lanes were marked on Jefferson and Market Streets. While there are on-street facilities in the downtown core and other parts of Iowa City, there are no existing on-street facilities in the Riverfront Crossings District.

Pedestrian Conditions

Central Iowa City, including the Riverfront Crossings District, generally has a well-connected street grid and most downtown streets have sidewalks. However, there are some gaps in

⁵ Iowa City Press-Citizen, October 21, 2009. <http://www.press-citizen.com/article/20091021/NEWS01/91021008>

⁶ JCCOG, Metro Bicycle Master Plan, June 2009 (Draft)

⁷ JCCOG, Metropolitan Bicycle Master Plan, June 2009 (DRAFT)

sidewalks on arterials including the north side of Highway 6 (although a trail runs along the south side).⁸ In addition, some long street blocks lack adequate safe crossings. Participants in an Iowa City planning workshop cited a lack of sidewalk connectivity in older neighborhoods as a barrier to pedestrian circulation.⁹ The City Council recently established and funded a sidewalk infill program to address the gaps in the sidewalk system. Priority is given to major pedestrian routes along arterial and collector streets, and walking routes to major neighborhood destinations.

There is a need to improve pedestrian connectivity in the southern portion of the district, especially in the vicinity of the North Wastewater Treatment Plant and Recycling Center, which will likely be relocated and redeveloped into public open space due to their location in the floodplain. In addition, the Central District Plan identified the need for intersection improvements on Gilbert Street at Highway 6 and at Kirkwood Avenue.

Future Bicycle and Pedestrian Facilities

The regional and city Complete Streets policies, adopted in 2006 and 2007, respectively, require that major road projects incorporate bicycle and pedestrian facilities if the cost is not disproportionate to the need or probable use, defined as 20% of the overall project budget. JCCOG and Iowa City have identified planned bicycle and pedestrian routes to address discontinuities in the network, including multi-use trails, wide sidewalks, and bicycle lanes or boulevards. Planned bicycle facilities in the District include a number of potential on-street bike routes both north and south of the Iowa Interstate Railroad. While these routes would significantly improve the options available for bicyclists, they only include one crossing of the railroad, on Capitol Street near the western edge of the district, and change from street-to-street, creating a challenge for following a designated bicycle route.

In addition to proposed facilities in adopted Iowa City plans, JCCOG's Draft Bicycle Master Plan has recommended that Iowa City evaluate policy and potential facility options, including converting Washington Street to two-way in downtown and evaluating a bike or wide curb lane on Madison Street, reducing it from four to three vehicle lanes.

Bike Parking

Iowa City requires multi-family, retail, office, and service commercial businesses to provide bicycle parking in all zones except CB-5 and CB-10, where it is required for only multi-family dwellings. (The CB-5 zone applies to several properties on the south side of Burlington Street and the west side of Gilbert Street; the CB-10 does not apply to any properties within the District.) In zoning designations where it is required, a minimum of four spaces must be provided.

Iowa City and the University of Iowa install steel bike racks for 4-12 bikes at public locations. City residents have expressed a need for more bicycle parking in general and covered parking in particular.¹⁰ However, bike parking in the study area is much more limited than other parts of central Iowa City. Bike lockers are located at the Court Street Multimodal Transportation Parking Ramp and the Iowa City recreation center, located on Gilbert Street north of Burlington Street, provides shower facilities.

⁸ JCCOG, Long-Range Multimodal Transportation Plan 2007-2035, Sidewalk Deficiency Map

⁹ Cited in Johnson County Long-Range Plan

¹⁰ Iowa City Central City Plan, October 21, 2008

Education and Encouragement

There are numerous bicycle education and encouragement programs in Iowa City, including:

- The Iowa City Bike Library provides bicycle checkout for up to 6-month periods on Saturday mornings and provides a self-service bicycle repair area; the city provides the space for free.
- Bicyclists of Iowa City organizes bike rides and provides information on routes and other resources on its website; the city also provides free working space.
- The University of Iowa funds a bike program to encourage bicycling on campus.
- The University of Iowa's Wellness program provides walking maps and links to regional bicycling resources.¹¹

Bike-Transit Integration

Iowa City Transit vehicles are equipped with bicycle racks and as noted above, the Court Street Multimodal Transportation Parking Ramp has bike lockers.

IV. Policy Options

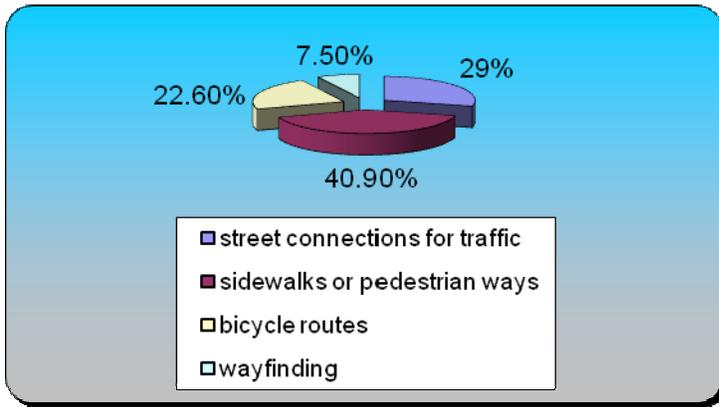
This section proposes transportation policy and physical improvement options that can be implemented to promote smart growth approaches to redevelopment in the Riverfront Crossings District. Policy options were developed through several steps. An earlier memo introduced a wide range of policy and transportation improvement options based on a review of existing conditions and plans. That memo was refined based on comments from local staff prior to a site visit. During the site visit policy options were vetted through two public open house presentations and a number of interviews with local planning staff and stakeholders. This memo presents policy options or transportation improvement concepts that received community support and local staff buy-in. An appendix includes other policy options that were included in the original memorandum, but were not prioritized or discussed extensively during the site visit.

1. Improve Transportation Network Connectivity and Comprehension

The Riverfront Crossings District has well preserved historic street grid. The grid is interrupted in a few locations by topography, railroad tracks and instances where development closed historic street connections. A top priority as redevelopment occurs should be to maintain existing street connections, restore historic connections and enhance connectivity for pedestrians through the restoration of alleys or creation of pedestrian streets. The highest priority for improving connectivity, from polling results among local residents that attended a November 2009 workshop, was improvements to sidewalks and pedestrian ways.

Do you support City investments to enhance street network connectivity in the Riverfront Crossings District?

¹¹ <http://www.uiowa.edu/hr/wellness/resources/maps/index.html>



A complete grid of streets with smaller block lengths decreases walking time for pedestrians, as well as helps disperse vehicle traffic. Furthermore, a complete grid disperses traffic, thereby ensuring that traffic on any one street does not reach a volume that discourages pedestrian movement. A recent California study showed cities with larger blocks suffered more than three times as many vehicular fatalities as cities with smaller blocks. (Marshall and Garrick: *Street Network Types and Road Safety*.) In the Riverfront Crossings District, the Iowa Interstate Railroad and CRANDIC tracks disrupt the generally good block structure in the district. Removal of the southern spur track and improvements at key crossings could improve pedestrian conditions. Specific opportunities to enhance connectivity include:

- Improving pedestrian crossings along Burlington to facilitate safe pedestrian movement between downtown and the Riverfront Crossings District. Crossing opportunities should be provided at every intersection, using techniques such as raised medians, striped crosswalks, and warning signs to make pedestrians more visible to drivers. Reducing intersection width improves visual contact between drivers and pedestrians and reduces crossing distances and the time needed to cross on foot. Based on a brief review of current design plans for Burlington Street, we believe the City should revisit the design scheme prior to construction to ensure that pedestrian accommodations are prioritized in relation to arterial traffic movements. Concerns about pedestrian safety and the barrier created by Burlington topped all concerns expressed during the November workshops.
- Improving pedestrian crossings along Gilbert Street to facilitate safe pedestrian movement between eastern neighborhoods and the Riverfront Crossings District. The proposed road diet for Gilbert Street would be a means to this end.
- Restore Capitol Street connection south of Burlington. This historic street provides an excellent vista of the Capitol building that can be seen as far south as the Wastewater Treatment Plant site. Restoring this connection, at least as a pedestrian street, would reinforce the use of landmark buildings as natural wayfinding as envisioned by the City's early designers.
- Enhance the pedestrian connection of Harrison between Van Buren and Linn. This is an uphill connection that would require a stair climb connection for pedestrians only. Planned redevelopment of the lot to the north could facilitate this project.
- Iowa City could improve pedestrian legibility and take better advantage of the well connected streets in the Riverfront Crossings District by implementing a well planned and designed pedestrian wayfinding system.



Examples of good pedestrian wayfinding in Charlotte and Ann Arbor

- New grid connections could be integrated into the redevelopment of the Wastewater Treatment Plant and the recycling center. One concept might be to create a new link by extending Capitol Street and Kirkwood Ave one block to connect.
- The historic block structure provides opportunities for pedestrian shortcuts, including alleyways and convenient street crossings. Small scale pedestrian streets or simple safety and lighting improvements to alleys can increase options and decrease walking distances for pedestrians where the street grid is disconnected or block lengths are long. Since there are few major east-west traffic movements, such treatments would be well-suited to the Riverfront Crossings District. Also, there are opportunities to enhance crossing opportunities and the safety and quality of existing informal crossings of Ralston Creek such as the narrow pedestrian crossing attached to the railroad bridge.



A mid-block pedestrian street enhances pedestrian connections

The Riverfront Crossings District is generally a good environment for cycling as most streets are wide and have low traffic volumes, with traffic traveling at relatively low speeds. However, there are challenges to crossing and cycling on the major arterial streets that border to the north and east. Cyclists would benefit from wayfinding signs and/or pavement markings that help them follow bicycle routes that may not follow a single street and navigate between key attractions and neighborhoods, as proposed in the Central District Plan and regional Bike Master Plan. The latest version of the Manual for Uniform Traffic Control Devices (MUTCD) has significant changes

to the chapter “Traffic Controls for Bicycle Facilities.” Among the changes is language supporting the use of sharrows or shared-lane markers and standardization of bicycle wayfinding signage. The City should ensure that new wayfinding signage meets standards set forth in the MUTCD, since the standardization of bicycle signage across the U.S. should promote broader recognition of sign types by visitors and students from other communities.



MUTCD – new bike route guide signs

A few key projects to improve connectivity and through travel for bicyclists should be considered in the District:

- A Road Diet of Gilbert Street that includes a striped, on-street bicycle lane in each direction. (As described later, a Road Diet entails removing a general purpose travel lane in each direction in exchange for new capacity for bikes or on-street parking.)
- Another concern we have with the proposed Burlington reconstruction project is the lack of quality bicycle facilities at the bridge just east of Riverside Drive. This is a very high volume crossing for autos, but also for bicyclists and pedestrians crossing between the Universities West Campus and the East Campus and downtown. The width of the bridge is a major constraint to adding new capacity to provide accommodations needed handle the volume of bicyclists and pedestrians in this part of the corridor. We recommend that City consider eliminating the northernmost westbound traffic lane at the bridge to accommodate a two-way bicycle facility or evaluate the feasibility of a cantilever lane added on the north side of the bridge to accommodate cyclists. Either option would need to connect into the pedestrian/bicycle crossing of Riverside Drive, which could present design challenges. Likewise, either option should continue to provide cyclists an opportunity to cross at grade, with traffic.



Cantilever Bicycle and Pedestrian trail added to the lower deck of historic bridge

- The planned relocation and redevelopment of North Wastewater Treatment Plant and/or Recycling Facility sites provides an opportunity to extend the adjacent street grid and reroute the multi-use trail on the east side of the site to the riverfront. Removal of the facility will also create an opportunity to provide a bicycle and pedestrian crossing on Highway 6, identified as a potential trail facility in the Central District Plan. This may also be a good opportunity for a cantilever type facility added to the existing bridge.

2. Complete all District Streets

Iowa City has adopted a “Complete Streets” Policy, which is well written and should be enforced as District streets are rebuilt or new street connections developed. Special attention should be given to the following strategies to support the implementation of Complete Streets policies:

- **Enhance pedestrian amenities and activate the street throughout the District:** “Active” sidewalks with transparent building facades and a diversity of uses add visual interest to the street environment and encourage walking. Attractive, distinctive sidewalk treatments can create a sense of identity for different districts. Sidewalks should also include amenities such as benches, lighting and signage that make for a comfortable walking experience and can encourage walking. Pedestrian scale lighting, as proposed in the Near Southside Design Plan and other plans, improves pedestrian safety where long block lengths, trees, buildings, or other features block light from reaching the interior of the block. Newer development projects, particularly those in the northern portion of the District, are well oriented to the street and residential projects include ground floor retail. One clear challenge is that the demand for multifamily student housing outpaces retail demand. The City may want to consider relaxing requirements for ground floor retail in parts of the district where pedestrian activity is likely to be lower, while focusing policies to ensure that one or two streets are able to develop continuous, vibrant retail environments.
- **Minimize auto-centric land uses and curb cuts:** Auto-centric land uses along a roadway diminish the quality of the walking environment. Every time a driveway crosses a sidewalk, pedestrians are endangered. In most downtowns, only rear alleys are allowed to break the curb, at a rate of one per block. Entries into parking structures, when not from alleys, must be limited and well marked. Drive-throughs and drop-offs – in which a vehicular path cuts into the sidewalk for driver convenience – are a suburban solution that does not belong in cities. There are a number of locations where curb cuts and auto-centric land uses could be reduced—for instance, Burlington Street, on the northern edge of the District, is characterized by auto-oriented land uses and pedestrians face curb cuts and driveways along their path.
- **Provide continuous on-street parking:** Whether parallel or angled, on-street parking provides a barrier of steel between the roadway and the sidewalk that is necessary if pedestrians are to feel fully at ease while walking. It also causes drivers to slow down out of concern for possible conflicts with cars parking or pulling out. On-street parking also provides life to city streets, which are occupied in large part by people walking to and from cars that have been parked a short distance from their destinations. Several street segments in the District have lost on-street parking so that additional travel lanes could further ease traffic flow. Other streets have parallel or angled parking that is not fully

utilized. The resulting unprotected sidewalks are not hospitable to walking, as can be seen along streets such as Burlington, Harrison, and Gilbert Streets.

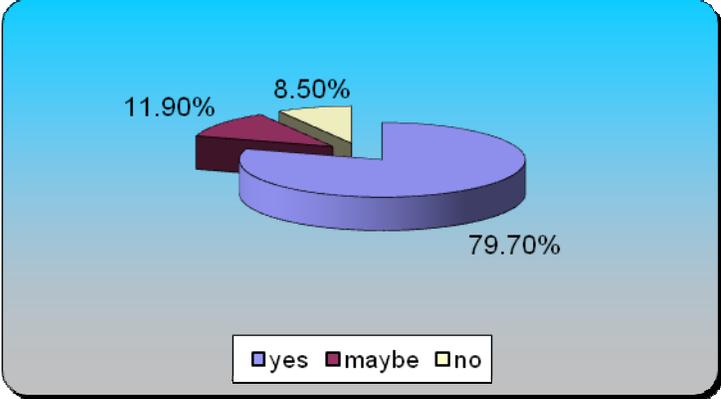
- **Prioritize connection between downtown and future rail hubs:** It would be challenging to point to a single “Main Street” in downtown Iowa City, in part, because the city has many successful commercial streets in the downtown. Iowa Avenue, College Street, Linn Street, Dubuque Street and to some degree Clinton Street have attributes of a successful main retail street that many communities of similar size would envy. Having enough retail and commercial demand to support a network of vital downtown streets is a great problem to have! However, as the downtown develops southward into the Riverfront Crossings District, commercial land uses are likely to be less intense. The planned termini of two intercity rail services (Amtrak and CRANDIC) in the southern portion of the district suggests that a linear connection should be sought to encourage a high-quality walking environment between the rail station(s) and the downtown core. While participants in the November polling exercise did not feel it was important to designate a district “Main Street,” it will be important to ensure that street improvement priorities and incentives for business location should be located in a spine along Dubuque Street or Clinton Street.

3. Implement a Road Diet on Gilbert

“Road diet” is common name for a lane reduction (typically a “4-lane to 3-lane conversion”) that changes the configuration of an existing road by reallocating the available street right of way. On a four-lane road such as Gilbert Street, the final configuration is a through-lane in each direction with a center turn lane. The area the fourth lane previously occupied becomes a sidewalk, bike lane, center median, on-street parking or provides space for area beautification. In the case of Gilbert Street, the additional right-of-way could provide a 5’ or wider bike lane in each direction, creating a north-south bicycle connection from Burlington to Highway 6. The City should also consider dieting the roadway to the north of Burlington and south of Highway 6.

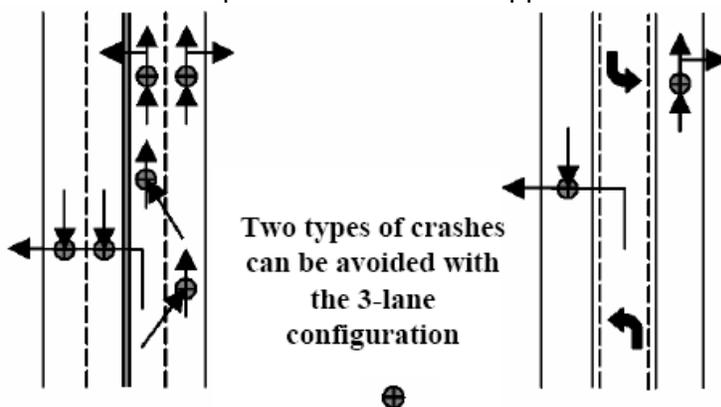
After a short description of the benefits of 4 to 3 lane conversions (as evidenced through case study research) local residents who participated in a polling exercise indicated a high level of support for a road diet on Gilbert.

Would you support a road diet for Gilbert Street?



The primary reasons for implementing a road diet include:

- **Enhance access to local businesses:** The Gilbert Street corridor is home to an impressive array of small and locally owned businesses and includes perhaps the most culturally diverse grouping of businesses in the City. While these businesses need auto access to thrive, cars traveling at high speeds are less likely to make impromptu stops due to decreased visibility. Furthermore, the street configuration makes driveway entry and egress challenging and, at times, intimidating. Slowing traffic in the corridor while maintaining volumes should improve the business environment. Furthermore, a road diet will increase the number of pedestrians and cyclists that feel comfortable walking or biking to businesses in the corridor.
- **Pedestrian and Bicycle Safety and Comfort:** Reduction in lane width and limitation on driver movements help to improve bicycle and pedestrian safety. Specifically, road diets can help to:
 - Reduce crossing distances
 - Eliminate or reduce “multiple threat” type crashes
 - Reduce top end travel speeds (there is a strong correlation between speed and injury severity in auto pedestrian/bicycle crashes)
 - Add sidewalk buffer from travel lane (on-street parking or bike lane)
 - Provide medians or crossing islands.
- **Reduce auto crashes:** Road diets have been proven to reduce crashes and, importantly, to reduce fatality crashes. Since Gilbert has several of the highest crash incident intersections in the City, this is an important argument for implementing a road diet. A before-and-after study implemented to assess crash history reduction due to road diets in Iowa was conducted by the Iowa State University Department of Statistics in cooperation with the Iowa Department of Transportation's Office of Traffic and Safety. The study used both monthly crash data for 30 sites and during a comparison period of over 20 years (1982 to 2004). The sites had volumes ranging up to 15,500 and were largely located in small or mid-sized urbanized areas. The research objective was to assess whether road diets appear to result in crash reductions on Iowa roads. Crash data were analyzed at each site before and after the conversions were completed. Results indicate a 25.2% reduction in crash frequency per mile and an 18.8% reduction in crash rate. The results from the Iowa study fit practitioner experience and agree with another Iowa study that used a simple before-and-after approach on the same sites.



Source: Michael Ronkin

Different width traffic lanes correspond to different travel speeds. A typical urban lane width is 11 feet, which comfortably supports speeds of 30 MPH. A typical highway lane width is 13 feet, which comfortably supports speeds of 70 MPH or more. Drivers instinctively understand the correlation between lane width and driving speed, and speed up when presented with wider lanes, even in urban locations. For this reason, any urban lane width in excess of 11 feet encourages speeds that can increase risk to pedestrians. Road diets often reduce the width of a travel lane in order to slow traffic speeds and improve pedestrian and bicycle conditions. In Seattle, WA, 12th Avenue underwent a road diet by reducing the four-lane street to two travel lanes, plus a center turn lane and new bike lane in both directions. Street trees, bus shelters, and curb cuts were added where missing, bolstering the attractiveness, comfort and accessibility of the walking environment. If a road diet is implemented for Gilbert Street, the design should use 11 foot general purpose travel lanes.

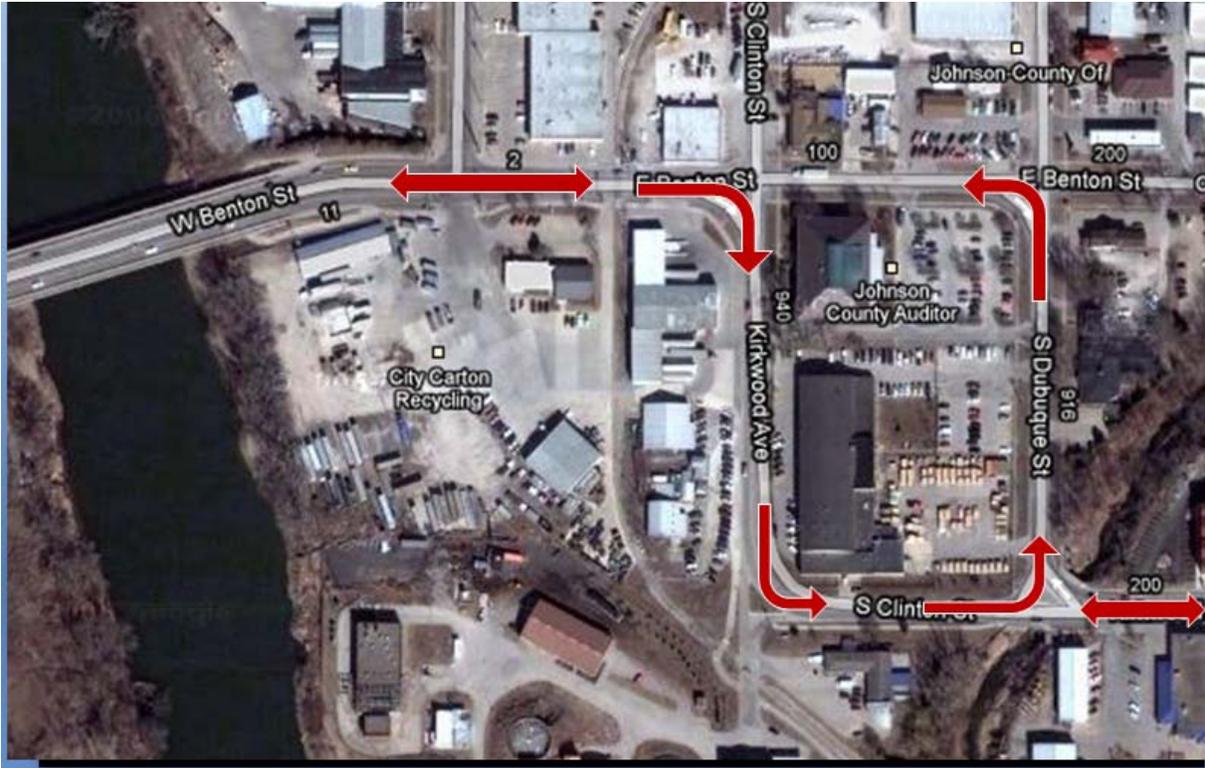


This street in Lexington, KY was converted from 4 lanes to 2 travel lanes, a center turn lane, and two bike lanes. Notice that space was allocated to a wide center turn lane to keep general purpose travel lanes narrower (11' is optimal and provides ample space for transit vehicles)

4. Two-Way Streets

Iowa City has only two bridges suitable for automobile crossings south of East Burlington. In addition to the Highway 6 Bridge, the Benton Street Bridge provides local connections from western neighborhoods across the river into the Riverfront Crossings District and points east. Due to the light industrial/commercial nature of many of the land uses in the south part of the Riverfront Crossings District, much of the traffic using this connection is routed through the district. To accommodate these through movements, traffic engineers apparently transformed the historic two-way grid to create a kind of full block traffic circle that allows east west traffic to move between Benton Street and Kirkwood Ave. This highway style treatment is already inappropriate for the neighborhood, as more intensive land uses, such as government offices, have sited in the area and small retail businesses are sprouting to support the new concentration of workers. The forced-turn treatments on Benton and Kirkwood create unnecessarily high traffic speeds and are difficult to understand as a pedestrian. Several of the intersections on this

block have no safe crossing movement for pedestrians and others have only one leg where a crossing is allowable.



Arrows show current traffic flow. Map source: GoogleMaps

These streets should be reverted to two-way formations, allowing the substantial capacity provided by the street grid to move traffic east-west through the district. This should be a high priority as the area develops further, but would be a major improvement for pedestrian safety at any time. This will allow for four-way, marked crossings at all intersections that will enhance pedestrian safety and the quality of the pedestrian environment. These improvements will be critical if the city hopes to create a walkable, mixed-use neighborhood in this area. Any future redesign of streets in the District should avoid one-way street configurations designed to speed traffic or freeway style treatments designed to reduce yield requirements for automobiles.

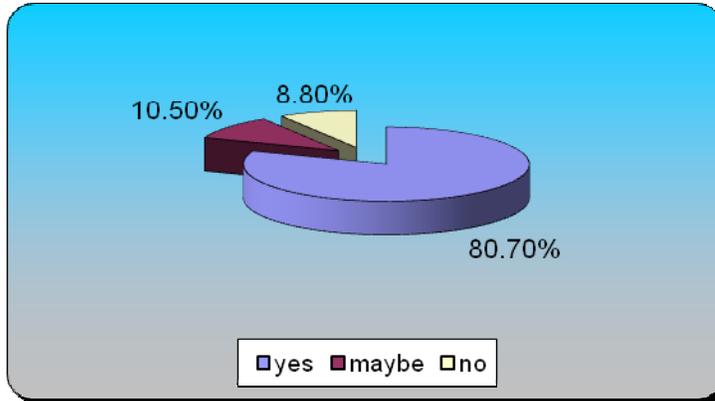
We have not conducted a detailed design or traffic analysis. However, a walking tour of the site and review of traffic volumes indicate there are no major hurdles should the city chose to revert these streets to two-way. Benton Street would need to be widened between Kirkwood and Dubuque, but it appears there is ample right-of-way that is currently serving a minimal landscaping function.

5. Expand or Reroute Circulator to Serve Riverfront Crossings District

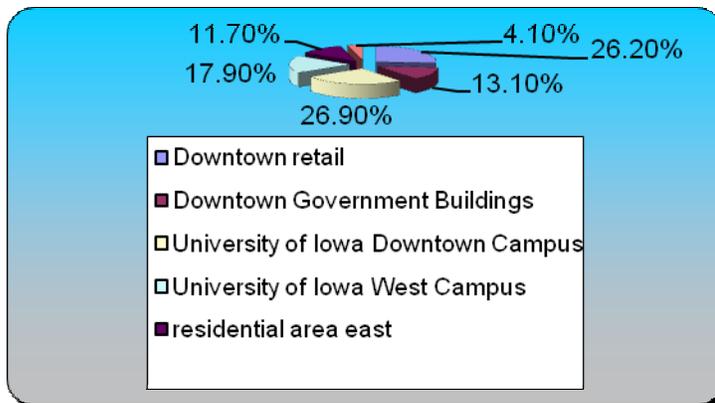
Area redevelopment efforts should be coordinated with transit service so that there are convenient bus routes serving proposed redevelopment locations within the study area as well as linkages to downtown, employment centers and other regional attractions. Extension of the Free Shuttle to more fully serve the study area could help to aid redevelopment. By improving headways on the route to 15 minutes or better all day and implementing route-specific branding, the route could become a true campus/downtown circulator. Furthermore, tying the route to

new parking facilities such as the one to be developed at the St. Patrick site and to the new rail station could help to improve downtown mobility and increase opportunities for park-once visits. Cities such as Boulder, CO, and Santa Barbara, CA have purposefully linked public parking facilities with quality transit, allowing visitors to downtown as well as employees and residents to easily cover a large retail shopping area without returning to their car.

Do you support a bus Circulator that connects the Riverfront Crossings District to Downtown and the University facilities?



What are the three most important connections for a Circulator serving the District to make?



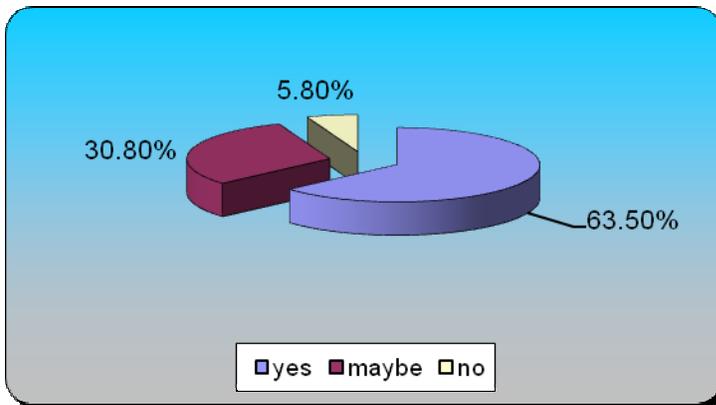
The expanded circulator strategy could be a single element of a broader effort to create a multimodal hub corridor. The reintroduction of Amtrak intercity rail service to Iowa City, as well as the potential development of the CRANDIC line, provides an opportunity to create a new multimodal transportation hub in the heart of the Riverfront Crossings District. The existing multimodal center, a modern facility, lies just a few blocks north of the historic train station, which would be restored for Amtrak service. In addition, it is possible that the CRANDIC line could stop a block south of the existing rail station. Redevelopment of the district should look to connect these facilities with real transportation services, such as a circulator shuttle, but also by developing transit-supportive land uses along Dubuque and Clinton Streets. These streets could also act as a focus for retail activity and pedestrian improvements that would make the short walk between the rail station and downtown interesting and enjoyable as well as purposeful. As discussed in the Complete Streets section, requiring retail frontage for new development is of particular importance along these streets.

6. Brand High Quality Transit Offerings

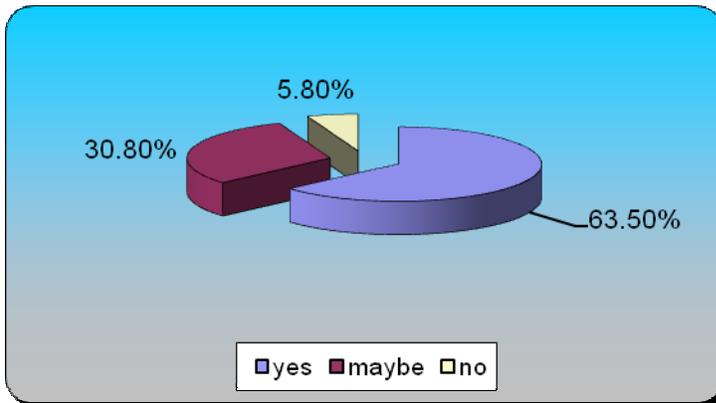
In any transit system certain bus lines will serve a disproportionately large number of passengers; typically these are the routes that provide the highest level of service and travel through the most developed corridors. These routes are designed to carry the heaviest passenger loads at the greatest level of convenience. This convenience can and should be marketed. Many systems have dramatically increased transit ridership by providing these types of services with a different “look and feel” than the rest of the system. While the buses may or may not be the same, many physical features of the bus stop can also help make these primary routes stand out and advertise its exceptional usefulness.

One initiative supported by participants in the November workshops was to create a more distinctive and transparent downtown transit product through a branding, signage and facilities program. This is evidenced by the responses to the following questions, following a description service branding for high frequency routes service the Riverfront Crossings District.

Do you think that a bus route and facilities branding program would attract new riders?



Would you be more likely to use a “branded” route?



An advantage of rail transit compared to most bus service is that distinct stations and vehicles along with fixed rail tracks provide passengers with confidence about that they are boarding the right vehicle and they know where it is going. Rubber-tired downtown circulators can emulate these features by taking a different “look and feel” than the rest of the system. Key elements of a route branding program can include:

- Distinctive design for shelters, including fully enclosed shelters with heating and air conditioning where demand warrants. Signs on shelters identifying their location can also help passengers to orient themselves, and give the shelters more of a “station like” feel.
- Amenities at or near shelters that give value to waiting time, including information signs, news racks, and other fast vending opportunities.
- Introduction of real-time passenger information via dynamic displays or PDA/phone accessible information.
- Distinctive signage, providing much more information than the current generic bus stop and advertising “15-minute service” or “the bus will be here soon!”
- Distinctive look for schedule information on high-frequency lines.
- System mapping and information that emphasizes frequency and quality of service (IT already employs this technique!).



Ridership Growth Success Stories

Whatcom Transportation Authority (WTA) in the State of Washington experienced record ridership growth with the introduction of their high-frequency Go Line service. According to the FTA, ridership on WTA grew faster than any other major U.S. city between 2007 and 2008, when it grew more than 20%. In 2008, it increased by 32%. Ridership growth can in part be attributed to service restructuring when the agency dramatically increased the number of service hours and launched the once-every-15 minutes GO Lines to entice people who could otherwise drive.

Transit service in **Boulder, Colorado** has also experienced dramatic ridership growth. In 1989, Boulder began implementing a Community Transit Network using small, colorfully designed buses to provide high frequency, inexpensive and direct local service. Between 1989 and 2002, local and regional transit ridership increased by 500%. Today, there are six bus routes – HOP, SKIP, JUMP, BOUND, DASH and STAMPEDE – with unique identities shaped with community input.

Some of this ridership growth in Boulder can also be attributed to the Eco Pass program, which allows employers to purchase an annual bus pass for full-time employees. The Central Area General Improvement District in downtown Boulder provides fully subsidized Eco-Passes to more than 8,300 employees, employed by 1,200 different businesses in downtown.

Source: <http://www.bellinghamherald.com/255/v-print/story/524293.html>

Images from Victoria Transportation Policy Institute and Whatcom Transportation Authority

Branding investments should only be made on routes (or in corridors) where service levels are high, meaning headways are at minimum 15 minutes all day and service is offered for at least 12 hours per day.

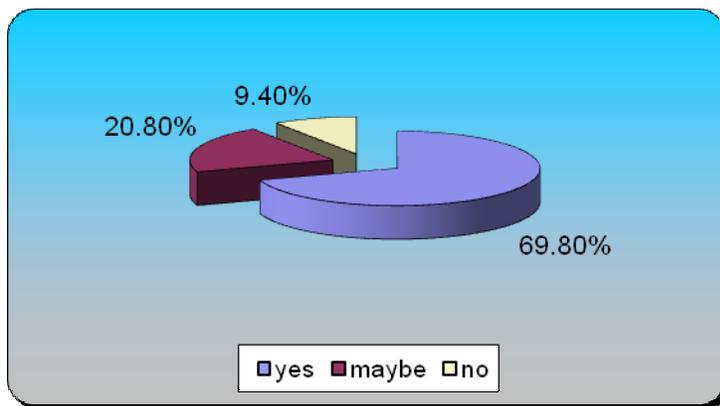
A successful branding campaign needs to go beyond a unique paint job on transit vehicles. Bus stop signs should be graphically improved to make them easy to identify and welcome first-time riders; all bus stops should make system-wide information, including a system map and bus schedules available. A service map should be available on-line, at locations where schedules are distributed, and at bus stops. Real-time passenger information displays at bus stops and transfer centers provides passengers with reassurance on the time they will have to wait for their bus. This

is a more expensive, higher-technology option, but may be appropriate for attracting “creative class” riders and at higher-volume locations.

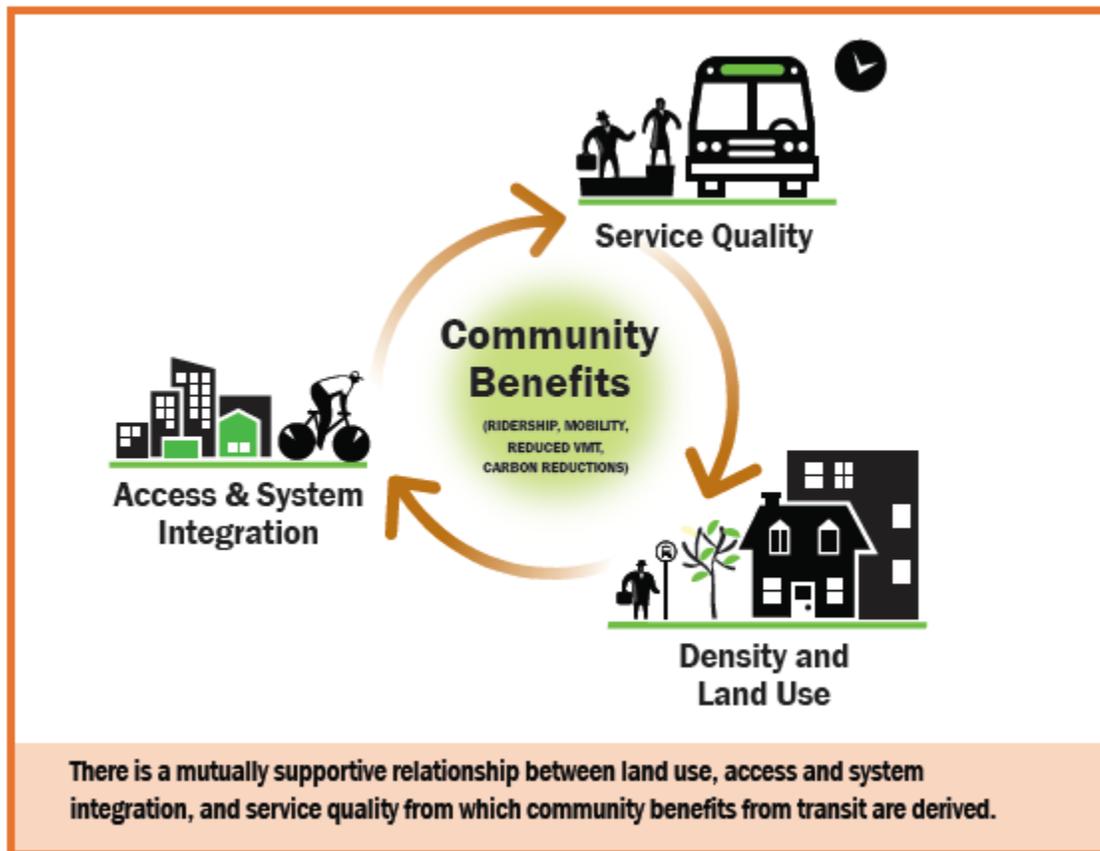
7. Fund and Implement Station Area Development and Access Plans

Residents of Iowa City are excited about two potential future opportunities for rail transportation service: (1) the reopening of the historic Rock Island Line between Chicago and Iowa City and (2) a proposed commuter rail service that could be built in phases between Iowa City and Cedar Rapids (CRANDIC line). Each service would have a terminus in the heart of the Riverfront Crossings District. While it may be two to ten years before these trains are running in regular service, now is an excellent time to begin planning for changes in the District that will position these services for success. For local residents, this means an opportunity to create vibrant downtown neighborhoods, with walkable streets, good transit connections, housing for all, and development with reduced pollution. A majority of residents polled at the November workshop supported City investment in station area planning.

Would you be in favor of the City investing in a station area plan?



Years of development oriented to cars rather than people has drained life out of many urban neighborhoods streets. While the Riverfront Crossings District is doing well, it is doubtful that it matches the vitality it had in the earlier century when the rail station was fully operational. Increasingly, U.S. residents are looking for alternative lifestyles where they can live and thrive without reliance on an automobile. Central City rail stations are ideal settings to meet these needs. Few communities the size of Iowa City have the opportunity to plan for new rail service. Ultimately, the success of rail transit will be tied to the number of people and jobs in close proximity to stations, the quality of pedestrian, bicycle and transit access.



A key intent of a station area plan is to identify market opportunities and set policies that will encourage development of residential units as well as a mix of shops, jobs and offices. Station area plans take into account the unique demands on the area around a station (usually a ½ mile radius) in developing policies to govern allowable land uses (like retail, commercial, and residential), as well as transit connections, parking supply and management, street design, parks and public spaces, bike routes, and building heights and densities. Additionally, a plan has the potential to ensure that new housing is available at a range of income levels, and that new development is environmentally responsible through green building practices.

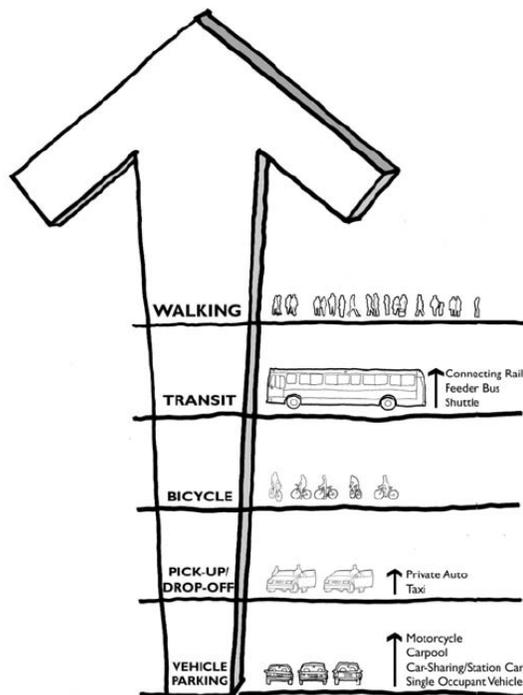
The Metropolitan Transportation District in the San Francisco Bay Area has found that providing station communities with modest (~\$200K) planning grants to do station area plans is one of the most cost effective strategies for increasing transit ridership (and also for reducing GHG emissions, since transit use is increased while no new transportation infrastructure construction is required).

Some of the key objectives of a station area plan in the Riverfront Crossings District might include:

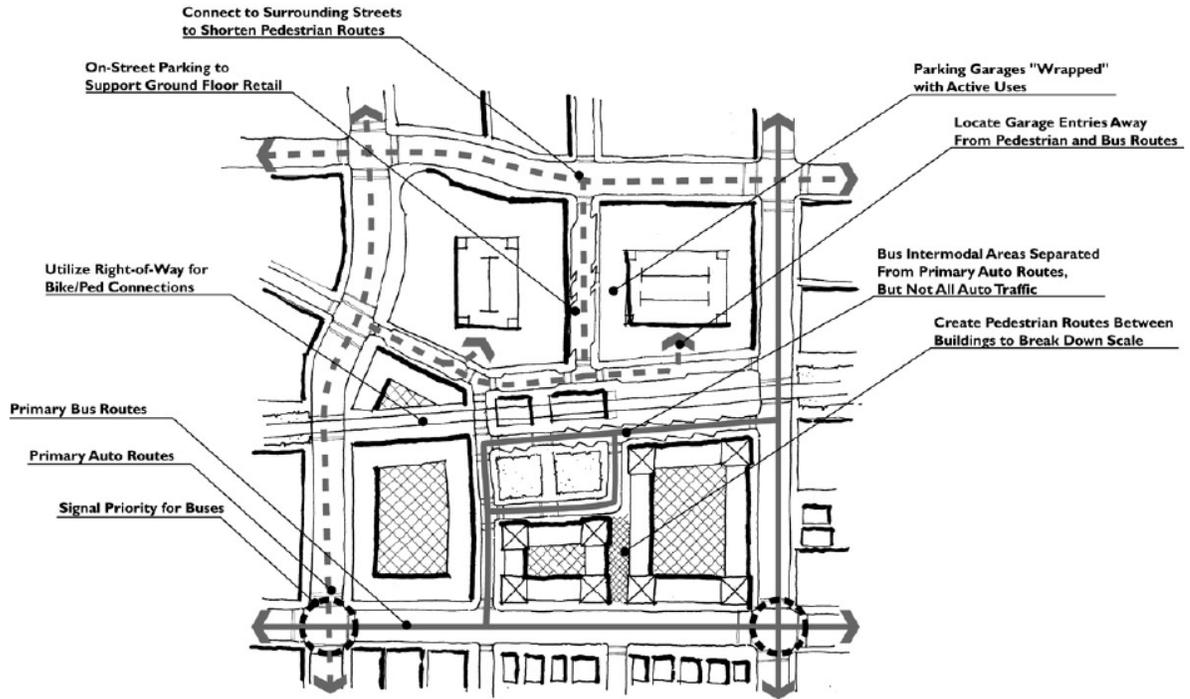
- Providing assurance that the market supports land use types and intensities needed to support and grow rail transit service (and if not to identify mechanisms that would spur the market)
- Increase use of non-automobile modes of transportation, including walking, bicycling, bus, carpooling, ridesharing and other options; and reduce auto use

- Increase the housing supply, providing a balanced mix of housing for students, but also for low-wage workers, retirees and other demographics that would be interested in downtown living
- Increase jobs and improve access to jobs along the transit corridor
- Provide services and retail options in the station area
- Identify additional recreation and open space opportunities or links to existing trails and open spaces
- Develop street and built form design guidelines and priorities for allocating limited resources such as parking, street space, etc.

Among the important outcomes of a station area plan for the CRANDIC/Amtrak termini area is a clear set of directions about how the station area will be accessed by all modes. Access trips, defined by the portion of a trip a rider makes getting to or from the station to their home or destination, are critical to ensuring future rail ridership. Since there is little space available for low-cost surface parking in the District, station access priorities should be based on geometry, meaning the modes that can deliver passengers while consuming the least space should be prioritized. The graphic below illustrates a policy to prioritize pedestrian, transit and bicycle access at rail stations in the San Francisco Bay Area.



This access Hierarchy, developed by Nelson\Nygaard for the BART Station Access Guidelines, is designed to guide modal allocation of limited street and curb space around station areas.



This diagram from the *Bay Area Rapid Transit Station Access Guidelines* (Nelson\Nygaard) describes some of the considerations for good station access

Iowa City should work with neighboring jurisdictions, particularly Coralville, to ensure that all proposed CRANDIC stations get equal levels of station planning. In many ways, the terminus station in the Riverfront Crossings District has the least challenges given its proximity to downtown and the University of Iowa as well as the walkable grid of streets surrounding the site.

8. Price Parking to Ensure Curb-Space Availability

Curb spaces are a downtown’s most valuable parking resource. Not only are these spaces the first preference for most drivers, well-occupied curbs help moderate downtown traffic speeds, create a physical buffer between vehicle traffic and sidewalks, and project a visual cue that people want to be downtown. The relatively fixed supply of such spaces makes effective management of this resource—with direct implications for traffic and congestion management, as well as economic development, an important issue for the Riverfront Crossings District and the broader downtown area. The success of current revitalization efforts will increase pressure on the District’s parking supply—particularly at the curb.

Stakeholders who took part in the November workshop indicated that the City recently rejected an increase in on-street meter rates despite an extremely high downtown parking occupancy rate (both on- and off-street). Invariably downtown districts will require more parking than on-street capacities can provide. However, the over-supply of parking can prove to be counter-productive as space absorbed by parking eliminates space that could be put to more productive uses.

Unwanted consequences of too much parking include: reduced sidewalk continuity; increased points of conflict between cars and pedestrians; more frequent and extended gaps between points of interest; decreased pedestrian traffic as visitors spend more time in cars; financial burden to government to pay debt service on expensive structured parking; and real estate that is tied up in parking that could be put to more productive uses.

In a city where the downtown parking supply is tapped out, at least at peak times, refusal to use pricing as a tool to manage demand points only to one other solution – expand supply. This has further consequences that must be considered including increase in street traffic congestion, reduction of development capacity, unsightly structures, increased injury accidents and poorer air quality. This is not to say that building public parking facilities is bad policy, often it is the right thing to do, but rather that any city should consider a comprehensive set of access policies including parking pricing and TDM when deciding to add new surface or structured parking.

Parking strategies that can help to maintain short-term access for customers, reduce future demand for new parking construction and improve efficiency and legibility of the system include:

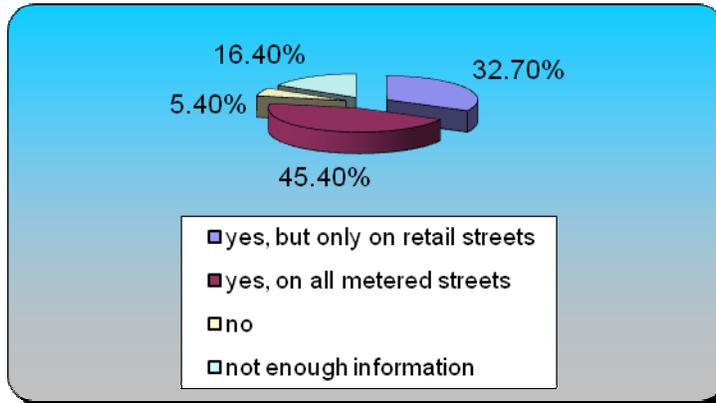
- **Manage public parking to focus on availability, not supply:** Parking functions as an access tool only when legal, convenient spaces are available. Tracking the number of



Curb utilization sends an important message to those looking for a space: from “no vacancy” to “welcome” to “nothing here to see.”

empty spaces at any given time is therefore the primary measure of how well supplies are meeting demand. The efficacy of the parking supply should be measured based on the consistency of available spaces—a few, but not too many. For on-street parking, such a target should be 15%, which means about one or two empty spaces on each block. Local residents who had a chance to answer a polling question about this strategy indicated relatively high levels of support for a market-based approach to pricing.

Would you support setting parking meter rates at the lowest price necessary to ensure 1 to 2 spaces are always available on each block?



New meter technologies, such as multi-space pay stations, provide payment flexibility for customers while supporting flexible-pricing strategies to help meet on-street performance targets. Multi-space meters can help ease the adjustment to market-pricing by providing customers with a wide range of convenient payment options, including credit cards and cell phone payment that eliminate the need to carry change. This new technology also makes possible a number of pricing strategies that can help maintain availability without raising the base meter rate. This strategy would make most sense if applied to downtown as well as current and future metered parking in the Riverfront Crossings District.

- **Create a park-once district:** By providing convenient, attractive, and well-signed public parking options, the benefits of a successful park-once strategy will be shared among all business and visitors to the District. A park-once district reduces the number of parking spaces required to support the area. A trip that includes a restaurant, a museum, and a park requires one space instead of three. Keys to making this work are an attractive, safe walking environment and easy-to-use on-street and off-street parking facilities. Iowa City already does this fairly well; better parking information and wayfinding could help encourage visitors to park once.
- **Implement parking wayfinding:** Implementing clear wayfinding signage to direct people to public parking lots or facilities can make the District feel more accessible to visitors, particularly people from out of town. Parking wayfinding can include small on-street signs or actual branding of public parking facilities. Wayfinding can also help to reduce traffic by lowering the amount of time people spend circling in search of parking.



- **Keep parking revenues in the District by dedicating meter revenues to local improvements:** The revenue generated from a parking benefit district (PBD) can be used to directly benefit paying customers by funding conspicuous improvements in downtown streetscapes and open spaces. If the public and downtown businesses can draw a direct connection between the price of parking and improvements that affect them, they are more likely to see the merit in the price being charged. Parking revenues can also be dedicated to improving transportation and parking options, including funding off-street parking options. Currently, a portion of off-street parking revenue at the Court Street Transportation Center is being contributed to Iowa City Transit.

PBD funds can help to fund streetscape and transit amenity improvements as is the practice in Old Town Pasadena, CA. Additionally, by increasing parking charges to match market rates, people will be encouraged to use transit or other alternative modes. At the discretion of local businesses and the City, PBD funds could be spent on TDM programs, transit passes, public space improvements, pedestrian and bicycle amenities, and creative parking management strategies that utilize existing parking spaces effectively. Perhaps the most effective use of funds in changing mode split would be the implementation of a district-wide transit pass, similar to the Boulder Eco-Pass.

- **Remove minimum parking requirements:** Minimum parking requirements, which are commonplace throughout the country, have been found to worsen traffic congestion. Many cities are deciding that minimum parking requirements are no longer needed and that developers do a better job of anticipating the parking market at their developments than zoning codes can. The City understands that parking minimums may lead to excessive parking supply and has accordingly adjusted the parking code. However, it may be necessary to further reduce or eliminate parking minimums for land uses within the district or to rezone the district to reflect redevelopment goals. Families living near high-quality transit or in walkable mixed-use neighborhoods demand less parking than those in auto-dependent neighborhoods. Similarly, commercial parking ratios can be eliminated in corridors or neighborhoods that have excellent transit service. This will help to ensure that development is truly transit-oriented and not just transit-adjacent.

Case Study
Redwood City, California

Using variable rate pricing to maintain curb-side parking availability

As of March 2007, Redwood City has been engaged in a demand-responsive pricing strategy to maintain an ideal utilization rate of roughly 85% for their most popular commercial street curb parking. The goal of demand-responsive pricing is to affect behavior. The key to this is communicating the factor intended to shape behavior – meter rates. If parking customers cannot predict how much they will be charged when selecting a location, they will either not come back or just park where they want to and accept the cost blindly. Setting and communicating strategic prices is key to attracting people into areas of lower demand and driving them out of areas of higher demand.

Prior to 2007:

- The street had one-hour time limits but no meters
- The street was 100% full, all day, every day
- After initiating the demand-responsive pricing strategy:
- Pricing is set at \$0.75/hour
- The street has no time limits
- The street's occupancy rate has averaged roughly 82%
- Off-street lot permit sales have increased by 50%
- Parking stays have averaged 72 minutes

Successful test of managing demand:

- Redwood saw the development of a new 2,400 seat downtown movie theater
- No dedicated parking was provided for the theater
- On-street availabilities have remained consistent

Elements of Redwood's management program:

- Current rate is \$0.75/hour
- Occupancy data is collected 4 times a year
- Target occupancy rate of 85%
- Rate change increments of \$0.25/hour
- Rates can change up to 4 times a year
- 3 zones designated based on rough demand levels, reflected in different rates for each zone



Establishing zones according to demand estimates can help to simplify the management and communication of different parking rates.

Source: NelsonNygaard

9. Create a Universal Transit Pass Program

Transportation Demand Management (TDM) is a general term for strategies that increase overall system efficiency by encouraging a shift from single-occupant vehicle (SOV) trips to other modes of travel such as transit or bicycling; shifting auto trips to out-of-peak periods when roads are most congested; or by reducing demand for travel altogether. TDM seeks to reduce auto trips—and hopefully vehicle miles residents travel to accomplish their daily needs—by increasing travel options, by providing incentives and information to encourage and help individuals modify their travel behavior, or by reducing the physical need to travel through use of technology or neighborhood design. The cumulative impact of a comprehensive set of TDM strategies can have a significant impact on travel behavior and thereby also reduce the demand for parking as well as promote transit use. Many TDM programs are employer-based, although a local municipality, county, or university can also play a role in supporting TDM programs. Many cities, including several mid-sized college towns have found that implementation of district-based universal transit pass programs are among the best way to reduce demand of single-occupant driving. This section focuses on one strategy that has proven to be among the most effective among a wide range of TDM options – creation of a Universal Transit Pass Program.

The effectiveness of broad-based transit pass programs has been particularly effective in college town settings. Programs are often established with major employers, universities, and other large institutions, as well as business improvement districts. Due to the large enrollment of

these programs, transit agencies can provide the transit passes at a deep bulk discount. In addition, pass programs are also viable for business or commercial districts.

A good example is the Central Area General Improvement District in downtown Boulder, CO, which provides fully subsidized transit passes (the Eco-Pass program) on Denver's Regional Transportation District (RTD) light rail and buses to more than 8,300 employees, employed by 1,200 different businesses in downtown (see callout on page 37). The district pays a flat fee for each employee who is enrolled in the program, regardless of whether the employee actually rides transit. In Portland, OR, the Lloyd Transportation Management Association (TMA), a non-profit business association, offers the Passport Transit Pass Program. This program gives every employee in the Lloyd District TMA unrestricted access to all Portland buses and light rail, at no cost to the employee. Both programs have led to double digit increases in transit mode share.

Many municipalities require that all new developments in station areas fund universal transit pass programs for project residents and employees in perpetuity. Some, like Boulder, CO, extend such programs to cover most existing residents and employees. Municipalities can implement such programs in all station areas or in specific districts or corridors served by high-quality transit.

Case Study:

Boulder, Colorado has an exemplary local transit program, elements of which could be emulated successfully in Iowa City. In Boulder, on-street meter revenue is used to provide all employees with benefits such as a free universal transit pass (Eco-Pass), a Guaranteed Ride Home program; ride-matching services; bicycle parking; and a number of other benefits. A high-quality branded local bus system connects parking and key community destinations. Boulder's Central Area General Improvement District (CAGID), which is a hybrid of a BID and TBD, the scenarios described above, manages this program. Shared public parking facilities are constructed and operated by CAGID and funded through CAGID's general obligation bonds. The debt is supported primarily by revenue from parking charges (including meters) and by property and other taxes paid by property owners. Compared to many downtowns, where parking is heavily subsidized by public contributions of both dollars and land, much of the cost of the parking system is paid for by those who park, resulting in lower drive-alone rates.

As a result of this program and other aggressive multimodal transportation programs and improvements, Boulder has among the highest non-auto mode shares for a small to mid-sized US city. Since downtown Boulder baseline mode splits were established in 1995, the drive-alone rate has fallen almost 36% from 56% to 36% in 2005, while the transit rate has more than doubled from 15% to 34%. According to the City of Boulder, the drive-alone rate dropped dramatically after 1999 because of an increase in transit service (17 different routes at 15 minute headways) and the emergence of an Eco-Pass "culture."



10. Implement a Local Car Sharing Program

Car-sharing programs make it easier to leave a car at home or live without owning a private vehicle by offering residents the opportunity to rent cars by the hour. Car-sharing programs have been expanding in college towns such as Ithaca, NY, Middlebury, VT, Chapel Hill, NC, and Ann Arbor, MI. These programs help to address the need for more affordable transportation options for students and to reduce demand for additional parking facilities on campus. Iowa City has demographic and land use characteristics that indicate a locally run car sharing program would be viable. Zip Car now manages most major city car sharing programs in North America and is not likely to be interested in a small market community like Iowa City, meaning such an initiative would likely need to be locally based.

Stakeholders in Iowa City could follow the models of one or more of the communities indicated above to develop a local cooperative. Cooperatives sometimes receive grants to cover start-up and administrative expenses. Local government can provide various types of support and incentives to help develop Carsharing services, including promotion, funding, favorable parking policies, incorporating Carsharing into public organizations and development projects, and favorable tax policies.

Carsharing works best when delivered in coordination with aggressive parking pricing and market rate parking pricing policies as well as the provision of high quality transit and non-motorized travel options. Since car sharing is not cost effective for daily travel needs, it works best in dense, walkable neighborhoods where residents can meet most of their daily travel needs without a car.

Thirty-six (36) percent of residents polled at the November 2009 workshop indicated they would be interested in a local carsharing program.

Ithaca CARSHARE

VEHICLES 24/7 FOR OUR COMMUNITY AND COLLEGE CAMPUSES

Good for you. Good for the planet.

HOW IT WORKS

CARS AND LOCATIONS

RATES

BENEFITS

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Password

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Join now!

Applying online is easy and quick. Become a member now and when you need a car, you can simply reserve, unlock, and drive!

24/7 access to a fleet of fuel efficient vehicles without the worry or expense of car ownership

Hourly use of a new car located near you. We pay for the gas, upkeep, parking, and insurance. You only pay to drive!

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New cars! More locations!

Check out the latest addition to our fleet: 2 Honda Fits and a Scion xB. Whether you just need a small car to scoot around the city, some larger cargo space for a shopping trip with friends, or a truck bed for hauling wood, we've got a vehicle for you!

Web page for locally based carshare program in Ithaca, NY.

The Carsharing Network (www.carsharing.net) provides extensive information about existing car-sharing organizations in North America. The Victoria Transportation Policy Institute (VTPI) provides an excellent overview of the benefits and challenges of implementing a local carsharing program (<http://www.vtpi.org/tm/tm7.htm>).

APPENDIX: Additional Transportation Policy Options

Additional Transit Service and Facility Policy Options

The following transit strategies should be considered in conjunction with proposed redevelopment efforts and would support higher-density mixed-use redevelopment efforts in the Riverfront Crossings District: Some can be implemented in the near term, while others maybe require higher levels of density and development. They include:

- **Introduce bike storage at key transit and rail facilities:** Iowa City has a good small transit system and a high level of bicycle ridership. Due to the small geographic footprint of the City, people tend to use one mode or the other, but not to mix the two. However, as new longer distance rail services are developed, there will be new demand for bike storage. Bike cages or rentable bike lockers, such as the one shown below, provide a more secure environment where travelers can feel comfortable leaving a bike for longer periods of time.



- **Improve bus service frequency and span:** While systemwide bus service improvements are not likely to have a major impact on area redevelopment, it will be important for Iowa City Transit to improve service over time to support denser urban form in the study area while moderating the need for the development of additional parking facilities. Bus service headways of every 15-minutes or better mark a point at which ridership improves dramatically.¹² Higher frequencies make transfers easier and don't require riders to carry a schedule. A few of the routes serving the study area end early and may discourage those who would like to travel by bus after 6:00 PM. (The Cross Park Route ends as early as 2:30 PM) No Iowa City Transit routes operate on Sunday and only a few operate within the study area on Saturday. Increasing the hours during which service is offered is necessary to accommodate those traveling during the evening and weekends.

Transportation Demand Management Options

- **Provide incentives to reduce parking:** Allow employees or students to purchase individual days of parking on a pro-rated basis comparable to monthly rates, provide a few free days of

¹² The Long Range Plan, Transit Section notes the importance of more frequent service, but cites budgetary constraints.

parking each month for employees or students who usually commute using a non-SOV mode; offer lower parking rates to carpools and vanpools; and offer cash in lieu of free parking.

Additional Parking Policy Options

- **Create a neighborhood parking permit system:** The Central District Plan suggests implementing an on-street parking permit system in neighborhoods that have a shortage of on-street parking or where on-street parking is a concern. Residential parking permit programs typically provide permits to residents at a small administrative fee then either prohibit or manage spillover parking from other uses. Some places, such as Pullman, WA, sell a limited number of additional permits to non-residents as a premium price (typically comparable to the monthly charge in a public garage).
- **Redefine parking demand as access demand:** Assuming that all downtown trips are car trips overestimates the number of parking spaces required to keep the area attractive. Policies built upon such assumptions undermine investments in other modes of access, which are often more cost effective and require less space. As redevelopment efforts progress and demand for development space increases the cost of providing parking, modes such as transit, carpooling, and bicycling will become more competitive with driving and parking. The City can aid developers and building owners in considering more holistic access strategies by developing parking reduction programs that offset the need to build off-street parking. For example, a developer could be allowed to reduce minimum parking requirements by agreeing to provide transit passes for all employees or residents of a building.
- **Expand parking maximums:** The City has already instituted parking maximums for a couple of zoning designations (CB-5 and CB-10), but should also consider extending them to other land uses in the District to support redevelopment efforts. Parking maximums are becoming increasingly common in the United States; cities that have adopted maximums include Portland, OR; San Francisco, CA; Seattle, WA; Gresham, OR; Helena, MT; Redmond, WA; and San Antonio, TX.
- **Implement a parking cash out program:** Parking cash out programs allow employees the opportunity to receive cash in lieu of free parking. In 1993, the State of California enacted legislation requiring certain employers who provide subsidized parking for their employees to offer a cash allowance instead of a parking space. Studies showed that given the opportunity to cash out employees look for alternate means of commuting to work, such as public transit, carpooling, vanpooling, biking and walking. Iowa City could enact policies that require employer parking cash-out (like Bellevue, WA). In greater Seattle, WA, the federal government is supporting efforts by local governments to encourage businesses to offer parking cash out. At its essence, parking cash out levels the subsidy playing field for employees, no matter their mode choice.
- **Require and support shared parking facilities:** Iowa City's parking code already recognizes the value of shared parking. While the code is better than most cities, it could go further to support shared parking facilities by making it easier for residential shared uses, especially for locations in close proximity to the University. The City can

encourage shared parking among existing uses by revising the code, establishing a public valet service, and identifying a shared parking broker. Shared parking can be encouraged or required. For example, Arlington County's Columbia Pike District Parking Strategy encourages sharing spaces by setting a limit on the number of reserved parking spaces allowed, while placing no limit on the amount of shared parking allowed on-site. The strategy also requires sharing spaces for sites over 20,000 square feet in land area.

Olympia, WA's municipal code requires that an applicant provide proof that shared parking is feasible when adjacent land uses have different hours of operation. Mixed-use and shopping center developments with similar operating hours may also be required to submit a parking demand study to determine if parking can be combined. When two or more land uses, or uses within a building, have distinctly different hours of operation, such uses may qualify for a shared parking credit.

Additional Bicycling Policy Options

- **Improve on-street bicycle facilities:** JCCOG and Iowa City have already identified planned routes, but should ensure that the routes create a well-connected network both within and to locations outside of the District. A combination of shared roadways, bicycle lanes, and bicycle boulevards will complement the existing off-street trail network and appeal to a variety of cyclists. The Iowa Interstate Railroad and topography are significant barriers to creating a continuous north-south bike route on the eastern side of the district. Redevelopment may create opportunities to improve the Riverfront Crossings District for bicycling and/or to construct a trail along Ralston Creek in the Linn Street extended right of way.



- **Include bicycle facilities in intersection improvements:** Implement innovative techniques such as colored pavement treatments or specialized traffic signals in high conflict areas, and focus on eliminating or mitigating barriers that prevent cyclists from taking a more direct path to their destination. Bike boxes that allow bicyclists to position in front of queuing traffic, reducing right hook accidents, are becoming increasingly popular in parts of the United States.



- **Expand bicycle parking requirements for new development:** Many cities have adopted ratios of bike accommodation tied to square footage of uses or residential units. These requirements help support bicycle mobility and boost bike mode shares for local trips. Iowa City code currently requires bike parking for many land uses, but the percentage of square footage or spaces per dwelling unit could be expanded. Expanding this range can be very effective in filling in transit service gaps, and reducing parking demand tied to short- and medium range trips. Going one step further, the City could be more explicit in mandating bicycle parking be located in proximity to building entrances and with good visual access for security as is the practice in Eugene, OR.
- **Improve bicycle parking:** Install additional bike racks and covered bike parking in key locations in the District including transit facilities/stops, the University of Iowa, and key attractions. While this can in part be accomplished through redevelopment, the City should continue to take an active role in installing bicycle parking in commercial areas. Some cities have a process for residents and businesses to request bicycle parking at specific locations, thereby increasing bike and transit use.

In Portland, OR, the City has begun to remove on-street parking in strategic locations to provide higher-capacity bicycle parking opportunities that provide good access to local businesses and, in some cases, are located on high frequency bus stops.



- **Provide end-of-trip facilities and services:** Facilities that allow cyclists to change, store clothes and shower can encourage commuting even in rainy or humid conditions. Some cities have employed development incentives to encourage such facilities. Redevelopment of the Rock Island Depot could provide an opportunity to create such a facility in the district. In Portland, OR, the City has developed a partnership with local gyms to provide free showers for bike and walk commuters.

- **Consider implementing pilot programs:** Since taking back pavement for bicycle and pedestrian uses can be controversial and the idea that reducing auto capacity can improve traffic conditions still seems unintuitive to many, cities are increasingly running pilot programs to show residents that these strategies really work. Cities like Boulder, CO, and Eugene and Corvallis, OR have actively incorporated bicycle facilities into their roadways and have seen profound increases in bicycle use in short order. Moreover, as more people chose to bike and drivers become more accustomed to the presence of bikers, their more courteous behavior supports further increases in bicycling. This cycle can begin simply with the introduction of bike lanes. It should be noted that most of the streets in the Riverfront Crossings District are not wide enough to add bike lanes without reconstruction.



New York City has used pilot projects to trial a number of new bicycle treatments, pedestrian improvements and public space enhancements.

This strategy could also be applied to other types of improvements, particularly those that only require relatively inexpensive restriping of street rights-of-way. In other communities, temporary cones and barriers have been used to “test” road diet projects before a full investment was made.

- **Promote cycling culture and provide rider education:** Iowa City, the University, and cyclist groups are already performing many of these types of functions, but the scope of existing programs could be expanded. For example, the hours of the bike library could be expanded, more bike maintenance classes could be offered and additional assistance provided for the Library’s self-service bicycle repair equipment. Iowa City is already looking at an opportunity to incorporate a new and expanded bike library into a planned mixed use development.