INTRODUCTION

Due to local economic growth and multimodal transportation needs in Ironton, the Lawrence County Port Authority (LCPA) and the City of Ironton have partnered with KYOVA Interstate Planning Commission to conduct a parking study in Downtown Ironton.

KYOVA Interstate Planning Commission is a transportation planning agency established by federal law. Its mission is to plan for an orderly, cost-effective, multi-modal transportation system for all citizens of the service area. With the support of local officials, the Commission plans for sound transportation improvements, which facilitate the movement of goods and people in a safe and efficient manner.

The *Ironton Multimodal Parking Study* consists of the following elements:

- An inventory of existing parking facilities and multimodal features;
- An assessment of parking demand based on data collection efforts;
- A discussion of future parking demand;
- A series of planning-level recommendations to accommodate future parking demand and multimodal transportation needs.

Looking west on 3rd Street toward Park Avenue

DATA COLLECTION

STAKEHOLDER INPUT

On Wednesday, March 25, 2015, the project team held a meeting at the Ironton Transit Center to gather feedback from stakeholders about potential solutions for the growing demand for downtown parking. The information obtained from the stakeholders provided regional insight to guide the study's development. The entities represented among the stakeholders included:

- City of Ironton
- Ironton Alive
- Ironton in Bloom
- Ironton-Lawrence County Community Action Organization
- KYOVA Interstate Planning Commission
- Lawrence County Transit
- Lawrence Economic Development Corporation

The table below documents the input provided by stakeholders at the meeting. These suggestions were evaluated and incorporated into the development of recommendations for Downtown Ironton.

Potential Solutions	
Implement consistent wayfinding	Establish "safe multimodal corridors"
Discourage golf carts on Park Avenue	Install ramp from Bridge Street into downtown
Educate the public about parking facilities and regulations	Add computerized parking regulations
Time-restrict on-street parking	Encourage downtown employees to park off-street
Build a municipal deck to support expanded housing	Construct a Park & Ride near bridge realignment

OCCUPANCY COUNTS

A parking inventory was developed to determine the existing parking supply and demand in Downtown Ironton. The inventory includes the following attributes of existing on-street parking and surface lots:

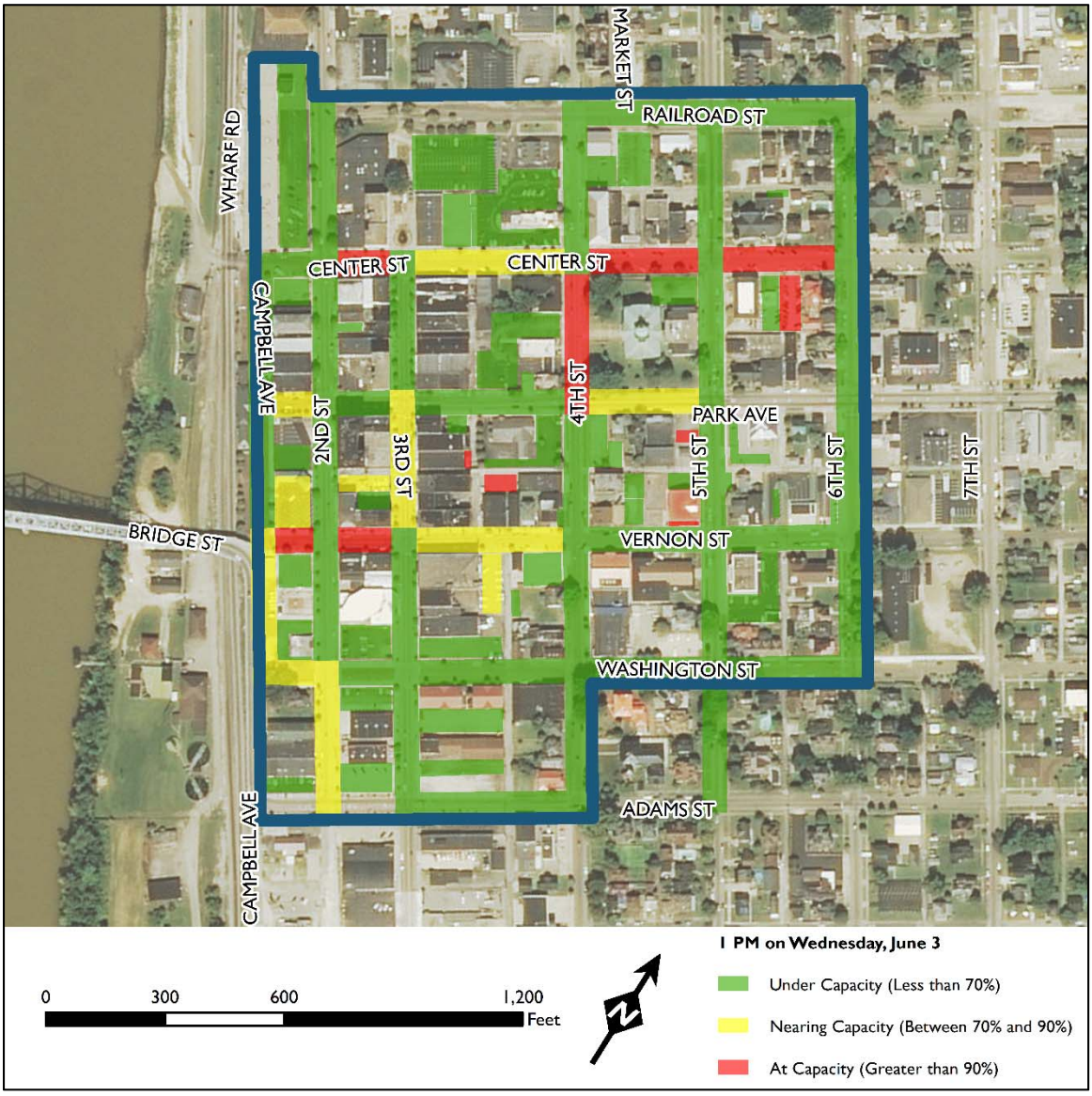
- Total number of spaces
- Number of ADA spaces
- Parking restrictions and signage

On Wednesday, June 3, 2015, hourly occupancy counts were conducted from 8 AM to 5 PM. The parking occupancy data indicated the areas and times of day that experience the greatest daily parking demand.

The map on the following page shows the peak hour of parking occupancy on a typical weekday. The on-street and off-street parking facilities were the closest to reaching capacity at 1 PM, indicating that the greatest parking demand in Downtown Ironton occurs during the lunchtime peak.

Generally speaking, when parking occupancy approaches 90%, it becomes very difficult for motorists to find empty spaces, and drivers generally regard the facility as full. For this reason, parking facilities that are at or above 90%

occupancy are shown as "At Capacity" on the map. Many of the parking facilities at or above 90% in the study area are near restaurants in downtown Ironton or near the Courthouse. These areas have limited parking currently associated with them and as such reflect a demand beyond what current parking levels can provide.



EXISTING PARKING SUPPLY

Parking facilities can be categorized as either on-street or off-street. On-street and off-street parking facilities are generally regulated differently from each other in urban environments. For example, on-street parking spaces are more likely to be regulated via parking meters or time restrictions. On-street spaces in urban areas are also often marked off for loading zones.

Off-street parking facilities include parking lots and garages. While they can be free to the public or available based on certain hourly rates, some off-street facilities may be closed to the public or restricted to customers of local businesses. Privately owned parking facilities may choose to restrict their lots to patrons or keep them open for

general use; however, unrestricted private lots are often perceived as off-limits by the general public. The occupancy analysis indicates the public lots in the study area are as a general rule significantly more full than the unrestricted private lots.

EXISTING PARKING DEMAND

Based on the hourly count data collected for this study, overall parking demand in Downtown Ironton does not reach capacity on a typical weekday. Most on-street and off-street facilities remain under capacity for the duration of the day. On-street parking appears to experience a consistently greater demand than off-street parking.

EXISTING MULTIMODAL FACILITIES

Downtown Ironton contains a network of sidewalks that are often separated from the roadway by a grass verge. Crosswalks and pedestrian signals at many of the signalized intersections facilitate pedestrian travel.

Stop-controlled intersections and 25 mph speed limits encourage drivers to travel at slow speeds, providing a safer environment for multimodal travel. Future proposed bike racks will also provide places for bicyclists to park downtown so they can easily access surrounding amenities.

While these facilities encourage bike and pedestrian traffic, on-street parking along many downtown corridors provides a challenge for cyclists to safely navigate the roadways. Drivers parking, opening their door after parking, and leaving on-street parking spaces may not be looking for cyclists traveling along the roadway.

FUTURE PARKING DEMAND

The estimation of parking demand is an important step towards planning for future parking needs. This section details the projected parking needs for the Downtown Ironton as well as the means with which to evaluate future demand.

FUTURE DOWNTOWN GROWTH

Downtown Ironton is vibrant and continues to attract new growth and development. Much of this development will be accommodated with the existing parking supply; however, some of this growth will warrant the expansion of parking, not only for passenger vehicles but also for buses, golf carts, and bicycles.

IRONTON TRANSIT CENTER[1]

The Ironton Transit Center, serving Lawrence County Transit and the Tri-State Transit Authority, is experiencing a rapid growth in use and demand as the City of Ironton continues to implement its Downtown Redevelopment plans. This is expected to continue to grow in demand given the addition of express commuter routes between Ironton, Ashland, and Huntington Transit Centers. As such, the Transit Centers will be expected to play an increasing role of interconnecting bus services, van shuttle services, park and ride for vehicles, pedestrians, bicycles, and now in the City of Ironton, street legal golf carts.

Factors and events anticipated to drive this growth at the Ironton Transit Center include the following:

1. The introduction of Express Commuter Routes in March 2014 is anticipated to serve larger numbers of workers traveling daily to employment centers in Huntington, as well as students traveling to Marshall University and related academic facilities.

[1] Adapted from the "Transit Multimodal Parking Facility Summary" provided by KYOVA, March 2015.

2. The growing residential community in the downtown area and a reduced reliance on personal vehicles, especially among seniors.
3. Investment by the City in a pedestrian and bicycle trail system, all focused upon the Ironton Transit Center within the downtown depot square facilities.
4. The continued addition to the off-street parking inventories as part of the Depot Square long term development which also serves as a park and ride facility to public transit lines.
5. The recent legalization and introduction of street legal golf cart mode of transportation within the City.

As such, the challenge is to keep up with the growing demand for not only vehicular parking, but also the facilities to safely park bicycles, golf carts, and the growing fleet of multimodal vehicles including rentable bicycles, golf carts, etc.

Compounding the parking pressures at the Ironton Transit Center is the addition of upper-story residential in that building as well as neighboring buildings. On-street parking in this area is constrained, and the success of this development will depend partly on the ease in which residents are able to find parking.

SPECIAL EVENTS

In addition to anticipated growth and development, special events in the downtown area place additional pressures on the study area's parking. Large-scale events such as the Memorial Day Parade and Rally on the River bring thousands of people into Downtown Ironton. In addition, smaller events such as the Summer Concert Series, Artisan Craft Festival, and Farmer's Market also drive traffic to the downtown throughout the year. Many of these events occur during off-peak parking hours; however, some events such as the Farmer's Market take place during peak parking demand times.

The RO-NA has been a fixture in downtown Ironton since 1949. However, its rebirth in 2014 as a multi-purpose performing arts center has given it a new lease on life. Public and private events are now held at the RO-NA throughout the year. The RO-NA is still being refurbished, so it is currently hosting fewer events than would be expected once it becomes fully operational. These events may occur during evenings and weekends as well as during the week. As such, there is a possibility that parking needs for the RO-NA may occur during peak parking demand times in the rest of Downtown Ironton.

As destinations for both locals and visitors, Ironton's special events and the RO-NA are desirable locations for people traveling by bike, golf cart, or walking. Consequently, parking demands for these modes in the Downtown are increased when considering these events.

In addition to the special events happening in Downtown Ironton and at the RO-NA, Downtown Ironton also has plans to grow its attractiveness to travelers visiting by boat. New boating facilities are being constructed within the City that may experience heavy usage during special events. People coming into the area by boat may be looking for alternate modes of transportation (such as golf carts or bicycles) to travel around Downtown Ironton.

PARKING DEMAND ASSESSMENT

Several publications should be considered when assessing future parking demand for Downtown Ironton.

ITE PARKING GENERATION

The Institute of Transportation Engineering (ITE) has published models for the estimation of parking generation. The aggregate projected land uses for downtown Ironton can be used as an input to ITE models in order to recommend parking facilities and regulations that are appropriate for the needs of the City of Ironton.

ULI SHARED PARKING

Similar and based in part on ITE Parking Generation, the Urban Land Institute (ULI) has developed a model for shared parking assessment. Concepts from the ULI Shared Parking Manual are helpful in the determination of parking needs in a downtown area. The following excerpt from the manual explains the concept of shared parking:

Shared parking may be applied when land uses have different parking demand patterns and are able to use the same parking spaces/areas throughout the day. Shared parking is most effective when these land uses have significantly different peak parking characteristics that vary by time of day, day of week, and/or season of the year. In these situations, shared parking strategies will result in fewer total parking spaces needed when compared to the total number of spaces needed for each land use or business separately.

IRONTON CODE OF ORDINANCES

The Ironton Code of Ordinances provides standards for the type of parking facilities required for certain businesses and establishments, as well as the necessary capacities of the facilities.

Required Off-Street Parking Space Sizes	
Type of Space	**Minimum Size**
Single and two-family residential uses	9' x 18'
Multifamily residential uses	9' x 18'
Business uses	9' x 18'
Industrial uses	9' x 18'
All parallel parking along any street or drive	8' x 23'

Section 1280.05 of the Code mandates that for mixed uses, "total requirements for off-street parking facilities shall be the sum of the requirements for the various uses, computed separately." Therefore, the shared parking principles described in the ULI Shared Parking Manual can only be applied to on-street parking demand assessments.

Number of Parking Spaces Required	
Use	**Number of Spaces**
Auditorium	One for each ten seats
Automobile or machine sales and service	One for each 1,000 square feet of floor area
Banks, business and professional offices, except medical and dental offices or clinics	One for each 600 square feet of floor area
Bowling alleys	Three for each alley, plus the necessary space as set forth in this section for affiliated uses such as bars, restaurants and the like
Churches	One for each six seats in places of worship
Dance halls and assembly halls, except church assembly rooms in conjunction with an auditorium	One for each 500 square feet of floor area used for assembly or dancing

Number of Parking Spaces Required	
Dwellings	One for each family or dwelling unit
Funeral homes, mortuaries	Five for each reposing room or parlor
Hospitals	One for each five beds
Libraries, museums, and galleries	One for each 1,000 square feet of floor space
Manufacturing plants, research or testing laboratories, bottling plants	One for each 2,000 square feet of floor area
Medical and dental clinics or offices	One for each 400 square feet of floor area
Motels and hotels	One for each living or sleeping unit
Restaurants, beer parlors and night clubs	One for each 300 square feet of floor area
Retail stores, shops, and the like	One for each 400 square feet of floor area
Elementary and junior high schools (grades 1-9)	One for each classroom, plus three
High school (grades 10-12)	One for every 20 classroom seats

Zoning codes also require additional spaces for the following specific uses:

Additional Spaces Required	
Use	**Number of Spaces**
Sanitariums, nursing homes, homes for the aged, children's homes	One for each ten beds
Sports arenas, theaters, assembly halls, other than schools	One for each six seats
Wholesale establishments or warehouses	One for each 5,000 square feet of floor area

The Code of Ordinances also contains requirements for loading and unloading space, in Section 1280.08. These requirements are based on the square footage of the business, and whether it is an office or hotel, or falls into another category.

Loading and Unloading Space Requirements		
Usage	**Square Feet**	**Spaces**
Offices/Hotels	3,000 to 149,999	1
	150,000 to 399,999	2
	400,000 to 659,999	3
	Each additional 350,000	1
All other uses	3,000 to 39,999	2
	40,000 to 99,999	4
	100,000 to 159,999	6
	Each additional 90,000	2

RECOMMENDATIONS

Based on the analysis of existing parking conditions, as well as the consideration of future growth and development in the Downtown Ironton area, this study offers a series of parking recommendations. The City of Ironton should work with KYOVA, the LCPA, the Ironton-Lawrence County Community Action Organization (ILCAO), and other agencies to determine the best way to implement some or all of these strategies.

MULTIMODAL RECOMMENDATIONS

It is the desire of the LCPA and the City of Ironton to enhance the urban landscape of Downtown Ironton so that it is more supportive of multimodal travel. The inventory conducted in the course of this study has yielded several recommendations for the improvement of downtown infrastructure for greater multimodal safety and mobility.

GOLF CART STORAGE

The prevalence of golf carts as a mode of travel in Ironton creates unique multimodal infrastructure needs. It is recommended that infrastructure improvements include storage for golf carts so that they do not take up valuable space on the sidewalks or roadways, or in existing off-street parking lots. Golf cart rental locations should also be considered as a way of encouraging non-auto travel by visitors to Downtown Ironton. Potential golf cart rental locations could include the marina, the transit center, and the Gateway Centre.

ENHANCED BIKE FACILITIES

Bike racks or lockers in Downtown Ironton would encourage multimodal transportation. If more residents and visitors choose to bike and walk rather than drive, more parking will be made available. Greater pedestrian and bike traffic can enhance the operations of small businesses. A future study is recommended to determine the best locations in Downtown Ironton for new bike facilities. The City could also consider the feasibility of offering bike rentals or implementing a bike-share program.

The striping of bike lanes along downtown streets where there is sufficient pavement width would improve the safety and comfort of cycling in Ironton. More cyclists would feel comfortable riding in downtown Ironton if they were able to utilize bikeways that are visibly separated from automobile traffic. Where there is on-street parking, the City must determine whether to replace the parking spaces with bike lanes, to add bike lanes between parked cars and motor vehicle traffic, or to reconfigure the cross-section of the travelway so that the parking spaces create an additional buffer between motor vehicle traffic and bike lanes.

SHARED SPACE CORRIDORS

While bike lanes provide a safety benefit to cyclists, highly-regulated urban transportation environments can often reduce driver awareness. When facilities are clearly divided into sidewalks, bikeways, and roads, drivers tend to assume priority and rely on pedestrians and bikes to yield to automobile traffic.

“Shared space corridors” are urban spaces where demarcations between facilities are less pronounced, requiring individuals of different travel modes to negotiate priority as they share the travelway. Shared space corridors have been known to reduce travel speeds and enhance the safety of all road users. The flexibility of these open spaces is also conducive to loading and unloading trucks for local business operations.

The implementation of shared space corridors in Downtown Ironton would enable smoother sharing of the roads among golf carts, bikes, pedestrians, and motor vehicles. Washington Street and the western portion of Vernon

Street have been identified as locations that could be considered for shared space corridors. It is recommended that an overall bicycle and pedestrian plan be conducted for the City of Ironton as well as Lawrence County. This plan should consider the location of future bicycle and pedestrian facilities and supporting amenities. Additionally, this plan should consider identifying preferred treatments and cross-sections for designated multimodal corridors such as Vernon Street and Washington Street. Along with evaluating corridor improvements, the bicycle and pedestrian plan should emphasize intersection-level features that would enhance the safety and comfort for pedestrians and cyclists.

PARKING FACILITIES

WAYFINDING

As recommended in the stakeholder meeting, consistent wayfinding signage in Downtown Ironton would aid residents and visitors, especially, in finding available parking spaces. Simple signs that clearly mark public parking facilities are a low-cost option that is easy to install and maintain. Wayfinding signage can also supplement downtown branding, contributing to a clear sense of place. Clear wayfinding signage would be an asset when creating a preferred travel route for visitors going between the Gateway Centre and the marina. When paired with appropriate regulatory signs and markings, this system can also help notify auto and truck traffic on intersecting roads that they should expect bicycle, pedestrian, and golf cart travel.

Following the opening of the new Ironton-Russell Bridge, the volume of freight traffic and the routing of that traffic is anticipated to change. Future wayfinding efforts should take into account potential shifts in freight routes so that conflicts with bicycle, pedestrian, and golf cart travel can be minimized.

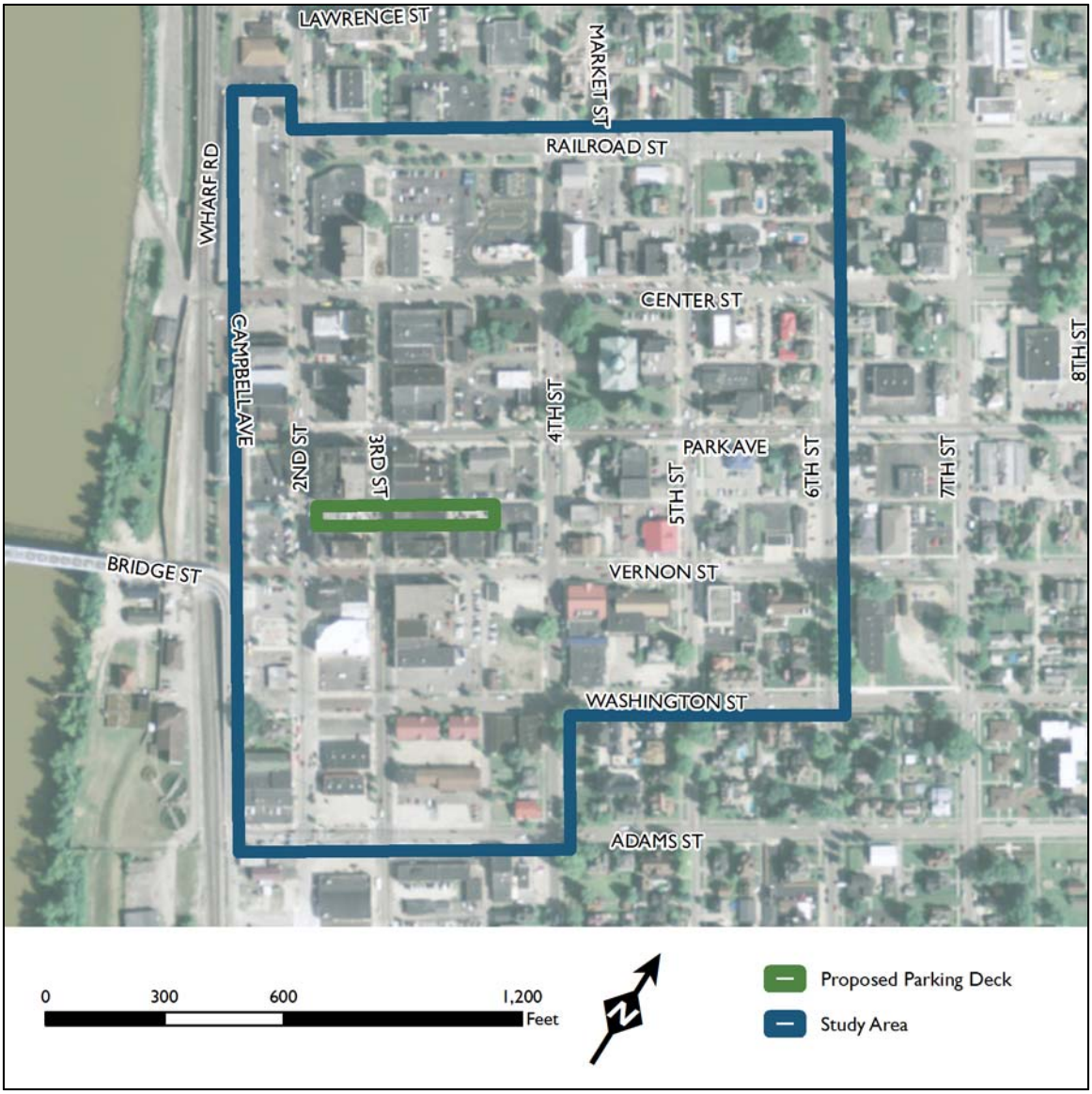
STRUCTURED PARKING[2]

The LCPA and the City are proposing to enhance the downtown parking supply with the addition of a parking deck. The proposed parking deck would be built in conjunction with a multimodal transit facility in Downtown Ironton, adjacent to the existing Ironton Transit Center. The structure containing the parking deck and multimodal transit facility is envisioned to occupy the block between Second Street and 3½ Alley.

The proposed facility is currently envisioned to accommodate the following:

1. The separation and provision of secured parking for the continuing growing downtown residential population.
2. Secured parking for the growing fleet of smaller transit vehicles, also freeing up additional parking to meet the continuing growing public demand for parking and park and ride in the Depot Square area.
3. Safe parking out of the weather for bicycles, golf carts and alternative modes of transportation utilized by; 1) residents locally traveling to the Transit Center to catch public transportation with the new commuter routes, 2) residents and visitors attending special events (whether in the Depot area or at the RO-NA), and 3) visitors traveling to the area by boat.
4. The ability of the Transit Center to securely operate a bicycle and golf cart rental service.
5. The introduction of electrical charging stations for not only golf carts, but also new electric vehicles.

[2] Adapted from the "Transit Multimodal Parking Facility Summary" provided by KYOVA, March 2015.



PARKING MANAGEMENT

While a new parking deck would increase the total downtown parking capacity, some parking areas will near capacity during peak hours. Where no new spaces can be added and demand is projected to increase, the regulation of existing spaces must be managed and enforced.

Time restrictions and metered parking are common ways to manage and optimize current on-street and off-street parking facilities. These restrictions are effective methods to increase parking turnover and reduce the congestion caused by drivers circling while they look for empty spaces. Not only do these methods free-up parking spaces periodically, but they also generate revenue for the City through meter fees and encourage greater customer circulation in the vicinity of local shops and restaurants.

Another technique for managing parking in the study area is to consider implementing agreements with private businesses to share their existing parking lots. Shared public-private parking could help reduce the perception of parking scarcity during peak times. If this technique was implemented, a strong signage and education campaign

would be needed to inform the public that these lots are available. Incentives for shared parking would need to be carefully considered and evaluated by the City prior to their implementation.

Parking management techniques can also be implemented that encourage the use of non-auto travel modes. For example, bicycle and golf cart valet services can be used during special events to encourage the public to use these modes. These valet services provide a safe and convenient method for people to leave their cars at home. Techniques such as bicycle and golf cart valet are a low-cost way to publicize and encourage use of these travel modes.

CONCLUSION

Downtown Ironton is a vibrant area that is positioned for strong future growth. Existing parking conditions show capacity issues in some locations, and anticipated future growth and development will place significant pressure on the area's parking facilities. Additionally, the desire for multimodal growth and mode shift in the downtown creates a new series of parking issues for transit vehicles, golf carts, and bicycles.

The proposed parking garage attached to the Ironton Transit Center would provide parking relief for numerous travel modes. In addition, it could serve as an economic development tool by easing access to special events and destination points. This study recommends that implementation of this deck should strongly be considered.

Moving forward, the City of Ironton and associated stakeholders should work with the KYOVA to seek funding for the design and construction of this multimodal parking deck. Future planning and implementation of the deck should be coordinated with the recommended bicycle and pedestrian plan to ensure the facility recommendations from that plan coordinate with the overall vision for Downtown Ironton as a multimodal hub.