

Wheeling Access Plan

To connect residents to all Wheeling has to offer





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01

Acknowledgments and Introduction

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Grow Ohio Valley

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Introduction

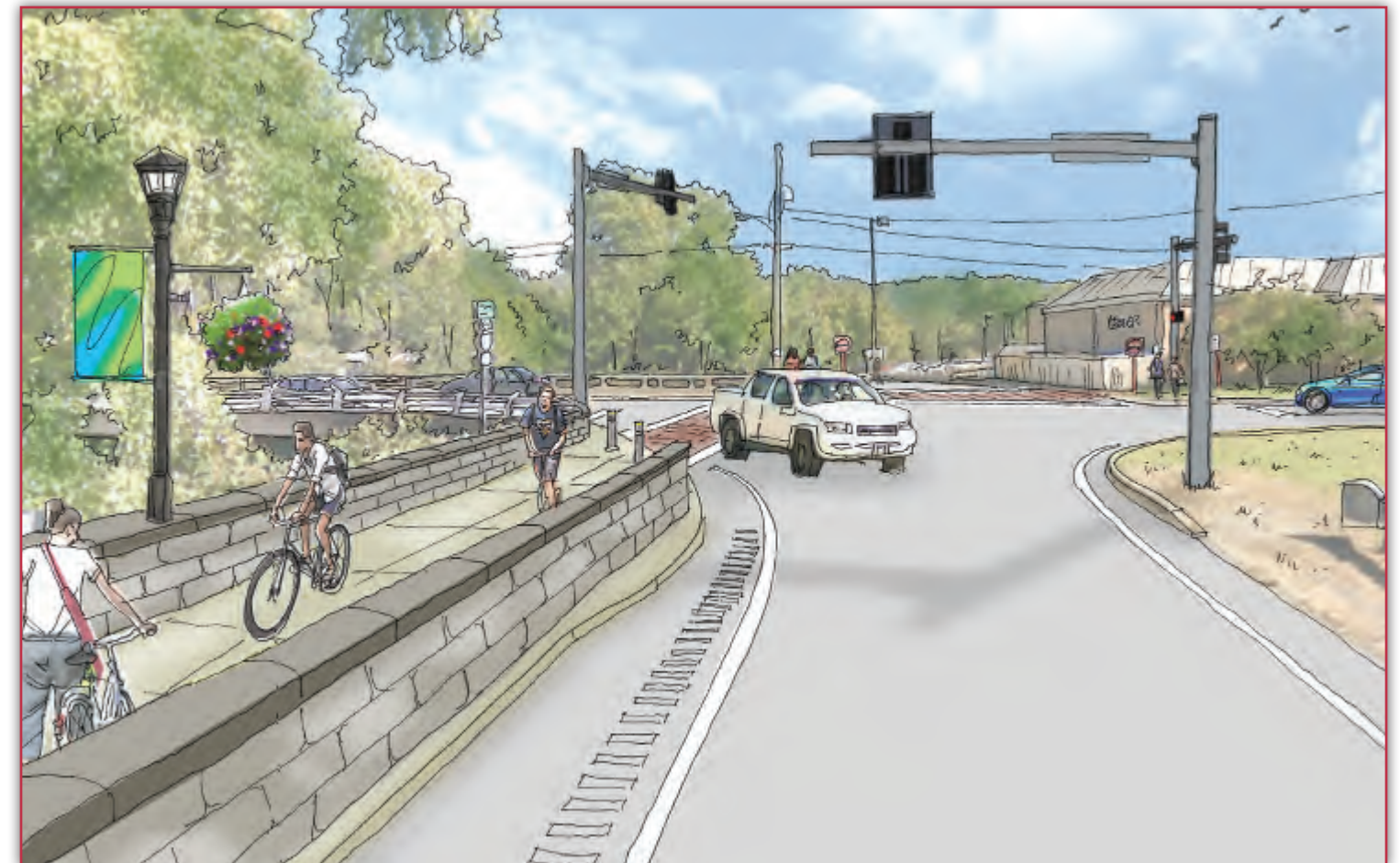
This project, a cooperative effort between Belomar Regional Council, the City of Wheeling, Ohio Valley Transit Authority, and Reinvent Wheeling, addresses food and access inequality through the lens of transportation and community planning.

This project originated with a Local Food, Local Places grant received by the City of Wheeling from the US EPA in 2014-2015. Through that planning process, priorities for future action were outlined including: "Connect local food network uses with pedestrian trails and other transportation services and facilities via a multi-modal transportation plan for downtown with consideration of connections to outlying neighborhoods."

Using transportation planning concepts and methodologies, the project team has established recommendations vetted by the public to create a network of safe, accessible, routes to connect local food network uses, community resources, and multi-modal transportation options so that Wheeling's residents, workers, visitors, and stakeholders may take advantage of the many opportunities the City

and region has to offer.

This document is intended to be a framework for taking mobility to the next level in Wheeling. It includes a holistic plan describing where different improvement types would bridge gaps and create new opportunities for access. Specific projects that have special opportunities or benefits in the near term are presented in greater detail including costs and funding opportunities available for their implementation.



02

Purpose

Connections without Cars

Food inequality is directly related to the ability to access food resources. In today's auto-centric society low or fixed income households, elderly, disabled, and children are disproportionately affected by food inequality. Due to physical inability to drive or the inability to afford a car the only option for these populations is to access their food resources by alternative modes of transportation. For able bodied individuals with low or fixed income the only truly free form of transportation is walking. The lack of a car creates barriers to access to healthcare, public services, and education.



But for all individuals--those with available cars and those without--walkable, bikeable and transit-friendly environments provide many benefits, including:



- Activated streets
- Opportunities for more active lifestyles
- Improvements to the environment
- Money saving alternative options to personal cars
- Alternatives to traffic congestion and construction on roadways
- Economic opportunities for businesses

The scope of this study focuses on ways to increase and improve travel by these modes of transportation in Wheeling.



Study Area

The Project Team determined that the study area should be defined by the traditional boundaries of downtown Wheeling and its proximity to key destinations radiating outward from the central business district. In addition, Wheeling Island and bicycle/pedestrian access across the Aetnaville Bridge to Ohio were also deemed important connections to include. In addition, the study area includes connections south to Pulaski Park and South Wheeling as those areas were identified as struggling with healthy food access.



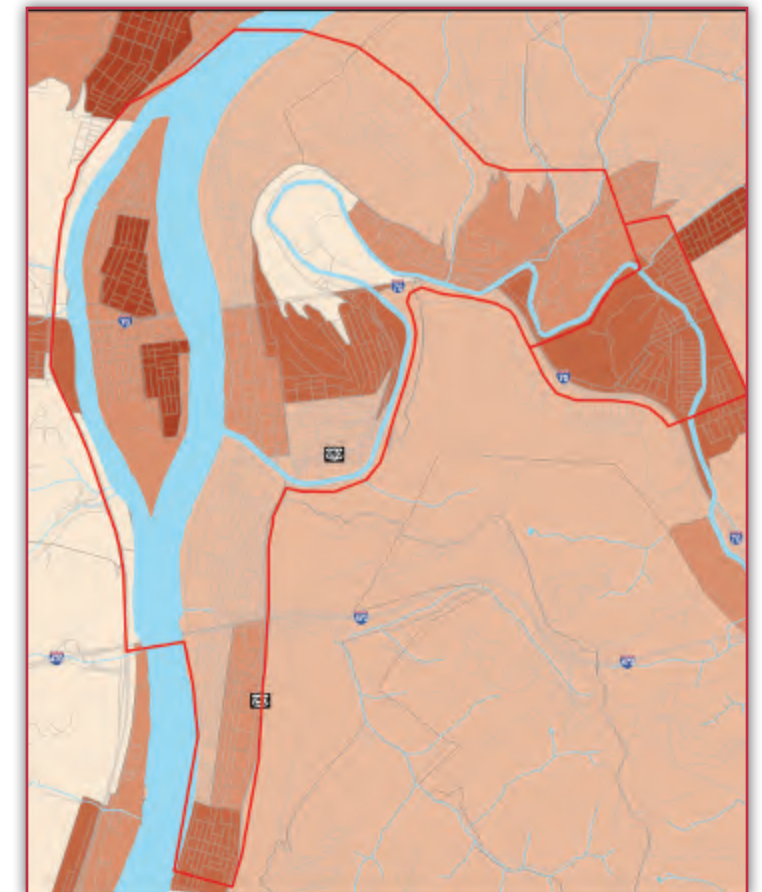
STUDY AREA

LEGEND

— Limits of Study Area

Populations

The recommended study area was analyzed by the design team to determine if there were smaller pockets or neighborhoods of particular concern. The map to the right indicates population density within greater Wheeling. In creating improvements, a key consideration is how many individuals will be affected positively by the change. A map of population density allows general deductions as to where multi-family housing is located, which is often linked to lower income levels, multi-generational households, and car sharing.



POPULATION DENSITY

LEGEND - HOUSEHOLDS

| | |
|---|--|
|  0-553 |  3,109-5,858 |
|  554-1,543 |  5,859-11,282 |
|  1,544-3,108 | |

Critical Populations

Census data was also used to identify areas where populations might be particularly vulnerable to food inequality due to income or racial inequalities.

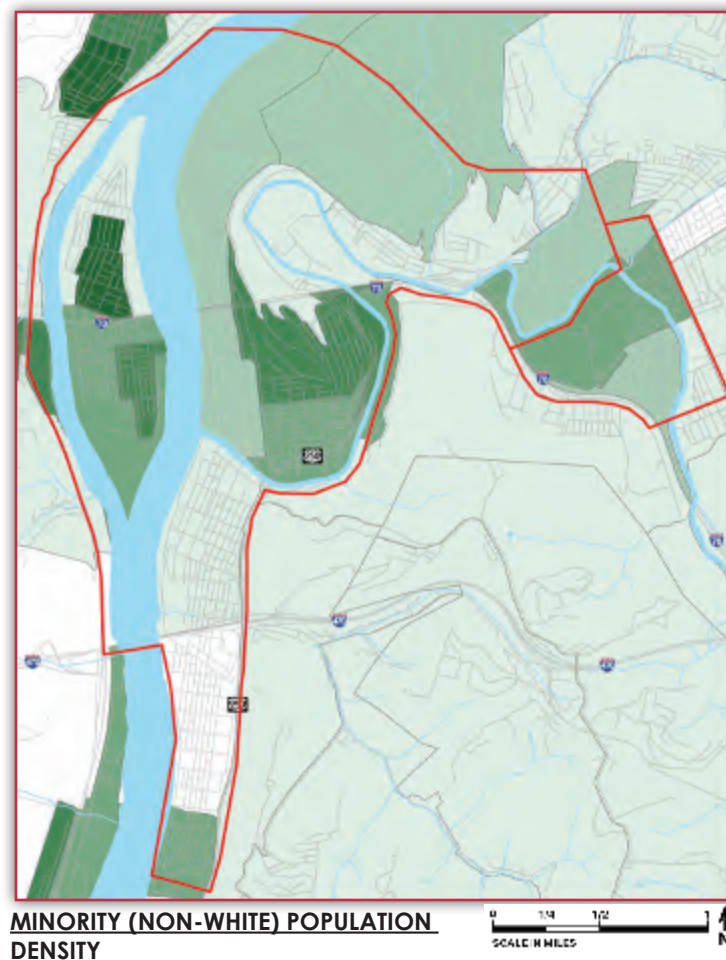
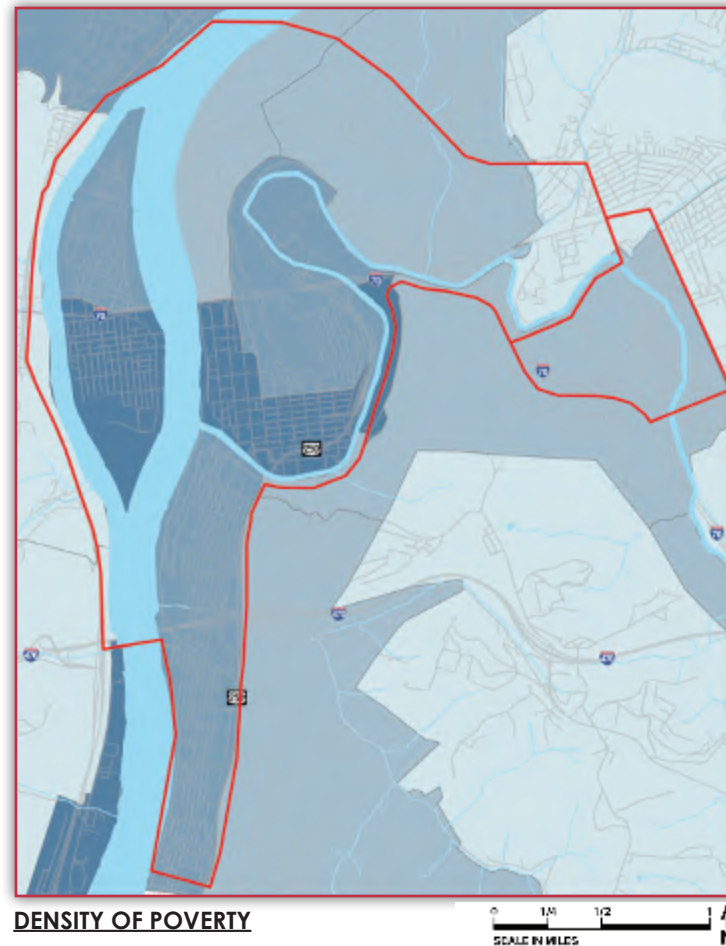
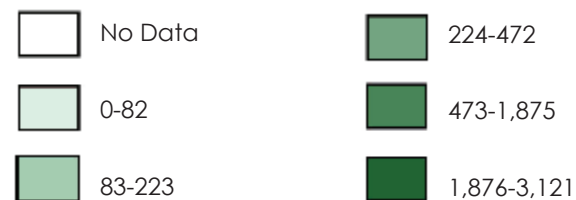
The map to the left indicates the number of households that fall under the federal poverty line. As shown, some of these areas overlap with high density areas, but there are areas of high density that do not carry equally high levels of poverty. The neighborhoods of Wheeling Island and East Wheeling are again indicated, but also the downtown neighborhood. Pleasanton and South Wheeling, while highly populated do not also have the high level of poverty of these two neighborhoods.

LEGEND - HOUSEHOLDS



The map to the right indicates areas of concentrations of racial minorities. Areas of highest concentrations, Wheeling Island, East Wheeling, South Wheeling, and to an extent, Pleasanton-Oakmount, are consistent with the highly populated areas, but only Wheeling Island and East Wheeling overlap the identified areas of high poverty.

LEGEND - HOUSEHOLDS

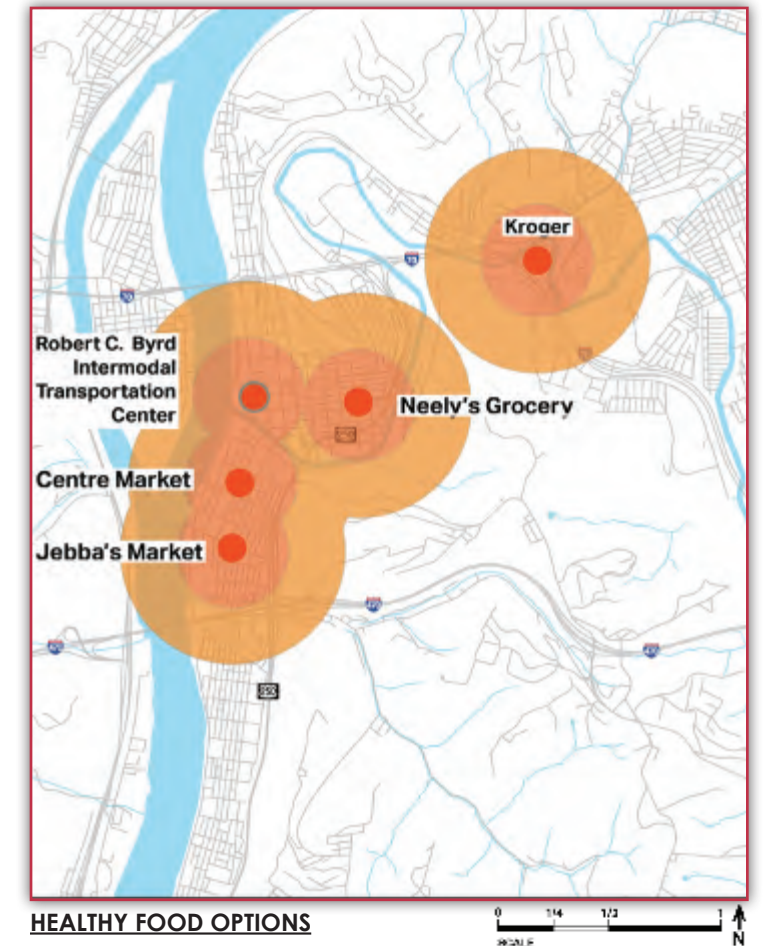
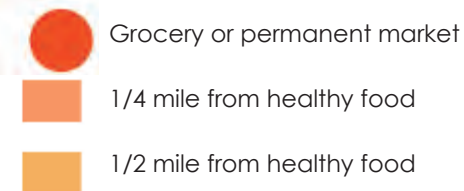


Healthy Food Options

There are five locations within the City of Wheeling that provide a variety of healthy grocery options. The map to the left shows their locations. Around each store is a double ring indicating an area within a 5 minute or 10 minute walk from the store. As shown on the map, the Downtown and East Wheeling neighborhoods identified as having critical populations that are well served by the current healthy food options.

However, Pleasanton, Wheeling Island, and South Wheeling are either poorly served or not served at all by these resources. With the closure of the Wheeling Suspension Bridge on Wheeling Island to vehicular traffic, the need for walkable connections to the facilities in Downtown is exacerbated. In addition, while the walkable area around the Kroger store serves several neighborhoods, the reality of the streetscape and crossings there provides an additional barrier. Lastly, South Wheeling is furthest from any of the options. These three neighborhoods have features that make them more vulnerable to health food shortage and access improvements are most critical here.

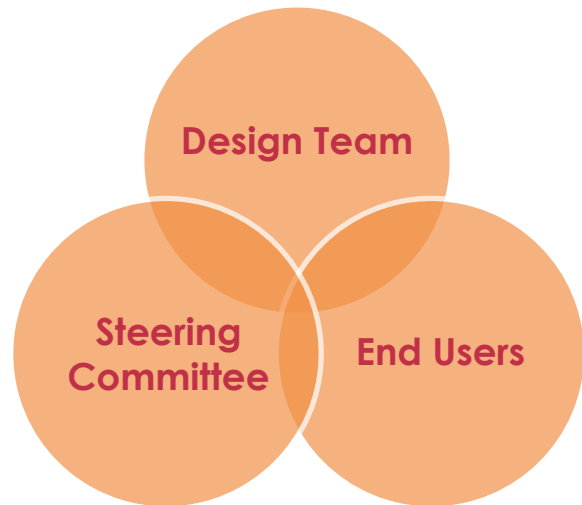
LEGEND



03 Process

Planning and Design Process

The design process was fueled by three factors: the planning and technical expertise of the Design Team, the local geographical and political expertise of the Steering Committee and the personal experience of the End Users: Wheeling's residents, workers and other stakeholders. These entities formed the Project Team, which developed the recommendations of this report.



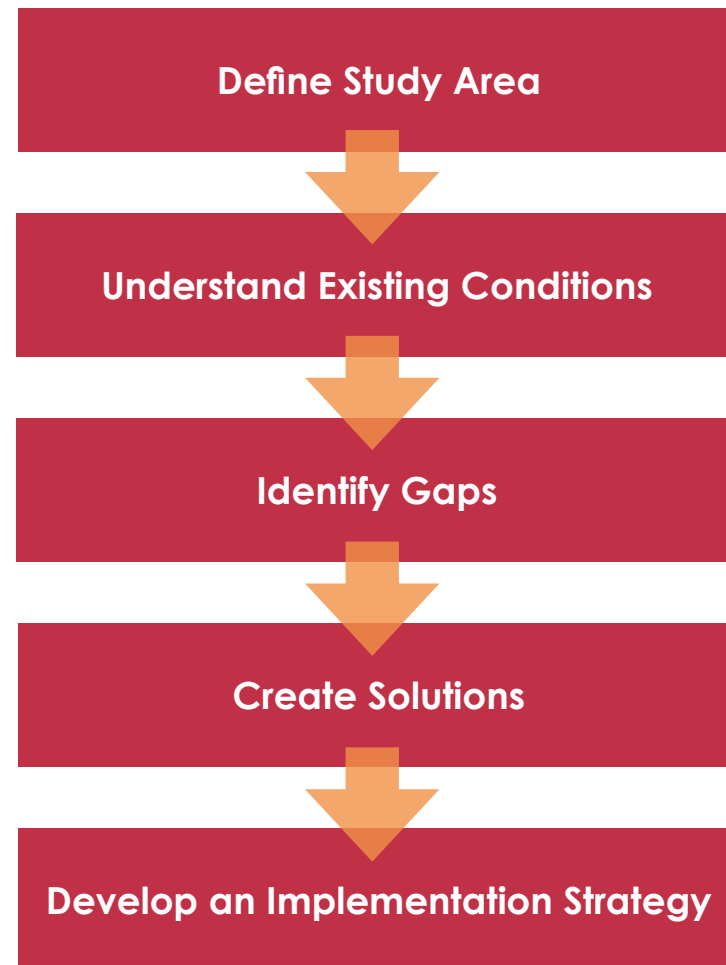
The process began with a dialogue between all three parties to define the service area for these multi-modal improvements. Within that defined area, work was focused on a series of "typical routes" identified by the Steering Committee and End Users that were considered to be the most logical and important connections between residents and existing resources.

The design team collected data on the existing conditions for each route including a physical assessment. Once this data was collected it was analyzed to identify gaps in the overall connectivity system (i.e. identifying potential new routes) as well as locations along the typical routes where improvements could be made. The data was vetted by the Steering Committee.

The Design Team proposed recommendations for

how to effectively bridge the gaps, which were then shared with the Steering Committee and End Users. The feedback was rolled into the final plan presented in this document.

The projects that carried specific weight or significance as determined by the Steering Committee were recommended either for further detailed feasibility and planning work, or were evaluated for potential construction costs. Lastly, a strategy was developed to acquire funding and implement the recommended work over the next 5-10 years.



Public Engagement

The Public, or End Users were invited to two open houses during this study, one at the beginning to identify the study area and typical routes to analyze, and one to evaluate and comment on the gaps that were identified and the proposed solutions. At each meeting, attendees were given an overview of the project and invited to express their opinions by marking up maps, writing down comments, and indicating their approval or disapproval of the various options presented.



Public Open House #1



Public Open House #2



Public Open House #2

04

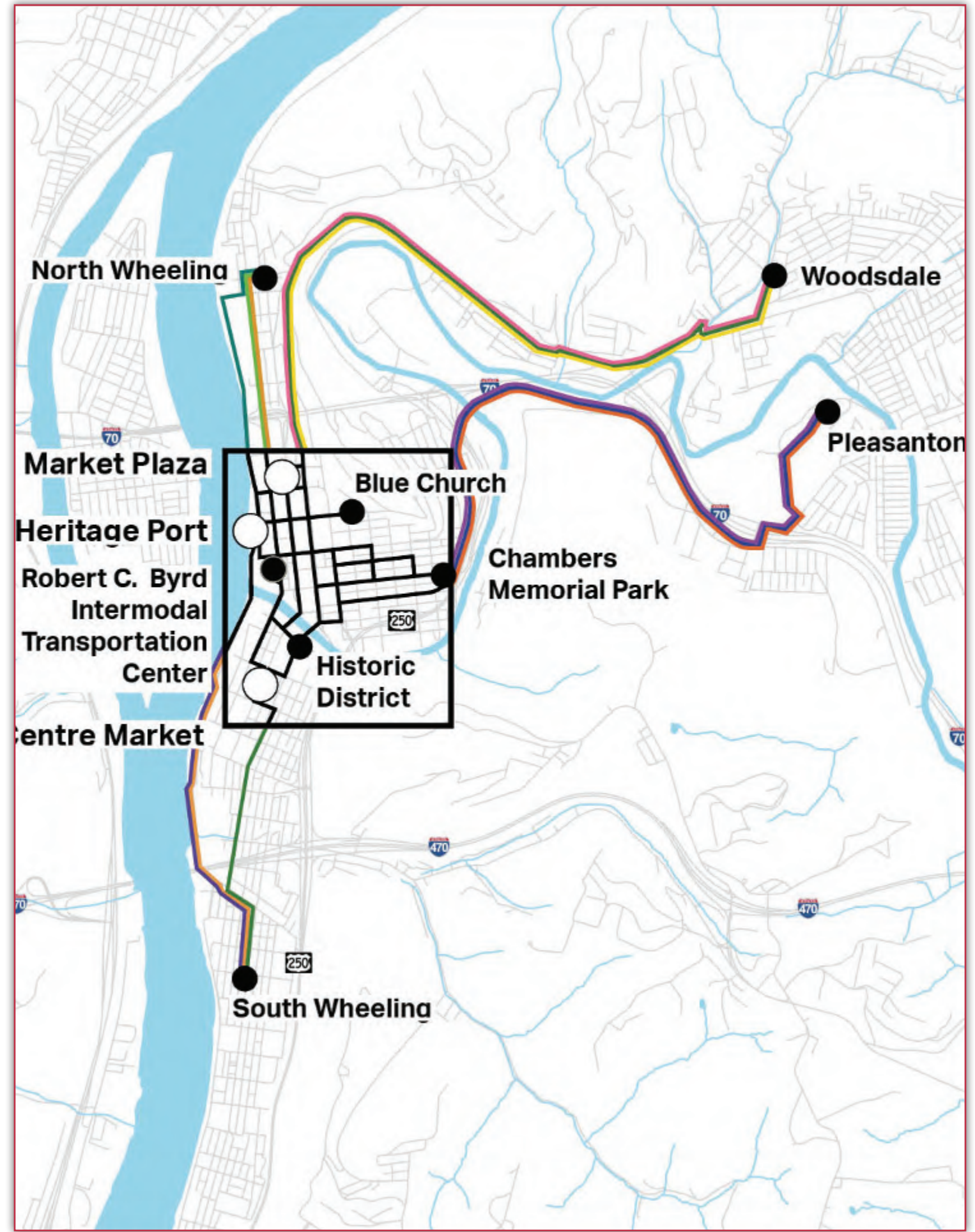
Existing Travel Conditions

Typical Routes

Typical Routes were identified from locations within the center core of the city (Downtown, East, and Center Wheeling) and outlying neighborhoods (North Wheeling, South Wheeling, Pleasanton-Oakmont and Woodsdale-Edgewood) that were physically evaluated to assess existing conditions. Some of the routes overlap significantly and these streets were identified as key streets for improvements.

The locations of these routes are mapped out on this page including the key destinations that serve as their start and end points.

This chapter describes the existing travel conditions on these routes for pedestrians, cyclists, and public transit users to determine priority investments for repairs and new investments in multi-modal infrastructure.



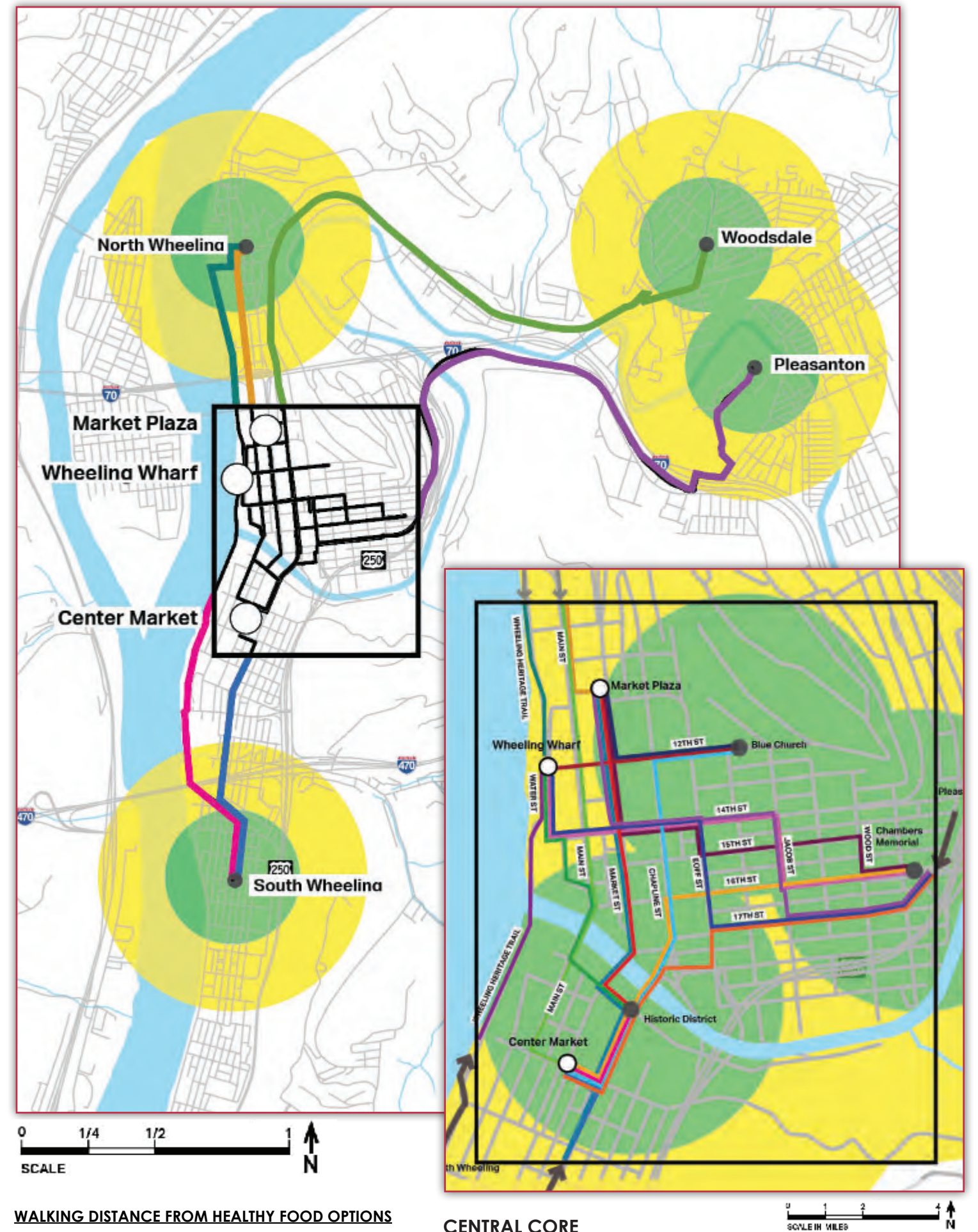
Typical Pedestrian Travel Times

The design team tested the walkability of each route using both an calculated average speed of 2.79 miles per hour and the actual time required to walk the route on the physical survey. The results are listed below. The routes highlighted fall within the 5-10 minute walking distance that is typically found to be how far a person is willing to walk on a regular basis. As is indicated by the diagram on the left, the central core is very walkable, but the routes from outer neighborhoods to the core- North Wheeling, South Wheeling, Woodsdale and Pleasanton - require a much longer distance. Therefore in these neighborhoods, a more reasonable expectation for access to food resources would be via bicycle or public transit.

LEGEND

- 1/4 mile (5 minute walk)
- 1/2 mile (10 minute walk)

| Route Name | Walking Distance (mi) | Walking Time using Average (min) | Actual Time Walking (min) |
|---|-----------------------|----------------------------------|---------------------------|
| Centre Market to Pleasanton | 3.11 | 67 | 61 |
| Centre Market to Historic District | 0.17 | 4 | 3 |
| Centre Market to North Wheeling | 1.43 | 31 | 29 |
| Centre Market to South Wheeling | 1.02 | 22 | 20 |
| Centre Market to Chambers Memorial Park | 0.75 | 16 | 12 |
| Centre Market to Blue Church | 0.8 | 17 | 13 |
| Centre Market to Woodsdale | 3.54 | 76 | 86 |
| Market Plaza to Pleasanton | 3.31 | 71 | 66 |
| Market Plaza to Historic District | 0.65 | 14 | 11 |
| Market Plaza to North Wheeling | 0.71 | 15 | 13 |
| Market Plaza to South Wheeling | 1.9 | 41 | 32 |
| Market Plaza to Chambers Memorial Park | 0.65 | 14 | 12 |
| Market Plaza to Blue Church | 0.31 | 7 | 6 |
| Market Plaza to Woodsdale | 2.8 | 60 | 53 |
| Heritage Port to Pleasanton | 3.33 | 72 | 62 |
| Heritage Port to Historic District | 0.38 | 8 | 7 |
| Heritage Port to North Wheeling | 0.94 | 20 | 18 |
| Heritage Port to South Wheeling | 1.68 | 36 | 28 |
| Heritage Port to Chambers Memorial Park | 0.78 | 17 | 13 |
| Heritage Port to Blue Church | 0.34 | 7 | 5 |
| Heritage Port to Woodsdale | 3.19 | 69 | 62 |



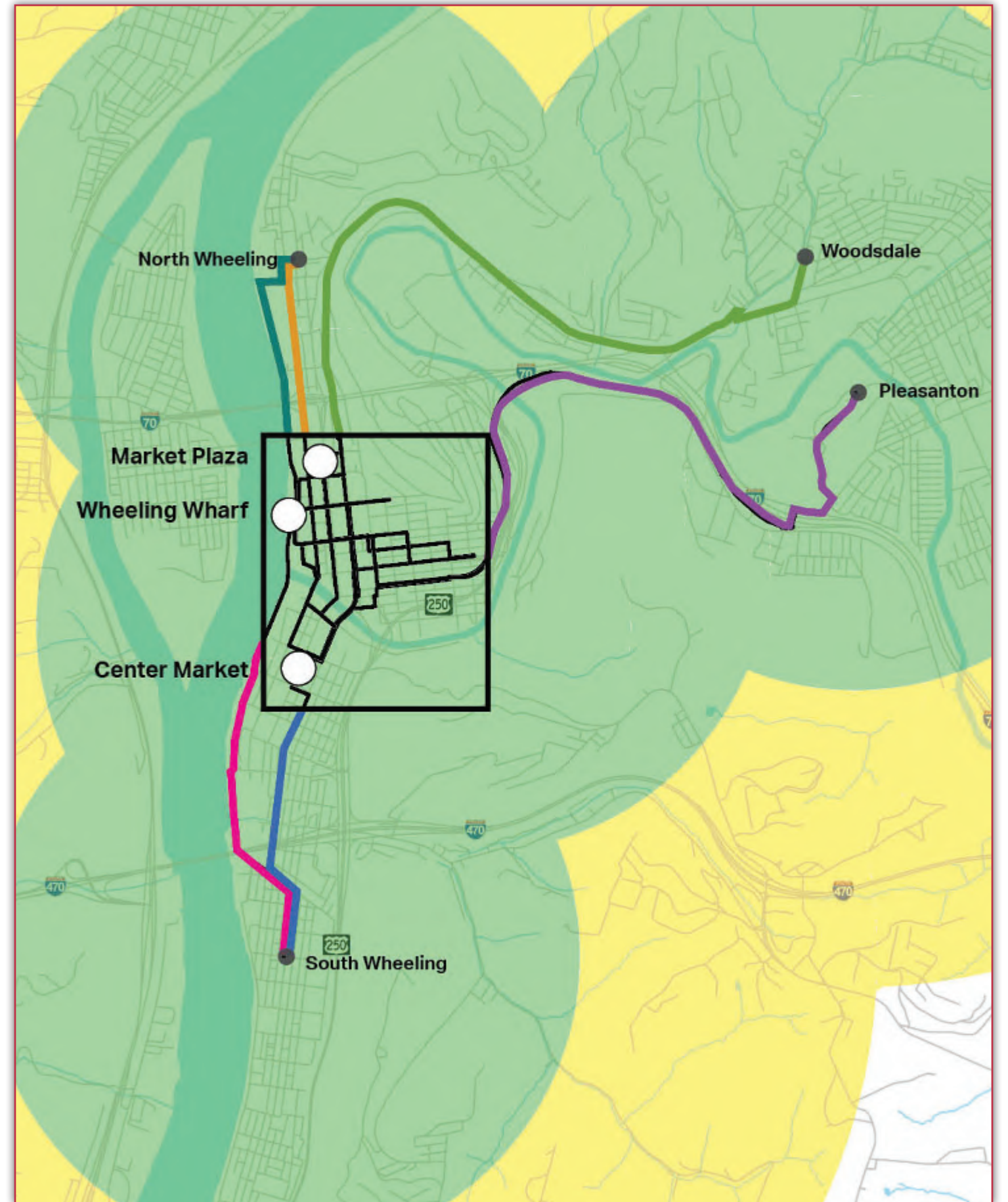
Typical Bicycle Travel Times

The design team also rode each route. The comparison between actual and calculated bicycling time using an average speed of 11.18 miles per hour are listed below. The routes highlighted fall within the 5-15 minute biking distance that is typically found to be how far a person is willing to bike on a regular basis. As the map indicates, all routes except for those originating in Woodsdale and Pleasanton are within the typical riding distance. However, the actual ride time for most routes was longer than calculated due to terrain and traffic. This was especially true for the routes to Woodsdale and Pleasanton, which stand out again as critical links for public transit.

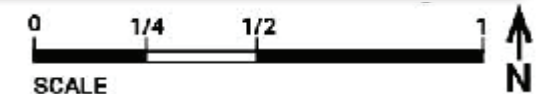
LEGEND

- 1 mile (5-8 minute ride)
- 2 mile (12-15 minute ride)

| Route Name | Bike Distance (mi) | Bike Time using Average (min) | Actual Time Bike (min) |
|---|--------------------|-------------------------------|------------------------|
| Centre Market to Pleasanton | 3.16 | 17 | 23 |
| Centre Market to Historic District | 0.17 | 1 | 1 |
| Centre Market to North Wheeling | 1.4 | 8 | 9 |
| Centre Market to South Wheeling | 1.11 | 6 | 7 |
| Centre Market to Chambers Memorial Park | 0.73 | 4 | 6 |
| Centre Market to Blue Church | 0.74 | 4 | 9 |
| Centre Market to Woodsdale | 3.46 | 19 | 35 |
| | | | |
| Market Plaza to Pleasanton | 3.28 | 18 | 25 |
| Market Plaza to Historic District | 0.61 | 3 | 7 |
| Market Plaza to North Wheeling | 0.71 | 4 | 7 |
| Market Plaza to South Wheeling | 1.83 | 10 | 17 |
| Market Plaza to Chambers Memorial Park | 0.77 | 4 | 5 |
| Market Plaza to Blue Church | 0.35 | 2 | 3 |
| Market Plaza to Woodsdale | 2.71 | 15 | 25 |
| | | | |
| Heritage Port to Pleasanton | 3.23 | 17 | 25 |
| Heritage Port to Historic District | 0.47 | 3 | 4 |
| Heritage Port to North Wheeling | 0.93 | 5 | 7 |
| Heritage Port to South Wheeling | 1.63 | 9 | 11 |
| Heritage Port to Chambers Memorial Park | 0.73 | 4 | 4 |
| Heritage Port to Blue Church | 0.31 | 2 | 4 |
| Heritage Port to Woodsdale | 2.97 | 16 | 39 |



BIKING DISTANCE FROM HEALTHY FOOD OPTIONS



Weekday Transit Service

The Ohio Valley / Eastern Ohio Transportation Authority operates eleven fixed-route transit services within the study area. Seven of these travel extensively through the study area, while four operate in downtown Wheeling and cross Wheeling Island (with limited service to the island). The fixed routes services converge at the Robert C. Byrd Intermodal Transportation Center on Main Street near 14th Street. The new Wheeling Public Market and Wheeling Visitors Center are located within the Transportation Center. The Public Market, which is open for business six days per week during transit service hours, immediately improve regional access to healthy food resources. Complimentary paratransit service is provided within 1.5 miles of fixed-route service for qualified wheelchair users and other persons whose disability prohibits their use of fixed-route services. Operating hours are 6:00 AM to approximately 6:30 PM Monday through Saturday. No service is provided on Sundays.

The volume of available transit varies dramatically within the study area. In downtown Wheeling along Main and Market streets, bus service is available every five to ten minutes. In some outer neighborhoods,

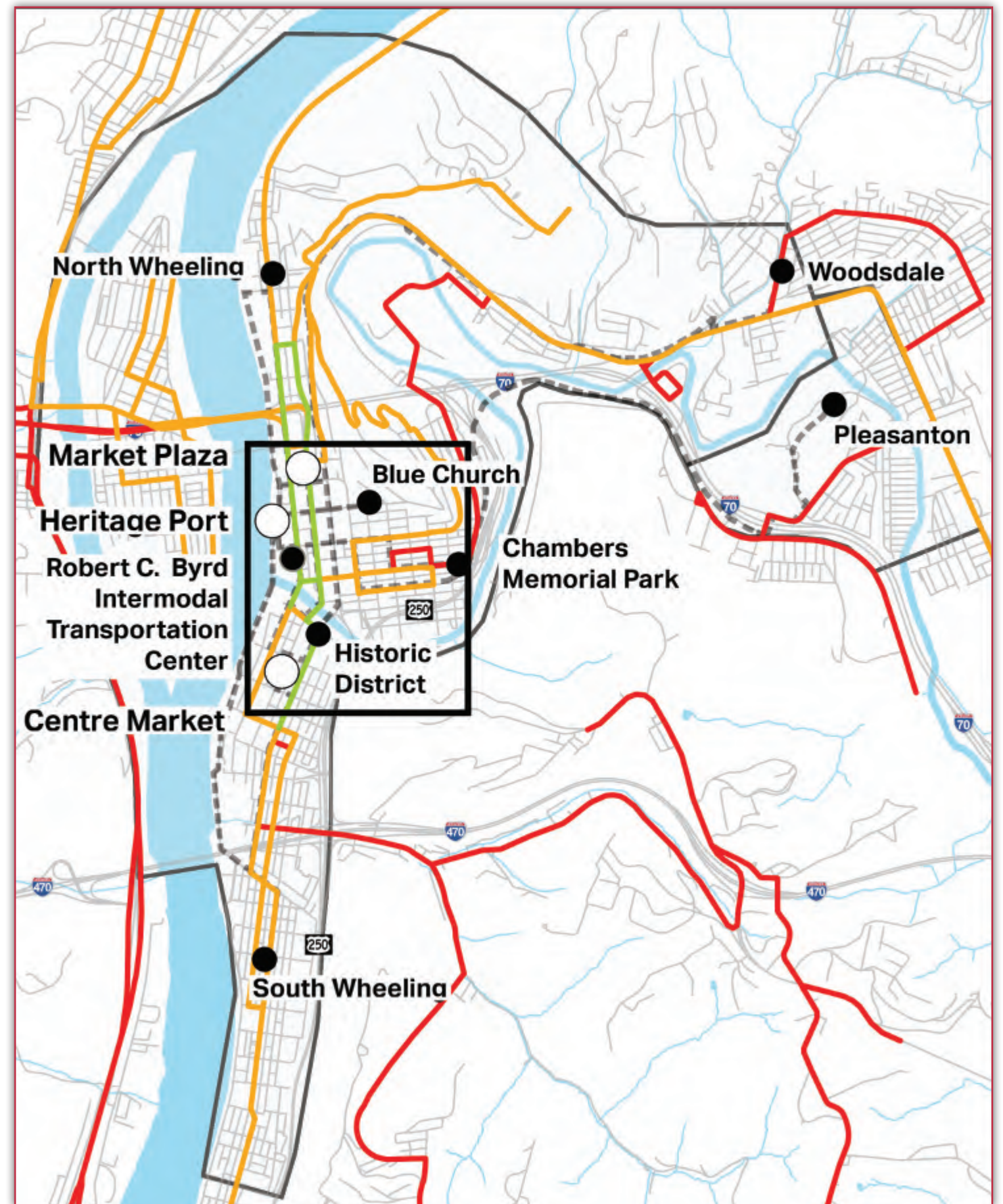
buses serve stops every 60 minutes. The customer wait time at transit stops influences customer willingness to ride and their decisions to select other available travel choices, such as driving, rideshare or bicycling. The study prioritized improvements along transit corridors with relatively frequent service and relatively high customer utilization. A comprehensive review of transit services was determined to be outside the work scope of the study.

LEGEND

- 5-15 minute wait time
- 16-30 minute wait time
- 31+ minute wait time
- Study Area



Robert C. Byrd Intermodal Transportation Center



WEEKDAY TRANSIT FREQUENCY

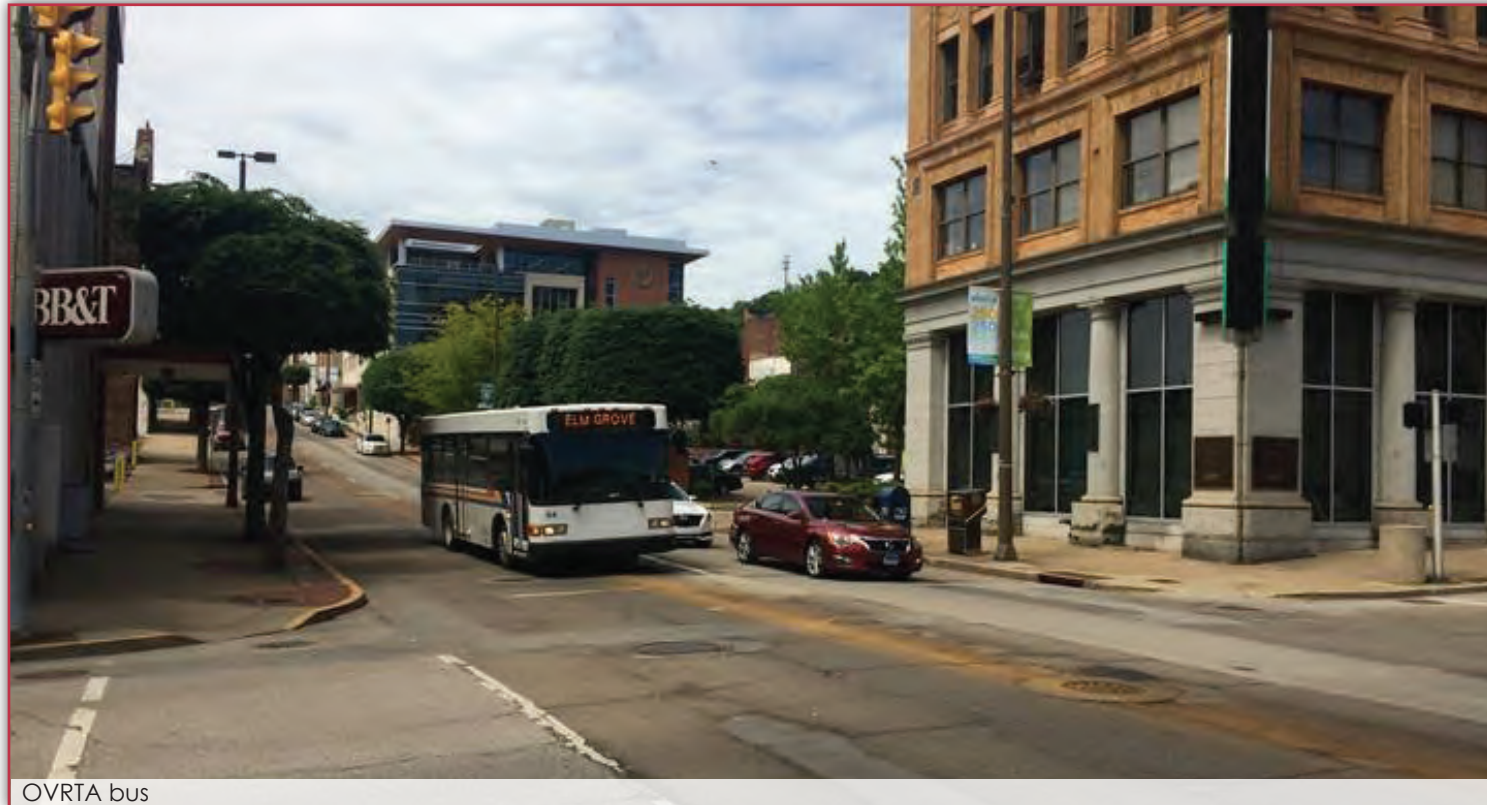


Saturday Transit Service

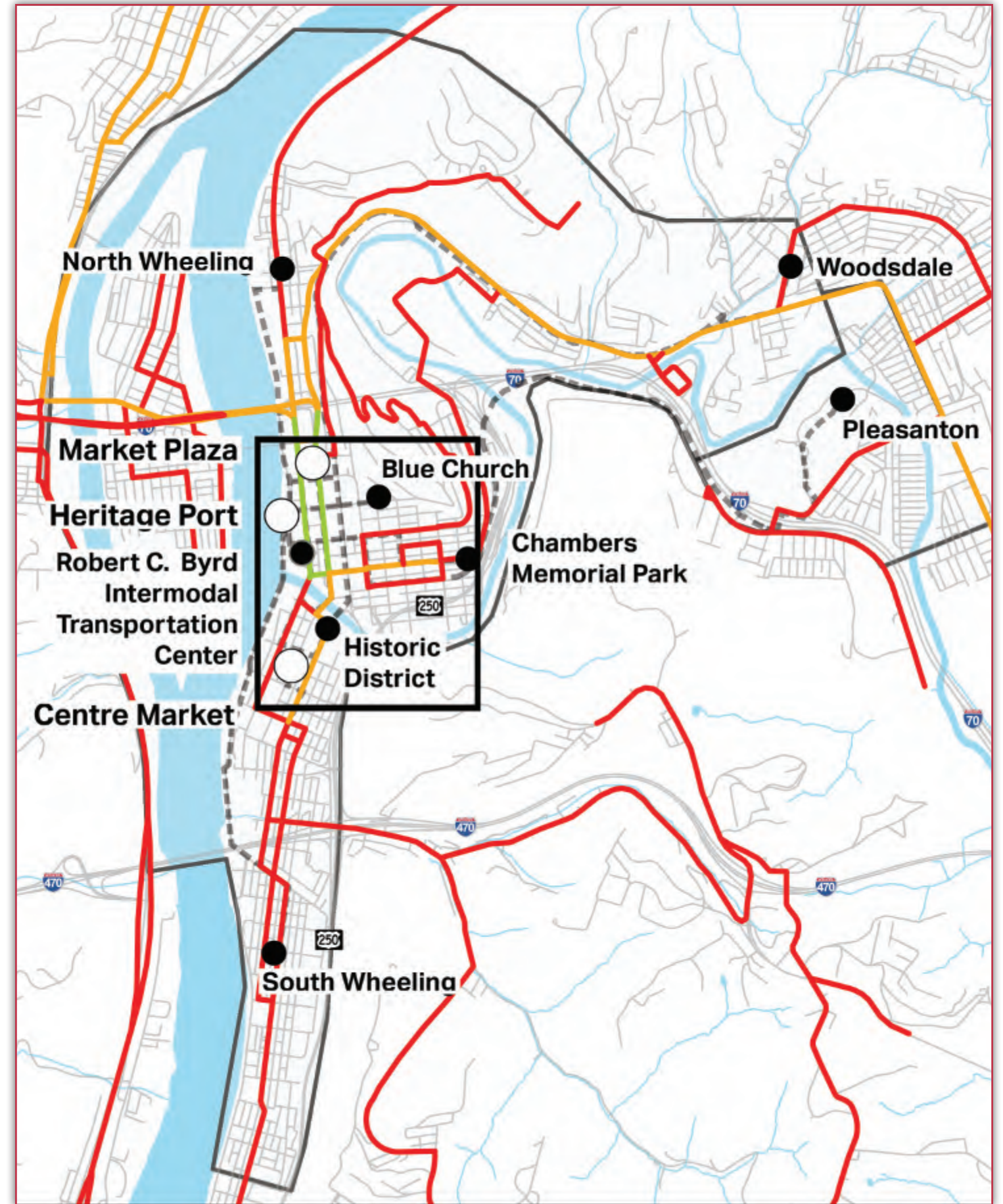
The Saturday transit schedule varies little from weekday service. More of the area's transit corridors offer service operating every 30 or more minutes on Saturdays, as indicated by red lines on the map.

LEGEND

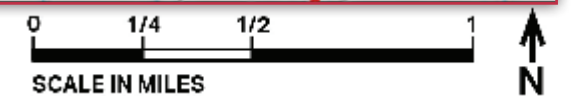
- 5-15 minute wait time
- 16-30 minute wait time
- 31+ minute wait time
- Study Area



OVRTA bus



SATURDAY TRANSIT FREQUENCY



SCALE IN MILES

Stress Indicators

Each typical route was evaluated by applying a series of factors that support or discourage walking and biking. Stress indicators discourage travel along routes, ease of access is a measurement of barriers to entry, and community resources indicate desired destinations along travel routes. The following stress indicators were evaluated for each route:

- Steepness of grade
- Traffic volumes
- Congestion
- Wayfinding
- Lighting
- Safety

For each typical route, the stress indicators were given a rating ranging from zero to five with five being the preferred condition and zero being the least favorable condition as shown on the chart to the left. These rankings were made through a combination of on site observation and data available from city, state, and other public sources.

All of the typical routes had an average ranking indicating relatively good conditions overall. However, when each route was evaluated along it's length there were often specific, generally isolated locations where stress indicators were significantly greater than along the rest of the route. Often these high stress areas combine issues on more than one indicator.



Peninsula Street Bridge

For example, the image below shows the current condition at Peninsula Street Bridge where sidewalks in disrepair, poor wayfinding, lighting, and safety combine to create a condition that would be very discouraging to an individual planning to take this route on foot or bicycle.

| Route | Stress Indicators | | | | | |
|---|--------------------|-----------------|------------|-------------|----------|--------|
| | Steepness of Grade | Traffic Volumes | Congestion | Wayfindings | Lighting | Safety |
| Market Plaza to Historic District | ● | ● | ○ | ● | ● | ● |
| Centre Market to South Wheeling | ● | ● | ● | ● | ● | ● |
| Heritage Port to South Wheeling | ● | ● | ● | ● | ● | ● |
| Heritage Port to Historic District | ● | ● | ● | ● | ● | ● |
| Market Plaza to Chambers Memorial Park | ● | ● | ● | ● | ● | ● |
| Heritage Port to Chambers Memorial Park | ● | ● | ● | ● | ● | ● |
| Centre Market to Chambers Memorial Park | ● | ● | ● | ● | ● | ● |
| Centre Market to Historic District | ● | ● | ● | ● | ● | ● |
| Centre Market to North Wheeling | ● | ● | ○ | ○ | ● | ● |
| Centre Market to Blue Church | ● | ● | ● | ● | ● | ● |
| Centre Market to Woodsdale | ○ | ○ | ● | ● | ● | ● |
| Heritage Port to North Wheeling | ● | ● | ● | ● | ● | ● |
| Market Plaza to South Wheeling | ● | ● | ● | ○ | ● | ○ |
| Market Plaza to Blue Church | ● | ● | ● | ● | ● | ○ |
| Heritage Port to Blue Church | ● | ● | ● | ● | ● | ● |
| Market Plaza to Pleasanton | ● | ● | ● | ○ | ○ | ○ |
| Heritage Port to Pleasanton | ● | ● | ● | ○ | ● | ○ |
| Market Plaza to North Wheeling | ● | ● | ● | ● | ● | ● |
| Centre Market to Pleasanton | ● | ● | ● | ○ | ○ | ○ |
| Heritage Port to Woodsdale | ○ | ○ | ○ | ○ | ● | ○ |
| Market Plaza to Woodsdale | ○ | ○ | ● | ● | ○ | ● |

LEGEND

| | |
|---|---|
| ● | EASY: Flat Grade, Light Traffic Volumes, Light Congestion, Easy Navigation, No Dark Spots Along the Route, 0 to 3 Crashes Along Route |
| ● | MODERATE: Slight Grades, Moderate Traffic Volumes, Moderate Congestion, Slight Difficulty Navigating, 5 to 10 Dark Spots Along the Route, 4 to 7 Crashes Along Route |
| ○ | DIFFICULT: Steep Grades, High Traffic Volumes, High Congestion, Hard to Navigate, 10 or More Dark Spots Along the Route, 8 to 10 Crashes Along Route |

Steepness of Grade

Steepness of grade is a stress indicator that can be a severe barrier for walkers or cyclists. This is especially true for travelers with physical disabilities, including the elderly or young, who are also often without a vehicular option.

Unfortunately, steepness of grade is a condition that is difficult or impossible to correct. Areas where grade is a concern should therefore be considered a priority for public transit.

In the maps to the right, each typical route is colored based on the percentage slope along a particular stretch. Slopes in green, or less than 5% are relatively easy to walk or bike and account for a majority of area covered. Yellow colors indicate slopes between 5 and 8%, which are acceptable for short distances in walking, but can be barriers for inexperienced or weaker cyclists. These are locations where one might need to stop for a rest, or look for an alternative route. In guidelines for the American Disabilities Act, these slopes require flat resting areas for those with mobility impairments. Red indicates slopes above 8%. Per the Americans with Disabilities Act, these slopes are not considered accessible for individuals with mobility impairments. These sections would be difficult for all but the most

experienced cyclists as well.

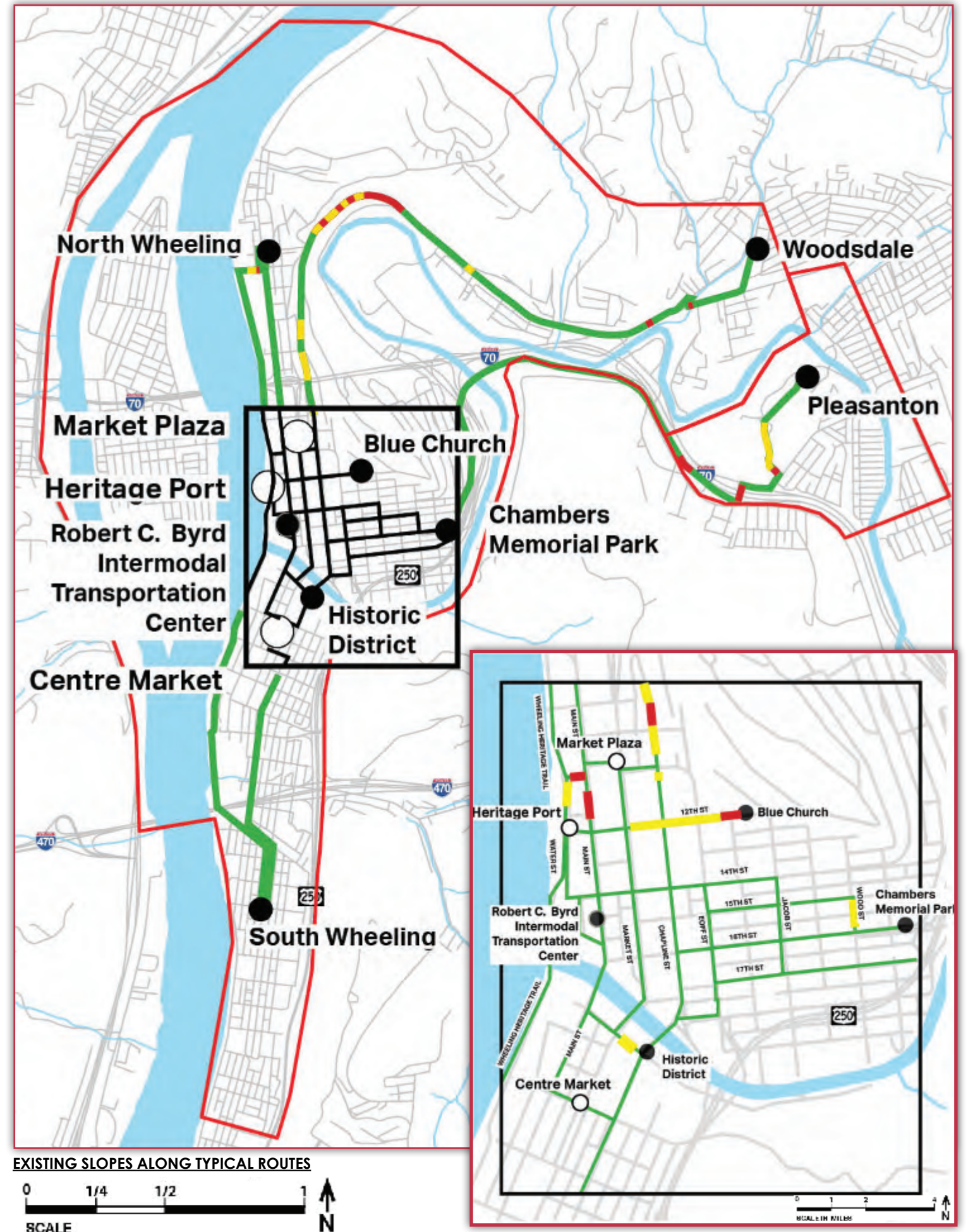
Not many routes have long stretches of very steep slopes. In the center city area, there are other streets that can be utilized to avoid these stresses. However, National Road, shown below, has a very steep grade over a relatively long distance. There are no nearby streets by which one can easily detour and continue on that typical route as shown. Although a typical route and quick from a driver or cartographer's perspective, it is not one that would be feasible for a non-motorized traveler on a grocery run.

LEGEND

- Accessible Slopes <5%
- Accessible Slopes 5%-8%
- Inaccessible Slopes 8%+



National Road



EXISTING SLOPES ALONG TYPICAL ROUTES

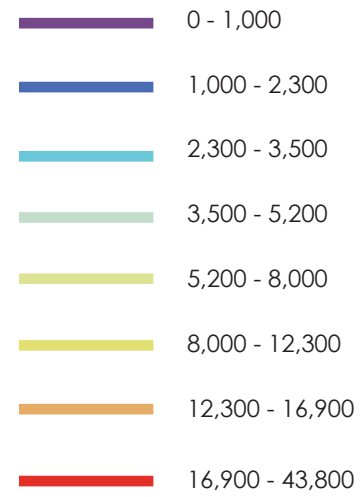


Traffic Volumes and Congestion

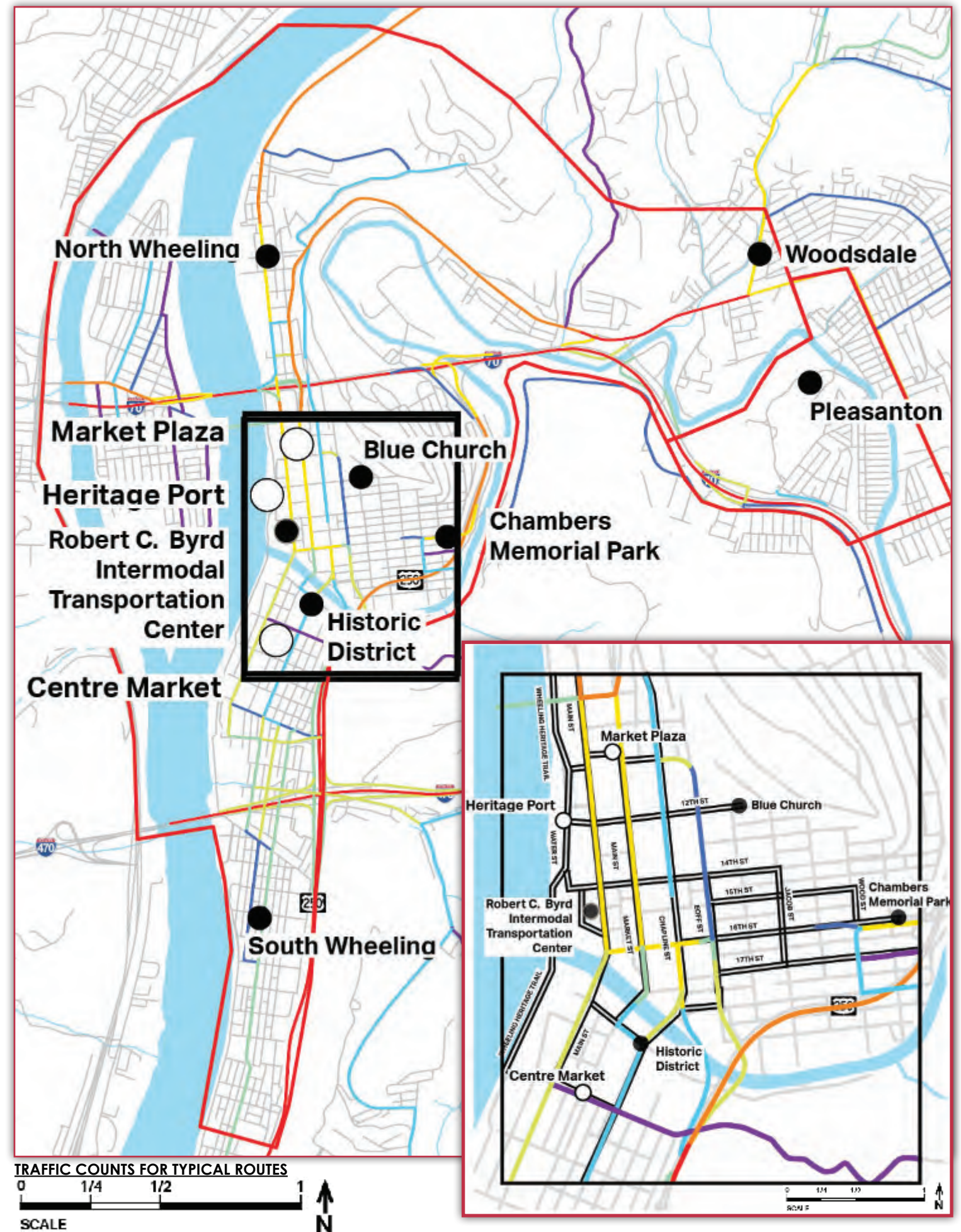
Congestion is a difficult data point to pin down as it may vary day by day. At the time of the writing of this report, the City of Wheeling is experiencing a level of congestion that far exceeds typical norms due to the closing of the highway, corresponding construction on the I-70 bridge over the river to the island, and the unexpected closure of the suspension bridge to vehicular traffic. Shown here are typical traffic volumes compiled on a daily average by the State Department of Transportation for main and minor arterials in every city.

In Wheeling, traffic is concentrated on state routes, freeways and National Road. Compared to other Cities of similar size, traffic volumes are relatively light over all and in downtown specifically. Routes that have less, slower, or calmed traffic are safer and more conducive to sharing with other modes.

LEGEND - Vehicles per Day



Traffic Backing up on I-70. Photo by Scott McCloskey. Source: The Intelligencer: October 26, 2019






Night Lighting

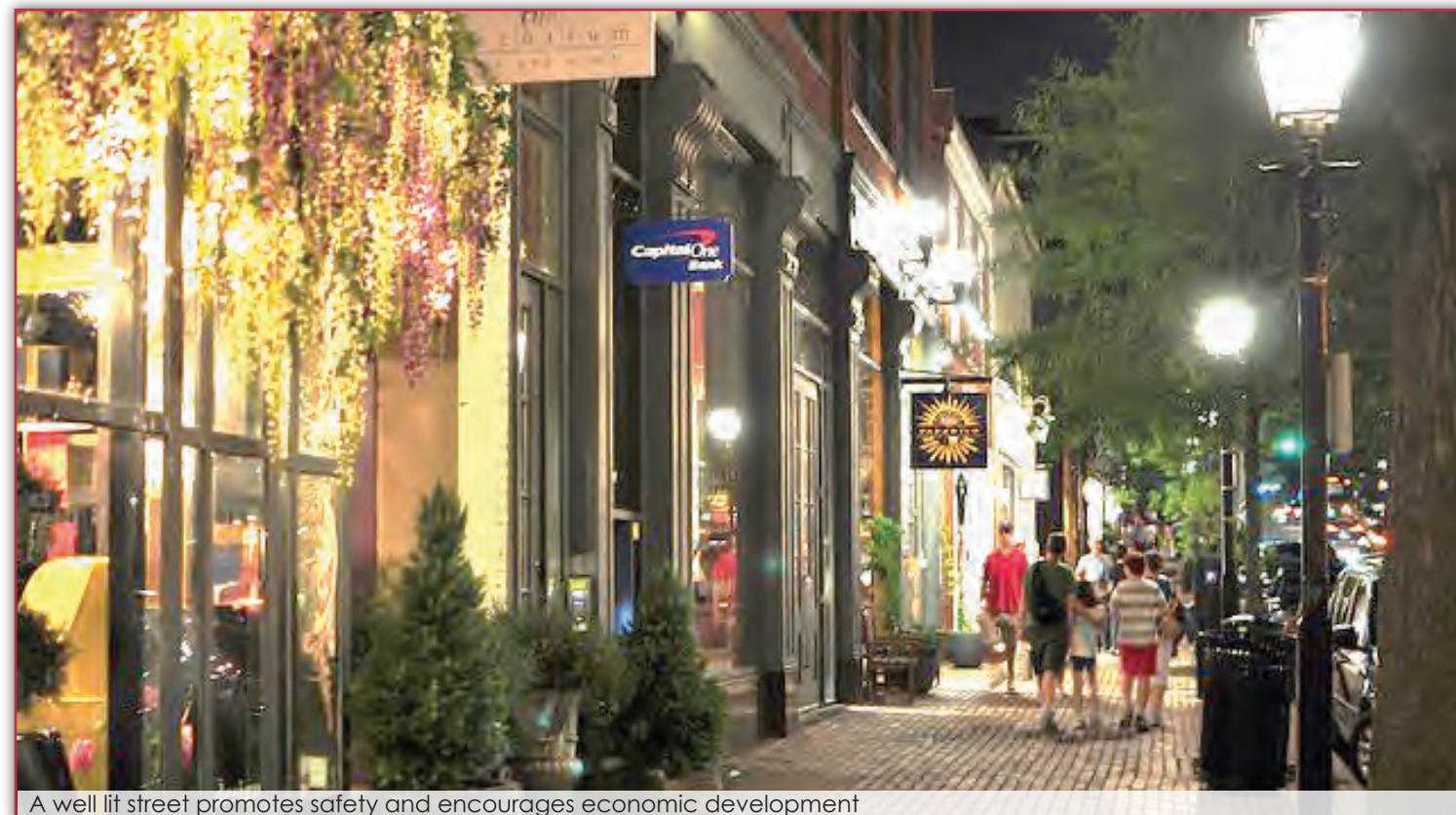
Lighting is an important feature for commuter traffic. It increases safe travel and discourages unlawful behavior. While not necessary for every route, those connecting evening destinations (theaters, restaurants etc.) and places of employment should have some level of night lighting. Tunnels, alleys and other enclosed spaces that limit a travelers options if in distress should also be well-lit and potentially provided with a call box to alert police.

Current conditions in Wheeling appear to indicate that downtown and major roads have lighting. Based on observation, light fixture types and level vary greatly. Some areas in downtown have pedestrian scale lighting, while other lights are intended to provide light for vehicles only.

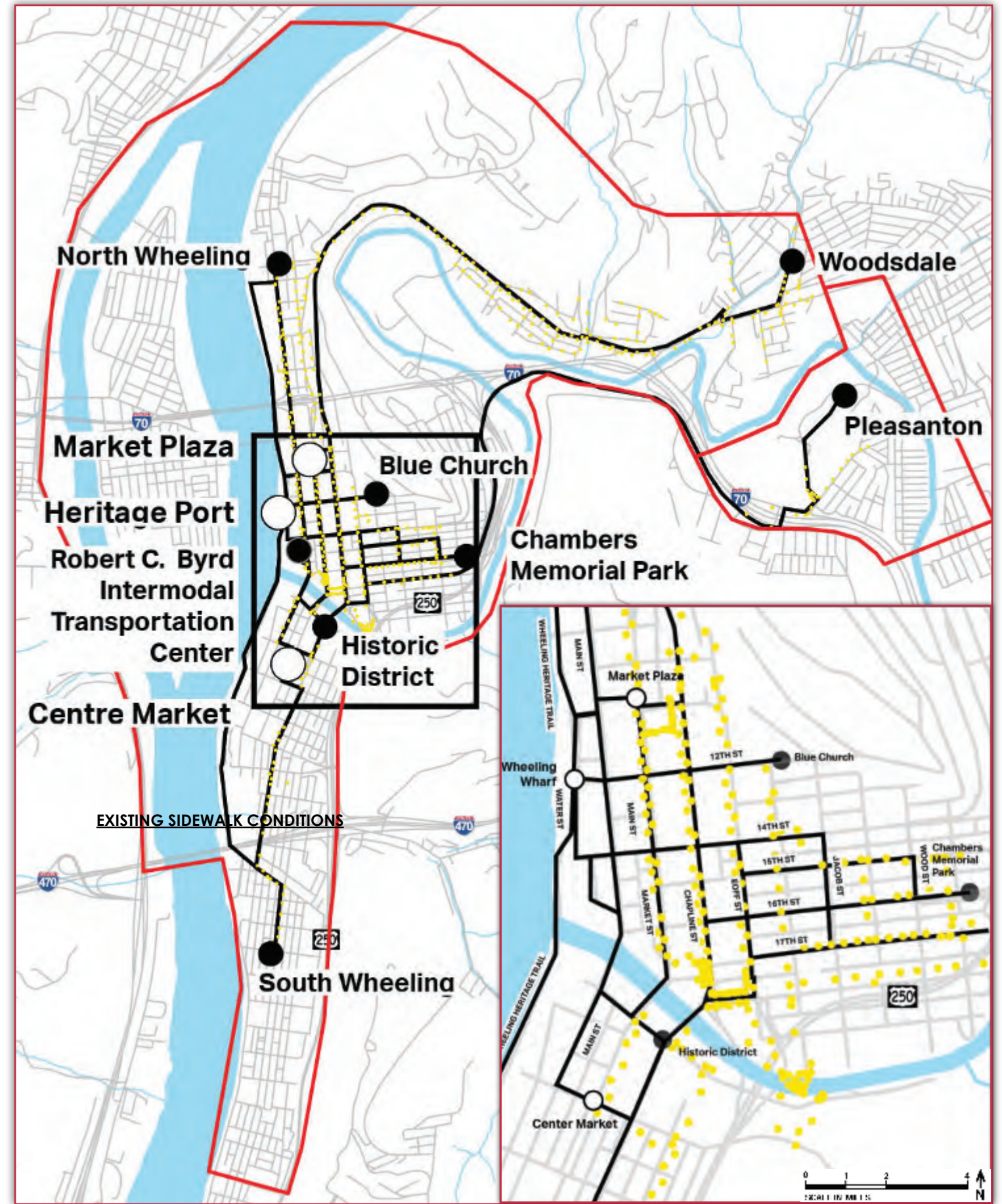
Lighting improvements are a significant investment, but well worth it when located correctly to maximize safety. Pedestrian light fixtures should be available on all main routes in the central business district and along key connecting routes such as Zane Street and the bridges across both the Ohio River and Wheeling Creek. Lighting under overpasses and at the trail tunnel is also critical. Such locations should also provide call boxes as they are less visible to police patrols and passersby.

LEGEND

-  Typical route
-  Study area
-  Light pole



A well lit street promotes safety and encourages economic development



LIGHT LOCATIONS ALONG TYPICAL ROUTES



Wayfinding

Wayfinding is a system of cues that individuals use to orient themselves and locate destinations. Landmarks, street signs, banners, directional signage, gateway signage, and public art are all examples of wayfinding.

The main streets of Wheeling, like many cities are a chaos of signs. In order for travelers to pick up on specific routes or destinations, signage must be clear and preferably supported by other wayfinding devices.

Wheeling has a strong trail network connecting outlying neighborhoods with the central business district. However, the connection between the two ends of the trail and even where trailheads are located is often hard to discern.

The wayfinding ranking was based on observation as to the legibility, location, and clearness of the various wayfinding devices listed above from the viewpoint of one traveling via bicycle or on foot.



Wheeling Creek Pedestrian Bridge



Wheeling Heritage Trail McCulloch Trailhead



Historic Marker, Centre Market



Wheeling Heritage Trail 17th Street Trailhead

Safety

The safety stress indicator was intended to cover the perception of safety along any given route. It encompasses a bit of all of the other stress indicators, but also general aesthetics, street activity, visibility (to others vs lighting), conditions of adjacent buildings, and adjacent land uses. For example, an individual traveling along a route in an industrial area where large trucks are pulling in and out of driveways will feel less safe than one traveling on a quiet, calmed side street, and even more comfortable along a main street where there are other people walking.

Safety, like steepness of grade, is a stress indicator that can be mitigated in some cases with lighting or aesthetic improvements, but factors determining safety can be slow to change or outside of public control.



McCulloch and 15th Streets



Dead end sidewalk at Kroger



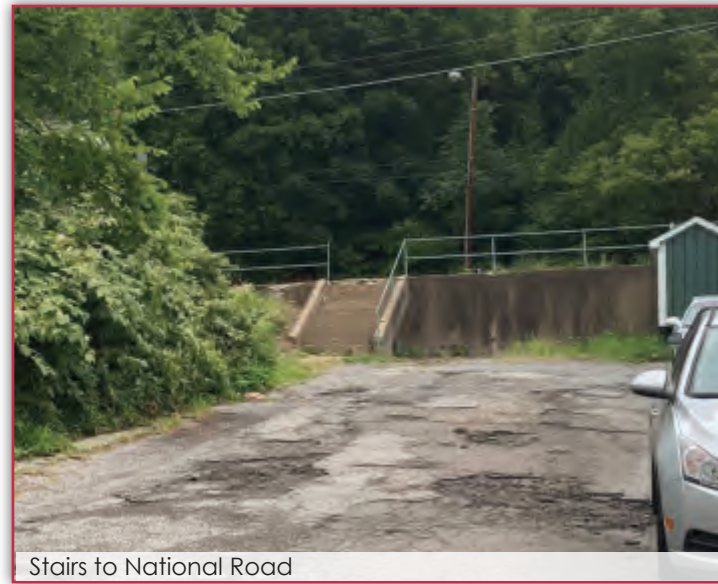
Connection to Wheeling Heritage Trail

Ease of Access

The ease of access evaluation factors were designed to identify hazardous or non ADA compliant sidewalk conditions and evaluate transit service.

Transit service evaluation consist of the location of the transit routes as well as the frequency of transit stops. This was evaluated on a city-wide basis as well as a typical route basis. The data also shows where the two intersect. There are some areas where transit is relatively frequent, but sidewalks are poor (as illustrated below) and visa versa.

Since the ability to access public transit is dependent upon the condition of the sidewalks, ADA Compliance and Sidewalk Condition were weighted twice as much as public transit.



| Route | Ease of Access | | | |
|---|----------------|--------------------|----------------|----------|
| | ADA Compliance | Sidewalk Condition | Public Transit | |
| | | | Weekday | Saturday |
| Market Plaza to Historic District | ● | ● | ● | ● |
| Centre Market to South Wheeling | ◐ | ● | ◐ | ◐ |
| Heritage Port to South Wheeling | ● | ● | ◐ | ◐ |
| Heritage Port to Historic District | ● | ● | ● | ◐ |
| Market Plaza to Chambers Memorial Park | ◐ | ● | ● | ◐ |
| Heritage Port to Chambers Memorial Park | ◐ | ● | ● | ◐ |
| Centre Market to Chambers Memorial Park | ◐ | ● | ● | ◐ |
| Centre Market to Historic District | ● | ● | ● | ◐ |
| Centre Market to North Wheeling | ◐ | ● | ● | ◐ |
| Centre Market to Blue Church | ◐ | ◐ | ● | ◐ |
| Centre Market to Woodsdale | ◐ | ◐ | ◐ | ◐ |
| Heritage Port to North Wheeling | ● | ● | ● | ◐ |
| Market Plaza to South Wheeling | ◐ | ● | ◐ | ◐ |
| Market Plaza to Blue Church | ◐ | ◐ | ● | ◐ |
| Heritage Port to Blue Church | ◐ | ◐ | ● | ◐ |
| Market Plaza to Pleasanton | ● | ◐ | ◐ | ◐ |
| Heritage Port to Pleasanton | ● | ◐ | ◐ | ◐ |
| Market Plaza to North Wheeling | ◐ | ● | ● | ◐ |
| Centre Market to Pleasanton | ● | ◐ | ◐ | ◐ |
| Heritage Port to Woodsdale | ◐ | ◐ | ◐ | ◐ |
| Market Plaza to Woodsdale | ◐ | ◐ | ◐ | ◐ |

| Ease of Access | |
|----------------|--|
| ● | EASY: High ADA Compliance, No Missing, Broken, or Uneven Sidewalk, 25 Minute or Less Wait Time on Public Transit |
| ◐ | MODERATE: Moderate ADA Compliance, Some Missing, Broken, or Uneven Sidewalk, 26 to 45 Minute Waiting Time on Public Transit |
| ○ | DIFFICULT: Poor ADA Compliance, Mostly Missing, Broken, or Uneven Sidewalk, Over 45 Minute Wait Time on Public Transit |

ADA Compliance

ADA compliance addresses the needs of those who have mobility complications as well as those who are disabled visually and audibly. Although city sidewalks are not required to comply with the ADA standards, best practice is to make all reasonable accommodations.













An ADA compliant route requires:

- Accessible slopes or compliant ramps
- Compliant curb ramps (with detectable warnings)
- Marked crosswalks

Crossing signals preferably with audible as well as visual signals are desirable as well at busy intersections.

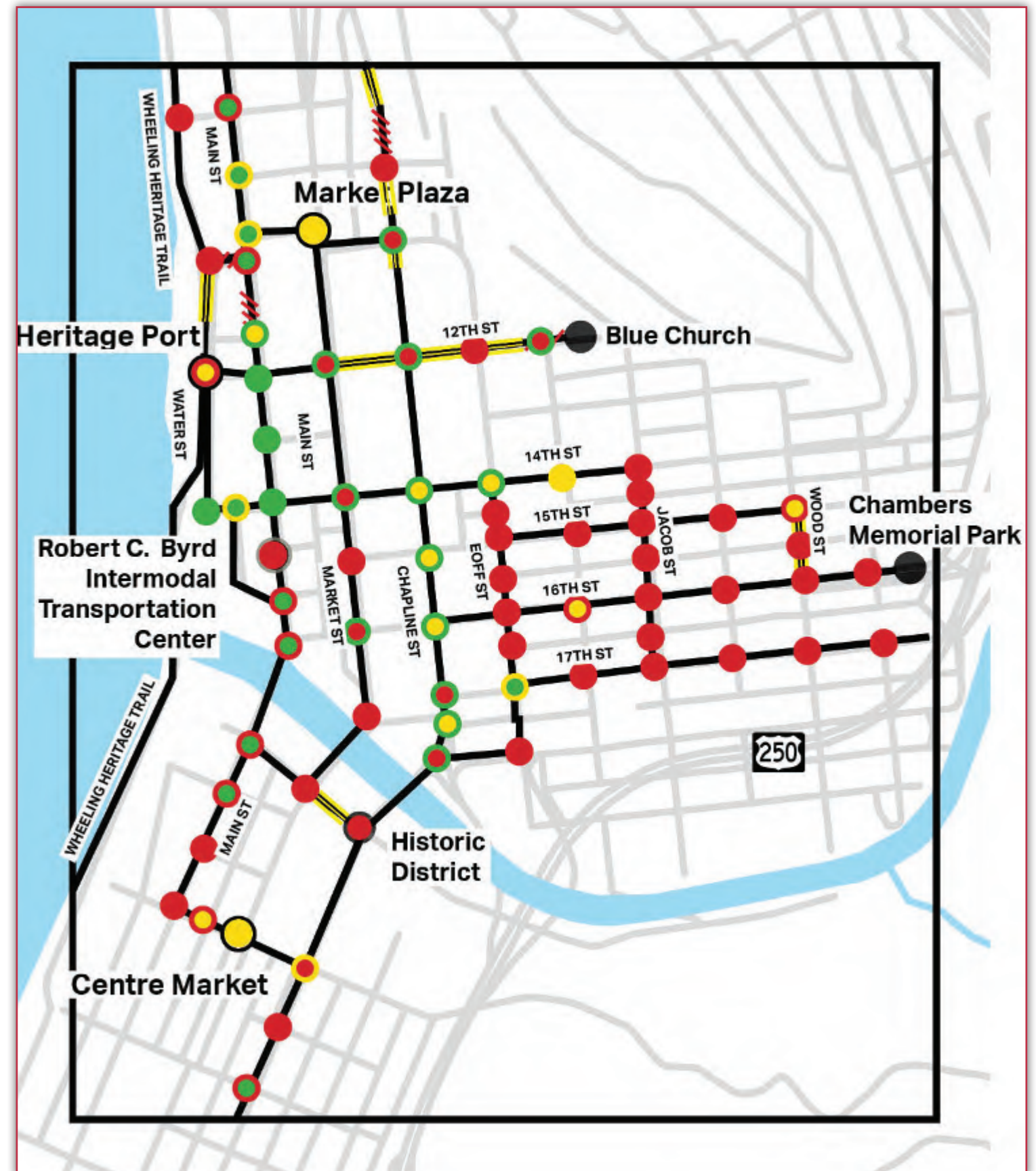
While the rankings were based on conditions along the entire route, the central business district is a key location for pedestrian travel and home to many healthy food locations as well as other key destination. A map showing slope and crossing compliance in that district is shown to the right. The data shows that there are some areas of difficult slopes and more crosswalks that are inaccessible than those that are accessible. There was no available data regarding signal types available.

LEGEND

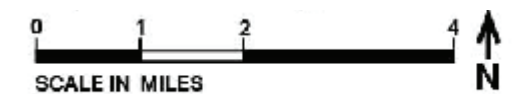
-  Accessible Sidewalk
-  Limited Accessible Sidewalk Slopes 5%-8%
-  Inaccessible Sidewalk Slopes 8%+
-  Fully Accessible Crossing
-  Crosswalks Without Ramps
-  Limited Crosswalks, No Ramps
-  Limited Crosswalks With Ramps
-  Crosswalks With Limited Ramps
-  Ramps Without Crosswalks
-  Limited Ramps, No Crosswalks
-  Limited Crosswalks and Limited Ramps
-  Inaccessible crossing



Intersection of Main and 14th Streets



EXISTING ADA CONDITIONS ALONG TYPICAL ROUTES DOWNTOWN






Sidewalk Condition

The planning team traveled the typical routes and assessed sidewalk conditions. There were very few and generally short stretches of missing or broken sidewalk. The majority of sidewalks are well maintained. There were no areas of concerns in the core area and the others were parts of the routes infrequently traveled by foot.



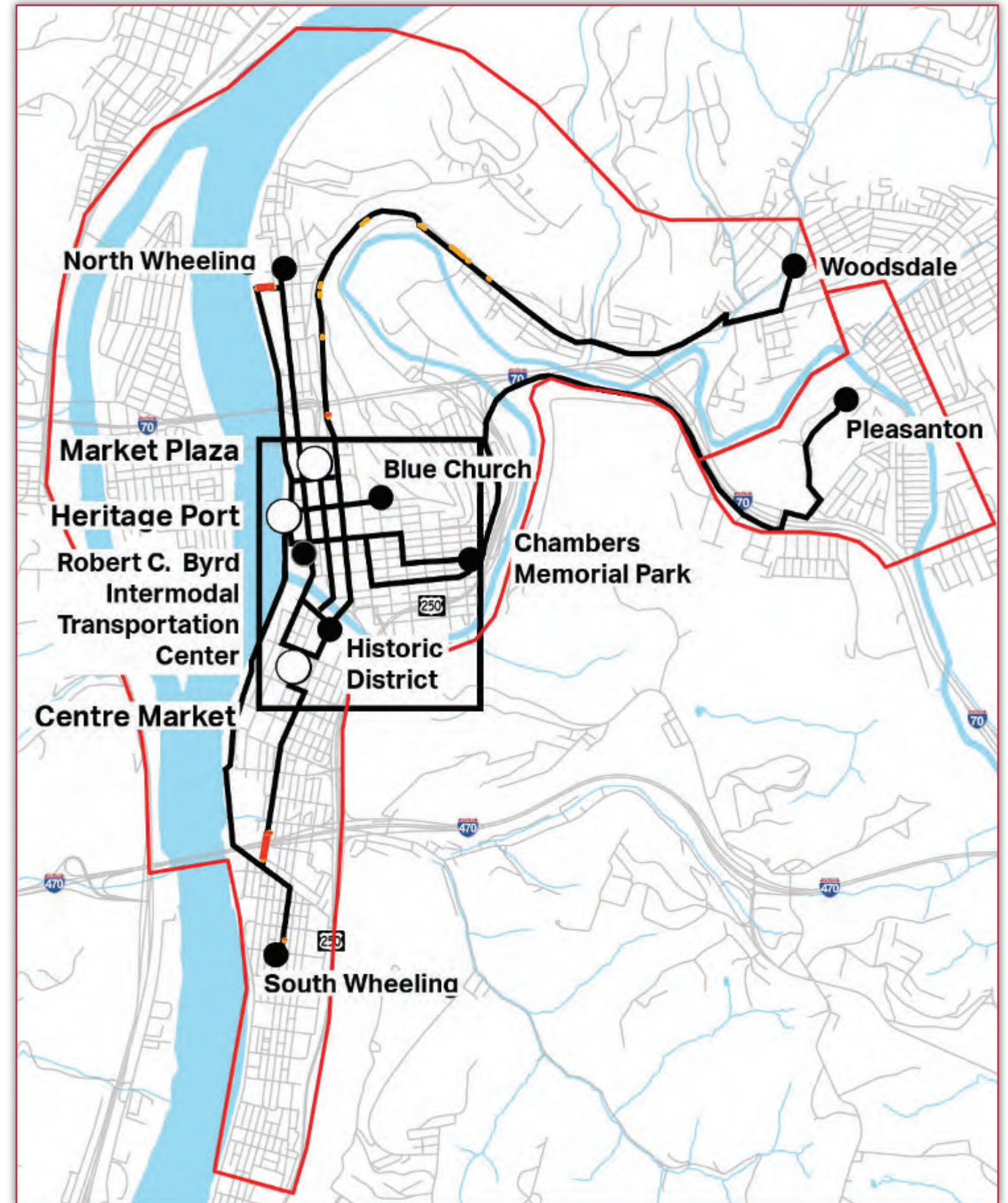
McColloch and 15th Streets

LEGEND

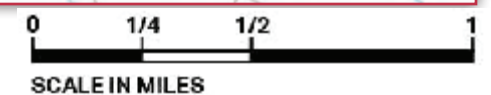
-  Route
-  Missing Sidewalk on Typical Route
-  Broken Sidewalk on Typical Route



Zane Street near Suspension Bridge



EXISTING SIDEWALK CONDITIONS



Transit Access

The transit service coverage area in Wheeling is fairly extensive. However, the service levels along fixed-routes corridors differ dramatically.

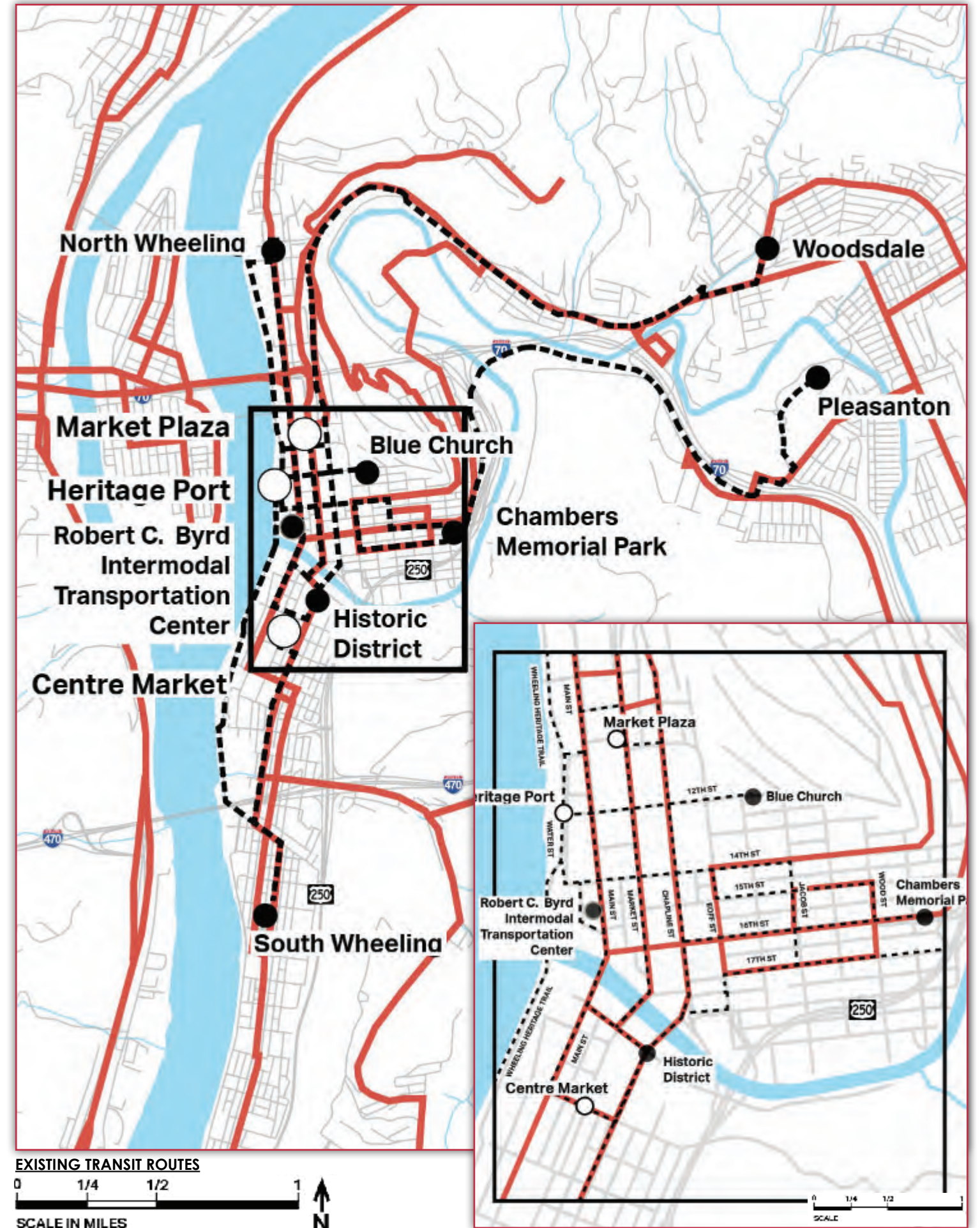
As a rule, streets where transit is operating in Wheeling have sidewalks provided, though not necessarily sidewalk access ramps and well marked crossings. In places roadway conditions make it difficult to provide transit service because of limited curbside access for buses, needed bus pullouts, or hazardous crossings. One such location is Zane Street on Wheeling Island, where multiple bus routes converge, but curb space is only available for buses traveling eastbound. This means that access to the island is limited to a single bus route with relatively infrequent service, as opposed to the unrealized potential for service every 15 minutes or more frequently on Zane Street.



Bus Stop at Kroger



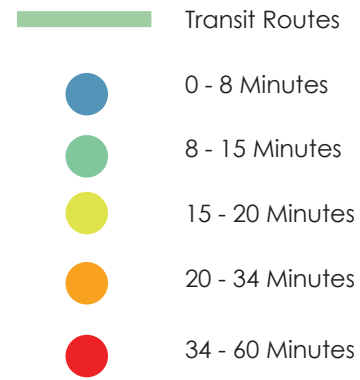
Bus along National Road



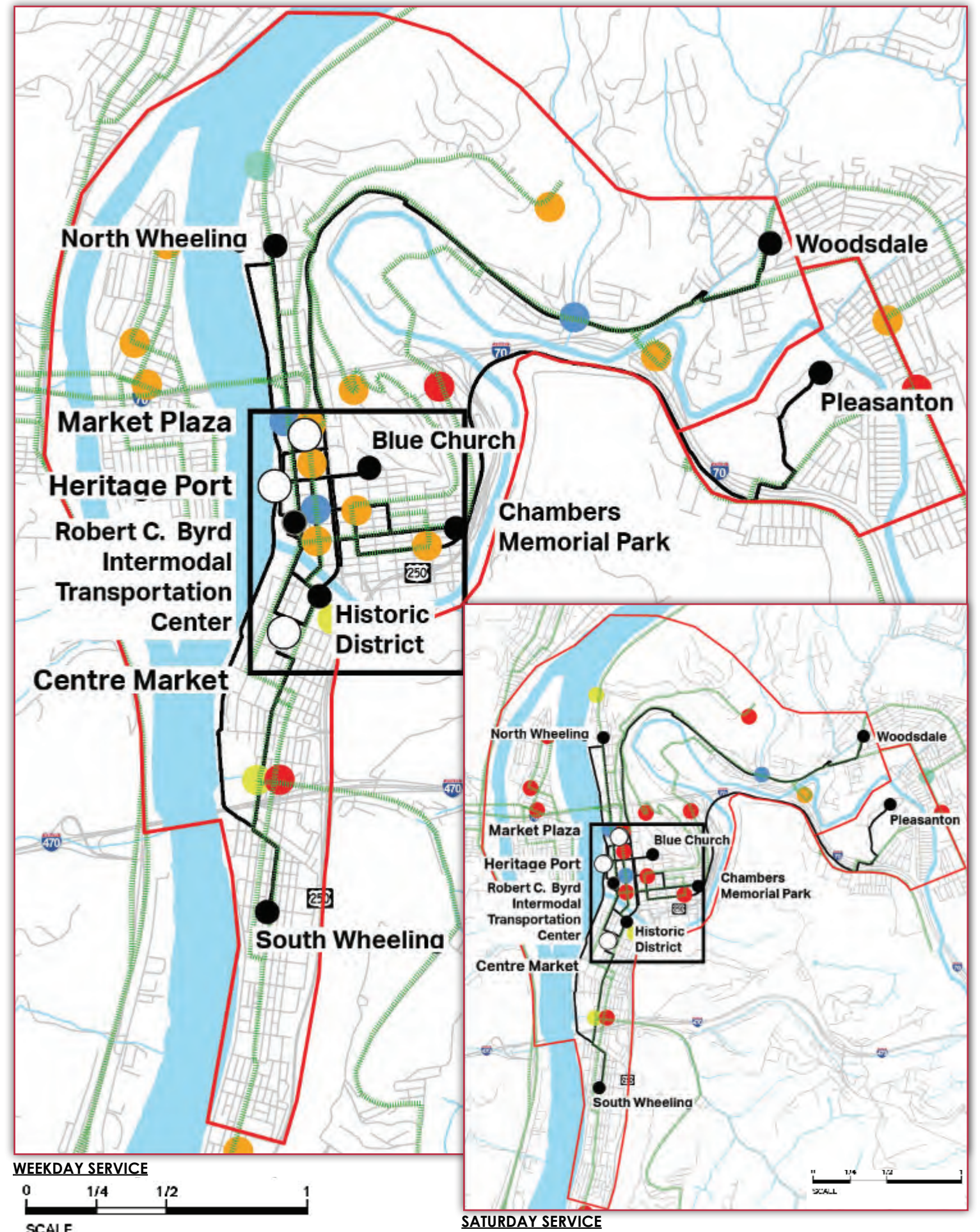
Transit Access

As part of the data collection effort, transit service frequency was sampled at multiple locations within Wheeling. Few locations outside downtown offer service with enough frequency that customers can comfortably catch a bus without relying on a schedule (service every 15 minutes or more frequently). The downtown frequent transit corridor, along Main and Market Streets, only extends for one-half mile.

LEGEND - Peak Service Wait Time



Passengers boarding OVRTA bus. Source: "Transportation issues loom." The Times Leader: September 23, 2019.



Transit Access

In some parts of Wheeling, such as the eastern downtown area, transit operates relatively infrequently on multiple parallel streets. Concentrating transit routes on fewer streets would decrease service coverage a bit, but create more places where customers would be willing to walk to more frequent service. Another example of this is in Center Wheeling, where service near Centre Market is divided between Main and Chapline streets.

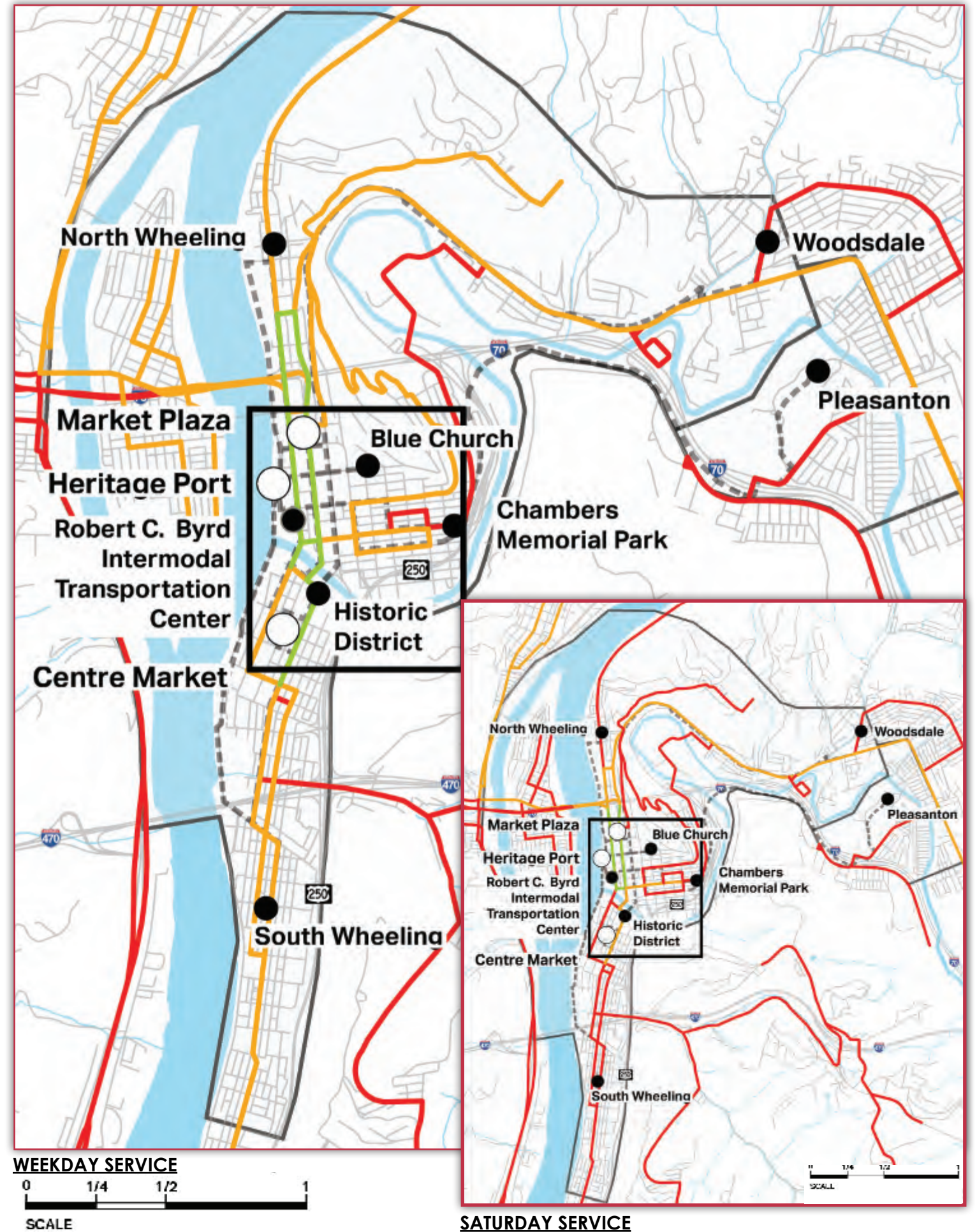
When transit service is widely dispersed, the potential for more frequent service along potentially productive transit streets (such as McCulloch Street) is unrealized.

LEGEND - Level of Service

- █ High (5-15 minutes)
- █ Standard (16-30 minutes)
- █ Low (31+ minutes)



OVRTA on Washington Avenue Bridge before weight limits reduced. Source: Scott McCloskey. "Detours expected with lower bridge weight limit." The Times Leader: August 22, 2019.

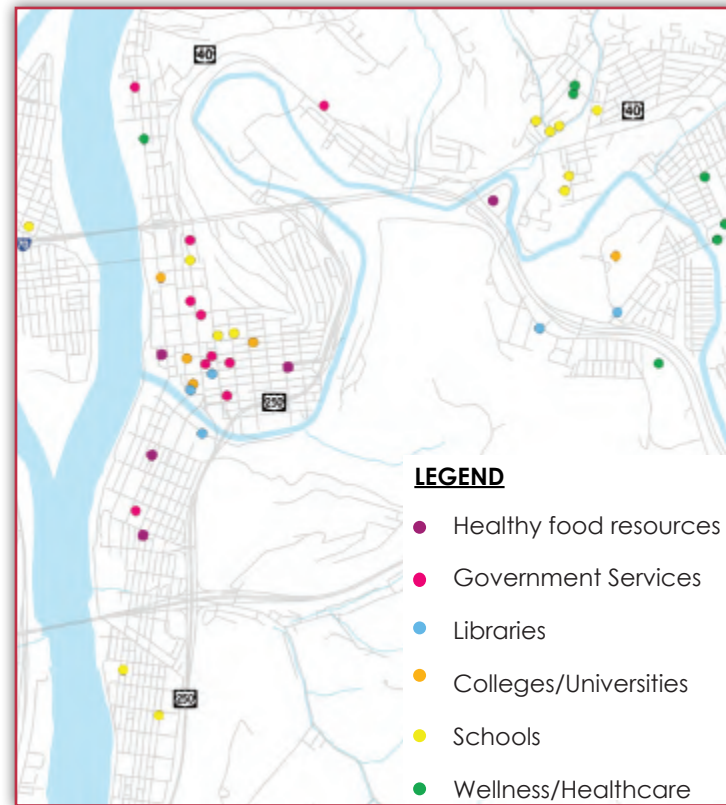


Community Resources

Community Resource ratings indicate the location of a category of resources that are physically along the typical routes. Food Resources were weighted three times as high and the other two categories were weighted twice as much as the others. Aesthetics is an overall measure of the aesthetics along a route. Aesthetics was used as an indirect measure of the level of comfort one would have choosing that route over other options.

As may be expected, routes located within the downtown area scored significantly higher as destinations cluster in that area. Routes leading to the more outlying neighborhoods ranked lower as they often had long stretches of residential or undeveloped land.

Aesthetics had essentially the opposite trend. Where the routes followed the Wheeling Heritage Trail off the road and through natural areas, the overall aesthetics were considered better than those that ran through the downtown or along rural routes.



DESTINATIONS



Centre Market

| Route | Community Resources | | | |
|---|---------------------|--|--|------------|
| | Food Resources | Parks / Historic Resources / Protected Lands | Schools / Hospitals / Community Buildings / Churches | Aesthetics |
| Market Plaza to Historic District | ● | ● | ● | ● |
| Centre Market to South Wheeling | ● | ● | ● | ● |
| Heritage Port to South Wheeling | ● | ● | ● | ● |
| Heritage Port to Historic District | ● | ● | ● | ● |
| Market Plaza to Chambers Memorial Park | ● | ● | ● | ● |
| Heritage Port to Chambers Memorial Park | ● | ● | ● | ● |
| Centre Market to Chambers Memorial Park | ● | ● | ● | ● |
| Centre Market to Historic District | ● | ● | ● | ● |
| Centre Market to North Wheeling | ● | ● | ● | ● |
| Centre Market to Blue Church | ● | ● | ● | ● |
| Centre Market to Woodsdale | ● | ● | ● | ● |
| Heritage Port to North Wheeling | ● | ● | ● | ● |
| Market Plaza to South Wheeling | ● | ● | ● | ● |
| Market Plaza to Blue Church | ● | ● | ● | ● |
| Heritage Port to Blue Church | ● | ● | ● | ● |
| Market Plaza to Pleasanton | ● | ● | ● | ● |
| Heritage Port to Pleasanton | ● | ● | ● | ● |
| Market Plaza to North Wheeling | ● | ● | ● | ● |
| Centre Market to Pleasanton | ● | ● | ● | ● |
| Heritage Port to Woodsdale | ● | ● | ● | ● |
| Market Plaza to Woodsdale | ● | ● | ● | ● |

| Community Resources | |
|---------------------|---|
| ● | EASY: Food Resources with in a Quarter Mile, Parks/Historic Resources/Protected Lands with in a Quarter Mile, Schools/Hospitals with in a Quarter Mile, Good Aesthetics |
| ● | MODERATE: Food Resources between a Quarter and Half Mile, Parks/Historic Resources/Protected Lands between a Quarter and Half Mile, Schools/Hospitals between a Quarter and Half Mile, Moderate Aesthetics |
| ○ | DIFFICULT: Food Resources with in a Half Mile, Parks/Historic Resources/Protected Lands with in a Half Mile, Schools/Hospitals with in a Half Mile, Poor Aesthetics |

05 Conclusions

Service

The chart below indicates the neighborhoods showing characteristics that indicate residents are less likely to have regular access to personal vehicles. Therefore, the need for healthy food options that are accessible via alternative transportation modes is greatest in these areas.

Wheeling Island has a census block that fits within every category, does not have it's own grocery, and is physically separated from the rest of the City. At the time of writing this report there is only one operable bridge connecting the Island to the mainland.

| Neighborhood | Population | Poverty | Minority | Food Desert | Transit Required for Food Access |
|------------------|------------|---------|----------|-------------|----------------------------------|
| Pleasanton | x | | x | x | x |
| Central Wheeling | x | x | x | | |
| South Wheeling | x | | x | x | x |
| Wheeling Island | x | x | x | x | x |
| Downtown | | x | | | |
| North Wheeling | | | | x | x |
| Woodsdale | | | | | x |

Transit Conditions

A number of public transit deficiencies have been identified in Sections 3 and 4. The following are conditions identified for potential improvement include:

- Additional bus stop amenities and operating enhancements along Main and Market Streets in the downtown core.
- Sunday service where demanded and for which funding can be obtained, for public and private sources
- Route consolidation on fewer streets in order to establish corridors with more frequent service and potential for stop and access enhancements.
- Additional bus stops on Zane Street serving Wheeling Island, particularly in the westbound direction.
- Improving bus stop access and waiting environments. Welcome elements might include additional shelters, benches, lighting and trash receptacles; improved crosswalk markings, pedestrian signalization and safe crossing elements such as pedestrian refuges.
- Enhancing regional transit connections to

employment and cultural centers, such as Pittsburgh and Morgantown.

- Multiple opportunities for complete streets with strong transit components.
- Bicycle parking at transit stops and bike racks on buses. With few areas of frequent transit service in the study area, some customers will be willing to bike for some distance in order to



Bus Stop at Kroger



Google Earth
Ohio Valley Regional Transportation Authority

Walking Conditions

Overall, walking conditions are favorable in Wheeling: sidewalks are available on nearly every street, those sidewalks are mostly in good condition, and major intersections have pedestrian signalization.

However, although there may be a sidewalk, safe travel from one location to another is more often than not hindered by one or more of the following: missing curb ramps, unmarked crossings, variable light conditions, especially under underpasses and a lack of wayfinding.

Certain locations are particularly dangerous or unfriendly such as the intersection of 16th and Wood, and Eoff between 17th and 18th Streets. Bridges, overpasses and underpasses also give pedestrians the minimum space and no refuges. Light levels in these vulnerable areas vary widely as well. There are no discernible traffic calming or pedestrian amenities on the bridges even though they play key roles in connecting pedestrians to amenities and Wheeling Heritage Trail. The most prominent examples include the I-70 overpass at Washington Avenue, the Mt DeChantal Road Bridge, Zane Street Bridge, and the bridges connecting Downtown to Central Wheeling on Main, Market, and Chapline Streets.



Market and 22nd Streets



Main Street Bridge



I-70 Overpass South



Eoff Street at 17th Street

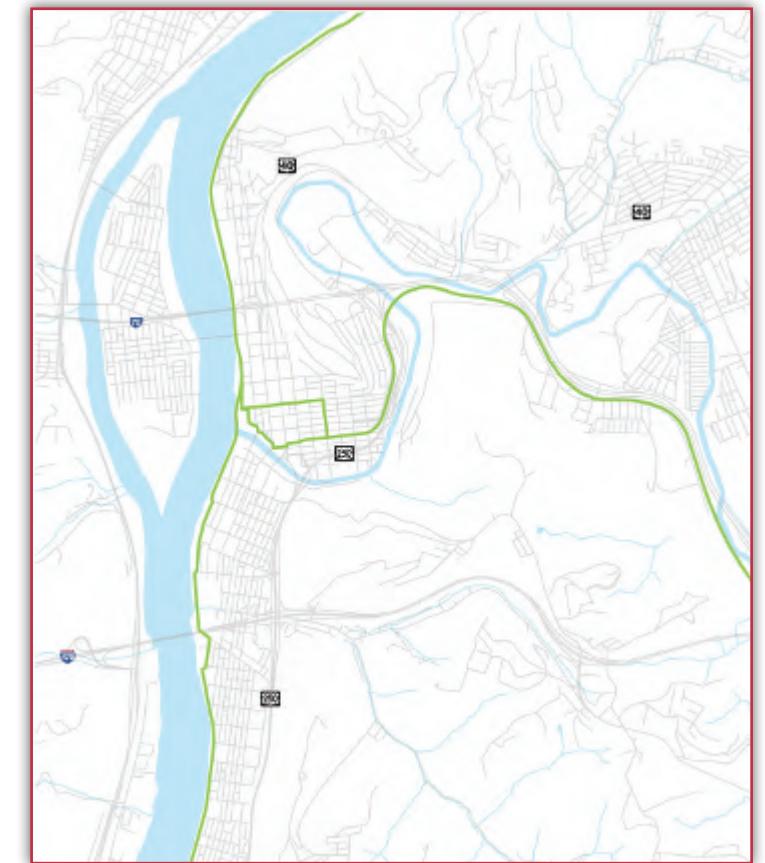
Biking Conditions

Conditions for cyclists in Wheeling are either quite good, along the off road Wheeling Heritage Trail, or dire, in any on-road situation.

The off road Heritage Trail is generally well maintained and runs the length and breadth of Wheeling, with the glaring exception of Wheeling Island. There are two major reasons why the trail does not service Wheeling as well as it could. First, it does not make many convenient connections to destinations and trailheads are in out of the way, unfriendly location and second, it is poorly signed.

On-road conditions are poor throughout the city. The only cycle amenities are along the existing Wheeling Heritage trail routes and those are often in poor repair. The connections through downtown do not make key connections to destinations and are located in unfriendly looking alleys. Although the alleys have calmed traffic, a new rider would have a hard time following the route due to a lack of directional signage.

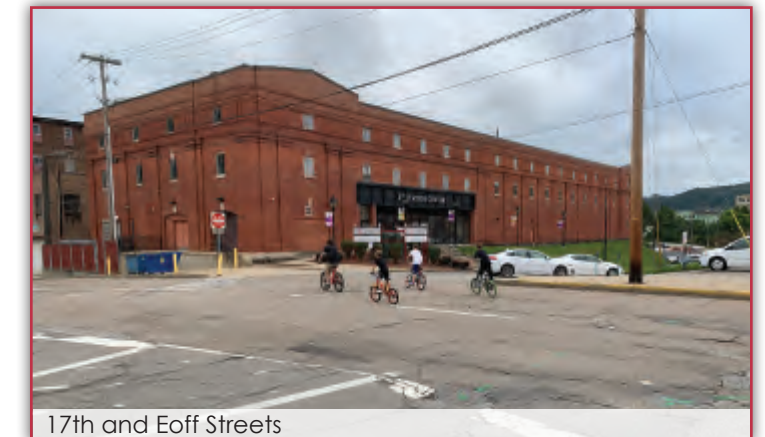
Bicyclists also face challenges because city buses do not have accommodations for bicycle transit. Steeply sloped areas and long distances could make for good one-way commuter trips. Cyclists cannot use the bus system if they are planning to stay at a destination until after dusk as the Heritage Trail is unlit. This condition makes it difficult for cyclists to work around existing conditions that would be very challenging or costly to change.



LEGEND

— Wheeling Heritage Trail

0 0.4 0.8 1
SCALE IN MILES



17th and Eoff Streets



18th and South Streets



Lane 15

06

Recommendations

Equitable Service

The goal of this study is to make recommendations that make it as easy to travel to healthy food outlets and other community destinations by means other than a private vehicle. In order for this to become a reality in Wheeling, public funds and attention must be directed to creating and maintaining facilities for pedestrians, cyclists, and transit users as well as private vehicle owners throughout the City.

The individual projects listed in this document will not be possible to implement simultaneously and a long term commitment to equitable infrastructure will be necessary to support such a vision. This can be supported by the development of an updated Regional Transit Plan, providing funds in the City's capital budget to maintain existing and new facilities as they come on line and assigning a project manager to apply for various grants that are available for these types of improvements. Another important piece that supports this transformation is codes that require equitable amenities, such as bike storage facilities and design guidelines that incentivize land owners to create aesthetically pleasing, well-lit and friendly streetscapes for all users. The end result will be an active urban core, vital neighborhood centers, and safe, connected neighborhoods that allow residents of Wheeling from all walks and stages of life and from all economic situations to take advantage of all of what makes Wheeling a great place to live.

The physical routes and projects presented in this chapter were developed to meet the following strategies designed to support an equitable vision

1. Develop and Urban Transportation Plan that allows residents alternative ways to access existing healthy food options.
2. Create a legible, walkable urban core
3. Support existing walkable neighborhood centers

4. Connect urban core and outlying neighborhood centers with transit and off-road amenities
5. Build on existing investment in transportation infrastructure to include pedestrian bike amenities and safety
6. Improve safety at bridges where all modes of transportation converge by separating motorize and non-motorized uses.



Transit

Local

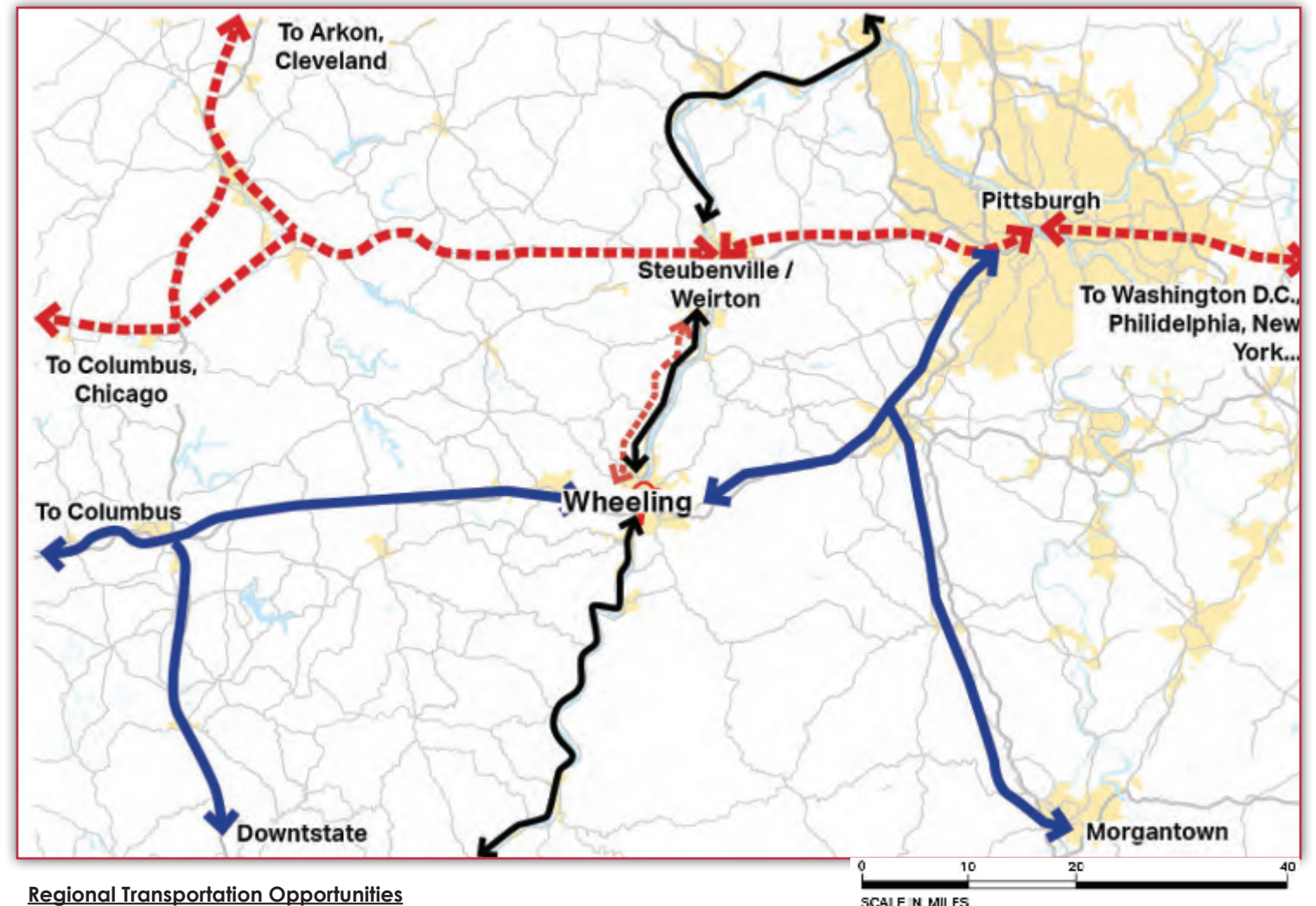
Key objectives identified to improve local transit and transit accessibility during the study include:

- Identify streets to prioritize as transit corridors
- Concentrate transit service on priority transit corridors to increase service frequency on these corridors
- Invest in transit and non-motorized facilities that improve travel conditions for transit customers, particularly on transit-priority corridors
- Provide transit stops, furnishings, safe crossings and barrier-free access routes at strategic locations along existing transit routes
- Explore opportunities for Sunday service in strategic locations
- Identify opportunities for potential investments and/or partnerships for regional and intercity transit and passenger transportation connections, with multi-modal connectivity in Wheeling

Regional

Studies are underway in Ohio and Pennsylvania to enhance intercity travel for both passengers and freight. Some of these opportunities represent long-term transportation improvements (such as the potential for hyperloop, an emerging ultra-high-speed under consideration in West Virginia and neighboring states). In a completed hyperloop network, Wheeling would be one hour from Chicago or New York City via ground transportation. Governor Justice has recently indicated support for research and development of this technology in West Virginia.

Other travel modes offer potential for nearer-term implementation (such as enhanced intercity and regional bus service or even passenger train service). Wheeling stakeholders are advised to coordinate with peer Metropolitan Planning Organizations (MPOs) and neighboring states to promote enhanced connections between Wheeling, the Ohio River Valley, and major metropolitan areas and jobs/cultural/services centers.



Regional Transportation Opportunities

Walking

Walking is a mode that is widely supported throughout the City via sidewalks, but where walking is to but supported at a higher level, additional amenities are desirable to promote safety and to encourage desired walking patterns. All routes indicated on the plan to support higher level multi-modal infrastructure are key connectors or circulators and connect neighborhoods to each other and to transit assets. These connections need to be safe and comfortable for pedestrian.

The first step toward improving these routes is to prioritize sidewalk repair and maintenance. The routes also should have accessible, high visibility crosswalks, pedestrian scale lighting, and pedestrian signals. Where these routes are located within commercial districts, the streetscape should also feature trees, wayfinding, pocket parks and public art. Walkable commercial districts should have flexible zoning to allow for sidewalk cafes, parklets (temporary parks or seating areas that replace on street parking), and flexible parking to allow more people and less cars to occupy the space.

Walkable streets should be differentiated from other routes in town by enhanced landscape and higher attention to public realm aesthetics to create a recognizable environment that both encourages pedestrians to linger and occupy the space, but also signals to drivers to slow down and watch for this type of increased pedestrian activity. This may include additional traffic calming elements such as slower speed limits, bump outs at crossings, street trees, and narrower driving lanes.



High Visibility Crosswalk



Pedestrian Scale Lighting



Pedestrian Friendly Street

Biking

Bike infrastructure is a citywide challenge and improvements will require cooperation and coordination between the City, public agencies, and private business owners. It involves accommodations for riding as well as for parking bicycles and transporting them on public transit.

Recently, a big step was taken as the City started a bike share program. Future plans include providing bike racks on all OVRTA buses, working with local businesses to provide bike parking, and coordinating with local schools and libraries to provide safe cycling training and information.

Another project ready to be implemented in the near term is painting sharrows on all roads designated for sharrows or other more intensive bicycle facilities. As these streets are repaired or as the additional bike facilities are added, traffic calming in the form of street trees, bump outs, and pedestrian or bike signals will be deployed.

On streets designated for heavier bicycle traffic or those with higher vehicular traffic or speeds, protected cycle tracks or off road trails are proposed. In addition the Wheeling Heritage Trail will have better connections to downtown amenities and additional spurs and trailheads to connect outlying neighborhoods.

For all of the proposed bicycle upgrades, there is an added maintenance component, without which the facilities will be become useless or worse, dangerous.



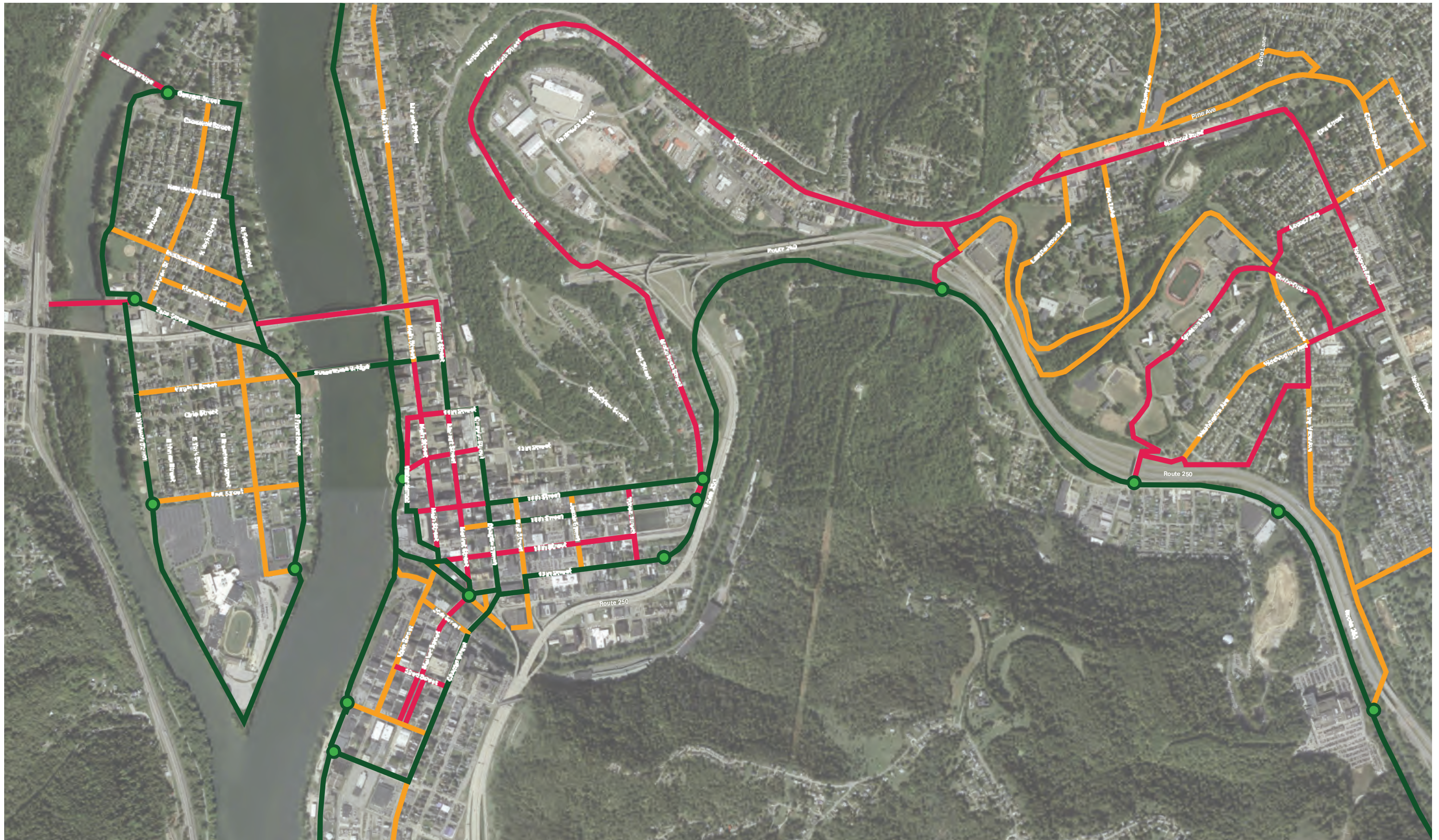
Bike on rack on bus



New bike share station at Heritage Port. Source: "Bike Share Program Launches in Downtown Wheeling:" *The Intelligencer*: October 8, 2019.



Cyclists on Wheeling Heritage Trail Source: bikewheeling.org



PROPOSED URBAN TRANSPORTATION IN WHEELING

LEGEND

- Primary Enhanced Routes
- Secondary Enhanced Routes
- Wheeling Heritage Trail
- Wheeling Heritage Trailheads

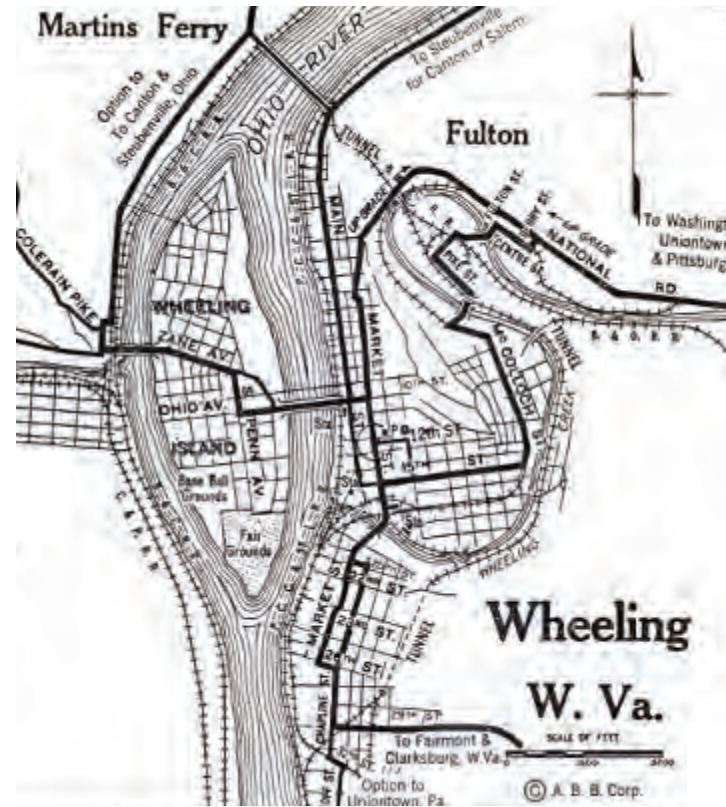
Urban Transportation in Wheeling

The magic of pre-World War II cities, including Wheeling, is their concentration of assets within walking distance of each other. These cities grew along their sidewalks and streetcar lines, and around their train stations (such as the landmark B&O Station that is now home to West Virginia Northern Community College).

Since the mid-1900s, highways have overtaken passenger rail services, cars and buses replaced most streetcar systems, and parking displaced many historic structures. Many strong city centers have languished as suburban strip malls and the privacy and flexibility of a personal vehicle pulled people away.

Nearly a century later, new forms of urban transportation are re-establishing strong urban patterns due to the growing realization that a strong center holds a city together both economically and socially. The patterns recommended on the previous map, reinforce the central heart of Wheeling and reconnect residents to the place where once again, the action is.

The following pages offer an overview of city transportation forms that are increasingly commonplace in vibrant, well-connected and equitable cities and that solutions for the primary, secondary, and Wheeling Heritage Trail routes.



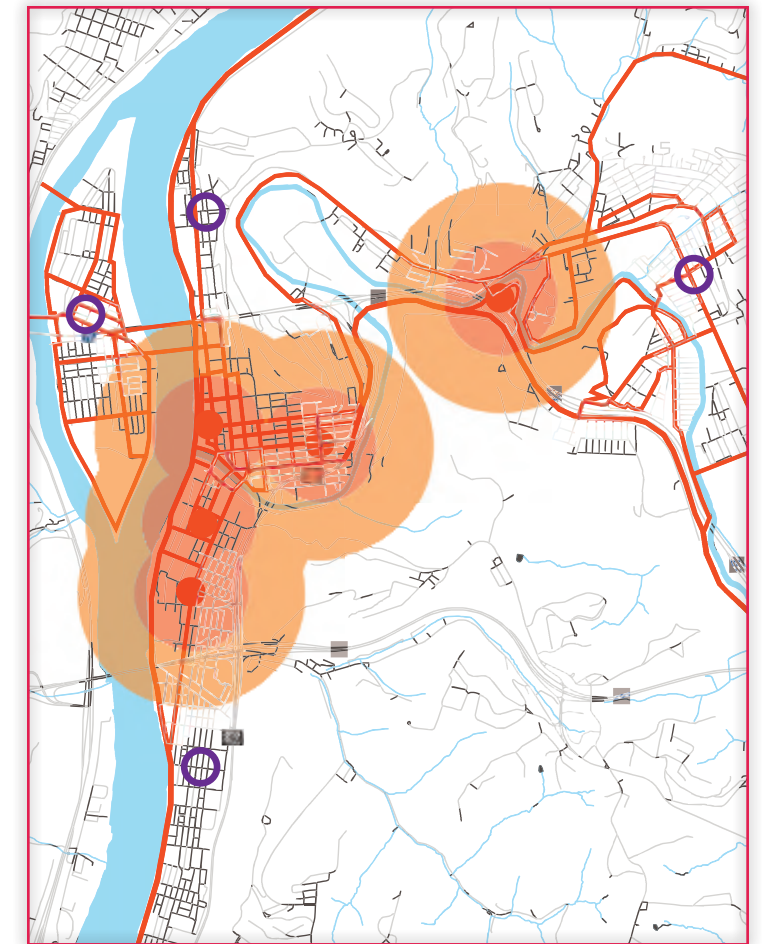
Map of Wheeling circa 1920 from Automobile Bluebook

Local Food

The proposed urban transportation system creates and strengthens neighborhood and trail connections to permanent healthy food options. Higher frequency transit will be prioritized between neighborhoods that do not have local healthy food options and those which do.






Transit recommendations include more convenient service from outlying neighborhoods such as North and South Wheeling, Pleasanton, and Wheeling Island to Kroger and healthy food options in the central core. Bike share and bicycle infrastructure should target these areas as well.

However much mobility is increased, sheer distance still remains a major barrier. In those outlying neighborhoods, the most effective solution would be seasonal or permanent healthy food programs and businesses. Farmer's markets, healthy food coolers in convenience stores, community gardens, urban agriculture districts, and new healthy food businesses should be encouraged in neighborhoods such as Wheeling Island, Pleasanton, and North and South Wheeling. Potential locations for these new amenities are shown on the plan to the left in blue.



PROPOSED OFF ROAD TRAILS

LEGEND

-  Enhanced route
-  Target block for new healthy food option
-  Grocery or permanent market
-  1/4 mile from healthy food
-  1/2 mile from healthy food

Off Road Trail

An off road trail is physically removed from the street by a median or barrier or may be separated from vehicular infrastructure entirely. In high traffic situations, cyclists and pedestrians may be provided separate lanes, but generally the traffic is mixed. The various segments of the Wheeling Heritage Trail network are simple examples.

Public feedback with regards to off road trails was extremely positive, especially so for bridge connections with barriers between trail and vehicular traffic. It is easy to see that property done, off road trails are a far safer way to walk or bike. However, they require dedicated space that is not always available and require the greatest monetary investment. Off road trails are recommended at every logical location where space easily permits.

In this plan, this includes routes outside the urban core where space is readily available as well as areas where a separation between non-motorized traffic and vehicles is needed for safety. A few examples include the I-70 overpass, the Main, Market, and Chapline Street Bridges, Washington Avenue Bridge, and Eoff Street from 16th to 18th.

Public feedback with regards to off road trails was extremely positive for bridge connections with barriers between trail and vehicular traffic.



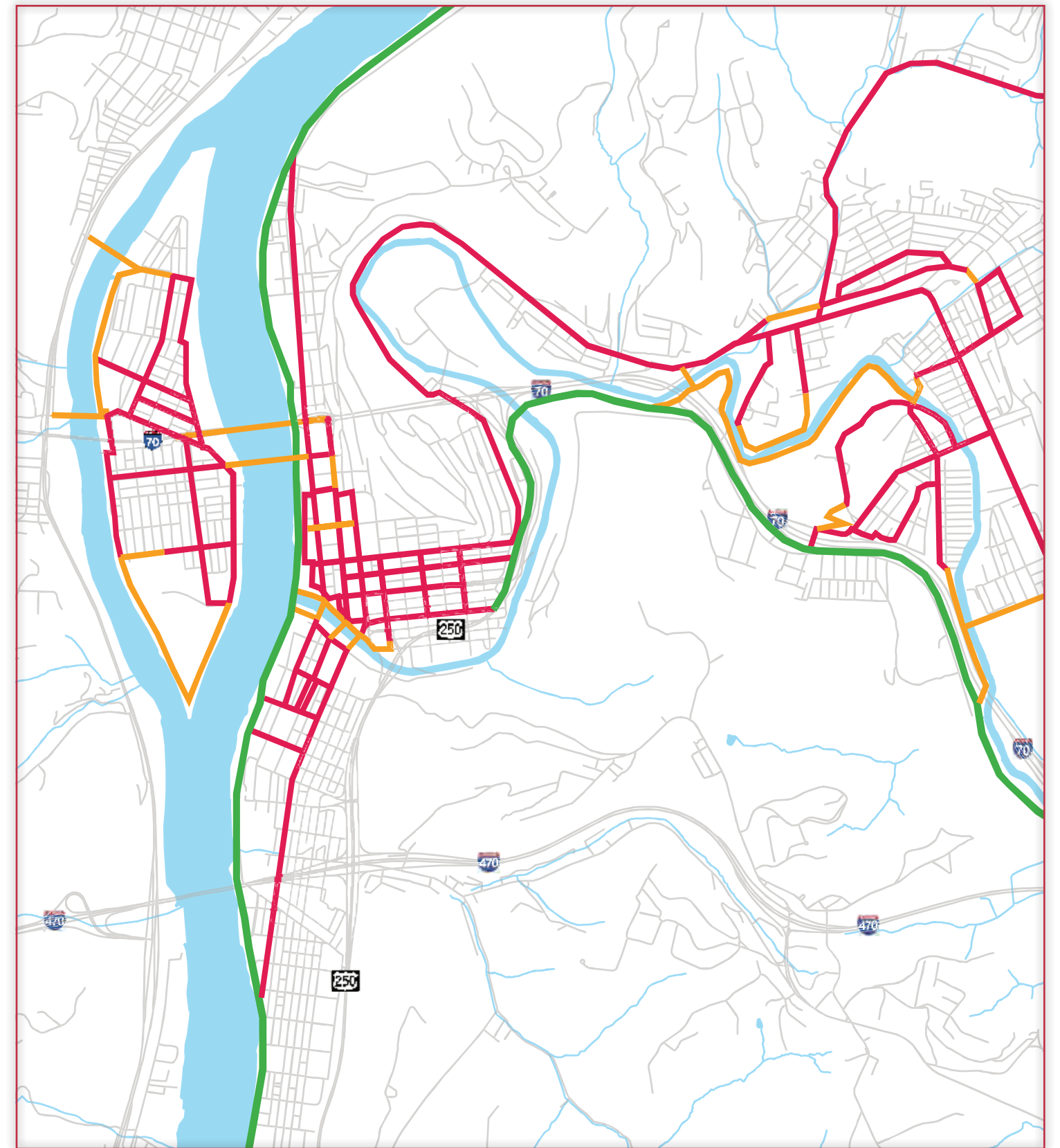
Off road trail as part of freeway overpass



Off road trail in natural area



Urban multi-use path or off road trail



PROPOSED OFF ROAD TRAILS

LEGEND

- Off Road Trail
- Other Enhanced Routes
- Existing Wheeling Heritage Trail

Cycle Track

A cycle track is non-motorized path that is protected from other traffic by a painted or, ideally, a physical barrier. Cycle tracks often host travel in both direction on one side of a city street. They can also be configured as one-way protected paths on each side of the street. Preferred applications are locations where high volume, high speed cycle traffic is expected in dense urban environments. Cycle tracks are natural bike routes, but also work well for a variety of human powered and low-speed electric transport, such as the e-scooters so prevalent in many cities. None of these transportation forms should operate on sidewalks; sidewalk biking is officially restricted in Wheeling. Because the right-of-way they require is in demand for many transportation uses, cycle tracks may not be the best fit on streets where transit or parking are prioritized.

The recommended locations for cycle track in Wheeling are within the urban core where conflicts with vehicles are most likely and space is available within the public right-of-way. Public feedback was positive with regards to cycle tracks with a physical barrier between the cycle track and street traffic. In response, this plan includes cycle tracks where space may be available to provide a minimum of 3' for barriers between the track and street traffic.

In the plan, these higher-volume, on-street paths connect the urban core from the north to south (from 10th to 23rd) and east and west (from the Heritage Trailhead at 17th Street to

the River) providing access to the core amenities while connecting the Trailheads for longer distance cycling. The recommended cycle tracks run along 17th and Chapline Streets adjacent to primary streets. This allows continued flexibility and maximizes public parking on Main and Market Streets.



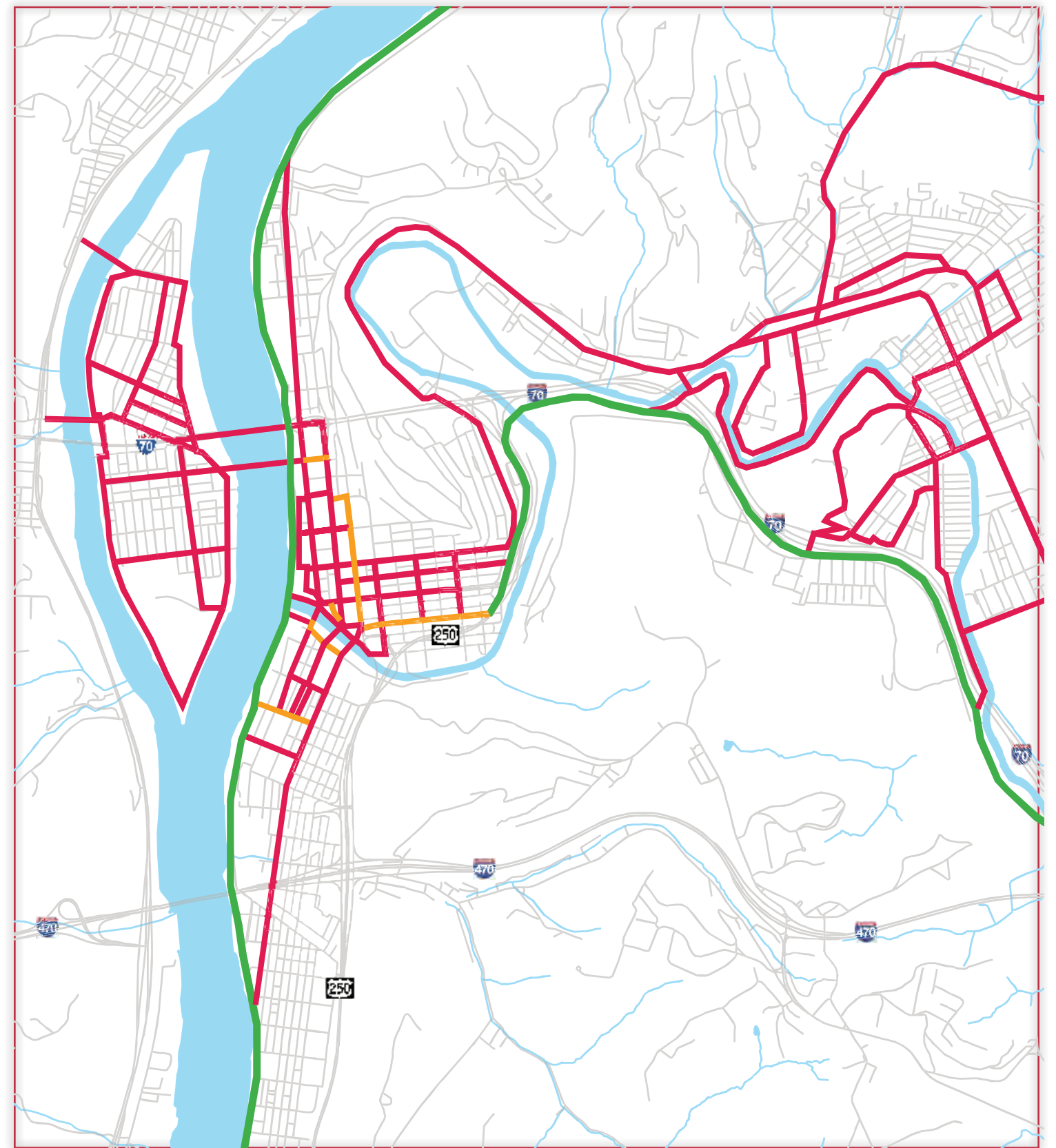
Cycle track protected with median landscape and lighting



Cycle track protected with bollards between sidewalk and parking



Cycle track protected with removable planters



PROPOSED SHARROWS

LEGEND

- Sharrows
- Other Enhanced Routes
- Existing Wheeling Heritage Trail

Sharrows

Sharrows are pavement markings that remind drivers that cyclists will be riding in the lane. They also indicate to cyclists routes where traffic is calmed and alert to cyclists. These marks can also indicate to cyclists to stay to the side of a line to avoid parked cars or to facilitate safe vehicle passing. These are often accompanied by free standing "SHARE THE ROAD" signs.

Sharrows are most effective when combined with additional warning signs and traffic calming measures such as street trees, bump outs, and lower travel speeds. For cyclists, wayfinding and directional signage in combination with the on street markings would increase use of designated bikeways.

The recommendations for sharrows in Wheeling are low speed, low traffic side streets that facilitate neighborhood connections or connections between cycle track and off road trails with destinations.

Sharrows are the current bike infrastructure in Downtown Wheeling. If sharrows were to be implemented City-wide there should be an on going maintenance allowance for their continued repainting.



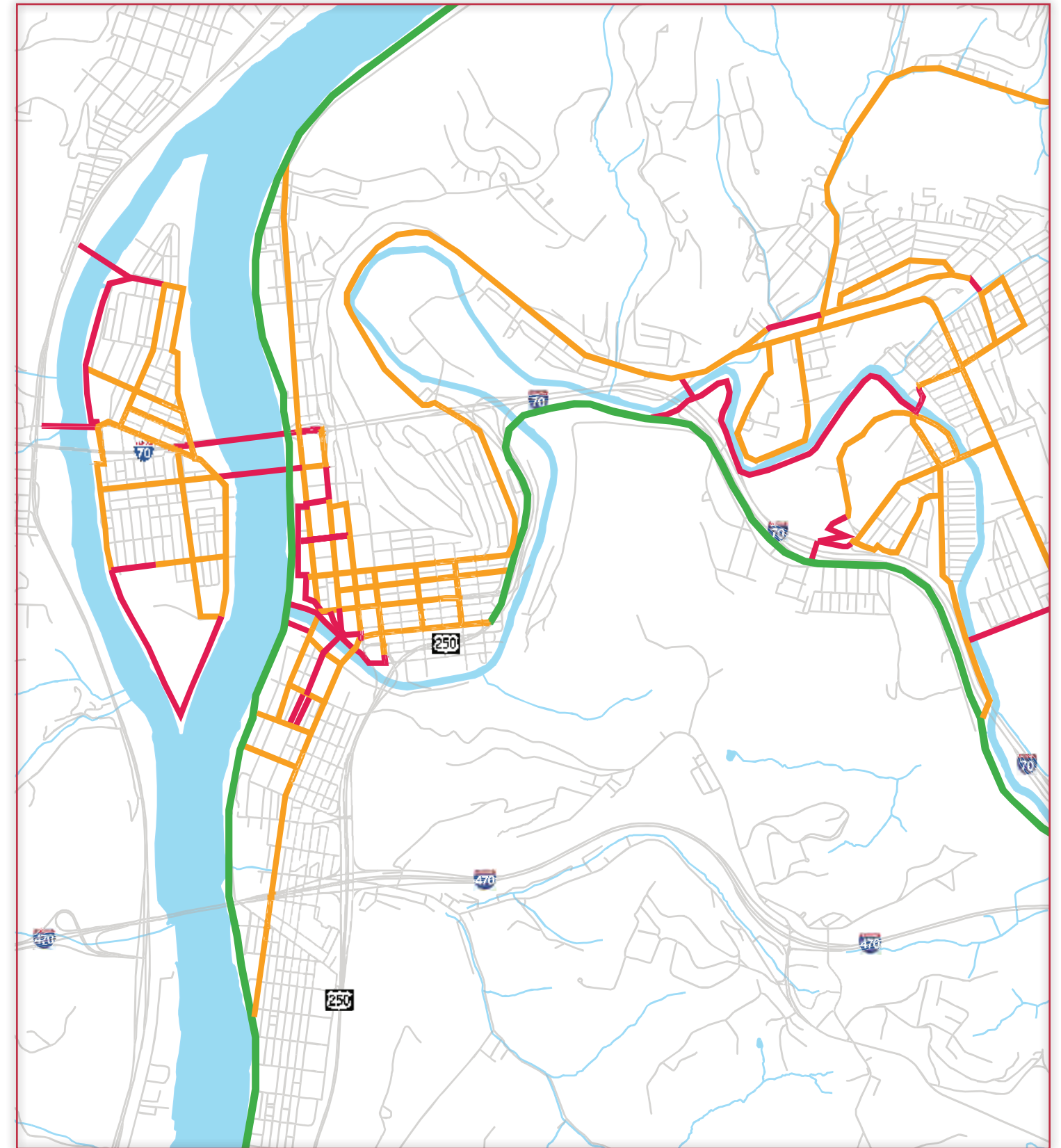
Sharrows



Sharrows and bike signage



Bicycle stop at intersection



PROPOSED SHARROWS

LEGEND

- Sharrows
- Other Enhanced Routes
- Existing Wheeling Heritage Trail

Festival/Shared Street

A street that is freely shared by motorized and non-motorized modes, often without curbs or other barriers is called a festival or shared street. In a shared street environment, traffic is sufficiently calmed for bikes and pedestrians to have priority and is limited to local traffic only.

Festival streets are becoming part of the lifestyle center trend because they create an environment that encourages people to window shop, linger, and spend more time in the space. Places like these are primed for programming and festivals as indicated in the name. Other opportunities on streets that retain a set curb include replacing some parking with seating or landscaping, often referred to as a parklet. These flexible spaces can provide opportunities to take advantage of economic benefits of fair weather, while retaining the flexibility of reverting back to up close parking in the off season.

The aesthetic and traffic-calming elements of a festival or shared street include enhanced pavement, extensive coloring and texturization of paved surfaces, pedestrian-scale lighting and landscaping.

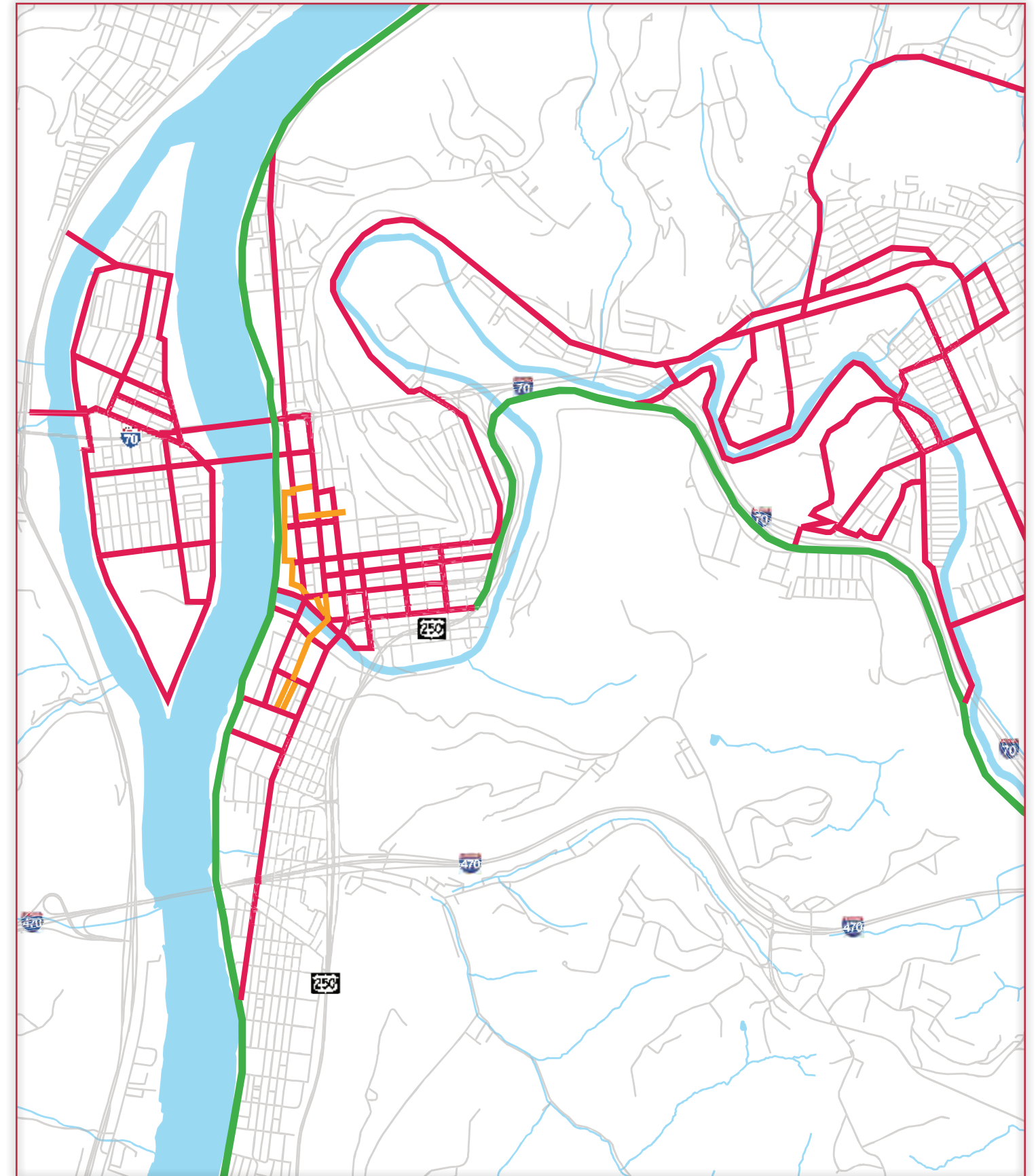
In response to the COVID-19 pandemic, festival streets and parklets have emerged as a popular solution for expanding outdoor and socially distant restaurant seating as communities emerge from stay at home orders.



Built up parklet



Parklet at street level



PROPOSED FESTIVAL STREETS

LEGEND

- Festival/Shared Street
- Other Enhanced Routes
- Existing Wheeling Heritage Trail

07 Projects

Implementation Strategy

Comprehensive access network planning requires an implementation strategy that is developed in cooperation with project stakeholders. While the plan should reflect the priorities of these stakeholders, it should also retain the flexibility to leverage private and public partnerships, available funding, and public priorities as they arise. Three factors are key to implementing plans of this nature: ongoing support, timing, and projects. The Wheeling Access Plan team has begun the process of garnering public support by sharing initial ideas and soliciting feedback to understand stakeholder priorities. Because the plan is aspirational and not yet constrained by allocated funding, the full implementation time line is long and the volume of projects is more than can be maintained in the public eye at the same time. Therefore the plan must have one or more non-partisan champions within local government or other oversight bodies to advance the plan.

The plan must be reduced to incremental elements with independent utility. This section identifies potential transportation improvements, arranges them by priority, and assigns order-of-magnitude costs for implementation. The projects were chosen to independently create noticeable improvements around the city and move the needle towards a more accessible Wheeling.

The proposed improvements are grouped by geography and purpose and are prioritized based on the ability to leverage ongoing projects, immediate safety concerns, and stakeholder and public input. The highest priority projects would be completed within the next 5 years; projects of second priority implemented within the next 5-10 years; and the lower priority projects implemented within the next 10-20 years. The priorities attached to each project capture current public opinion, budgets, and concurrent projects. As new funding opportunities and civic preferences arise, these projects may rise or fall in priority. However, the

demand for increasingly urban transportation in Wheeling, and the benefit of these projects for access to high-quality food resources, will remain.

Each project has a budget cost associated with the next stage in development. The level of detail should be sufficient to include these projects in constrained state and regional transportation plans, thus making them eligible for funding. The Access Plan can also be used to leverage other ongoing and proposed projects to share costs and assist with local matching. Finally, timing is key for obtaining grant funding to support projects, especially when attempting to combine or match grants to complete one or more phases of a project.

This chapter describes an approach for the phased roll-out of a connected Wheeling. The Access Plan offers high-level concepts; proposed improvements will require some degree of additional planning plus design before they can be fully funded and built. As a set, these recommended projects reflect a robust network for non-vehicular transportation in Wheeling. The chart to the right contains an overview of grants identified by the project team and stakeholders that are currently applicable to one or more of the projects described herein.

Grant and Funding Opportunities

| Funding Source | Grant | Eligible Project Types | Average Award | Match |
|----------------|------------------------------------|---|-----------------|-------------------|
| WVDOT | Transportation Alternatives | Design and construction of nontraditional transportation projects including infrastructure and safety improvements for pedestrians and non-motorized transportation | \$275,000 | 20% (non-federal) |
| WVDOT | Recreational Trails Program | Creation and maintenance of recreational trails | +/- \$150,000 | 20% (non-federal) |
| FHA/ WVDOT | CMAQ | Congestion Mitigation and Air Quality Improvement including: transit improvements, bicycle and pedestrian facilities and programs, ravel demand management, public education and outreach activities, inspection and maintenance programs | <\$1 million | 20% (non-federal) |
| USDOT | BUILD Grant | Multi-modal, multi-jurisdictional transportation projects including roads, bridges, public transportation, and intermodal projects | \$10-25 million | 20% (non-federal) |
| West Virginia | Business Improvement District Fund | <p>Beautification of the district, including landscaping, benches, shelters, signs, lighting, decorations and similar amenities;</p> <p>Construction and maintenance of public facilities including sidewalks</p> <p>Providing financial support for public transportation and vehicle parking facilities open to the general public;</p> <p>Developing plans and programs for future development</p> | <\$5 million | |

Other funding opportunities to provide improved access can be found by adding or including these amenities in existing plans and projects including:

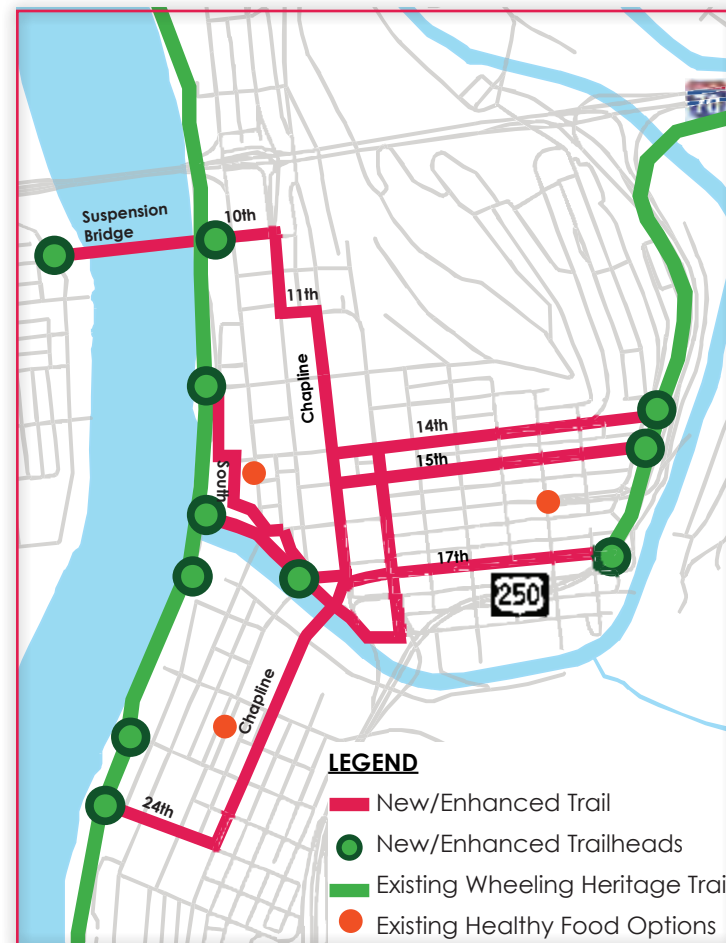
- Main and Market Street Improvements
- National Road Reconstruction
- Washington Avenue and Wheeling Creek Bridge Repairs

Wheeling Heritage Trail: Downtown

The first set of specific projects concentrates on improving and adding to the connections of the Wheeling Heritage Trail through downtown. Today, the Wheeling Heritage Trail consists of multiple segments radiating from central Wheeling along the Ohio River, former railroads and other paths on and off roadways. The challenge is to join these paths through central Wheeling and eliminate barriers to trail access and egress throughout the City. The plan to the right shows the existing trail in green, proposed new or enhanced connections in red. New or enhanced trailheads that provide clear signage, along with maps, bike racks, benches or other amenities as appropriate.

The most important proposed connection is a preservation of the Wheeling Suspension Bridge as a multi-modal connection between downtown and Wheeling Island. Constructed in 1849, the bridge was added to the National Register of Historic Places in 1970 and recognized as a National Historic Landmark in 1975.

Although the bridge was previously open to limited vehicular traffic, at the time of this report, all vehicular traffic has been banned while the bridge is assessed. The beautiful masonry and iconic suspension cables make the bridge an iconic landmark in the City of Wheeling. The bridge itself is one of two connections from the island to Wheeling, the other being the high traffic interstate bridge to the north.



PROPOSED WHEELING HERITAGE TRAIL DOWNTOWN

If the bridge is no longer able to support vehicular traffic, it should remain open to pedestrian traffic linking up to the new Gateway Park on Wheeling Island and creating a parklet on the Downtown side. (See rendered image opposite) If vehicular access



Suspension Bridge, Downtown

is able to be restored, the cycle and pedestrian amenities should be improved at the same time. Under either condition, dedicated space for all modes of access, historic interpretation, and pedestrian scale lighting will create a safer atmosphere and allow the bridge to meet its full potential as historic and scenic attraction. The terminus of the bridge should tie in and connect to the improvements proposed for Main and south Zane Street detailed later in this chapter.

The proposed east-west Heritage Trail connections include a new off-road multi-use trail that connects West Virginia Northern Community College with their parking facilities. The University has recently acquired the land which represents the first step in creating that connection.

Fully developing the connection between the Wheeling Heritage trail on road is another near term priority. The proposed on street route makes some adjustments to the current trail in a few locations to capitalize on lighter traffic volumes and opportunities for shared streets. Trail markers are also proposed for additional routes connecting with the existing trailhead off of 14th at Baltimore and proposing a formal trailhead and connection



Cyclists traversing the on road portion of Wheeling Heritage Trail

at 15th Street where desire lines already make the connection. The proposed connections utilize a combination of sharrows, cycle track, festival streets and multi-use paths to connect the existing Wheeling Heritage Trail through the downtown streets for easy access to amenities such as West Virginia Northern Community College, Ohio County Public Library, Wesbanco Arena and the Robert C. Byrd Intermodal Transportation Center.

This route has already been dedicated with sharrows and bike lanes in some areas, but those need to



Wheeling Suspension Bridge Closure
The Intelligencer, Accessed November 23, 2019

be renewed and enhanced to create a safer, more friendly experience. The recommendation is to use a combination of festival streets and cycle tracks to make the connection. Both of these enhancements are new to Wheeling, so this might be an opportunity to test them in stages. 17th street has adequate ROW to use paint and bollards to locate a temporary cycle track. The images on this page show examples of temporary protected bikeways. As you can see in the lower image some cyclists will still prefer the road and this type of field testing allows users to determine the facilities they feel most comfortable using.



Example of Pop -Up Bikeway
Credit: Dakota Medical Foundation



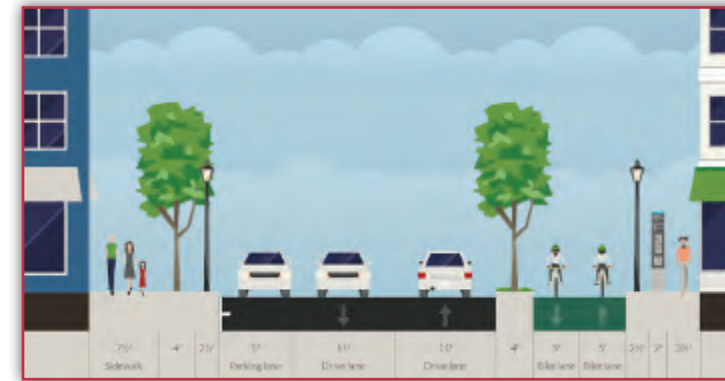
Example Pop -Up Bikeway. Credit: Robin Smith

South and Lane 15 are not regular through streets to traffic and so would be suitable for temporary festival street conditions such as art installations, or free pedestrian movement before and after events at the arena where police can help motorists understand the new type of space.

The projects planned for longer term connections to the Wheeling Trail network include a north-south cycle connection primarily along Chapline street from 10th Street south through Market Plaza and on to the South Wheeling Heritage Trailhead at 36th street. A cycle track is recommended along

Chapline street in Central Wheeling. This would require removing street parking. Ground testing in this area may help direct a final decision. Sharrows are recommended south of Wheeling Creek to connect to South Wheeling

Lastly, Wheeling can aspire to a completely off road connection between the east and west Heritage Trail routes via the creek's edge. Part of this connection is anticipated to be completed in partnership with West Virginia Northern Community College, and the rest will likely follow at a later date due to the need for property and/or easement acquisition.



Chapline Street with widen sidewalks and cycle track

| Greater Wheeling Trail: Downtown | | | | | |
|--|--|--|---------|--|--------------------------------------|
| Project Name | Extents | Description | Ranking | Next Steps | Cost Range |
| Suspension Bridge | Bridge from Front Street to Main Street | Improved pedestrian and cycle amenities with traffic, or fully non-motorized bridge; Parklet between bridge and Main Street. Immediate safety concern. | 1 | Structural Analysis and WVDOT ruling; Design | TBD |
| Downtown Creekside Trail Phase 1 | Ohio River to Rt 250 Overpass | Off road trail connection between long term parking and main campus via newly acquired property south of 18th Street | 1 | Design; Construction | \$30,000-\$40,000 |
| Wheeling Heritage On Road Trail Connector | South St from 16th to 18th via Main and Market; 18th Street ROW; Lane 15 from Chapline to Eoff; 17th from Eoff to Heritage Trailhead | Festival Street on South and Lane 15; cycle track 17th Street | 1 | Design; Construction | \$40,000-\$60,000 (design) |
| Chapline Cycle Improvements Ground Testing | 10th Street to South Wheeling / Wheeling Heritage Trailhead | Temporary cycle track and/or sharrows from 10th from Suspension Bridge to and through Market Plaza; 11th Street between Market and Chapline; Chapline from 11th to 18th/Lane 15. | 1 | Tactical Urbanism | \$10,000-\$20,000 (tactical testing) |
| Chapline Cycle Improvements Final Construction | 10th Street to South Wheeling / Wheeling Heritage Trailhead | Cycle track and/or sharrows from 10th from Suspension Bridge to and through Market Plaza; 11th Street between Market and Chapline; Chapline from 11th to 18th/Lane 15. | 2 | Design; Construction | \$60,000-\$80,000 (tactical testing) |
| Downtown Creekside Trail Phase 2 | Ohio River to Rt 250 Overpass | Off road trail connection between Heritage Trail (river at the mouth of Wheeling Creek) and West Virginia Northern Community College facilities | 3 | Design; Construction | <\$5 million for full implementation |
| 15th Street Trailhead | 15th Street to Heritage Trail | Sharrows and complete street elements: 15th, McColloch and Baltimore Streets to Heritage Trail | 3 | Design; Construction | \$20,000-\$40,000 (design) |

Downtown and Centre Wheeling Enhancements

Downtown and Centre Wheeling make up the cultural heart of the City. These enhancement projects are intended to bolster the fledgling non-vehicular movement in the central city. Ultimately these improvements will attract people to either take non-motorized transportation downtown because it is easy and safe to drive downtown, but then stay longer, because it is easy and inviting to walk or bike to the various downtown destinations increasing access to the cluster of health food options in the neighborhoods.

The first priority in central Wheeling is to complete the design and construction of the enhancements of Main and Market Street. Preliminary plans have already been prepared and show significant improvements to the streetscape. However, to facilitate better bicycle access, sharrows, bike parking facilities and strong east-west connections including a cycle track on 10th, shared street on 12th, and a multi-use path on Eoff from 16th to 18th should be added to connect to the Greater Wheeling Trail network. Since it appears that Main and Market Streets would not be able to accommodate reserved bicycle facilities, the Access Plan proposes a primary bicycle routing on Chapline Street between 11th and 18th Streets (see previous section).

Downtown, bike facilities should be plentiful, allowing riders to stop and safely take advantage of downtown amenities. This will take a partnership between the City, OVRTA, and private business owners to provide and maintain racks. Ideally, bike racks could be added to OVRTA buses throughout the operating area. This is key to open up downtown to one-way riders who for reasons of time, weather, terrain or other reasons need a lift for part of their journey.

Once the enhancement is completed on the northern segment of Market Street, the southern stretch, from the bridge to Centre Market, should be the next priority. When fully realized, Market could be a festival street from West Virginia Northern Community College to Centre Market, connecting the college and Central Wheeling to the market. A first step is to test the types of festival street amenities with temporary measures such as planters, pavement art, street vendors, and open road days.



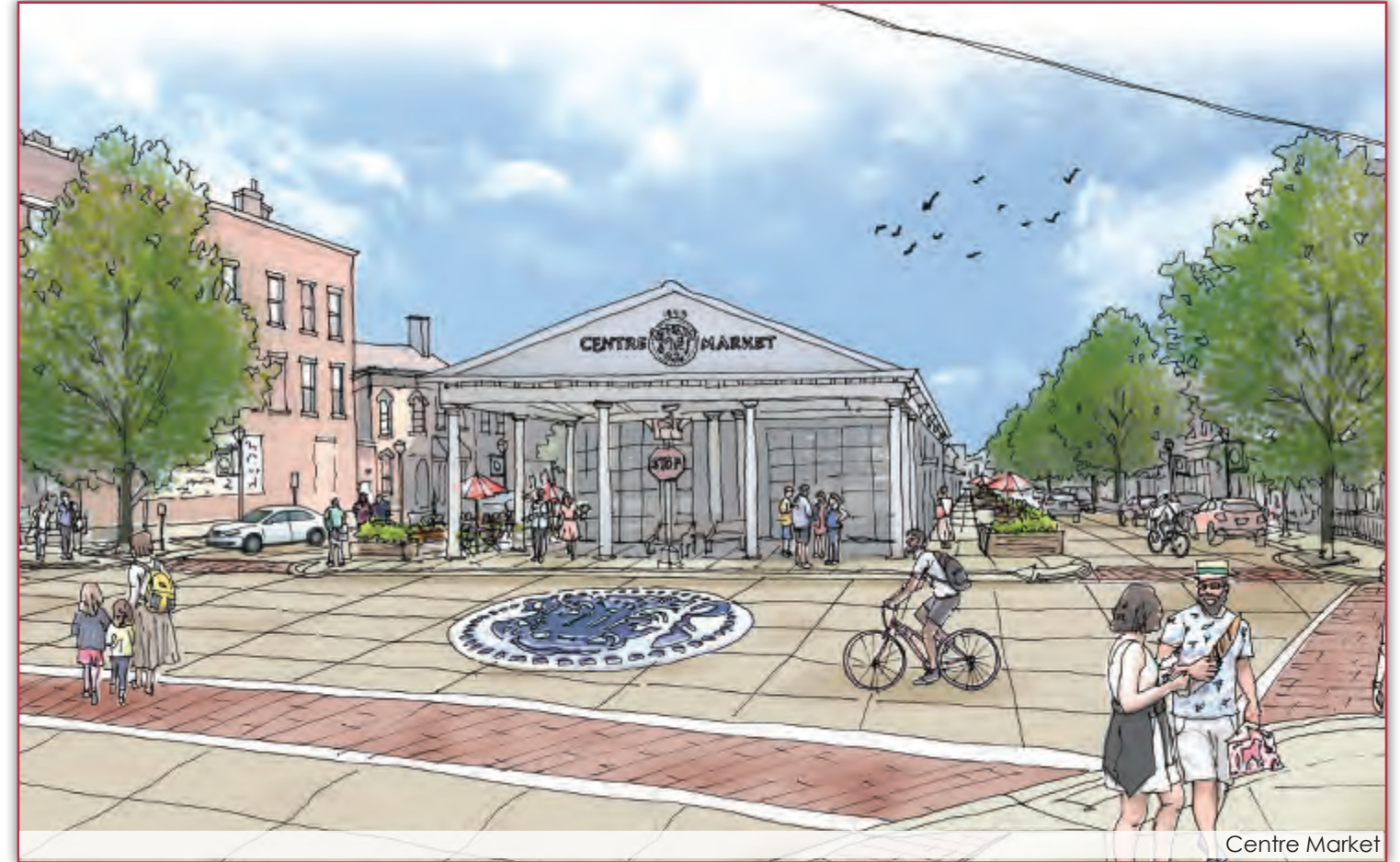
PROPOSED DOWNTOWN ENHANCEMENTS



Market Street looking north of Centre Market



Example of parklet sidewalk widening. Credit: Philadelphia Mayor's Office of Transportation & Utilities



Centre Market

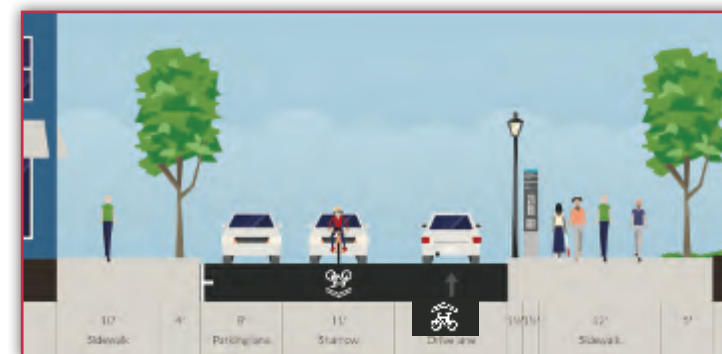
The rendering above shows how a completely integrated festival street could enhance Market Street at Centre Market. The image to the left shows the existing condition looking the opposite direction (north). If the angled parking could be shifted to parallel or even eliminated altogether in favor of the parking garage directly across the street, restaurants and shops could enliven the sidewalk as they do in Philadelphia shown in the lower image.

Another opportunity for a festival street is Water Street. Below is a typical section of how Water Street could accommodate much more gracious pedestrian ways and sharrows. A different and distinct vibe would be desired from Market Street,

one that speaks to Heritage Port and encourages crossing between the park and businesses opposite as demonstrated in the below example.



Example festival street



Water Street as a festival street

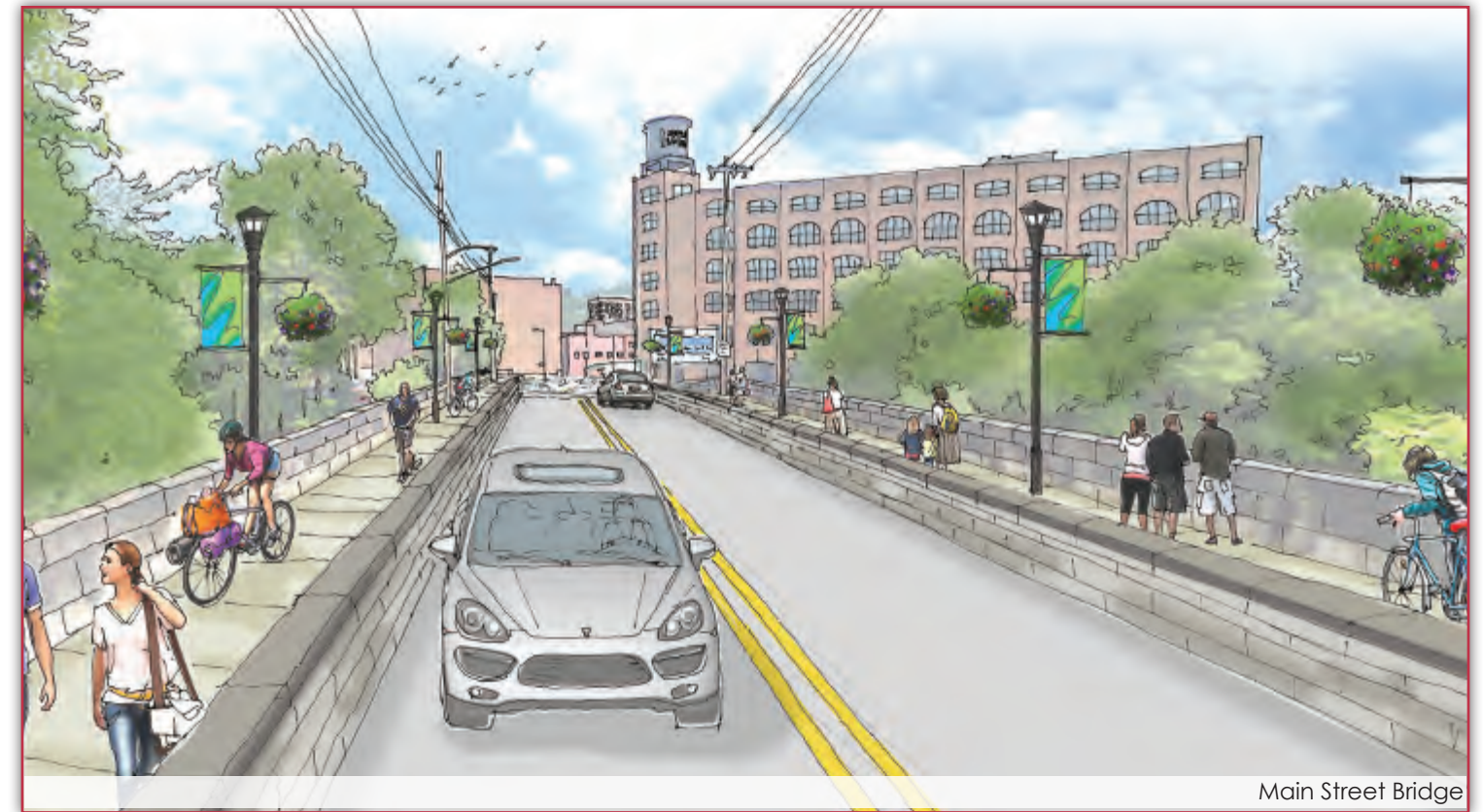
Other downtown projects include painting all recommended bike-friendly streets with sharrows (including routes where more robust bicycle facilities) are proposed in the long term and retrofitting all three Wheeling Creek bridges to allow for protected multi-use paths, better lighting, and beautification as illustrated for the Main Street Bridge on the lower facing page.

The final project was first identified by public meeting attendees, to provide public restroom facilities at intervals along the trail and where there are other outdoor public amenities in the downtown area that are not already served. Simple port-a-johns in prime seasons or even permanent composting toilets would be an economic way to provide this service.

As with the Wheeling Heritage Trail Downtown, the current pandemic recovery environment may support testing of parklets and sidewalk cafes to support existing businesses.



On-street dining for pandemic recovery in Staunton, Virginia. Credit: WVIR



Main Street Bridge

| Downtown and Centre Wheeling Enhancements | | | | | |
|--|--|--|---------|--------------------------------|------------------------------|
| Project Name | Extents | Description | Ranking | Next Steps | Cost Range |
| Main and Market Enhancements and Connections | Main from I-70 ramp to bridge; Market from 10th to 16th; 10th, 12th, and 14th from Main to Market; 16th from Main to Eoff; Chapline and Eoff from 16th to 18th | Complete street with sharrows on Main, Market, and 16th; Cycle track on 10th and Chapline; Shared Street on 12th; Off street multi-use path on Eoff with traffic calming | 1 | Design revisions; Construction | \$30,000-\$40,000 (design) |
| Market Street Festival Street Ground Testing | Market Street and Lane B: 16th Street to 23rd Street, including the Creek bridge crossing | Temporary shared street and improved crossings; parking adjustments, parklets | 1 | Design; Construction | \$100,000-\$120,000 (design) |
| Bike Parking Bike Transit Access | Downtown and Citywide | Provide/legislate inclusion of bike infrastructure on transit and public and private property | 1 | Plan | \$20,000-\$30,000 |
| Market Street Festival Street Final Construction | Market Street and Lane B: 16th Street to 23rd Street, including the Creek bridge crossing | Shared street and improved crossings; parking adjustments, accommodate parklets | 2 | Design; Construction | \$100,000-\$120,000 (design) |
| Main Street Bridge | Extents of bridge | Multi-use path with pedestrian barrier both sides | 2 | Inspection; Design | \$30,000-\$40,000 (design) |
| Water Street | Water Street from 11th to 14th | Shared street; extend riverfront promenade; re-brand as Riverfront entertainment district | 2 | Design | \$100,000-\$120,000 (design) |
| Sharrows | Limits of Plan on designated routes | Sharrows | 2 | Construction | |
| Chapline Street Bridge | Extents of bridge | Multi-use path with barrier west side | 3 | Inspection; Design | \$30,000-\$40,000 (design) |
| Public Restrooms | TBD | Provide public restroom facilities downtown and strategically along trails | 3 | Feasibility Study | |

Neighborhood Connections

Neighborhood Connections projects are improvements identified to better connect neighborhoods outside downtown to trails or other resources outside of downtown.

The three top ranking projects address current safety concerns.



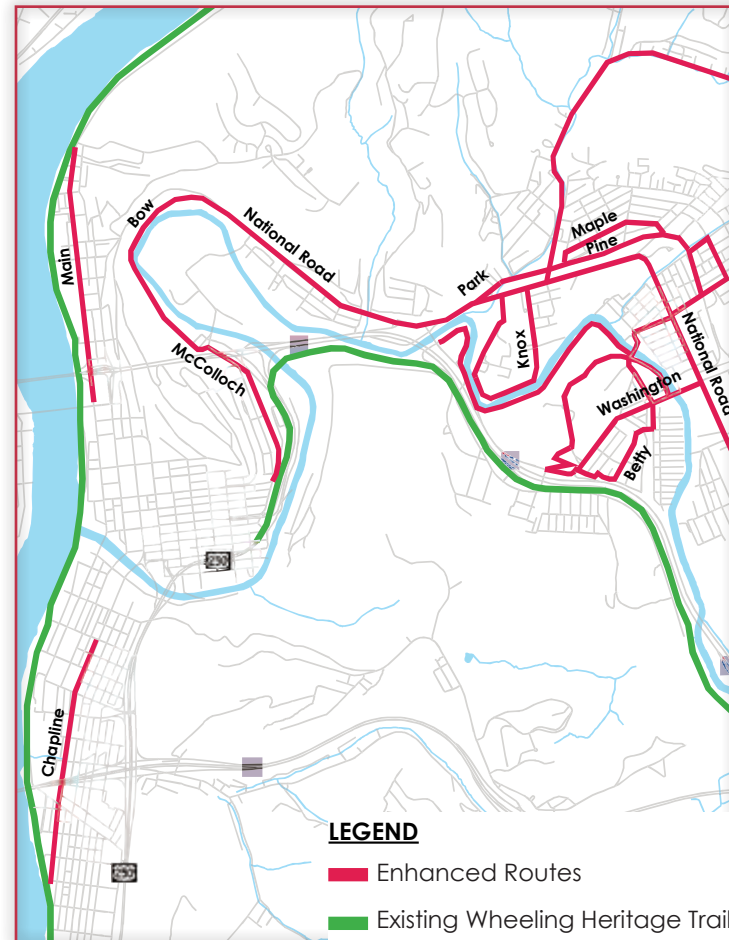
Wood Street at 16h Street looking north

There is an immediate concern for pedestrian crossing at East 16th and Wood Streets. That location has the 16th Street Soccer field on one corner and the neighborhood grocery on the other. No crosswalks are marked, and vehicles may only turn right onto 16th from Wood. There is no access onto Wood or ability to continue on 16th eastbound. The intersection should be studied in detail by traffic engineers to determine the right solution that will enable safe pedestrian access to the field and neighborhood grocery. The neighborhood councilperson amplified concerns from her residents in the area to the project team regarding the safety of that crossing.

A second concern, also amplified by the neighborhood's council representative is the condition of Washington Avenue. As at 16th street, cars are hurrying on and off the highway exit.



Retrofit curb extensions



PROPOSED NEIGHBORHOOD CONNECTIONS

Additional traffic calming and pedestrian projections are needed to create a safer street. Some options for traffic calming include textured high visibility crossings at intersections and key mid-block locations with signage or beacons, planted curb extensions, street tree planting and reduced speed limits. An example of how a curb extension can be retro-fitted into an existing street is shown down and to the left. Further, sharrows and signage should be used to direct cyclists to alternative routes either through the Wheeling University Campus or down Valley View Ave south to Biltmore and Betty. A motivator for improvements in the corridor is the funded replacement of the Washington Street Bridge over Wheeling Creek, which was recently closed to buses and large trucks. This project may be leveraged to fund adjacent streetscape improvements.

The last high priority recommendation is to recreate National Road as a complete street. A safe and multi-modal friendly National Road will connect several neighborhoods to internal resources as well as to downtown. Timing is key for this initiative. Under current highway construction plans, National Road will carry highway traffic while I-70 bridges are being replaced. That project included yet-to-be-

determined improvements to National Road once highway traffic was restored. If plans could be developed in a way that dovetails with the progress of the freeway construction, it might be possible to leverage federal funds for all or part of the improvement costs. If plans are not developed in a coordinated manner, some of the reconstruction efforts may be counter to preferred complete street solutions developed in the future.

Although National Road is a busy arterial, with careful planning, multiple modes can be served. Below is an example of how a busy arterial can accommodate multiple modes.



Example Complete Street

Credit: North Carolina Department of Transportation

The last priority one project is the McCulloch/Bow Street Complete Street. This street provides a connection to the northeastern neighborhoods to downtown without major grade changes, providing a much easier alternative to the connection along National Road originally identified in the routes tested in the analysis phase. A complete street solution along McCulloch/Bow looks quite different from National Road. The street is slower, residential



McCulloch/Bow Complete Street

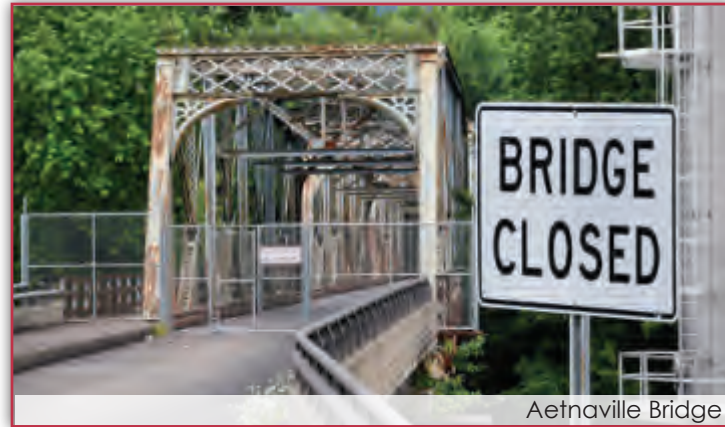
Neighborhood Connections

| Project Name | Extents | Description | Ranking | Next Steps | Cost Range |
|--|--|--|---------|---------------------------------|------------------------------|
| National Road Complete Street | Bow St east to City Limits | Complete Street for after freeway construction. Future safety concern. | 1 | Planning and Preliminary Design | \$100,000-\$120,000 |
| Washington Ave Calming | From National Road to I-70 Overpass | Creek bridge design; Traffic calming and improved mid-block crossings; off Washington Sharrows. Immediate safety concern. | 1 | Design | \$60,000-\$80,000 (design) |
| 16th and Wood Street Intersection Improvements | Intersection | Study improved crossing; include bus stops. Immediate safety concern. | 1 | Design | \$30,000-\$40,000 |
| McColloch Bow Complete Street | McColloch Street/Bow Street Complete Street 15th to National Road | Sharrows and sidewalk/crossing improvements | 1 | Design | \$30,000-\$40,000 (design) |
| Wheeling University Trails | Currie to Washington Ave via Ignatian Way through campus | Off road trail and/or on road infrastructure | 2 | Feasibility Study | \$60,000-\$80,000 (design) |
| Kroger to Woodsdale Trail | Kroger to Currie along creek | Off road trail and/or on road infrastructure | 3 | Feasibility Study | \$60,000-\$80,000 (design) |
| Pine to Park Connector | Pine to Park Street | Off road connection | 3 | Feasibility Study | \$30,000-\$40,000 |
| Linsley School Loop | Knox to Leatherwood | Sharrows and off road trail along existing social trail route around Linsley; connection to transit on National Road | 3 | Design; Construction | \$60,000-\$80,000 (design) |
| Bethany Pike | National Road to RESA 6 | Complete Street | 3 | Design | \$60,000-\$80,000 (design) |
| Greggsville | Bethany Pike to Ogleby Cultural Assets | Hiking and transit access | 3 | Feasibility | \$60,000-\$80,000 (design) |
| Hiking Trails | Citywide | Off road recreational walking and/or biking trails | 3 | Feasibility Study | \$100,000-\$120,000 (design) |

Wheeling Island

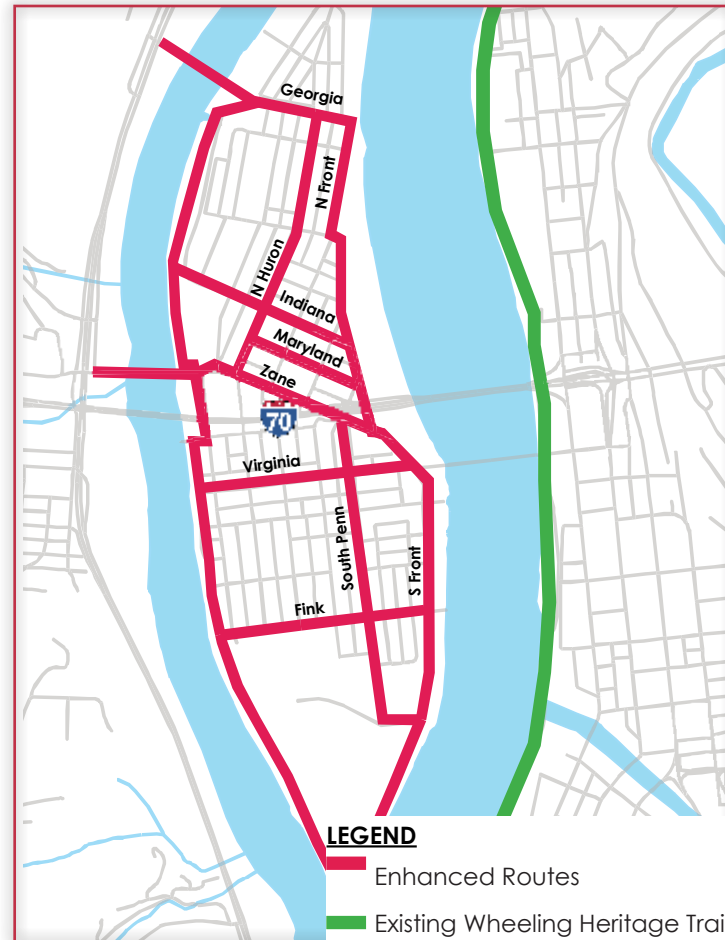
Wheeling Island has very little trail infrastructure as it does not contain any of the Wheeling Heritage Trail System. The recommendations of the Wheeling Access Plan intend to change that.

A high priority for Wheeling Island are bridge connections to both the City and Ohio sides of the river. Improvements to the Wheeling Suspension Bridge are a key connection to downtown and described in the Downtown Enhancements section.



Aetnaville Bridge

A pedestrian bridge is also proposed at the location of the old Aetnaville bridge. The old bridge is currently closed to all traffic. Currently, stakeholders are working on procuring an evaluation of the bridge's piers to evaluate whether they are capable of supporting a new pedestrian bridge. If structurally sound, reusing the existing piers would be a significant cost savings and would allow a swifter turn around time to complete the connection. If piers are no longer safe, this project, while still recommended, assumes a lower priority to the Zane Street Bridge Project described later in



PROPOSED WHEELING ISLAND ENHANCEMENTS

this section. In either case, a prefabricated steel truss bridge could either be designed to give the same feel as the original bridge, or provide a modern take on the overhead structure as in the image below. The heart of Wheeling Island is Zane Street. Zane Street hosts a variety of restaurants and services, including the OVRTA offices, as well as Madison Elementary and Bridge Street Park. The street is not pedestrian friendly.



Prefabricated Pedestrian Truss Bridge

Although there have been noticeable efforts around Madison Elementary, access to Bridge Street park is non-existent and accommodations for even a bus stop at the OVRTA offices have not been made. In addition to these important amenities, the street is a key connector to bus, pedestrian, and bicycle traffic to and from mainland Wheeling and Ohio via the I-70 and Zane Street Bridges. Although there is limited right of way, further study for a fully functional complete street is proposed. Because of the OVRTA, a critical location for individuals without access to cars, and access to the only bridges open to cross the river, alternates will not serve.

The last main connection links the Suspension Bridge to Zane Street. There is currently no sidewalk on one side of Zane Street South, but a dirt track left by pedestrians making the walk anyway. A similar informal trail makes the connection under the I-70 overpass. Where the bridge meets the Island there is no crosswalk in any direction as shown in the photo below. Full accessibility for Cyclists and

pedestrians is proposed between Zane Street North and the suspension bridge.

To enhance bicycle and pedestrian recreational circulation around the island, an official trail is proposed through Bridge Street Park from Zane Street to the Aetnaville bridge which will connect with on street marked routes both north and south



Virginia and Zane Streets

as well as an off road trail around the southern tip of the island.

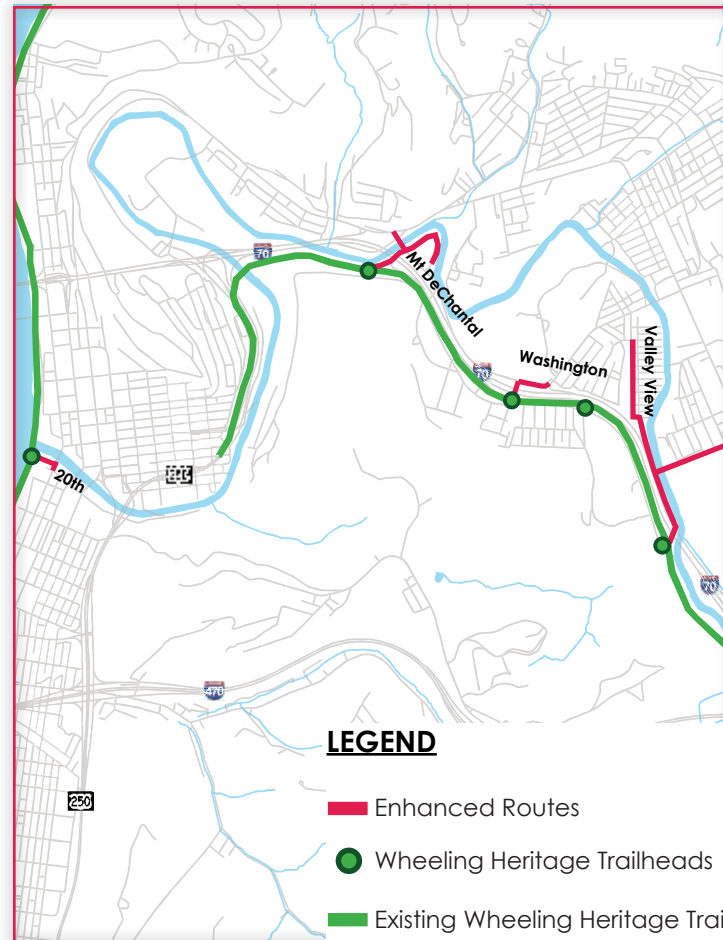
Lastly, Zane Street Bridge should be retrofit with protected multi-use amenities, lights, and beautification.

| Wheeling Island | | | | | |
|----------------------------|--------------------------------------|--|---------|----------------------|----------------------------|
| Project Name | Extents | Description | Ranking | Next Steps | Cost Range |
| Aetnaville Bridge | Limits of Bridge | Structural analysis of existing piers for construction of non motorized bridge | 1 | Structural Analysis | |
| Zane Street (North) | Zane Street Bridge to I-70 | Complete Street; provide OVRTA stops; enhanced paths. Immediate safety concern. | 1 | Design | \$60,000-\$80,000 |
| Sharrows | Limits of Plan on designated routes | Sharrows | 1 | Construction | |
| Zane Street (South) | I-70 underpass at Zane Street | Off road trail and route connection to Suspension Bridge | 2 | Design; Construction | \$20,000-\$40,000 (design) |
| Wheeling Island Park Trail | Georgia Street to Bridge Street Park | Off road trail connection; build on existing infrastructure | 2 | Design; Construction | \$20,000-\$40,000 (design) |
| Zane Street Bridge | Limits of Bridge | Barrier protected shared paths on both side of the bridge, lighting, beautification | 3 | Design; Construction | \$60,000-\$80,000 (design) |
| South Island Connectors | Around casino and sports venue | Off road trail along river front and connecting Fink and S Wabash | 3 | Feasibility Study | \$60,000-\$80,000 |

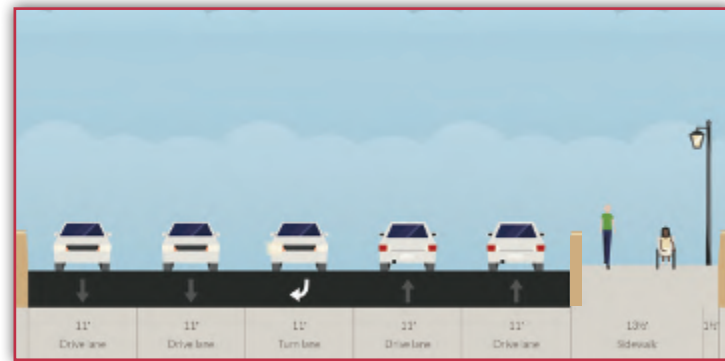
Greater Wheeling Heritage Trail: Connections

The Greater Wheeling Trail Connection improvements outside downtown are a series of projects that create better connections from the trail to neighborhoods and key assets such as Kroger and Wheeling Hospital.

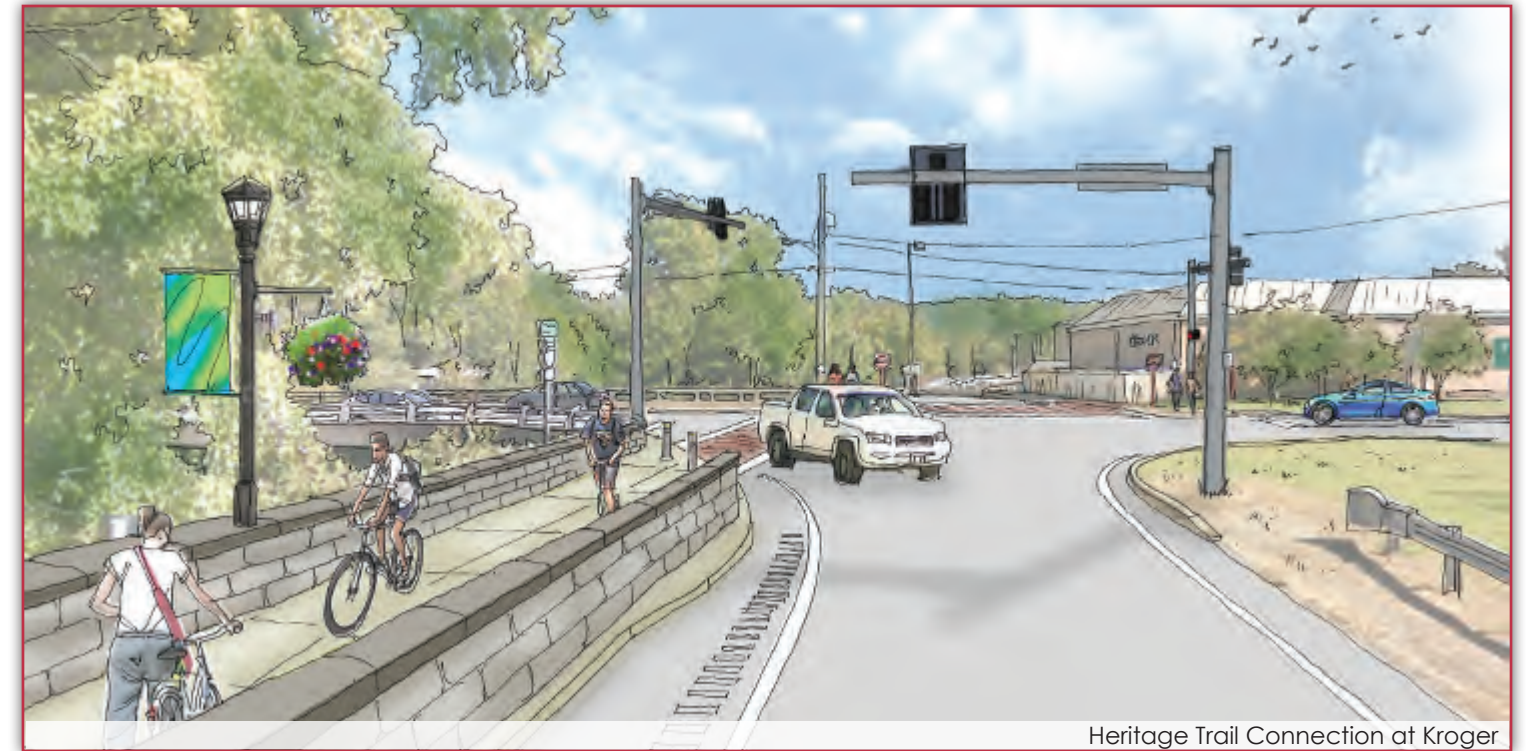
The most important connection is the crossing of the Washington Avenue overpass due to the critically unsafe conditions both on the bridge and leading up to it. The crossing is the connection between the Pleasanton and Woodsdale neighborhoods and the Wheeling Heritage Trail. This is a high traffic area where a protected off road trail is recommended. This will be a complex design challenge due to the vehicular traffic entering and exiting the on-ramps. Safe, visible and potentially signalized crossings will be required.



PROPOSED WHEELING HERITAGE TRAIL CONNECTIONS OUTSIDE DOWNTOWN



Washington Avenue Overpass



Heritage Trail Connection at Kroger

The perspective on the right illustrates how a safe trail connection could replace the goat path that hugs the on-ramp to I-70. High visibility crosswalks, pedestrian signals and an opportunity for vehicles to travel straight onto the on-ramp legally will help direct all modes of transportation. Barriers allow protections from vehicles accelerating to highway speeds and allows the trail to remain above the creek's banks, while keeping users safe. This connection dovetails with enhancements to the Mt. DeChantal Bridge similar to those proposed for Washington Avenue.

The proposed 20th Street Cycle Track builds on proposals to create a new trailhead south of the Creek that would allow users access to Central Wheeling.

The remaining projects facilitate access to Howard Long Wellness Center and Wheeling Hospital, the only hospital in the city.

Greater Wheeling Trail: Connections

| Project Name | Extents | Description | Ranking | Next Steps | Cost Range |
|-------------------------------|--|--|---------|-----------------------------|----------------------------|
| Washington Avenue Overpass | Westbound on-ramp to Wheeling Hospital Road | Improve traffic and non-motorized flow and safety through two intersections; Create protected multi-use path connecting from Frissell to Heritage Trail including bridge. Immediate safety concern. | 1 | Design | \$80,000-\$100,000 |
| Kroger Trail Connection | Heritage trail to Kroger | Off road trail, enhanced signalized crossing. Immediate safety concern. | 1 | Design; Construction | \$60,000-\$80,000 (design) |
| Mt DeChantal Bridge | National Road to Kroger and I-70 Ramp | Multi-use path with barrier one side; traffic calming | 3 | Design and traffic analysis | \$60,000-\$80,000 (design) |
| Wheeling Hospital Crossings | Portions of Wheeling Hospital Road | Mid-block crossings at Howard Long Wellness Center and Hospital; Traffic calming | 3 | Design; Construction | \$30,000-\$40,000 (design) |
| Wheeling Hospital Connections | Off road connections along Wheeling Creek; new pedestrian bridge | Connect hospital to Woodsdale via off-rad trail from Valley View to Hospital; foot bridge from Rush Ave | 3 | Feasibility Study | \$60,000-\$80,000 |
| 20th Street Cycle Track | Heritage Trail to Chapline | New trail connection through parking and along Main Street to 20th; cycle track along 20th to Chapline; parking adjustments | 3 | Design; Construction | \$60,000-\$80,000 (design) |

Intercity Connectivity

Wheeling, the Belomar region and State of West Virginia have a unique, on-going opportunity to coordinate with peer regions on intercity and mega-regional transportation. One of two hyperloop ultra-high-speed analyses recently conducted in Ohio would potentially link Chicago with Pittsburgh via Wheeling. Hyperloop is a technology still in development that would operate magnetically levitated and propelled vehicles through a semi-vacuum tube at speeds up to 600 miles per hour. The technology is designed to carry both passengers and palletized freight. The Pennsylvania Turnpike Commission is currently conducting a related hyperloop analysis for lines crossing Pennsylvania



Visualization of hyperloop passenger terminal

and linking to metropolitan New York City. Should a full network under analysis in neighboring states be realized, a result could be surface transportation connecting Wheeling to New York City, Philadelphia or Chicago within one hour. West Virginia and Ohio are two states currently competing to host a testing and certification facility for the technology.



Private Intercity Passenger Rail
Credit: Brian Smith, Trains Magazine online

A separate analysis explored how to link Chicago, Columbus and Pittsburgh with conventional intercity passenger trains, potentially including a station 30 minutes north of Wheeling near Mingo Junction. If completed, this rail service would

offer a potential extension opportunity: Pittsburgh-Wheeling commuter rail corridor, with a station either near Market Plaza or on the Ohio side of the river. These studies all offer intriguing transportation and economic development potential for Wheeling and should be considered for monitoring and/or direct coordination.

Planning Studies

| Project Name | Extents | Description | Ranking | Next Steps | Cost Range |
|----------------------------------|--|---|---------|--|--|
| Hyperloop | Coordination with studies in Ohio and Pennsylvania for ultra-high-speed transport for passengers and goods between Chicago, New York and Philadelphia, with connections to Columbus and Pittsburgh | Coordinate with related analyses | 1 | Feasibility Study | N/A |
| Private Intercity Passenger Rail | Pittsburgh-Ohio River Valley-Columbus. Other potential destinations include Chicago, Cleveland and Akron. | High speed passenger rail within commuting distance or possibly including a stop or spur directly into Wheeling | 2 | Analysis of ridership potential and coordination with peer agencies and private operators. | \$10,000 (ridership analysis and partner coordination) |
| OVRTA Transit Development Plan | Service Plan for entire network | Study of enhanced facilities and services | 2 | Plan | \$75,000-\$100,000 |