

Description of Route Segments and Recommendations

GENERAL DESCRIPTION OF PLANNED PEDESTRIAN AND BICYCLE ROUTE ALIGNMENTS

The recommendations propose two types of walking and cycling route alignments. The options provide cyclists and pedestrians with alternatives for travel and connections into communities for services and to link to points of interest.

Preferred Route: The preferred route directs cyclist between Pittsburgh and Coraopolis– to the Montour Trail and BicyclePA Route A. The route is recommended to be constructed as a shared lane marking or as a bike lane condition, depending on the road width and need for adjacent parallel parking.

Local Loop Route: The local loop route connects users to community shops, services, facilities and recreation sites within each town. The local loop route is proposed to offer pedestrians and bicyclists a connection to local services, parks & river access, and historical or cultural points of interest.

During the planning process there were some routes along SR51 that were rejected, not preferred by the local municipality. These routes were originally mapped from Bike Pgh routes and proposed to be enhanced as bike lanes, shared lane markings, and delineated with route and safety signing. The rejected route descriptions and images can be found in the Appendix. The revised, preferred alignments were routed away from SR51 along less traveled roadways.

This project also included suggestions for local trail parking and trailhead development sites to help spur economic development and promote existing businesses.

Trailhead Parking Areas

Trailheads not only provide parking to access the bike route or trail system, but are information centers and potential economic links to the community. These locations can serve trail users and act as information centers. Trail parking areas may be located at parks, near shops, or shared use parking lots that are open for trail access during the week and Church service during the weekend; or business and office lots that are open after 6pm for trail use and for employees during working hours.

Trailhead parking numbers vary depending on anticipated use, location, and ease of access. Many trailheads function well with as little as 5-10 spaces; others will need to be larger to accommodate a variety weekend user types.

It is our experience that trail parking and trailheads are best located near shops, food vendors, and places where people can spend money in the community. These places provide more secure parking, trail user services, and, most importantly, economic opportunities.

KEY PERSONS INTERVIEW SUMMARY

Over twenty (20) key person interviews were conducted. Interview questions ranged from knowledge of the project, to a detailed review of the alignment itself, to bikeway safety, security, maintenance and operations, and potential persons or groups willing to provide assistance in project planning, development, or maintenance.

Most respondents were willing to provide technical assistance for planning and development. Many respondents are already active with other area trails, bike routes, and/or community groups and were willing to lend to the project their assistance, experience and public support from their associated group.

Montour Trail representatives provided safety and security information, Ohio River Trail representatives shared maintenance and operation information, Neville Green representatives provided willingness to support implementation efforts, and Bike Pittsburgh representatives were willing to provide technical support and experience to the effort.

A list of key persons, sample surveys, and submitted documents can be found in the Appendix-Key Person Interviews





CONNECTOR ROUTE DESCRIPTIONS

Pedestrian Routes

Each of the below route segments already include a sidewalk system, either on one side of the roadway or both sides. Some of the walks are in need of surface repairs, others are in need of surface repairs and accessibility upgrades at intersections. We have detailed and priced the proposed improvements at key intersections in the *Opinion of Probable Costs– Intersection Improvements*.

Planned improvements at key intersections include:

- 1600 Gateway View Plaza
- Chartiers Avenue at Furnace & Linden St. (Eat-n-Park in McKees Rocks)- *Local Route to shops and restaurants*
- Chartiers Ave & Island Ave (RR Overpass in McKees Rocks)- *REJECTED Local Route to shops and restaurants*
- McKees Rocks Bridge at SR 51
- Fleming Park Bridge (west side on Neville Island)
- Grand Avenue & Second St. (Neville Island)
- I-79 Bridge Ramp (Neville Island)
- I-79 Bridge Ramp, Northbound on and off ramps (Neville Island)
- Coraopolis Bridge at Fourth Ave and Ferree Street (Coraopolis)

Bicycle Connector Route Description by Segment

The bicycle connector route is described in a west bound direction beginning at the Station Square access roadway in the City of Pittsburgh and extending toward Coraopolis where it links to BicyclePA Route-A and the Montour Trail.

The metrics listed for route segment length, posted speed limit and average daily trips (ADT) describe the preferred route only unless otherwise noted. The local loop routes are typically posted for equal or lesser speeds and with lower ADT numbers. The ADT source is from PennDOT's Individual Traffic Volume Mapping, 2010 data, or from Allegheny County.

State Route 51 (SR51) is West Carson Street from Pittsburgh to McKees Rocks and has many other names as it travels west to Coraopolis. The below descriptions use the various road names and include a (SR51) for clarification. The preferred route is posted at 35 mph in the city (West Carson Street), and drops to 25 mph through the municipalities of Stowe, McKees Rocks, Neville and Coraopolis.

CITY OF PITTSBURGH- (SR51) WEST CARSON STREET, STATION SQ. TO WEST END BRIDGE

West Carson Street (SR51), Segment Length 2,861 LF (0.54 miles); Posted Speed Limit= 35 MPH; 20,000 ADT; 54-foot width and curbed.

The corridor is confined by steep cliffs, railroads, river banks, narrow roadway corridors, and heavy traffic conditions including trucks and buses.

Routes considered in the study were:

- **West Carson Street (SR51):** Pedestrian and bicycle access is limited along this segment of SR51. SR51 consists of 2-westbound lanes of 11' each, a 5' wide sidewalk, retaining wall and private property. Eastbound the road is 2- lanes of 11' each, a 10' left turning lane, no sidewalk, adjacent private property and a mountain side. Traffic speeds and volumes are high and the corridor includes significant bus and truck traffic. A shared lane marking system along this segment would remain at a below average condition for cycling and not be usable by a majority of cyclists.

Description of Route Segments and Recommendations



View west behind 1600 Gateway View Plaza Building



Private Access under RR to TWIC property



View west at the Station Square access roadway



View west to West End Bridge

- ▶ **Active CSX Railroad property along Ohio River:** The active CSX rail corridor is directly behind the 1600 Gateway View Building, within 30 feet of the building with an active rail line, and a rail spur accessing the back of the building. Additionally, the railroad bridge east of the West End Bridge, the TWIC barge access, cuts off ped-bike access along the railroad. This corridor is not being considered since rail freight access is an asset to the property, and rail freight is estimated to increase with improvements to the Panama Canal and increased rail demand locally with the Marcellus industry.
- ▶ **Steep riverbank between railroad and Ohio River:** The steep banks along the Ohio River would be extremely costly to construct and would be subject to U.S. Army Corps and Port of Pittsburgh approvals. In addition, the alignment would have to cross railroad property twice; any new rail crossings of CSX railroad property would be very costly and may eventually preclude trail development. Also, river bank construction may conflict with barge traffic and docking locations and would be subject to potential flood damage. TWIC hold barges along this portion of the riverbank- TWIC access to river, under the railroad, is show below.
- ▶ **Existing sidewalk (along north side of SR51) - currently the existing sidewalk is being used by pedestrians and bicycles:** The walkway along SR51 is 4.5' to 5' wide and the roadway is 54' wide. The walkway widens under the West End Bridge. SR51 consists of two 11' lanes eastbound, a 10' center turning lane and two 11' lanes westbound. As stated above, the existing conditions, narrow lanes and heavy bus and truck use prevent bike lanes from being established in the roadway.





- **1600 Gateway View Plaza Building- the property is owned by the Buncher Company:** At this time the Buncher Company is not interested in entertaining a bicycle facility through their 1600 Gateway View Plaza property due to the narrow parcel size, the parking & truck docking facility in the front of the property and rail access at the building rear. These amenities all add value to the marketability of the property.
- **Norfolk Southern Railroad corridor; cliff / hillside above SR51; off road route:** Norfolk Southern Railroad corridor is the active railroad along a hillside bench, south and high above SR51. Using this corridor would be difficult to ascend and descend because of its elevation. Furthermore, the existing, narrow, active railroad condition rules out a safe and economical bike trail development in this shared corridor. Even if land ownership would change in the future, access to this elevation and the safe crossing of roadways and streams would remain costly for development.

Recommendations

Option #1- The preferred route recommendation is the construction of a separated and protected pedestrian walk and 2-way bike lane (a ped-bike track) along the northern side of SR51. The protected ped-bike track would accommodate both westbound and eastbound cyclists and pedestrians. The track would include a barrier between the road and the track to increase the Bicycle Level Of Service (BLOS) and increase use for all ages and all abilities of cyclists and walkers.

The construction of the protected ped-bike track would require significant changes to the SR51 right-of-way and roadway between the Station Square driveway and the western property line of 1600 Gateway View Plaza due to the geography, adjacent private properties, and narrow roadway conditions. To maintain the current SR51 lane configuration, the preferred Option #1 route would include property purchase, relocation of businesses, and a relocation of the roadway toward the south to provide for the separated ped-bike track along the north shoulder.

The width of the ped-bike track is recommended to be 18'-20' clear between barriers and be constructed in place of the existing sidewalk and along the north side of SR51. The track is proposed to include two-7' wide bike lanes, a 5' sidewalk, and a barrier. The ped-bike track is to include pavement markings and signs to separate east-west cycling traffic and to delineate a pedestrian walking space. Separation of the walking space may occur with a rolled edge-vertical grade separation, or simply with a pavement stripe marking.

The barrier protection is necessary to increase the BLOS due to excessive automobile speeds and traffic volumes during peak traffic hours. The protected ped-bike track is proposed to extend along the north side of SR51 from the Station Square roadway, under the West End Bridge and to the West Busway driveway; with an option to extend the facility to the Corliss Tunnel. *Refer to Figure 1 in Appendix– Rt.51-Separated Trail Under The West End Bridge for example of separated and protected ped-bike track.*

The protected ped-bike track would allow pedestrians and cyclists to traverse safely along West Carson Street (both east and west bound users) and travel under the high traffic conditions of the West End Bridge intersection, and not have to make any crossings along the busy West Carson Street- SR51.

Option #2 would be to change the lane configuration within the template of the 54' wide roadway. The lanes would be designed similar to the planned West Carson Street improvement project, from the West End Bridge to McKees Rocks. The planned improvement project is designed as a 38' wide road, plus sidewalk on one side. The Option #2 typical section would include two-14' outside lanes and a 10' center turning lane; providing for a 16' ped-bike track and keeping the existing sidewalk. This option will require significant traffic modeling to prove the viability for this recommendation.

Option #3 would require much greater investigation, discussion and negotiations with the private property owners, the Buncher Company. This option would consider the construction of a cantilevered deck extending into private property, over a portion of the parking lot and truck dock, connecting the 2-way ped-bike track at the West End

Description of Route Segments and Recommendations

Bridge to the Station Square Driveway. This option would require a great deal of redesign for parking and truck movement within the property, as well as significant costs for construction and property impacts. *Refer to Figure 2 in Appendix– Rt.51-Alternative at 1600 Gateway View Plaza* for example of cantilevered structure- ped-bike track.

Option #4 would be *do nothing*. This recommendation would not improve the condition for cyclists or walkers, or the bus stops located on this narrow stretch. The narrow width would require cyclist to dismount and walk as ‘pedestrians’ along the 5’ wide sidewalk; a significant length of approximately 2,000 feet to the Station Square Driveway.

The Station Square to West End Bridge Segment does not have an Alternate Route or Local Loop Route for consideration.

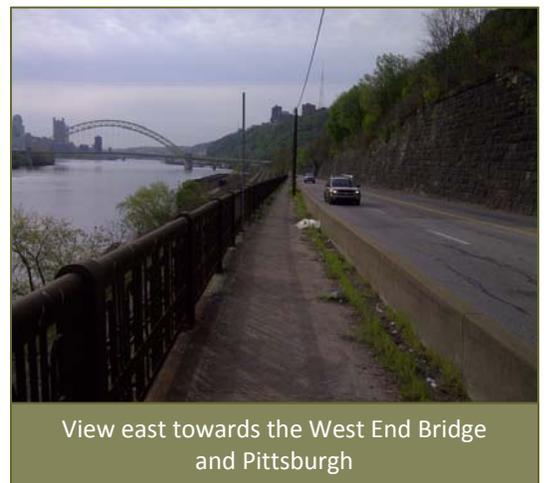
CITY OF PITTSBURGH- (SR51) WEST CARSON ST., WEST END BRIDGE TO CORLISS TUNNEL

West Carson Street (SR51), Segment Length 4,387 LF (.83 miles); Posted Speed Limit= 35 MPH; 16,000 ADT.

The existing corridor already includes sidewalk along at least one side and sometimes both sides of the roadway. PennDOT has completed new roadway plans for West Carson Street, between the West End and McKees Rocks. The alignment is along the very busy West Carson Street- SR51 corridor and includes steep cliffs, active railroads, and riverbanks all restricting alignment access.

PennDOT District 11-0 and the City of Pittsburgh just completed reconstruction designs (August 2012) for the SR51 roadway from the West End Bridge to Stanhope Street (SR51) in McKees Rocks. The roadway is designed for 35 MPH use and is composed of one east bound lane and one west bound lane, each at 14’ width, and a 10’ center turning lane for the entire length of the project.

The City is proposing a ‘Share the Road’ condition along the wide outside travel lanes. This is to include shared lane markings and signs. **It is our opinion that the bicycle level of service (BLOS) rating would remain below average for cycling due to wider automobile lanes; typically allowing for higher actual traffic speeds.** The proposed share the road condition will not increase the safety and comfort level for most users and may deter users from using this segment.



Recommendations

The preferred route recommendation would extend the above described protected ped-bike track. The track would be proposed to extend under the West End Bridge, along the north side (river side) of West Carson Street , past the signalized bus way intersection, and reach the Corliss Tunnel intersection. **This recommendation would provide for the greatest BLOS and encourage cyclists and walkers of all ages and abilities to use the system.**

Although, once reaching the bus way traffic signal options may be considered. *In our opinion the BLOS rating would still remain below average for all of these options. The safety and comfort level for most users will not improve unless a separated track can be developed.*

Option #1– Continue the ped-bike track from the west end to the bus way signalized intersection. Construction of the ped-bike track in this segment would require less construction costs and roadway impacts since the planned 10’ center turning lane space could be appropriated for much of the ped-bike track widening. The center turning lane is only needed for bus stacking westbound at the bus way traffic signal. Once reaching the bus way’s traffic signal, the Option #1 ped-bike track could become a one way, protected, cycle track westbound and a bike lane eastbound; therefore reducing the need for a cantilevered structure. The





signalized intersection would allow cyclists to cross SR 51 and access the proposed protected ped-bike track from the eastbound bike lane.

The eastbound bike lane is proposed to be 5' wide and include a three foot painted buffer space. The buffered bike lane would be constructed along the eastbound lane of SR51 from the Corliss Tunnel to the bus way intersection; then allow users to cross West Carson and enter the protected ped-bike track.

Option #2– between the bus way and the Corliss Tunnel considers provisions for a buffered bike lane uphill (westbound) and a shared lane downhill (eastbound). This option would not impact the total road template width, but would require removal and remarking of automobile lanes and adding a bike lane and share lane markings. This condition, of a buffered bike lane westbound and ‘sharrows’ eastbound, could be installed from the Corliss Tunnel to the bus way intersection with little impact to the roadway template.

Option #3– A ‘Share the Road’ condition could be constructed for both westbound and eastbound cycling between the bus way and the Corliss Tunnel; using the signalized bus way intersections to cross safely to and from the proposed protected ped-bike track.

Refer to Figure 3 in Appendix– *Rt.51-Alternative Roadway Sections* for examples of modifications to West Carson Street typical sections to accommodate of a separated and protected ped-bike track; two way track vs. one way track.

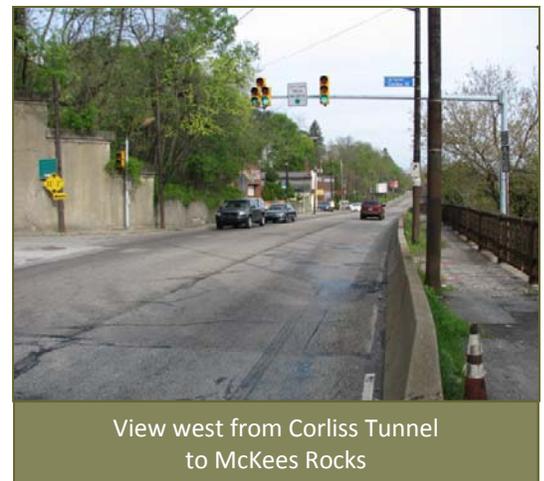
CITY OF PGH- (SR51) CORLISS TUNNEL TO MCKEES ROCKS

West Carson Street (SR51), Segment Length 5,754 LF (1.09 miles); Posted Speed Limit= 35 MPH; 16,000 ADT.

The existing corridor is narrowed by the railroad property to the north and a steep hillside/private property to the south. The current PennDOT-City of Pittsburgh plan is proposed to be an on-road route marked with SLM’s along SR 51 from the Corliss Tunnel toward Stanhope Street (SR51) at Chartier’s Creek in McKees Rocks.

Recommendations

The preferred route would be to extend the separated and protected ped-bike track from the Corliss Tunnel to McKees Rocks at Chartiers Creek. The extension of the ped-bike track to McKees Rocks would require ‘taking’ one of the two westbound lanes (along the river side of the road). Alternatives to the lane taking would require property ‘takes’, ROW and cantilevered structures at the railroad property.



View west from Corliss Tunnel to McKees Rocks

Between May of 2012 and May of 2013, this section of roadway was barricaded to a single lane westbound; and hence, functioning as listed above.

Option – an option to the preferred is enhancing the PennDOT and city proposed plan with a buffered bike lane uphill (eastbound) and a SLM downhill (westbound). The travel lanes would require a ‘road diet’ to accommodate the bike lane. Cyclists would cross at the Corliss traffic signal and separate into either eastbound or westbound routes. Walkers would use the existing sidewalk system along the south side of SR51.



View west to McKees Rocks—barricade to single lane

Description of Route Segments and Recommendations

MCKEES ROCKS 'BOTTOMS'- WEST CARSON STREET, RIVER AVENUE, HELEN STREET TO MCKEES ROCKS BRIDGE

Segment Length 6,300 LF (1.19 mile); Posted Speed Limit= 25 MPH; local streets.

The existing corridor is through the 'Bottoms' of McKees Rocks- a river community of shops, homes and churches, and light industry. The Bottoms have been cut off from the rest of McKees Rocks by active railroad lines; the only access is River Avenue at Chartiers Creek and the McKees Rocks Bridge. Another corridor through McKees Rocks is along SR51- Stanhope, Chartiers, Linden, Island Avenue- a busy roadway and truck route.

Recommendations

The municipal preferred route through McKees Rocks is to use River Avenue through the 'Bottoms' and the ramp connection to West End Bridge. The route extends from West Carson Street over the Chartiers Creek Bridge and turns right onto River Avenue. The on-road connector route traverses under the railroad overpass and into the Bottoms. The preferred route follows Helen Street into the business district, turns into a parklet (green space) along the bridge ramp- does not enter the intersection of the bridge ramp and bridge underpass- and accesses the West End Bridge ramp via Munson and George Streets.

Improving infrastructure for walking and cycling in an 'underserved' community would benefit all citizens and provide more people with access to work, shops & services; and increase the livability of Pittsburgh's west end communities.

This will place you on the westbound sidewalk of the bridge. The McKees Rocks Bridge links to the south shore and SR51 westbound. The McKees Rocks Bridge also offers access to the north shore trail system toward Pittsburgh. Helen Street and River Avenue would be marked as a 'share the road' condition with bike SLM's and signs to alert motorists and to direct trail users. *Refer to Figure 5 of Appendix, Bicycle Routes- At 'The Bottoms'.*

The local loop route would extend along Robb, Shingiss, Sproule, Hamilton and Ella Streets to connect to the local park and neighborhood homes. These roads are low volume, and low speed and would be ideal for on-road cycling to connect homes, shops, and points of interest.

The local loop route into McKees Rocks extends along Chartiers Avenue through the Shoppes at Chartiers Crossing and stops when reaching the signalized intersection of Linden and Furnace. *Refer to Appendix for the extension of a route along Chartiers Avenue; Figure 6, Local Loop Route - Shoppes at Chartiers Crossing.* Future efforts are recommended to extend the local loop route into the business district of McKees Rocks. Users could cross safely at the signalized intersection and enter the business district. Future development of an on-road bike route is recommended to be planned once the main street project is completed.

Gateway and Destination Signs-

Gateway and destination and wayfinding signs are recommended at the intersections West Carson and Stanhope and at Furnace and Linden, offering trail users travel choices and directions to shops and services.

Other opportunities include the following:

➤ **Trailhead Parking**

Trailhead parking areas may include the following locations with permission by landowners:

- Eat-n-Park Restaurant parking lot, southwest corner of the parking lot
- Trinity Development's Chartiers Creek Crossing Shoppes, creek side of parking lot





- Parking lots south of Furnace Street
- The Bottoms
 - » Munson Municipal Park- the parking lot opposite the park
 - » Rangers Field parking- off of Shingiss Street
 - » On street parking (Munson, Nichols, Helen, Olivia)



1 parking space can be parked with 10 bikes – that is 9 additional customers



Trailheads should be situated in locations where trail users can spend money on food, water, small items needed for commuter and weekend/recreation rides.

➤ Development Opportunities

McKees Rocks also has multiple bus stop locations, river access points (Ohio River and Chartier's Creek) and opportunities for redevelopment.

- **Redevelopment of Railroad Property:** The proposed Trinity Commercial Development project for light industrial and warehousing space is a great opportunity to re-connect the community street grid and include all modes of transportation into the design. A walk-able and bike-able community offers multiple transportation choices to all citizens regardless of socio-economic status. We recommend that town council approve a *Complete Streets Policy* directing all new construction and reconstruction of roadways to be designed for safe travel by all (peds, bikes, automobiles).
- **McKees Rocks Welcome Center:** A proposal by Trinity Commercial Development is for the construction of a 5,000 gross square feet, two story building that could house a first floor welcome center office and vendor spaces with a potential for bike and boat rentals below, and office space above. The facility could act as a trailhead, river access, and vendor space for food, services, and rentals. *Refer to Figure 7 of Appendix, Parcel Redevelopment Concept at Chartiers Avenue.*
- Kim Perl, AGF property co-owner, presented a possible opportunity for reuse of a railroad locomotive. This may be relocated at a trailhead and used as an interpretive artifact.

➤ Community connections

- **Father Ryan Community Arts Center**– central to the community as a center for education, art and culture, this facility could be used as a catalyst for cycling tours, fund raisers and education sessions to promote bicycle safety and safe routes to school programs.
- Local artisans and craftsman could be employed to create bicycle corrals, bike racks & lockers and artwork to enhance the community spaces and transit stops.

Description of Route Segments and Recommendations

STOWE TOWNSHIP- LOCAL ROADS OFF OF MCKEES ROCKS BRIDGE TO ISLAND AVENUE (SR51) AND FLEMING PARK BRIDGE

Segment Length 8,100 LF (1.53 miles); Posted Speed Limit= 25 MPH on local streets (NIC McKees Rocks Bridge)

The preferred route exits the McKees Rocks Bridge along the west sidewalk, and is proposed to travel down a future steel ramp system to the lower streets of O'Donovan, Page, Robinson and Margaret before reconnecting with Island Avenue (SR51). This part of the preferred municipal alignment guides users around the busy section of Island Avenue (and future industrial park entrance at Bradley Street), McKees Rocks intersection and the Tunnel Way approach. *Refer to Appendix, Figure 10, Route – At the McKees Rocks Bridge.* The alignment then links back to Island Ave at Margaret Street.

The preferred route traverses SR51 between Margaret Street and Duke Street; this section of SR51 is curbed and includes sidewalks and parallel parking spaces being used sporadically in segments along the north and south road shoulders. From Duke Street to the Fleming Park Bridge (the bridge to Neville Island) the roadway includes wide paved shoulders along each side. Commercial and residential properties are located along the north shoulder and, for the most part, the south shoulder is against a steep wooded hillside.



Recommendations

The preferred route will require a substantial structure to allow users to ramp up and down from the lower local streets to the bridge sidewalk system. This structure could be constructed in the area adjacent to the southwest bridge abutment/retaining wall; and a similar construction to a steel structure with a poured concrete deck at Washington's Landing. Land acquisition and structure engineering would be required.

The preferred route extends along SR51 from Margaret Street toward the Fleming Park Bridge at Neville Island as on-street bike route.

Improvements from Margaret Street to Duke Street are recommended as a share the road condition for both eastbound and westbound cyclists. The 32'-35' wide road corridor is to be signed as a bike route and marked with shared lane pavement markings 'sharrows' in the travel lanes. This recommendation will allow for parallel parking along the south shoulder (at the residences) and maintain the travel lanes. The road is to be remarked with line striping to delineate 2-11.5' minimum travel lanes and parallel parking along the south shoulder.

SR51, from Duke Street to the Fleming Park Bridge, widens to 2-lanes of 11.5' each including wide 8' plus shoulders along each side of the road. At this location, the pavement markings are recommended to be shifted south to maintain the travel lane widths, provide for a 5' wide bike lane eastbound and a wide shoulder along the commercial and residential side of the road (north shoulder). Westbound cyclists would share the road; the road is recommended to be marked with 'sharrows'. This would allow cyclists the ability to travel up-hill from the Fleming Park Bridge in the bike lane; the bike lane is to be marked as 'No Parking'. *Refer to Figure 12 of Appendix, Island Ave.– East of Fleming Park Bridge.* Westbound cyclists would share the travel lane and, or, use the wide shoulder.

The **intersection with the Fleming Park Bridge** is recommended for improvements to allow cyclist to dismount and enter the sidewalk, or to share the road and traverse the bridge onto the island. A curb cut is recommended to allow cyclist access to and from the sidewalk. Bicyclists using the sidewalk would be signed to 'dismount and walk' as a pedestrians due to the narrow sidewalk width and potential for two-way ped-bike traffic.





Currently, the Southwest Planning Commission (SPC) rates the route along Island Avenue and Robinson Boulevard as above average for experienced cyclists.

The alternate route would offer cyclist traveling west to enter Fleming Avenue once passing Duke Street. This is a, low traffic, neighborhood road connecting Fleming to Glenn and then back to Island Avenue at the Fleming Park Bridge.



View west toward Fleming Park Bridge

- Grand Avenue, east of 4th Street- 2,527
- Coraopolis Bridge- 13,888

The existing 48’ wide Neville Road includes 2-12’ westbound and 2-12’ eastbound lanes divided by a 4’ concrete median, and includes 8’ paved road shoulders.

Grand Avenue is a 4 lane road, 2, 12’-westbound lanes and 2, 12’ eastbound lanes. Grand Avenue is posted at 25mph and includes a sidewalk along either the north or south side of the road.

Recommendations

The preferred route recommendation is proposed to be an on-road system extending through Neville Island using Neville Road and Grand Avenue to reach Coraopolis.

Options for pedestrian & bikeway improvements to include:

- Reconstruct the existing roadway shoulder as a bike lane and walking lane. The shoulder is recommended to be improved by resurfacing the area to create a smooth lane with 2% cross-slope; walkers would use the outside shoulder. The lane is to be signed for No Parking. Future maintenance of the bike lane would be required to keep clear of rocks and debris. *Refer to Figure 13 of Appendix, Neville Road.* This image delineates shoulder improvements to create a bike/walk lane at both sides of the road.
- A ‘road diet’ and the installation of 4’ bike lanes on each side of the road is the second option. The road lanes would be repainted to 11’ wide each- still providing four lanes of traffic, a median, and road shoulders. The bike lanes would be constructed to overlap 2’ of the road and 2’ on the shoulder; walkers would use the shoulders.

The alignment would travel Neville Road to Second Street. At Second Street walkers and cyclists would be signed to turn right and travel to the signalized intersection of Second and Grand Avenue. Walkers would use the existing sidewalks. At this intersection users could safely cross Grand and continue westbound travel.

NEVILLE ISLAND- NEVILLE ROAD AND GRAND AVENUE (COUNTY ROADS)

County Road, Segment Length 24,636LF; 4.67 miles, Posted Speed Limit = 25 MPH.

Neville Road is a County roadway surrounded by several industrial properties, and includes automobile and sometimes heavy truck traffic during the week. Grand Avenue changes from industrial properties to commercial and residential as it reaches west. Traffic counts are provided below.

The ADT counts are as followed (Allegheny County 2005 source data):

- Fleming Park Bridge- 21,037
- Neville Road, East of 1st Street- 16,522
- Grand Avenue, East of I-79- 16,494



View west along Neville Road



View of cyclist at I-79 intersection & Grand

Description of Route Segments and Recommendations

Eastbound cyclists traveling along Grand Avenue would pass under Interstate-79 (I-79) and continue right onto Neville Road at the Neville-Grand road split. Walkers would be directed to the northern side of Grand Ave at the I-79 off ramp, at the signalized intersection with Nebraska Street. Walkers can then travel the sidewalks to the Second Street signalized intersection.

The route is proposed as a share the road condition along Grand Avenue. *Refer to Figure 14 of Appendix, Grand Ave. West of I-79 Interchange.* This figure shows shared lane markings, share the road sign and bike route signing. Parking would be allowed along Grand to accommodate current residential use. Users would either ride the shoulder or the travel lane, depending on individual comfort and experience and road and shoulder use.

Intersection improvements include:

➤ Fleming Park Bridge

The northwest end of the Fleming Park Bridge requires pedestrian crossing improvements at the Calgon driveway and signalized intersection. Improvements are recommended for both pedestrians and cyclists.

Eastbound cyclists could cross Neville Road at the existing signalized intersection and use the sidewalk; or share the road and traverse the bridge with traffic. Cyclists would be signed to walk if using the bridge sidewalk.

Recommended improvements at Fleming Park Bridge (County Road- Neville Road) include:

Crossing Improvements at West end- (Neville- ‘on the island’)

- ADA upgrades at shoulder and curb ramps
- Push buttons
- Countdown pedestrian signal heads
- Pavement markings
- Ahead and crossing signs (to alert motorists for peds and bikes at crossing)

Cycle improvements would include a widened curb ramp to access the bridge sidewalk and signs to ‘dismount and walk bikes’. The bridge is recommended to be marked with share the road pavement markings (‘sharrows’) and signed- Share the Road, and as a bike route.

Crossing Improvements at East end- (Stowe Twp, existing 4-way stop condition)

- ADA upgrades at shoulder and curb ramps
- Pavement markings
- Ahead and crossing signs (to alert motorists for peds and bikes at crossing)

- Other intersection improvements are recommended at Second Street/Grand Ave. to upgrade the curb ramps, crossings, pedestrian signals and push buttons. Intersection improvements are also recommended at the Interstate-79 ramp signalized intersections. *Refer to Opinion of Probable Costs- Intersection Improvements.*

The **alternate route** is proposed along Grand Avenue, east of I-79. This route is proposed to be marked as an alternate route and serve to connect the island community together. The alternate route is best used on weekends when truck traffic and industrial work is off-peak. This route was not chosen as the preferred route due to truck access into adjacent industrial sites and truck turning movements, several driveway curb cuts, parked cars along road shoulders, and rail spurs crossing the alignment.





➤ **Trailhead Parking**

Trailhead parking areas may include the following locations with permission by landowners:

- Proposed Municipal Park along back channel of river, off of Grand, east of I-79.
- Port Authority Park-N-Ride under I-79 Bridge; with direct access to food, lodging, bus service, and with an overhead cover with parking.
- RMU Sport Center- west side of Coraopolis Bridge (former batting cage area)

A proposed development for new riverfront is east of I-79 Bridge/ramp. This is an opportunity for a connection to river access, and extension of the local loop system. The Aliquippa and Ohio RR and local adjacent landowners are players in this project being pursued.

Local loops are proposed along Neville Islands back roadways and at Robert Morris University (RMU) Sports Center river walk and trail.

Currently, SPC rates the route along Neville Island, Neville Road and Grand Avenue, as above average for experienced cyclists.

CORAOPOLIS- (SR51) FOURTH AND FIFTH AVENUES

Westbound SR51 is called Fourth Avenue, Segment Length 5,141 LF, Posted Speed Limit = 35 MPH; 9300 ADT.

Eastbound SR 51 is called Fifth Avenue, Segment Length 5,123 LF, Posted Speed Limit = 25 MPH; 9000 ADT.

Fourth Avenue is a 40' wide road and includes 2-lanes of one way traffic and parallel parking on both sides of the road.

Fifth Avenue is a 36' wide road and includes 1-lane of one way traffic and parallel parking on both sides.



View west at Fourth Avenue & Ferree Street



BicyclePA Route-A at Fourth Ave

Note that in Coraopolis, **BicyclePA Route-A** currently extends from the Montour Trail onto SR51 as an on-road bike route. The route follows SR51 and the Ohio River north-west into Moon Township.

BicyclePA Route-A

BicyclePA Route A is a signed, on-road, state bike route extending north and south through western Pennsylvania, from Erie County to Greene County. There are eight other state routes signed across the commonwealth. The Montour Trail is signed as South BicyclePA Route-A. BicyclePA Route-A is currently signed to direct

users from SR51 to the Montour Trail at State Street.

Recommendations

The preferred route recommendation is proposed to be an on-road system extending westbound along Fourth Avenue from the Coraopolis-Neville Bridge to Watt Street; eastbound travel will be along Fifth Street from Watt Street to Ferree Street. At Watt Street the proposed routes connect to the Ohio River Trail extending into Moon Township and the ORT North Shore Trail.

Parking is to remain on both the eastbound and westbound routes to support the residential and business uses along the corridor. The bikeway improvements include recommendations for traffic calming measures (road diet with delineated traffic lanes at 11' wide, marked parallel parking spaces at 7'x22' and marked centerlines, and pedestrian

Description of Route Segments and Recommendations

bump-outs and refuge islands at crossings where appropriate), signing for 'share the road', and SLM's along both Fourth and Fifth Avenues. The location of the sharrows should consider the proximity to parked vehicles and be installed clear of car doors. *Refer to Enhancement Rendering, Figure 15 of Appendix, 5th Street Bike Route.*

Intersection Improvements

There are six signalized intersections along Fourth Avenue: Coraopolis Bridge/Ferree St., Broadway Street, Mulberry, Mill, Main and Watt Street. There are five signalized intersections along Fifth Avenue: Main Street, Mill, Broadway, Montour, and Ferree Street. Each crossing is an opportunity to implement traffic calming measures and improved pedestrian safety and accessibility.

Refer to example image of crossings- note the visibility of markings, green bike lane/bike box, refuge islands for ped safety; these all improve safety and add to traffic calming.

The Coraopolis Bridge intersection (Fourth Ave./Ferree St.) is proposed for pedestrian and bikeway improvements by upgrading the pedestrian signals and adding curb ramps for peds and bikes to access the east sidewalk and the proposed connection to Montour Trail via the Montour Junction Sports Complex Property.



Montour Trail Connection

The bikeway on-road system is proposed to connect to the off-road Montour Trail system via the Montour Junction Sports Complex at the Coraopolis Bridge- the intersection of Ferree Street and Montour Street.

The alignment would enter the sports complex from traffic signal at Ferree Street/Coraopolis Bridge. Travelers coming from Neville Island would turn right at the signal and right again at Montour Street and enter the complex from under the bridge. Travelers exiting the complex would ramp-up to the signaled intersection and continue west along Fourth Avenue or east and traverse the Coraopolis Bridge.

Connections to the Coraopolis Bridge are from the intersection and ramp and as underpass. The underpass would connect the Montour Trail to Montour Street and then to BicyclePA Route-A (Fourth Ave) going west toward Moon. The ramp would connect the Montour Trail to the Coraopolis Bridge sidewalk and extend the system onto Neville island and east toward Pittsburgh. Constructing both the underpass and the ramp would eliminate the need to cross the roadway. We believe this offers trail users the safest alignment possible by providing access to-and-from the existing sidewalk at the Coraopolis Bridge (the sidewalk is only on the east side of the bridge). *Refer to Appendix, Figure 16, Connections to the Montour Trail.*

The **local loop route** proposes to guide pedestrians and bicyclists towards the Ohio River along Broadway Avenue and to the community green space at First Avenue. The route would continue west along First Avenue to Main Street and back towards Fourth Avenue.

The local loop utilizes both on and off-road systems and connects to the Ohio River Trail. The local loop would be signed for local travel destinations- connecting users to points of interest, shops, parks, river access, and offering lower ADT routes through the community.

The Main Street and Broadway Street **alternate routes** are proposed to continue south through Fifth Avenue and intersect with State Street. State Street is a lower volume and slower traffic corridor that would offer an alternate route to PABicycle Route-A. State Street is adjacent to neighborhood homes and directly links residential to commercial use in the town- part of the local loop system. State Street can be signed to direct





cyclist to the shops and services at Fifth and Fourth Avenues. Proposed locations for these wayfinding signs are at Mill Street, Mulberry, Broadway, and Chestnut Streets.

The local loop and alternate route systems would be signed as ‘Share the Road’.

➤ **Development Opportunities**

An opportunity exists for the redevelopment of riverfront property near the Coraopolis Bridge. This property can be made viable if Third Street can be reopened and the parcel is provided with access. The benefits are many to the community including a new development, river access, increased property value and tax base, and recreation and community connection opportunities. This future property can be linked to the Three Rivers Heritage Trail system and connected to the Montour Trail and the Montour Junction Sports facility.

Coraopolis has the potential to become a successful trail town.

With its proximity to the Montour Trail, the Montour Junction Sports complex, Robert Morris University, and at the nexus of the Three Rivers Heritage Trail Connector and the Ohio River Trail, Coraopolis should do all it can to become a bicycle friendly community (BFC), and begin to benefit from increased economic opportunities related to trail towns.



We recommend Coraopolis conduct a trail town master plan and apply for BFC status.

➤ **Trailhead Parking**

Trailhead parking areas may include the following locations with permission by landowners:

- Former railroad station and Main St
- Business parking areas (after hours) near former RR station and Main St
- Business parking areas (after hours) near former RR station and Mill Street
- Saturday negotiated parking only- Church at Broadway