Stantec

NEWPORT
Two-Way Feasibility Study

Item No. 6-377
Campbell County, Kentucky

SEPTEMBER 2024

TEAM KENTUCKY®
TRANSPORTATION CABINET

Executive Summary

The City of Newport's 2015 Comprehensive Plan recommended to further evaluate converting Monmouth Street, one half of the US 27 one-way couplet through Newport, to a two-way street in line with trends for successful main streets.[1] The Kentucky Transportation Cabinet (KYTC) and the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) initiated this *Newport Two-Way Feasibility Study*, KYTC Item No. 6-377, to determine the feasibility of converting the one-way couplets of Monmouth / York Streets and 4th / 5th Streets in Newport, Kentucky to two-way operation.

Existing Conditions

The study area, shown in **Figure ES-1**, includes the one-way street couplets of Monmouth / York Streets (between 3rd Street and 11th Street) and 4th / 5th Streets (between the KY 8 roundabout and Washington Avenue). This area encompasses Newport's Central Business District, a major component of the urban core and a focus for redevelopment within northern Kentucky.

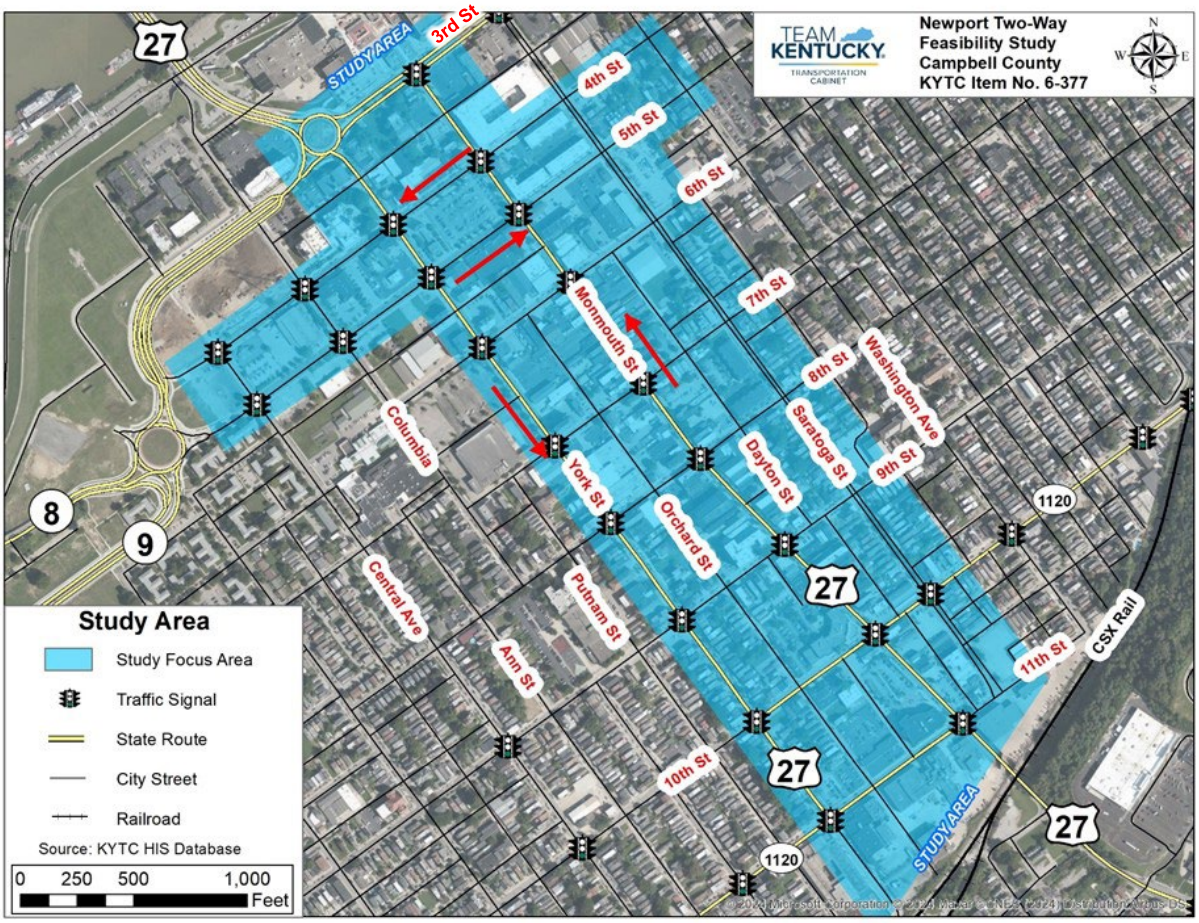

Figure ES-1: Study Area

[1] https://www.newportky.gov/DocumentCenter/View/306/Comprehensive-Plan---2015-Update-PDF

4th and 5th Streets are east-west urban minor arterials, providing access to mostly local businesses and homes in Newport. Monmouth and York Streets comprise US 27, a major north-south arterial between northern Kentucky and Cincinnati, Ohio. Because of this connectivity, Monmouth Street and York Street serve dual roles: they provide access to local businesses / homes and serve as an artery for regional through traffic. Through downtown Newport, York and Monmouth Streets are lined with commercial businesses, with sidewalks and on-street parking on both sides of the roadway. South of 11th Street, the US 27 one-way couplet (via 11th Street) combine to become a two-way, four-lane road serving a mix of residential and commercial areas. To the north, Monmouth and York Streets combine (via 3rd Street) at the Taylor Southgate Bridge to carry US 27 as four lanes across the Ohio River to Cincinnati.

York and Monmouth Streets have posted speed limits of 25 miles per hour (mph) through the study area while 4th and 5th Streets have speed limits ranging from 25 to 30 mph. Monmouth Street carries 7,100 (2021) vehicles per day (VPD) and York Street carries 4,300 (2022) VPD through the study area. 4th Street carries between 2,400 (2022) and 4,300 (2016) VPD and 5th Street carries between 3,400 (2018) and 5,900 (2021) VPD through the study area. Results from a traffic simulation model analysis revealed that these one-way couplets currently operate at an acceptable Level of Service (LOS) during the weekday peak hours of operation.

Anticipated developments in the study area are expected to increase traffic in the future. Additionally, regional traffic between northern Kentucky and Cincinnati is expected to continue to grow on York and Monmouth Streets. Future year (2035) weekday peak hour traffic simulation model scenarios were developed using the forecasted volumes and maintaining the existing traffic operations (i.e. one-way couplets). All intersections are expected to operate at LOS C or better during both the AM and PM peak hours under the 2035 No-Build scenario.

Kentucky State Police Crash data were collected in the study area for the five-year period between 2018 – 2022. Over the course of the five years, a total of 654 crashes were reported in the study area, one of which resulted in a fatality and 41 resulted in an injury, including serious injuries, minor injuries, and potential injuries as categorized by the responding officer. The fatality occurred at the intersection of Monmouth and 5th Streets in 2020 and involved a single vehicle disregarding traffic control and speeding while trying to evade police, resulting in the deaths of two pedestrians sitting at an outdoor dining area. The most common crash type was sideswipe with 234 (36 percent) followed by angle collisions with 167 (26 percent). There were 16 bicycle and / or pedestrian crashes reported in the study area over the five-year period. These crashes generally occurred at intersections but were not concentrated at a particular location.

Local Official / Stakeholder Outreach

Over the course of the study, the project team met with local officials to provide information and to solicit input on transportation concerns and gauge the level of support for two-way conversion. **Overall, feedback from the local officials indicated support for conversion of Monmouth and York Streets to two-way operation**, but they preferred 4th and 5th Streets to remain one-way. The top three concerns identified by local officials were loss of parking, impacts to and need for loading / unloading zones, and increased travel times.

Top 3 Concerns Identified by Local Officials

1. **Loss of Parking**
2. **Loading / Unloading Zones**
3. **Increased Travel Time**

Improvement Concepts

Two-way conversion concepts included:

Two-Way Conversion of 4th Street and 5th Street from KY 8 to Washington Avenue, as shown in **Figure ES-2**.

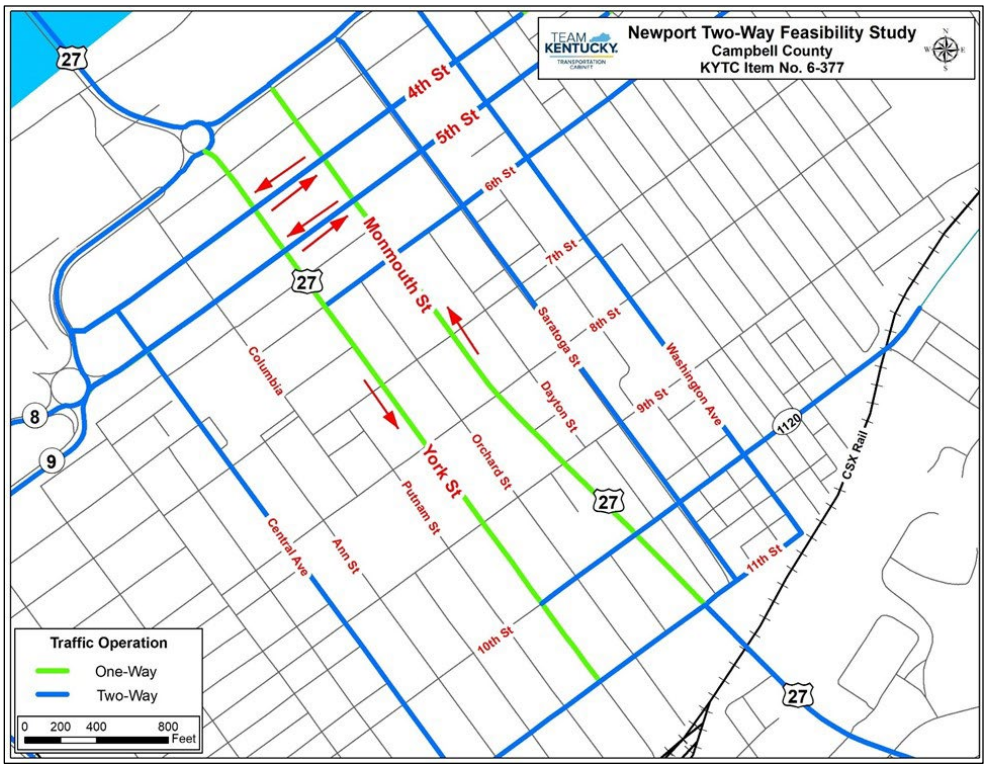

Figure ES-2: Two-Way Conversion of 4th Street and 5th Street

Two-Way Conversion of York Street and Monmouth Street from 3rd Street to 11th Street. This concept includes restriping the existing pavement to include one lane in each direction and left-turn lanes at multiple intersections along each corridor. There are two options for York Street between 3rd and 4th Streets:

A. Two-Way Conversion without a northbound York Street connection to the roundabout. Because this connection would involve a separate project to widen York Street at the roundabout approach to accommodate northbound traffic, it is omitted in this option. Under this scenario, York Street would simply remain one-way between 3rd and 4th Streets, as shown in **Figure ES-3**.

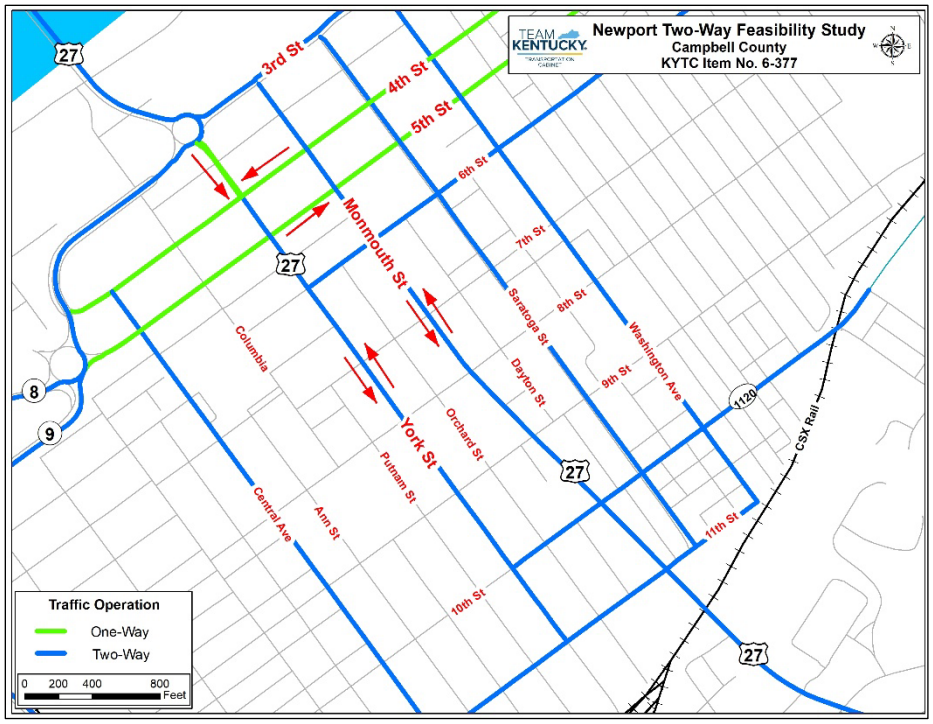

Figure ES-3: Two-Way Conversion of York Street and Monmouth Streets - no northbound York Street connection to roundabout

B. Two-Way Conversion with a northbound York Street connection to the roundabout. Under this scenario, the York Street approach to the 3rd Street roundabout would be widened to two lanes, as shown in **Figure ES-4**.

Figure ES-4: Two-Way Conversion of York Street and Monmouth Street with northbound York Street connection to roundabout

Based on results from the traffic simulation model analysis, all intersections are expected to operate at LOS C or better during the 2035 peak hours if 4th / 5th Streets and York / Monmouth Streets were converted to two-way streets.

Conclusions

The objective of the Newport Two-Way Feasibility Study was to determine the feasibility of converting the one-way couplets of Monmouth Street / York Street (between 3rd Street and 11th Street) and 4th Street / 5th Street (between KY 8 and Washington Avenue) to two-way streets. This study concluded these two-way conversion options are feasible; however, they do present some challenges:

- **Maintenance:** Monmouth Street would remain US 27 and York Street would be converted to a city street and require the City of Newport to perform future maintenance.
- **Parking:** A preliminary survey of on-street parking within the study area showed that 39 of the 368 (11 percent) dedicated parking spaces could be eliminated if Monmouth and York Streets are converted to two-way operation. Most of the loss is due to moving stop bars back at intersections to accommodate turning movements and constructing left-turn lanes.
- **Truck Loading and Unloading:** Currently, delivery trucks double-park in the driving lanes on Monmouth Street to load and unload. This marginally impacts traffic operations because drivers can use the other driving lane to navigate around the truck. Under a two-way conversion scenario, such temporary double-parking would be unacceptable. Zones could be established which permit loading and unloading at certain times of the day when deliveries would be expected, but also allow parking at other times when demand for on-street parking is higher.
- **Traffic Signal Infrastructure:** The traffic signals are routinely attached to existing utility poles on York Street. KYTC prefers dedicated traffic poles. In some cases, this may require utility relocations due to limited right-of-way. Additionally, the condition of the existing mast arm traffic signal poles on Monmouth Street is unknown and would require inspection for structural integrity before additional signal heads could be installed.

Table ES-1 presents cost estimates for each option. The cost estimates assume that the two-way conversions would coincide with a scheduled resurfacing so the striping and pavement markings could be updated to reflect two-way operations. The conversion of York and Monmouth Streets to two-way operation could be implemented with or without converting 4th and 5th Streets to two-way. Local Officials indicated a preference for keeping 4th and 5th Streets one-way. Similarly, the conversion of York and Monmouth Streets could be implemented with or without converting York Street to two-way between 3rd and 4th Streets.

Table ES-1: Cost Estimates (in 2024 $)

Description	2024 Cost Estimates				
	Design [1]	ROW	Utilities [2]	Construction [3]	Total
Two-Way Conversion of Monmouth Street and York Street	$200,000	$0	$100,000	$1,100,000	**$1,400,000**
Two-Way Conversion of 4th Street and 5th Street	$100,000	$0	$100,000	$700,000	**$900,000**
Two-Way Connection to York Steet Roundabout	$100,000	$0	$100,000	$200,000	**$400,000**
Total	**$400,000**	**$0**	**$300,000**	**$2,000,000**	**$2,700,000**

[1] Design cost estimates include: traffic signal plans, signage plans, and striping plans.
[2] It is assumed that some utilities may need to be relocated at the utility company's expense. The utility cost estimate is for utility coordination.
[3] The construction cost does not include costs for resurfacing the road. It is assumed the two-way conversion would coincide with a scheduled resurfacing project.

Next Steps

The next step following this study for any potential improvements would be Phase 1 Design (Preliminary Engineering and Environmental Analysis). Further funding will be necessary to advance an improvement to the design phase as additional phases of this project are not funded in *Kentucky's FY 2024 – FY 2030 Enacted Highway Plan*.