# **Bike Lanes/Cyclists**

Has PennDOT considered making the Route 462 Bridge a pedestrian/bicycle bridge only? Yes, PennDOT considered the option of making the Columbia-Wrightsville Bridge a bicycle/pedestrian-only bridge; however, PennDOT does not operate such facilities, and the bridge's future ownership and maintenance responsibility would need to be transferred to another agency or the local municipalities; none of which have indicated willingness to take this responsibility. It is also important to note that the existing bridge would still require significant and costly repairs in an estimated amount approaching \$60 to 100 million, not only to support the use of bikes and pedestrians, but also to support access for still-needed work vehicles, such as for lighting, maintenance and inspection, public utilities, and EMS vehicles, to name a few. This alternative would also require a stand-alone new modern vehicle bridge, which would add significant cost and would create additional adverse environmental impacts. Therefore, making the Route 462 Bridge a pedestrian/bicycle only bridge was dismissed.

We have concerns about cyclists' safety. Could rumble strips be installed to alert drivers if they are drifting into the bike lane?

PennDOT does not employ a practice of installing rumble strips on bridge decks due to the degradation and future maintenance issues that can arise on what is intended as a long-term investment, requiring limited maintenance and associated costs. Additionally, because of this project's anticipated bridge construction methods, a low-depth concrete overlay surface will be constructed over the numerous prefabricated deck pieces that will be connected like a puzzle. The overlay will cover all the joints, making them invisible and creating a smooth riding surface. Grinding rumble strips into a newly paved overlay depth while capturing water or debris would make it highly susceptible to deterioration in future years, which is undesirable.

#### Why do the bike lanes end before the end of the bridge?

The bike lanes end at a logical intersection terminus at each end of the bridge, as appropriate, to tie into share-the-road networks or trail network connections, as applicable.

Debris is a concern for cyclists. Is there a plan to ensure the bridge's riding surface is free of debris? Columbia Borough has previously committed to a more frequent sweeping of the bridge post-construction in the interest of cyclist/pedestrian usage.

Could a lightweight pedestrian/bicycle bridge be built on the old piers upstream of the existing structure to ensure continuous access during construction and promote long-term recreation? PennDOT has considered the possibility of a dedicated pedestrian/cycling bridge either on top of the existing old railroad piers or in a new location; however, either is very cost-prohibitive, and the ownership and future maintenance responsibility would need to be borne by an entity other than PennDOT. Neither the municipalities nor Pennsylvania Department of Conservation and Natural Resources (DCNR) are willing to maintain a new facility. The current bridge rehabilitation design

functionally meets the project needs for all three travel modes (vehicular, bicycles, pedestrians) and at a lesser cost than two separate structures.

Is it possible to have one bike lane instead of two for safety?

The project team has evaluated numerous configurations of bike lanes with DCNR, counties, and municipal representatives, among others. The configuration, as designed, was the best, balanced approach agreeable to the parties and received a generally favorable public response.

Can the bike lanes be painted green, or should bollards or other safety measures be placed on the bridge between bike lanes and vehicular traffic lanes?

The project team has evaluated numerous bicycle lane treatments with DCNR, counties, and the municipalities, and what was presented at the public meeting was agreed upon by the collective stakeholders. The cost of green paint based on the surface area need for two bike lanes on a 1.26-mile-long bridge was determined to be cost prohibitive. PennDOT committed to maintaining on the bridge a two-foot buffer striping between the bike lanes and vehicle lanes, white bicycle symbol pavement markings within the bike lanes, and any associated trail signing. This was agreed upon during meetings with Columbia and Wrightsville Boroughs and West Hempfield Township. The Boroughs are responsible for maintaining any project installed bicycle pavement markings and associated signs beyond the dedicated bike lane termination points at 2nd Street in Columbia Borough and Route 624 (Hellam Street) and North and South 2nd Streets in Wrightsville Borough and to the parks and trails located on each shore. Placing flexible delineators or similar vertical features on the bridge to further demarcate bike lanes would require continuous maintenance, which is not practicable.

## **Motor Vehicles**

Is there a safety concern about the roadway lanes only being 11 feet wide? Eleven-foot travel lanes are the design standard for roads of similar speed and traffic composition throughout the State. The existing 19-foot lanes configuration are outside the norm and well above the current recommended design standards. It should also be noted that the roadways on each side of Columbia and Wrightsville revert to a more normal travel lane width much less than 19 feet. Therefore, the narrowing of approximately 1.26 miles of lane width on the bridge to 11 feet creates a more consistent travel pattern for motorists, while also accommodating bikes and pedestrians more functionally and safely.

Can the speed limit for the bridge be reduced to 35 MPH?

PennDOT plans to keep the speed limit at its present posting of 40 mph for the current design. PennDOT may consider lowering the speed limit after the project is completed. At that time, a speed study can occur to verify if the narrower lanes reduce the actual driving speeds of motorists.

## **Route 30 Incident Management/Detour**

There are frequent traffic incidents causing delays on Route 30. What is being done to ensure a timely response if the Route 30 bridge needs to be closed?

PennDOT has worked with the local and regional emergency responders and surrounding municipalities to develop an Incident Management Plan for Route 30 when the bridge is closed as

the result of a crash. PennDOT has also completed early action safety improvements along the corridor to better accommodate and mitigate these unfortunate situations. The Design Team intends to revisit the plan with the municipalities and EMS entities during the 2025 Final Design phase to incorporate any updates.

Can one of the local municipalities be given control of opening the contraflow gates on Route 30 to save time? No. PennDOT will make the determination to open the contraflow gates. The event must be a major incident anticipated to require closure that lasts several or more hours. PennDOT will also need to monitor considerations such as weather, time of day, and other factors before exercising its use.

PennDOT's maintenance staff from Lancaster and York Counties are committed to providing appropriate traffic control setup in accordance with an approved Incident Management Plan should a contraflow scenario be enacted.

A significant quantity of signage, cones, and devices occurring over several miles must be placed before the gate/crossover can even be opened. These traffic control devices must be installed simultaneously on both sides of the bridge in Lancaster and York Counties. Opening the contraflow operation would be the last task and handled solely by PennDOT.

Due to the traffic setup requirements, PennDOT policy, and liability reasons, PennDOT must be responsible for its infrastructure and traffic control efforts.

Will the primary detour from the Columbia-Wrightsville bridge take me significantly out of my way? The proposed detour route using Route 30 is the closest route that can be implemented and is approximately 4.5 miles.

#### Can trucks be permanently kept off Route 462?

PennDOT cannot restrict trucks on state roads except for safety reasons, such as a deficient bridge condition, as is currently the case for the 10-ton weight restriction posting on the Route 462 bridge. Trucks of various sizes account for approximately 5% of all traffic on Route 462. They will need to continue using the rehabilitated Columbia-Wrightsville Bridge in the future to make local deliveries and business trips.

# Will PennDOT monitor the traffic coming down the hill into Columbia from the Route 441 interchange?

Prior to construction, the project team will complete traffic counts and recommend signal retiming, adding temporary signals, or making other necessary traffic and safety improvements at key locations along the entire primary detour route. Observation and signal readjustments will also occur during construction when warranted.

Traffic tends to back up at Route 462 and Cool Creek/North 9th Street intersection in Wrightsville. Will PennDOT monitor traffic flow during construction?

For the specifically mentioned Route 462 and Cool Creek/N 9th intersection, separate turning phases, retiming, and other improvements will be considered for the signal during final design of the project. To assist traffic flow, a temporary signal is also planned at the Route 30 westbound exit ramp at the 462 Wrightsville/Cool Spring Road exit.

# Roundabout in Wrightsville

Roundabouts seem dangerous. Are there other alternatives?

Roundabouts have statistically been proven to reduce the quantity and severity of crashes (Refer to FHWA Proven Safety Countermeasures links below), and in this instance, will additionally be serving to improve many other aspects at the intersection, like speed reduction, re-establishing turn movements, eliminating sight distance deficiencies, improving mobility and safety for bikes and pedestrians, while also providing the opportunity to create an aesthetically landscaped gateway effect. Other alternatives were originally considered, but only the roundabout fully met the project purpose and needs at the Route 462/2<sup>nd</sup>/Hellam Street intersection in Wrightsville Borough.

https://highways.dot.gov/safety/intersection-safety/intersection-types/roundabouts https://highways.dot.gov/safety/proven-safety-countermeasures/roundabouts#psc-footnote

When will the roundabout be built?

The roundabout will concurrently be built within the same timeframe of the bridge closure, taking advantage of the reduced traffic to assist constructability.

# **Construction and Maintenance Considerations**

Is there any consideration for installing a new bridge vs. rehabilitating the existing bridge? A new bridge was considered, but the cost is nearly double. Because the bridge can be rehabilitated, it was determined to be advantageous to maintain the historic bridge in lieu of building another one, while also accommodating the bicycle and pedestrian modes postconstruction. Comparative to rehabilitating the SR 462 bridge, a new bridge also creates more environmental impacts.

What is the design life span of the planned refurbishments/repairs? 75 years.

#### What are you doing with the material removed?

The team will investigate potential future opportunities for the existing materials. We envision some of the concrete (once the rebar is removed) could be crushed and recycled into reusable stones for use elsewhere. It is possible that Columbia, Wrightsville, or other locations may want the waste material. It is up to the contractor to remove waste material from a project site and dispose of the material at facilities (which may include landfills) that are permitted by the Pennsylvania Department of Environmental Protection (DEP) to accept the material. Ultimately, PennDOT is interested in properly removing waste at the least cost to help minimize overall project funding. The competing contractors will also investigate possibilities of the least cost disposal methods in their

bids, as that may be a key factor favorable to them in their interest in ultimately securing the low bid over other contractors.

What contractual points will be included to incentivize/penalize the selected contractor to maintain the stated schedule?

PennDOT is considering all options to offer incentives/disincentives to the contractor to maintain the schedule. This decision is highly complicated by variables, including environmental permitting, which may be beyond the control of PennDOT.

Is construction expected to continue through the winter season?

The project team is anticipating that work can continue through the winter months, weather permitting. Our projected schedule for the closure of the bridge is based on some work being completed during the winter. Normal river icing is not anticipated to be detrimental to the contractor keeping on schedule. However, a severe winter with prolonged snow and ice on the bridge and high levels of river ice could reduce winter productivity of the contractor.

Are the planned construction causeways designed for heavy rains/tropical storms? The causeways will be designed to be available approximately 97% of the time based on historical rain gauge data from the last 10 years. The causeways will be designed to overtop during extreme events, and the contractor will be required to remove equipment from them prior to forecasted extreme precipitation events.

What is the option if Norfolk Southern (NS) does not allow a construction access path across the tracks at Bridge Street?

The proposed Bridge Street access route across both the NS tracks and the undeveloped section of Columbia River Park has been determined to be the safest and most direct travel route to the river. It significantly reduces multi-modal conflicts, including with trains, while minimizing overall environmental impacts, costs, and project schedules. Other at-grade crossing options requiring further consideration are anticipated to more adversely affect safety, constructability, schedule, costs and environmental impacts. PennDOT is continuing to coordinate with NS to secure the preferred option in the best interest of the project and all stakeholders.

What is being done to ensure debris does not fall on those walking or riding under the bridge? The Route 462 bridge is currently undergoing frequent inspections. Any areas causing concerns will be addressed as warranted. The bridge spans over the river or on land, when they are being directly worked on during the construction phase, will initially have falling debris protection systems installed to protect the various modes of travel below it. Once the bridge is rebuilt, it will address any current deterioration and falling debris more fully, as noted.

Would the Route 462 bridge problem have been avoided if maintenance had been done sooner? The last significant rehabilitation of the Columbia-Wrightsville Bridge occurred in 1987. Continual smaller-scale maintenance has helped preserve and delay replacement as long as practical; however, bridges ultimately require total or partial replacement or substantial rehabilitation once their service life has been exceeded. The typical service life is 75 years; currently, the Columbia-Wrightsville bridge is approaching 100 years.

## Alternative Transportation/Shuttles Across Route 462

How will residents who rely on the bridge as their route be accommodated during construction? All vehicles will use the Route 30 detour during the anticipated three-year Route 462 bridge closure for travel between Columbia and Wrightsville Boroughs. While the detour is in place, bicycles and pedestrians will be accommodated via a public transit shuttle service at no cost to the user for travel between Columbia and Wrightsville Boroughs. Additional details and coordination with Rabbit Transit and Red Rose Transit will be worked out as the project develops and will be communicated to the public in the future.

Has there been any consideration to establishing a ferry service during the construction period - passenger or vehicle?

Bicyclists and pedestrians require daily means of transportation throughout the entire year, which transit can achieve. Use of a ferry would be limited to very specific seasons and likely certain hours within the day as well. The more holistic and cost-effective solution is to implement a transit shuttle service where the infrastructure network and viability already exists.

## **Business Impacts to Columbia and Wrightsville**

Have any studies been conducted on the economic impact of a three-year bridge closure on the communities of Columbia and Wrightsville?

The project team is completing a community assessment. While it is not a detailed financial analysis, the impacts of bridge closure on the community will be considered. As noted in other stakeholder meetings, PennDOT will support the municipalities and businesses as much as practical through the exchange of information leading up to and during the construction period so they, in turn, can let customers know they are "open for business" and instead of using Route 462 to reach their destinations, they must now use the relatively short-length Route 30 detour route to reach their destinations. PennDOT is unable to post specific signage regarding the status of existing businesses on existing roadways (e.g., Business A is open for business during the detour period). However, signage at the approaches to the bridge can effectively communicate where the closure occurs, so it is understood that travel to all residences and businesses remains available.

Are grants available to support the communities during the construction period? PennDOT does not offer grants of this type; however, local stakeholders may investigate other grant sources.

# Lighting

I suggest installing LED color-change lights in the existing housings so they can be programmed for various holidays and festivals.

Multi-color changing lights within the above deck light fixtures are prohibited, and standard LED lighting colors must be maintained for the primary mode users (motorists, bikes and pedestrians). Programmable multi-color lighting was initially considered for use under the bridge during the

project study process. However, the collective municipalities did not accept maintenance responsibility, so the option has since been removed from further consideration.

New historical-looking lights were added to the bridge not too long ago. What will happen to these lights? Will they be reinstalled?

The lantern-like light fixtures added in 2014 will be temporarily removed and stored during construction to avoid damage from contractor work. They will then be reinstalled in their current location. The fixtures will also be refurbished, and new dual bulbs with amber and softer white light colors will be inserted to help reduce mayflies' attraction to the upper portions of the bridge. The intent is to allow the lights to remain on for all three travel modes and keep the mayfly swarms near the water surface and not at the level of the bridge deck.

# **River Navigation and Trails**

How will the potential causeways from each shore affect river boating activities? It is PennDOT's intent for boating activities to be safely maintained during construction. The limits of the causeways from either shore will be determined in final design in conjunction with the resource agencies, including the Pennsylvania Department of Environmental Protection, Pennsylvania Fish and Boat Commission, United States Army Corps of Engineers, and United States Coast Guard. The design of the causeway on the Columbia side will include a short causeway bridge with sufficient underclearance height to accommodate kayakers/canoeists and emergency services to pass through the causeway in special circumstances. Due to the variability of all other boating height needs as well as safety reasons, when combined with continual river elevation changes, all other recreational motorized boaters will be guided with signs/buoys to go around the causeways following an Aids to Navigation Plan approved by the Pennsylvania Fish and Boat Commission.

The primary boat ramp in Columbia River Park will remain open for use. The kayak and canoe launch directly under the bridge will be temporarily closed for safety and constructability reasons; however, a new location will be installed approximately 200 feet downstream within the park for use during construction. For safety reasons, the Walnut Street unofficial boat launch will be closed on the Wrightsville side for kayak/canoe launching. Users will instead be directed to use the main boat ramp in Riverfront Park.

How will access be maintained for the trails on each side of the river? Trail access on each shore will be maintained and available to the public during construction. However, there will be modifications as noted below.

The trailhead for the Lancaster County Northwest River Trail (LCNWRT) is in Columbia's River Park. The trail crosses Norfolk Southern tracks at Walnut Street and heads northward on the east sidewalk. Just before the Route 462 bridge is a parking area that is an overflow lot for trail users. During the bridge construction, parking will be realigned as angled to make space for a work zone along the bridge and a few displaced spots will be relocated along Commerce Street. Parking under the bridge will not be allowed during the construction period. Currently the trail crosses under the Route 462 bridge along Front Street. (Route 441). When construction on those specific spans are underway, the contractor will be required to create a short distance relocation of the trail path with proper signing, provide positive protection of any falling debris under the bridge span, or use flaggers to temporarily stop all traffic modes crossing under the bridge for short duration increments (e.g. <15 minutes) to perform critical construction activities.

Currently the Mason-Dixon trail on the York County side crosses under the Route 462 bridge along Front Street (Route 624). When construction on those specific spans is underway, the contractor will be required to create a short distance relocation of the trail with proper signing, provide positive protection of any falling debris under the bridge span, or use flaggers to temporarily stop all traffic modes crossing under the bridge for short duration increments (e.g. <15 minutes) to perform critical construction activities. Shortly after crossing under the bridge span, a low water bypass trail exists in the Wrightsville Riverfront Park as an alternate path to the overall lengthy north-south Mason-Dixon trail. The low water bypass route generally follows the same alignment of the proposed construction access route to the river then turns south following the canal tow path toward Lemon Street in the Borough before returning to the main north-south route on Front Street. To avoid direct conflict in the construction zone and in the interest of safety, users of the low water bypass trail will instead be temporarily redirected a few hundred feet further south to enter the park via the main entrance on Maple Street. Signage will be posted to identify safe access points and trail detours.