

## **Granby Bike Lanes – Willow Wood Drive to Admiral Taussig Boulevard**

### **Project Development Effort – Round 2 Public Outreach Questions & Answers**

**Introduction:** During the first survey period and the second survey period for this project development effort (March 11 to October 22, 2021), 278 comments and questions have been submitted by 218 individuals through the comment form on the project webpage [www.norfolk.gov/granbybike](http://www.norfolk.gov/granbybike) and other channels to the City of Norfolk Department of Transit (DOT). Comments and questions came from individuals in 14 different zip codes (73 from 23505, 37 from 23503, 21 from 23508, 18 from 23509, 10 from 23518, and the rest from other/not reported zip codes). The following list of Questions and Answers has been compiled based on all the comments and questions received to date.

- 1. What are the benefits of repurposing vehicle lanes into bike lanes on this section of Granby Street?**
  - a. Lane repurposing is a cost-effective approach to implement safe and comfortable bicycle facilities on Granby Street and will provide benefits to cyclists, pedestrians, and motorists. The proposed bike lanes will provide cyclists with a more comfortable travel option and better connections to existing bicycle infrastructure. Pedestrians will benefit from increased safety and walkability with fewer bicycle interactions on sidewalks, an added buffer from vehicle traffic, and shorter crossing distances across vehicle traffic. [Protected bike lanes are effective traffic calming and safety tools](#). They have been shown to reduce total crash rates compared to street with no bike lanes – reference the paragraph below. Calmer vehicle speeds decrease the risk of severe and fatal crashes for all road users if a crash does occur. See Question #6 for information about how bike lanes have impacted vehicle speeds in Norfolk.
  - b. Lane repurposing has been [endorsed by the Federal Highway Administration \(FHWA\) as a Proven Safety Countermeasure](#). [Studies show that more bike lanes lead to fewer roadway fatalities and injuries for all road users](#). On average cities with protected and separated bike infrastructure have 44% fewer fatalities than other cities. Agencies nationwide and statewide recognize the benefits of lane repurposing. [In Virginia over the last ten years, 66 lane repurposing projects have been implemented on over 39 miles of roads](#). Projects across the country demonstrate that well-planned lane repurposing efforts effectively reduce crashes without substantially increasing congestion or travel times. See Question #19 for information about roadway crashes and deaths in Norfolk.
  - c. This section of Granby Street is identified in Norfolk’s [Multimodal Transportation Master Plan](#) as a bicycle/scooter, transit, and pedestrian emphasis area. It is also identified as a crucial north-south corridor that provides access to many of Norfolk’s commercial, recreational, and residential centers. This “multimodal emphasis” indicates that Granby Street should serve as a critical connection for all modes of transportation while providing safe and accessible travel whether it’s by bike, scooter, foot, bus, or car. In addition, Norfolk’s Comprehensive Plan, [PlaNorfolk2030](#), establishes a vision for the city that includes the development of a comprehensive transportation system which offers a

wide variety of choices. Investment in alternative transportation choices, such as bike lanes, will support Norfolk's economic future.

- d. Access to high-quality bike lanes can boost economic vitality. [Studies have shown that bike facilities can have positive, statistically significant impacts on home values](#) and adding bike lanes that improve safety and encourage multimodal use [provide benefits to local businesses](#). In addition, investing in bicycle infrastructure can stimulate development to expand job opportunities and attract new businesses and young talent to the city.
- e. Lane repurposing provides benefits for those citizens who can't afford a car or who choose not to travel by car – see Question #7 for more information. This relates to the City's [Completes Streets Policy](#), which calls on the city to design streets to allow safe access for all people regardless of age, ability, income, ethnicity, or chosen mode of travel, including pedestrians, bicyclists, motorists, and transit riders. The proposed bike lane project will create a much-needed corridor for bicyclists to safely move between neighborhoods and access multiple locations of interest.

**2. What bike ridership data has been collected citywide and on Granby Street to justify taking away vehicle lanes for bike lanes in the project corridor?**

- a. Existing bike ridership is not the only consideration, nor is it even the primary consideration, when determining whether to move forward with lane repurposing. Lane repurposing with bike lanes in the project corridor is justified based on their proven performance as a safety countermeasure for reducing vehicle speeds and decreasing the risk of fatal and serious injuries for bicyclists. See Question #1 for information about the importance of bike lanes for safety and traffic-calming purposes.
- b. There are thousands of bike trips within the project corridor each year. While the City has not yet performed bike counts on this section of Granby Street, [data from the City of Norfolk Department of Transit's Bike-Pedestrian Counter program shows high trip counts for other buffered bike lanes in the city such as on Olney Road and Llewellyn Avenue](#). This counter program was started in the Spring of 2021. Data collected from April to December 2021 shows a total of 16,813 bicycle trips for the southbound Llewellyn Avenue bike lane and a total of 10,400 trips for the northbound Llewellyn Avenue bike lane. The eastbound Olney Road bike lane had a total of 12,690 bicycle trips and the westbound Olney Road bike lane had a total of 9,242 bicycle trips during this same timeframe. To learn more about the program or view the Bike and Pedestrian Trip Counts dataset in the OpenData portal, visit [www.norfolk.gov/bike](http://www.norfolk.gov/bike) and scroll to the bottom of the page under "Additional Resources".
- c. Data from Strava, an application used by some bicyclists to track their rides, also shows that Granby Street is the most heavily travelled corridor in the City of Norfolk by bicyclists. In both 2020 and 2021, there were over 5,500 bike rides recorded by Strava within in the project corridor. There were over 1.5 times the number of rides southbound than there were rides northbound, which illustrates how the presence of the southbound bike lane on the Granby Street Bridge has had a significant positive impact on ridership. This is consistent with [national studies](#) showing that a 50% increase in bike lane miles can result in a 100% increase in bike ridership, at the same time decreasing risk of bicyclist injury by 50%. *Note that Strava data only counts the bicyclists*

who use the Strava app and are likely confident riders. It does not count all the riders who do not use the Strava app, let alone the less confident riders who would use Granby Street if safe bicycle facilities were provided. To learn more about Strava, visit <https://metro.strava.com>.

- d. In the Granby Bike Lanes survey, which received over 700 responses during the survey period of March 11 – April 13, 2021, 64% of respondents indicated that they would bike on Granby Street if there was a safe and comfortable bike facility. For more information about the survey, see the [Granby Bike Lanes Public Involvement Summary](#).

**3. I am concerned about congestion on Granby Street, especially after lane repurposing. How will this project affect vehicle traffic on Granby Street?**

- a. As part of the project development effort, a traffic study was conducted to compare traffic capacity and travel times along the project corridor under three scenarios: existing conditions, no-build future conditions (i.e., **without** lane repurposing or bike lanes), and build future conditions (i.e., **with** lane repurposing with bike lanes). [Traffic data from 2019 \(pre-COVID-19\) was used to analyze traffic and congestion](#). The traffic study findings are being used to achieve a conceptual design that will provide contextually appropriate mobility for all modes, including vehicular circulation.
- b. The traffic study results were presented at the June 29<sup>th</sup>, 2021 Public Workshop. To learn more, watch [the June 29, 2021 Virtual Workshop recording](#) or read the [Traffic Study Technical Memorandum](#), which are available at [www.norfolk.gov/granbybike](http://www.norfolk.gov/granbybike). The traffic study results show that corridor travel times in 2025 (if/when this proposed project is complete) would be the same or less than they are today based on the recommended build alternative. They also showed that average delays at intersections are to increase by no more than 15 seconds as a result of lane repurposing.
- c. The traffic study evaluates traffic conditions during the peak hours on the average weekday, which is standard practice for transportation agencies in the United States. It takes into consideration implementation of coordinated traffic signal timing (signal synchronization) at all six traffic signals in the study corridor. For more information, please see pages 4 and 31 of the [Traffic Study Technical Memorandum](#). Traffic signal technology upgrades are needed to implement signal synchronization along the entire corridor. Norfolk's DOT is working on these upgrades through projects such as the [Traffic Signal Control Platform Upgrade](#) and the [Advanced Traffic Management System Upgrade, Phase 4C](#). Traffic signal retiming along a major corridor requires significant data collection and study. This undertaking is planned on Granby Street after anticipated speed limit changes take place. See Question #6 regarding pending speed limit changes.

**4. Why can't cyclists use nearby smaller streets (e.g. Newport Avenue) instead of putting bike lanes on Granby Street?**

- a. Granby Street is a key north-south corridor linking downtown Norfolk to Ocean View and provides direct access to many of Norfolk's most important commercial, residential, and recreational centers. Granby Street was the number one requested location for bike improvements during the three community meetings for the [2015 Bicycle and Pedestrian Strategic Plan](#). Protected bike lanes on Granby Street will make bike travel a safe and convenient option for many Norfolk residents between these key destinations.

- b. This section of Granby Street is identified in Norfolk’s [Multimodal Transportation Master Plan](#) as a bicycle/scooter, transit, and pedestrian emphasis area. This emphasis indicates that Granby Street serves as a critical connection between the Riverview and Wards Corner activity centers for all modes of transportation and should provide safe and accessible travel whether it’s by bike, scooter, foot, or bus. Newport Avenue is the only road that parallels Granby Street for more than a quarter mile. While Newport Avenue is a good alternative route for certain origins and destinations, it cannot provide the level of connectivity that Granby Street does to the overall citywide multimodal network. Taking Newport Avenue adds at least a half mile to the trip for anyone going through the entire project corridor or to destinations on Granby Street between Little Creek Road and Kingsley Lane. In addition, getting to/from destinations on Granby Street from Newport Avenue will still require traversing Granby Street for some distance.
    - c. Due to the nature of the SMART Scale funding, which requires projects to hold true to the original project scope that was in the funding application, the proposed project must be on Granby Street (no parallel corridors), and it must be within the existing roadway pavement width for the majority of the corridor.
- 5. Will repairs be made to the cast-in-place concrete pavement in the outer lanes as part of the proposed project?**
  - a. Yes, portions of the cast-in-place concrete pavement that need repair to provide a safe riding surface for bicyclists would be repaired as part of the project.
- 6. What will be done to reduce speeding along the project corridor?**
  - a. A speed limit reduction from 35 mph to 30 mph is under consideration on Granby Street south of Admiral Taussig Boulevard. This would take place regardless of whether bicycle facilities are constructed on the Granby Street corridor. The Department of Transit recognizes that speeding is an issue on Granby Street and aims to address these concerns to create a safer environment for all road users, especially bicyclists, pedestrians, and those using alternative modes of transportation. Drivers have a wider field of view at lower speeds and are more likely to notice other road users thus decreasing the risk of severe and fatal crashes if a crash does occur.
  - b. Lane repurposing as proposed by this project has been demonstrated to reduce speed differential. Many [case studies cited by the Federal Highway Administration \(FHWA\)](#) show that lane reduction can result in lower vehicle speed variability, reduce vehicle speeds, and reduce the number of vehicles speeding excessively.
  - c. Comparison of vehicle speeds collected before and after bike lane implementation on Lafayette Boulevard, Llewellyn Avenue, and Ocean View Avenue generally indicate modest speed reduction and significant decreases in the percentage of traffic travelling more than 5 mph over the posted speed limit during the peak hours of 3PM-6PM.
- 7. Why are tax dollars being used for this project when there are many other areas where funding is sorely needed?**
  - a. The funding being used for this project development effort has been allocated specifically for implementation of [Norfolk’s Complete Streets Policy](#). The [Virginia SMART SCALE](#) transportation funding available for the detailed design and construction of this project in the amount of \$822,000 was awarded specifically for this project, which was scored by VDOT based on multiple criteria (safety, congestion mitigation, accessibility,

environmental quality, economic development and land use) and ranked as the 4<sup>th</sup> highest scored application in Hampton Roads in 2016. If we do not use the SMART SCALE funds for this project, those funds will be deallocated and go back into the statewide pool of funding for future applications. See Question #20 for more information on the cost of the project.

- b. Bicycle infrastructure projects are rooted in enhancing the quality of life of residents by improving safety, mobility, and equity and ensuring that a range of transportation options are available and convenient. Bike safety and connectivity are especially important for addressing racial- and income-inequities. [Research compiled from multiple studies across North America](#) shows that 49% of the people who bike to work earn less than \$25,000 per year, and Black and Hispanic bicyclists have a fatality rate 30% and 23% higher than white bicyclists, respectively. For individuals who don't own a car or have access to one, bicycling represents an important pathway to opportunity.
8. **Can bicyclists just continue to share the lanes with vehicles with some added signage (e.g. signs advising vehicles to pass bicycles no less than 3 feet to the left) instead of repurposing vehicle lanes into bike lanes? Won't emerging automated vehicle technologies, such brake assist capabilities when obstructions are detected in front of the vehicle, make shared lane use by vehicles and bicyclists safer?**
- a. Current [best practice for bikeway design](#) discourages use of shared lane markings to indicate a shared lane situation between vehicles and bicycles unless the speed differential between bicyclist and motorist travel speeds is very low (i.e. speed limit less than 25 mph and low volume traffic calmed streets). Shared lane markings do not provide the same level of bicyclist comfort because bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions. Shared lane markings also do not facilitate predictable behavior and movements between bicyclists and motorists to the same extent as continuous bike lane markings.
  - b. The project goals identified during the project development process include improved safety and access for cyclists and other vulnerable road users. The use of shared lane markings on such a road as Granby (with speeds over 25mph even with the speed reduction) would not meet these project goals. Under the current road conditions, protected bike lanes will make bike travel a safer and more convenient option for many residents and visitors.
  - c. Connected and automated vehicle technology is certainly promising, but it will be a long time before every car on the road has it. There is no study or qualified organization that has concluded that currently available technology has increased the safety of shared lane use by vehicles and bicyclists.
9. **When are bicyclists allowed to leave a bike lane and ride in a vehicle lane, and if they do so, who has the right of way? What efforts are being made to educate bicyclists on their legal responsibilities as road users?**
- a. Bicycles are considered "vehicles" under state law. Bicyclists have a legal right to ride in the roadway even if a bicycle lane is present. Bicyclists and drivers must follow standard right-of-way rules when interacting. Bicyclists are required to stay on the right side of the road, unless turning, avoiding an object, or safety requires they ride in the center or left part of the lane.

- b. Effective July 1<sup>st</sup>, 2021, the Virginia General Assembly passed two new laws. One states that drivers must change lanes when passing a bicycle, if the lane of travel is not wide enough to pass at least three feet to the left of the cyclist (Reference: §§ [46.2-839](#)). The second states that bicycles are allowed to ride two abreast at all times on state and local roadways (Reference: §§ [46.2-905](#)).
- c. Many resources on safely sharing the road for drivers and bicyclists are available at [www.norfolk.gov/bike](http://www.norfolk.gov/bike). The Department of Transit's Vision Zero webpage also has several educational resources on road safety. Visit [www.norfolk.gov/visionzero](http://www.norfolk.gov/visionzero) to learn more about the City of Norfolk's Vision Zero policy establishing a goal of zero traffic-related fatalities and serious injuries while making the city's streets safer for all. Department of Transit staff can assist civic leagues and other organizations with arranging educational sessions on this topic.

**10. How will the proposed bike lane design accommodate vehicles turning into or pulling out of side streets and driveways? Who has the right-of-way in this situation, vehicles or bicycles?**

- a. Where there are side streets or driveways present, any vertical separation elements in the bike lane buffer zone will be discontinued to allow vehicles to pass. The bike lane edges will be dashed to indicate the interruption, and for some high traffic movements, there will also be solid green paint on the pavement to highlight the vehicle/bicycle interaction areas.
- b. State laws prohibit use of the bicycle lanes as turn lanes. Motor vehicles may cross bicycle lanes when necessary to make turns but may not otherwise ride in them.
- c. The same traffic rules and right-of-way standards apply to vehicles and bicycles in the road. That means that vehicles must yield to bicycles before turning through the bike lane unless they are at a stop-controlled or signalized intersection where they have the right-of-way. Drivers must yield to oncoming bicyclists rather than rushing to beat the bicyclist. Drivers must also check their blind spot and side mirror to make sure a bicyclist is not beside the car before turning right through a bike lane, as they would for other vehicles. The same rules apply if bicyclists are sharing a lane with vehicles, except in that case there is no added delineation of the bike lane to remind drivers that bicyclists are present.

**11. Can bike lanes go down the median instead of repurposing vehicle lanes into bike lanes?**

- a. The median running bicycle track approach complicates traffic signal control required for safe bike crossings at intersections. Replacing green space and tree canopy with paved surface has environmental and stormwater drainage implications. Modifying the median islands to accommodate a bike lane would also be an order of magnitude more expensive than lane repurposing due to the additional construction requirements and utility conflicts. In addition, this option does not have the traffic calming and safety benefits of lane repurposing.
- b. Due to the nature of the SMART Scale funding, which requires projects to hold true to the original project scope that was in the funding application, the proposed project must be on Granby Street (no parallel corridors), and it must be within the existing roadway pavement width for the majority of the corridor.

**12. How would the proposed lane repurposing for bike lanes affect emergency vehicles traveling along the project corridor?**

- a. Emergency vehicles will be able to use the bike lanes if necessary to bypass traffic in the vehicle travel lanes and to gain access to properties alongside Granby Street. The Department of Transit works closely with Fire Rescue to review all project plans to mitigate potential impacts to emergency vehicle services. The Project Team has met with officials from Fire Rescue specifically regarding this project and discussed design considerations to ensure emergency operations are not impacted.

**13. Which lane will the buses travel in and where will buses stop if the outer vehicle lanes are repurposed into bike lanes? If the buses travel or stop in the bike lane, what will bus and bike interaction look like? If the buses stop in one of the two remaining vehicle lanes, how will that impact traffic?**

- a. The proposed configuration for the project is for buses to travel in the vehicle lanes. The current asphalt pavement in the two inside vehicle lanes has adequate structural capacity for bus traffic.
- b. DOT staff are actively coordinating with HRT representatives and are committed to working closely with them if the project moves forward to allow appropriate space for HRT services to operate. The initial plan is for HRT vehicles to be able to pull into the bike lanes at bus stops, and this will be further developed in the design phase of the project. For more information about the configuration at bus stops, please see the [Granby Street Bike Lanes Story Map](#) or the [Project Comment Map](#).
- c. The delay of buses stopping at each stop is included in the traffic study and results still show that corridor travel times in 2025 if/when this proposed project is complete would be the same or less than they are today based on the recommended build alternative. See Question #3 for more information on the Traffic Study.
- d. If a bus pulls into a bike lane, it must yield to any bicyclists who are already in the lane in accordance with traffic rules. If a bus pulls into a bike lane and a bicyclist comes up behind the bus, the bicyclist may leave the bike lane and enter the adjacent vehicle lane to pass the bus, only when it is safe to do so. For more information, see Question #9 about when bicyclists are allowed to leave a bike lane.

**14. Why should drivers who pay gas tax give up a vehicle lane for bicycles when road building and maintenance is funded by gas tax?**

- a. Gas taxes comprise only a portion of the funds that support roadway construction and maintenance. In addition, there are federal and local funds allocated solely for safety improvements and improvements to bicycle and pedestrian infrastructure – which are this project’s funding sources. Taking advantage of such funding sources to build a bicycle network in accordance with a carefully considered planning process allows the City to allocate local dollars to other needs and types of projects. More people biking means fewer vehicles on the road, which means savings on roadway maintenance and upkeep.

**15. Will this project be put to a public vote? Why didn’t the survey provide an option for respondents to vote against this project?**

- a. There is no plan for a public vote. Moving forward from the current project development effort to detailed design and construction will be subject to a City Council approval of the ordinance to accept SMART SCALE funds for the project. The goal of the

project development process is to produce a Recommendation Memorandum and seek City Council approval of the SMART SCALE funds by the end of January 2022.

- b. Norfolk's Comprehensive Plan, [PlaNorfolk2030](#), calls on City staff to implement the [2015 Bicycle and Pedestrian Strategic Plan](#) and incorporate the [Complete Streets policy](#). As part of this project development effort, DOT staff are committed to enhancing and developing the design concept for the bike lanes in this section of Granby Street as published in the Strategic Bike Plan to address residents' concerns to the extent feasible within the constraints of available funding and established transportation engineering principles. Residents are welcome to express their opinions on the project to their City Council representatives. One goal of the workshops and all the informational material posted at [www.norfolk.gov/granbybike](http://www.norfolk.gov/granbybike) is to help people form educated opinions on the project using information compiled by transportation engineers and planners working for Norfolk and across the industry.

**16. How will the proposed lane repurposing for bike lanes impact the traffic backups that occur when trains cross the tracks just south of the Admiral Taussig Boulevard intersection?**

- a. The lane repurposing will not have a significant impact on the wait time for vehicles during train crossings. For example, if the train crossing lined up vehicles on Granby Street as far back as Suburban Parkway, which is an anecdotal worst-case scenario. There are approximately 1,100 ft of the northbound right lane that would be converted into a bike lane between the railroad tracks and Suburban Pkwy (note that lane repurposing is NOT proposed for the block between Louisiana Dr and Admiral Taussig Blvd). Imagine that 1,100 ft of cars would get redistributed into the two remaining lanes (550 ft per lane). Once the train passes and the traffic starts up again, it will take the car at the back of the line traveling at 15 miles per hour (slow because the traffic is starting back up) about 25 additional seconds to traverse that extra 535 feet. The City of Norfolk Department of Transit successfully applied for a [SMART SCALE grant to install railroad crossing message signs](#) that will notify approaching travelers real-time of the train's presence so they can choose an alternate route. The funding for this project will become available by 2026.

**17. Can we widen the sidewalk into a shared-use path for bicyclists and pedestrians instead of repurposing vehicle lanes into bike lanes?**

- a. To provide a facility that meets the [VDOT Road Design Manual](#) requirements for a two-directional shared-use path, a minimum paved path width of 10 feet would be required with a minimum 3 feet clear space (no signs or poles) between the face of curb and the edge of the shared-use path. The project team has evaluated this option for Granby Street, and it does not meet the VDOT minimum design standard criteria. There is only enough public right-of-way for an 8-foot-wide path and 2-foot verge between the curb and the edge of the shared-use path. This would require the City to acquire additional right-of-way from private citizens and businesses in many locations where the minimum width is not possible. This shared-use path option would also be an order of magnitude more expensive than lane repurposing, it would be less safe than a standard shared-use path due to the lack of buffer and proximity to traffic, and it would not have the traffic calming and safety benefits of lane repurposing.



- b. [Current best practice for shared-use path design](#) discourages the use of two-way shared use paths adjacent to roadways (also called side paths) for longer distances on urban and suburban streets with many driveways and street crossings due to operational and safety concerns. At intersections and driveways, motorists entering or crossing the roadway often will not notice bicyclists approaching from their right, as they do not expect wheeled traffic from this direction. Motorists turning from the roadway onto the cross street may likewise fail to notice bicyclists traveling the opposite direction from the norm. Bicyclists traveling on side paths are apt to cross intersections and driveways at unexpected speeds for motorists, which may increase the likelihood of crashes. In addition, two-way facilities on one side of the road require bicyclists to make additional road crossings (and therefore increase their exposure) to get to destinations on the opposite side of the road.
- c. Due to the nature of the SMART Scale funding, which requires projects to hold true to the original project scope that was in the funding application, the proposed project must be on Granby Street (no parallel corridors), and it must be within the existing roadway pavement width for the majority of the corridor. (See previous paragraphs)

**18. Can bicyclists just use sidewalks instead of repurposing vehicle lanes into bike lanes?**

- a. While bicycling on sidewalks is allowed in Norfolk outside of downtown and pedestrian emphasis areas, bicycling on sidewalks is far from ideal. Sidewalks are designed to provide adequate width for pedestrians to walk and pass one another safely, not for safe traversal by bicycles. It makes sidewalks less safe for pedestrians, who generally don't expect people traveling at bicycling speeds. There are also many obstacles and narrow spaces that are difficult for bicyclists to traverse. There is significantly higher incidence of bicyclist-motor vehicle crashes with bicyclists riding on the sidewalk that with bicyclists riding in the roadway. It endangers bicyclists when crossing the street because drivers do not expect people moving at bicycling speeds at crosswalks.
- b. In the Granby Bike Lanes survey, which was conducted March 11 – April 13, 2021, and received over 700 responses, 65% of respondents indicated that they do not bike on the sidewalk on Granby Street and only 5% indicated interest in it if it were safer. Of the 28% of respondents who indicated that they do bike on the sidewalk on Granby Street, almost half of those respondents indicated that they do not feel safe doing so.

**19. What information is available about the bicyclist and pedestrian roadway deaths in the City of Norfolk? Is there evidence that any of these deaths had anything to do with the existence or nonexistence of bike lanes?**

- a. In the last 5 years (2016-2020), there were 13,289 crashes on Norfolk roads (excluding the interstates), including 410 crashes involving pedestrians and 182 crashes involving bicyclists. These resulted in 84 fatalities, ranging from 14 to 20 fatalities per year. 29 of the fatalities were pedestrians (2 of which occurred within the project corridor), and 3 of the fatalities were bicyclists. Less than 0.5% of vehicle-only crashes resulted in fatalities, whereas 7% of pedestrian crashes and 2% of bicycle crashes resulted in fatalities. This illustrates how pedestrians and bicyclists are our most vulnerable road users. None of the bicyclist or pedestrian fatalities occurred at bike lane locations. Of the 182 crashes involving bicyclists, 3 were in buffered bike lanes, 10 were in unbuffered bike lanes, and the remaining 169 were on roads without bike lanes. Where accidents

occurred on roads with bike lanes, all the accidents were at intersections except one, which highlights the importance of bike treatments at intersections for enhanced safety measures. A map showing this VDOT crash data, a crash dashboard for the City of Norfolk as well as other crash-related information can be found on the city's Vision Zero website under the "Data" page at [www.norfolk.gov/visionzero](http://www.norfolk.gov/visionzero). Additional information is publicly available on other platforms, including the Virginia TREDIS (Traffic Records Electronic Data System) [Mapping Service](#) and [Interactive Public Report](#), and VDOT's [Power BI Crash Tool](#).

- b. See Question #1 for more information on the safety benefits of lane repurposing and bike lanes. In November 2019, the City of Norfolk's City Council adopted a [Vision Zero Resolution](#) with a goal to eliminate all roadway fatalities and serious injuries while making the city's streets safer for all road users, especially for the most vulnerable users – pedestrians, cyclists, scooter and bus riders. This means that we are committed to taking a proactive approach to making our roads safer, not just addressing locations where there were past crashes. While it is meaningful to analyze past crashes in the City, crash history alone is not sufficient to determine what safety countermeasures to implement, particularly in populous areas where there are conflicts between vehicles and vulnerable road users (e.g. pedestrians, bicyclists). FHWA (Federal Highway Administration), VDOT, and the City of Norfolk take a systemic approach of implementing proven safety countermeasures where safety risks exist based on well-established nationwide studies. Visit the [FHWA website on the systemic approach to roadway safety](#) to learn more.

**20. How much does this project cost?**

- a. Currently, \$195,000 of City funds for Complete Streets has been committed to the project development effort. \$822,000 of SMART Scale funds are available for detailed design and construction if City Council approves the ordinance to accept those funds. The \$822,000 SMART Scale funding amount is adequate to cover design and construction of bike lanes with primarily pavement markings and signage. Costs for any additional enhancements, such as physical separation barriers between the bike lanes and vehicle lanes, will be identified through the project development effort and will require additional local funding through the Capital Improvement Program and funding process. Maintenance of the bike lanes will be covered by operating budgets for street sweeping, pavement maintenance, and traffic operations. See Question #22 for more information about bike lane maintenance.

**21. Has any consideration been given to existing curbside parking arrangements for a number of organizations and institutions in the outside lanes of Granby Street?**

- a. The only formal parking allowance currently within this section of Granby Street is at the Temple Israel (7255 Granby Street, southbound direction). The proposed conceptual design (as shown in the [Project Comment Map](#)) includes a shared bike lane and parking option on the single block in front of Temple Israel along southbound Granby Street.
- b. The Norfolk Church of Christ had an informal parking allowance along Granby Street on Sundays, and this allowance will be formalized and accommodated with a shared bike lane and parking design similar to what is shown on the [Project Comment Map](#) in front of Temple Israel.

- c. No new formal parking allowances will be considered in this section of Granby Street. Organizations and institutions that currently use Granby Street for queuing without formal approval will not be permitted to use the bike lane or vehicle lane for queuing without formal approval through the [Right of Way Division lane closure permit process](#).

**22. How will bike lanes be maintained?**

- a. Like existing bike infrastructure in the City, street sweeping for bike lanes is part of the [Public Works Street Sweeping Program](#), which sweeps main arterials twice a month. Bike lane pavement maintenance is part of street repair and maintenance operations conducted by [Public Works Streets and Bridges](#). Maintenance of bike lane barrier infrastructure, such as flex posts, is conducted by the [Department of Transit Traffic Operations Center](#).

**23. How will the proposed project handle Little Creek intersection?**

- a. As shown in the Project Comment Map posted at [www.norfolk.gov/granbybike](http://www.norfolk.gov/granbybike), the proposed project would not repurpose the northbound right lane on Granby Street between Louisiana Drive and Little Creek Road. The right lane in that block will remain a vehicle lane, but it will be converted from a through/right to a right turn only lane. Traffic counts show that it primarily serves right-turning traffic, so no significant impacts are anticipated from this change.
- b. As shown in the Project Comment Map posted at [www.norfolk.gov/granbybike](http://www.norfolk.gov/granbybike), the proposed project would not repurpose the southbound right lane on Granby Street between Admiral Taussig Boulevard and Little Creek Road. The right lane in that block will remain a vehicle lane, but it will be converted from a through/right to a right turn only lane. Sidewalk enhancements are being developed to improve the off-road connection for bicyclists between the HRT Transfer Center near Admiral Taussig Boulevard and the proposed southbound bike lane start point at the Little Creek Road intersection.

**24. How about the delivery trucks that stop on Granby Street to make deliveries?**

- a. State laws prohibit parking in bicycle lanes, that includes trucks stopping for deliveries. There is no formal allowance for delivery trucks to stop on Granby Street, currently or in the future. Delivery trucks should use side streets for stopping except in the case of emergencies.
- b. According to Sec. 25-277 of the Norfolk Code of Ordinances, “No vehicle shall be stopped in such a manner as to impede or render dangerous the use of highways by others; except in the case of an emergency as the result of an accident or mechanical breakdown.”

**25. Will the proposed lane repurposing make it more difficult for cars to turn left onto side streets at non-signalized intersections?**

- a. Cars turning left onto side streets at non-signalized intersections will have to watch for a break in two vehicle traffic lanes and one bike lane instead of three vehicle lanes. The traffic signals along Granby Street will be coordinated to provide breaks between platoons of cars during red signal cycles.

**26. Will the repurposing of one lane cause congestion from cars queuing to turn left at side streets where there are no dedicated turn lanes?**

- a. The delay from cars queuing to turn left onto side streets where there are no dedicated turn lanes will have a negligible impact on average travel time along the corridor.

**27. How will this project address the part of Granby Street north of Admiral Taussig Boulevard at the I-64/I-564 interchange?**

- a. Dedicated bicycle facilities north of Admiral Taussig Boulevard through the I-64/I-564 interchange will require a separate project and funding application. In the meantime, the design for this project will include providing a safe transition for bicyclists on Granby Street between bicycle facilities south of the Admiral Taussig Boulevard intersection and the existing shared lanes north of the intersection.

**28. Will this project include adding bike lanes on the northbound side of the Granby Street Bridge over the Lafayette River (south of Willow Wood Drive)?**

- a. Currently, the scope of the project does not include the addition of bike lanes on northbound Granby Street south of Willow Wood Drive on the Granby Street Bridge over the Lafayette River. Pending available budget, this may be added to the project scope. The design for this project will include providing a safe transition for bicyclists between the new bike lane and the shared lane either south of the Willow Wood Drive intersection or south of the Granby Street Bridge over the Lafayette River.

**29. Will there be any bike detection installed as part of the project? Without that, bicyclists have issues triggering a green light when there isn't a car to be detected.**

- a. Bike detection will be considered during detailed design but will not be implemented across the corridor due to cost, operational, and maintenance considerations. In general, there is enough vehicle traffic on this corridor and its side streets that this issue will be rare. At night and during other lower traffic volume periods, intersections are set to serve all movements regardless of detection.

**30. Currently, the outside lanes provide space for slower drivers or drivers slowing down for right turns. Traffic in the left lane can be slowed or impeded by left-turning vehicles at locations without dedicated turn lanes. Having the extra outside lane for slower traffic leaves more capacity in the middle lane for drivers to bypass slower traffic. Will repurposing the outer lane and removing this extra space cause traffic operations or safety issues?**

- a. The behavior of changing lanes behind slower or slowing vehicles is generally unsafe and increases the risk of crashes. Studies have proven that changing lanes to go around slower vehicles statistically does not make travel times faster. References to such studies can be found by searching the internet for "does changing lanes save time".
- b. Having all the slower and turning vehicles in the remaining two travel lanes may cause temporary inconveniences for the vehicles behind them, but it may also help reinforce driver awareness and defensive driving habits. The delay from waiting behind a slow or turning vehicle is negligible because overall corridor travel time is controlled primarily by traffic signals. The only time it would make a difference for an individual driver is if getting stuck behind a slow vehicle made the difference between catching or not catching a green light at the next signal. In most cases, it will not make that difference, and overall travel time will be the same.
- c. Lane repurposing has proven safety benefits, as described in Question #1. Part of the reason that lane repurposing projects have been shown to reduce crashes is that they reduce the potential conflict points for vehicles changing lanes. Lane repurposing

projects have been demonstrated to reduce speeding, which helps mitigate rear end collisions.

**31. Has the City considered delays and queuing for drop offs and pick-ups at the multiple schools along the project corridor? Also, what about funeral processions from Metropolitan Funeral Services and the religious institutions along the corridor?**

- a. Department of Transit staff met with representatives from all three schools along the corridor to discuss their traffic patterns and focal points. Spot improvements are being identified to address queuing scenarios that could impede the flow of traffic on Granby Street on a regular basis.
- b. Department of Transit staff met with representatives from the religious institutions and Metropolitan Funeral Services along the corridor. They will have the ability to use the bike lanes when needed with prior approval from the City.

**32. Does the Traffic Study take into consideration changes to regional and local traffic patterns as a result of the Hampton Roads Bridge Tunnel Expansion and Hampton Roads Express Lanes projects?**

- a. VDOT conducted a traffic study that evaluated the impacts to Norfolk arterials after completion of the HRBT Expansion and Hampton Roads Express Lanes projects in 2025. Their analysis included traffic growth based on the Hampton Roads Transportation Planning Organization regional traffic demand model. Their models were used in our traffic analysis of 2025 No Build and Build conditions and are therefore accounted for in our traffic study results. See Question #3 for more information on the Traffic Study.

**33. Did the traffic study consider increased traffic in summertime from people going to beaches and special events in Ocean View?**

- a. These types of events generate less traffic than typical peak hour commute traffic. The traffic study results show that, during morning and evening peak hours, corridor travel times in 2025 (if/when this proposed project is complete) would be the same or less than they are today based on the recommended build alternative. For more information on the Traffic Study, see Question #3.

**34. Does the traffic study consider increased congestion from heightened security and/or increased ship traffic at Norfolk Naval Station? Could this project impact access to Norfolk Naval Station, the largest naval base in the world?**

- a. The traffic study shows that the daily commute time for military personnel and civilian workers to the base would not increase after implementation of this project during the peak hours on the average weekday. As explained in Question #3, traffic operations are evaluated based on the average weekday peak hours. This is standard practice for transportation agencies in the United States. Changes to gate access procedures and staffing levels at Naval Station Norfolk will be coordinated with the City through the usual channels. These changes help alleviate, not eliminate, an issue that is present due to the limited number of gates and base personnel. Similar to emergency vehicles being able to use the bike lanes, there would be nothing to stop military vehicles from using the bike lanes in the case of a national security priority.

**35. Is the proposed project in line with the redevelopment plans for Wards Corner? Does it take into consideration potential traffic changes from the redevelopment?**

- a. The Department of Transit has and will continue to coordinate with the Department of Planning regarding the Wards Corner development plans. The implementation of the proposed bike lanes would be consistent with the Wards Corner development plans. The improvements envisioned at the Granby Street and Little Creek Road intersection as part of the Wards Corner development plans would also help to alleviate congestion issues at that intersection, which are driven mostly by inadequate turn lane capacity on Little Creek Road.

**36. How will trash and recycling be collected if the proposed bike lanes are installed?**

- a. The Project Team is working to make sure trash vehicles will be able to use the bike lanes if necessary to pick up waste along the project corridor. The team has met with Waste Management staff from the Public Works Department specifically regarding this question to discuss trash collection along the Granby corridor. During the design phase of the project, the Department of Transit will continue to work closely with the Department of Public Works to ensure that trash and recycling collection will not be negatively impacted by the bike lanes.