

Northwest Corridor Locally Preferred Alternative (LPA) Report

Fall 2022

LinkUS is a collaborative effort co-sponsored by the following partners









Contents

LinkUS Mobility Initiative
Overview
Priorities
From Vision to Action
The Northwest Corridor
Purpose and Need
How We Got Here11
An Engaged Corridor
The Locally Preferred Alternative14
The Locally Preferred Alternative
What is Bus Rapid Transit
LPA Route and Station Locations17
Implementation Plan
The Initial Segment
Initial Segment
Roadway Lane Configurations21
Initial Segment Features22
Initial Segment Details and Impacts23
Aoving Forward24
What's Next
Aligned Efforts

LINKUS MOBILITY INITIATIVE

Overview

LinkUS is about connection.

LinkUS is Central Ohio's comprehensive mobility and growth initiative to better connect everyone to opportunity. By bringing rapid transit solutions and world-class mobility options to the region, LinkUS will create an integrated mobility system so that getting from where you are to where you want to go is easy, accessible and affordable. It will make it easier to walk, bike and take public transit to jobs, homes and more throughout the region. Efforts have been building for several years toward the creation of a regional corridor and integrated mobility system, and these are the foundation of LinkUS.



In 2014, MORPC led insight2050, which predicted three million people would live in Central Ohio by 2050. The outcome of insight2050 was a recommendation to balance and accommodate growth in a cost-effective, efficient and sustainable manner.

COTA undertook its NextGen planning process in 2017 to consider and evaluate 26 potential high capacity transit corridors, which were eventually narrowed to 14 corridors for further study based on public input and forecasted growth and job patterns.

In 2019, insight2050 Corridor Concepts demonstrated how more transportation choice and strategic, focused growth creates a thriving region. It also provided an implementation toolkit that identified strategies the region can use to advance transit development.

For more information about the process and outcomes of these foundational regional planning efforts, visit *linkuscolumbus.com/aligned-efforts*.

Priorities

If we want to experience different outcomes, we need to do something different.

LinkUS focuses on six critical priorities to guide the region's mobility investment decisions. They are driven by the mission to create great places, reinvent the region, shape the future and provide equitable opportunity for all.



Equity

The introduction of mobility options allows for increased and equitable access and opportunity for all members of the community. Mobility is critical to improving equity in the region.



Economic Development

Enhanced mobility encourages public and private investment in transportation and development. This promotes local and regional economic vibrancy.



Affordability

More transportation choices improve the affordability of our community by reducing transportation costs. This, combined with reduced housing costs, creates a more equitable region.



Innovation

Mobility allows greater opportunities for more innovation between our people, places and shared prosperity. Technological innovations in transportation make a more efficient system, promoting the region's economy and sustainability.



Sustainability

Increased mobility and additional transportation choice lowers automobile dependence to reduce carbon emissions. By coupling enhanced mobility with compact, walkable development patterns, growth can occur in the region while also preserving farmland and the natural environment.

Workforce Advancement

Increased travel choice and connectivity better links jobs with the workforce, promoting economic vibrancy and equity.

From Vision to Action

From planning to engaging to engineering...LinkUS has been active.

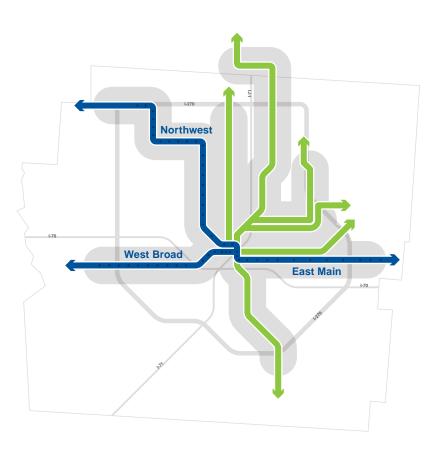
In the past year, LinkUS has accomplished a great deal, beginning the planning and design process for premium rapid transit in three corridors and identifying the desired mobility connections that will propel our region forward.

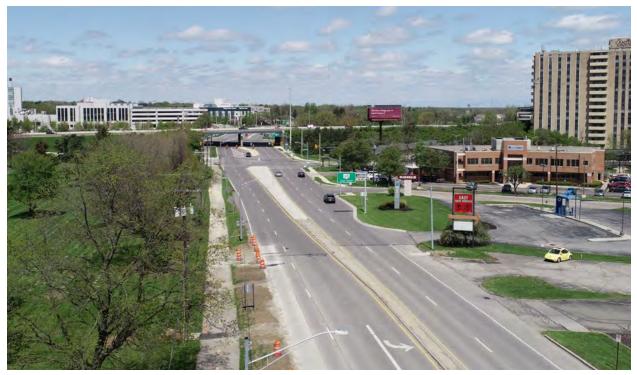
Initiative-wide, LinkUS has conducted more than 30 public meetings, dozens of community events, nearly 100 briefings and numerous focus groups. Key takeaways from this extensive public outreach include:

- Central Ohio wants world-class transit and mobility for our region.
- It is critical that the spine of a premium high-capacity system including bus rapid transit (BRT) be supported by the connective tissue necessary to make it a success. This includes bikeways, sidewalk connections, additional first- and last- mile solutions and more local fixed-route bus service.
- Features of a premium experience such as level boarding, intuitive way finding, easy on-vehicle access for bikes, strollers and wheelchairs, frequent service and reliable timing are essential components of the rapid transit corridors.

Rapid Transit Corridors

Concurrent to the development of the Northwest Corridor BRT, two additional rapid transit corridors are being developed. Both the East Main Street and West Broad Street BRT Corridors have moved from the planning phase of work into the preliminary design stages. In 2021 both corridors were accepted into the Federal Transit Administration's Project Development process as part of its Capital Investment Grants funding program.





Olentangy River Road facing northwest near Ohio Health Riverside Methodist Hospital (2021)

Regional Engagement

There are 37 jurisdictions in the Central Ohio Transit Authority service area. Member jurisdictions have provided input regarding their unique needs for both mobility and coordinated development. Along with unanimous desire to improve accessibility and safety for pedestrians and bicyclists, communities requested improvements ranging from restoring and/or establishing more fixed route transit services and transit connections, adding micro-transit services for older adults and to transport residents to current and future jobs, and connecting to a potential new Amtrak service. Jurisdictions, local residents and LinkUS partners continue to work through these implementation details.

LinkUS Leadership Coalition

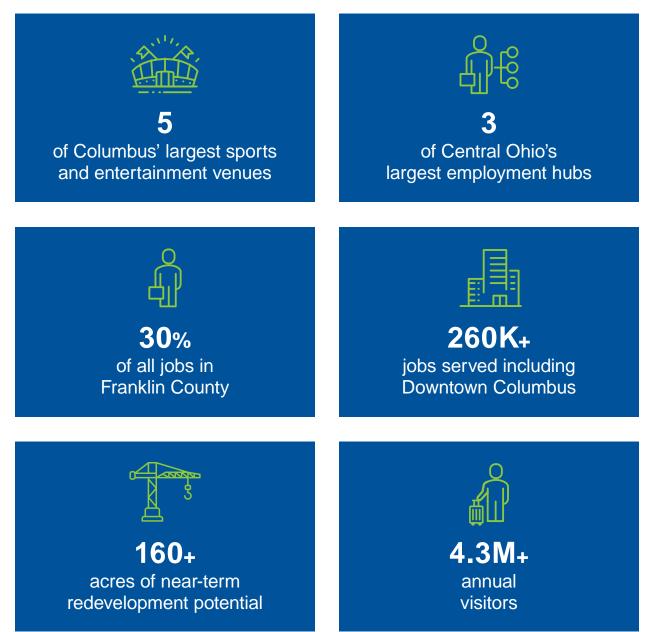
Elected officials and business and community leaders convened to consider the region's mobility and coordinated equitable development and issued a *Community Action Plan*. This implementation strategy outlined detailed recommendations to invest in a comprehensive system of rapid transit, increased bus service, sidewalks, shared-use paths and greenways. Among other key action items, the plan recommends a funding strategy that will commit the necessary local resources toward the pursuit of federal funding for rapid transit projects and transit supportive infrastructure.

THE NORTHWEST CORRIDOR

Purpose and Need

The Northwest Corridor is home to tens of thousands of jobs, multiple major institutions and employers, and is experiencing travel delay alongside continued population growth. The purpose of the Northwest Corridor BRT is to *provide premier and affordable transit service to meet the existing and long-term regional mobility and local access needs for residents, businesses and institutions within the project area*.

At A Glance



Needs

Provide equitable access to jobs and opportunities

- About 35% of trips from no-car households in Franklin County are within, into or out of the corridor
- About 14% of residents in the corridor belong to the immigrant, refugee or new American community

Prioritize transit movement to ensure reliable and efficient travel time

- Approximately 27% of all transit trips in Franklin County are within, into or out of the corridor
- 50% population growth by 2040

Original and local trips

- 60,000+ students enrolled at The Ohio State University
- 60% of all trips to OSU originate in the corridor

Provide a high-quality transit supportive environment to create an attractive alternative to driving

- · 30% of Olentangy River Road has no sidewalk or trail on either side
- Of the existing bus stops, only 5% have benches, 8% have shelters and 39% have lighting

5 Align with Vision Zero goals and use multimodal design to prioritize the safety of all corridor users

- More than 35% of the corridor is part of the area's high-injury network
- A total of 54 crashes occurred in the corridor from 2016 to 2020. Of those, 12 involved cyclists and 17 involved pedestrians.
- There were 6 fatalities along the alignment from 2016 to 2020

More details including data sources can be found in the Purpose and Need Report.

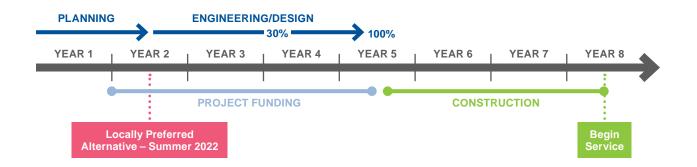
How We Got Here

The Locally Preferred Alternative (LPA) for the Northwest Corridor builds on prior engagement, planning and technical analysis.



These earlier efforts identified the need for improved access to jobs, healthcare, events and homes in the corridor, and developed preliminary approaches to address those needs. Since fall 2021, the Northwest Corridor has moved from the concept and planning phases into the preliminary design process. Now that the LPA and initial segment have been determined, once adopted, the corridor can move into more detailed engineering.

BRT Project Schedule*



*The BRT project is anticipated to be funded through a combination of Federal (FTA Capital Investment Grant) and local funding sources. For more information about the LinkUS funding strategy refer to the latest LinkUS Community Action Plan.

An Engaged Corridor

Since work began in 2020, extensive input from a wide array of stakeholders has informed technical decisions. Early engagement efforts included an online survey, a series of digital open houses and stakeholder sessions. Moving into this phase, engagement can be characterized in three primary categories.

Technical Group

For Phase 2, Northwest Corridor Technical Group was convened that included planning, engineering and development staff representatives from jurisdictions located on the Northwest Corridor and/ or agencies with regulatory authority, including the cities of Columbus, Grandview Heights, Upper Arlington, Worthington, and Dublin; COTA; Franklin County; Clinton, Perry and Sharon Townships; MORPC; Ohio Department of Transportation (ODOT) District 6 and The Ohio State University. The group met three times from December 2021 to June 2022 to provide information and thoughtful feedback on proposed routes, station locations and other details. Technical group members also informed the methods of engagement including what information would be most valuable to their community members and what means of engagement would be most beneficial. They hosted public meetings and notified the public of opportunities to provide input.

Municipal Leaders

Key decisions regarding the LPA and initial segment were informed by thoughtful dialogue between elected and appointed leaders of the affected municipalities and the City of Columbus and COTA. Municipal leaders were invited to give their input and review preliminary findings prior to technical group meetings. This outreach coincided with additional LinkUS briefings to city councils and township trustees to solicit input on the overall LinkUS program in addition to corridor-specific issues.

Organized Community Groups and Individual Residents

Columbus Area Commissions, civic associations and residents from throughout the corridor were invited to participate in two rounds of in-person and virtual public meetings. Between public meeting participation, online survey completions and attendance at briefings, the public showed up to tell us what they thought. They told us their preferred route alignment option which helped inform the decision to select Bethel Road as the alignment in the northern section of the Northwest Corridor, provided input on station locations throughout the proposed route, and gave feedback on an initial segment from Downtown Columbus to the Bethel Road area. Their input shaped the selection of the LPA and other recommendations in this report.



Summaries of feedback received as well as a digest of the engagement mechanisms undertaken to date can be viewed at any time at *linkUScolumbus.com/resources*

THE LOCALLY PREFERRED ALTERNATIVE

The Locally Preferred Alternative

From Downtown Columbus to the Ohio University Campus area in Dublin.

The Federal Transit Administration asks local communities to select an LPA that details the mode, alignment, guideway and stations that best fit the needs and context of the community. This is an important step an important step in pursuing federal funds needed to pay a portion of engineering and/or construction.









Mode

Bus Rapid Transit (BRT)

BRT was selected as the preferred mode based on corridor fit, ridership capacity, cost per mile to build/operate and available right-of-way. Station amenities include near-level boarding and off-board fare collection.

Alignments

Corridor Route

The Northwest Corridor will use Spring Street and Long Street to Olentangy River Road, Bethel Road, Sawmill Road and State Route 161 with stations approximately every half mile.

Guideway

Dedicated Bus-Only Lanes

The LPA recommends primarily dedicated bus-only lanes in the median and some bus-only lanes adjacent to the curb to increase transit reliability and speed.

Access to Stations

Approximately Every Half Mile

Station locations were selected to serve high demand areas, including current and future developments in the corridor. Creating safe bike and pedestrian connections will be an important consideration in the final design.

What is Bus Rapid Transit

A premium, convenient travel experience.

BRT is the recommended form of premium rapid transit for the Northwest Corridor, as confirmed by the *Mobility Study Phase 1 Report* and further validated during this preliminary engineering phase. The forecasted BRT ridership, community context and projected costs make BRT the most suited premium service for successful pursuit of federal transit funding, which is highly competitive.

BRT includes all the features of high-capacity transit and combines them with the flexibility and cost effectiveness of buses. BRT systems include modern, branded vehicles, well designed stations, offboard fare collection, real time bus arrival information, and easy boarding and alighting for all customers. BRT typically operates in dedicated transit lanes separated from other vehicles and has priority over single-occupancy vehicles to move through intersections with transit signal priority. These features make BRT a fast, reliable travel option for the corridor.



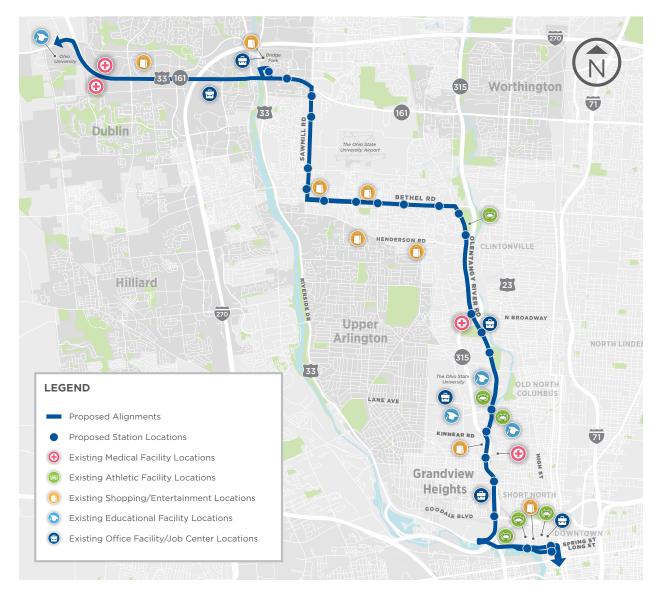
Why BRT is the best fit:

- Most compatible with ridership forecasts
- Most cost-effective

- Most competitive for federal funds
- Most timely to construct

As part of the regional network of premium rapid transit corridors, an investment in high quality BRT will provide a fast, comfortable, frequent, modern and reliable travel option that connects commuters to jobs and housing within the Northwest Corridor and the rest of the region.

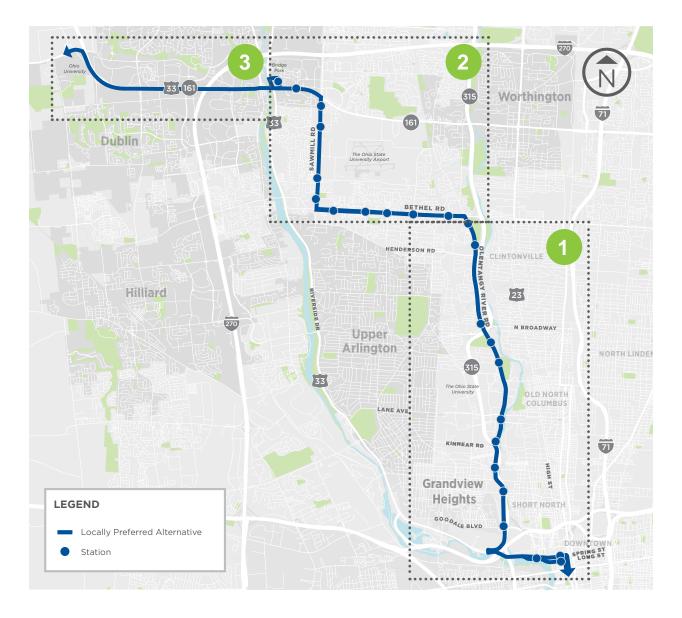
LPA Route and Station Locations



Prior work identified that the LPA would extend from Downtown Columbus to Henderson or Bethel Roads via Olentangy River Road. This phase of the study evaluated alternate alignments for the extension beyond Bethel and Olentangy River roads. In addition, both Henderson/Dierker and Bethel alignments were evaluated. The Bethel Road alignment was selected due to higher potential ridership, BRT operational benefits and stated public support. Extension of the LPA to the Bridge Park development and further northwest to the Ohio University campus area was supported.

Implementation Plan

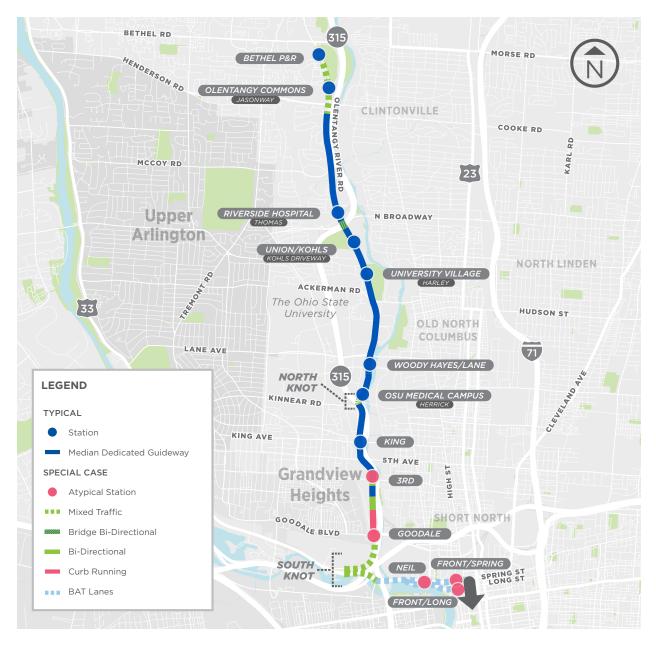
A Three-Phased Approach



Conceptual engineering was conducted on the alignment from downtown to Bridge Park to help define a premium BRT – operating primarily in exclusive transit lanes in the center of the roadway – to understand the needed infrastructure improvements and assess the ridership potential. The initial segment carries two thirds of the forecasted LPA corridor ridership. The combination of the infrastructure costs and the ridership indicate that this segment is likely to be the most competitive for federal transit funding in the near term. As the initial segment advances through preliminary engineering, early planning for Segment 2 will continue to progress.

THE INITIAL SEGNENT

Initial Segment

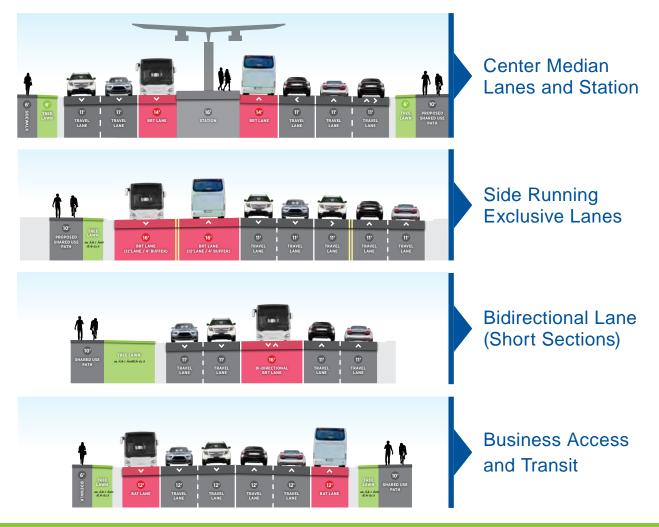


This map and the illustrations on the following page present the conceptual engineering for the initial segment.

Roadway Lane Configurations

Four BRT typical sections have been developed based on current right-of-way and traffic conditions in the initial segment. Illustrations of these are shown below and correspond to areas on the map on the prior page. The vast majority of the corridor (76%) consists of dedicated center median or other exclusive transit lanes. Bi-directional lanes are proposed in very short segments where narrow or restrictive right-of-way cannot accommodate two center running BRT lanes. Bi-directional lanes require only one bus to traverse the lane at any one time potentially causing a slight delay for the opposite traveling bus; a traffic signal would control bus movements.

Side running exclusive lanes are recommended at the Goodale Boulevard Station to avoid conflicts with the SR 315 freeway entrance and exit ramps. In Downtown Columbus along Spring and Long Streets, business access and transit (BAT) lanes are recommended to allow better vehicular access in the downtown business district. In other parts of the corridor BRT would travel with mixed traffic due to infrastructure cost and engineering feasibility considerations. Most stations would be located in the center median.



The illustrations below are conceptual.

Initial Segment Features

Key destinations

The initial segment of the Northwest Corridor is a hub of activity, home to concert venues, sports stadiums, universities, employment centers, healthcare campuses and much more.

Educational Institutions

- Columbus City Schools
- The Ohio State University
- Grandview Heights Schools
- Upper Arlington City Schools

Sports and Concert Venues

- Nationwide Arena
- Huntington Park
- KEMBA Live!
- Lower.com Field
- Schottenstein Center
- Ohio Stadium
- Ohio State Athletics Center

Shopping and Entertainment Districts

- The University District
- The Arena District
- Grandview Heights
- Grandview Yard
- Fifth by Northwest
- Olentangy Plaza
- Lennox Town Center

Employment Destinations

- Nationwide
- Battelle
- Chemical Abstracts (CAS)
- The Ohio State University
- OhioHealth Riverside
 Methodist Hospital
- Downtown Columbus

Healthcare Campuses

- The Ohio State University
 Wexner Medical Center
- OhioHealth Riverside
 Methodist Hospital

Parks and Recreation

- Anheuser-Busch Sports Park
- Goodale Park
- Whetstone Park
- North Bank Park
- Olentangy Trail
- Scioto Trail

Additional active transportation connections will be implemented to fill gaps in the network.

Initial Segment Details and Impacts

Length 8.5 miles	Transit 6.5 n (76% of initi		Number of Stations 13	
Frequency Every 15 min. (weekdays) Every 30 min. (weekends)		14+	Hours of Service 14+ hours (weekdays) 10+ hours (weekends)	
Capital Cost \$145-\$180 Million			Operating and aintenance Cost \$4 Million	

Annual O&M Cost (2022\$)

Initial Segment Ridership

3,100-4,200

Average Weekday Ridership (2040) Event Ridership 250–700

Estimated Weekday Average Ridership from Event Attendance

MOVING FORWARD

What's Next

2020-2022

2022

+1 year

Northwest Corridor Study

Corridor evaluation was conducted in two development efforts. The first, Northwest Corridor Mobility Study (2021), focused on corridor evaluation south of Bethel Road, identifying a recommended premium BRT alignment in addition to other corridor mobility needs. The second focused on identifying a full corridor (to the City of Dublin) Locally Preferred Alternative (LPA), a phased implementation plan and an initial implementation segment.

Phasing and Prioritization

COTA Board of Trustees adopts the Northwest Corridor LPA and the initial implementation segment. While the initial segment work advances, early planning and engineering assessment for subsequent segments of the LPA will continue to progress.

Initial Segment Preliminary Engineering

COTA requests entry into FTA's Small Starts program, advances design, prepares an environmental analysis, and continues public engagement. Details and infrastructure needs for multimodal connections, particularly pedestrian and bicycle access, are identified.

TBD

Implement LinkUS Funding Strategy

The LinkUS *Community Action Plan* outlines a funding strategy to raise the local dollars necessary to serve as a local funding match in pursuit of federal funding. This includes eventual passage of a COTA levy. While the exact timing of this effort has yet to be determined, it will be a critical step in completing the corridor design and advancing the project to construction. Once timing of local funding is established and preliminary engineering is complete, COTA applies for FTA grant funding.

+2-3 years

+2 years

Project

Completion

Initial Segment Final Engineering, Design, and Right-of-Way Acquisition

Design and costs are finalized for construction. Necessary right-of-way is acquired. Public engagement continues.

Initial Segment BRT Construction

Northwest Corridor BRT construction completed within 2 construction seasons.

Ride the Northwest Corridor BRT Initial Segment!

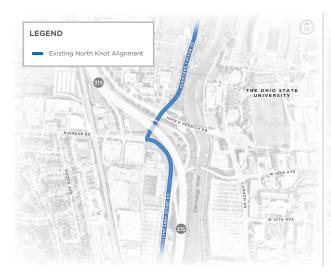
Aligned Efforts

There are a series of other projects taking place in the Northwest Corridor that are being coordinated with the Northwest Corridor BRT design.

The North Knot and South Knot Projects

Two key interchange areas within the Northwest Corridor present substantial connectivity challenges for all modes moving through the corridor and the surrounding street network. These areas are often referenced to as the Knots.

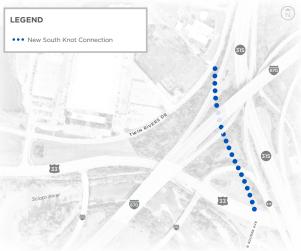
These are locations where automobile travel is convoluted, requiring additional turning movements and circuitous routing for drivers attempting to access destinations when exiting the highway, to access the highway itself, or for those simply traveling through the corridor on surface streets. The Knots also create significant constraints for pedestrian, bicycle and transit movement. Untangling these roadways and improving access to the surrounding area will be integral to advance the long-term vision for a robust multi-modal corridor.



North Knot

In the Summer of 2022, the City of Columbus selected a consultant team through a funding partnership with The Ohio State University and the Franklin County Engineer's Office to study potential infrastructure improvements to enhance connectivity and mobility in the North Knot area.

South Knot



A future direct connection between Twin Rivers Drive and Dublin Road is being explored under a separate initiative by the City of Columbus and potential funding partners. As the South Knot project progresses, premium BRT will be accommodated in the improvement.

More information about the Knots can be found in the *Northwest Corridor Foundations Report* and the *Phase 1 Mobility Study Summary Report*.

More Aligned Efforts

Designing a more equitable community.

Transit-Supportive Infrastructure

In addition to improved multimodal connections to the stations that will be included as part of the BRT project, there are efforts underway to continue to advance connections and trails in the Northwest Corridor.

Sidewalks, shared-use paths and greenway connections make it safe and convenient for pedestrians and bicyclists to access transit. The Northwest Corridor LPA includes these connections. MORPC is also convening the region's jurisdictions to prioritize these LinkUS transit-supportive infrastructure investments region-wide.

Other COTA Enhancements

COTA continues to collaborate with its member jurisdictions to refine and expand local transit service options throughout the Northwest BRT LPA area. Communities have asked for additional rapid transit corridors and park and rides, more frequent local fixed-route service during earlier and later hours and more COTA//Plus service for first and last mile travel needs.

As the Northwest Corridor BRT design advances, additional COTA service enhancements will be developed to connect customers from their neighborhoods to the Corridor. In addition, COTA will explore the possibility of additional service extensions to Bridge Park in advance of infrastructure development in future segments.

Equitable Transit-Oriented Development (eTOD)

The LinkUS Community Action Plan emphasizes the importance of intentional equitable growth along the planned rapid transit corridors. The Community Action Plan includes an eTOD framework to guide strategies for the multiple jurisdictions and regional partners who all have a role to play in achieving equity goals that will ensure vulnerable residents benefit from investment in the corridors.

As the Northwest Corridor BRT design advances, further engagement with property owners and developers will focus on identifying the best opportunities for eTOD in planned station areas, as well as the appropriate strategies to integrate affordable housing and other equity goals into new development.

Dublin Planning Efforts

SR-161 Urban Planning and Development: Dublin is initiating an effort to review the characteristics of SR-161 between the Riverside Drive roundabout and Sawmill Road to align the character of the roadway to be supportive of development and the integration of transit.

Community Plan Update: In 2023 Dublin will be undertaking an update of their Community Plan. This will include a Mobility Plan component inclusive of future BRT implementation. Coordination with this effort will support future Northwest Corridor BRT phasing. The Community Plan is also an opportunity to integrate transit supportive land use and development policies.

City of Columbus Zoning Code Update

Columbus is undertaking an update of its zoning code to better align it with growth priorities, such as affordable housing, job centers and encouraging transit-supportive, mixed-use corridors. The zoning code update is expected to be implemented over the next few years and will be continually coordinated with LinkUS implementation efforts



linkuscolumbus.com