

## PSP-25-02 - 901 E Young/Gravity Commercial - V1

### Parks and Rec/Mobility Planning Comments

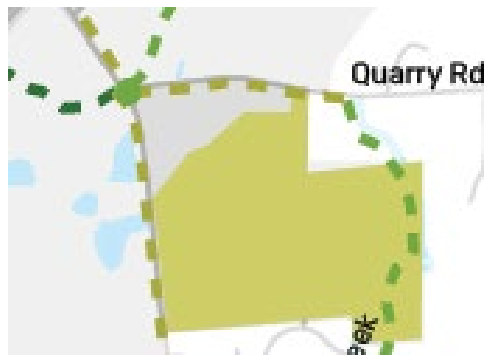
Please ensure that the plans are consistent with the Town's Greenway and Bike Plans:

Please place sidepath and bike lanes on both E Young St and Quarry Rd in accordance with the Town's Greenway and Bike Plan.



#### LEGEND

- Proposed Separated Bike Lanes
- Proposed Bike Lanes
- Proposed Bicycle Blvds
- Proposed Bicycle Intersection Treatment
- Proposed Greeways
- Proposed Sidepaths



#### LEGEND

- Proposed Greeways
- Proposed Sidepaths
- Developer-Built Greenways (in development)
- Proposed Intersection Treatment

Intersection Treatment:

#### GREENWAY NETWORK RECOMMENDATIONS

GREENWAY/SIDEPATH RECOMMENDATION	INTERSECTION TREATMENTS
E. YOUNG ST	Super Street Crosswalk Accommodations, Crosswalks, RRFB
QUARRY RD SIDEPATH	Crosswalks

Roadway Characteristics & On-Road Bicycle Recommendations:

**ROADWAY CHARACTERISTICS TABLE +  
ON-ROAD BICYCLE RECOMMENDATIONS**

ROAD NAME	TO	FROM	ROADWAY WIDTH	# TRAVEL LANES
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E. YOUNG ST	Main St	Fowler Rd	20 - 60ft	2 - 3
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QUARRY RD	E. Young St	Mitchell Mill Rd	20 - 40ft	2 - 3
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AADT	SPEED LIMIT	CURB + GUTTER	RECOMMENDATION	INTERSECTION TREATMENTS
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4,300 - 7,000	35 - 45mph	Partially	Sidepath (preferred long-term) & Bike Lanes	Through Bike Lanes /Bike Box / Super St Crosswalk
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1,100	35 - 45mph	Partially	Bike Lane	Bicycle Intersection Crossing Markings
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Corridor Recommendations on next page:

## 2. E. YOUNG ST SIDEPATH + BIKE LANES

Young St is a priority bicycle corridor as it provides connections between Downtown and neighborhoods in the Town core with Rolesville High School and newer residential and commercial development occurring south of Louisburg Rd. Converted to a super street within the last decade, Louisburg Rd creates a barrier to bicycle and pedestrian connectivity between north and south Rolesville. The proposed sidepath, bike lanes, and intersection treatments aim to establish multi-modal access.

### EXISTING CONDITIONS



### PRIORITIZATION FACTORS

#### ACCESSIBILITY + CONNECTIVITY:

Connects to Main St, Rolesville High School and the proposed Town Hall development; provides access to adjacent neighborhoods and GoRaleigh 401x transit stop.

#### REGIONAL CONNECTIVITY:

Connections to the proposed Buffalo Creek Greenway and the Louisburg Rd sidepath provides connection to greenway and bicycle networks in Raleigh and Wake and Franklin Co.

#### SAFETY:

Provides physical and vertical separation for bicyclists traveling along Young St and improves the Louisburg Rd intersection.

#### EQUITY:

Provides a multimodal facility for all ages and abilities and access to schools, essential services, employment centers, and transit.

#### PROJECT FEASIBILITY:

This project is proposed to be implemented with future NCDOT roadway enhancements of Young St, which will reduce Town costs for bicycle and pedestrian facilities.

### PROJECT SNAPSHOT

#### LOCATION:

E. Young St from Main St to Fowler Rd

#### TOTAL LENGTH:

1.9 miles

#### FACILITY TYPE:

Sidepath and Bike Lanes

If constraints arise during project development, the preferred, long-term facility is a sidepath.

#### INTERSECTION TREATMENTS:

E. Young St at Main St: Through Bike Lane & Bike Boxes

E. Young St at US-401: Crosswalk (Bike/Ped Super Street Accommodation)

E. Young St at Quarry Rd and at Fowler Rd: Intersection Crossing Markings

*Striped green bicycle intersection crossing markings are proposed for each driveway and minor street crossing to alert motorists of bicyclists traveling in the bike lane across the intersection.*

#### IMPLEMENTATION PARTNERS:

Lead: NCDOT Division 5, Town of Rolesville Parks & Rec Dept., Public Works Dept.

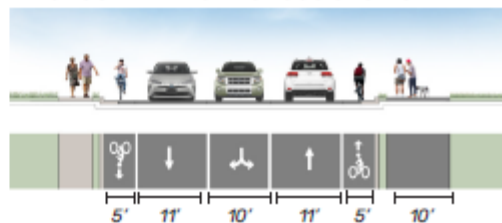
Supporting: NCDOT IMD, CAMPO

#### PLANNING LEVEL COST ESTIMATE:

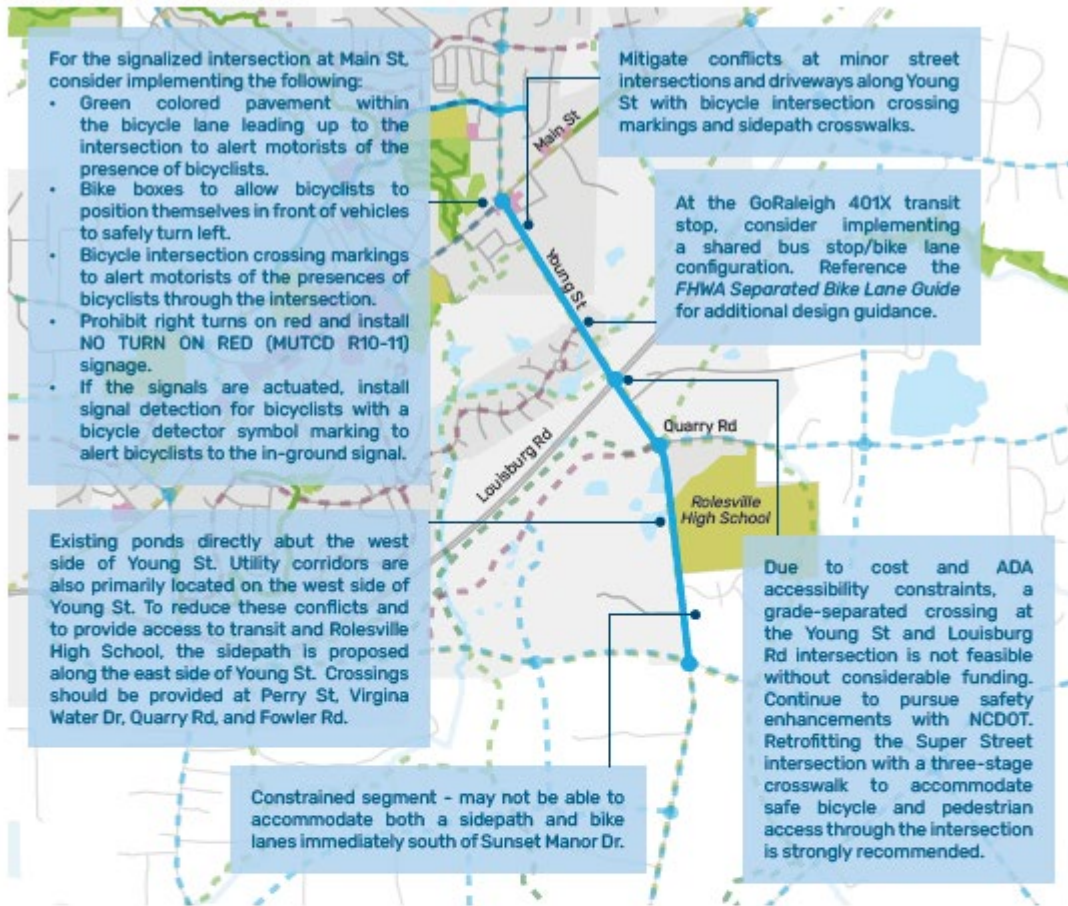
\$4,095,000 - Sidepath

\$2,535,000 - Bike Lanes/Road Improvements  
*(The estimated planning level cost to construct the facility is provided in 2022 dollars. The estimate does not include costs for additional right-of-way acquisition or design).*

### PROPOSED TYPICAL CROSS SECTION



## DESIGN CONSIDERATIONS



## PROPOSED FACILITY RENDERING





#### 4. E. YOUNG ST SIDEPATH

Young St is a priority sidepath corridor as it provides connections to Downtown, Rolesville High School, and residential neighborhoods. Converted to a super street within the last decade, Louisburg Rd creates a barrier to bicycle and pedestrian connectivity between north and south Rolesville. The proposed sidepath and intersection treatments aim to establish multi-modal access across Louisburg Rd from E. Young St. Bicycle lanes are also proposed along the corridor in the bicycle plan recommendations. For details on proposed bicycle facilities, reference *Rolesville Bikes*.

##### EXISTING CONDITIONS



##### PRIORITIZATION FACTORS

###### ACCESSIBILITY + CONNECTIVITY:

Connects to Main St, Rolesville High Schools and the proposed Town Hall development; provides access to adjacent neighborhoods and GoRaleigh 401x transit stop.

###### REGIONAL CONNECTIVITY:

Connections to the proposed Buffalo Creek Greenway and the Louisburg Rd sidepath provides connection to greenway networks in Raleigh and Wake and Franklin Co.

###### SAFETY:

Provides an off-road facility for bicyclists and pedestrians traveling along Young St and improves the Louisburg Rd intersection.

###### EQUITY:

Provides a multimodal facility for all ages and abilities and access to schools, essential services, employment centers, and transit.

###### ENVIRONMENTAL PROTECTION:

Provides sustainable transportation options for those reaching destinations along the E. Young St corridor.

##### PROJECT SNAPSHOT

###### LOCATION:

E. Young St from Main St to Fowler Rd

###### TOTAL LENGTH:

1.9 miles

###### FACILITY TYPE:

Sidepath

###### INTERSECTION TREATMENTS:

E. Young at Main St: Crosswalks and Pedestrian Signal Heads

E. Young St at Virginia Water Dr: Rectangular Rapid Flashing Beacon (RRFB) and Crosswalks

E. Young St at US-401: Crosswalk (Bike/Ped Super Street Accommodations) and Pedestrian Signal Heads

E. Young St at Quarry Rd and Fowler Rd: Intersection Crossing Markings

*Accessible curb ramps are required by the Americans with Disabilities Act (ADA) at all crosswalks.*

###### IMPLEMENTATION PARTNERS:

Lead: NCDOT Division 5, Town of Rolesville Parks & Rec Dept., Public Works Dept.

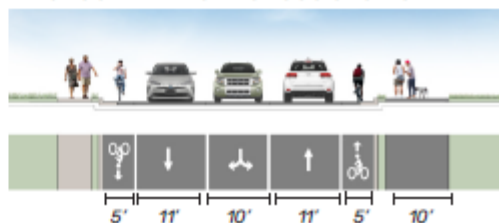
Supporting: NCDOT IMD, CAMPO

###### PLANNING LEVEL COST ESTIMATE:

\$4,095,000

*(The estimated planning level cost to construct the facility is provided in 2022 dollars. The estimate does not include costs for additional right-of-way acquisition or design).*

##### PROPOSED TYPICAL CROSS SECTION



## DESIGN CONSIDERATIONS

Mitigate safety conflicts at street intersections and driveways along Young St by incorporating the following design strategies for sidepath crossings:

- Where possible, reduce driveway frequencies.
- Design or improve existing intersections to reduce driver speeds and heighten awareness of sidepath users.
- Encourage lower speeds at sidepath approaches by use of signage and traffic calming measures.
- Provide clear assignment of right-of-way with signs and markings. Consider using an R10-15 *Right Turn Yield to Pedestrians* sign at street crossings with right turn interactions.

Existing ponds directly about the west side of Young St. Utility corridors are also primarily located on the west side of Young St. To reduce these conflicts and to provide access to transit and Rolesville High School, the sidepath is proposed along the east side of Young St. Crossings should be provided at Perry St, Virginia Water Dr, Quarry Rd, and Fowler Rd. Consider use of a Rectangular Rapid Flashing Beacon (RRFB) at Virginia Water Dr to ensure safe access to the GoRaleigh 401x transit stop from residential neighborhoods on the west side of the roadway.

At the signalized intersection of Main St, stripe crosswalks with high-visibility ladder, zebra, or continental crosswalk markings and use pedestrian signal heads and signage to ensure visibility of the sidepath crossing for all roadway users.

Constrained segment - building frontages and parking near the intersection of Main St and E. Young St may contribute to right-of-way constraints for the sidepath in this area.

Due to cost and ADA accessibility constraints, a grade-separated crossing at the Young St and Louisburg Rd intersection is not feasible without considerable funding. Continue to pursue safety enhancements with NCDOT. Retrofitting the Super Street intersection with a three-stage crosswalk to accommodate safe bicycle and pedestrian access through the intersection is strongly recommended.

Constrained segment - stormwater, utilities, and landscaping may contribute to right-of-way constraints along the east side of E. Young St near the Sunset Manor neighborhood.

## PROPOSED FACILITY RENDERING

