

The City of Fayetteville Supplemental Pedestrian Plan: School Network Analysis

City Council Work Session
June 2, 2025



Purpose and Need

- Residents and City Council identified concerns over walkability within
 Fayetteville, especially near schools
- Major roadways create barriers between schools and the communities they service
- Recent planning efforts from FAMPO and City highlight need for pedestrian improvements near schools





Study Overview

- Performed as a supplement to the NCDOT
 Pedestrian Plan for City of Fayetteville
 - Identified 26 high-priority schools
 - Developed cut sheet recommendations for additional projects near 12 schools
- Recommendations today are presented for Council review and support





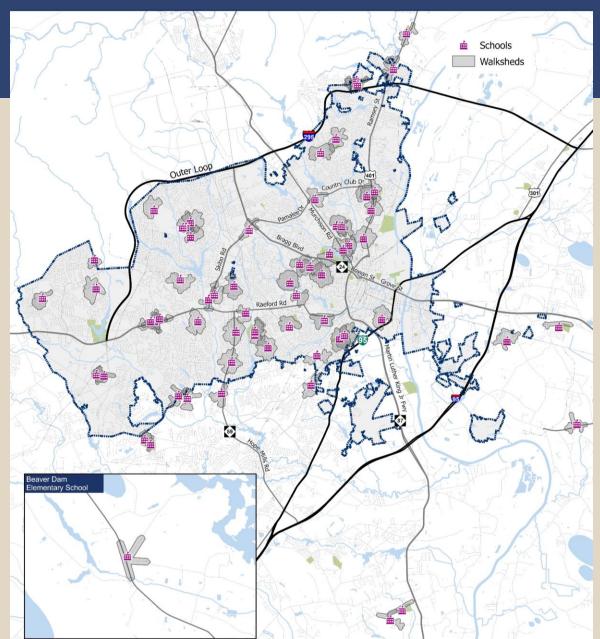
Study Overview

- Kicked off in June 2024
- Focused on K-12 public schools that service City residents
- Prioritized schools based on data-driven performance measures
- Developed cost-effective, implementation-ready project recommendations
- Met biweekly with team from City public services and Cumberland County Schools representatives throughout



Data Collection

- Total of 64 public schools within City limits or that service City population
- Generated a ½-mile walkshed for each based on existing streets/sidewalk





School Prioritization

- Developed a series of four scores:
- A. School Population
- **B.** Safety
- C. Infrastructure
- D. Demographics
 - Scores weighted as follows:

| Г | Weighting | | |
|-------|--|-----------|--|
| | | | |
| Comp | Weight | | |
| | A. School Population Score | 5% | |
| | Student Enrollment | 5% 15% | |
| T-4-1 | Students in Non-Transport Zone | 20% | |
| Total | | 20% | |
| | | | |
| | B. Safety Score | | |
| | Bike Crashes | 10% | |
| | Ped Crashes | 10% | |
| | Average Bicycle LTS in Walkshed | 5% | |
| | Average Intersection Ped LOC in Walkshed | 5% | |
| | Average Speed Limit in Walkshed | 5% | |
| Total | | 35% | |
| | | | |
| | C. Infrastructure Score | | |
| | AADT, Max in Walkshed | 5% | |
| | AADT, Access Road | 5% | |
| | Sidewalk to Road Ratio | 10% | |
| | Crosswalk to Intersection Ratio | 10% | |
| Total | | 30% | |
| | | | |
| | D. Demographics Score | | |
| | TDI | 5% | |
| | Zero Car Households | 5% | |
| | Walkshed Population | 5% | |
| Total | | 15% | |



Prioritization

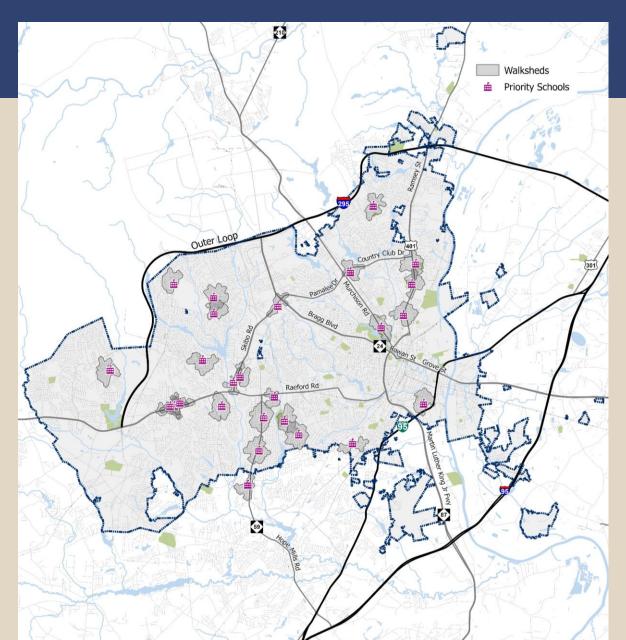
- Utilized three statistical methods to rank the schools:
 - Percentile
 - Z-Score
 - Cluster
- Identified 26 schools that ranked highly within any of the three methods

| School | Percentile 🚅 | Z-Score 🔻 | Cluster 🔻 |
|--|--------------|-----------|-----------|
| A.B. Wilkins High School | Yes | Yes | Yes |
| Anne Chestnutt Middle School | Yes | Yes | Yes |
| Brentwood Elementary School | Yes | Yes | |
| College Lakes Elementary School | Yes | Yes | Yes |
| J.W. Coon Elementary School | Yes | Yes | Yes |
| Lewis Chapel Middle School | Yes | Yes | Yes |
| Loyd Auman Elementary School | Yes | Yes | Yes |
| Luther Jeralds Middle School | Yes | Yes | Yes |
| Mary McArthur Elementary School | Yes | Yes | |
| Ramsey Street High School | Yes | Yes | Yes |
| Reid Ross Classical Middle/High School | Yes | Yes | Yes |
| Seventy-First High School | Yes | Yes | Yes |
| Sherwood Park Elementary School | Yes | Yes | |
| Westarea Elementary School | Yes | Yes | Yes |
| William H. Owen Elementary School | Yes | Yes | Yes |
| Douglas Byrd High School | Yes | Yes | |
| Ponderosa Elementary School | Yes | Yes | |
| Cliffdale Elementary School | Yes | | Yes |
| Ben Martin Elementary School | Yes | | |
| Morganton Road Elementary School | Yes | | |
| Cumberland International Early College High School | | Yes | Yes |
| E.E. Miller Elementary School | | Yes | |
| Walker-Spivey Elementary School | | Yes | |
| Cumberland Mills Elementary School | | | Yes |
| Cumberland Road Elementary School | | | Yes |
| Seventy-First Classical Middle School | | | Yes |



Prioritization

Top 26 schools





School Engagement

- Reached out to the high-ranking schools for initial ideas and feedback
- Representatives from 11 of the 26 schools responded
 - There was general interest and excitement over safety improvements
 - Several schools mentioned a need for non-infrastructure solutions
- Draft ideas for pedestrian improvements near schools identified and shared with City staff
 - The 11 schools that originally responded agreed with the recommendations



Safety at Schools Toolkit

- Focus on pedestrian safety
- Crossing infrastructure is key
- Vertical and horizontal traffic calming
- Non-infrastructure solutions:
 - Crossing guards
 - School circulation planning
 - Walking and biking school buses
 - Education campaigns

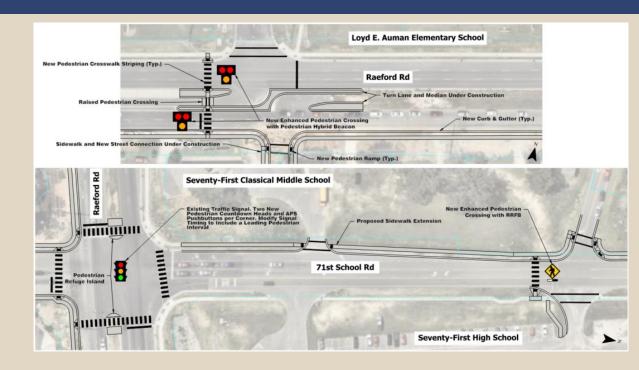






Recommendations Development

- Applied the toolkit as follows:
 - 11 schools that responded
 - One additional school (AB Wilkins HS)
- Based recommendations on:
 - School engagement feedback
 - City Staff discussion
 - Current and ongoing projects
 - NCDOT Ped Plan recommendations
 - Desktop/field review of infrastructure





Results and Cost Estimates

- Cost estimates include:
 - Construction quantities
 derived from planning-level
 concepts for each
 improvement
 - Right of way = $$10/ft^2$
 - 50% contingency for utility, SWE, etc.
 - No adjustment for inflation

| School | Improvements | Cost |
|---------------------|----------------------------|----------|
| AB Wilkins HS | Crosswalk, sidewalk, trail | \$ 2.8 M |
| Brentwood ES | Crosswalk, sidewalk, trail | \$ 3.6 M |
| College Lakes ES | Crosswalk, sidewalk | \$ 2.9 M |
| Cumberland Mills ES | Crosswalk, sidewalk, trail | \$ 2.5 M |
| EE Miller ES | Crosswalk, sidewalk, trail | \$ 2.5 M |
| JW Coon ES | Crosswalk, sidewalk | \$ 2.5 M |
| Loyd Auman ES | Crosswalk, sidewalk, trail | \$ 2.0 M |
| Mary McArthur ES | Crosswalk, sidewalk | \$ 2.5 M |
| Ponderosa ES | Crosswalk, sidewalk | \$ 2.6 M |
| Ramsey Street HS | Crosswalk, sidewalk | \$ 2.0 M |
| Walker Spivey ES | Crosswalk, sidewalk | \$ 0.9 M |
| Westarea ES | Crosswalk, sidewalk | \$ 1.6 M |
| | _ | |

Total for 12 schools = \$ 27.9 M



Next Steps

Options:

- Option 1: Approve the Supplemental Fayetteville Comprehensive Pedestrian Plan Study and place on a Consent Agenda for adoption.
- Option 2: Do not approve the Supplemental Fayetteville Comprehensive Pedestrian Plan Study and provide staff with further direction.

Recommended Action:

 Option 1: Approve the Supplemental Fayetteville Comprehensive Pedestrian Plan Study and place on a Consent Agenda for adoption.



Questions / Discussion