

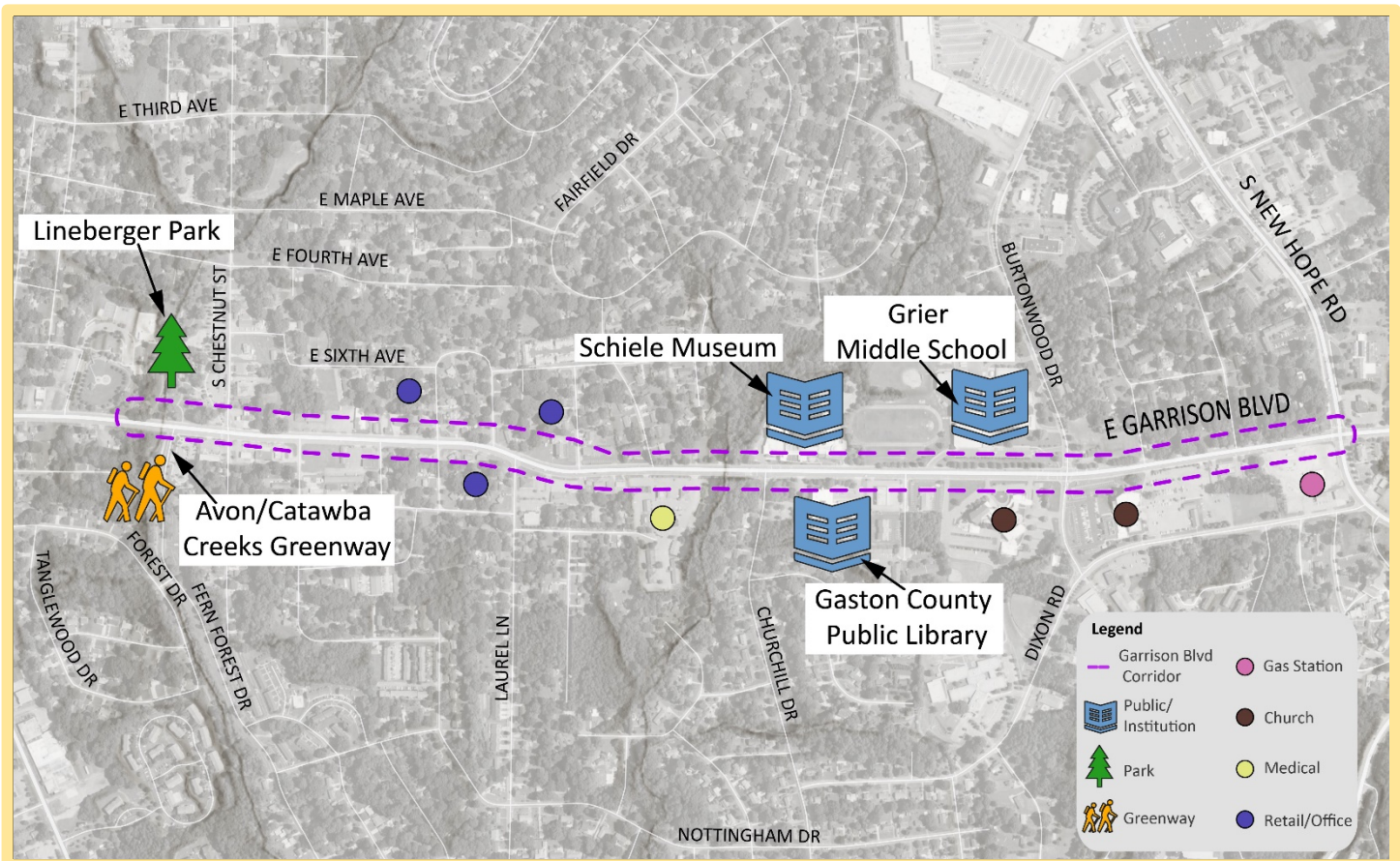
GARRISON LEARNS

2024 RAISE GRANT

Executive Summary

The City of Gastonia's **Garrison LEARNS** (Library, Education, Arts, Recreation, Nature, & Science) Project is more than just a transportation project; it aims to positively transform the fabric of the civic core of Gastonia to promote sustainable modes of transportation, enhance connectivity, improve multimodal safety and accessibility, and stimulate economic growth.

Garrison Boulevard is home to the most significant concentration of civic anchors outside of Gastonia's downtown core. Those civic anchors include the Schiele Museum of Natural History, newly renovated (\$65M) Grier Middle School, Gaston County Library Main Branch, Lineberger Park, and the Avon/Catawba Creeks Greenway trailhead. Garrison LEARNS encompasses not just a stretch of pavement, but the hopes and aspirations of the entire community.



Garrison LEARNS Multimodal Corridor

The Garrison Boulevard Corridor, as it exists today, is automobile centric and provides limited infrastructure and connectivity for people walking and biking. Currently, the study area is a five-lane roadway with a center two-way-left-turn-lane that does not support its growing civic anchors and multimodal demand. There is no sidewalk for most of the south side of the corridor, and back-of-curb sidewalk of varying quality on the north side. The corridor has no bicycle facilities and lacks pedestrian crossing opportunities (average spacing between crossings is 1,700 LF), resulting in unsafe crossing

conditions or significant out of direction travel for pedestrians and transit riders. Moreover, there is a makeshift storm water feature that doubles as a greenway underpass that is continuously silted, wet, and mostly impassable.

Project Location

The Garrison LEARNS Project is strategically positioned to benefit not

just individual neighborhoods, but the entire city of Gastonia. Fully located within a **Historically Disadvantaged Community**, the project directly addresses the needs of those who have historically faced transportation barriers and exhibit unique socio-economic characteristics. Furthermore, its proximity to I-85 offers convenient access to major transportation routes, enhancing connectivity and accessibility for residents. Additionally, being located near the City of Charlotte provides further opportunities for economic growth, cultural exchange, and collaboration. The Garrison LEARNS Project provides an invaluable opportunity to address historical disadvantages while fostering community empowerment, resilience, and facilitating regional connectivity and growth.



The City of Gastonia seeks \$21,902,586 in RAISE grant funding to complete the project.

Garrison LEARNS is divided into three (3) primary components consisting of a total of 13 primary improvements. These seemingly individual improvements come together to create a powerful synergy -- a connected, convenient, and multimodal transportation system that unlocks the corridor's potential.

Component #1 - Safety Improvements

- Lowering the Speed Limit by 10 Miles Per Hour (MPH)
- Reducing Travel Lane Width From 12-feet to 11-feet.
- Replacing the Two-Way Left Turn Lane with a Raised, Planted Median
- Enhancing Roadway Lighting
- Installing a Traffic Signal at Laurel Lane
- Improving the Avon/Catawba Creek Greenway Underpass

Component #2 - Active Transportation (Bike/Ped) Improvements

- Installation of Bike Lanes on Both Sides of Garrison Boulevard
- Construction of Sidewalk along Both Sides of Garrison Boulevard
- Installing High-Visibility Crosswalks at Signalized Intersections & Midblock Crossings
- Adding Pedestrian Countdown Timers at Signalized Intersections
- Installing a Pedestrian Bridge (Grade Separated Crossing) connecting the Museum and the Library

Component #3 – Environmental and Quality of Life Improvements

- Reconstruction of Curb Ramps
- Installing Green Space in the Medians and Buffer Spaces

Project Benefits

- Garrison LEARNS will **enhance safety, accessibility, and connectivity** within the community and is designed to incorporate a range of innovative safety strategies to address key challenges identified in the region.
- The project's foundation lies in **conflict reduction**, transforming the Corridor by reducing the width of the lanes from 12-feet to 11-feet, installing bicycle and pedestrian infrastructure, incorporating crosswalk visibility requirements, constructing medians, and reducing the speed limit by 10 mph.
- Garrison LEARNS isn't just about traffic; it's about **fighting climate change** and **protecting the environment**. Recognizing the intrinsic link between transportation and environmental health, the project adopts a holistic approach that prioritizes the **reduction of carbon emissions, minimization of ecological impact**, and promotion of **sustainable mobility solutions**.
- Garrison LEARNS **promotes active transportation** by providing new dedicated bike lanes, new sidewalks, and new and enhanced crossings in the project area. This will result in an increase in mode split and induce users from the single-occupancy vehicle. The project is predicted to **reduce weekday passenger vehicle trips** by an average of approximately 61,000 trips per year.
- The project encourages **compact and mixed-use development patterns** that reduce the need for long-distance travel and promotes walkability, cycling, and public transportation use.
- The project represents a transformative initiative aimed at **enhancing the quality of life** for residents in the community. Garrison LEARNS will **connect communities**, providing residents with **easier access** to essential services, employment opportunities, educational institutions, and recreational amenities. **Seamless travel options**, including enhanced pedestrian and cycling infrastructure, will not only **promote healthier and more active lifestyles**, but also reduce commuting stress and congestion.
- Garrison LEARNS is more than a transportation solution; it's a blueprint for constructing a more prosperous, inclusive, and interconnected civic hub. In other similar contexts, multimodal improvement projects such as this have helped to **spur economic development** – infill development and redevelopment of properties adjacent to the corridor. This is a benefit to adjacent property owners, local business owners, developers, and future economic stability, above and beyond the one-time increase in real estate values.



Benefit-Cost Analysis

Possible Societal Benefits for Consideration	Key Benefits Quantified	Total Benefits	Present Value (3.1% Discount Rate)
Safety			
Crash Savings	Reduction in number and severity of crashes	\$11,907,386	\$7,514,861
Travel Time Savings			
Peak Hour Travel Time Savings	Change in travel time due to conversion of two-way left turn center lane to raised median (trip rerouting) and number of auto trips taken (shifting of some auto trips to walking/cycling trips)	-\$804,438	-\$506,213
Operational Savings			
Decreased Auto Usage	Vehicle operating costs such as gasoline, maintenance, tires, and depreciation	\$1,742,200	\$1,099,518
Environmental Sustainability			
Vehicle Emissions Savings/-Costs	Decrease in CO2, VOC, NOx, PM2.5, and SO2 emissions due to decreased SOV trips	\$2,236,499	\$1,408,456
Quality of Life			
Health Benefit	Mortality reduction benefit of induced active transportation	\$7,119,701	\$4,493,309
Economic Competitiveness			
Real Estate Value Increase	Increase in property values due to increased access to walking and cycling facilities	\$1,221,546	\$1,017,087
Operations & Maintenance			
Maintenance Savings	Decreased maintenance costs related to the construction of the project	\$1,405,732	\$1,147,143
Other			
Amenity Comfort Benefit	Change in pedestrian and bicyclist amenities including additional sidewalk, vehicular speed reduction, crossings, and bike lanes	\$8,730,475	\$5,509,883
Residual Value	Residual value of assets at the end of the analysis period	\$7,947,779	\$3,704,923
Noise & Congestion	Noise and congestion benefits from a decrease in auto vehicle usage	\$327,744	\$206,842
Total Benefits		\$41,834,623	\$25,595,808
Total Costs		-\$23,843,336	-\$20,984,482
Benefit / Cost Ratio		1.75	1.22

With proposed improvements, Garrison LEARNS will prioritize accessibility for all and transform the Garrison Boulevard corridor, creating an improved civic heart for the City of Gastonia.

For more information, please contact:

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