

OVERVIEW

The Central Midlands Council of Governments (CMCOG) in cooperation with the Irmo Chapin Recreation Commission (ICRC) undertook the Lower Saluda Greenway Feasibility Study.

As the formal documentation of the Lower Saluda Greenway Feasibility Study, the Feasibility Report:

- Defines the greenway’s mission, purpose, and need;
- Identifies potential environmental, cultural, and social resources that should have direct access to the greenway;
- Determines natural features or social concerns that will become constraints for greenway construction;
- Informs, educates, and solicits input from the public about the greenway;
- Provides a detailed concept plan and recommended alignment for the greenway; and
- Provides cost estimates for implementing the project.

This Feasibility Report is part of the South Carolina Department of Transportation (SCDOT) Planning (PL) phase and must be approved by CMCOG, acting as the Columbia Area Transportation Study (COATS) Metropolitan Planning Organization (MPO) before the Preliminary Engineering (PE) phase can commence.

PURPOSE AND NEED

Purpose

The purpose of the Lower Saluda Greenway, a proposed 10.5-mile multi-use paved path along the north side of the Lower Saluda River, is to increase safe access to nearby parks, trails, and destinations, aid in short-trip multimodal travel, and increase regional connectivity and unity between the Lexington and Irmo areas with the communities of Columbia, West Columbia, and Cayce.

Need

Through high use of existing facilities and advocacy for additional facilities, the community has made it abundantly clear that connected, safe, and comfortable non-motorized transportation and recreational facilities are of paramount importance. The current active transportation network lacks connectivity between communities in Irmo and Lexington and those in Cayce, Columbia, and West

PUBLIC ENGAGEMENT

Despite the COVID-19 pandemic, public participation was robust. Over 3,000 public interactions were achieved between all outreach activities. Strong support for the greenway was expressed throughout the study. The outreach activities conducted were guided by the *CMCOG Public Participation Plan* vision, goals, objectives, and techniques. In addition to the outreach activities shown below, a Project Advisory Committee (PAC) was established to guide the overall feasibility study development. The PAC was comprised by staff from CMCOG, ICRC, Town of Lexington, Town of Irmo, Lexington County, River Alliance, Saluda Shoals Park, Riverbanks Zoo and Botanical Garden, and SCDOT.

Informational Video Views	686
Survey Respondents	1,065
Interactive Map Visitors	266
Pop-up Participants	122
Stakeholder Participants	84
Summary Video Views	741
Final Comment Forms	101
TOTAL INTERACTIONS	3,065

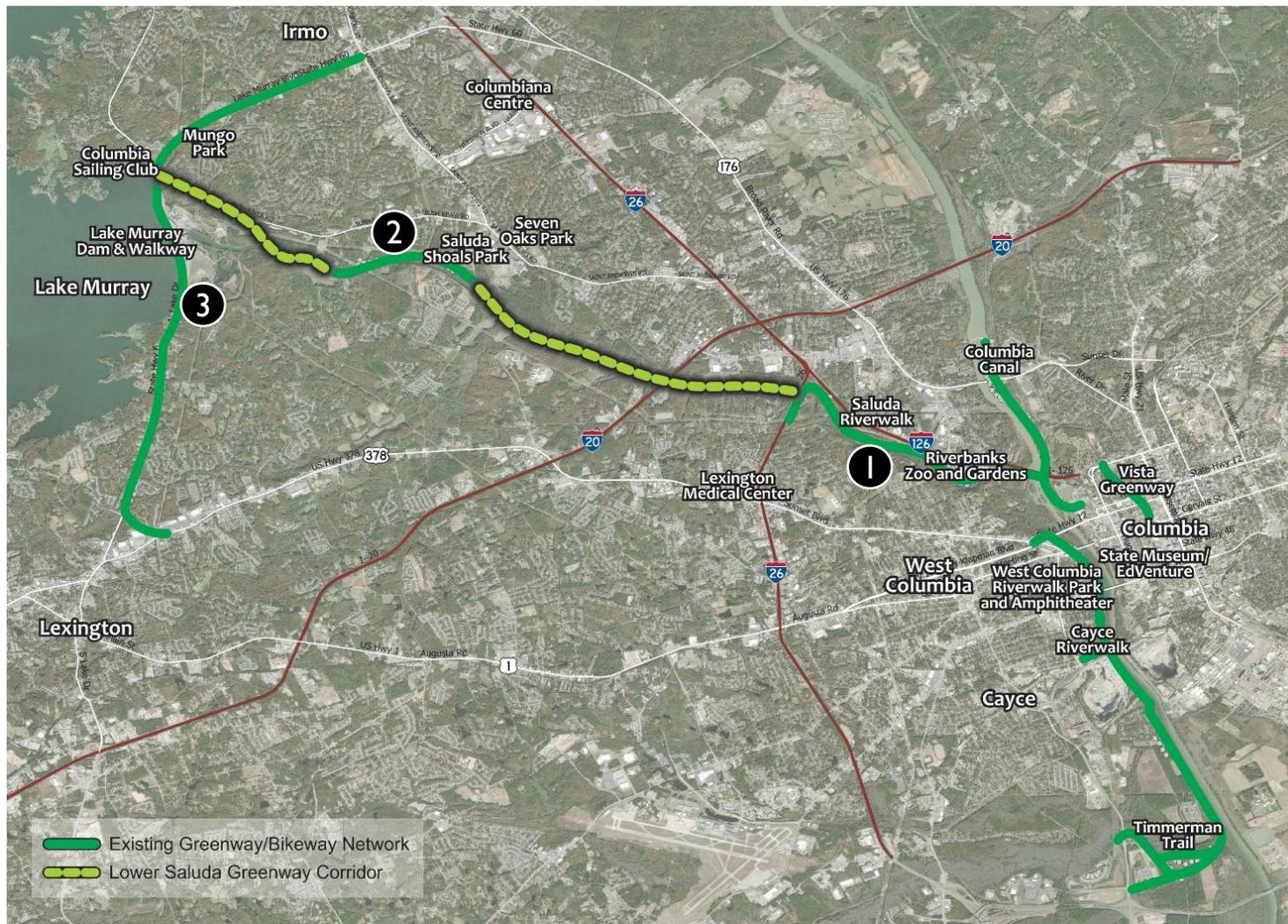
Columbia, limiting non-motorized access to critical destinations and recreational amenities. Addressing this lack of connectivity will provide multimodal transportation choices, healthier lifestyles, access to the outdoors, a higher quality of life, and a more vibrant regional character.



Feasibility Study Process

GREENWAY CORRIDOR

A corridor was identified for the study of the Lower Saluda Greenway. This greenway corridor provides a geography to which all planning efforts and technical analyses were tethered. The greenway corridor runs north of and parallel to the Saluda River. As shown below, the corridor connects three segments of the existing greenway/bikeway network: 1) the Saluda Riverwalk of the Three Rivers Greenway near I-26 to the east; 2) the Saluda Shoals Trail near the center of the corridor, within Saluda Shoals Park; and 3) the existing Johnny W. Jeffcoat Walkway and on-street bike lanes at the Lake Murray Dam to the west.



ANALYSIS AND EVALUATION

Through technical analyses and walking the entire corridor for the proposed greenway, opportunities and constraints were documented, including identifying numerous points where design decisions needed to be made. The analyses revealed areas where challenging topography, barriers to access, sensitive environmental features, and manmade obstacles exist. At each of these decision points, an evaluation of alternative alignments was performed.

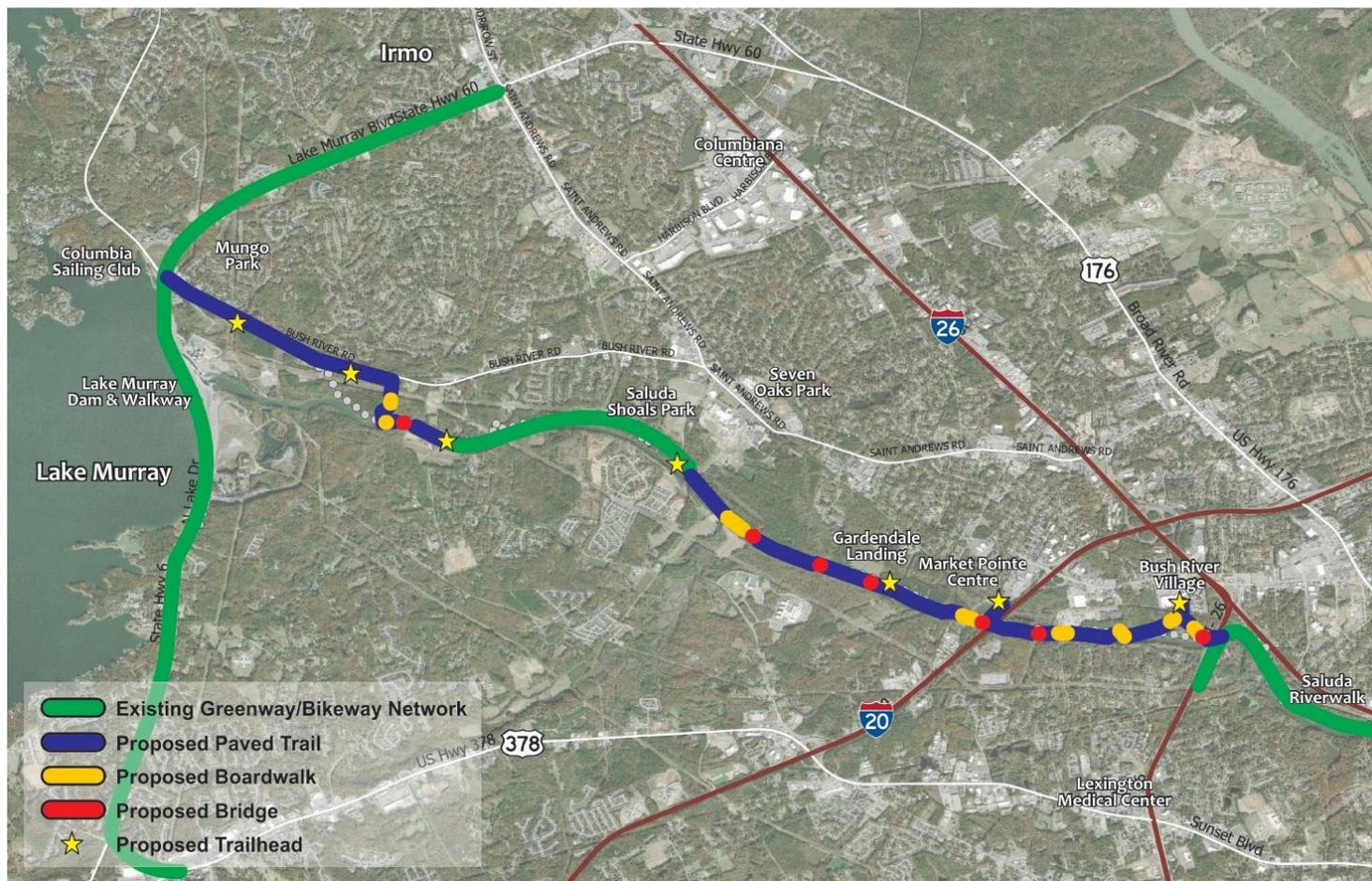
Evaluation criteria were developed, with each alternative alignment being weighed against them. While decisions were needed at each of the decision points, some were very straightforward and did not require an evaluation of alternatives.

EVALUATION CRITERIA

1. Ability to gain property owner permission, minimize property acquisition
2. Ability to increase visual and/or physical access to the Saluda River
3. Ability to connect surrounding areas/residents to the greenway network
4. Ability to avoid/mitigate environmental impacts
5. Ability to simplify construction and maintenance access
6. Ability to reduce overall cost

GREENWAY ALIGNMENT

Based on the evaluation of alternatives, a planning-level greenway alignment emerged. It includes paved greenway, boardwalks, bridges, trailheads, lighting, call boxes, and other site-specific safety improvements to complete the 10.5-mile Lower Saluda Greenway. The greenway alignment is shown below.



GREENWAY CHARACTERISTICS

The width of the greenway will directly affect user comfort, the necessary right-of-way and cost of construction, as well as ongoing maintenance. It is anticipated that the Lower Saluda Greenway will rely on federal transportation dollars as a significant funding source. Therefore, it is also anticipated that the greenway will need to be built to federal and state standards, which are taken from the American Association of State Highway Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities*.

The current 2012 edition of the AASHTO *Guide for the Development of Bicycle Facilities* requires that trails and greenways be 12 feet in width, allowing for 8 feet in constrained areas. The forthcoming new edition, which is expected to be published in late-2021, will recommend wider greenways and trails to encourage safer passing and side-by-side bicycling based upon anticipated user volumes. Not knowing the exact timing of the greenway or the publication of the new standards, the Feasibility Report envisions the greenway to be 12 to 14 feet wide.

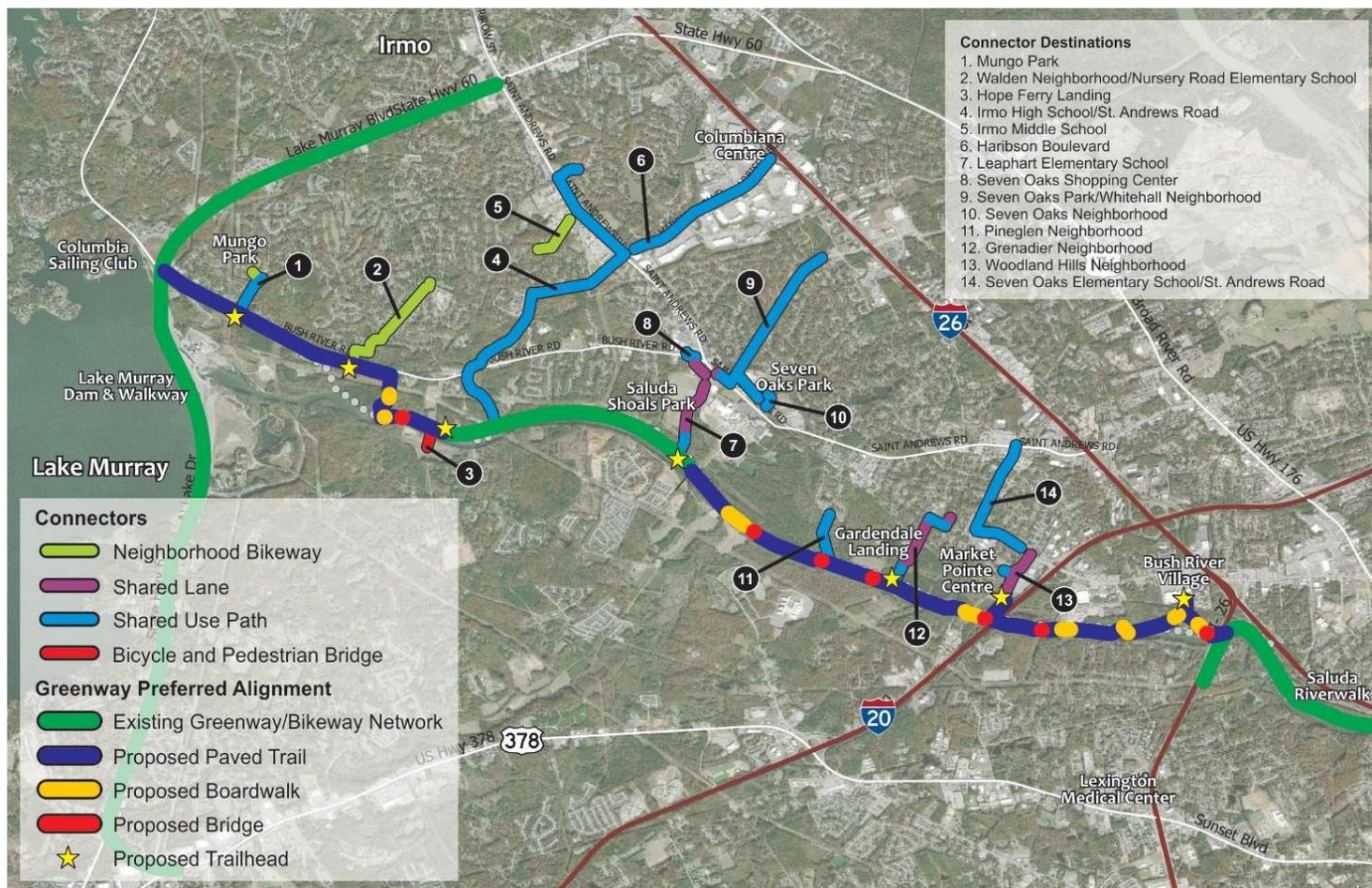
Through wetlands and flood prone areas, wooden boardwalks are recommended. It is anticipated that approximately 3,100 total linear feet of boardwalk will be needed throughout the greenway corridor. Bridges will be necessary to cross smaller waterways that flow into the Saluda River and traverse difficult terrain. Approximately 430 total linear feet of bridge will be required.



Greenway Conceptual Cross Section

LONG-TERM CONNECTIVITY

While the Lower Saluda Greenway is anticipated to be well-used by people from throughout the region, those who live closest to it will receive the greatest transportation, recreation, health, and quality of life benefits. To that end, it is important to consider connectivity to surrounding neighborhoods and destinations. The map below presents a plan for long-term connectivity to the Lower Saluda Greenway. In addition to one bicycle and pedestrian bridge to the south side of the Saluda River, three types of facilities are recommended, including neighborhood bikeways, shared lanes, and shared use paths.



IMPLEMENTATION

To assist in moving recommendations to reality, an Implementation Matrix has been created and is presented in the Feasibility Report. The Implementation Matrix summarizes recommendations, anticipated phasing, and order-of-magnitude opinions of probable cost.

If the entire project cannot be reasonably accomplished at one time, three potential phases have been identified.

Phasing is for planning purposes only; greenway phases should be implemented as soon as opportunities arise.

The table below shows costs for construction (with 30% planning-level contingency), preliminary engineering (PE), and right-of-way acquisition (ROW), resulting in total costs by phase and for the entire project.

PHASE	PE @ 10%	ROW @ 5%	CONSTR	TOTAL
PHASE 1 (Lake Murray Dam to Saluda Shoals Park)	\$557,000	\$279,000	\$5,572,000	\$6,408,000
PHASE 2 (Saluda Shoals Park to I-20)	\$820,000	\$410,000	\$8,202,000	\$9,432,000
PHASE 3 (I-20 to I-26)	\$600,000	\$300,000	\$5,998,000	\$6,898,000
TOTAL[^]	\$1,977,000	\$989,000	\$19,772,000	\$22,738,000

[^] Efficiencies may be realized to lower total costs if all phases are implemented as a single project.