CITY OF MEMPHIS TENNESSEE

DATE: JUNE 2022

Summer Avenue
Complete Streets Study

Prepared by:

Prepared by City of Memphis Comprehensive Planning Department, Division of Planning & Development and Tennessee Department of Transportation with Consultants: Stantec Consulting Services and Fairpointe Planning.

Acknowledgment:

This project would not be possible without the help from the Advisory Committee:

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Thank you.

"Thanks for putting time into this so that those who live near and drive on Summer Avenue can see it thrive once again."

- Ceasar L.

"I've lived in Memphis for 30 years and I've always loved Summer Avenue. Thank you for conducting this project. It's a huge step for this corridor."

- Brantley E.

"This corridor is going through a renaissance. I can't think of a better time for this to be happening to Summer Avenue."

- Brown G.

Table of Contents:

"Cars are so close to the sidewalk...if pedestrians had something between them and the cars, they might feel a little bit more comfortable walking."

- Local Business Owner

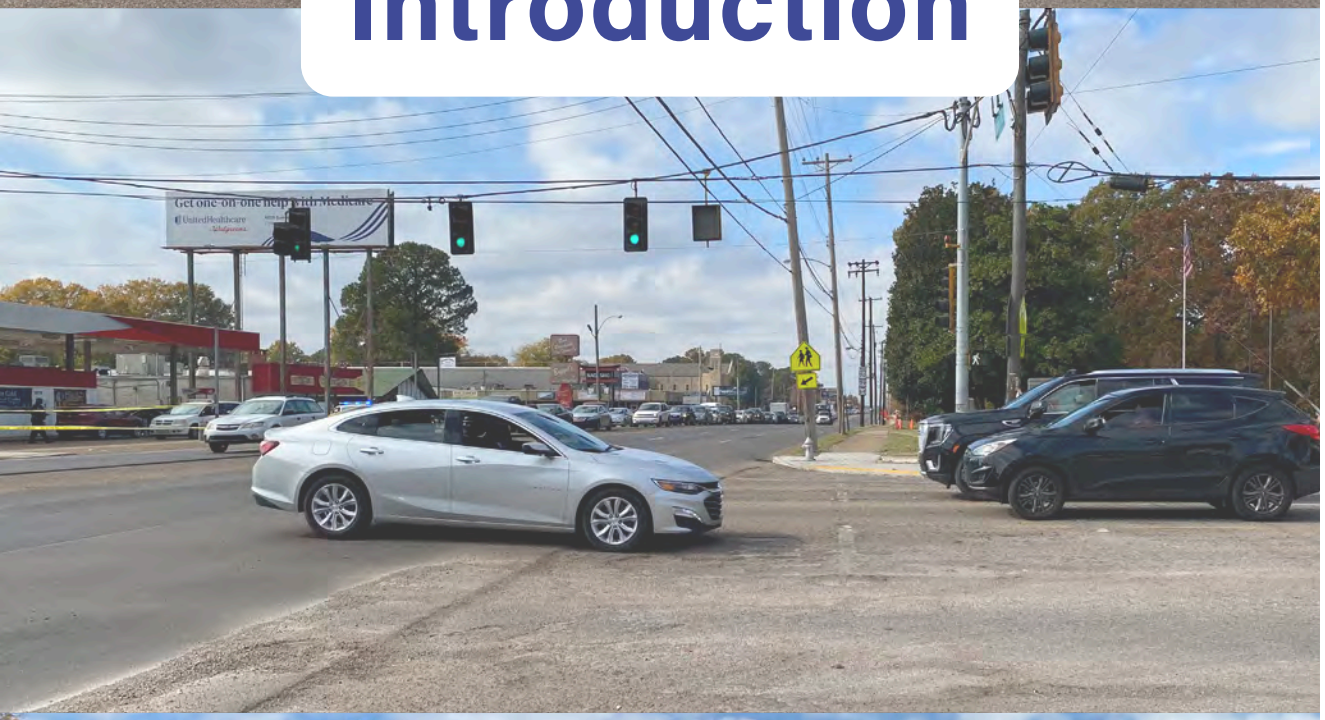
"We need to focus local dollars and local businesses in place so we can have a more thriving corridor. We (local businesses) are suffering."

- P. M.

"Our streets have become more dangerous for everyone who uses them, especially vulnerable users like people walking and biking."

- Nick O.

Introduction



CHAPTER 01

Introduction

Historic image of White Station Road circa 1970.

"Summer Avenue is one of those great American streets, it transcends race and culture and class...there are few things more Memphis than the six-mile stretch of Summer Avenue, with its shopping opportunities, various services and multi-ethnic food bonanza."

Holly Whitfield. (2011). Reason to Love Memphis No. 50: Summer Avenue. ilovememphisblog.com.

In East Memphis, Summer Avenue is a gateway to the city, moving travelers along the corridor from suburban communities northeast of the city through the interstate beltway and into the urban core. A major east-west corridor for the city, Summer Avenue's design, operations, land use, and economic growth are vital to its adjacent communities.

This Study examines the approximately 5.5-mile segment of Summer Avenue, beginning at its intersection with East Parkway and ending at I-40, in order to transform this car-oriented road into a Complete Street, supportive of the multimodal vision which Memphis has cast.

This Chapter Covers:

- Why this Study?
- Process & Timeline
- Community Context
- Existing Plans & Policies
- Guiding Principles

Why this Study?

Adopted in 2019, the **Memphis 3.0 Comprehensive Plan** established a new vision for Memphis' growth and development, to "Build Up, Not Out" and unified land use, transportation, and economic development plans with bold new strategies for the city. The Plan calls for Summer Avenue to become a parkway – a multimodal urban corridor supportive of bicyclists, pedestrians, and transit, in addition to motor vehicle traffic. Identified as a catalytic corridor, improvements can be effective in generating broader, transformational change to surrounding land uses and neighborhoods.

This vision stands in stark contrast to the Summer Avenue of the present. In its current configuration, Summer Avenue is a five- to seven-lane thoroughfare with a center turn lane, lacking bicycle facilities and providing sidewalks in varying states of repair. With wide travel lanes and variable setbacks for businesses, **Summer Avenue reflects an automobile-oriented pattern of development that**, while prevailing across much of the southeast and the United States, **does little to support all users of the corridor, improve quality of life, attract public and private investment, and stimulate growth and economic development for its adjacent communities**. New ideas and better design are needed to accommodate traffic, meet commercial and residential needs, and create safe opportunities for all users of the corridor.

Summer Avenue near National Street. (photo by Andrew Breig)

Process & Timeline

The Summer Avenue Complete Streets planning process was divided into four distinct phases (Figure 1.1):

Figure 1.1: Generalized Project Schedule.

Phase 1 - Visioning

The first phase centered on **data collection, preliminary study of the corridor, and developing the public engagement process**. The team worked with community representatives, local, regional, and state planning agencies to define the Study's purpose, goals, and establish the framework for the Study's development. The project website, survey, and online maps were launched to begin collecting public comments.

Phase 2 - Investigation

The second phase focused on analysis. The project team analyzed plans, policies, data and qualitative feedback from online engagement to conceptualize the corridor's strengths, problems, opportunities and constraints. **The Project Symposium was held in September 2021**, the first major public outreach event, both to present the results of initial analyses and obtain further feedback. Stakeholder interviews were conducted during this period as well to obtain more detailed feedback on key topics of interest along Summer. Key takeaways derived from this phase culminated in the development of the Preferred Access Plan (PAP), the foundation for future design work.

Phase 3 - Concept Design

The third phase began immediately following the investigation phase. The team condensed data, public input, and background information to inform preliminary planning, engineering, and design recommendations. Many of these recommendations were developed during the **multi-day Design Workshop** in November 2021, a large, interactive planning event that provided stakeholders and the general public opportunities to **review and influence concept designs in real-time.** During this phase, the concept design for the corridor was first developed and refined.

Phase 4 - Reporting & Adoption

The final phase documented the whole of the planning process. Using plans, materials and designs produced throughout the Study, this final planning document was prepared to reflect both the design recommendations, the data and analysis informing the recommendations, and the planning process itself. This document will guide the City of Memphis and TDOT in subsequent design and engineering phases on the path to a constructed Complete Street. **The Final Public Meeting was held during this period**, presenting the final recommendations to the public, to close the project and celebrate the productive collaboration between the community and local planning agencies.

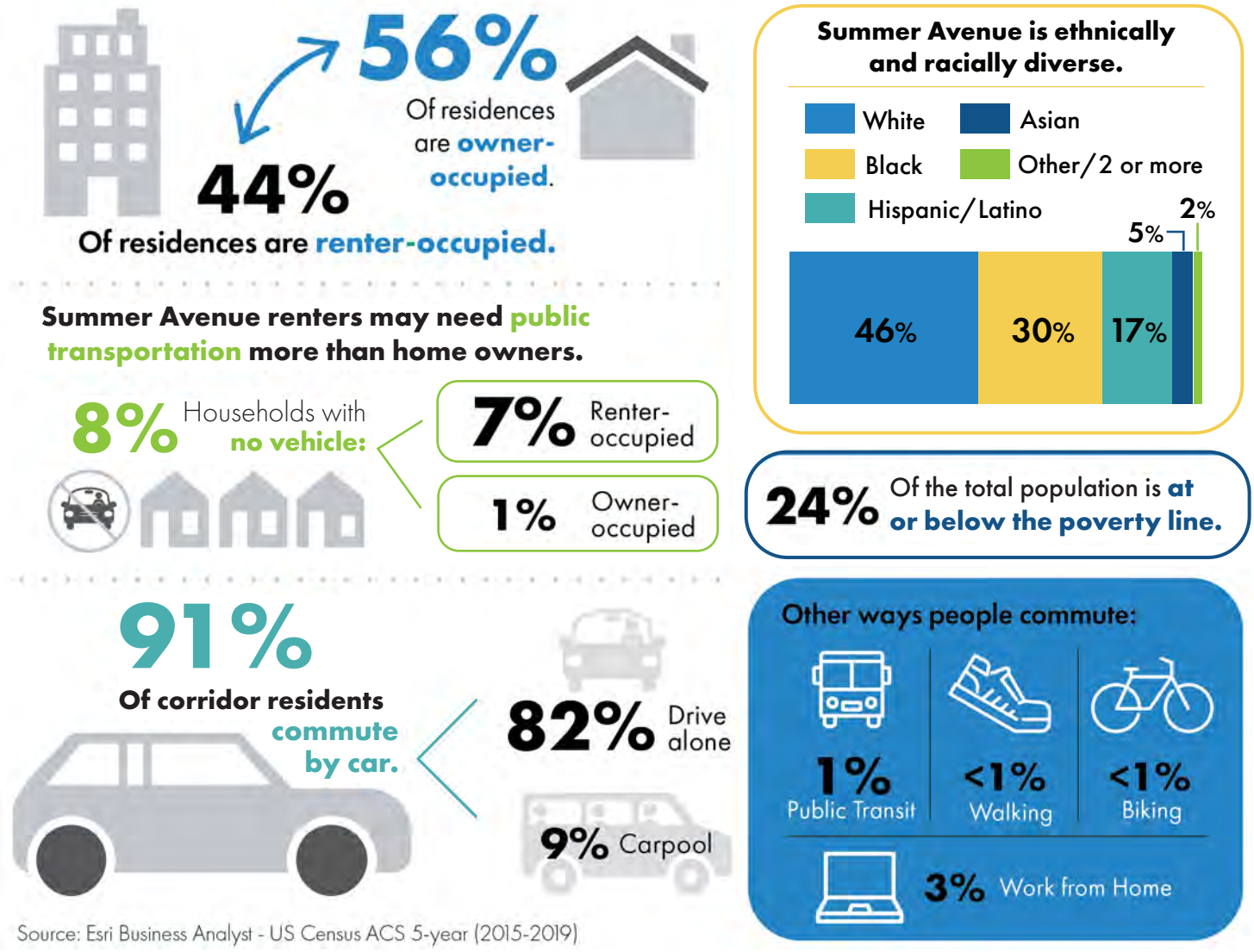
Community Context

Demographics

As a cross-town connector that traverses much of eastern Memphis, Summer Avenue's demographic profile mirrors that of Memphis, although it differs in some aspects. Summer Avenue's population has remained relatively constant over the past decade, mirroring that of Shelby County even as Memphis' population has declined slightly. While projections continue that trend through 2024, they do not take into account new plans for renewed investment and growth along the corridor.

Like most of Memphis, Summer Avenue residents are most likely to commute by car, whether alone (82%) or carpooling (9%). Despite the fact that approximately 8% of corridor households do not have access to a vehicle, under 3% commute using public transportation, biking or walking; this may suggest that **Summer Avenue presents an obstacle both to local and regional accessibility for essential services or accessing employment centers**.

Figure 1.2: Visual summary of Summer Avenue's demographics profile.



Equity Priority Communities

Figure 1.3: Equity Priority Communities Map.

The **Composite Equity Score** identifies **Equity Priority Communities** using the following **demographic indicators**:

If an area has a higher population than the **Shelby County average**, it receives a point.

Higher scores mean **higher concentrations of these groups in an area.**

Socio-Economic Indicators:

- Population below the poverty line
- Racial minority population
- Zero-vehicle households
- Population age 65 years or above
- Population age 17 years or below
- Means of transport to work other than a motor vehicle

One of the primary goals of Memphis 3.0 is to promote equitable, safe transportation for all people in Memphis, especially those residing in areas with **historically underserved populations** and high concentrations of **transportation-disadvantaged individuals.** These areas are more generally referred to as **Equity Priority Communities**. Identifying where these communities reside within the Summer Avenue corridor can help to reveal trends in data that reflect how the corridor currently serves – or fails to serve – all residents, inform discussions with residents, stakeholders, and city leaders, and prioritize recommendations to benefit these groups.

Figure 1.3 depicts Equity Priority Communities along Summer Avenue. There are 23 block groups that share a boundary with Summer Avenue. Among these block groups there is a relatively apparent dividing line that separates the lower-composite score locations (east of Highland Street) from the higher-composite score locations (west of Highland Street). This line is visible on the composite maps, as well as the summary table below. West of Highland Street shows a higher concentration of minority populations, with the highest composite scores also correlating with areas of highest percentage of minority populations.

Existing Plans & Policies

This Study occurs in the context of Memphis' previous planning efforts. These plans provide a guiding framework, revealing Memphis' vision for itself as a community and strategies to realize that vision. With each plan, common themes emerge, which help to shape this Study's recommendations. In doing so, this Study provides a vision that stands on the shoulders of these prior efforts, to increase the overall mobility, comfort, health, and quality of life of its residents.

As a vital component of Memphis' infrastructure, Summer Avenue and its surroundings are featured within several of the city's adopted plans. These plans have been reviewed for recommendations, policies, and concepts relevant to this study, and documented in this section. While each plan centers on a certain aspect of mobility, environmental management, or geographical area, it is important to note that these have all influenced this planning process.

Plans reviewed and documented:

Memphis 3.0 Comprehensive Plan (2019)

Walk and Roll: Memphis Region Pedestrian and Bicycle Master Plan (2020)

Livability 2050: Regional Transportation Plan Update (2019)

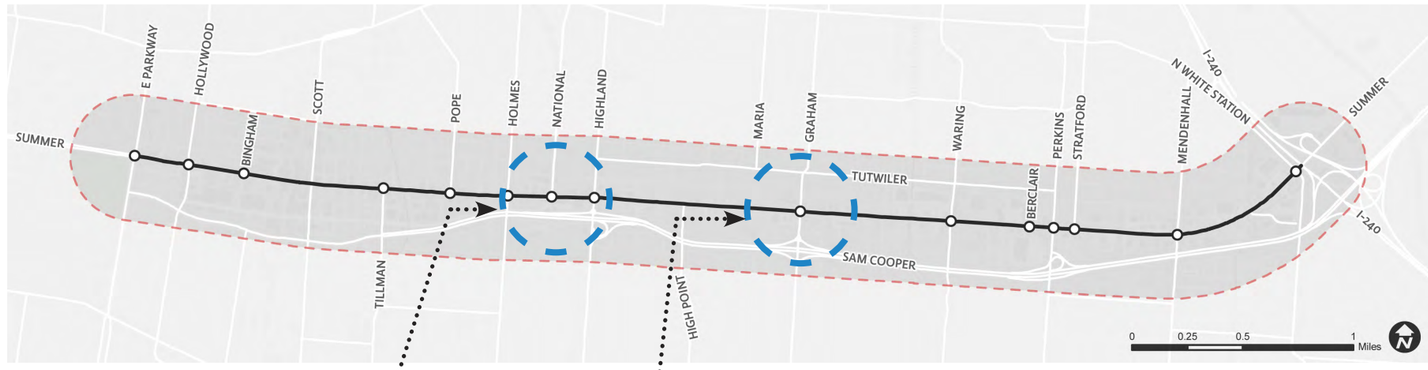
Memphis 3.0 Transit Vision (2018)

Memphis Pedestrian and School Safety Action Plan (2015)

Memphis Complete Streets Plan Update (2020, *reviewed on pages 47-48*)

Memphis 3.0 Comprehensive Plan (2019)

The Memphis 3.0 Comprehensive Plan is a road map to better transportation and transit, investment in Memphis' core and neighborhoods, and investment in opportunities for residents and community members. By focusing on centers of activity identified as "anchors," the Plan builds on the assets of Downtown and neighborhoods across Memphis. Two anchors are identified in the Plan along Summer Avenue at **Summer & National** and **Summer & Graham**. The Graham anchor is identified as one to "nurture," by considering land use changes and incorporating sound pollution buffers in high traffic areas. The National anchor, however, is identified to "accelerate", allocating capital funding to connect the Heights Line with the Hampline and improving stormwater management. Other land uses along the corridor include anchor neighborhoods, with a mixture of multifamily and single-family housing, and low-intensity commercial near the I-40/240 interchange.



The Plan identifies **Summer Avenue as a catalyst for growth in the Jackson district**, *and calls for improvements that reduce curb cuts, remove unnecessary signage, improve multimodal street infrastructure including lighting, and implement modern urban design standards.*

Summer & National
Urban Main Street

Summer & Graham
Urban Main Street

Example Urban Main Street development type from Memphis 3.0

Urban Main Street
Anchor Type

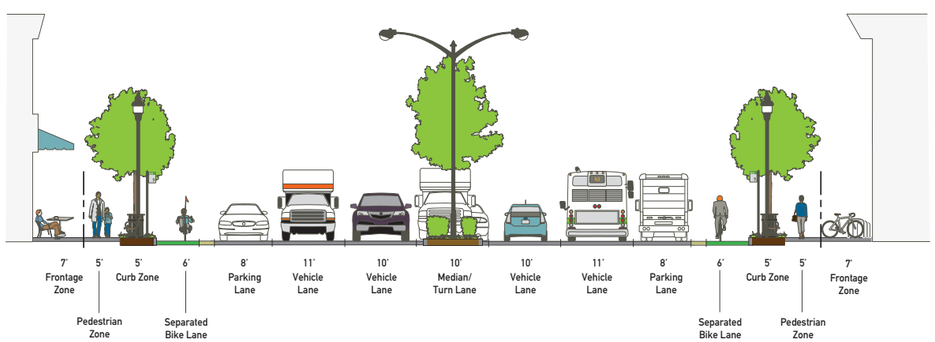
An Urban Main Street anchor is a center of activity and supports a shared sense of community. Urban Main Street anchors are identified as **walkable, vertically mixed-use centers** comprised of multi-story block-scale and house-scale buildings, 1-7 stories in height, supporting retail and services to surrounding neighborhoods in a pedestrian-friendly environment. Areas identified as this anchor type are primarily linear, defined by city blocks facing each other along the street, but may be several blocks in length.

Parkway Street Typology
Arterial

The Plan also identifies street typologies and prescribes design parameters for each type. These ten typologies roughly correspond with the three functional classifications prescribed in the Roadway Regulatory Plan. **Summer Avenue is identified as a parkway**, an arterial in the functional classification network that matches its designation as a US highway. Parkway streets are suitable both for residential and commercial uses, both in limited access or with multiple intersections. Parkway streets should offer accommodations for pedestrians and bicycles in a facility such as a shared use path at the right of way edge, separated bicycle lanes, or a separated cycle track. Additional options for parkways include bus rapid transit lanes and landscaped medians.

Parkway Characteristics

Right-of-way	90'-124'
Number of Lanes	4
Parking	On-street
Sidewalks	Yes
Bicycle facilities	Buffered bike lanes
Drainage	Context-dependent
Median	Context-dependent, with left turn bays at key intersections
Streetscape	Appropriate street trees in median and green strip
Furnishings	Yes, benches & shelters related to transit service
Lighting	Yes in urban contexts (optional in transitional areas)



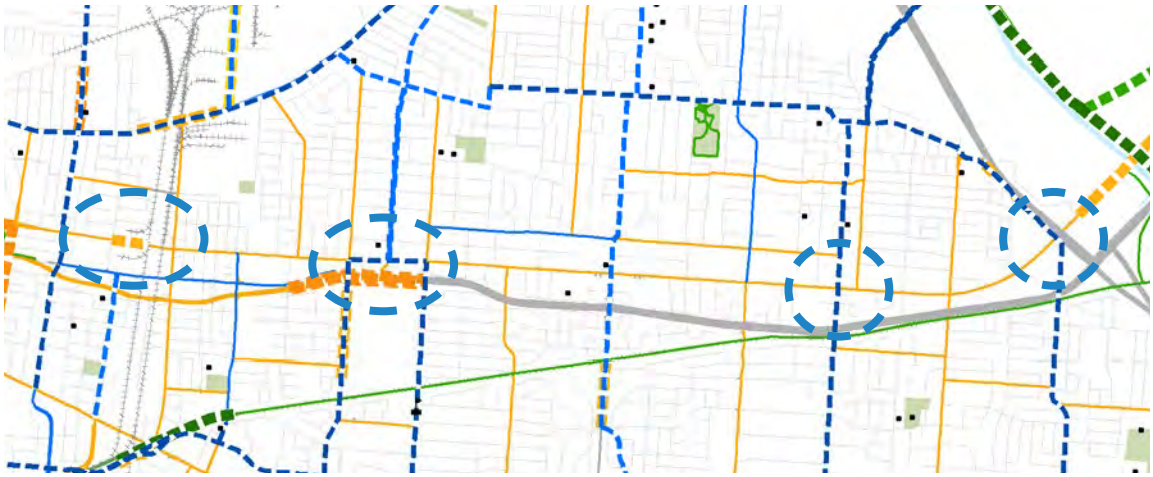
Parkway Street Typology

Walk & Roll: Memphis Region Pedestrian and Bicycle Master Plan (2020)

Walk & Roll is a long-term vision for the future of active transportation and recreation in the Greater Memphis Region, defining infrastructure recommendations to improve walking and biking, as well as best practices and tools, planning and design guidance, and an implementation strategy. The Plan creates priority networks for biking and walking, which include both Summer Avenue and adjacent roadways within the study area. Two sections of Summer Avenue are highlighted for proposed new projects:

- New sidewalk (medium-priority): Summer Avenue between N Bingham Street and N Scott Street
- New bike connection (high-priority): Summer Avenue between N Holmes Street and N Highland Street

Additionally, bike connection projects are highlighted along N Hollywood Street, N Graham Street, N Perkins Street, and N White Station Road, all of which intersect Summer Avenue in the project area.



From the Pedestrian and Bicycle Master Plan, the figure at left shows priority bicycle and pedestrian connections in the study area that intersect with Summer Avenue (highlighted in **blue**).

Livability 2050: Regional Transportation Plan Update (2019)

Livability 2050 outlines long-term transportation improvements for the MPO region through 2050, defining goals and objectives as well as forecasting anticipated improvements to key corridors, such as Summer Avenue. Livability defines 5 goals for improving transportation that bear upon this Study:

- Improved **multimodal access** to residential, community, and employment resources
- A multimodal network of **Complete Streets**
- Enhanced **travel and tourism**
- **Increased safety** and security for all users
- Corridor and **community redevelopment**

Highlighted as a major investment, Summer Avenue is listed as a priority for receiving Complete Streets improvements to address identified safety concerns.

Livability 2050 calls for Complete Streets improvements, many of which (sidewalks, bike lanes, and streetscaping) can be seen in the cross-section above.

Memphis 3.0 Transit Vision (2018)

The Transit Vision is a blueprint for how to change and grow Memphis' existing transit system to best meet citywide needs and goals, and develop a long-term plan for a future transit network that meets the needs of the future city. The Plan sets out short-term and long-term recommended networks, and Summer Avenue features in both as a high priority east-west corridor:

- **Short-Term:** the Plan recommends service featuring 30 minute headways.
- **Long-Term:** the Plan recommends service by two routes: one operating west of Highland Avenue featuring 15 minute headways, and one east of Highland featuring 30 minute headways.

As a priority corridor, the Plan recommends policy changes to support transit along Summer, including reducing or eliminating parking requirements, increasing development density, prioritizing safe pedestrian connectivity along and across Summer Avenue, and prioritizing transit movement along the corridor to minimize delay.

Gateway to Overton Park Bike Plaza

Memphis Pedestrian and School Safety Action Plan (2015)

The **Pedestrian and School Safety Action Plan** develops a prioritization methodology and implementation strategy to improve pedestrian connectivity and safety in areas where improvements are most needed. Demand analysis demonstrates high demand for walking and pedestrian infrastructure along Summer Avenue, particularly near areas now identified as the anchors of National Street and Graham Street. However, the Plan notes that the current state of sidewalks along Summer Avenue make them among the least suitable for walking or pedestrian travel within the I-40/240 loop. Intersection improvements at nearly all intersections along Summer Avenue are also identified as needs, with most intersections featuring incomplete curb ramps, crosswalks and a total lack of pedestrian refuge or other median islands.

Problematic intersection along Summer Avenue (N Graham Street)

Guiding Principles

A major east-west corridor for the city, Summer Avenue's design, operations, land use, and economic growth is vital to its adjacent communities. Through stakeholder outreach, public involvement and committee collaboration, the following guiding principles were developed to guide the design team throughout the planning and design process. The following core values were derived from the continuous input, opinions, and directions provided by the Summer Avenue community, TDOT, and the City of Memphis:

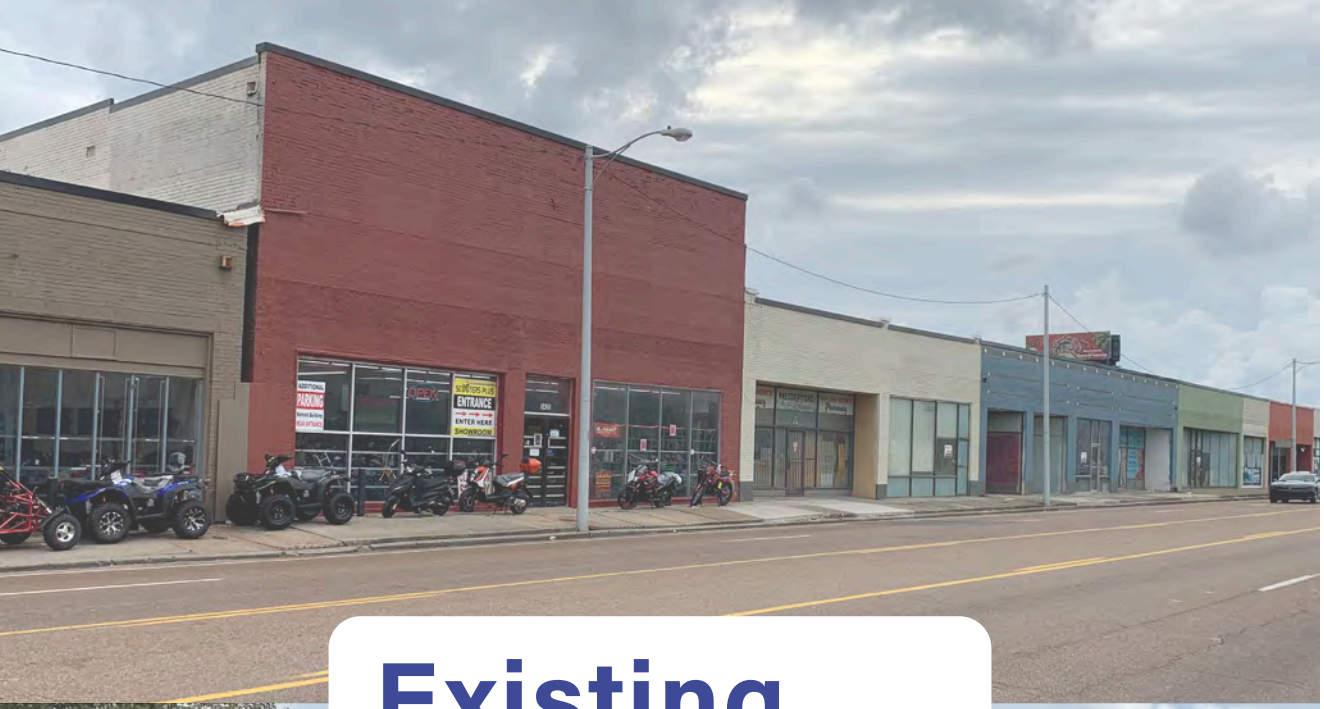
1. **Redesign to accommodate a more complete street.**

2. **The safety of all users is paramount.**

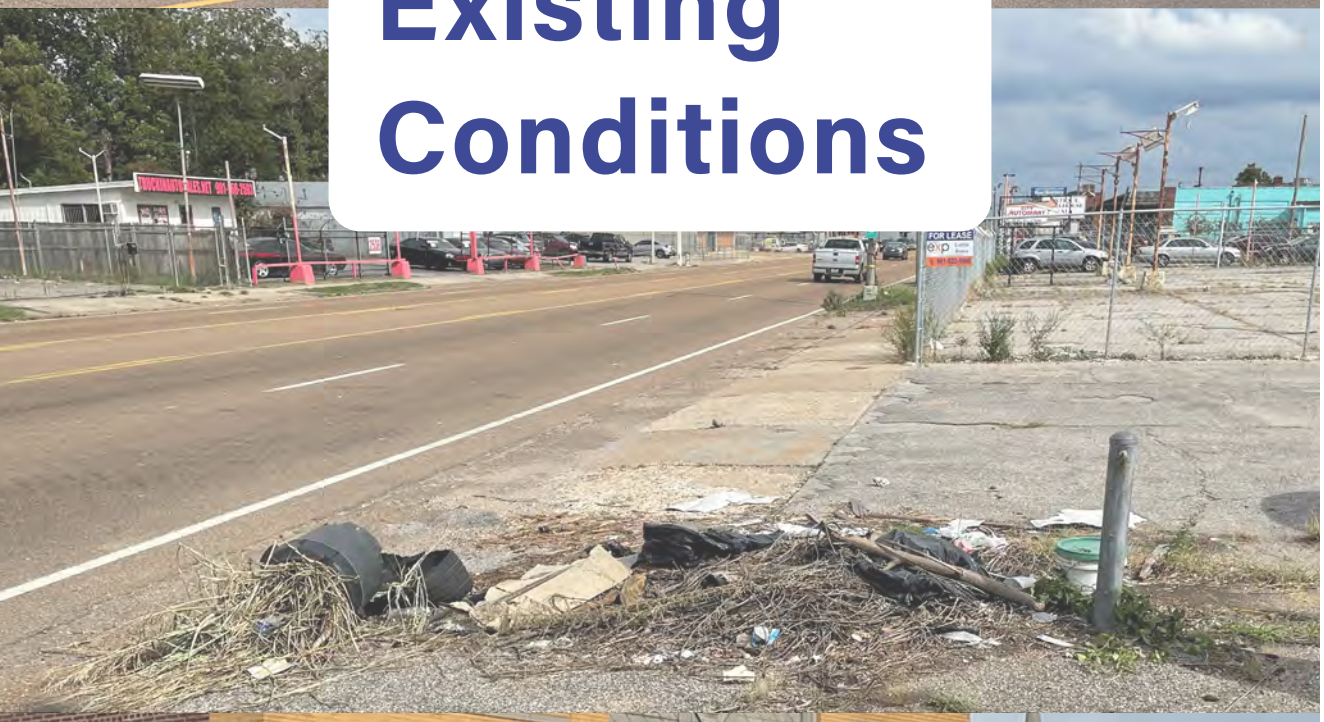
3. **Built-in traffic calming is a must.**

4. **Support corridor redevelopment through quality urban design.**

5. **Create a community gateway through attractive streetscape design while integrating cultural qualities.**



Existing Conditions



CHAPTER 02

Existing Conditions

Summer Avenue today - looking east. Poor pedestrian infrastructure.

The Summer Avenue Complete Streets Study seeks to improve the overall mobility of all users through identification and improvement of its current deficiencies. Creating a safe and efficient roadway for motorists, transit users, bicyclists and pedestrians ensures Summer Avenue is a Complete Street that can foster community cohesiveness, improved quality of life and contributes to the city's economic development objectives.

This chapter examines Summer Avenue as it currently exists. Only through understanding the existing condition and performance of its infrastructure and operations, can the challenges and opportunities be properly addressed and recommendations produced.

This Chapter Covers:

- Corridor Profile
- Vehicles
- Transit
- Bicycle & Pedestrian
- Land Use & Development

Summer Avenue near N Highland Street - looking west. Opportunities for redevelopment.

Corridor Profile

Summer Avenue's Corridor Profile in Figure 2.1 weaves together current conditions and data points to reveal patterns and trends in Summer Avenue's design, operations, and land use that highlight areas of concern.

Information Analyzed

- Sidewalks
- Traffic Signals
- Shade Trees
- Pedestrian Lighting
- Streetscape
- Block Length
- Maintenance
- Number of Lanes
- Traffic Volume
- Bicycle & Pedestrian Crashes
- Posted Speed Limit
- Right-of-Way Widths
- Land Use

Areas of Concern

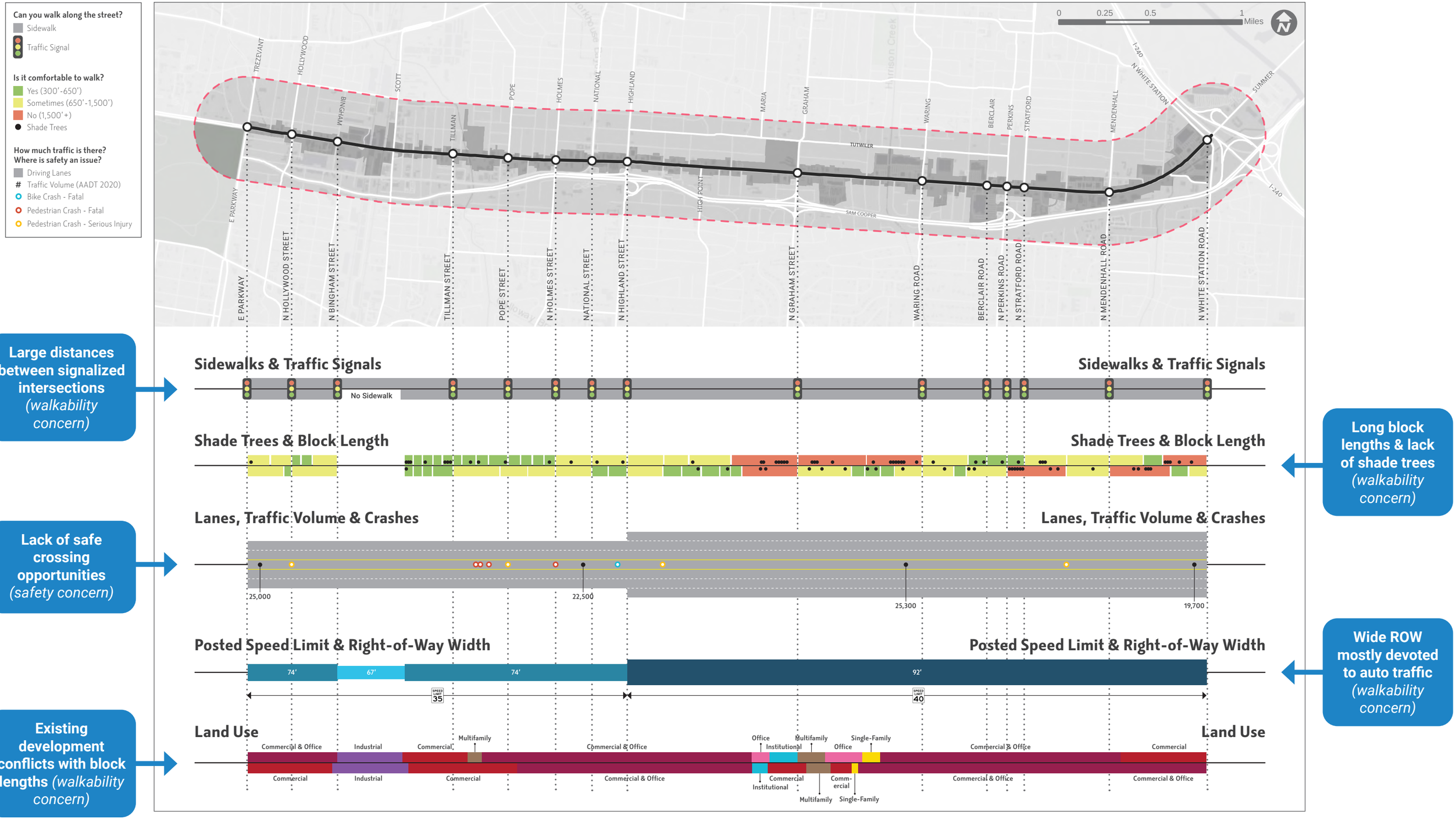
Summer Avenue's existing cross-section overwhelmingly devotes its wide right of way to automobile through-traffic. This lack of space for other uses like adequate sidewalks, on-street parking, landscaping, bus shelters, and bike facilities **creates dangerous conditions for pedestrians.**

Pedestrian crashes are clustered in the western section of Summer, near multifamily residential housing and in an area of higher commercial activity. This suggests a **lack of safe crossing opportunities**. While many intersections along Summer feature traditional crosswalks, only two intersections have high-visibility crosswalks.

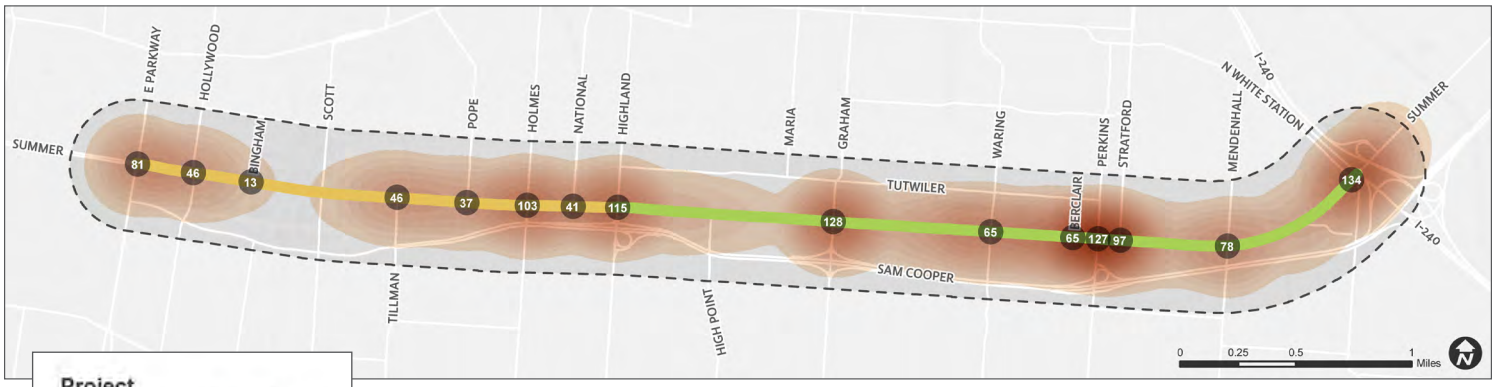
Long block lengths along Summer also challenge walkability. The western end features smaller blocks that lend themselves to a walkable neighborhood, but land uses are predominantly commercial, industrial, or offices. Residential uses abound in the middle section of the corridor, where block lengths are much longer. Smaller block sizes and midblock crossings are key features of a Complete Street.

See next page for the visual summary of **Summer Avenue's Corridor Profile** (*Figure 2.1*)

Figure 2.1: Visual summary of Summer Avenue's Corridor Profile.



Vehicles



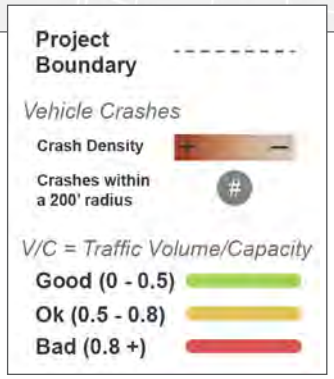


Figure 2.2: Crashes and Level of Service for Vehicles.

Level of Service

Vehicular Level-of-Service (VLOS) categorizes corridor functionality for motor vehicles based on congestion and movement. Taking into account traffic speed and volume, travel times, pavement condition and type, travel lanes and roadway capacity, and traffic signal timing, VLOS combines data to rank users' perceived satisfaction with the facility. This aids in understanding how differing conditions impact motorists and identifying specific areas of concern for those users.

Drivers and passengers on Summer experience relatively comfortable conditions traveling along the corridor. Current VLOS along the corridor is moderate to average. The five- to seven-lane configuration accommodates an average daily traffic of approximately 25,000 vehicles, which can cause some congestion during peak periods. The **congestion is greatest on the western end of the corridor**, where the lanes narrow and higher concentration of Equity Priority Communities are.

Crashes & Safety

Crashes are a concern along the entire corridor, with **two main clusters near the Graham Street intersection and Perkins Road intersection**. In both of these locations, block lengths decrease quickly and commercial activity is nearby. Poor roadway design may be a contributing factors in these locations.

Summer Avenue near National Street - looking west.

Transit

Memphis Area Transit Authority (MATA) operates **two routes on Summer Avenue within the study area**: the 19 (Vollintine – Summer) and the 53 (Summer). These two routes both operate on 60 minute headways during weekday operations and on Saturday; the 19 does not operate on Sundays, while the 53 operates with 120-minute headways. **Three routes intersect the Summer Avenue corridor**: the 8 (Chelsea – Highland), 32 (Hollywood – Hawkins Mill), and 37 (Perkins) routes. These connections allow transit users to connect with destinations north and south of the corridor, albeit with difficult headways that limit transit's competitiveness with other modes.

Transit stops along Summer feature few amenities, with the majority only indicated by the presence of a sign. Transit shelters have recently been installed near commercial destinations at the eastern end of the corridor, and feature benches and trash receptacles. Particularly for Memphis' hot, humid summers, shelters provide necessary shade and relief for transit riders.

Bus stop sign on Summer Avenue. Poor transit facilities.

Bicycle & Pedestrian

Multimodal Level-of-Service (MMLOS) measures and categorizes the functionality of a corridor for bicyclists and pedestrians based on its infrastructure, operations, and condition. Evaluating traffic speed and volumes, facilities such as sidewalks, bike lanes, and high-visibility crosswalks, MMLOS combines this data to create a ranking of users' perceived satisfaction with the corridor. MMLOS helps planners identify specific areas of concern for multimodal users to understand differing conditions along a corridor, prioritize improvements, and choose the best alternative in the planning process.

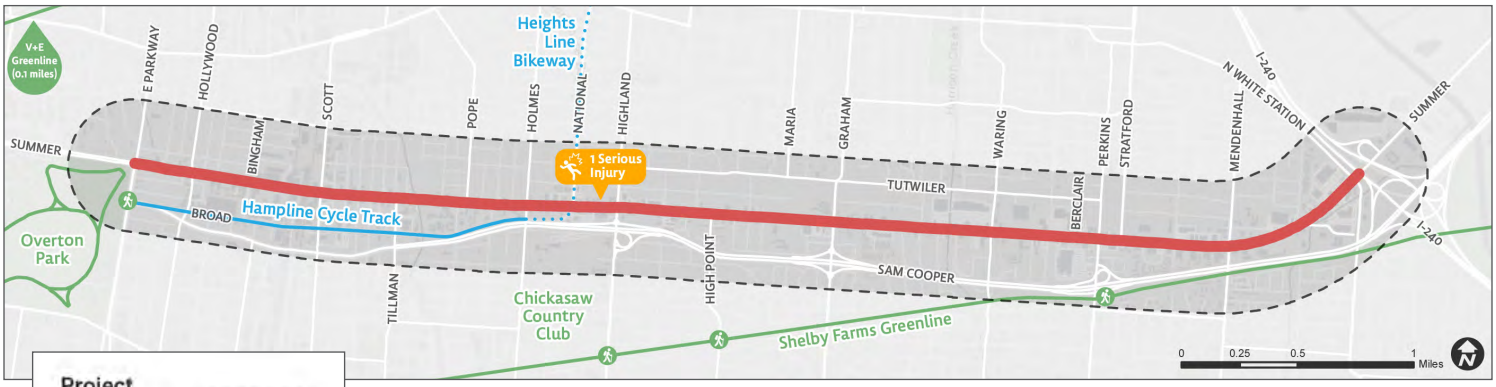


Figure 2.3: Crashes and Level of Service for Bicyclists.

Bicycle Level of Service

In contrast to conditions for motor vehicles, **biking conditions along Summer Avenue are poor**. There are **no bike facilities present** along the entire 5.5 mile study area. Sidewalks are not considered an adequate facility for bicycling; moreover, for those who do choose to bicycle on the sidewalks, **lack of separation from traffic creates a higher level of stress** than is tolerable for the typical bicyclist. With the Heights Line intersecting Summer Avenue and the Shelby Farms Greenline in the vicinity, there may be unmet demand for bicycling facilities in the study area.

Summer Avenue's unsafe design may be causing crashes along Summer. Over the past decade, 138 total bicycle and pedestrian cashes have occurred along the corridor. Of these, approximately 30% have occurred at intersections, with the other 70% occurring at midblock locations. **90% of these crashes have involved injuries**, with 13 fatalities. Perhaps most worrying, these crashes have been on the increase, even with fewer vehicles on the road in 2020.

Bicyclist traveling Summer Avenue in the wrong direction.

Figure 2.4: Crashes and Level of Service for Pedestrians.

Pedestrian facilities (sidewalks in particular) are poorly maintained.

Pedestrian Level of Service

Pedestrians face a similar experience to bicyclists, encountering a Summer Avenue that discourages walking. **Sidewalks are present along nearly all of the corridor**, but the ability to walk along a corridor does not mean that it is walkable. Most, if not all **sidewalks along Summer lack any separation from vehicle traffic**, placing pedestrians immediately next to large, fast-moving vehicles. Pedestrian facilities, sidewalks in particular, are poorly maintained. Long block lengths and a wide right-of-way also make it **difficult to cross Summer Avenue**, and there are no mid-block crossing opportunities. Pedestrian fatalities have occurred in areas near commercial activity and between intersections, suggesting safer crossing options are needed. While many Summer Avenue intersections feature traditional crosswalks, only two are highly visible in their design, and there are no refuge islands for slower-moving pedestrian users.

In Chapter One's **Equity Priority Communities Analysis**, the cluster of crashes west of National Street, correlates with neighborhoods experiencing access and mobility barriers. Bicycle and pedestrian LOS is exceptionally poor in those high severity areas, **matching the priority for infrastructure needs in those locations**.

Land Use & Development

The existing land uses and development pattern along Summer Avenue do not support the walkable, mixed-use vision articulated in Memphis 3.0. For decades, Summer Avenue has been a major thoroughfare and a hub of local retail and commercial activity, with development popping up to support this type of feature. Accordingly, much of the existing development along Summer Avenue is commercial in nature, with offices and institutional uses interspersed.

Auto-oriented uses along Summer Avenue.

The existing uses and development pattern conflict with existing block lengths. **Long block lengths increase traffic speeds and challenge pedestrians with long travel distance, yet residential areas of the corridor are found near the areas with longest block lengths.** Encouraging pedestrian-scale development along Summer Avenue to increase walkability will complement efforts to introduce new bicycle and pedestrian facilities, creating a more complete Summer Avenue.

Wendy's on the west side of Summer Avenue relocating to the east side.

Public Engagement

CHAPTER 03

Public Engagement

View of the Design Workshop in action.

Public engagement plays an integral role in any design or study, as the results will impact the daily lives of community members and local businesses. Planning for a community is not as successful as planning with the community; meaningful engagement means stronger results, tighter community bonds, and plan implementation is more likely.

Project Manager Bradyn Carson explaining the details of the plan to a stakeholder.

This chapter documents the public engagement process and activities undertaken during the planning process. Online engagement methods, public meetings (virtual and in-person), and stakeholder discussions complemented technical analyses to reveal insights not captured through data alone. These perspectives aid in creating a more complete picture of the corridor, define community values, and establish priorities and preferences for how a re-envisioned Summer Avenue looks, feels, and operates.

This Chapter Covers:

- Stakeholder Discussions
- Online Engagement
- Public Meetings
- Guiding Principles

Stakeholder Discussions

Advisory Committee

At the beginning of the process, the City of Memphis worked with the project team to assemble an advisory committee tasked with supporting the progress of the plan. The committee was crucial in the development of recommendations and success of public engagement critical to the plan. This core group of **community members, professionals, agency representatives, and advocates** worked closely with the planning team throughout the process, meeting or holding conference calls regularly during the project process to stay up-to-date and on schedule during all phases.

The Advisory Committee served not only for project oversight, but also as a guiding entity throughout the life of the project. They helped to provide venues for sharing information, raised and discussed ideas, increased community participation, identified focus group participants, set a direction and priorities, and vetted plan recommendations. Committee members were **present every step of the way to provide their local and specialized knowledge** to the project team and consistent in their advocacy for Summer Avenue.

Project expectations discussed in the first phase of the project.

Walking Audit

During the third meeting, the Advisory Committee walked several sections of Summer Avenue as part of a walking audit to better understand bicycle and pedestrian safety issues on a personal level. Committee members had the opportunity to walk, talk, and learn more about Summer Avenue's context, identify safety and maintenance concerns, as well as issues related to bicyclists, pedestrians and development along the corridor.

Walking audit forms completed by AC members.

Focus Groups

During the investigation phase of this study, focus group interviews were conducted with residents and stakeholders including agency representatives, community leaders, advocates, and elected officials. Meetings were held as a **series of one-hour interviews centering on a single topic.** Group members were identified by their ability to provide a different perspective and represent a broad spectrum of the community.

Focus group meetings helped to provide local insights and perspectives not captured by qualitative data. Additionally, the meetings aided in public engagement by identifying areas of concern. In total, six focus groups were conducted during the planning process. Groups included **corridor merchants, civic institutions, community organizations, bike and pedestrian advocacy, emergency services, and transit service.**

Traveling Roadshow: Fiesta de Barrio National Night Out

Traveling roadshows offer an opportunity to reach out to populations otherwise lacking representation in the planning process. During the investigation phrase of this study, the planning team attended the **Fiesta de Barrio National Night Out,** held at Treadwell Elementary School by the Center for Transforming Communities and the Heights CDC. Visitors to the team's booth could learn more about the Study, including its purpose, goals, and progress to date, leave comments on a map of the corridor for specific concerns or areas of interest, and interact with the planning team in-person in a comfortable, informal environment.

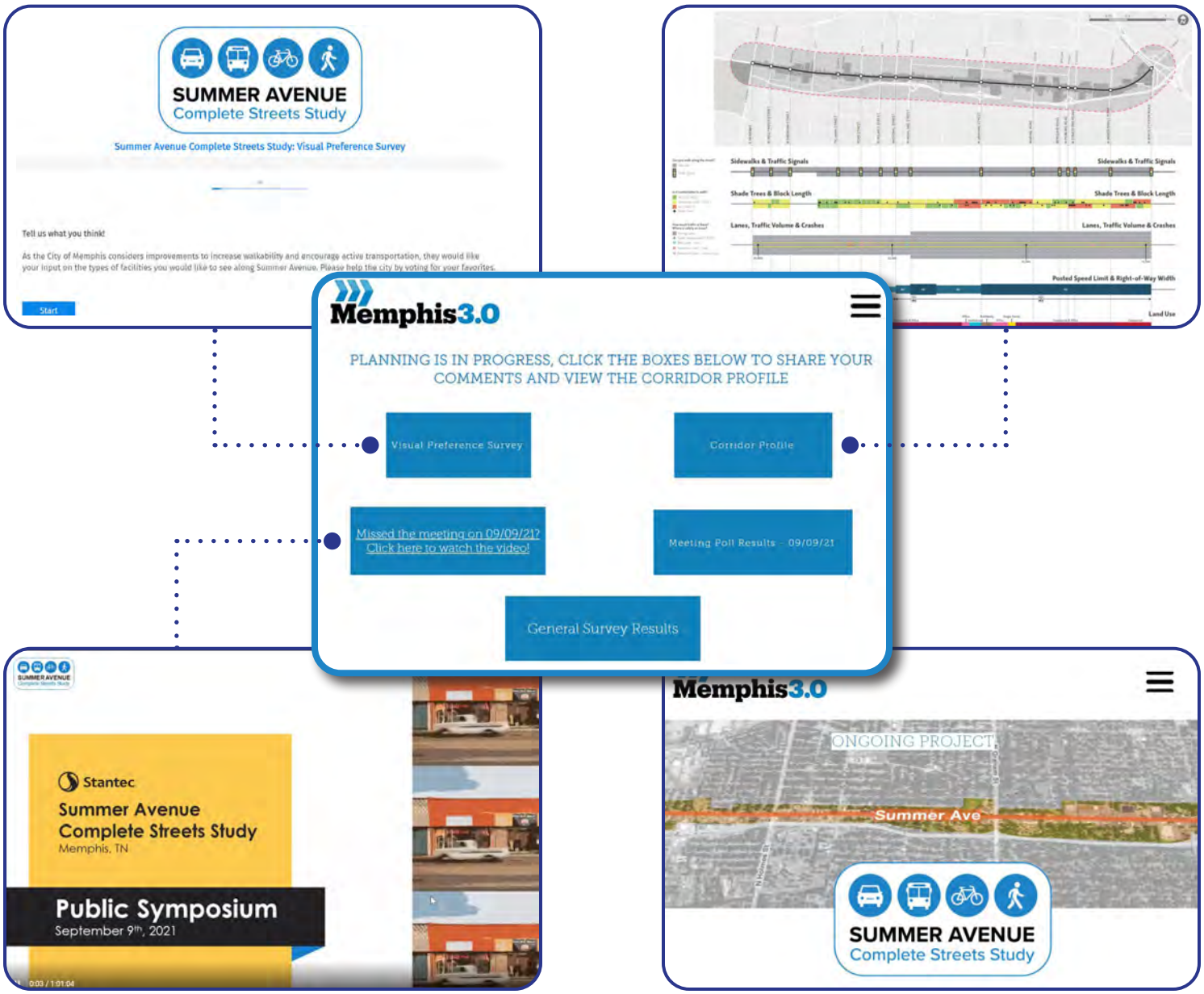
Area residents voiced support for improvements to the Summer Avenue corridor. Many of the conversations and comments around Summer Avenue highlighted the desire for a better balance between the needs of motor vehicles and the needs of bicyclists and pedestrians, many of whom reside in the neighborhoods adjacent to Summer Avenue. Key takeaways include:

- **Balancing redevelopment:** residents were supportive of the redevelopment happening nearby, but worried about gentrification and loss of the area's diversity. **Placemaking and beautification should preserve the diverse businesses** and food options along Summer.
- **Safety first:** Summer Avenue is safe for no one. The **lack of safe bike and pedestrian facilities** makes Summer difficult to walk or bike, while poor maintenance, curb cuts, and **high speeds** make the corridor dangerous for everyone, drivers included.

Online Engagement

Project Website (www.memphis3point0.com)

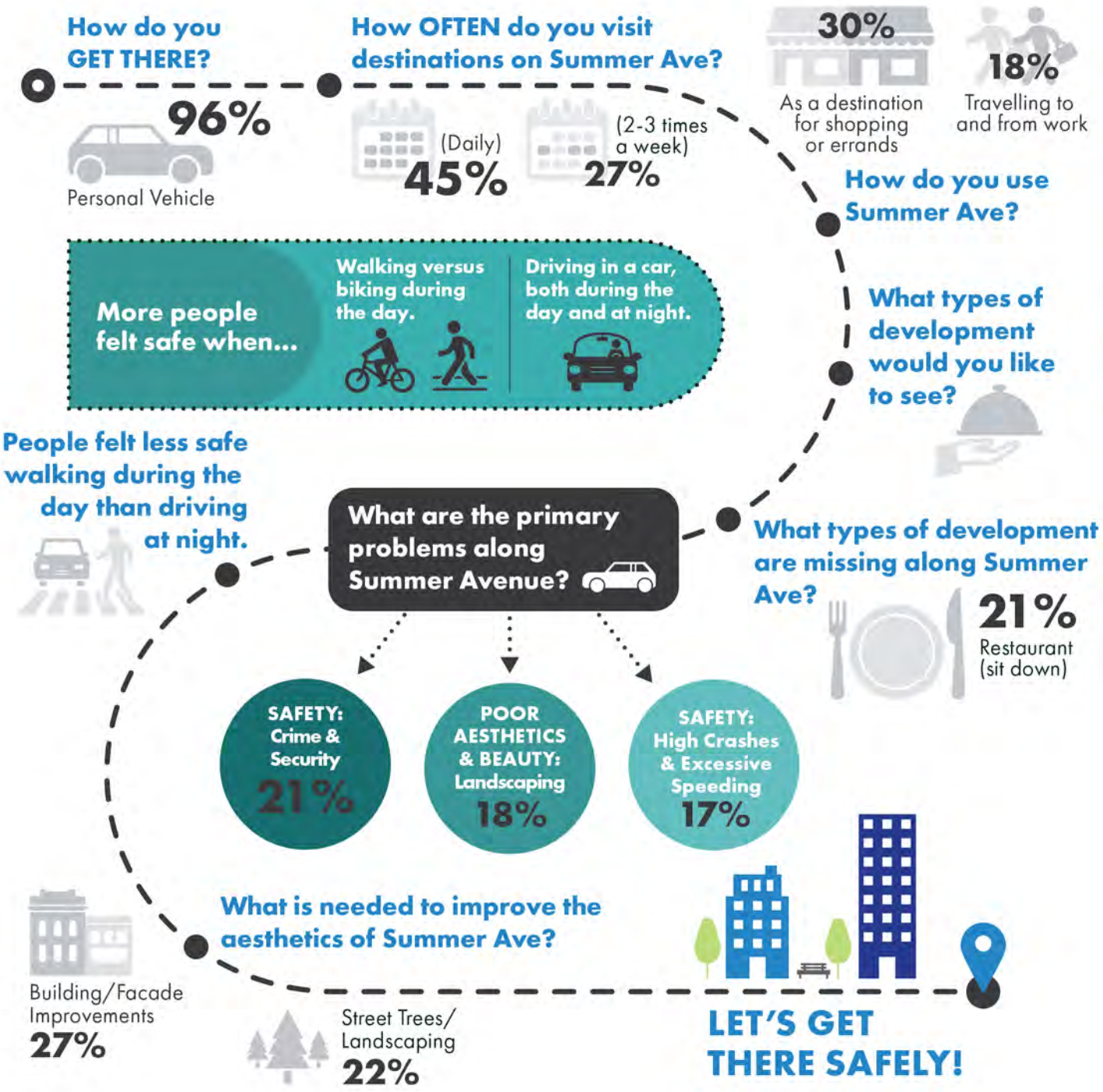
Early in the process, The Summer Avenue Complete Streets Study page was created on the Memphis 3.0 website. Residents, property owners, business owners and other stakeholders could access information and provide input on the discussions surrounding the corridor study. The website featured **information on the project's purpose**, the dates and locations of **upcoming meetings, meeting results, related documents and images produced**, photo albums of events, and ways to get involved with the project. Ahead of major public events, email blasts were sent out to subscribers alerting them to website updates and new event postings. Through the combined efforts of the City of Memphis and local news organizations, **hundreds of people learned about the Summer Avenue Complete Streets Study** while it was being developed.



Online Survey

The online survey measured the pulse of **community sentiment** regarding Summer Avenue's present context. It featured a series of **19 questions** related to traveling conditions, needed improvements, safety, and growth. These broad, general questions and their responses complemented the specific, targeted discussions with focus groups. Major takeaways from the survey are summarized below.

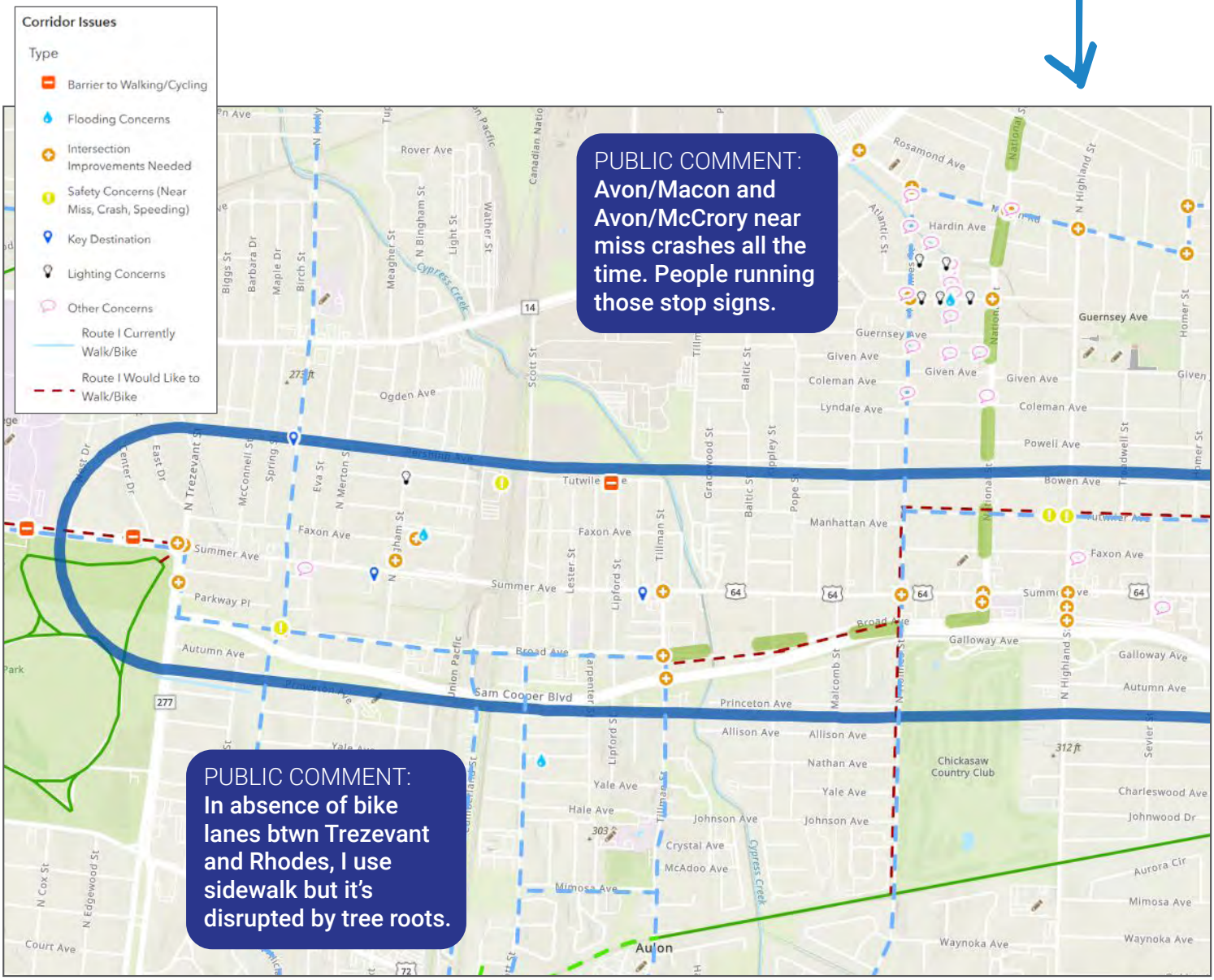
246 responses total



Interactive Map

The interactive map illustrated the public's collectively-identified problem areas and points of interest along the corridor. Using ArcGIS Online mapping capabilities, respondents identified a variety of features, including **needed intersection improvements, safety hazards, flooding issues, barriers to walking or biking**, among others, portrayed as geo-referenced points and lines. The web map provided a different and needed perspective on these corridor-level issues that could not be fully captured through traditional survey methods or focus group discussions. Representative comments can be seen below. A detailed report of the map and survey responses are included in the digital appendices to this Study.

110 comments total



Interactive map with comments.

Public Meetings

Project Symposium

The virtual Project Symposium offered the first opportunity for the public to collaborate with the project team. The team received vital feedback on project principles and objectives, which was used to refine key themes and principles to guide subsequent design phases of the planning process. The Project Symposium was held virtually via Zoom on **September 9, 2021**, with quality attendance: over thirty-five members of the public participated.

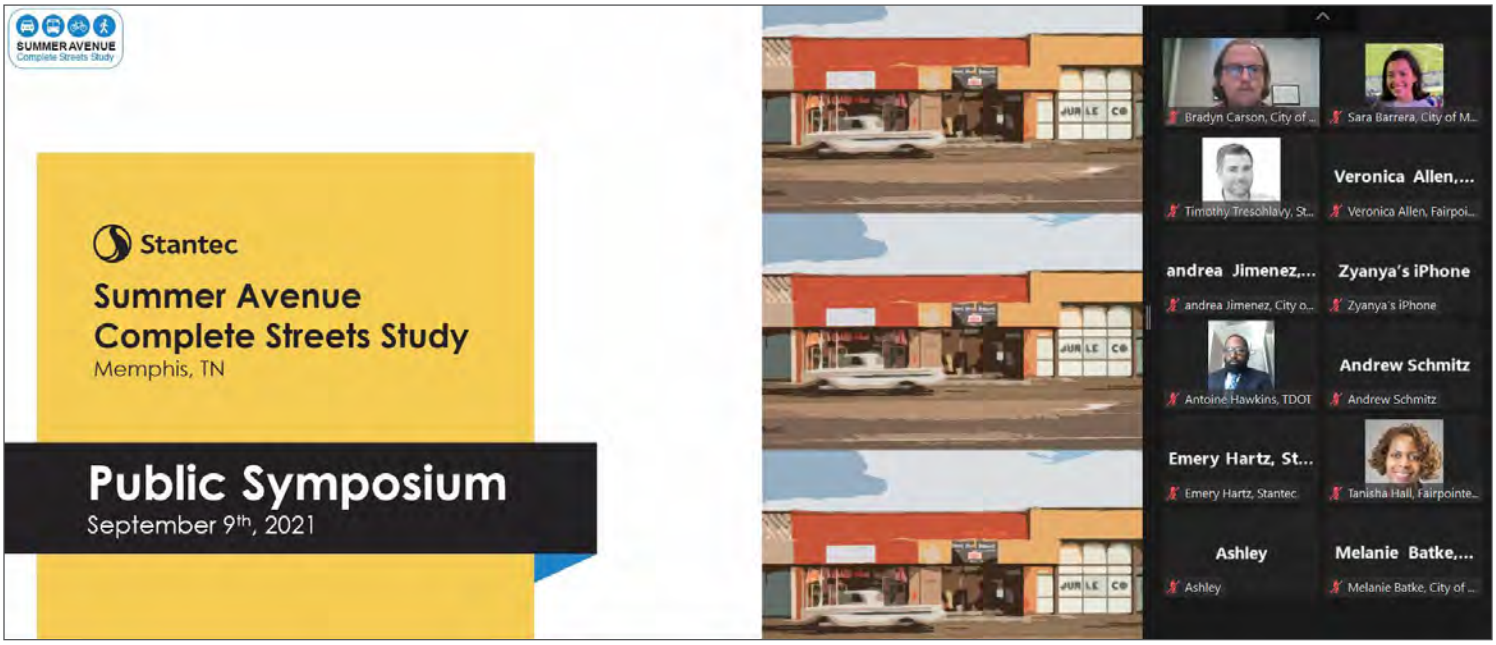
Digital flyer for the Project Symposium.

The Project Symposium generated a wonderful discussion on the corridor. Key takeaways included:

Improve multimodal infrastructure and service. Attendees top modes of transportation to focus on improving were, in order of preference: (1) walking, (2) transit, and (3) bicycling. For biking, this meant implementing new bike facilities and increasing separation from vehicles: separated bike facilities were strongly preferred to other improvements. Transit improvements include more frequent service and better amenities, like shelters and benches.

Maintenance needs improving. Broken sidewalks and poor pedestrian infrastructure and poorly maintained commercial areas were two of the three most important problems identified along Summer Avenue. Attendees also highlighted building improvements and better streetscaping as aesthetics improvements that would most help the corridor.

Places to live and play. Summer Avenue users and corridor residents indicated a need for more and diverse types of development. Small, local retailers, sit-down restaurants, and entertainment options were most desired.

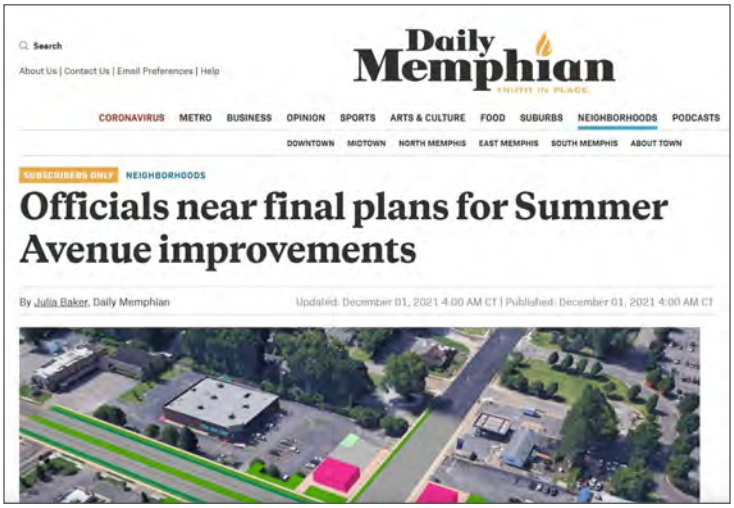


View of the virtual Project Symposium in action.

Design Workshop

View of the Design Workshop in action.

The Design Workshop, held in November 2021, was the largest and most coordinated effort for the Study. During the workshop, a multidisciplinary team of planners, urban designers, and engineers collaborated to **create new concepts for a redesigned, reimagined Summer Avenue** responding to the concerns identified through data analysis and public engagement. Held over three days in person at a vacant storefront on Summer Avenue near National Street, public-facing sessions were regularly held to **present concepts and receive feedback from stakeholders and the public**. Morning meetings with stakeholders allowed the team to drill down into design nuances, while evening pin-up sessions invited the entire public to attend, provide feedback, and **see the influence of their participation on designs** over the course of the workshop. Following the workshop, all materials produced during the week were viewable through the project website.



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Officials near final plans for Summer Avenue improvements

By Julia Baker, Daily Memphian

Updated: December 01, 2021 4:00 AM CT | Published: December 01, 2021 4:00 AM CT

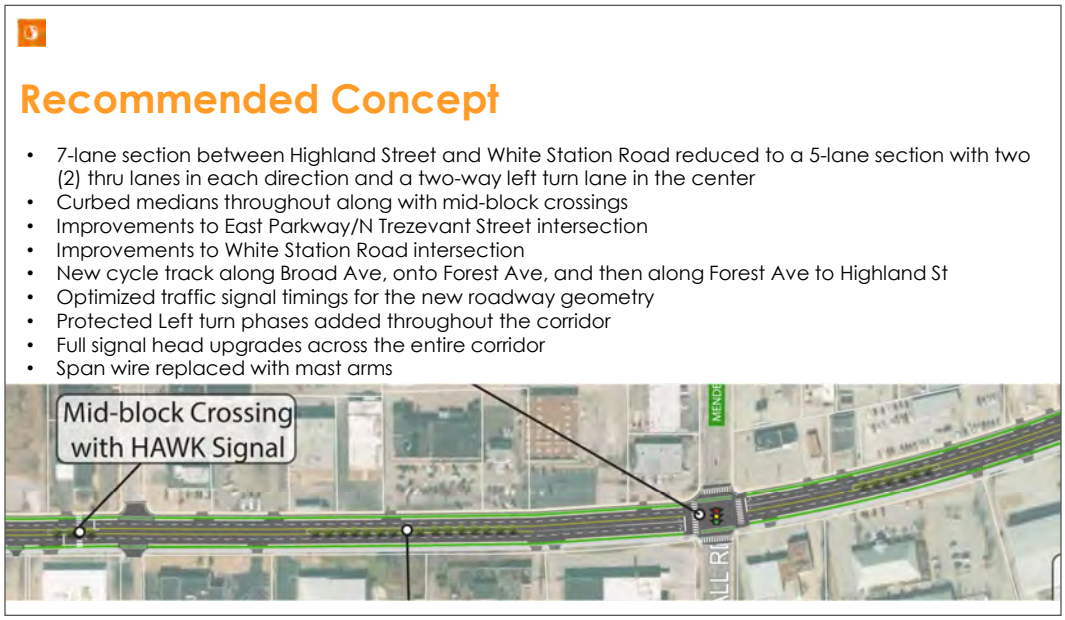
Local coverage of the Design Workshop.

Hands-on discussions with local residents and business owners .

Final Public Meeting

The virtual Final Public Meeting of the planning process was held on January 10th, 2022. Nearly 50 community members attended the meeting, providing excellent feedback on the final design as well as recommendations for implementation and phasing of the project's completion. The meeting allowed for community members to talk with the project team and other stakeholders, and to view the final concept design for Summer Avenue. While much of the design was completed during the Design Workshop, the project team continued to refine the ideas afterward into the complete vision.

View of the Final Public Meeting in action, sharing the project's public engagement video.



Design concepts and recommendation details shared with the public.

Guiding Principles

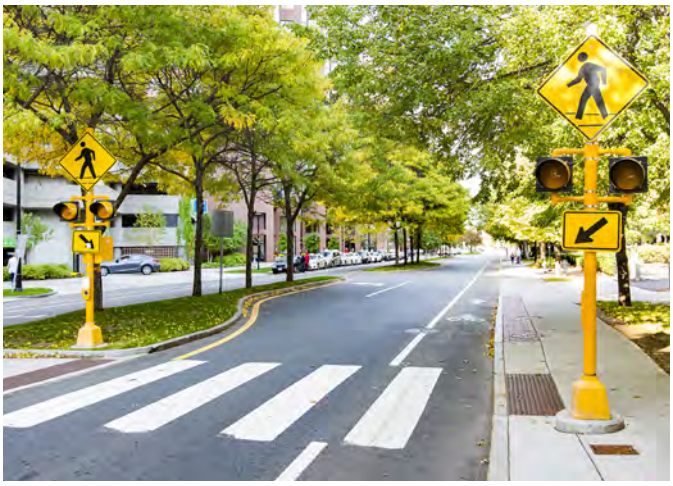
#1: Redesign to accommodate a more complete street.

Some of the most active, attractive, and functional streets in the nation are multi-lane. A corridor can both support bikes, pedestrians, transit users, and other travel modes as well as sustain heavy traffic volumes. Summer Avenue is used daily by residents and visitors, but the lack of bicycle, transit and pedestrian design elements make travel difficult and undesirable for these vulnerable users relative to motor vehicle drivers and their passengers. Creating a Complete Street that prioritizes more vulnerable users with a design that encourages all modes of transportation, results in a safe, welcoming environment for all members of the Summer Avenue community.

#2: The safety of all users is paramount.

Memphis is the third most dangerous metro in the nation for pedestrians according to Smart Growth America's Dangerous by Design 2021 report. Poor pedestrian infrastructure and safety has been identified as one of the top issues along Summer Avenue. When creating pedestrian- and bicycle-friendly environments, the notion the corridor should be safe for everyone to move across and through is essential. Residents and visitors should feel safe, secure, and comfortable walking on Summer Avenue at all hours. Key safety design features such as lighting, controlled curb cuts and medians, and limited free flow movements such as slip lanes at intersections should be incorporated.

#3: Built-in traffic calming is a must.



The public expressed a desire to see a safer walking environment along the Summer Avenue corridor. To create an environment safe and convenient for ALL users, a redesign of the corridor incorporating "built-in" traffic calming measures is required. Lowering speed limits isn't enough. Increasing the presence of law enforcement is a temporary and costly measure. A safe, functional corridor for all users must have traffic calming measures, better access management, vertical features that slow vehicles (like street trees and planted medians), and safe, high-quality intersections for pedestrians and bicyclists.

#4: Support corridor redevelopment through quality urban design.

Development along Summer Avenue is diverse in both use and type, from residential to light industrial. In recent decades, several properties along the corridor have converted to transitional businesses or businesses that are not the "highest and best" use. In addition, deferred maintenance at these places contributes to a poor aesthetic quality along Summer. This trend will continue unless a concerted effort is placed on quality reinvestment. Ultimately, respecting the character of the surrounding neighborhoods needs to be a key focus to attracting new businesses. Quality urban design can be attractive and affordable, while creating opportunities for placemaking.

#5: Create a community gateway with attractive streetscape design while integrating cultural qualities.

Source: Korda

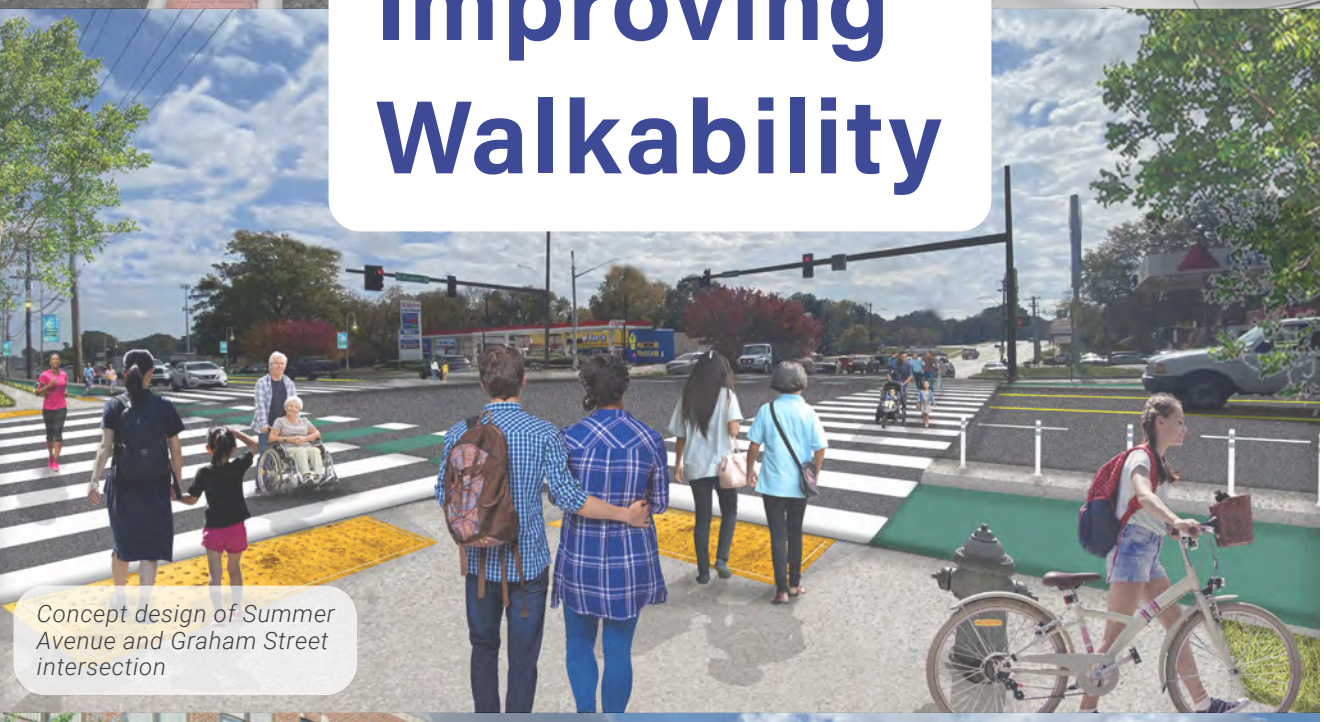
Summer Avenue's design and appearance fails both to reflect its vibrant communities and serve their mobility needs. Lack of proper maintenance (crumbling curb & gutter, sidewalks, numerous curb cuts) shows a neglect for the pedestrian realm and attention to the community's appearance. There is also a need to incorporate cultural character of the surrounding community into the branding and placemaking of the corridor – to tell the story of the community it serves. Creating an aesthetic environment and enhanced beautification using improved streetscaping details, repair/maintenance, and community branding is vital to this objective.

During the Project Symposium, respondents were asked "What is the biggest safety challenge to address?"

Pedestrian crossings received the highest vote at 43%

Concept design of Summer Avenue and National Street

Improving Walkability



Concept design of Summer Avenue and Graham Street intersection

Concept design of Summer Avenue and Hollywood Street intersection

CHAPTER 04

Improving Walkability

Creating a walkable environment can bring a host of benefits for Summer Avenue, including greater community, improved health, and better safety. Translating vision to reality requires thoughtful, tested strategies, both for between the curb and beyond it.

Example of a Complete Street.

Example of a Complete Street (Hillsborough Street, Raleigh).

This chapter lays out principles of Complete Streets and strategies for walkable development, and connects Memphis' existing plans (including Memphis 3.0) and policies to these principles. It also provides a toolkit for moving from principle to concrete design, with strategies and design elements for smart land use, development, and street design drawn from Memphis' plans and nationally-recognized sources.

This Chapter Covers:

- Toolkit for Complete Streets
- Strategies for Walkable Environments

When communities choose smart growth strategies, they can create new neighborhoods and maintain existing ones that are attractive, convenient, safe, and healthy. They can encourage design that fosters social, civic, and physical activity. They can protect the environment and stimulate economic growth. Most of all, they can create more choices for residents, workers, visitors, children, families, single people, and older adults—choices in where to live, how to move, and how to interact with their neighbors. When communities engage in smart growth, they preserve the best of their past while creating a bright future for generations to come.

Memphis has been making an effort to grow smarter in recent years. **Memphis 3.0** laid the foundation for a new era of growth in the city, centered on smart growth principles, and the Summer Avenue Complete Streets Study represents an extension of that plan. With the City's focus turned to Summer Avenue, the recommendations that come forth from this Plan will drive smart growth…here.

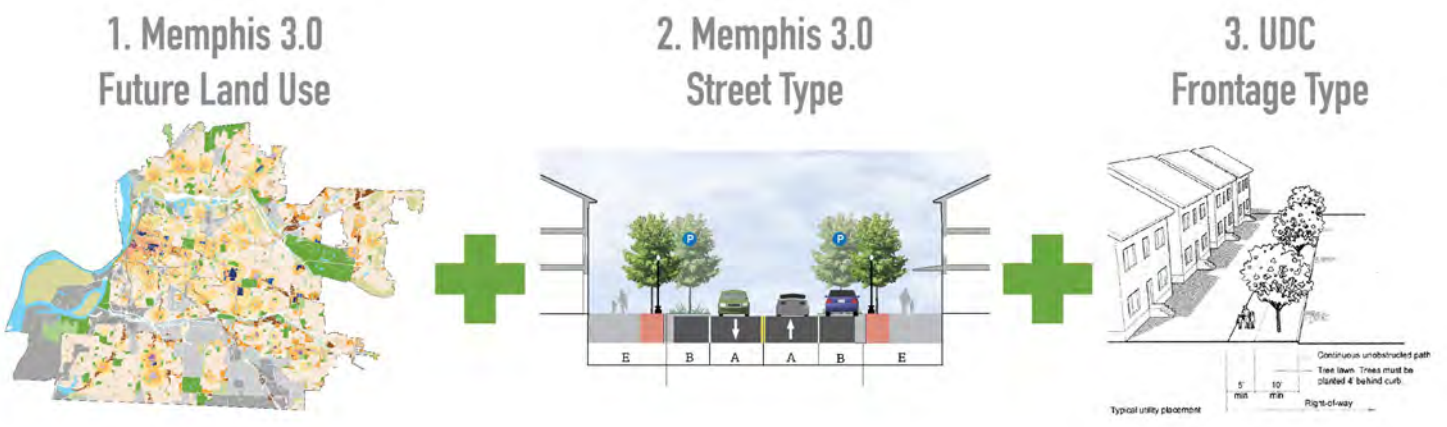


Image from City of Memphis Complete Streets Plan.

To create a healthy, active, vibrant, and equitable street – a Complete Street – for all users, a street needs more than just facilities to support biking, walking, and transit in addition to other modes. It also must be **supportive of the current and future land uses** along the corridor, ensuring that those traveling along Summer Avenue to their favorite shops and restaurants feel safe doing so regardless of how they choose to get there – whether on two feet, two wheels, or four.

In making recommendations both for Summer Avenue's roadway design and its future land uses, Memphis 3.0 recognizes this land use/transportation connection that is important to creating a Complete Street. Keeping with smart growth principles, Memphis 3.0 calls for **mixed land uses**, communities anchored by **neighborhood main streets**, and a parkway road design with bicycle and pedestrian facilities, traffic calming features, and a beautified streetscape.

This Plan makes the next step in the process, **building on Memphis 3.0 and Memphis' Complete Streets Manual** to translate a vision into a more concrete concept for design and construction. Many design elements and land use strategies can help achieve Memphis' vision for a Complete Summer Avenue. The following pages lay out the toolkit to improve Summer Avenue, based on its roadway characteristics and land use context.

See the **Complete Streets Plan HERE**.

Toolkit for Complete Streets

Complete Streets are streets designed for everyone. According to the National Complete Streets Coalition:

"They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities."

A Complete Streets version of Summer Avenue would make it easier to cross the corridor, walk to businesses, and bike to and from locations along the street without feeling unsafe. These improvements would benefit everyone, from children walking to Grahamwood Elementary School, to families biking to the Shelby Greenline, to neighborhood residents doing their shopping.

A Complete Streets approach is not one size fits all – it's a process. A Complete Streets redesign of an existing roadway must be tailored to existing and future travel demands, surrounding development and land use, and to that specific community. What a Complete Street looks like in a small town will be different from an urban center - and it should be. The same can be said for Complete Streets within the same town or city. For example, what might work along Beale Street might not be feasible along Summer Avenue.

A Complete Streets approach **considers every aspect of the roadway,** from the perspective of both policy and the physical construction. It is not just concerned with what occurs between curbs, but also what happens between and behind the walls of the buildings facing the street. A street that becomes safer to walk along and cross is **a street for all ages and abilities:** where kids can walk to school safely, older adults can retain independence if their driving ability is impaired, and those with physical or visual impairments can walk safely.

A Complete Street:

- Considers **all modes** and users
- Provides, safe travel options for users of **all ages and abilities**
- Accommodates both **present and future needs**
- Contributes to a community's environmental **sustainability and resiliency**
- **Values public spaces** and real estate holistically, consider both direct and indirect costs
- Is a vibrant, attractive people place in all seasons and contributes to an **improved quality of life.**

Elements of a Complete Street

A Complete Streets approach breaks all streets into three zones, reflected in the graphic above: the **travel way**, the **pedestrian realm**, and **frontage & setback**. Each of these zones serves different users and needs, with vehicle, transit, bicycle, and pedestrian facilities responding these needs. Memphis' Complete Streets Plan identifies pedestrian, bicycle, and transit-related types to translate these zones into a roadway design, sensitive to their urban or suburban context.

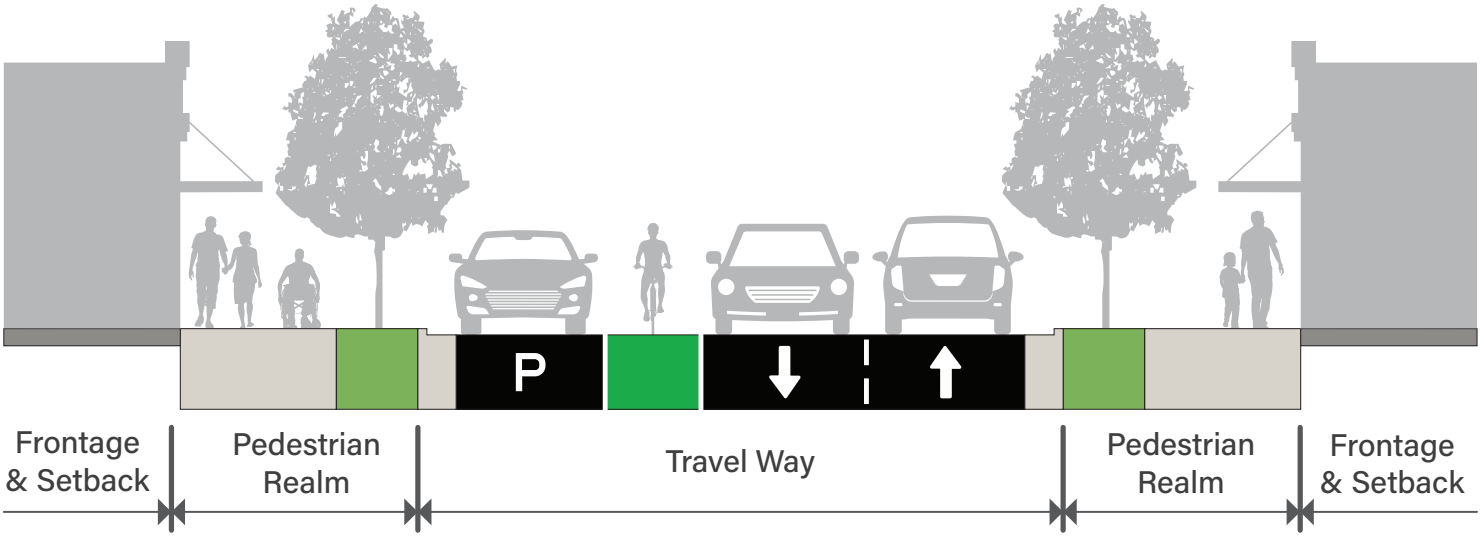


Figure 4.1: Elements of a Complete Street.

> See all of Memphis' Vehicle Ways **HERE**

> See Memphis' bikeway recommendations for Parkways **HERE**

> See Memphis' pedestrian amenities recommendations **HERE**

1 *Travel Way*

The **travel way** is the area between curbs, and is dedicated to on-street travel. This traditionally considers motor vehicles, but for Complete Streets it should also include bikes, e-bikes, scooters, and other new forms of micromobility. On-street parking may also be found here.

2 *Pedestrian Realm*

The **pedestrian realm** is the area adjacent to the **travel way**, a space typically dedicated to pedestrians. It also contains furnishings like outdoor seating, lighting, and street trees; and facilitates curbside uses like transit, rideshare and delivery access.

3 *Frontage & Setback*

Frontage & setback is adjacent to the **pedestrian realm** and home to the businesses, residences, and public spaces that give Summer Avenue its identity.

			Dimensions			Urban Context	
			Min	Target	Max	Commercial/ Mixed Use	Residential
Pedestrian Facilities	**Residential Sidewalks**	Curb Zone	4.5	7.5	12	--	●
		Pedestrian Zone	5	5	8	--	●
		Frontage	1	5	10	●	●
	Commercial Sidewalks	Curb Zone	4.5	6.5	8	●	--
		Pedestrian Zone	5	5	10	●	--
		Frontage	2	5	10	●	--
Bike Facilities	Sidepaths/Shared Use Paths		8	10	12	●	●
	Parking-Separated Bike Lanes		8	9	10+	●	o
	Bi-Directional Separated Bike Lanes		10	10	15+	o	o
	Directional Separated Bike Lanes		7	8	10+	●	o
	Double Bike Lanes		8	10	12+	●	o
	Buffered Bike Lanes		7	8	9+	o	o
Bus Facilities	**Bus Stop Design**	Furnishing Clearance	4	8	8	●	●
		Door Clearance	4	4	8	●	●
		Wheel Chair Lift Clearance	4	9	9	●	●
	Bus Lanes		10	11	12	●	o
	Bus Pull-Offs		10	11	12	--	--
	Bike-Bus Lanes		10	11	12	o	o

● = Best Option o = Good Option -- Do Not Use

Table 4.2: Recommended multimodal facilities treatments in the Memphis 3.0 Complete Streets Manual Update (2020).

Summer Avenue is a major arterial for Memphis, with traffic volumes ranging from 18L - 22K vehicles per day and speeds of 45 miles per hour or more. For bicycle and pedestrian users of Summer Avenue, these conditions contribute a high level of stress when in proximity to motor vehicles, and may cause those users to avoid the corridor altogether. To make Summer Avenue a Complete Street for all users, bike and pedestrian facilities that increase separation from the travel way are needed.

Memphis' Complete Streets Manual identifies many bicycle, pedestrian and transit facilities that would be appropriate along corridors like Summer Avenue. Table 4.2 highlights these facilities, providing types, preferred dimensions, and the land use contexts in which they should be considered for inclusion in any redesigned Complete Street. These facilities are the starting point for reimagining Summer Avenue, as they represent the City's vision for its own streets.

Pedestrian Facilities

PEDESTRIAN LIGHTING

- Install lighting on both sides of wide streets and in commercial districts.
- Use uniform lighting levels.
- Place lights in advance of midblock and intersection crosswalks on both approaches
- Space approximately 50 - 75 feet apart

HIGH-VISIBILITY CROSSWALKS

- Use solid white lines, 6 inches to 2 feet in width
- Ladder, zebra, continental markings preferred
- Minimum 6 feet width of walkway, and wider than the pedestrian facility it connects to
- Where bicycles frequently cross, consider a bike box/ two-stage left turn boxes in addition to advance stop bars

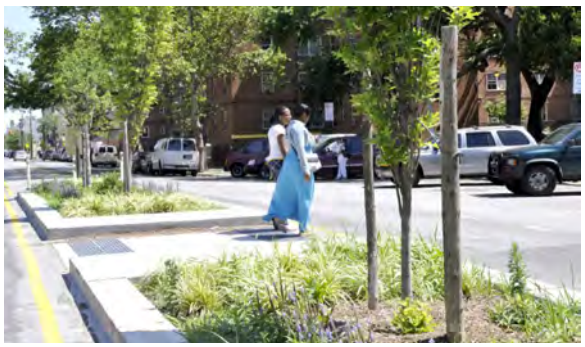
PEDESTRIAN COUNTDOWNS

- Ensure that signals are visible to pedestrians
- When possible, provide a walk interval for every cycle
- Provide supplemental non-visual guidance for pedestrians with sensory restrictions
- Marked crosswalks should be installed in conjunction with pedestrian signals

Streetscape Features

CURB EXTENSIONS

- Extends sidewalk into the roadway at intersections to narrow width
- Used with on-street parking to create protected parking bays with a lane reconfiguration
- Tighter radii for curbs at intersections reduces turning speeds



PEDESTRIAN REFUGE ISLANDS

- Minimum width of 6 feet, 10 preferred; recommended length 6+ feet
- Can be built at midblock locations or at intersections
- Refuge area should be wide enough to accommodate two-way bike and pedestrian traffic
- Island height should match curb, with appropriate landscaping or lighting

Bike Facilities

SHARED-USE PATH

- Off-street facility
- For bicyclists and pedestrians
- Min. 10 foot width (12 feet or more preferred)
- Separate from the curb with street trees or plantings

CYCLE TRACK

- On-street or off-street facility
- Can be one-way or two-way
- Space is separate from traffic, exclusively for bikes
- Best where there are few driveways, cross-street conflicts

SEPARATED BIKE LANES

- On-street facility typically, can be off-street
- Separated from traffic by curb, rail, or bollards
- Typically wider than traditional bike lanes
- Place between sidewalk and on-street parking
- Must be wide enough for routine maintenance

Strategies for Walkable Environments

Beyond the Curb

Memphis 3.0 articulates several smart growth principles in its vision for a more walkable Summer Avenue. **Translating ideas into a walkable environment** along the corridor requires tangible, proven strategies that support this vision. The following pages lay out six strategies, consistent with Memphis 3.0 and the principles of smart growth, that encourage the development of walkable environments. These strategies **cater to the unique needs of Summer Avenue**, focused on the preservation of its culture and history and the development of a healthy and safe pedestrian realm.

Urban Main Street
A-UMS

Urban Main Street anchors are characterized by attached mixed-use buildings that span multiple blocks along a street. An Urban Main Street provides retail and services to surrounding neighborhoods in a pedestrian-friendly environment, making it possible to accomplish several errands in a single trip. An Urban Main Street is a center of activity and supports a shared sense of community.

Description/Intent	Walkable, vertically-mixed use centers comprised of multi-story block-scale and house-scale buildings, most of which are attached, lining two facing blocks and extending for several adjacent blocks.
Applicability	Medium-sized centers stretching along a main street where a vertical mix of uses and activities is present or appropriate as a moderate to high-intensity anchor for a surrounding urban neighborhood.
Goals/Objectives	Support organization of services, amenities, opportunities, and housing choices in direct relationship to anchor neighborhoods, focusing investment toward areas that support plan goals and objectives, nodal development of continuous commercial corridors.
Performance Metrics	Number of new businesses and services, housing infill, office, jobs locating within UMS anchors, rents.
Zoning Notes	Generally compatible with the following zone districts: MU, NC, CMU-2 with frontage requirements (MO District), CMP-2, SM in accordance with Form and characteristics listed above. Consult zoning map and applicable overlays for current and effective regulations. May consider rezonings within anchor neighborhood areas as appropriate, at the time of a small area plan. Analysis to determine if minimum lot sizes and parking requirements are suitable to promote infill in all applicable zones. Recommend embedding private frontage standards into zones. Height calibration.
Form and Location Characteristics	**NURTURE, SUSTAIN**, and **ACCELERATE** Buildings primarily attached Block-scale buildings Mix of uses 1-7 stories height Several blocks of extent

Urban Main Street guidelines for Summer Avenue (Memphis 3.0).

The 6 Strategies for Walkable Environments

1 *Incorporate Mixed-Use Infill Development*

Allowing mixed-use infill development can create new walkable places by making better use of the space available along the corridor. Incorporating infill development with a mix of uses takes advantage of underutilized or abandoned buildings that may seem difficult to repurpose in today's conditions. Additionally, this strategy provides more opportunities for local businesses to support the needs of surrounding neighborhoods.

Memphis 3.0 emphasizes the need for infill development, particularly within the city's anchor neighborhoods. For anchor neighborhoods along Summer Avenue, residential infill should take a similar form as existing development in those neighborhoods, whether single-family or multi-family. In commercial areas, like the Urban Main Street anchors at the National Street and Graham Street intersections, Memphis 3.0 encourages a variety of services and businesses in addition to expanded housing choices. It recommends changing minimum lot sizes, parking requirements, frontage standards, and adjusting height limits in order to promote infill throughout these areas.

2 *Encourage Density & Incremental Growth*

Great places are built in small sections over time. Encouraging density and incremental growth along Summer Avenue is an important part of achieving growth that is equitable and sustainable.

Density is the linchpin for walkable development. Greater densities permit more people to live in closer proximity to the places they work and play, reducing the need to drive. The compact places that result from greater density results in walkable destinations that people often want to visit and seek out elsewhere.

However, increasing density is only *half* of the battle. Incremental growth keeps people in place. Small-scale development helps to prevent the displacement of local businesses by creating more space for local businesses without causing large increases in property values and rents that push the same businesses out. Summer Avenue has a strong cultural history and it is important to protect and reflect that history through a variety of locally-owned businesses.

During this study, the public showed support for incrementally increased density through digital surveys and in-person engagement. Concern for displacing existing business and a preference for local investment suggests that incremental growth can be a successful strategy in transforming Summer Avenue and bringing its residents and neighbors along with it.

3 *Focus on Activating Frontages*

New development is necessary for growth in a community. However, if that development does not activate the pedestrian realm, it can fail to create walkable environments that are scaled to people. This is why active frontages are critical for creating livable and vibrant communities.

During the pre-auto era, Summer Avenue had buildings that were closer to the street and lined with many windows and doors that enabled a more walkable environment. Over time, these were replaced with large parking lots and development that catered to vehicles. We can use these lessons from the past to ensure that new development focuses on activating frontages that put people, not cars, first.

Active frontages create more visual interest and encourage interaction between the building and the street. This helps keep pedestrians and bicyclists interested while traveling along the street. Active frontages also create a walkable environment that people not only use, but enjoy using. Additional design elements in these frontages include sidewalk displays, outdoor dining, and creative signage.

4 *Create an Attractive & Inviting Streetscape*

Pedestrians are less likely to walk in an environment that is blighted, uncomfortable, and unsafe. Creating an attractive and inviting streetscape will not only encourage walkability, but make a public realm that people want to experience. Shade trees, pedestrian lighting, a variety of furnishings, and wider sidewalks help build a comfortable environment that is both beautiful and functional. These well-designed and maintained streetscapes create a pedestrian realm that fits with Complete Streets principles.

Memphis 3.0 classifies Summer Avenue as a parkway and makes many recommendations for the treatment of its streetscape. With higher speeds on Summer Avenue and on parkways generally, there should be a minimum of five feet between the road and the pedestrian realm, with street trees and other plantings in the green strip as appropriate. To prevent ponding and stormwater flooding, Memphis 3.0 recommends curb and gutter and bioretention rain gardens where the context permits. Pedestrian lighting is recommended, as well as benches - particularly near transit service. Memphis 3.0 recommends six foot sidewalks and street trees, which creates more separation between pedestrians and vehicles and reduces higher temperatures created by large amounts of pavement.

5 *Generate a Strong Sense of Place*

Sense of place comes from residents' relationship with their neighborhood and each other. There are two important factors in generating a strong sense of place, both of which contribute to the look and feel of a community. The first is the presence of memorable places. Preserving local businesses and community assets like schools, churches, and parks creates memorable places that make an area unique. The second factor is the presence of shared identity. Shared identity occurs when communities represent the values of their residents and reflect the unique historical, cultural, economic and geographical context of the area.

Since Summer Avenue is rich in cultural history, it is important that the corridor reflects this for both its residents and visitors alike. Memphis is already doing a good job of supporting a strong sense of place in other neighborhoods. These strategies employed elsewhere can be extended to anchor neighborhoods along Summer Avenue, and include:

- Community gateways including arches, monuments, or signage
- Public art showcasing local artists
- Flexible public places for community events or gatherings

6 *Establish Publicly Accessible Open Spaces*

Publicly accessible open spaces within a community support a more healthy, livable, and walkable environment. As a form of green infrastructure, open spaces provide balance to compact and dense urban development by providing green areas for outdoor recreation and opportunities for community gathering.

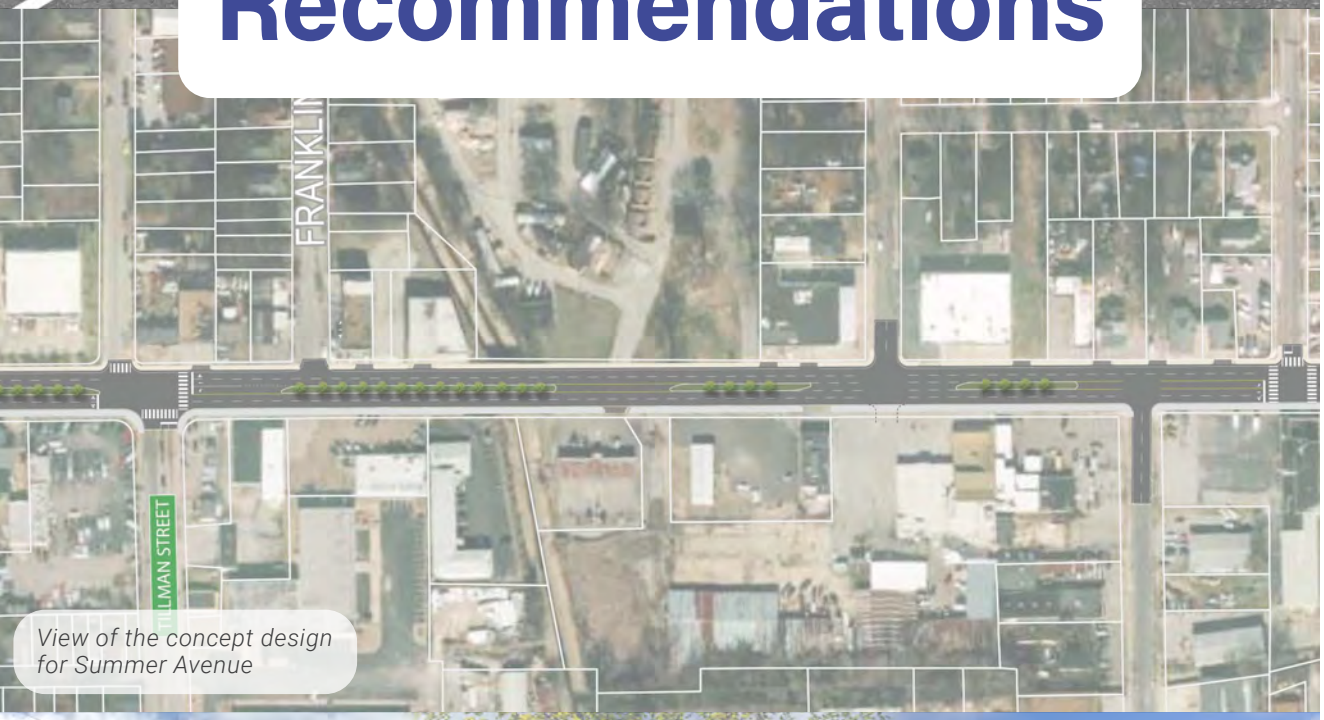
Open spaces of varying sizes and uses are necessary for overall success as they help frame new growth and ensure that natural spaces are included in new development. Since buildings alone aren't able to generate activity, these spaces help to bridge the gap and create a network of activity, rather than a single successful node.

Good, public open spaces come in all forms and functions, from pocket parks and dog parks to playgrounds and large community plazas, but all share the following four characteristics:

- Connected: the space is well-connected with its urban environment, with direct pedestrian paths making it easy to get to and through;
- Comfortable: the space is inviting to visitors and passers-by, appearing safe, clean, and available to all comers;
- Active: there are activities taking place in the space throughout the day - not just in the daytime or on weekends;
- Sociable: the space fosters a sense of community and contributes to place identity.

Concept design of bridge crossing Scott Street

Recommendations



View of the concept design for Summer Avenue

Concept design of mid-block crossing near High Point Terrace

CHAPTER 05

Recommendations

Traffic at the intersection of Summer Avenue and National Street.

Throughout the Complete Streets Study process, the project team has developed recommendations for transforming Summer Avenue into a safe, active, and attractive community asset.

The Summer Avenue Complete Streets Study envisions a new corridor that embraces and supports active transportation choices, promotes the safety and well-being of its residents, and attends to the needs of all users regardless of their mode of travel. The Complete Streets planning process involved input from a wide spectrum of stakeholders including property and business owners, underserved populations, bike advocates, emergency services, the development community, City representatives and elected officials. Through this process, the Memphis community created a holistic vision for transforming this important corridor into a safe, active and attractive community asset.

This chapter lays out the conceptual designs and planning recommendations for the new Summer Avenue. It identifies the corridor's context zones, illustrates recommended improvements, and highlights potential redevelopment catalyst sites.

This Chapter Covers:

- Design Priorities
- Preferred Access Plan
- Summer Avenue Road Diet Analysis
- Summer Avenue Cross-Sections
- Concept Designs (Western, Center, & Eastern Sections)

Design Priorities

The conceptual redesign of Summer Avenue was led by five key objectives tied to the guiding principles. These principles, illustrated to the right, provided the framework used to create the road's design, synthesizing public input and stakeholder feedback while adhering to an overarching vision for a multimodal, constructible corridor.

The proposed new design integrates all of the data received, whether through corridor travel analyses or public engagement. From this data emerged key themes, which, in combination with Complete Streets principles, led to the creation of guiding principles for this project:

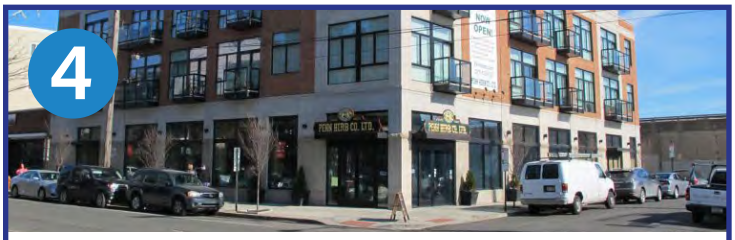
> ***"Drivers are always flying out here. They have no respect for the speed limit. I think that narrowing the streets, adding some parking, giving us a midtown-type of feel would help them respect the pedestrians, especially if we are trying to make this space a more walkable and pedestrian-friendly area."***
>
> *- Local Business Owner*

> ***"Summer Avenue has some great bones in place and good relics of a day when it was not car-centric as it is today. You see a lot of scars from the auto-oriented development that have really degraded the corridor over time."***
>
> *- Nick O.*

Redesign to accommodate a more Complete Street.

The safety of all users is paramount.

Built-in traffic calming is a must.



Support corridor redevelopment through quality urban design.

Create a community gateway with attractive streetscape design while integrating cultural qualities.

Preferred Access Plan

The Preferred Access Plan (PAP) forms the conceptual basis for the redesign of Summer Avenue. At a high-level, this perspective reflects how all elements work together – connectivity, access management, and key nodal points that allow for pedestrian walksheds. Looking at the corridor holistically, it transforms key takeaways, guiding principles, and design considerations from corridor analyses into an actionable framework over which potential designs can be prepared and tested through review and public engagement.

Three primary focus areas for the redesign of Summer Avenue were to a) eliminate or minimize, to the greatest degree possible, property impacts beyond the existing right-of-way; b) provide safe, dedicated space for bicyclists and pedestrians; c) minimize the distance needed for bicyclists, pedestrians, and transit riders to travel to a safe crossing of Summer Avenue; and d) redevelop key parcels to spark reinvestment in the Summer Avenue corridor. Additional criteria were used when designing the improvements to the Summer Avenue corridor.

It is important to note that the PAP suggests median locations. These medians are used to control turning movements, slow vehicle speeds, improve predictability of traffic movements, and improve crossing conditions by allowing for median refuge crossings. Some median locations may require moving individual access points off Summer Avenue to shared back-door connections. That way, not all trips have to be accommodated along Summer Avenue.

In addition to the use of planted medians, the PAP recommends high-quality intersections and mid-block crossings to enhance the safe passage of pedestrians and bicyclists. These intersection treatments include high-visibility crosswalks, pedestrian countdown signals, shade trees, and pedestrian level lighting. Some intersection locations may include mast-arm signals and brick pavers for enhanced beautification. The PAP also notes intersections that can be transformed as gateways and provide visual cues for vehicles to recognize they are entering Summer Avenue and naturally promote traffic calming.

NOTES: Recommended Spacing Standards

- Signals/Intersections: 1,200’ - 3,500’
- High Quality Crossings: 900’ - 1,200’

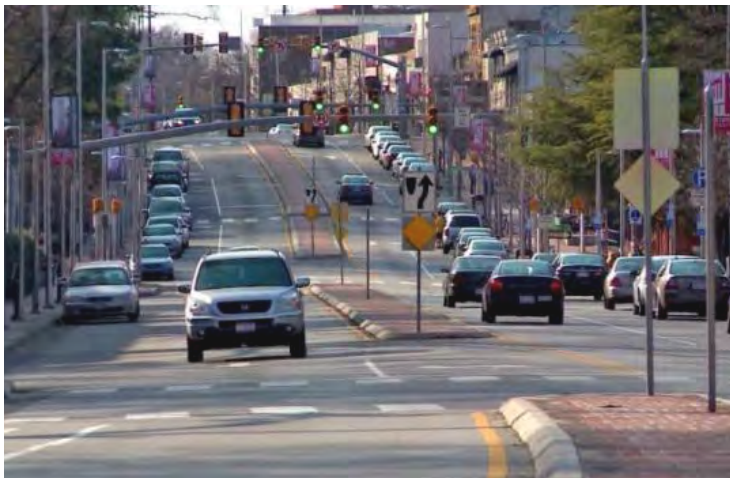
Figure 5.3: Preferred Access Plan.

This schematic represents the initial framework. The design specifics will be detailed further as the project progresses.

Summer Avenue Road Diet Traffic Analysis

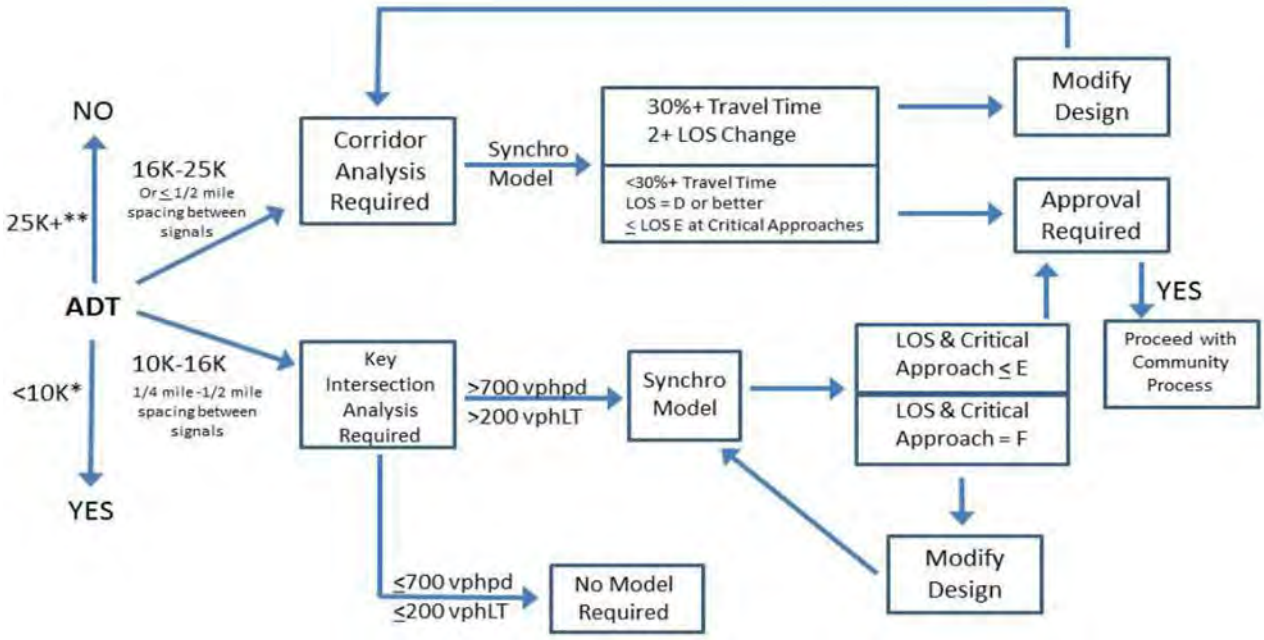
Introduction

The road diet traffic analysis involved analyzing existing and future traffic conditions along Summer Avenue from East Parkway North to I-40 to determine if corridor operations would be negatively impacted by roadway reconfiguration adhering to Complete Streets principles. The study considered both existing and future conditions along the corridor and provided recommendations for geometric and traffic signal modifications.



Road diet on Hillsborough Street in Raleigh, NC.

Figure 5.4: TDOT Road Diet Flow Chart.



TDOT Road Diet Study Guidelines

This analysis utilizes TDOT's road diet criteria set forth in Instructional Bulletin No. 18-05 regarding revised Sections 1-400.00 Road Reconfiguration and 1-500.00 Road Diet.

A combination of historical traffic counts, 72-hour tube counts, peak period turning movement counts, and peak period field observations were collected to accurately understand and portray the existing operations along the study corridor.

The road diet analysis considered several scenarios including “no build”, reducing the 7-lane section to 5-lanes, traffic growth, and traffic diversion to Sam Cooper Blvd. The results of the analysis indicated that the 7-lane reduction was justified. See Final Memo Summer Avenue Road Diet Study (January, 2022). Several other physical and operational improvements and recommendations from this study include:

- Along Summer Avenue, the existing 7-lane section between Highland Street and White Station Road should be reduced to a 5-lane section with two (2) thru lanes in each direction and a two-way left turn lane in the center. The reclaimed pavement in this section shall become protected bike lanes in both directions with a buffer and monolithic curb between the bike lanes and the travel lanes.
- Curbed medians with plantings should be placed throughout the corridor to facilitate access management and provide pedestrian refuge for mid-block crossings. The final location of these curbed medians and mid-block crossings need to be determined in the final design phase.
- Further analysis should be performed at East Parkway/North Trezevant Street and White Station Road intersections to determine the best geometric improvements that provide bike/ped protection and adequate vehicle capacity. See Concept Designs for initial protected intersection thoughts.
- To provide a complete bike network for the entire corridor without any additional pavement in the existing 5-lane section, a continuation of existing bicycle facilities is proposed that runs along Broad Avenue, onto Forest Avenue, and then along Forest Avenue to Highland Street.
- All the signal timings along the corridor should be optimized for the new roadway geometry. Refer to the Road Diet Traffic Study for details (January 2022).
- It is recommended that the span wire traffic signal supports be replaced with mast arms at the intersections of East Parkway/N Trezevant Street, N Hollywood Street, N Bingham Street, Pope Street, Holmes Street, National Street, Graham Street, Waring Road, Berclair Road, Perkins Street, Stratford Road, Mendenhall Road, and White Station Road.

Summer Avenue Cross-Sections

The Current Cross-Section(s)

Summer Avenue showcases two distinct cross sections. To the east of Highland Street the cross-section is seven lanes (three through lanes in each direction with a center turn lane); the right-of-way is 92 feet. To the west of Highland Street, the cross-section is five lanes (two through lanes in each direction with a center turn lane); the right-of-way is 74 feet, except for the bridge between Bingham and Harrell, which is 67 feet wide. Each section of the corridor was treated differently while adhering to guiding principles and the takeaways from public engagement, resulting in design tradeoffs being made along the corridor.

The key considerations in these new cross-sections are to:

- improve roadway safety and operations,
- create safe, dedicated facilities for bicyclists, pedestrians, and transit users, and
- avoid property impacts.

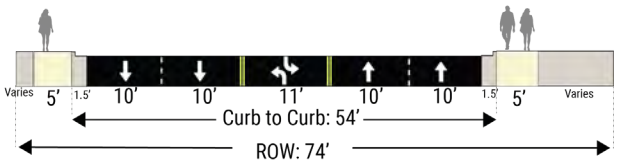
To accomplish these three tasks, the proposed cross-section reimagines space within the existing curb lines.

The Proposed Cross-Section(s)

East of Highland, the seven-lane section is reduced to five lanes to accommodate **separated bike lanes in each direction**. The section west of Highland Street could not be reduced due to traffic volumes. Both sections of the corridor repurpose the existing center two-way turn lane, using **pocket medians to control left turns** by creating designated space for those movements. Outside of the existing curb line, we recommend a **4' planter strip and 6' sidewalk** along the corridor, except for the bridge section. All of this is created within the existing right-of-way, with limited impacts to property owners.

The key to this process is balancing priorities and tradeoffs. Traditionally, the priority has been given to cars, whether intentional or unintentional. But as this corridor evolves, both in terms of development and its community, priority must be given to the pedestrian. **Safety is paramount and multimodal treatments are a must.** While this means that cars may travel slower during peak periods, this is the tradeoff for dedicated space for bicyclists and pedestrians, which will **significantly improve safety for all.**

EXISTING CROSS-SECTION: West of Highland Avenue



EXISTING CROSS-SECTION: East of Highland Avenue

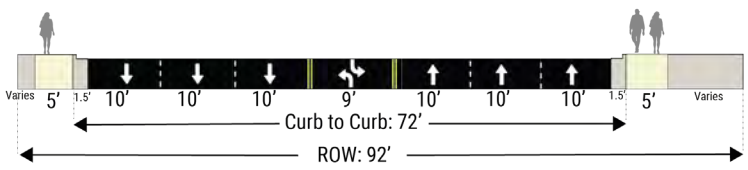
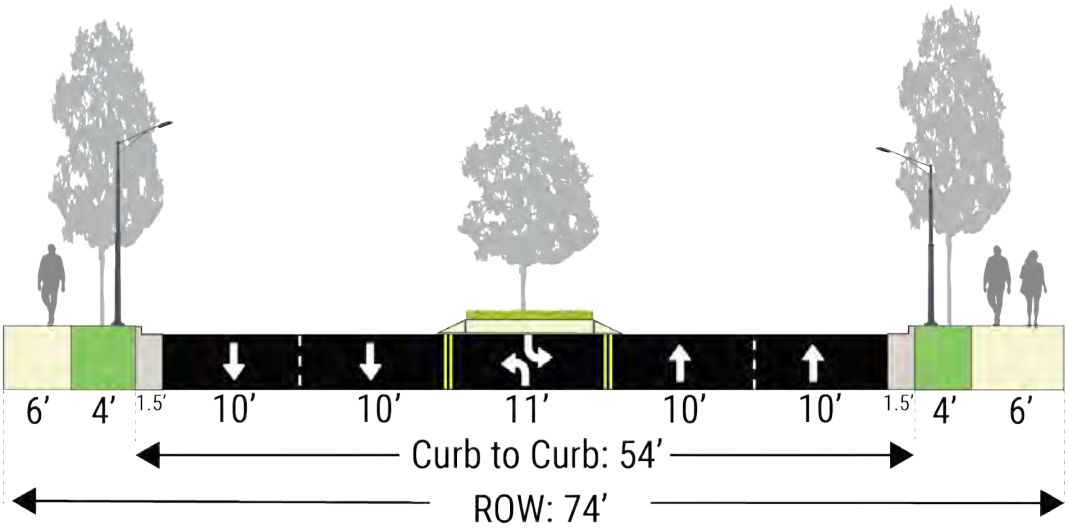


Figure 5.5: Existing Cross-Sections. *NOTE: These cross-sections are not to scale.*

PROPOSED CROSS-SECTION: West of National Street



PROPOSED CROSS-SECTION: Bridge between Bingham & Harrell

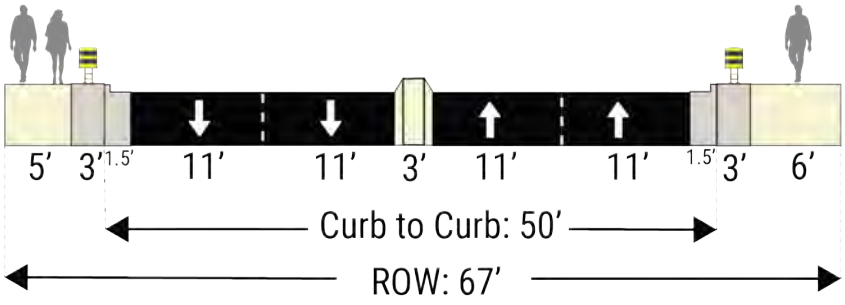
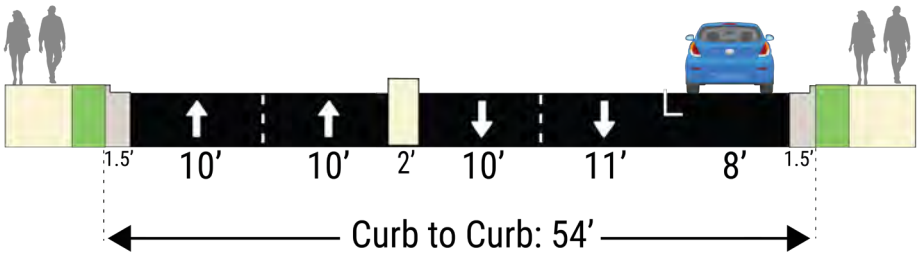


Figure 5.6: Proposed Cross-Sections. *NOTE: These cross-sections are not to scale.*

PROPOSED CROSS-SECTION: National to Highland



PROPOSED CROSS-SECTION: East of Highland Avenue

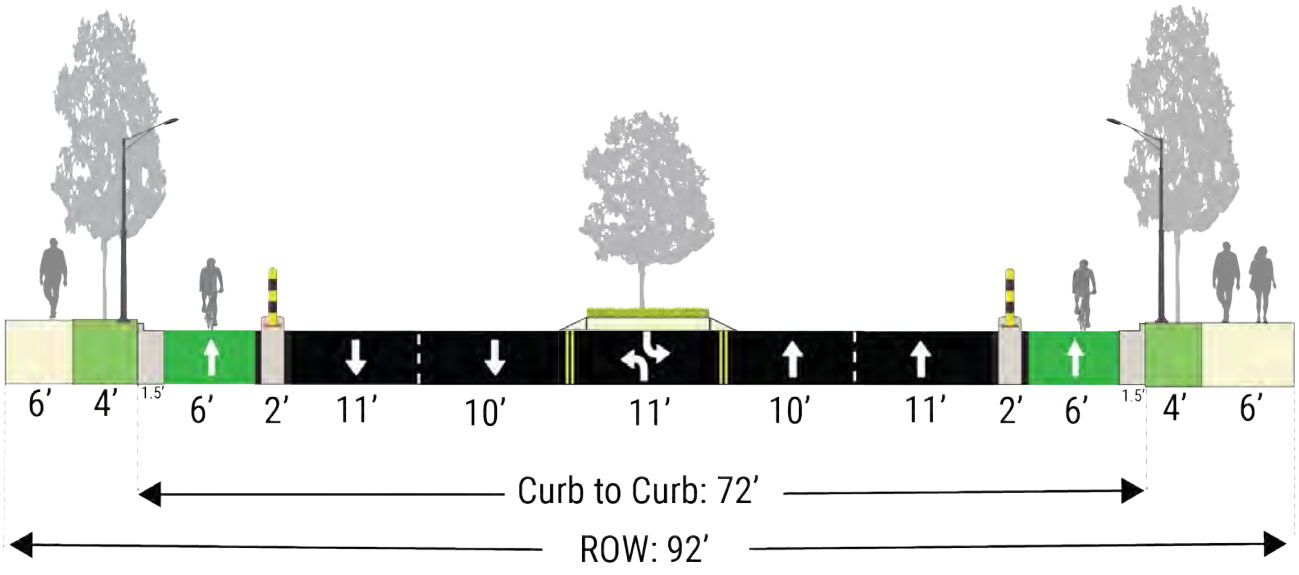


Figure 5.7: Proposed Cross-Sections. *NOTE: These cross-sections are not to scale.*

Corridor Design

The design considerations for each section of the corridor are described first, followed by the concept designs. There are three sections, including eastern, middle, and western. Each section graphically shows how the cross-sections developed for this project are used to create a context-sensitive set of design solutions that address Summer Avenue's specific needs. Photo-simulations of proposed designs (or proposed changes), as well as imagery of built examples are provided where applicable.

Today, this corridor has crumbling sidewalks, no bike lanes or bike facilities, and few crossing opportunities for pedestrians as well as folks with disabilities trying to cross Summer Avenue. Large distances between signalized intersections and long block lengths along the corridor present safety issues that need to be addressed.

Corridor-Wide Recommendations

- 6' separated bike lanes (east of Highland Street)
- 4' planter strip and 6' sidewalk, outside of the curb line
- Remilling and repaving corridor in locations where the curb is damaged or deteriorated to introduce proper curbing
- Reconstruct sidewalks as needed (west of Highland Street)
- Stormwater management
- Consolidated driveways
- On-street parking between National Street and Highland Street
- Planted pocket medians throughout corridor with canopy trees of appropriate size
- Lower speed limit corridor wide to 35 MPH
- Pedestrian-level lighting (environmentally sensitive to light pollution)
- High-quality intersections at all signalized intersections:
  - High-visibility crosswalks or brick-paver crosswalks
  - ADA ramps
  - Pedestrian signals
- Connect Broad Avenue cycle track to Summer Avenue
- Mid-block crossings at key intervals with HAWK signals
- Street tree installation (planted back of curb)
- Utility consolidation where appropriate

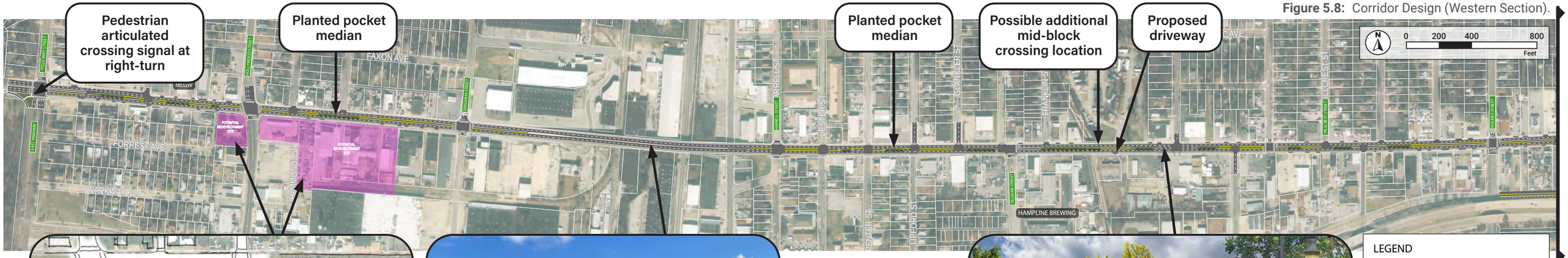
Western Section (1 of 3)

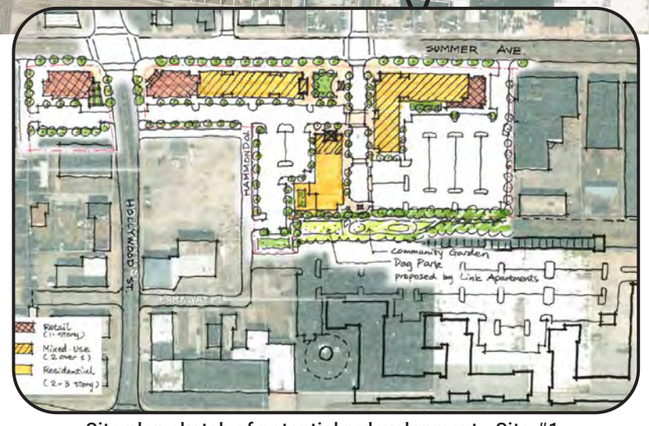
EAST PARKWAY to ***HOLMES STREET***

The western section of the corridor consists of 5 lanes. This section of the corridor is in need of maintenance and repair. Replacing crumbling concrete, addressing flooding problems, and improving lighting are all necessary for enhancing the safety and walkability of the corridor.

- **Pedestrian articulated crossing signal (E. Parkway)**
- **Hollywood Street potential redevelopment site #1**
- **Planted pocket medians help with speed control**
- **Pedestrian protection along bridge**
- **Mid-block pedestrian crossing east of Tillman**

Figure 5.8: Corridor Design (Western Section).





Site plan sketch of potential redevelopment - Site #1.

Design concept for the bridge crossing Scott Street.

Design concept for planted median and streetscaping.

Center Section (2 of 3)

NATIONAL STREET to ***EASTERN DRIVE***

This section contains a transition of the bikeway facilities and higher density development that fronts the street.

- On-road bike facilities transition
- Strip mall potential upgrades site #2
- On-street parking between National Street and Highland Street
- Extension of bike lanes east of Highland Street
- Mid-block pedestrian crossings

What do these design elements look like?

On-Street Protected Bike Lane

HAWK Signal

ADA Curb Ramp

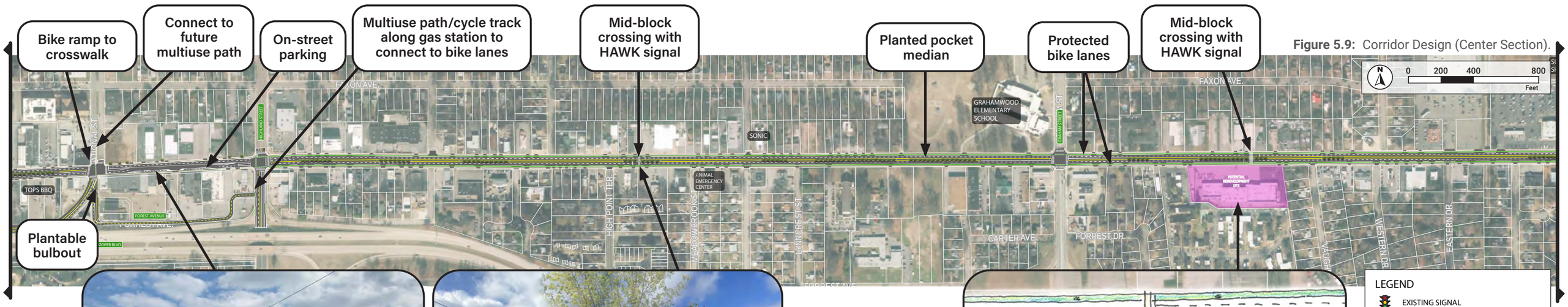
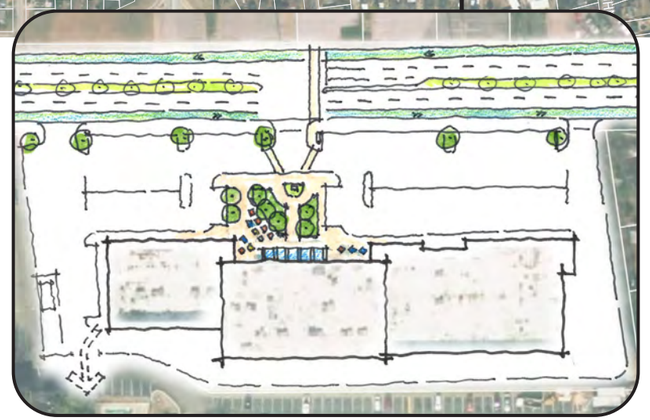


Figure 5.9: Corridor Design (Center Section).

Design concept for on-street parking and redevelopment at National Street.

Design concept for mid-block crossing at High Point Terrace.



Site plan sketch of potential strip mall upgrades - Site #2.

LEGEND

- EXISTING SIGNAL
- PROPOSED BIKE LANE
- PROPOSED CATALYST SITE (SEE DOCUMENT FOR DETAILS)
- PLANTED MEDIAN
- PROPOSED MULTIUSE PATH/CYCLE TRACK
- PROPOSED SIDEWALK /UPDATE EXISTING
- POTENTIAL CROSS ACCESS OPPORTUNITY
- PROPOSED STREET TREE
- HIGH VISIBLITY CROSSWALK

Eastern Section (3 of 3)

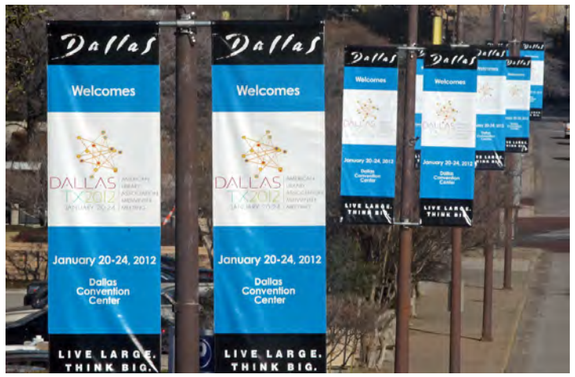
WARING ROAD to ***WHITE STATION ROAD***

This section is represented by big box retail and other similar commercial development. Speeding is prevalent, justifying the need for traffic calming, gateway treatments and placemaking.

- Continuation of protected bike lanes
- Mid-block pedestrian crossings
- Perkins Road potential redevelopment and infill Site #3
- White Station Road protected bikeway intersection treatments

What do these streetscape elements look like?

Plantable Bulbout



Street Banners

Bike Racks

Site plan sketch of potential redevelopment - Site #3.

Figure 5.10: Corridor Design (Eastern Section).

Potential Development Sites

While the primary purpose of this Study has been to evaluate and propose concept designs for Summer Avenue as a Complete Street, it is reasonable to expect private development to follow significant public investment. During the planning process, the team identified potential locations for catalyst development along Summer Avenue, to create a vision for what anchoring redevelopment could look like along the corridor.

The site plan below is a *potential* plan for redevelopment for the intersection of Summer Avenue and N Hollywood Street. The designs and example images below are consistent with Memphis 3.0's development types for future growth and appropriate to existing neighbors and residents in its vicinity.

Proposed at 1A+1B	
RESIDENTIAL	110,000 Sq. Ft.
	110 Units
OFFICE	-
RETAIL	52,000 Sq. Ft.
PARKING	270 Spaces
- Parking Ratio	1.0 space / unit
SITE TOTAL	162,000 SQ.FT.
SITE AREA	6.59 ac
FAR	0.6
DENSITY	17 u/a

Figure 5.11: Site plan sketch of Potential Redevelopment Site #1.

The following provides a description of recommendations specific to select intersections, segments and development sites along the Summer Avenue corridor.

Hollywood Street (Intersection)

E Parkway · **Hollywood Street** · Bingham Street · Tillman Street · Pope Street · Holmes Street · National Street · Highland Street · Graham Street · Waring Road · Berclair Road · Perkins Road · Stratford Road · Mendenhall Road · N White Station Road

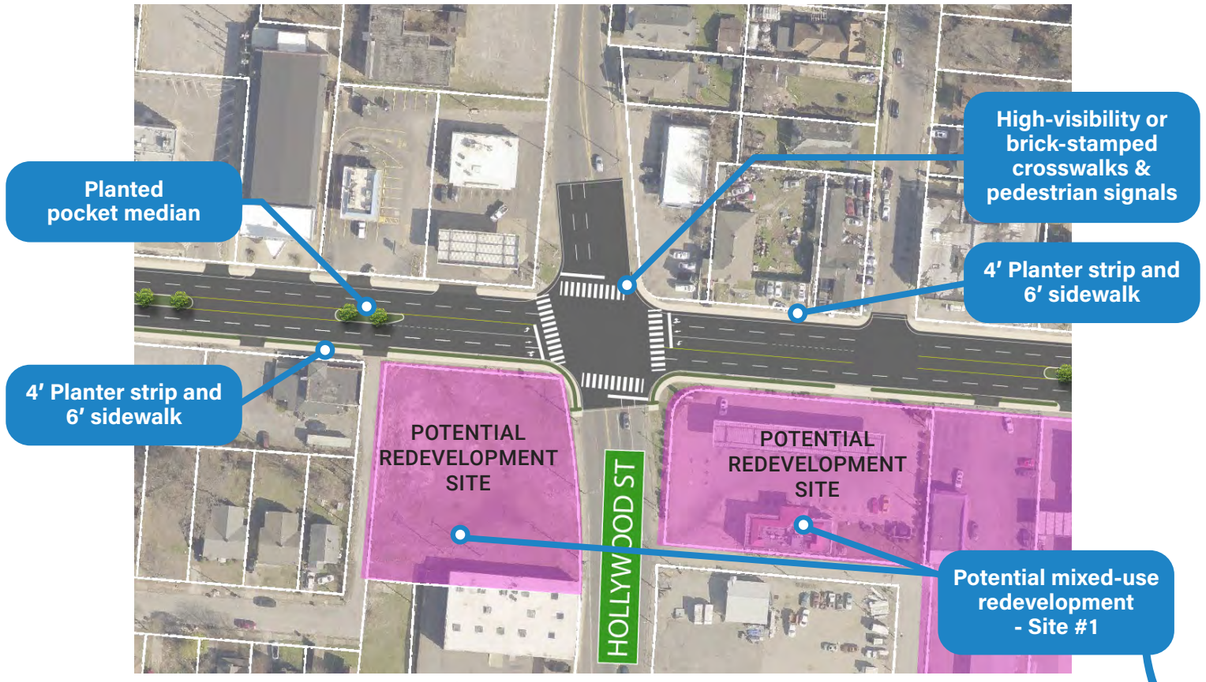


Figure 5.12: Conceptual design of Hollywood Street intersection.

Idea: Create a walkable environment through supportive higher density mixed use development (2- to 3-story retail, commercial and multifamily).

Looking WEST
Conceptual design of:
Hollywood Street intersection

Recommendations

Upgrade to high quality intersection featuring:

- 4′ planter strip and 6′ sidewalk, outside of the curb line
- Stormwater management
- Consolidated driveways
- Planted pocket medians
- Pedestrian-level lighting
- High-visibility or brick-paver crosswalks
- ADA ramps
- Pedestrian signals
- Add street trees

Scott Street (Bridge)

E Parkway · Hollywood Street · Bingham Street · Tillman Street · Pope Street · Holmes Street · National Street · Highland Street · Graham Street · Waring Road · Berclair Road · Perkins Road · Stratford Road · Mendenhall Road · N White Station Road

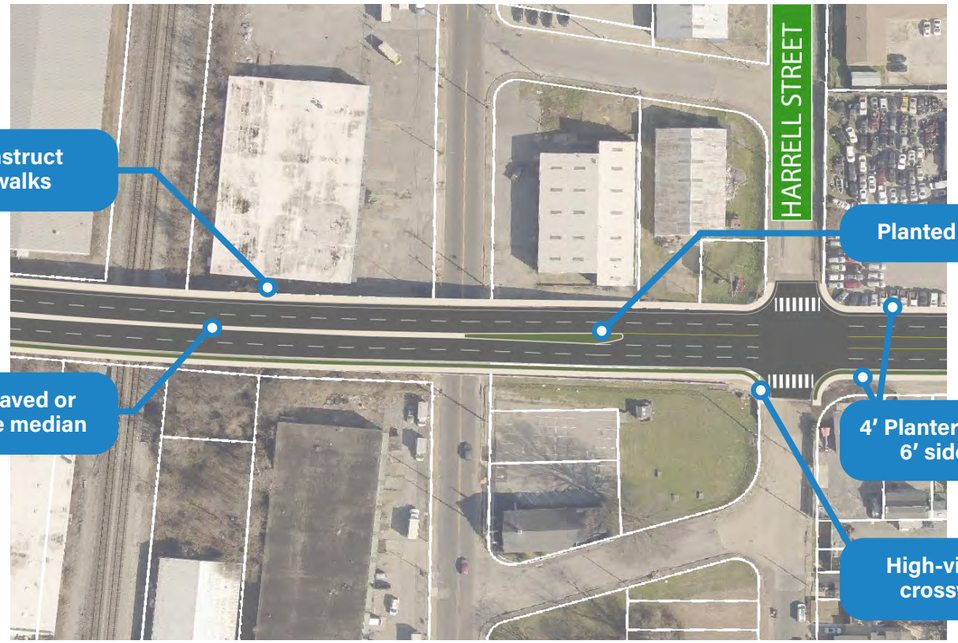


Figure 5.13: Conceptual design of the bridge crossing Scott Street.

Idea: Improve safety of walking experience across the bridge and include gateway (banners and lighting) to enhance aesthetics.

Looking EAST
Conceptual design of:
Bridge crossing Scott Street

Recommendations

Upgrade bridge section to include the following features:

- Pedestrian-level lighting
- Railing between cars and pedestrians
- 4′ planter strip and 6′ sidewalk, outside of the curb line
- Reconstruct sidewalks along north side
- Brick-paved or concrete median with potential planter boxes
- Planted median
- High visibility crosswalks near Harrell Street

Pope Street (Planted Median)

E Parkway · Hollywood Street · Bingham Street · Tillman Street · **Pope Street** · Holmes Street · National Street · Highland Street · Graham Street · Waring Road · Berclair Road · Perkins Road · Stratford Road · Mendenhall Road · N White Station Road

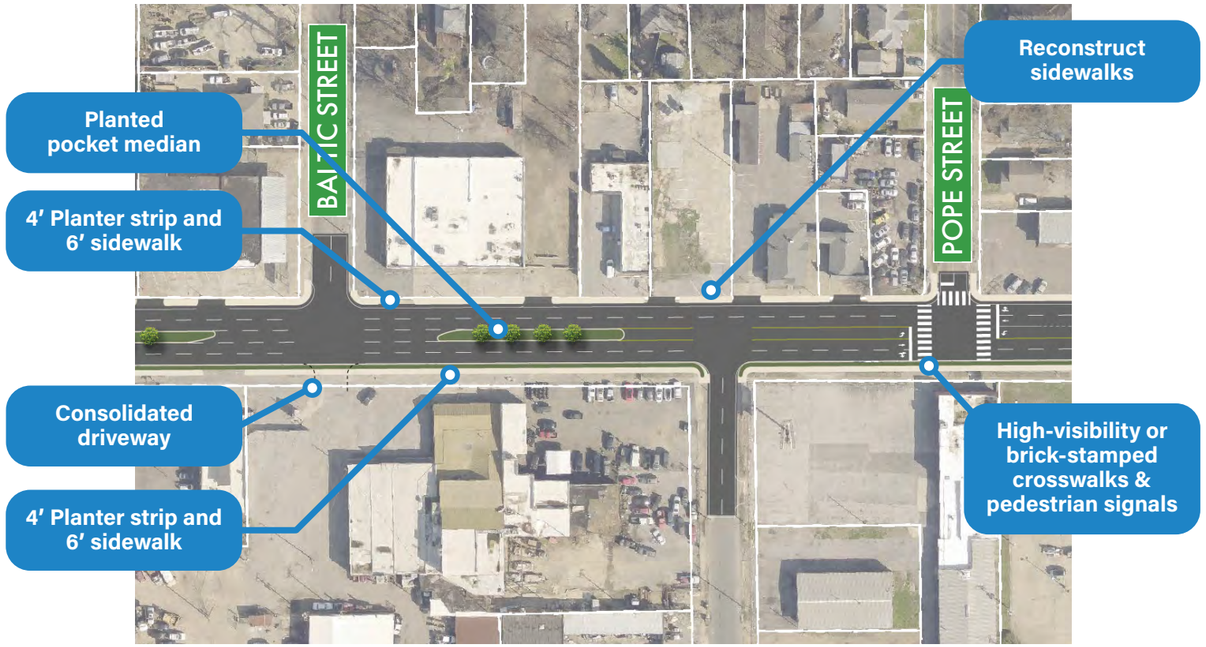


Figure 5.14: Conceptual design of the planted median near Pope Street.

Idea: Use planted medians to provide verticality and limit vehicular turning movement conflicts.

Looking WEST
Conceptual design of:
Planted Median near Pope Street

Recommendations

Upgrade this roadway segment to include the following features:

- Pedestrian-level lighting
- 4' planter strip and 6' sidewalk, outside of the curb line
- Stormwater management
- Consolidated driveways
- Planted pocket medians
- High-visibility or brick-paver crosswalks
- ADA ramps
- Pedestrian signals
- Reconstruct sidewalks
- Add street trees

National Street (On-Street Parking)

E Parkway — Hollywood Street — Bingham Street — Tillman Street — Pope Street — Holmes Street — **National Street** — Highland Street — Graham Street — Waring Road — Berclair Road — Perkins Road — Stratford Road — Mendenhall Road — N White Station Road

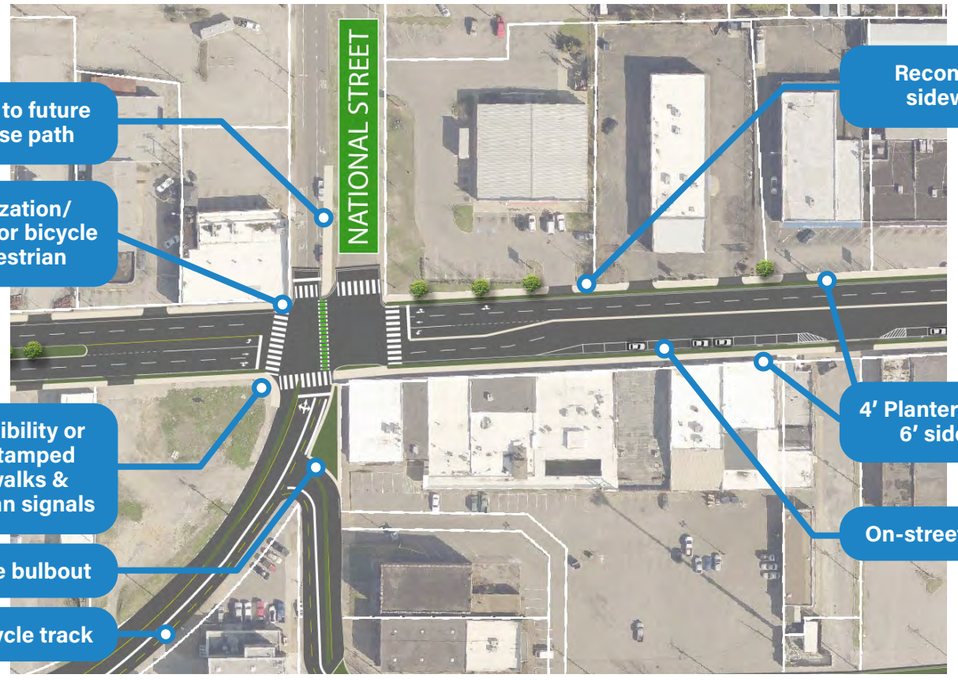
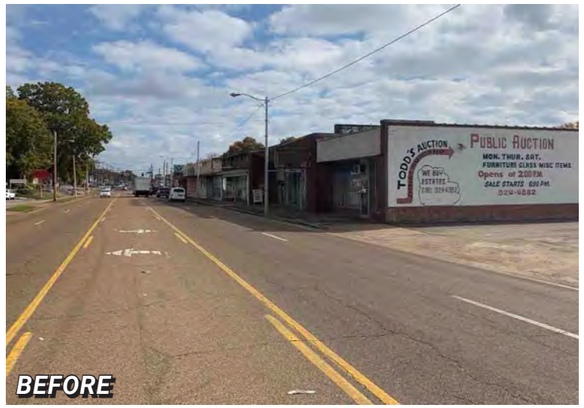


Figure 5.15: Conceptual design of on-street parking at National Street.



Idea: Repurpose existing lane to install parallel parking along south side commercial district. Use access management to guide left turning vehicles to adjacent intersections.

Looking EAST
Conceptual design of:
On-Street Parking at National Street

Recommendations

Upgrade this roadway segment to include the following features:

- On-street parking
- Reconstruct sidewalks as needed
- Plantable bulbouts
- Stormwater management
- High-visibility or brick-stamped crosswalks
- ADA ramps
- Pedestrian signals
- 4' planter strip and 6' sidewalk, outside of the curb line
- Add street trees
- Extend bicycle facilities from Broad Avenue along Forest Avenue
- Lower speed limit to 30 MPH between National and Highland

Highland Street (Intersection)

E Parkway · Hollywood Street · Bingham Street · Tillman Street · Pope Street · Holmes Street · National Street · **Highland Street** · Graham Street · Waring Road · Berclair Road · Perkins Road · Stratford Road · Mendenhall Road · N White Station Road

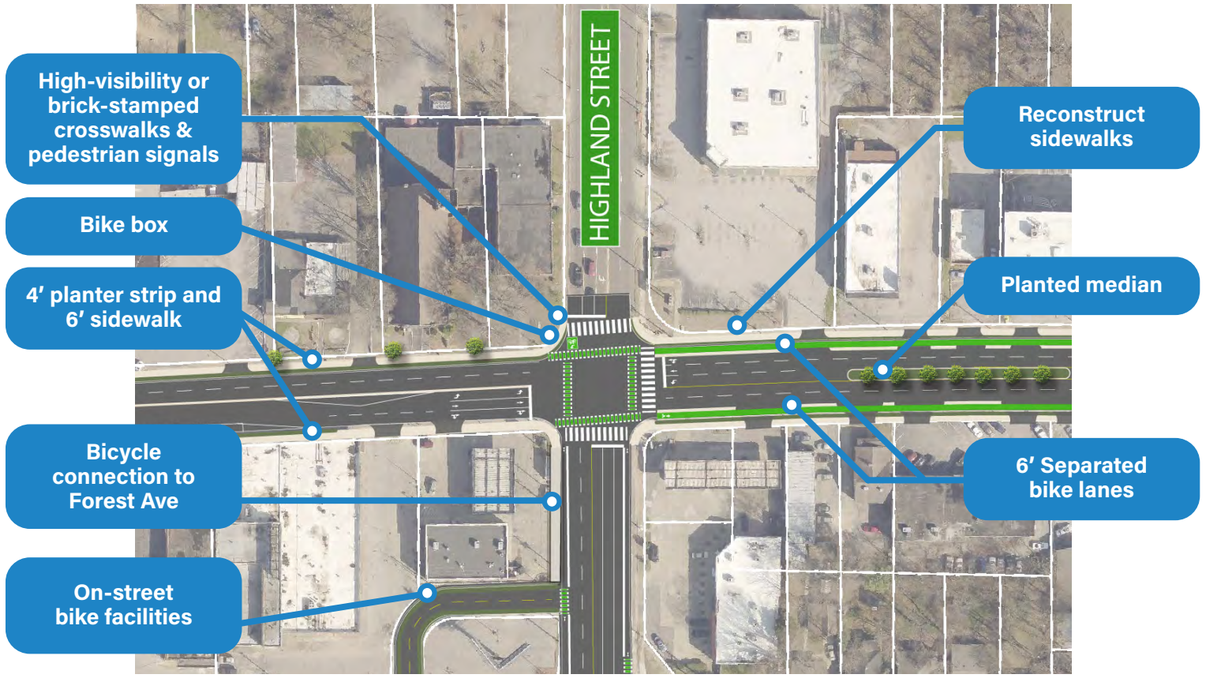


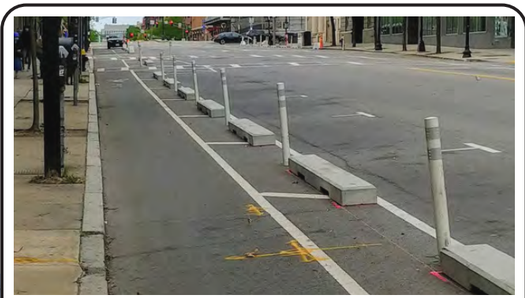
Figure 5.16: Conceptual design of high-quality intersection at Highland Street.

Recommendations

Upgrade to high-quality intersection featuring:

- High-visibility or brick-paver crosswalks
- ADA ramps
- Pedestrian signals
- Add street trees
- Pedestrian-level lighting
- Stormwater management
- 4′ planter strip and 6′ sidewalk, outside of the curb line
- Add bike boxes where appropriate
- 6′ separated bike lanes east of Highland Street
- Bicycle connection along west side of Highland Street between Forest Ave and Summer

Protected bike lane with flex post delineators



Protected bike lane with monolithic curb and bollards

Bike box

2-way cycle track

Protected bikeway intersection design.

High Point Terrace (Mid-Block Crossing)

E Parkway — Hollywood Street — Bingham Street — Tillman Street — Pope Street — Holmes Street — National Street — Highland Street — **Graham Street** — Waring Road — Berclair Road — Perkins Road — Stratford Road — Mendenhall Road — N White Station Road

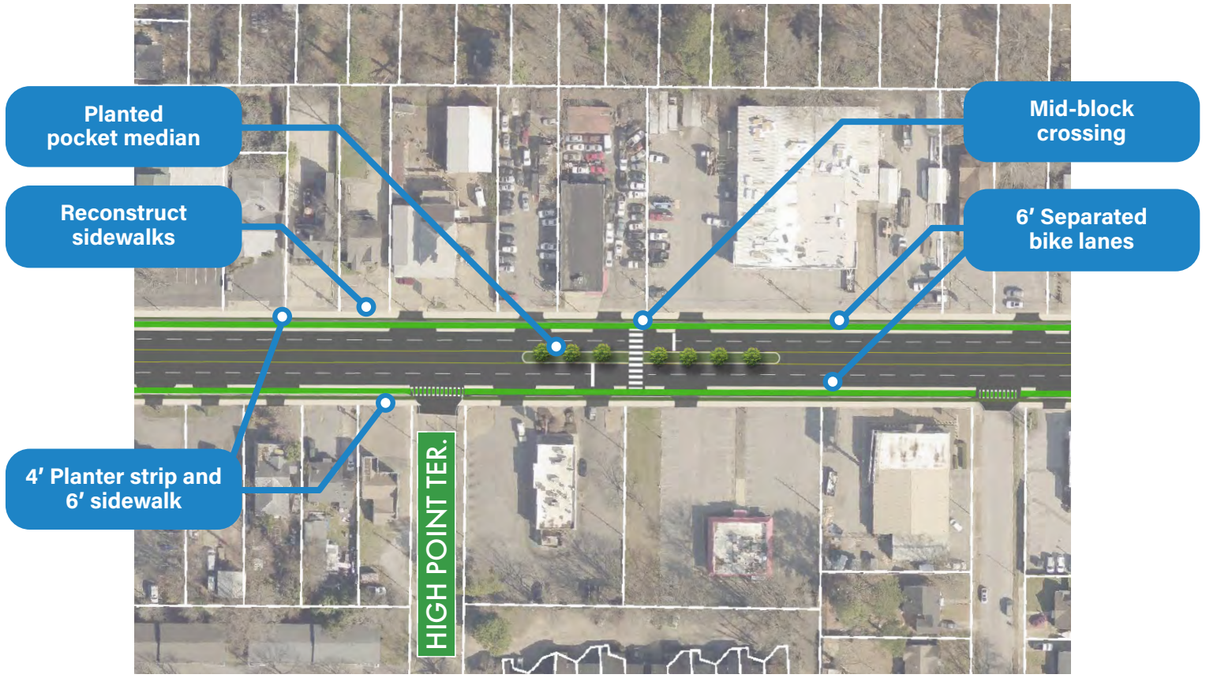


Figure 5.17: Conceptual design of mid-block crossing at High Point Terrace.

Idea: Repurpose 7-lane section to provide adequate space for separated bikeways and quality pedestrian intersection improvements.

Looking WEST
Conceptual design of:
Mid-Block Crossing at High Point Terrace

Recommendations

Upgrade to mid-block crossing featuring:

- Mid-block crossing, HAWK signal and pedestrian refuge with high-visibility crosswalk
- ADA ramps
- 6′ separated bike lanes using monolithic concrete curbing with flexpost bollards
- Planted pocket median
- Reconstruct sidewalks
- Pedestrian-level lighting
- 4′ planter strip and 6′ sidewalk, outside of the curb line
- Stormwater management
- Add street trees

Graham Street (Intersection)

E Parkway — Hollywood Street — Bingham Street — Tillman Street — Pope Street — Holmes Street — National Street — Highland Street — **Graham Street** — Waring Road — Berclair Road — Perkins Road — Stratford Road — Mendenhall Road — N White Station Road

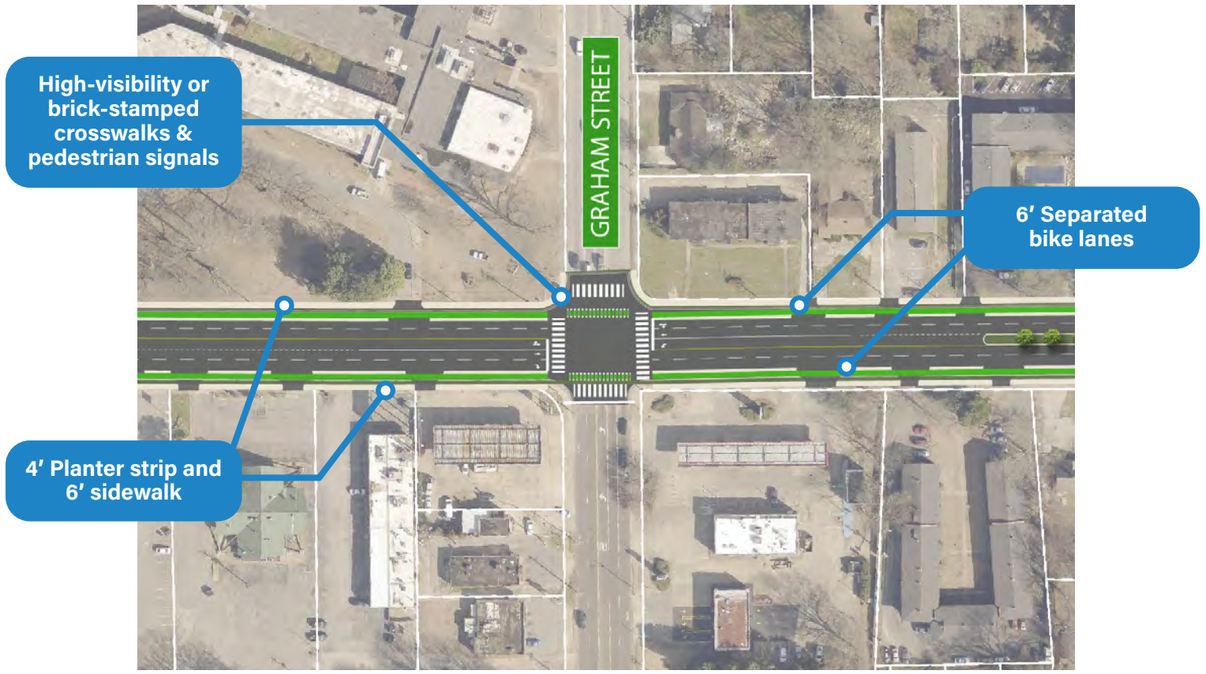
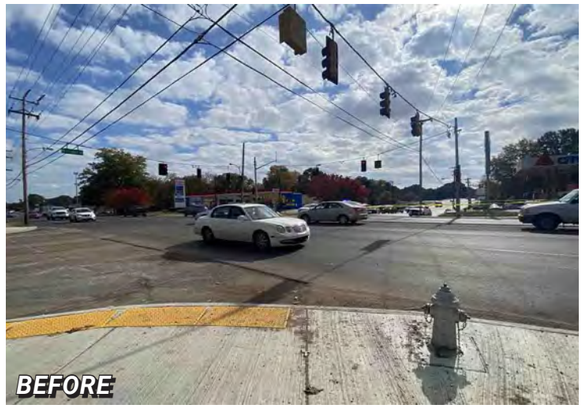


Figure 5.18: Conceptual design of high-quality intersection at Graham Street.



Idea: Delineate bicycle and pedestrian use through high-quality treatments for both modes.

Looking SOUTHEAST
Conceptual design of:
High-Quality Intersection at Graham Street

Recommendations

Upgrade to high-quality intersection featuring:

- 4′ planter strip and 6′ sidewalk, outside of the curb line
- 6′ separated bike lanes
- Stormwater management
- Pedestrian-level lighting
- High-visibility or brick-paver crosswalks
- ADA ramps
- Pedestrian signals
- Add street trees
- Install speed flashers or pedestrian crossing warning flashers during school drop off/pick up times

Perkins Road (Intersection)

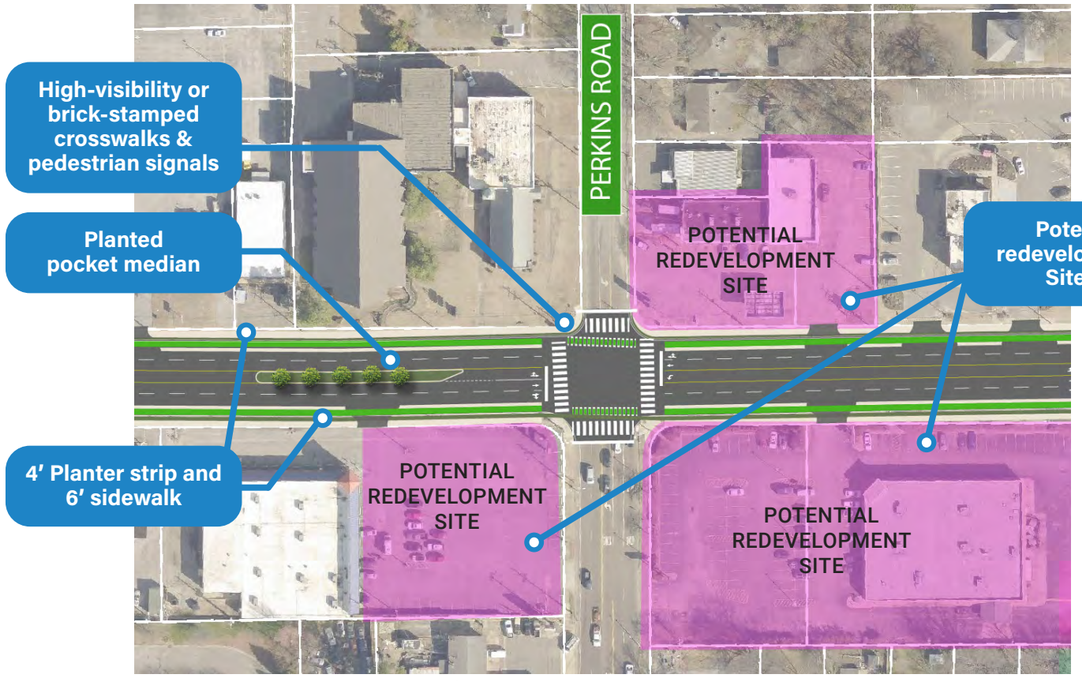


Figure 5.20: Conceptual design of high-quality intersection at Perkins Road.

Recommendations

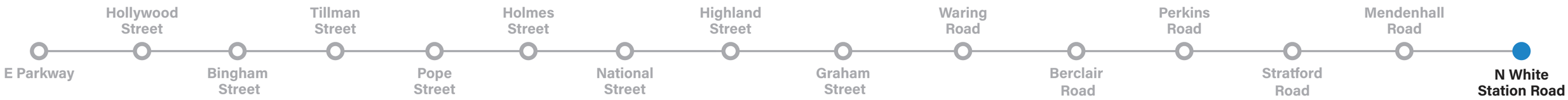
Upgrade this roadway segment to include the following features:

- 4' planter strip and 6' sidewalk, outside of the curb line
- 6' separated bike lanes
- Stormwater management
- Pedestrian-level lighting
- High-visibility or brick-paver crosswalks
- ADA ramps
- Pedestrian signals
- Planted pocket median
- Add street trees

Figure 5.19: Conceptual design of Potential Development Site #3.

Idea: Redesign intersection and encourage redevelopment and infill opportunities that support local culture while creating a vibrant activity node.

White Station Road (Intersection)



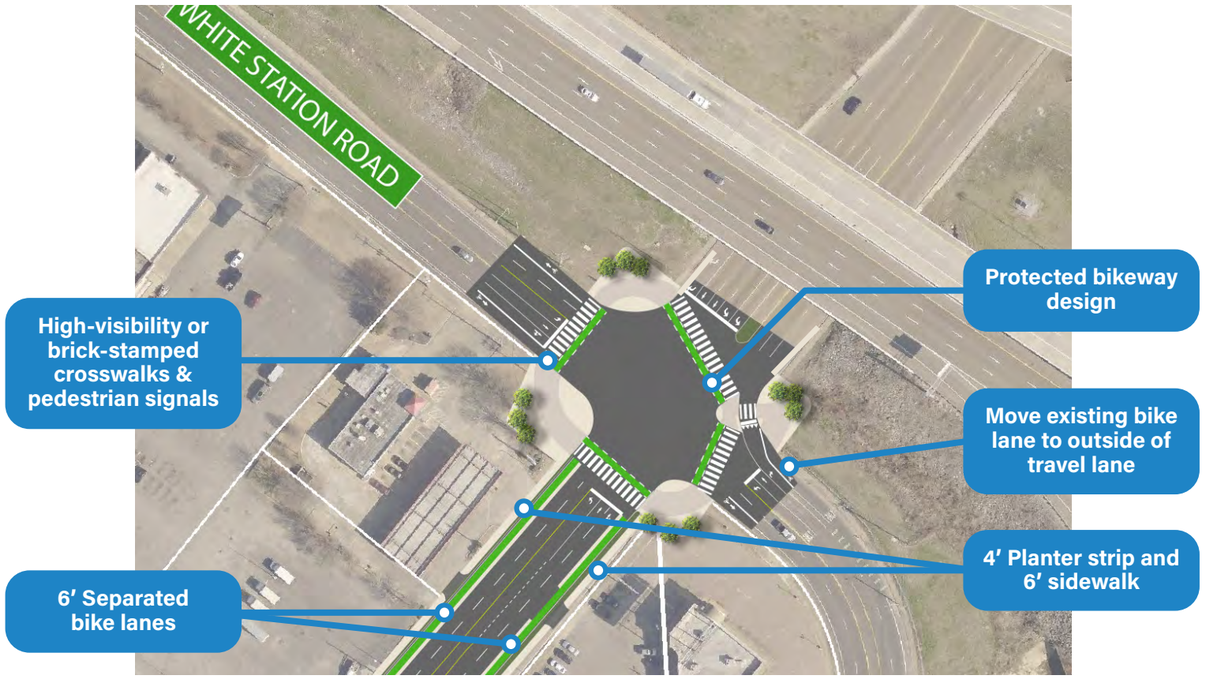
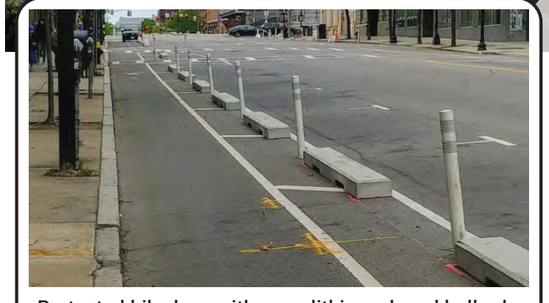


Figure 5.21: Conceptual design of protected bikeway intersection at White Station Road.


Protected bike lane with flex post delineators


Protected bike lane with bollards


Protected bikeway intersection design.


Protected bike lane with monolithic curb and bollards

Recommendations

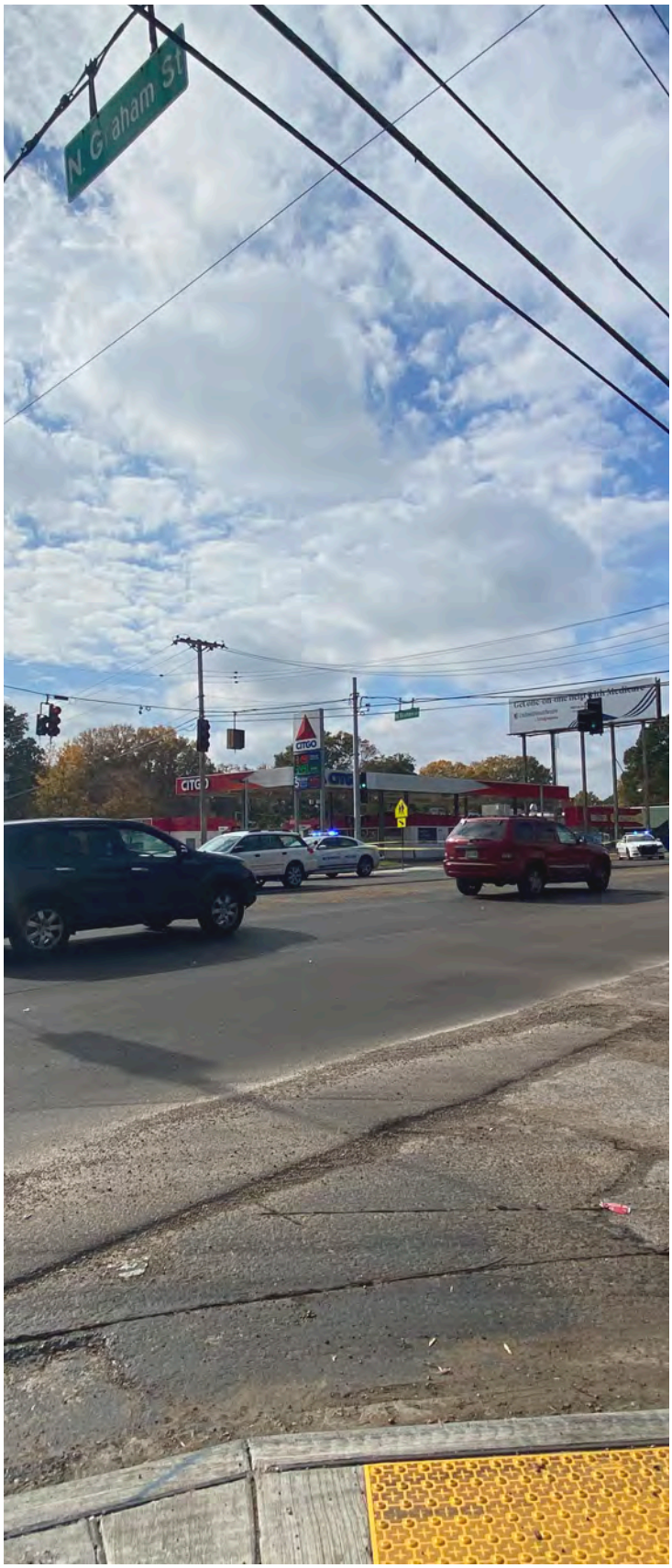
Upgrade this roadway segment to include the following features:

- 4' planter strip and 6' sidewalk, outside of the curb line
- 6' separated bike lanes
- Stormwater management
- Pedestrian-level lighting
- High-visibility or brick-paver crosswalks
- ADA ramps
- Pedestrian signals
- Protected bikeway design at intersection
- Add street trees

Implementation

CHAPTER 06

Implementation



Summer Avenue today - intersection at Graham Street.

The success of the Summer Avenue Complete Streets Study ultimately rests on Memphis and TDOT leaders' ability to implement its recommendations.

Making this plan a reality requires the coordination, collaboration and combined efforts of many stakeholders and organizations. This effort is made easier by establishing an action plan for moving the process forward from planning to funding, design, and ultimately construction. Defining costs, tailoring phases of construction to meet funding projections and community needs, and defining subsequent steps in the transformation of Summer Avenue will help create an environment conducive to a truly walkable, Complete Street.

This Chapter Covers:

- Phasing & Cost Estimates
- Policy Recommendations
- Funding the Summer Avenue Corridor

Phasing & Cost Estimates

As project segments were identified, project construction quantities were developed based on the design concepts using measurements taken from CAD (i.e. design) drawings. In turn, construction cost estimates were calculated using standard unit cost values provided by TDOT and the City of Memphis.

That said, there may be areas identified during the final design stage that require temporary or permanent easements during construction. A 10% design fee and 30% contingency were included in the cost assumptions. These estimates are for 2022 costs and subject to change following full surveys and final design computations.

Cost Estimates

Tables 6.1 and 6.2 provide a summary of the construction costs associated with Summer Avenue from E. Parkway to White Station Road, broken into segments for ease of understanding and potential construction phasing. These costs include roadway improvements like medians, bicycle and pedestrian facilities, landscaping, lighting, intersection improvements and improved signalization. The estimated construction cost for transforming Summer Avenue in accordance with this plan is approximately **$27.6 million.**

SECTION/EXTENT	DESCRIPTION	LENGTH
Section 1: *E. Parkway to Harrell Street*	– Sidewalks on both side of bridge – Pocket Medians – High Quality Intersection and Mid-block Crossings – Driveway Consolidation – Pedestrian Lighting – Street Trees – 8’-10’ Sidepath on south side of Summer Avenue	**0.9** Miles
Section 2: *Harrell Street to Highland Street*	– 8’-10’ Sidepath on south side of Summer Avenue – Pocket Medians – High Quality Intersection and Mid-block Crossings – Driveway Consolidation – Pedestrian Lighting – Street Trees – Connection to the Heights Line (Future Multi-use Path) on National Street – Connection to proposed bicycle facilities on Forest Avenue – On-Street Parking between National Street and Highland Street – Stormwater management at select locations	**1.2** Miles
Section 3: *Highland Street to Berclair Road*	– 8’-10’ “wide” Sidewalk on south side of Summer Avenue – Protected Bike Lanes – Pocket Medians – High Quality Intersection and Mid-block Crossings – Driveway Consolidation – Pedestrian Lighting – Street Trees	**1.9** Miles
Section 4: *Berclair Road to White Station Road*	– 8’-10’ “wide” Sidewalk on south side of Summer Avenue – 10’-12’ “wide” Sidewalk on south side of Summer Avenue, north of Old Summer Road – Protected Bike Lanes – Pocket Medians – High Quality Intersection and Mid-block Crossings – Driveway Consolidation – Pedestrian Lighting – Street Trees	**1.4** Miles

Table 6.1: Descriptions of Summer Avenue Project Sections.

SECTION/EXTENT	PROJECT DESIGN COST	PROJECT CONSTRUCTION COST + CONTINGENCY
Section 1: E. Parkway to Harrell Street	$581,000	$4,354,000
Section 2: Harrell Street to Highland Street	$573,000	$4,295,000
Section 3: Highland Street to Berclair Road	$1,141,000	$8,562,000
Section 4: Berclair Road to White Station Road	$961,000	$7,210,000
TOTAL (Design fee + Construction cost + Contingency)		**$27,677,000**

Table 6.2: Summer Avenue Estimated Construction Costs Summary.

Policy Changes

The opportunities summarized in Table 6.3 identify policy changes aimed at creating more walkable, neighborhood serving development along Summer Avenue. Potential regulatory changes, whether through ordinance revisions, design standards development, or policy modifications, would typically require partnership between landowners, developers, the City of Memphis, Shelby County, the Memphis Metropolitan Planning Organization (MMPO), and TDOT. Several changes could be achieved by the

Table 6.3: Policy change opportunities, Summer Avenue.

CATEGORY	POLICY CHANGE
Driveways	Review driveway design standards to reduce curb cuts and increase walkability.
	Sidewalk, not street surface material, should carry across the driveway and preferably at sidewalk height.
	Minimize curb radii to reduce vehicle entry and exit speeds.
	Consolidate driveways and require cross-access between adjacent parcels, especially complimentary uses, non-residential and multifamily development on Summer Avenue.
Parking	Examine existing surface parking requirements and amend as necessary to require rear and/or side parking with infill and/or redevelopment projects.
	Encourage the use of shared parking.
Wayfinding, Signage & Lighting	Review wayfinding standards to include pedestrian and bicyclist wayfinding signage along the corridor to promote connection to and throughout Summer Avenue, including the Shelby Farms Greenline and the Heights Line.
	Review signage provisions within the Memphis and Shelby County Unified Development Code (UDC) for consistency with the character and development recommendations of this Study.
	Limit the propensity of light pollution through the use of directional pedestrian-level lighting.
Infill Development	Review minimum square footage requirements for commercial and mixed-use to permit smaller-scaled development.
Density	Review residential density restrictions to increase allowance and provide more opportunities for housing.
Frontage Activation	Review and apply frontage requirements that reduce setbacks and provide a more engaging street edge.
	Initiate a street tree installation program where the City installs the tree on private property and the owners agree to maintain.
	Increased transparency (window glazing) requirement to increase visual interaction with pedestrians.
	Review regulations for building entrances to prioritize street-facing pedestrian access.
	Require construction of wider sidewalks (minimum of five feet) to attract and provide space for pedestrians, with paved connections to internal pedestrian circulation systems.
	Street tree and public seating requirements to create a comfortable environment
Financing Development	Implement innovative financing options to strengthen partnerships between private development and government. Example: Tax Increment Grant (TIG) Program in Charlotte, NC (see below)

Charlotte's Tax Increment Grant (TIG)

Tax Increment Grants (TIG) are a public-private partnership tool to advance economic growth and land use planning goals. TIGs do not require the establishment of a district, unlike Tax Increment Financing (TIF) tools. TIGs are provided on a reimbursement basis only, and the project must demonstrate its benefit to the general public. Examples of reimbursable improvements through a TIG include, but are not limited to, new public infrastructure such as roads, streetscapes, and parking decks.

Learn more HERE

Memphis and Shelby County Division of Planning and Development through alterations to the zoning map and development code. These opportunities are discussed in more detail below.

Rezone Auto-Oriented Commercial Zoning

A substantial portion of the properties along Summer Avenue are zoned Commercial Mixed-Use – 3 (CMU-3), a high intensity commercial zoning district that allows auto-oriented uses such as gas stations, tire shops, and car washes. The prevalence of CMU-3 zoning has led to auto-oriented uses dominating the corridor. A comprehensive rezoning is necessary to properly analyze the existing zoning and make changes that better reflect the vision for land uses and building standards along Summer Avenue going forward. A change to less intense commercial mixed-use zoning districts like CMU-2 or CMU-1 could continue to support commercial activity on Summer Avenue while providing a more walkable, neighborhood-focused environment.

Sections of Summer Avenue were already rezoned in 2021 as a response to a Memphis City Council moratorium on the demolition of historic churches. This rezoning provided an opportunity to align zoning along Summer more appropriately with Memphis 3.0's future land use map and district vision for the surrounding community. A broader comprehensive rezoning that examines the entire 5.5 mile study area is recommended to further improve the development patterns and create a more walkable corridor.

Apply Frontage Designations

Street frontage designations are another way to enhance the walkability of Summer Avenue and would be a useful tool to be used in conjunction with a comprehensive rezoning. Street frontages act as an additional level of regulation for the placement of buildings and parking to create a more pedestrian-friendly environment. Appropriate application of frontages could create a continuous walkable corridor regardless of the land uses or underlying zoning.

Section 3.10.3 of the Memphis and Shelby County Unified Development Code (UDC) outlines several types of street frontage designations that can be applied to streets, or portions of streets. These designations provide requirements for setbacks and parking location, as well as standards for façade transparency, entrance locations and other elements of building forms that affect walkability. Further analysis is required to determine the specific designations and locations appropriate for Summer Avenue.

Update Access Management Standards

Access management controls vehicle access to properties by managing driveway spacing, curb cuts, turning lanes, and medians. Improving access management creates a safer and more efficient street for all users. Summer Avenue contains numerous driveways and curb cuts that pose a potentially dangerous conflict zone for pedestrians. Vehicle access to sites along the corridor must be addressed to create a more walkable corridor. This includes consolidating parking and driveway access where feasible, eliminating unnecessary curb cuts, and preventing driveways from being located close to crosswalks, bus stops, or other pedestrian facilities.

Access management standards are controlled citywide through Section 4.4 of the UDC. Further evaluation of these standards to improve safety and efficiency along Summer Avenue and throughout the city are recommended. The application of frontage designations as described above could also be used improve access management on the corridor by limiting the location of parking and driveways and restricting drive-through exits.

Funding the Summer Avenue Corridor

To implement this study's recommendations, funding for design and construction must be secured. Thankfully, funding for Complete Streets improvements has increased in recent years, and there are numerous funding sources available at the federal, state, and local levels to help implement this plan.

State Funding Sources

TRANSPORTATION ALTERNATIVES PROGRAM

The TDOT Transportation Alternatives Program (TAP) supports various transportation and multimodal improvements with the overarching goal to improve a city's travel choices, experience, history, and culture, creating a foundation for equitable access. TAP provides funding for programs and projects defined as transportation alternatives, including:

- Bicycle and pedestrian improvements
- New paths, trails, or sidewalks
- Reconstruction of pedestrian infrastructure
- Pedestrian and bike facilities, including parking, repair stations, and water fountains
- Striping, curb ramps, ADA-compliant ramps
- Downtown improvements or revitalization projects
- Safe Routes to School (SRTS) projects: pedestrian infrastructure plans, design, construction, and education to connect neighboring residential areas to local schools

Grant projects are funded through a competitive selection process, with a typical local share of 20% of net costs.

MULTIMODAL ACCESS GRANT

The state's Multimodal Access Grant (MMAG) is a state-funded program created to support the transportation needs of pedestrians, bicyclists, and transit users through infrastructure projects that address existing gaps along state routes. Multimodal facilities play an important role in providing transportation choices for people across Tennessee. Multimodal Access Grant projects are state-funded at 95% with a 5% local match. State match portion of an awarded project does not exceed $950,000. Eligible projects include the following:

- Intersection improvements
- Multimodal access
- Bicycle and pedestrian improvements
- Complete Streets/road diet/traffic calming
- Safety upgrades

TN TDOT Department of Transportation

Memphis MPO
METROPOLITAN PLANNING ORGANIZATION

ACCESS TO HEALTH BUILT ENVIRONMENT GRANT

Tennessee's Department of Health manages the Access to Health built environment grant program. These grants aim to increase access to safe and publicly-accessible places that provide opportunities for physical activity for a diverse group of users, including those who live, visit, work, play, worship, and learn in the community. The funds may be used for new construction, improvement, or planning of facilities and infrastructure. Grants are non-competitive, do not require matching funds, and can be used as a match for other grant programs. Partnerships, community engagement, and health equity are encouraged when developing each grant

project. All grantees must evaluate the community impacts of their projects.

TN Department of Health

Municipal Funding

Transportation projects can also be funded through issuance of municipal bonds. These bonds, which are either revenue-backed (for projects like toll roads) or general obligation (backed by a municipality's credit), can be used to finance all of a transportation project or provide the local share with matching state or federal funds. For projects with significant community interest or support, bonds can be a means of accelerating development and construction.

Public-Private Partnerships

Public-private partnerships provide additional opportunity to secure funding or in-kind resources for the implementation of corridor improvements. An agreement between the City and private developers can be established that is mutually beneficial. To offset the cost of corridor infrastructure improvements, the private entity would provide additional funding towards the implementation of the corridor project, and in turn would be allowed certain incentives like higher densities, tax credits, or other provisions. In lieu of financial commitments, in-kind contributions that may include the implementation or construction of transportation infrastructure could also be negotiated with private development.

"It's important to get people walking, get them to know their neighborhood, get to know the businesses that are in those neighborhoods, and have people patronize those businesses."

- Local Business Owner