



STREETSCAPE DESIGN GUIDELINES

Central Business District + Old Germantown



JANUARY 2017



ACKNOWLEDGEMENTS

PUBLIC PARTICIPANTS

THANK YOU TO THE MANY AREA LEADERS AND CITIZENS WHO PARTICIPATED IN THIS PLANNING PROCESS THROUGH THE WORKSHOP AND PUBLIC MEETINGS. A SPECIAL THANKS TO THE GREAT HALL FOR HOSTING THE DESIGN CHARRETTE AND PUBLIC MEETINGS.

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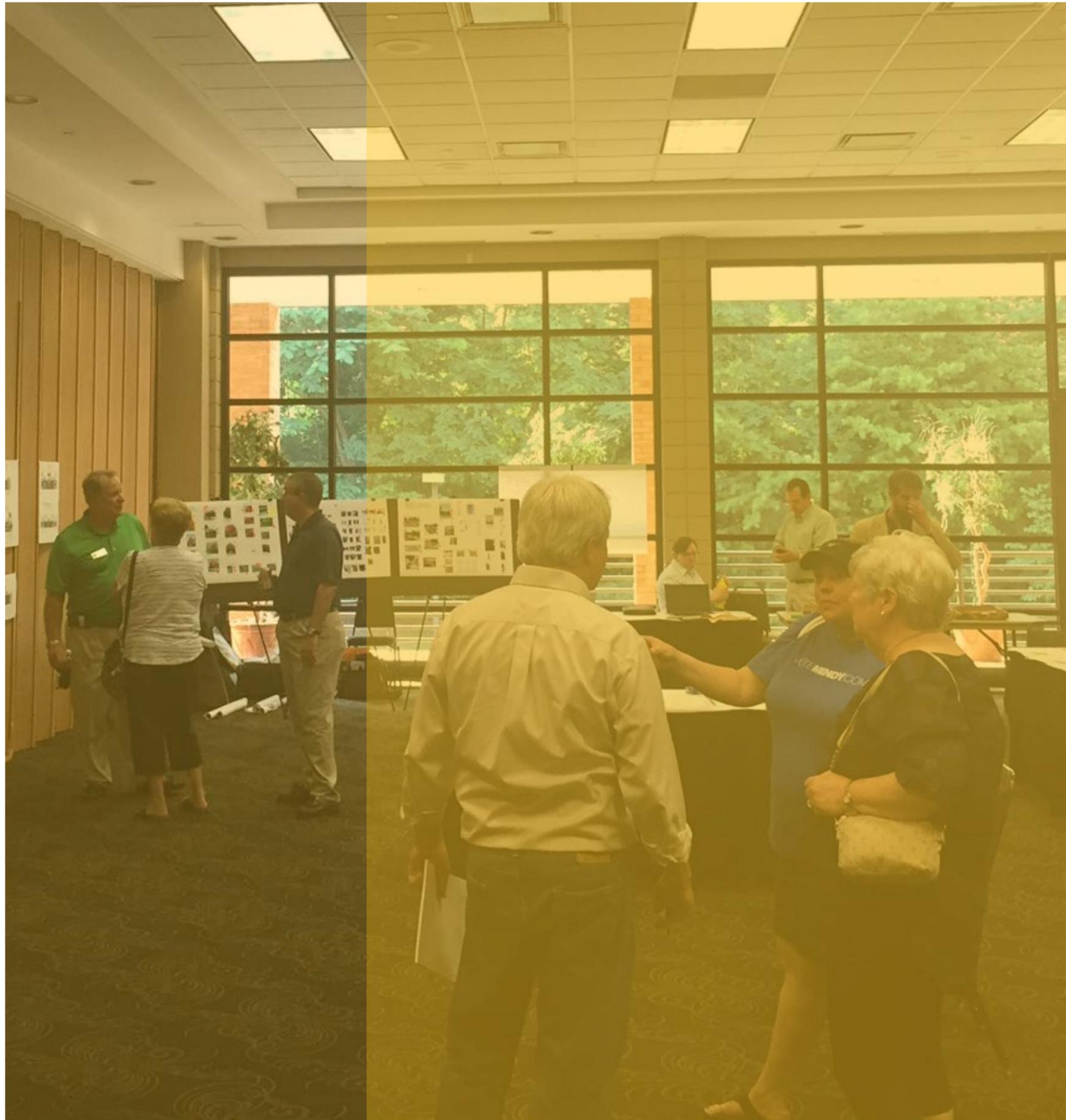


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INTRODUCTION + VISION

INTRODUCTION

The City of Germantown set out to develop a landscape/streetscape design manual and complete streets plan for the Central Business District (CBD) and “Old Germantown” area of the City. These guidelines are intended to rebalance the streets within the heart of Germantown to better facilitate the movement of people, and not just cars. Accomplishing this goal will knit together the areas within the CBD and Old Germantown better by removing barriers to pedestrian and bicycle travel, while maintaining an appropriate level of vehicular mobility. These guidelines provide design guidance and specificity to the ideas originally proposed in Germantown’s Smart Growth Plan (2007).

CENTRAL BUSINESS DISTRICT

This area, which is the commercial center of the City, covers roughly 700 acres. Streetscapes may extend out of this designated area and transition into surrounding neighborhood areas on main streets such as Farmington and Neshoba. This plan presents strategies for public and private investments in the CBD public realm that will address lighting, streetscape and landscape elements, connections between centers of activity, gateway treatments, priority streets, retail cluster concepts (can be adapted from existing plans), sidewalk conditions and complete street concepts within the ROW.

OLD GERMANTOWN

In addition to developing a specific plan for the Central Business District, the City also developed a landscape/streetscape plan that sets specific standards for several City blocks in the historic “Old Germantown” area within the City of Germantown (see map on next page). This plan presents specific landscape and streetscape plans that fit seamlessly with the street reconstruction plans that are planned for this area beginning in 2017 and enhance the overall placemaking experience within Old Germantown.

VISION

The planned improvements in both areas are expected to accomplish the following goals:

- create unique identities for the Central Business District and Old Germantown
- develop a strong sense of place, and
- enhance the likelihood of economic revitalization in the area.

The plan results from a collaboration between the design team, city staff, local stakeholder groups (such as Germantown Area Chamber, business owners, churches, shopping center owners/tenants and City officials), as well as local residents.

OPPORTUNITIES + CONSTRAINTS

ANALYSIS

Fieldwork, GIS mapping, and input from the public, stakeholders, and staff helped to identify existing opportunities and constraints for bicycle and pedestrian connectivity within the study area. This section and the map on the following page presents an overview of the key assets that would support complete streets and the challenges that will need to be addressed for successful implementation.

MOST INTERSECTIONS IN THE DISTRICT OFFER LONG CROSSING DISTANCES FOR PEDESTRIANS.

OPPORTUNITY: CREATE MORE PEDESTRIAN REFUGE ISLANDS TO MITIGATE LONG CROSSING DISTANCES.

CONSTRAINT: MAINTAINING EXISTING TURN LANES AND TDOT COORDINATION MAY LIMIT OPPORTUNITIES FOR PEDESTRIAN REFUGE ISLANDS + PLANTED MEDIANS.



FARMINGTON BLVD HAS EXCESS TRAVEL LANES FOR EXISTING TRAFFIC VOLUMES, AS WELL AS LONG BLOCKS BETWEEN PEDESTRIAN CROSSINGS.

OPPORTUNITY: REPURPOSE EXISTING PAVEMENT FOR PEDESTRIAN AND BICYCLE USE. CREATE MIDBLOCK CROSSINGS FOR PEDESTRIANS.

CONSTRAINT: MAINTAIN EXISTING TURNING MOVEMENTS FOR ADJACENT BUSINESS ACCESS.

EXISTING CROSSWALK IMPROVEMENTS HAVE BEEN IMPLEMENTED AT POPLAR AVE., INCLUDING STAMPED ASPHALT.

OPPORTUNITY: USE THIS EXISTING BEAUTIFICATION METHOD AS THE STANDARD FOR THE DISTRICT.

CONSTRAINT: IMPROPER IMPLEMENTATION HAS CAUSED MAINTENANCE ISSUES FOR CITY STAFF. IF THE METHOD IS REPRODUCED, PROPER INSTALLATION IS CRUCIAL TO SUCCESS OF THE TREATMENT.



OLD GERMANTOWN ROAD DOES NOT CURRENTLY PROVIDE CLEAR DELINEATION OF PEDESTRIAN SPACE.

OPPORTUNITY: USE THE EXISTING ROW TO FORMALIZE PEDESTRIAN SPACE AND SAFE CROSSING OPPORTUNITIES.

CONSTRAINT: COORDINATION WITH THE RAILROAD AND LOCAL BUSINESSES WILL BE NECESSARY TO PROVIDE CONTEXT SENSITIVE SOLUTIONS.

WIDE ROADWAY PAVEMENT AND ROW CREATE A CAR-CENTRIC ATMOSPHERE FOR THE CENTRAL BUSINESS STREETS.

OPPORTUNITY: IMPLEMENT SPOT MEDIANS IN THE CENTER TURN LANE TO ALLOW FOR PEDESTRIAN REFUGE ISLANDS, WHILE PROVIDING VERTICAL DEFINITION WITH STREET TREES.

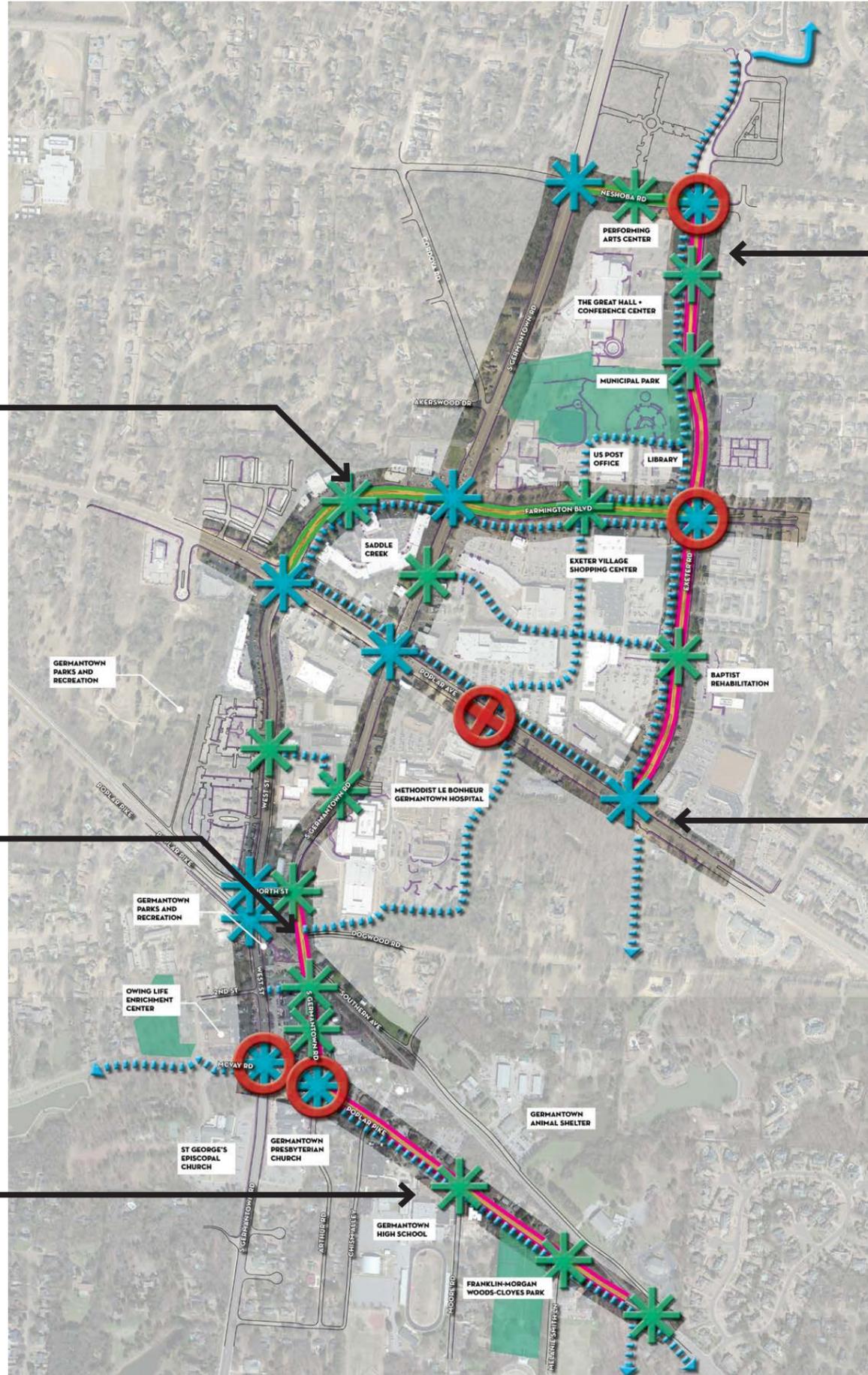
CONSTRAINT: PEDESTRIANS AND BICYCLISTS DON'T FEEL COMFORTABLE ADJACENT TO HEAVY TRAFFIC AND FAST SPEEDING AUTOMOBILES.



POPLAR PIKE DOES NOT CURRENTLY PROVIDE ADEQUATE PEDESTRIAN AND BICYCLE FACILITIES.

OPPORTUNITY: CONNECT THE CITY PARKS AND FACILITIES, CHARITY HORSESHOW GROUNDS, AND SCHOOLS WITH SAFE AND SEPARATED PEDESTRIAN AND BICYCLE FACILITIES.

CONSTRAINT: COORDINATE STREET DESIGN WITH HIGH SCHOOL DROP-OFF AND PICK-UP CIRCULATION PATTERNS.



EXETER ROAD HAS EXCESS PAVEMENT WIDTH FOR THE EXISTING TRAVEL LANES AND EXCESS TRAVEL LANES FOR THE CURRENT AND FUTURE LEVELS OF TRAFFIC.

OPPORTUNITY: REDISTRIBUTE EXISTING ROW FOR PEDESTRIAN AND BICYCLE USE, AND TO CREATE A SPACE TO BE USED AS A FRONT DOOR FOR GPAC, THE PARK, AND THE CITY-OWNED LAND ON THE EAST SIDE OF EXETER ROAD.

CONSTRAINT: EVENT TRAFFIC WILL NEED TO BE CONSIDERED FOR STREET REDESIGN. CONSTRUCTION COSTS WILL IMPACT THE OPPORTUNITIES AND TIMING FOR STREET REDESIGN.



INCREMENTAL STREETScape IMPROVEMENTS HAVE BEEN IMPLEMENTED ALONG POPLAR AVENUE.

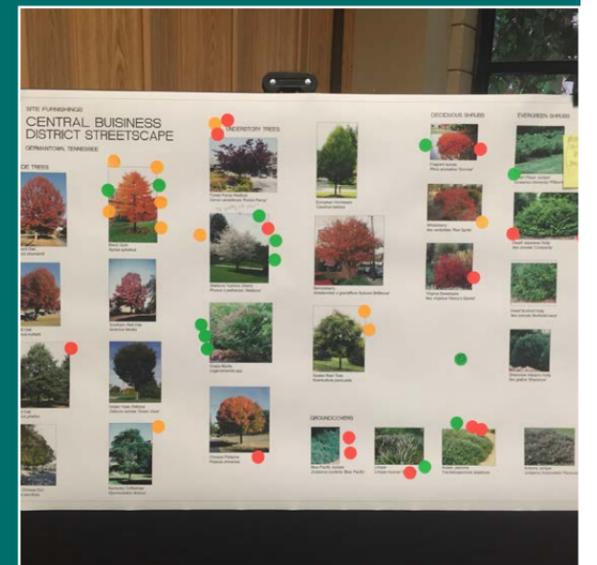
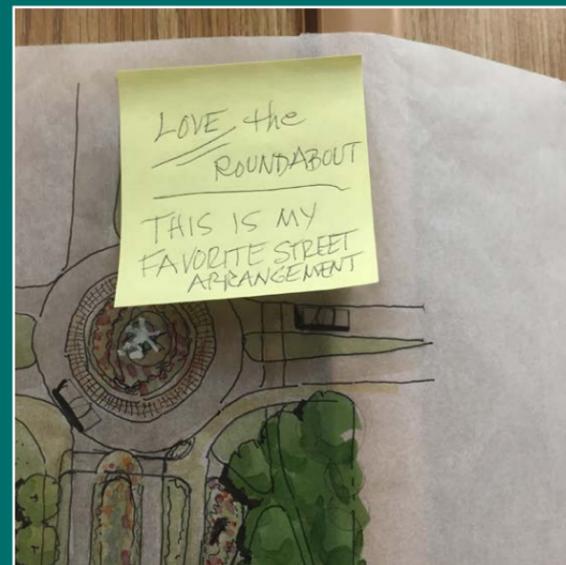
OPPORTUNITY: IMPROVE PEDESTRIAN CROSSINGS AT ALL INTERSECTIONS AND IMPLEMENT SPOT MEDIANS WHERE DRIVEWAY CONFLICTS DO NOT EXIST.

CONSTRAINT: COORDINATION WITH TDOT WILL AFFECT PROPOSED DESIGN.



-  INTERSECTION IMPROVEMENT
-  PROPOSED TRAFFIC SIGNAL
-  PEDESTRIAN CROSSING - AT SIGNAL
-  PEDESTRIAN CROSSING - NO SIGNAL
-  SHARED USE PATH (PED + BIKE)
-  PROTECTED BIKE LANES
-  ON STREET PARKING
-  POTENTIAL LANE REALLOCATION
-  EXISTING SIDEWALKS
-  PARKS





PROCESS + PARTICIPATION



CHARRETTE PROCESS

WHAT IS A CHARRETTE?

A CHARRETTE IS AN INTENSIVE PLANNING SESSION WHERE CITIZENS, DESIGNERS AND OTHERS COLLABORATE ON A VISION FOR DEVELOPMENT. IT PROVIDES A FORUM FOR IDEAS AND OFFERS THE UNIQUE ADVANTAGE OF GIVING IMMEDIATE FEEDBACK TO THE DESIGNERS. MORE IMPORTANTLY, IT ALLOWS EVERYONE WHO PARTICIPATES TO BE A MUTUAL AUTHOR OF THE PLAN. -THE TOWN PAPER

SCHEDULE

The design team collaborated with the City of Germantown staff and citizens for a 4-day charrette in June of 2016 at the Great Hall and Conference Center. The schedule involved field work, 2 public meetings, a brown bag educational lunch public session, multiple stakeholder meetings, and an open studio in which the public could stop by to see the design team at work.

OPPORTUNITIES FOR INPUT

VISION

The first public meeting was on the second day of the charrette. At this meeting, participants were asked to describe Germantown streets today, while envisioning what the streets could be tomorrow. They were also asked to identify opportunities and challenges for the CBD and Old Germantown Streets. See the results on the following page.

CROSS SECTIONS

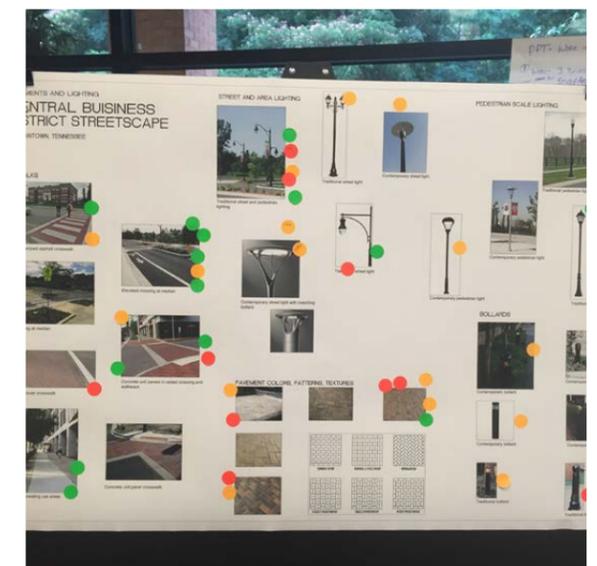
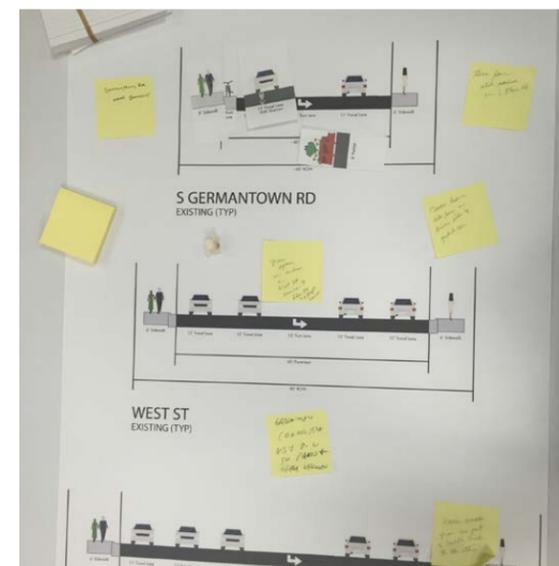
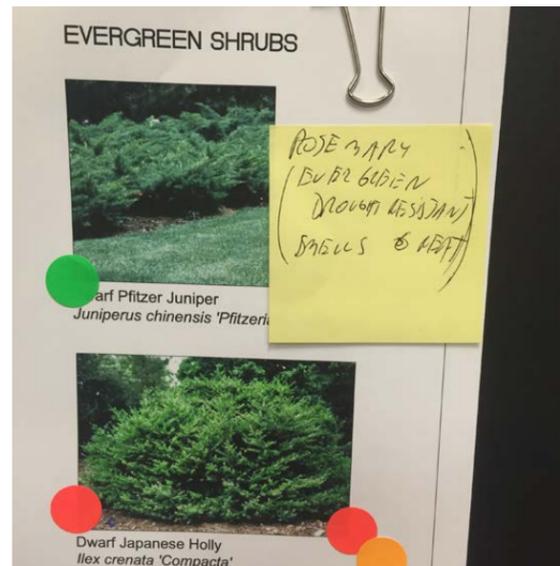
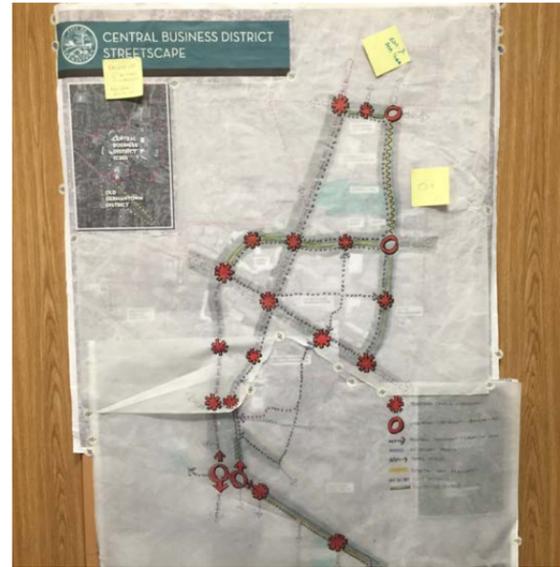
At both public meetings, multiple options were presented to reallocate existing Right of Way (ROW) and existing pavement in order to better accommodate all potential users of the street, including bicyclists and pedestrians. Participants could give feedback both verbally and through sticky notes and other written notes.

SITE ELEMENTS

At both public meetings, participants were able to vote on preferred landscape elements, site furnishings, and street lighting designs. Participants were given dots to place on boards that offered a variety of options.

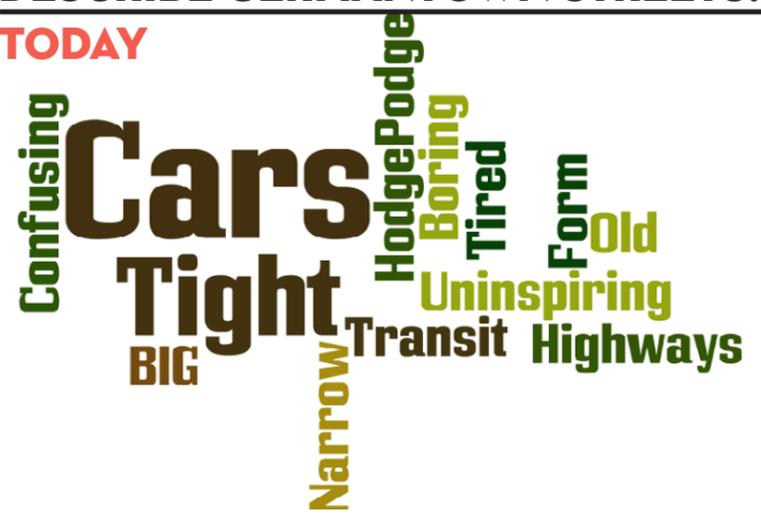
STREET/PARK DESIGNS

Additional detailed designs of Exeter Road (with adjacent park) and South Germantown Road in Old Germantown were presented for feedback.



DESCRIBE GERMANTOWN STREETS...

TODAY



TOMORROW



FEEDBACK/RESULTS

VISION

As shown to the left, the public's vision for Germantown streets is to create an inviting and walkable space, where diverse people can walk or bike comfortably. The result would create a sense of togetherness. This differs greatly from the existing condition which predominantly serves cars, feels tight, confusing, and uninspired.

CROSS SECTIONS

Overall, the public was excited for improved pedestrian and bicycle facilities throughout the corridor. The public was also interested in aesthetic improvements, such as additional median plantings, more street trees, consistent site furnishings, and better transit connections.

SITE ELEMENTS

The public showed support for native landscape elements that offered a variety of seasonal interest. Site furnishings preferences included mostly traditional, black designs for benches, trash receptacles, lighting and bike racks. Participants and stakeholders were interested in decorative or brick crosswalks, but were concerned with the durability of such features.

STREET/PARK DESIGNS

EXETER ROAD

Participants were able to comment on three designs for Exeter Road and Exeter Road Park. All three designs depicted a roundabout at Neshoba Road and Exeter Road, which got overwhelming public support. Participants were less consistent in support of a roundabout at Exeter Road and Farmington Blvd. The comments provided extensive support for increased tree planting and well as potential for public art and event space.

OLD GERMANTOWN / SOUTH GERMANTOWN ROAD

Overall, the public was excited for improvements to South Germantown Road, particularly the improvements that offer safer pedestrian crossings, on-street parking, and better lighting and visibility. There was also support for public art or gateway signage that honors the history of the area.

WHAT ARE THE OPPORTUNITIES + ISSUES FOR OLD GERMANTOWN STREETS?

OPPORTUNITIES



ISSUES



WHAT ARE THE OPPORTUNITIES + ISSUES FOR CENTRAL BUSINESS DISTRICT?

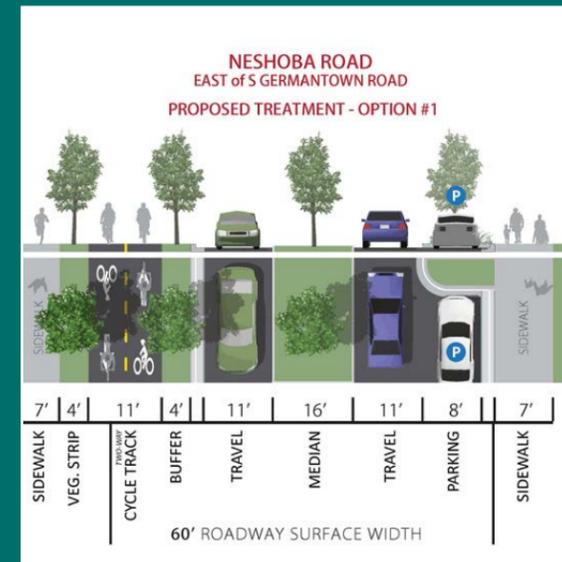
OPPORTUNITIES



ISSUES







COMPLETE STREETS POLICY

COMPLETE STREETS

The City of Germantown has made it a priority to rebalance their transportation system to better accommodate all modes of travel. Focusing on the CBD first, these design guidelines follow the principles of Complete Streets, which are streets focused on moving people, and not just cars. Since the CBD and Old Germantown are destinations and the “heart of Germantown,” they should be places that people “go to” rather than simply “pass through.” In addition, it should be a place where people are not beholden to their personal motor vehicle, but have the ability to walk or bicycle to and among the various commercial and cultural attractions in the CBD. The first step in achieving that goal is to remove barriers to other modes of transportation; through the development and adoption of a Complete Streets Policy, the City of Germantown commits to providing multi-modal streets within the CBD and Old Germantown.

The Policy is the first step; design guidelines such as those contained within this document will ensure that the vision is realized through implementation. The following section includes suggested Complete Streets Policy language for the CBD and Old Germantown. This language can be adopted into a formal City resolution and enforced through the design guidelines contained in this document. Furthermore, should the City decide to expand the scope of the Policy and Guidelines to a citywide effort, the language can be modified to cover other contexts, and the Guidelines can be expanded as well.



SUGGESTED COMPLETE STREETS POLICY LANGUAGE

SECTION I: PURPOSE AND INTENT

This Complete Streets policy directs the City of Germantown to ensure that all projects involving the planning, design, and/or implementation of transportation infrastructure within the Central Business District (CBD) and Old Germantown will balance the mobility needs of users of all ages and abilities, regardless of their choice of travel mode, and will provide Germantown citizens safety, accessibility, and convenience in moving about their community. By providing all users of the public right-of-way with an equitable surface transportation system, the city of Germantown will enhance the quality of life of its citizens and foster a sense of place for its CBD and Old Germantown.

SECTION II: INCLUSION AND EXCEPTIONS

- A. All transportation projects within the CBD and Old Germantown (as defined in the Streetscape Design Guidelines, City of Germantown, 2016) shall promote safe and accessible travel for users of all ages and abilities regardless of their choice of travel mode. Furthermore, all projects must consider the context in which they will be implemented and must promote total network connectivity.
- B. Projects subject to Section II(A) include, but are not limited to, the following: planning, programming, design, new construction, reconstruction, operation, repair, and maintenance.
- C. Exceptions may be considered for approval when the project involves one or more of the following conditions:
 - a. The use of the proposed transportation facility by the particular user group is prohibited by law (e.g. freeways);
 - b. The subject street is under the jurisdiction of the Tennessee Department of Transportation (TDOT) and subject to their design criteria, in which case the City will work with TDOT to incorporate all allowable complete streets elements;
 - c. The cost of accommodating the needs of the particular user group for the proposed transportation project are excessively disproportionate to the probable use of the facility by the particular user group. Excessively disproportionate may be defined as exceeding 25% of the total project costs.
- D. Any exception to this policy on the basis of Section II(C), including for eligible private projects, must be reviewed and approved by the City Engineer and will be documented with supporting data that indicates the basis for the exception. Such documentation shall be publicly available.

SECTION III: CONTEXT SENSITIVITY AND DESIGN GUIDELINES

- A. Sensitivity to the CBD's surroundings, its current and planned building and land uses, and current and expected transportation needs of all people must be a factor in the decision-making process. Context sensitive design allows decisions to be more flexible while simultaneously promoting economic, social, and environmental objectives.
- B. Public outreach and involvement shall accompany proposed projects in order to promote context sensitivity and answer the needs and concerns of Germantown citizens.
- C. The City of Germantown shall, for its CBD and Old Germantown, adopt the Streetscape Design Guidelines for the CBD and Old Germantown (2016) as the governing guideline for all streets within the CBD and Old Germantown. Supplemental guidance can be used to inform design decisions such as design manuals, standards, and guidelines based on the latest and best practices of street design, construction operations, and maintenance as these apply to bicycle, pedestrian, transit, and motor vehicle facilities. All referenced manuals, standards, and guidelines will be made publicly available online through the City of Germantown's website.
- D. Recommended design guidelines include, but are not limited to the following:
 - a. Streetscape Design Guidelines for the Central Business District and Old Germantown (City of Germantown and Alta Planning + Design, 2016)

- b. A Policy on Geometric Design of Highways and Streets (American Association of State Highway and Transportation Officials);
- c. Guide for the Development of Bicycle Facilities (American Association of State Highway and Transportation Officials)
- d. Guide for Planning, Design, and Operation of Pedestrian Facilities (American Association of State Highway and Transportation Officials)
- e. Separated Bike Lane Planning and Design Guide (Federal Highway Administration)
- f. Urban Bikeway Design Guide (National Association of City Transportation Officials)
- g. Urban Street Design Guide (National Association of City Transportation Officials)
- h. Designing Walkable Urban Thoroughfares: A Context Sensitive Approach (Congress of New Urbanism and Institute of Transportation Engineers)

SECTION IV: JURISDICTION AND COMPLETE STREETS TASK FORCE

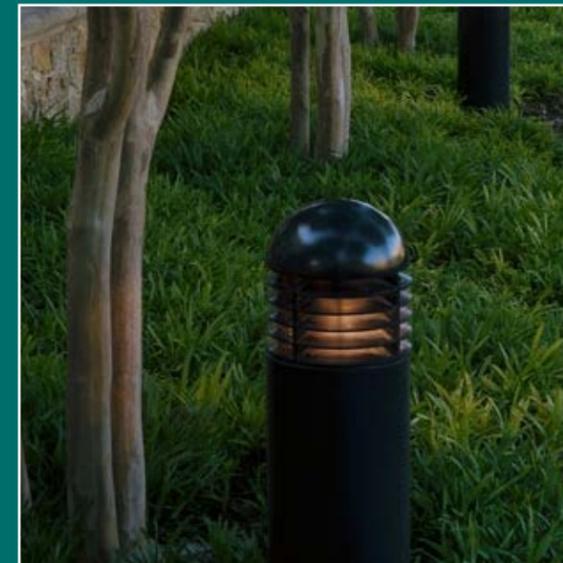
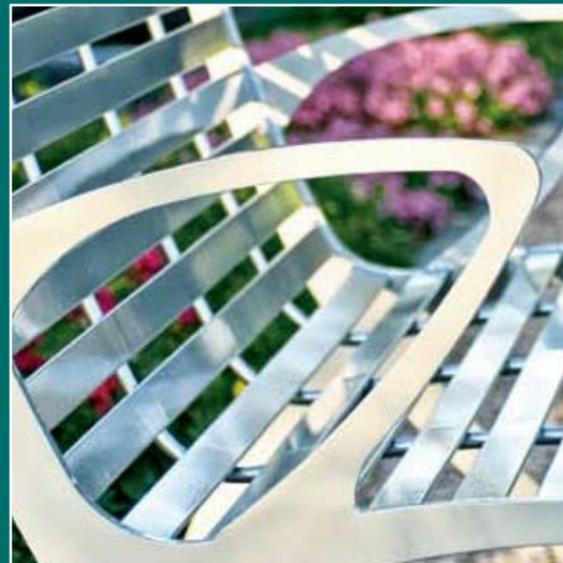
- A. This policy shall apply to all City-owned transportation facilities within the Central Business District and Old Germantown public right of way, including, but not limited to streets, sidewalks, alleys, bridges, and all other pathways. Privately constructed and owned streets, sidewalks, alleys, and parking lots will be encouraged to adhere to this policy through funding requirements and development review.
- B. The City shall foster partnerships with TDOT, other stakeholders, MATA, and neighboring jurisdictions such as Shelby County and the City of Memphis, to develop facilities that further the City's vision of a connected network for the Central Business District that will promote Germantown as a destination.
- C. A Complete Streets Task Force shall be established for the City of Germantown's Central Business District in order to promote an equitable and connected surface transportation network. This task force shall be comprised of City staff as well as designated stakeholders] and shall meet at least once a quarter or more frequent if determined necessary.

SECTION V: PERFORMANCE STANDARDS

- A. The City shall measure the success of this policy by using the following performance measures:
 - a. Number of crashes
 - b. Injuries and fatalities for all modes
 - c. Annual traffic volume counts
 - d. Miles of accessible and connected routes for each user
 - e. On-time bus arrivals
 - f. Sidewalk condition ratings
 - g. Emergency vehicle response times
 - h. Commercial vacancies
 - i. Modeshare percentages
 - j. Citizen and business surveys of satisfaction with infrastructure
 - k. Number of bicycle friendly businesses
 - l. Number of bike parking spaces

The Complete Streets Task force shall present an annual report to the Board of Mayor and Aldermen showing progress made on this policy using the above parameters. This report shall be made publicly available.





DESIGN GUIDELINES

OVERVIEW

WHAT IS A DESIGN GUIDELINE?

Design guidelines provide parameters for implementing a consistent physical character for the study area. Consistency in appearance promotes a unified perception of the district, making it a unique place for residents and visitors.

DESIGN GUIDELINES ELEMENTS

LANDSCAPE PALETTE

Repetition of landscape elements can provide unity within the district, by providing common aesthetic conditions to the canopy structure and ground plane. In addition to improving the appearance of the streetscape, properly placed trees and shrubs can provide shade for pedestrians, buffer bicyclists and pedestrians from automobile traffic, and help manage stormwater runoff.

SITE FURNISHINGS PALETTE

Much like with the landscape palette, repetition of standard site furnishings will unify the aesthetic experience of all of the streets within the CBD and Old Germantown. Limiting variety in bench, trash receptacle, lighting, and bike rack selection is recommended. Elements shown on the following pages were chosen based on feedback from the public and stakeholders. Alternatives to the standard proposed furniture should be reviewed and approved by the City of Germantown to ensure design consistency.

STANDARD CROSS SECTIONS

Each street will have a standard cross section for the existing as well as proposed condition. Though the cross section may vary along the given street corridors, the standard cross section will set the design intent for the corridor, and will help guide future design decisions.

CROSSWALKS

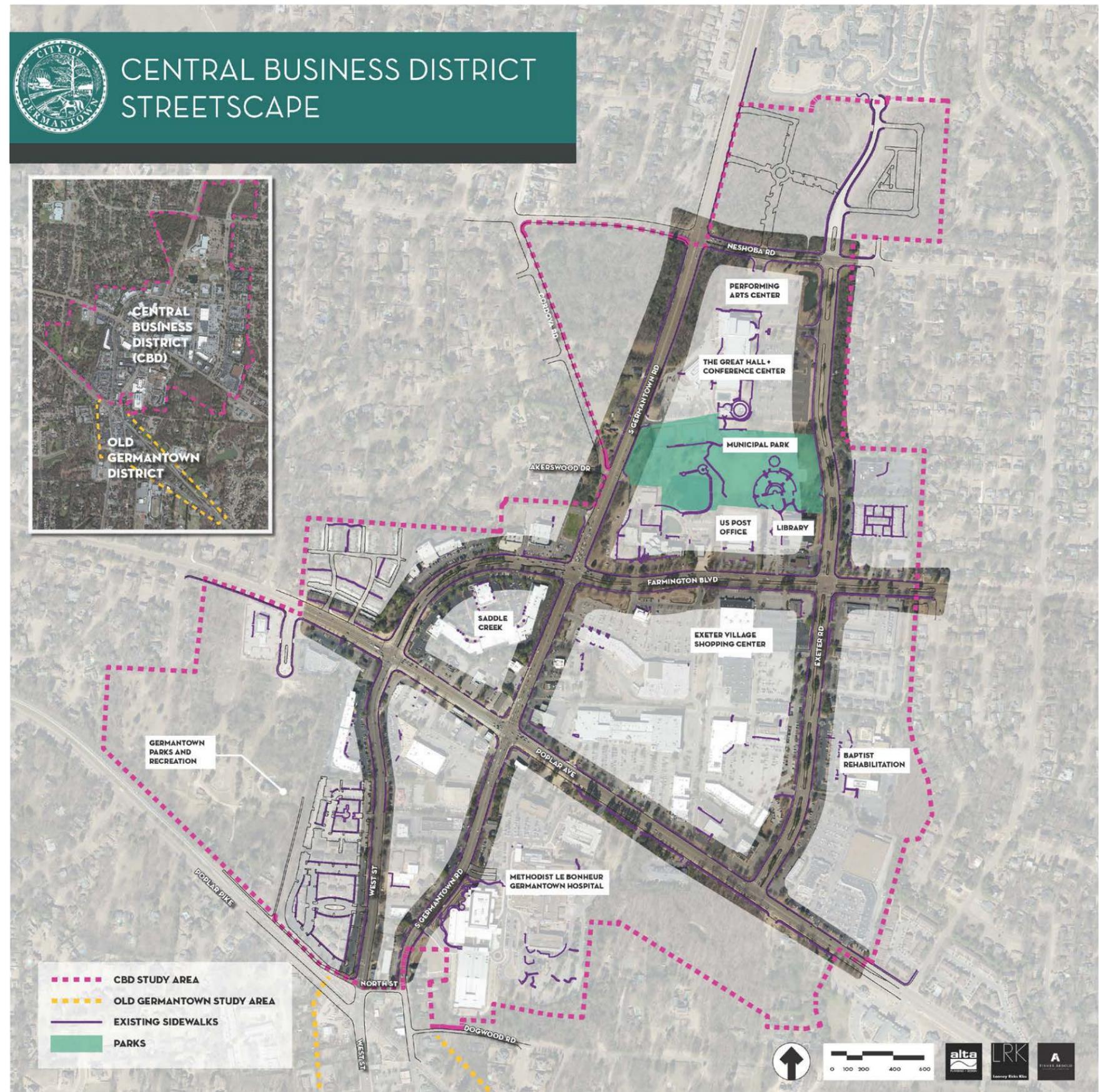
Crosswalks should be shown with high visibility thermoplastic pavement markings, per AASHTO and City of Germantown standards. Where decorative crosswalks are proposed within the CBD, stamped concrete is recommended to match existing crosswalk enhancements on Poplar Avenue, while providing more durability than stamped asphalt. When decorative crosswalks are recommended within Old Germantown, concrete pavers should be used. Installation of all decorative crosswalks within the CBD should be supplemented with high visibility thermoplastic for pedestrian safety.



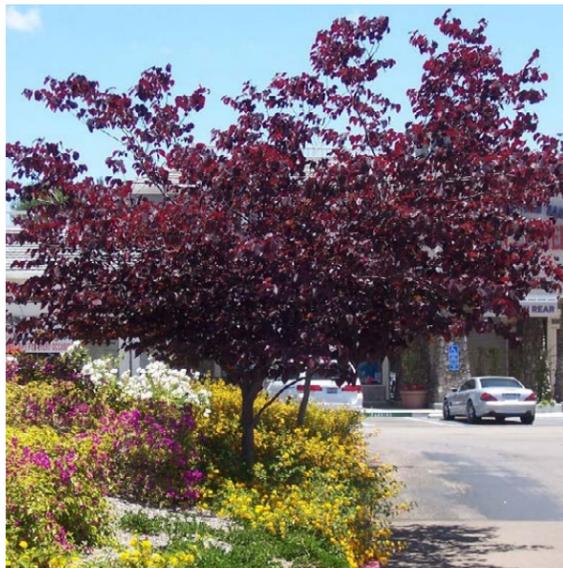
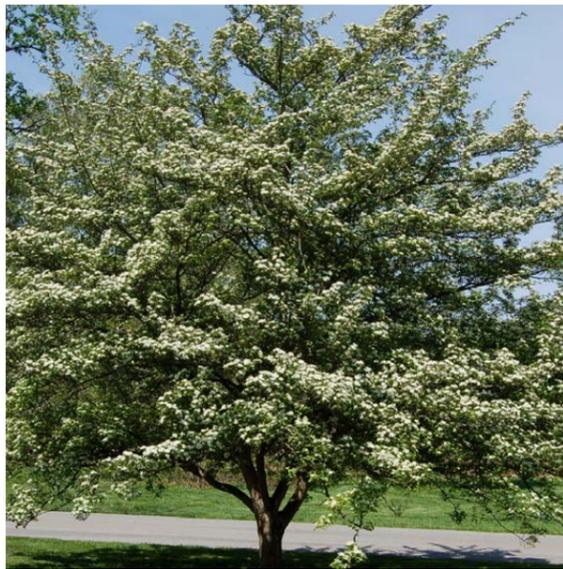
Existing stamped asphalt crosswalk within CBD.



Proposed concrete paver crosswalk within Old Germantown.



Study Area for the Germantown Central Business District, Old Germantown is to the South of the Central Business District as shown on page 17.



DESIGN ELEMENTS

LANDSCAPE ELEMENTS

DESIGN ELEMENTS | LANDSCAPE

Species	Common Name	Palette A - Old Germantown	Palette B - Central Business District	Palette C - Central Business District
Shade Trees				
Acer rubrum 'October Glory'	October Glory Red Maple		●	
Nyssa sylvatica	Black Gum	●		
Quercus falcata	Southern Red Oak			●
Quercus nuttallii	Nuttall Oak		●	
Quercus phellos	Willow Oak	●		
Quercus shumardii	Shumard Oak			●
Taxodium distichum	Bald Cypress		●	●
Ulmus americana 'Princeton'	Princeton American Elm		●	
Ulmus parvifolia	Allee Chinese Elm			●
Understory Trees				
Amelanchier x grandiflora	Serviceberry	●		●
Carpinus caroliniana	Carolina Hornbeam	●		
Cercis canadensis 'Forest Pansy'	Forest Pansy Redbud		●	
Chionanthus virginicus	American Fringetree		●	
Crataegus viridis	Green Hawthorn			●
Koelreuteria paniculata	Golden Rain Tree		●	
Pistacia chinensis	Chinese Pistache			●
Cornus florida 'Cherokee Princess'	Cherokee Princess Dogwood	●		●
Deciduous Shrubs				
Callicarpa dichotoma 'Early Amethyst'	Early Amethyst Beautyberry		●	
Hydrangea paniculata 'Limelight'	Limelight Hydrangea		●	
Hydrangea quercifolia 'Pee Wee'	Pee Wee Oakleaf Hydrangea	●		
Ilex verticillata 'Red Sprite'	Winterberry			●
Itea virginica 'Little Henry'	Dwarf Virginia Sweetspire		●	
Rhus aromatica 'Grow-low'	Fragrant Sumac	●		●
Viburnum prunifolium	Blackhaw Viburnum			●
Evergreen Shrubs				
Ilex cornuta 'Carissa'	Carissa Holly		●	
Ilex glabra 'Shamrock'	Shamrock Inkberry Holly			●
Ilex vomitoria 'Stokes'	Stokes Dwarf Yaupon Holly	●	●	
Hypericum x 'Hidcote'	Hidcote St. Johnswort			●
Viburnum obovatum 'Densa'	Dwarf Walter's Viburnum	●		●
Groundcover				
Carex spp.	Native sedges		●	●
Juniperus conferta 'Blue Pacific'	Blue Pacific Juniper			●
Phlox stolonifera	Creeping Phlox		●	
Liriope muscari 'Big Blue'	Liriope	●	●	
Trachelospermum asiaticum	Asiatic jasmine	●		●

SITE FURNISHINGS

DESIGN ELEMENTS | SITE FURNISHINGS

Species	Manufacturer	Palette A - Old Germantown	Palette B - Central Business District	Palette C - Central Business District
Benches				
Bench 19	DuMor Site Furnishings	●		
RB-28	Victor Stanley		●	●
Metrix	Anova			●
Freesia	Victor Stanley		●	
Trash Receptacles				
DYN-SD-45	Victor Stanley		●	●
PSA-32	Victor Stanley	●		
Metrix	Anova			●
SDC-36	Victor Stanley		●	
Bike Racks				
Bike Rack 292 (circular)	DuMor Site Furnishings		●	●
Freesia	Victor Stanley		●	
BRWS-161	Victor Stanley	●		●
Lighting				
Acorn/Pedestrian	MLGW	●	●	●
Cobra Head/Roadway	MLGW		●	●



PSA-32



Freesia



RB-28



Bench 19



Metrix



~Acorn



DYN-SD-45



Metrix



Bike Rack 292



Study Area for the Old Germantown District, Central Business District is to the North of Old Germantown as shown on page 14.

DESIGN AREAS

CENTRAL BUSINESS DISTRICT

The Central Business District is composed of six [6] key corridors that are impacted by these Design Guidelines:

- Exeter Road
- Farmington Boulevard
- Neshoba Road
- South Germantown Road
- Poplar Avenue
- West Street

OLD GERMANTOWN

The "Old Germantown" District is composed of three [3] key corridors that are impacted by these Design Guidelines:

- Old Germantown Road
- Poplar Pike
- West Street from North Street to McVay Road

STREET FEATURES | CENTRAL BUSINESS DISTRICT

Feature	Exeter	Farmington	Neshoba	South Germantown	Poplar	West
# Vehicular Lanes	2-4	4	2	5	7	5
Median	●	●	●	●	●	●
On Street Parking	●		●			
On Street Bike Facility		●	●			
Shared Use Path	●		●	●		
Sidewalk	●	●	●	●	●	●
Landscape Palette	C	C	C	B	B	C
Site Furnishings Palette	C	C	C	B	B	C

STREET FEATURES | OLD GERMANTOWN

Feature	South Germantown	Poplar Pike	West
# Vehicular Lanes	2	3	5
Median		●	●
On Street Parking	●	●	
On Street Bike Facility			
Shared Use Path		●	
Sidewalk	●	●	●
Landscape Palette	A	A	C
Site Furnishings Palette	A	A	C

EXETER ROAD

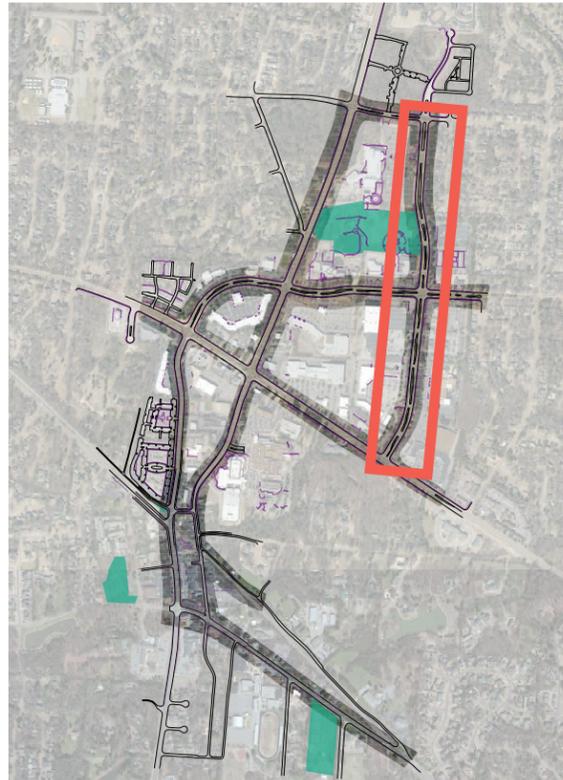
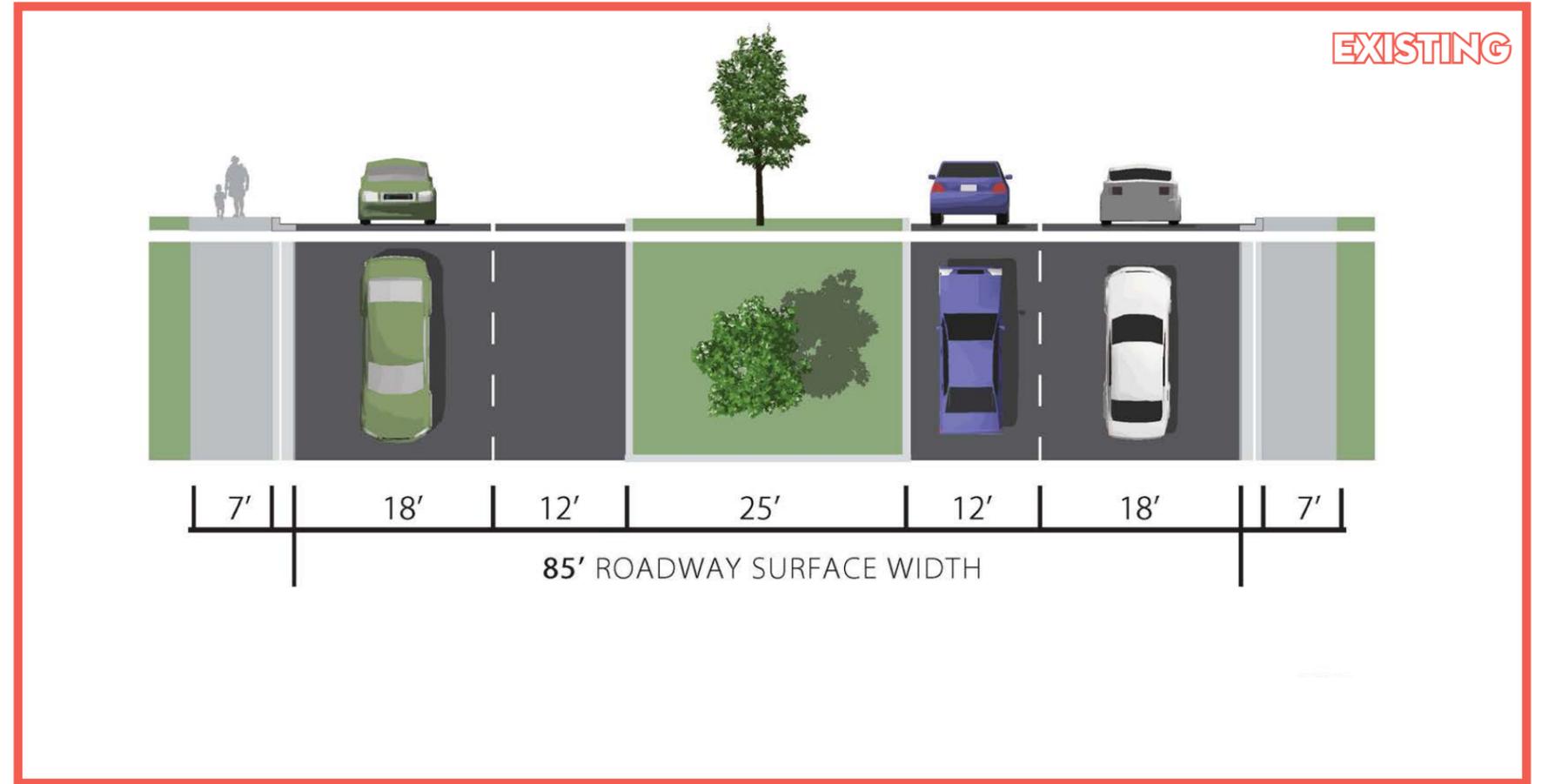
EXISTING CONDITIONS

Exeter currently carries about 10,000 vehicles per day (vpd) on four travel lanes, down from a peak of 12,500 vpd in 2004, (counted south of Farmington Boulevard). That volume can be easily accommodated within two travel lanes (capacity in the range of 15,000-20,000 vpd), which affords the opportunity to rebalance the street for other uses as depicted in the recommendations.

PROPOSED CONDITIONS

The proposed Exeter Road has the potential to provide additional public space for festivals, events, and recreation. By expanding the median + adjacent park space, Exeter Road can become a destination, not just a pass-through. Reallocating the existing pavement can also create opportunities for on-street parking, additional landscape/tree plantings, and public art.

Improved pedestrian crossings are recommended at Neshoba Road, Farmington Boulevard, Poplar Avenue, the Performing Arts Center, Municipal Park, as well as a midblock crossing between Farmington Boulevard and Poplar Avenue. Roundabouts are also recommended at Neshoba Road and potentially at the entrance to the Performing Arts Center.

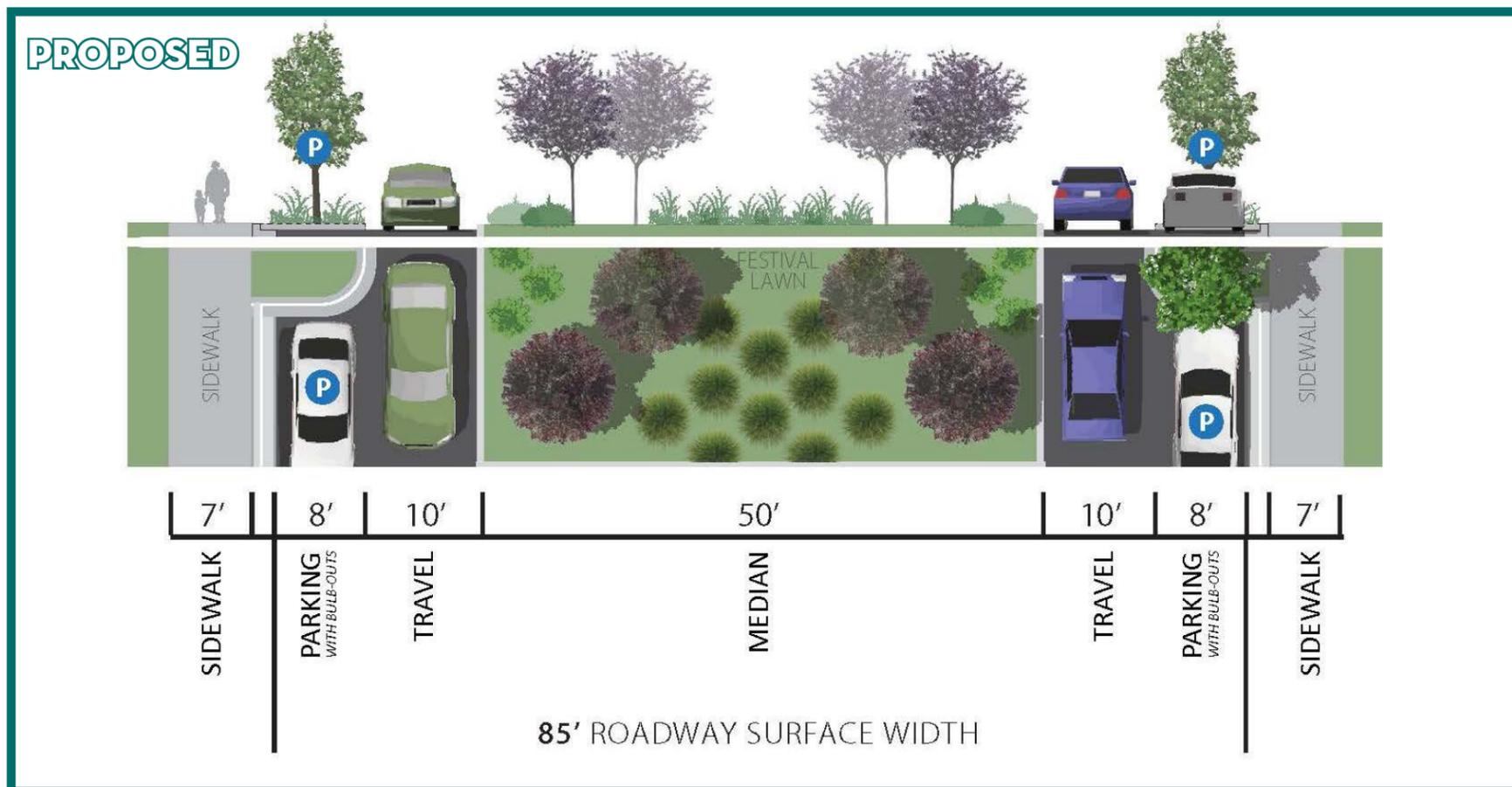


EXETER ROAD HAS EXCESS PAVEMENT WIDTH FOR THE EXISTING TRAVEL LANES AND EXCESS TRAVEL LANES FOR THE CURRENT AND FUTURE LEVELS OF TRAFFIC.

OPPORTUNITY: REDISTRIBUTE EXISTING ROW FOR PEDESTRIAN AND BICYCLE USE, AND TO CREATE A SPACE TO BE USED AS A FRONT DOOR FOR GPAC, THE PARK, AND THE CITY-OWNED LAND ON THE EAST SIDE OF EXETER ROAD.

CONSTRAINT: EVENT TRAFFIC WILL NEED TO BE CONSIDERED FOR STREET REDESIGN. CONSTRUCTION COSTS WILL IMPACT THE OPPORTUNITIES AND TIMING FOR STREET REDESIGN.





STREET DESIGN PARAMETERS | EXETER ROAD

Design Elements	Description
# Vehicular Lanes	2
Median	Intermittent
On Street Parking	Both Sides
On Street Bike Facility	no
Shared Use Path	yes
Sidewalk	yes
Landscape Palette	C
Site Furnishings Palette	C
Lighting	Acorn/Pedestrian
Drainage	Open (swale) or closed (curb + gutter); context dependent

STREET DESIGN SPECIFICATIONS | EXETER ROAD

Component Description	Dimension
Travel Lane*	10-11'
Turn Lane	10-11'
Parking Lane	8' (including gutter pan)
Median	25-50'
Verge	N/A
Sidewalk	7'+
Shared Use Path	12'
Bicycle Facility	N/A
Street Tree Spacing	40'
Lighting Spacing	80' (alternating)

*Travel lane dimension does not include curb and gutter width.



- KEY IMPROVEMENTS:**
- EXPANDED MEDIAN + PARK SPACE
 - PUBLIC ART
 - ON-STREET PARKING
 - PEDESTRIAN WALKWAYS
 - INCREASED TREE CANOPY
 - OPPORTUNITIES FOR ON-STREET FESTIVALS + EVENTS
 - BENCHES + LIGHTING

FARMINGTON BOULEVARD

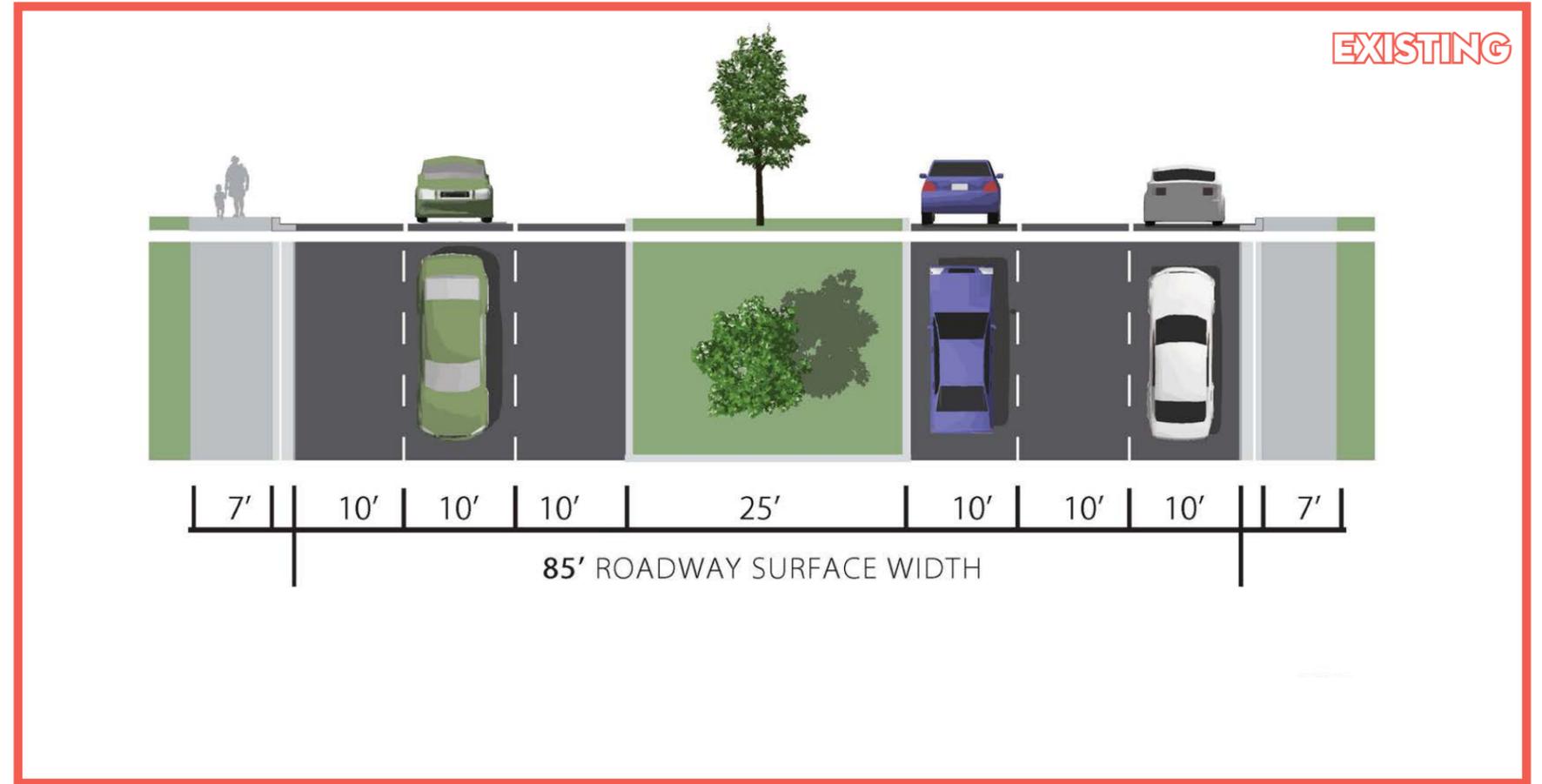
EXISTING CONDITIONS

Farmington Boulevard currently carries about 21,500 vpd on six travel lanes; the trend has been stable through the years with 23,000 vpd recorded in 2004 and 20,500 in 2010. These volumes can easily be carried on four travel lanes, which allows for rebalancing of the pavement to accommodate bicycles and on street parking as depicted in the recommended cross sections.

PROPOSED CONDITIONS

The proposed Farmington Boulevard has the potential to provide safer pedestrian and bicycle facilities. The existing median plantings should be incrementally replanted with the proposed landscape pallet. Excess travel lanes should be reallocated for protected bike lanes.

Improved pedestrian crossings are recommended at Poplar Avenue, Old Germantown Road, Exeter Road, as well as a midblock crossing between Poplar Avenue and Old Germantown Road, and between Old Germantown Road and Exeter Road.



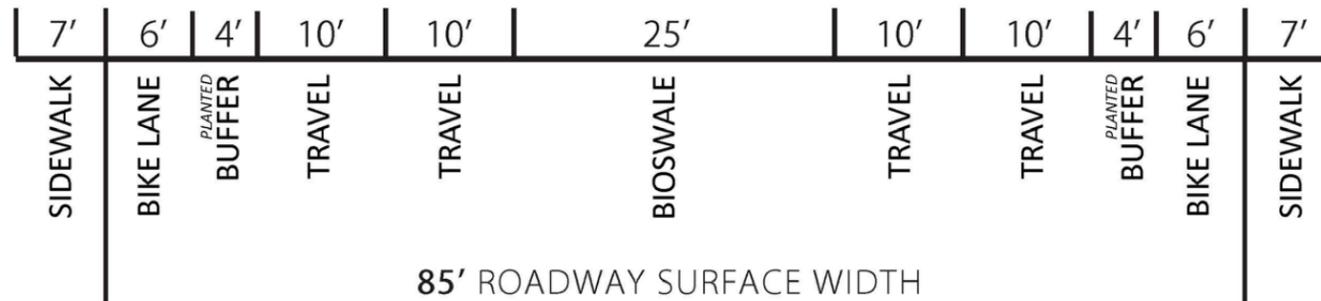
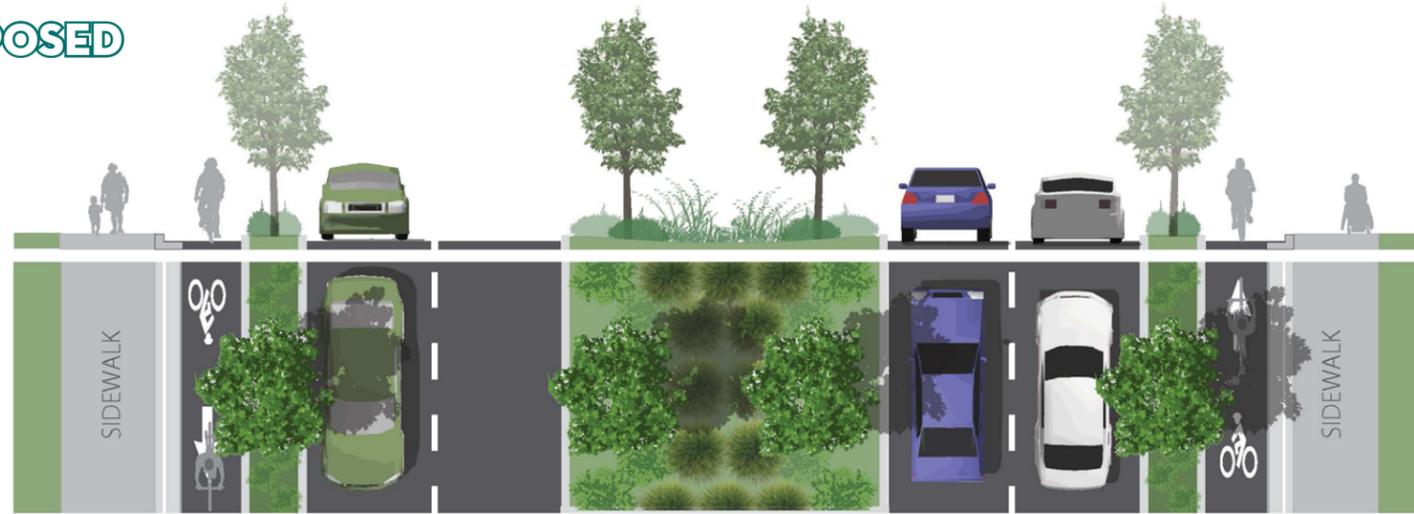
FARMINGTON BLVD HAS EXCESS TRAVEL LANES FOR EXISTING TRAFFIC VOLUMES, AS WELL AS LONG BLOCKS BETWEEN PEDESTRIAN CROSSINGS.

OPPORTUNITY: REPURPOSE EXISTING PAVEMENT FOR PEDESTRIAN AND BICYCLE USE. CREATE MIDBLOCK CROSSINGS FOR PEDESTRIANS.

CONSTRAINT: MAINTAIN EXISTING TURNING MOVEMENTS FOR ADJACENT BUSINESS ACCESS.



PROPOSED



STREET DESIGN PARAMETERS | FARMINGTON BOULEVARD

Design Elements	Description
# Vehicular Lanes	4
Median	Intermittent
On Street Parking	no
On Street Bike Facility	Protected Bike Lanes
Shared Use Path	no
Sidewalk	yes
Landscape Palette	C
Site Furnishings Palette	C
Lighting	Acorn/Pedestrian + Cobra Head/Roadway
Drainage	Closed (curb + gutter)

STREET DESIGN SPECIFICATIONS | FARMINGTON BOULEVARD

Component Description	Dimension
Travel Lane*	10-11'
Turn Lane	10-11'
Parking Lane	N/A
Median	25'+
Verge	N/A
Sidewalk	7'+
Shared Use Path	N/A
Bicycle Facility	10'
Street Tree Spacing	40'
Lighting Spacing	80' (alternating)

*Travel lane dimension does not include curb and gutter width.



PROPOSED

KEY IMPROVEMENTS:

- REPLANTED MEDIAN**
- PROTECTED BIKE LANE**
- PEDESTRIAN WALKWAYS**
- INCREASED TREE CANOPY**
- PEDESTRIAN CROSSINGS (RRFB)**

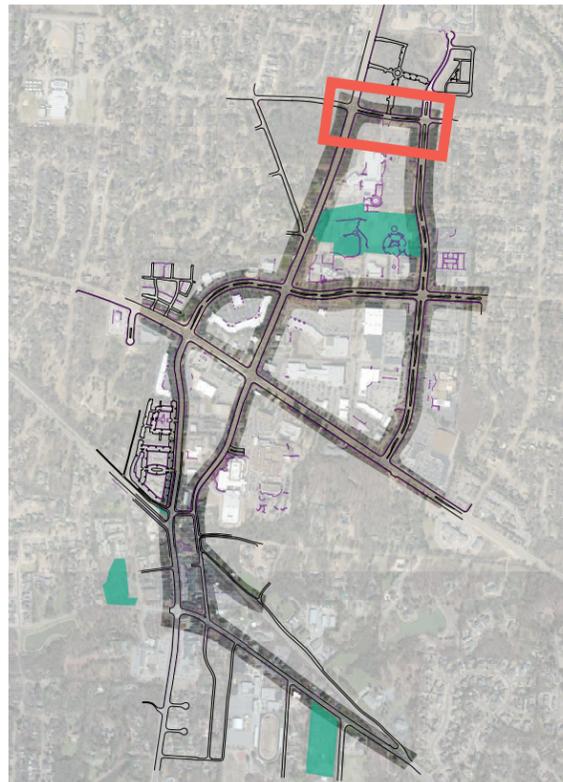
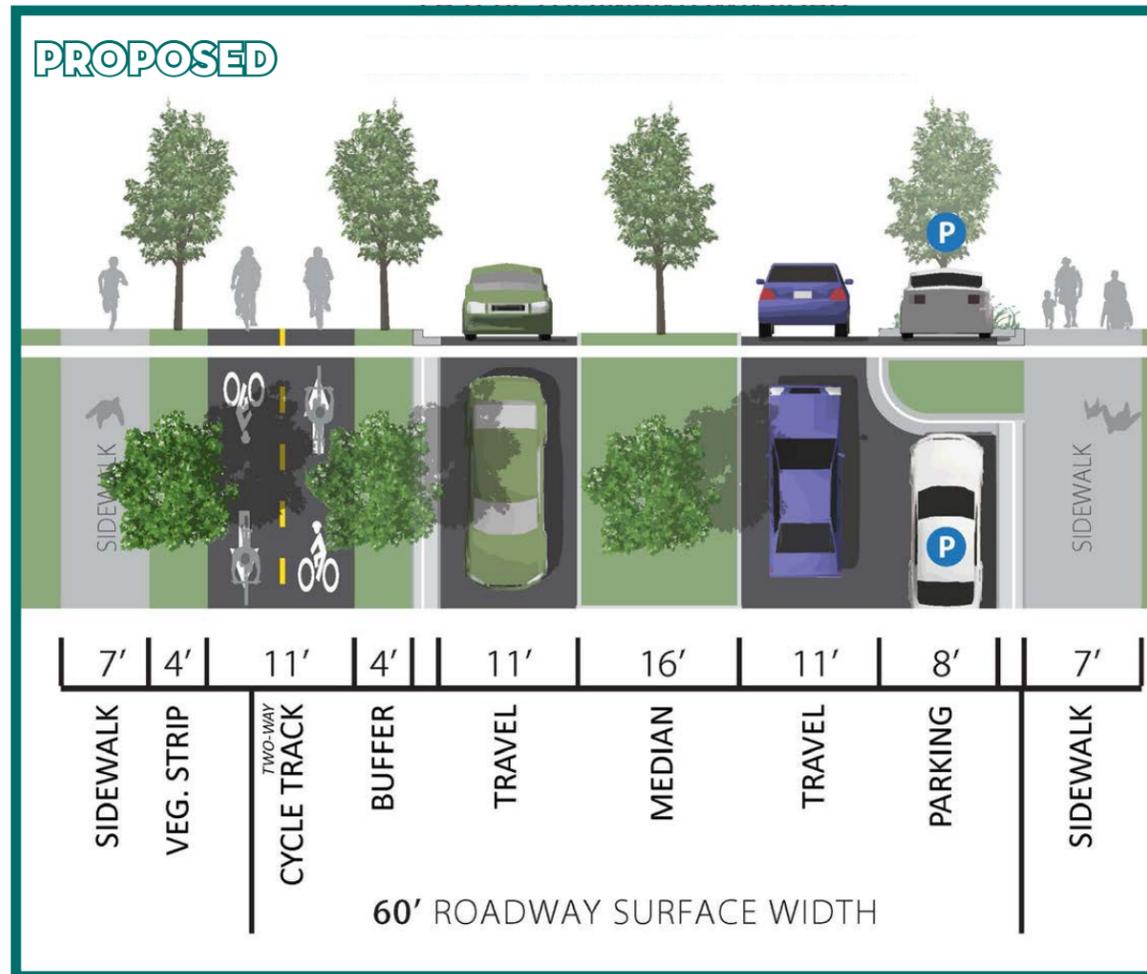
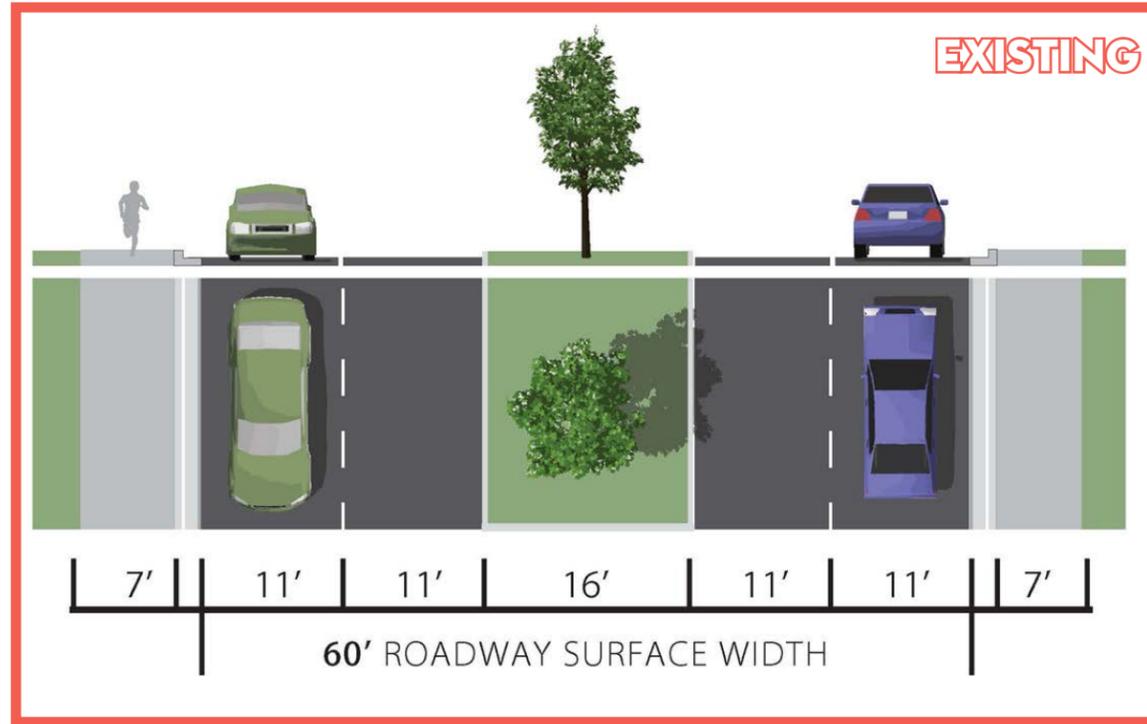
NESHOBA ROAD

EXISTING CONDITIONS

Currently four lanes wide, Neshoba Road carries slightly over 3,000 vehicles per day; that volume has been stable since 2004. At that width, Neshoba can be a barrier to pedestrian traffic between the new Thornwood development and the CBD/GPAC/City Hall area. With that volume, the lane count on Neshoba can be reduced to two travel lanes and the excess asphalt reallocated for parking and bicycle facilities as shown in the recommended concept.

PROPOSED CONDITIONS

As a major connection between ongoing development to the north and the CBD, recommendations emphasize pedestrian and bicyclist safety with separated facilities along the roadway and pedestrian refuge islands at crossings. On-street parking will serve both the mixed use development to the north, as well as the Performing Arts Center and the park to the south. The on-street parking and planted medians will also serve to calm traffic, and enhance the walkable character of the area, while providing additional event parking for GPAC and events in the park and new amphitheater. A roundabout is recommended at the intersection of Exeter Road.



STREET DESIGN PARAMETERS | NESHOBA ROAD

Design Elements	Description
# Vehicular Lanes	2
Median	Intermittent
On Street Parking	One Side
On Street Bike Facility	Protected Bike Lane/Cycle Track
Shared Use Path	no
Sidewalk	yes
Landscape Palette	C
Site Furnishings Palette	C
Lighting	Acorn/Pedestrian
Drainage	Closed (curb + gutter)

STREET DESIGN SPECIFICATIONS | NESHOBA ROAD

Component Description	Dimension
Travel Lane*	11'
Turn Lane	10-11'
Parking Lane	8' (including gutter pan)
Median	16'
Verge	4'+
Sidewalk	7'+
Shared Use Path	N/A
Bicycle Facility	11'
Street Tree Spacing	40'
Lighting Spacing	80' (alternating)

*Travel lane dimension does not include curb and gutter width.

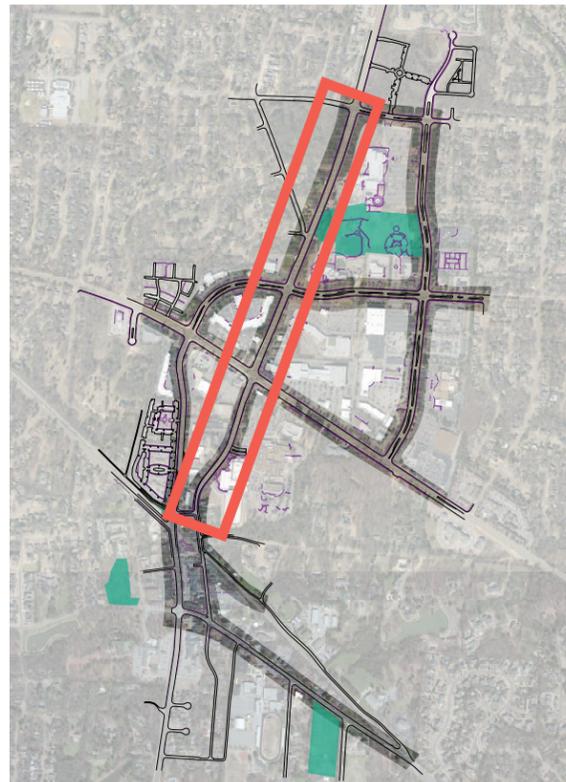
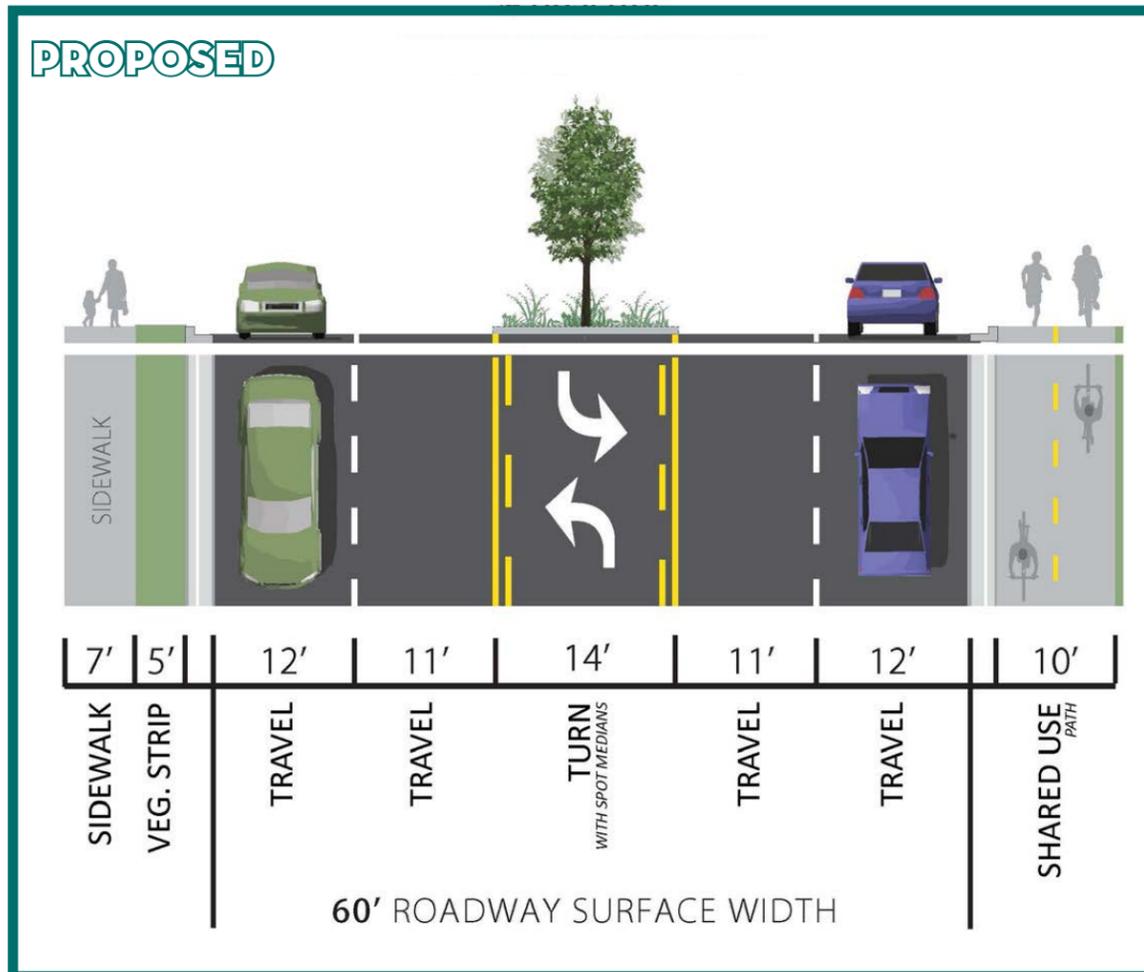
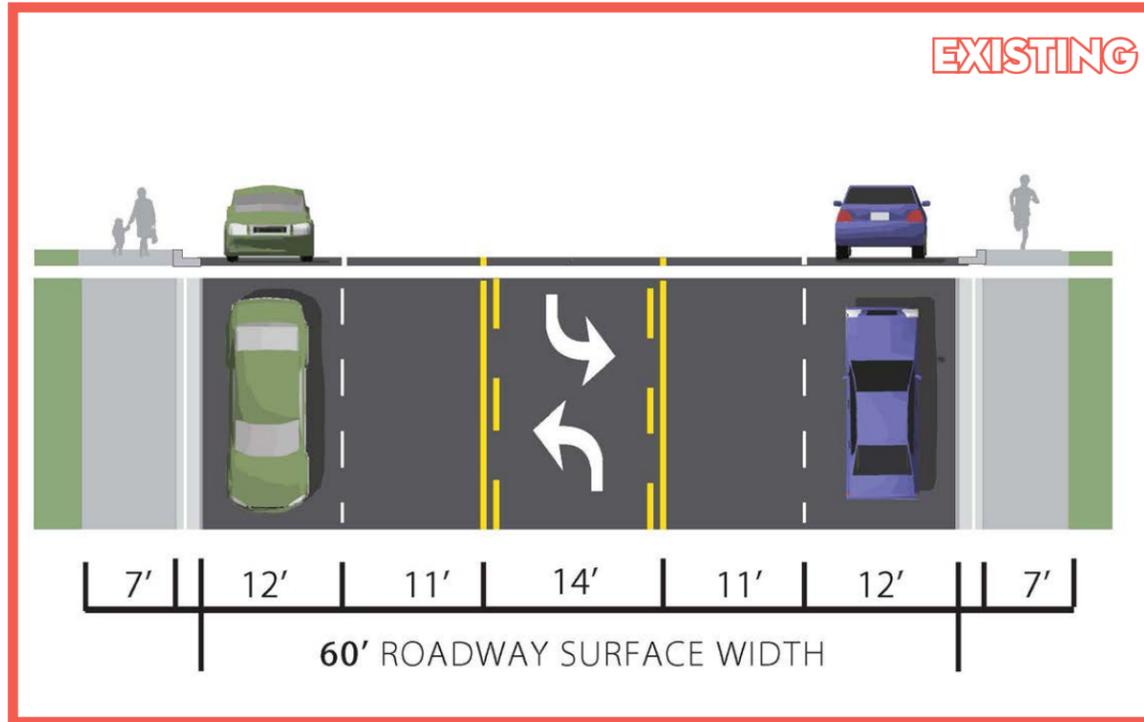
SOUTH GERMANTOWN ROAD

EXISTING CONDITIONS

South Germantown Road through the CBD is a high capacity four to six lane roadway, with a consistent center turn lane. Though the expansive roadway does currently have sidewalks along the curb for much of the corridor, high speeds and traffic volume create an uncomfortable pedestrian experience, particularly at the limited formal crossings. There are also currently no dedicated bicycle facilities. This segment of Germantown Road also falls under TDOT jurisdiction.

PROPOSED CONDITIONS

No major changes are proposed to the existing roadway configuration. Spot medians are recommended within the center turn lane to provide aesthetic enhancements, traffic calming, and opportunities for pedestrian refuge at crossings. Where possible, sidewalks should be separated from traffic by a 5-8' planting strip/verge. A shared use path is proposed along the east side of the roadway to serve pedestrians and bicyclists between the hospitals, churches, Performing Arts Center, and parks.



STREET DESIGN PARAMETERS | SOUTH GERMANTOWN ROAD

Design Elements	Description
# Vehicular Lanes	4-6
Median	Intermittent
On Street Parking	no
On Street Bike Facility	no
Shared Use Path	yes
Sidewalk	yes
Landscape Palette	B
Site Furnishings Palette	B
Lighting	Acorn/Pedestrian + Cobra Head/Roadway
Drainage	Closed (curb + gutter)

STREET DESIGN SPECIFICATIONS | SOUTH GERMANTOWN ROAD

Component Description	Dimension
Travel Lane*	11-12'
Turn Lane	11-12'
Parking Lane	N/A
Median	14'
Verge	N/A
Sidewalk	7'+
Shared Use Path	10'+
Bicycle Facility	N/A
Street Tree Spacing	50'
Lighting Spacing	100'

*Travel lane dimension does not include curb and gutter width.

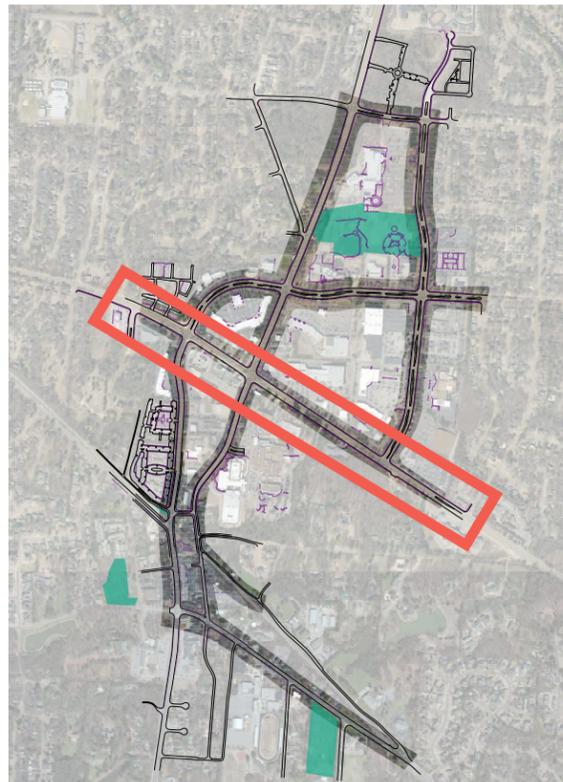
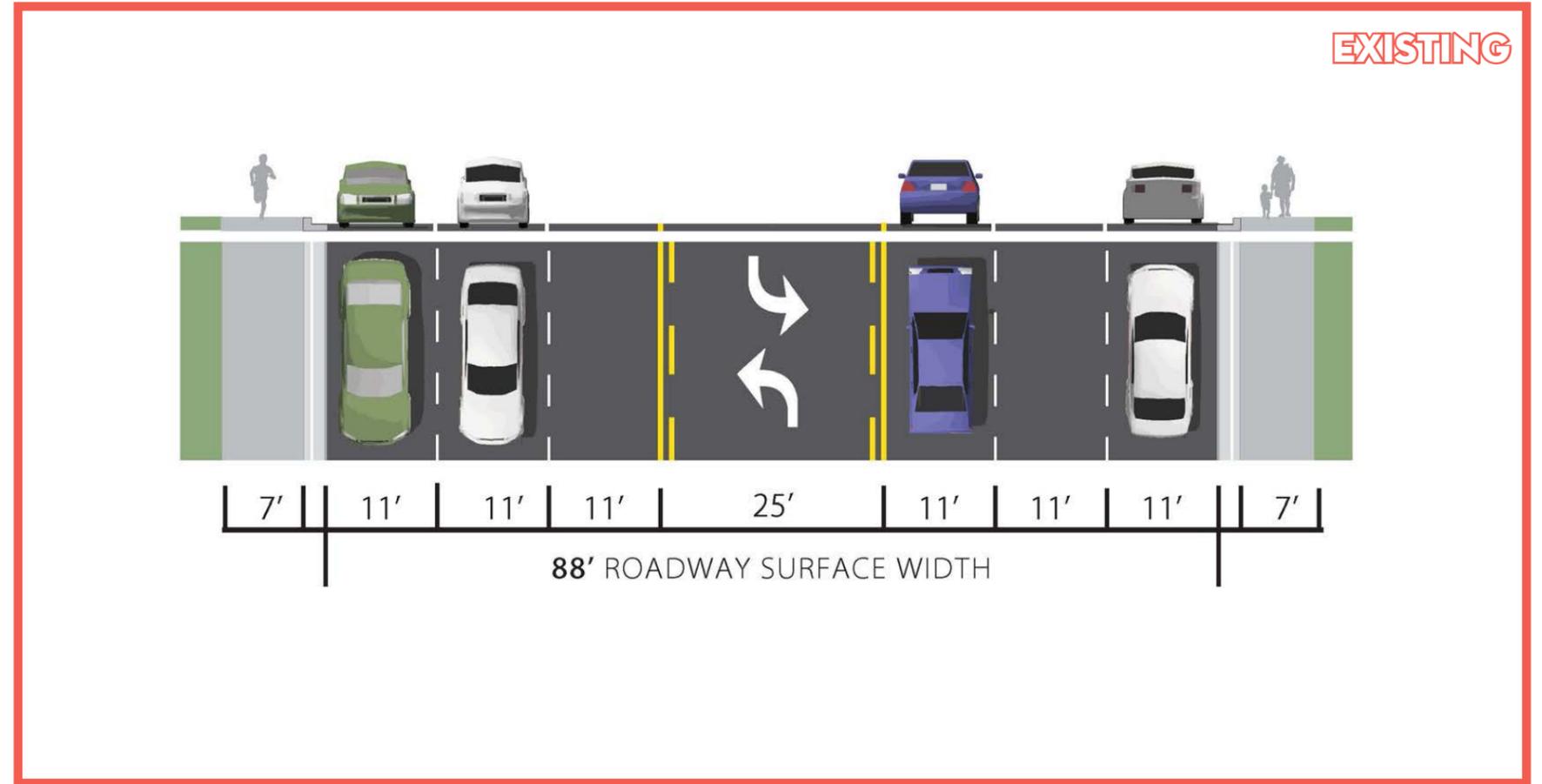
POPLAR AVENUE

EXISTING CONDITIONS

Poplar Avenue has often been cited as a significant barrier between the north and south sides of the CBD and Old Germantown. During the charrette, the team heard from many stakeholders in the community that they are afraid to cross Poplar on foot, often opting to drive from north to south even though their destinations may only be separated by less than a 10-minute walk. Although TDOT recently completed a widening of Poplar Avenue within the CBD, many network changes have occurred since that project's inception that have the potential to dramatically change traffic patterns within the region, and especially within the CBD of Germantown. For instance, people who live in Collierville and points east such as Fayette County now have a choice of how they move through the Germantown area; they can use Poplar Avenue or Bill Morris Parkway/TN 385. As a result, the traffic volumes on Poplar Avenue have dropped since the early 2000's (34,000 vpd in 2014 down from 38,000 vpd in 2004), and the trend suggests that the aggressive projected traffic growth may not materialize.

PROPOSED CONDITIONS

In the short term, no major changes are proposed to the existing roadway configuration. Spot medians are recommended within the center turn lane to provide aesthetic enhancements, traffic calming, and opportunities for pedestrian refuge at crossings. Sidewalks along Poplar Avenue should be expanded to enhance the retail experience for pedestrians along the corridor. Where possible, pedestrians should be separated from vehicular traffic by tree plantings within tree wells and/or a planting strip/verge. An alternative, long term solution for Poplar Avenue is proposed on page 26.



WIDE ROADWAY PAVEMENT AND ROW CREATE A CAR-CENTRIC ATMOSPHERE FOR THE CENTRAL BUSINESS STREETS.

OPPORTUNITY: IMPLEMENT SPOT MEDIANS IN THE CENTER TURN LANE TO ALLOW FOR PEDESTRIAN REFUGE ISLANDS, WHILE PROVIDING VERTICAL DEFINITION WITH STREET TREES.

CONSTRAINT: PEDESTRIANS AND BICYCLISTS DON'T FEEL COMFORTABLE ADJACENT TO HEAVY TRAFFIC AND FAST SPEEDING AUTOMOBILES.



PROPOSED



6'	4'	11'	11'	11'	25'	11'	11'	11'	4'	6'
SIDEWALK	TREE WELL	TRAVEL	TRAVEL	TRAVEL	MEDIAN	TRAVEL	TRAVEL	TRAVEL	TREE WELL	SIDEWALK

88' ROADWAY SURFACE WIDTH

STREET DESIGN PARAMETERS | POPLAR AVENUE

Design Elements	Description
# Vehicular Lanes	6
Median	Intermittent
On Street Parking	no
On Street Bike Facility	no
Shared Use Path	no
Sidewalk	yes
Landscape Palette	B
Site Furnishings Palette	B
Lighting	Acorn/Pedestrian + Cobra Head/Roadway
Drainage	Closed (curb + gutter)

STREET DESIGN SPECIFICATIONS | POPLAR AVENUE

Component Description	Dimension
Travel Lane*	11'
Turn Lane	11'
Parking Lane	8' (including gutter pan)
Median	25'
Verge	N/A
Sidewalk	10'+
Shared Use Path	N/A
Bicycle Facility	N/A
Street Tree Spacing	40'
Lighting Spacing	80' (alternating)

*Travel lane dimension does not include curb and gutter width.



PROPOSED

KEY IMPROVEMENTS:

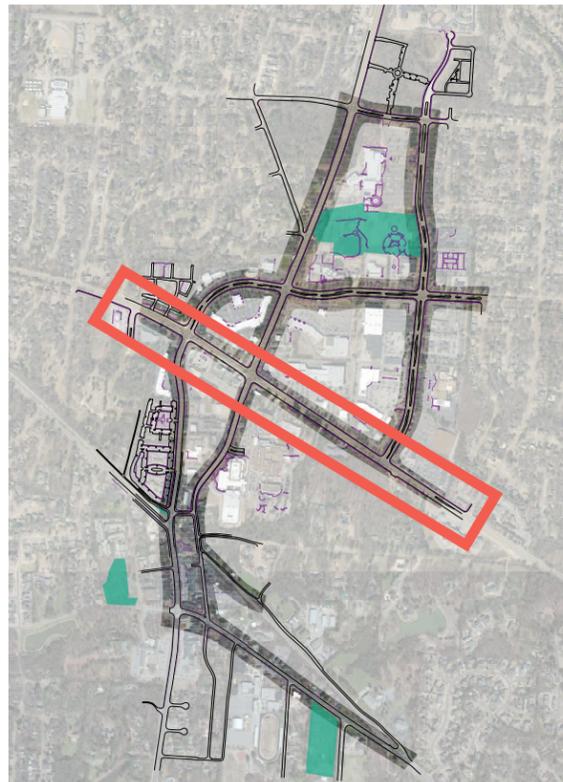
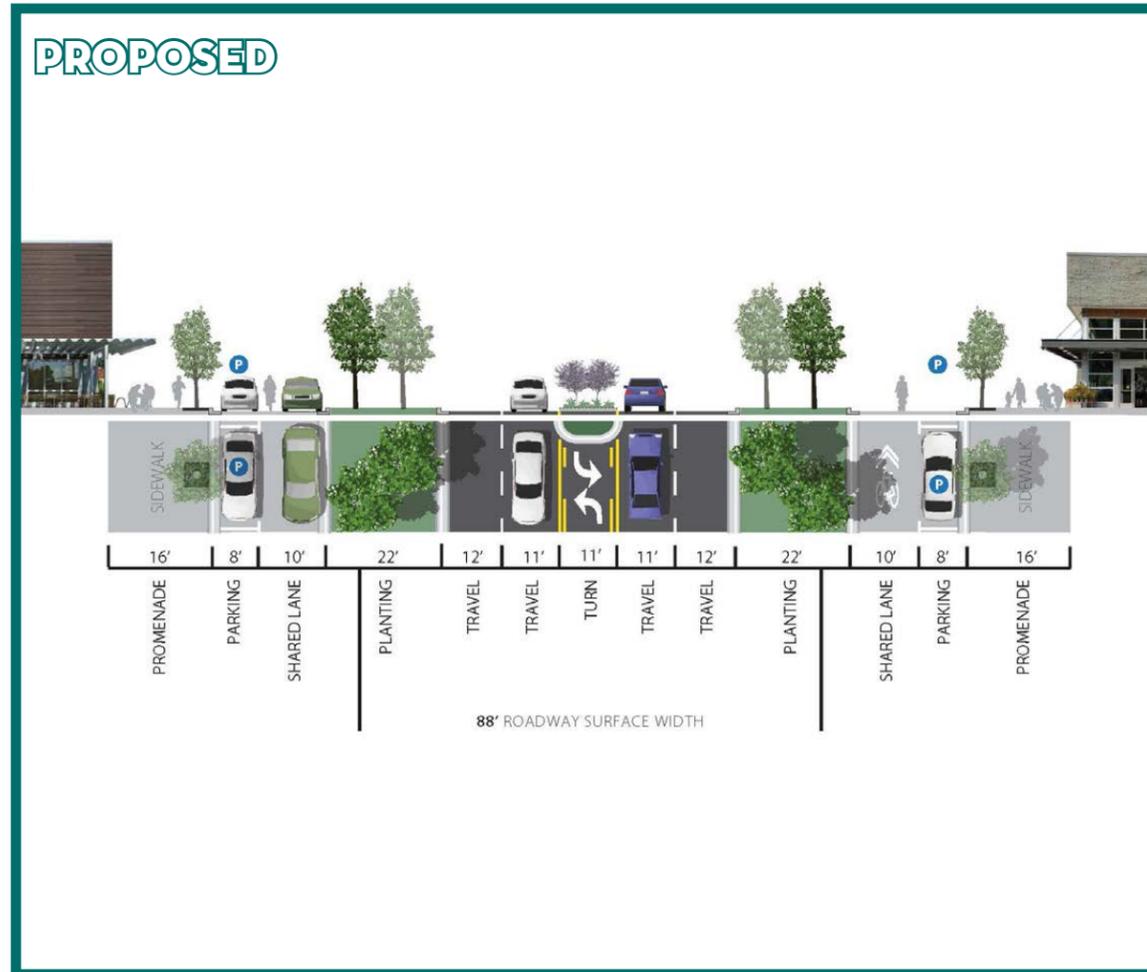
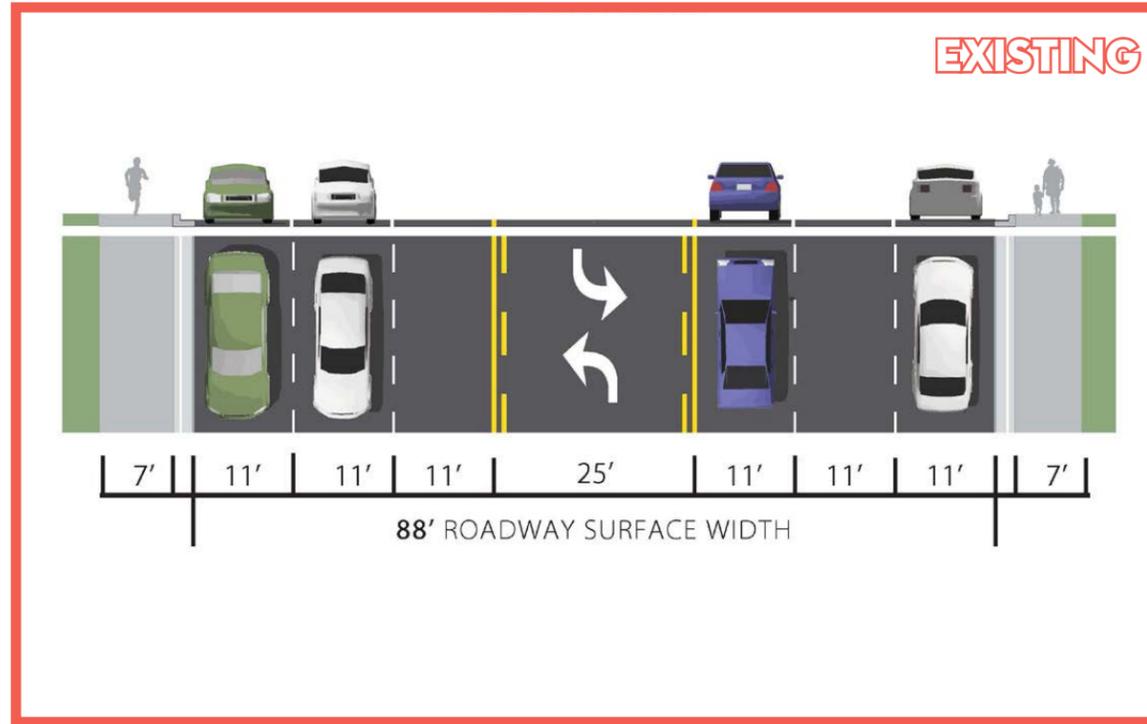
- INTERMITTENT MEDIANS**
- EXPANDED SIDEWALKS**
- INCREASED TREE CANOPY**
- PEDESTRIAN CROSSINGS (DECORATIVE PAVEMENT)**

POPLAR AVENUE

MULTI-WAY BOULEVARD OPTION

If traffic volumes on Poplar Avenue are not expected to aggressively increase, there is an opportunity to rethink the future street environment to actually narrow the gap while creating true walkable frontages along Poplar Avenue. The multi-way boulevard is a mechanism to be able to accomplish that rebalance.

Multi-way boulevards separate through travel lanes from local access lanes to simultaneously move vehicles while providing a calm, spacious pedestrian and living environment for adjacent businesses and residences. This recommendation for Poplar Avenue is a long-term vision which would improve the pedestrian experience adjacent to retail without significantly interfering with through traffic. The multi-way boulevard also allows for multiple planted medians, which divides the significant pedestrian crossing distance on the existing Poplar Avenue into manageable, protected segments.



STREET DESIGN PARAMETERS | POPLAR AVENUE MULTI-WAY BOULEVARD OPTION

Design Elements	Description
# Vehicular Lanes	6
Median	Intermittent
On Street Parking	2 sides
On Street Bike Facility	Shared Lane (Sharrow) within access lanes
Shared Use Path	no
Sidewalk	yes
Landscape Palette	B
Site Furnishings Palette	B
Lighting	Acorn/Pedestrian + Cobra Head/Roadway
Drainage	Closed (curb + gutter)

STREET DESIGN SPECIFICATIONS | POPLAR AVENUE MULTI-WAY BOULEVARD OPTION

Component Description	Dimension
Travel Lane*	10-12'
Turn Lane	10-11'
Parking Lane	8' (including gutter pan)
Median	11'
Verge	22'
Sidewalk	16'
Shared Use Path	N/A
Bicycle Facility	N/A
Street Tree Spacing	40'
Lighting Spacing	80' (alternating)

*Travel lane dimension does not include curb and gutter width.

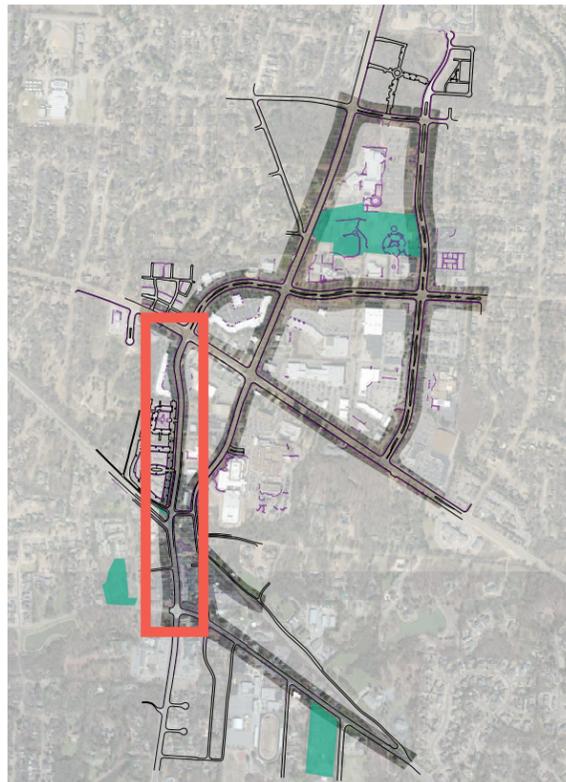
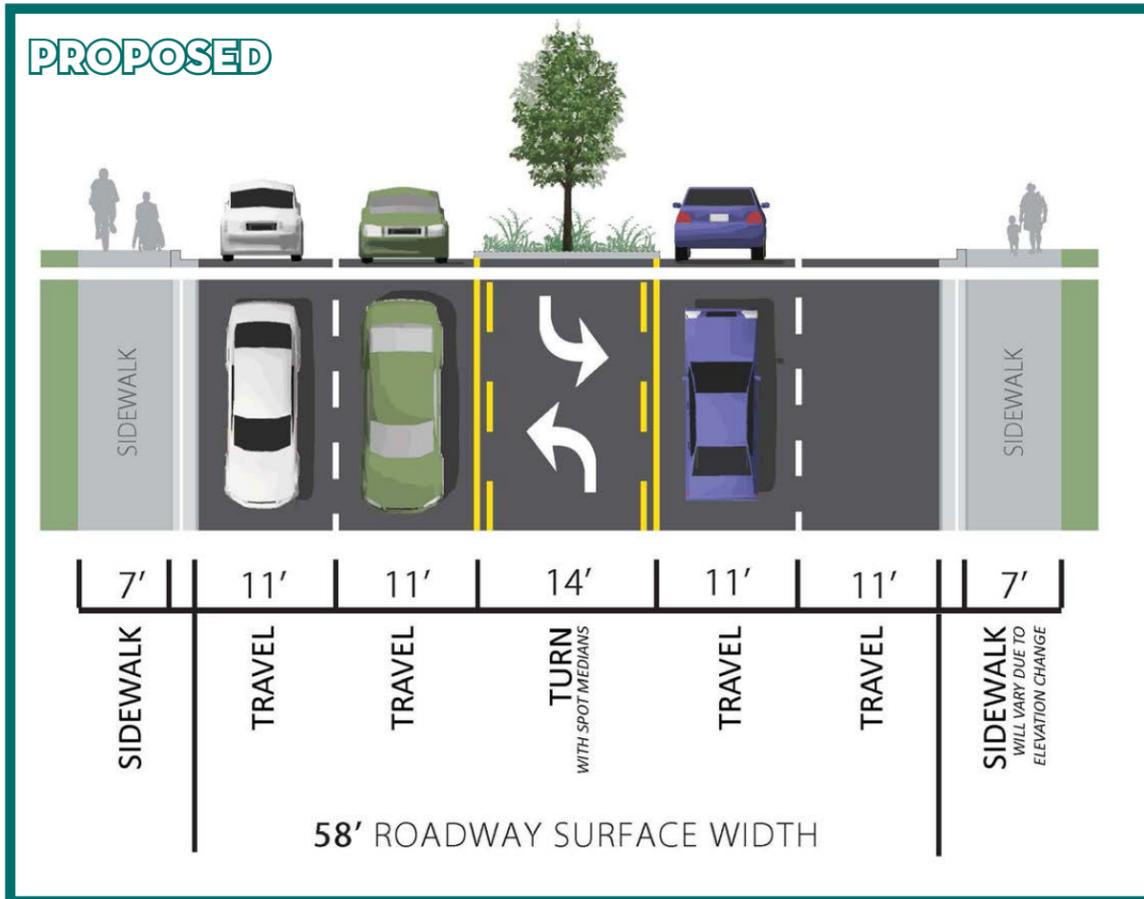
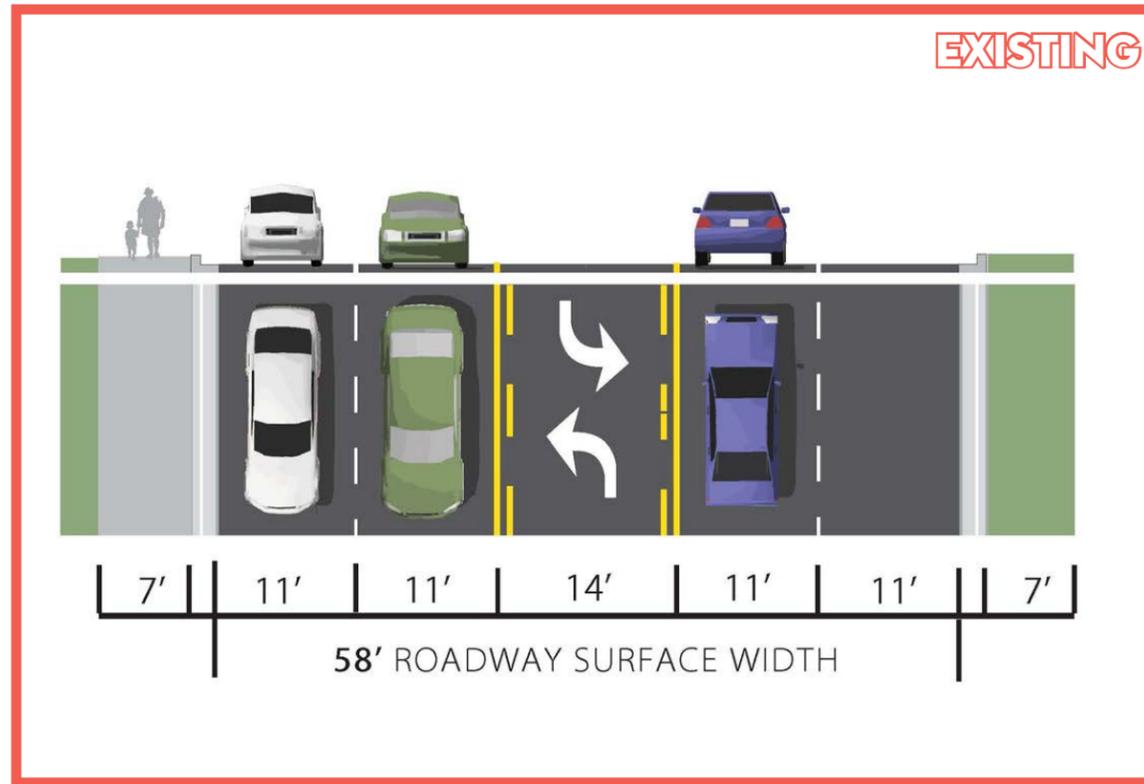
WEST STREET

EXISTING CONDITIONS

West Street through the CBD and Old Germantown is a high capacity four lane roadway, with a consistent center turn lane. Continuous sidewalks currently exist on the west side of the roadway, with intermittent sidewalk connections on the east. Lack of separation, high speeds, and the existing traffic volume create an uncomfortable pedestrian experience, particularly at crossings. A midblock crossing with a pedestrian refuge island currently exists adjacent to Germantown United Methodist Church. There are currently no dedicated bicycle facilities.

PROPOSED CONDITIONS

Spot medians are recommended within the center turn lane to provide aesthetic enhancements, traffic calming, and opportunities for additional pedestrian refuge at crossings. RRFB's and other high visibility crossing signage should be used at all midblock crossings. Sidewalks should be continuous on both sides of the roadway. Where possible, sidewalks should be separated from traffic by a 5-8' planting strip/verge.



STREET DESIGN PARAMETERS | WEST STREET

Design Elements	Description
# Vehicular Lanes	4
Median	Intermittent
On Street Parking	no
On Street Bike Facility	no
Shared Use Path	yes
Sidewalk	yes
Landscape Palette	C
Site Furnishings Palette	C
Lighting	Acorn/Pedestrian + Cobra Head/Roadway
Drainage	Closed (curb + gutter)

STREET DESIGN SPECIFICATIONS | WEST STREET

Component Description	Dimension
Travel Lane*	11'
Turn Lane	10-11'
Parking Lane	N/A
Median	14'
Verge	N/A
Sidewalk	7'+
Shared Use Path	12'
Bicycle Facility	N/A
Street Tree Spacing	40'
Lighting Spacing	80' (alternating)

*Travel lane dimension does not include curb and gutter width.

OLD/SOUTH GERMANTOWN ROAD

EXISTING CONDITIONS

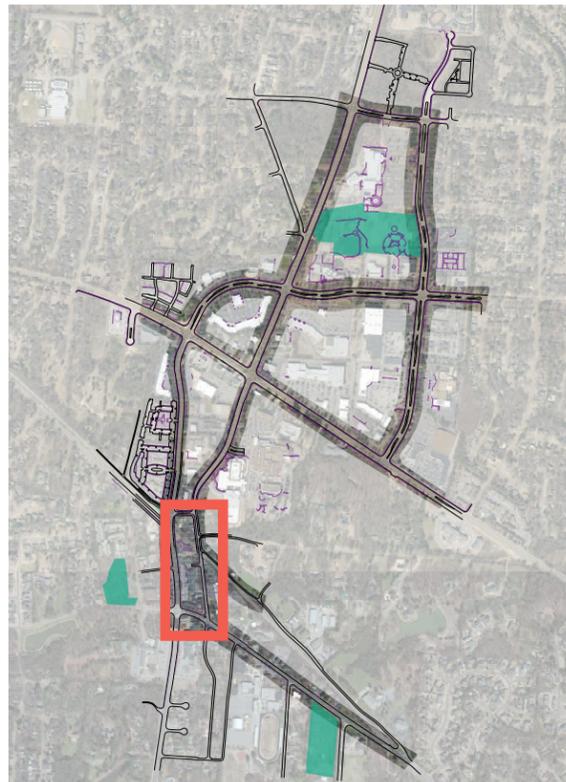
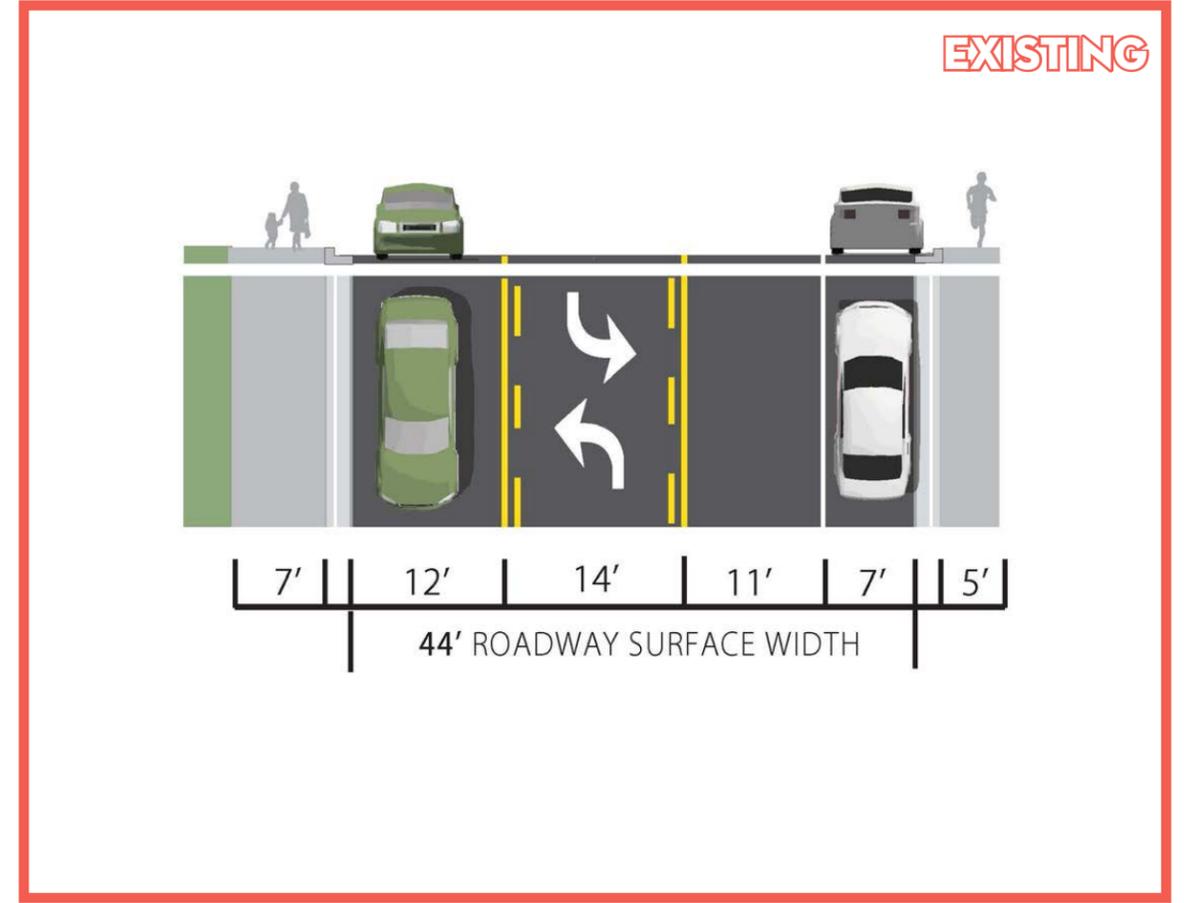
South Germantown Road through Old Germantown is currently two travel lanes, with a center turn lane and informal on-street parking. Many of the existing sidewalks are in need of repair and curb/grass strip separation from vehicular traffic. There are currently no dedicated bicycle facilities.

This roadway is in the historic downtown of Germantown, and currently serves the numerous adjacent churches as well as restaurant and retail uses, in addition to through traffic connecting S Germantown Road to the north and south.

PROPOSED CONDITIONS

Reallocating the existing ROW allows the roadway to become a complete street, with wider sidewalks, formalized on-street parking, sharrow for bicyclists, and shorter pedestrian crossings. Decorative pavement at crosswalks and along the sidewalks will support the historic character of the areas, while providing more traffic calming and additional visibility for pedestrians.

Public and private entities should also partner to develop additional public space for visitors and residents to enjoy Old Germantown. A plaza adjacent to The Commissary was identified through the charrette process as a great opportunity to provide informal outdoor dining for the restaurant, while providing a comfortable place for the general public to rest. This plaza is depicted in the rendering on the next page, shown with picnic tables, decorative pavement, and improved pedestrian-scale lighting.



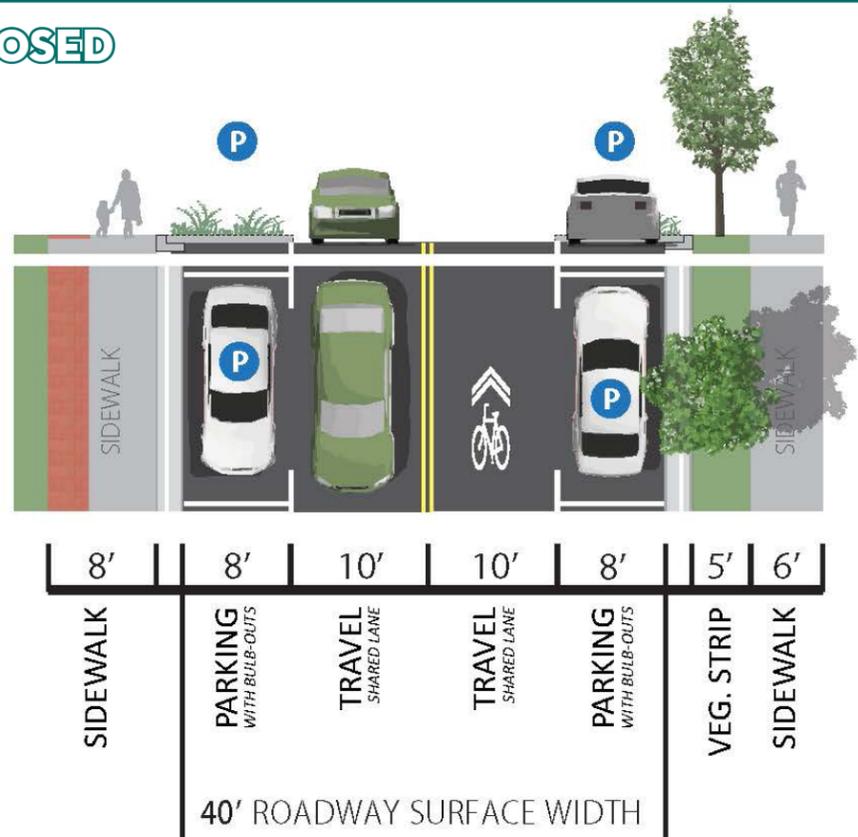
OLD GERMANTOWN ROAD DOES NOT CURRENTLY PROVIDE CLEAR DELINEATION OF PEDESTRIAN SPACE.

OPPORTUNITY: USE THE EXISTING ROW TO FORMALIZE PEDESTRIAN SPACE AND SAFE CROSSING OPPORTUNITIES.

CONSTRAINT: COORDINATION WITH THE RAILROAD AND LOCAL BUSINESSES WILL BE NECESSARY TO PROVIDE CONTEXT SENSITIVE SOLUTIONS.



PROPOSED



STREET DESIGN PARAMETERS | SOUTH GERMANTOWN ROAD-OG

Design Elements	Description
# Vehicular Lanes	2
Median	no
On Street Parking	Both Sides
On Street Bike Facility	Shared Lane (Sharrow)
Shared Use Path	no
Sidewalk	yes
Landscape Palette	A
Site Furnishings Palette	A
Lighting	Acorn/Pedestrian
Drainage	Closed (curb + gutter)

STREET DESIGN SPECIFICATIONS | SOUTH GERMANTOWN ROAD-OG

Component Description	Dimension
Travel Lane*	10-11'
Turn Lane	N/A
Parking Lane	8' (including gutter pan)
Median	N/A
Verge	5'+
Sidewalk	6'+
Shared Use Path	N/A
Bicycle Facility	N/A
Street Tree Spacing	30'
Lighting Spacing	60'

*Travel lane dimension does not include curb and gutter width.

PROPOSED



KEY IMPROVEMENTS:

- EXPANDED SIDEWALK**
- PUBLIC ART**
- ON-STREET PARKING**
- PEDESTRIAN WALKWAYS**
- INCREASED TREE CANOPY**
- PEDESTRIAN CROSSINGS (DECORATIVE PAVEMENT + CURB EXTENSIONS)**

POPLAR PIKE

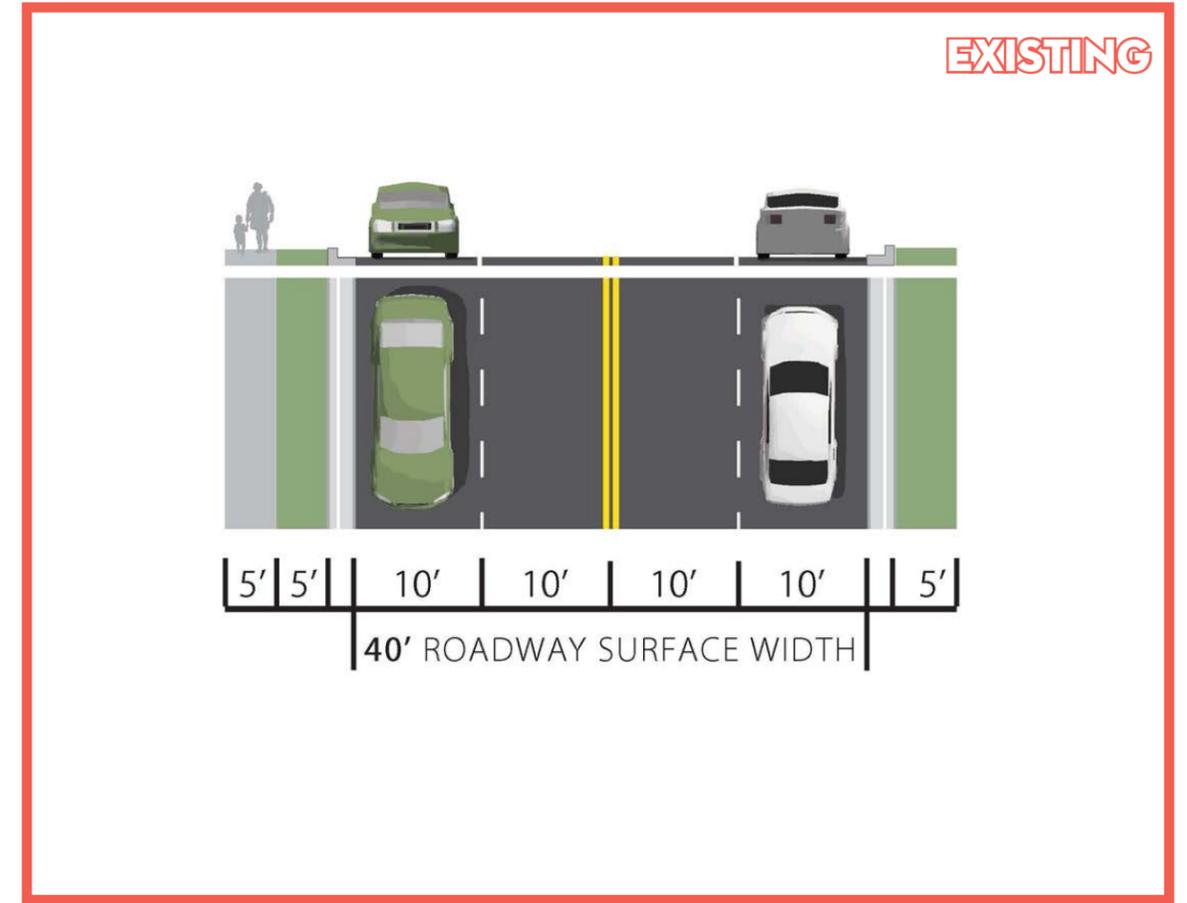
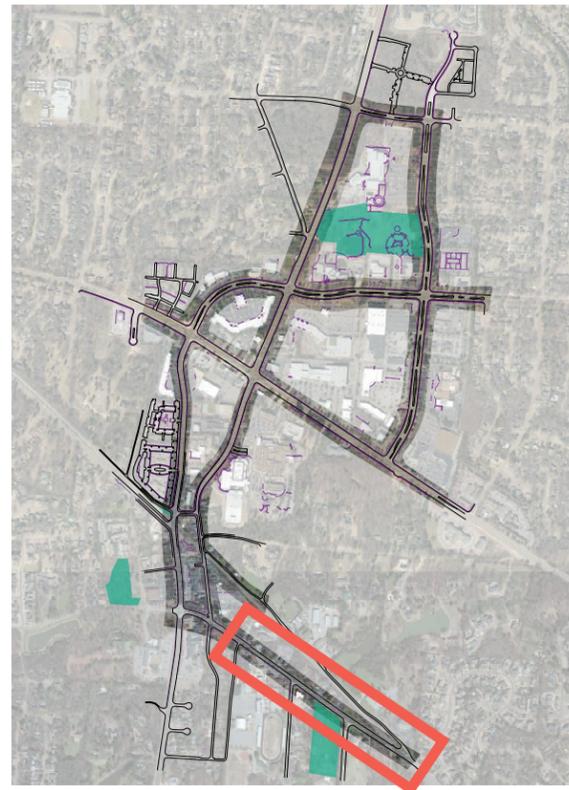
EXISTING CONDITIONS

Currently four travel lanes, Poplar Pike serves as a major connection to southeast Germantown residents, Germantown High School, Germantown Middle School, Germantown Elementary School, Franklin-Morgan Woods-Cloyes Park, and Bobby Lanier Farm Park. During school hours and seasonal events such as the Germantown Charity Horse Show, Poplar Pike sees a spike in traffic to destinations along the roadway. The corridor currently has continuous sidewalk along the south side of the roadway, adjacent to automobile traffic and no dedicated bicycle facility.

PROPOSED CONDITIONS

A proposed lane reallocation would allow for the addition of on-street parking on the North side of the roadway and a dedicated center turn lane. The on-street parking will serve existing institutional and recreational uses as well as future commercial development to the north. Curb extensions along the parking lane will provide space for additional tree plantings, which would not be possible under the existing utilities to the north of the roadway. The center turn lane will allow for safer turning movements to key Poplar Pike destinations, as well as provide potential space for future pedestrian refuge islands. Coordination will be required with Germantown High School to determine the limits of the lane reallocation, as to avoid conflict with school traffic patterns.

An important component of the future Poplar Pike corridor is a shared use path along the south side of the roadway. This shared use path would allow for easier pedestrian and bicycle movement between complimentary uses, such as the schools, churches, parks, and the festival venue. Increased access for pedestrians and bicycles allows for safer access to additional parking resources during large public events. A sidewalk is also proposed along the north side of the roadway to serve the proposed on-street parking, as well as the commercial and residential uses to the north. Crossing enhancements on Poplar Pike should include flashing beacons (RRFB's), high visibility crosswalks, and pedestrian refuge islands where possible.

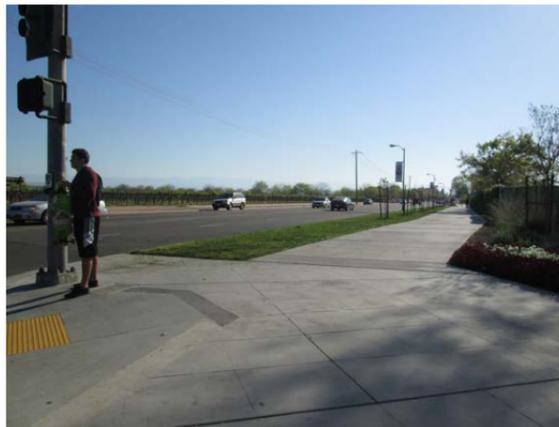
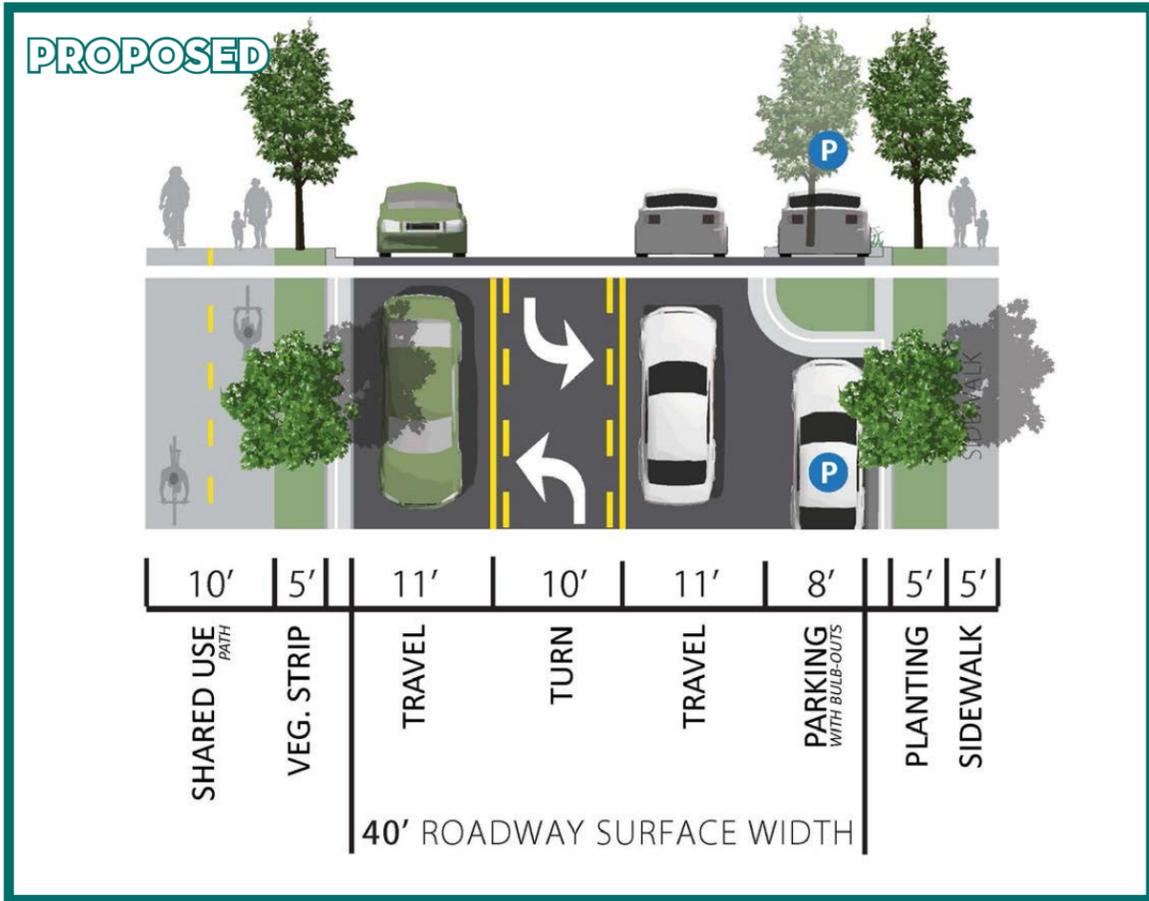


POPLAR PIKE DOES NOT CURRENTLY PROVIDE ADEQUATE PEDESTRIAN AND BICYCLE FACILITIES.

OPPORTUNITY: CONNECT THE FAIRGROUNDS, PARKS, AND THE SCHOOLS WITH SAFE AND SEPARATED PEDESTRIAN AND BICYCLE FACILITIES.

CONSTRAINT: COORDINATE STREET DESIGN WITH HIGH SCHOOL DROP-OFF AND PICK-UP CIRCULATION PATTERNS.





STREET DESIGN PARAMETERS | POPLAR PIKE

Design Elements	Description
# Vehicular Lanes	2
Median	no
On Street Parking	Single Side
On Street Bike Facility	no
Shared Use Path	yes
Sidewalk	yes
Landscape Palette	A
Site Furnishings Palette	A
Lighting	Acorn/Pedestrian
Drainage	Closed (curb + gutter)

STREET DESIGN SPECIFICATIONS | POPLAR PIKE

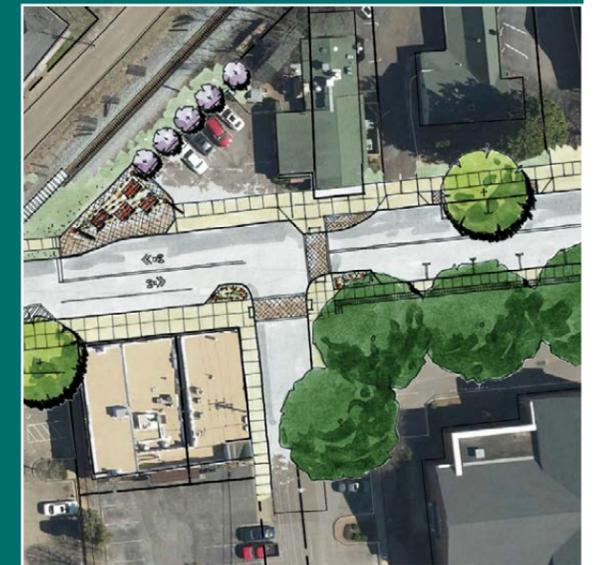
Component Description	Dimension
Travel Lane*	11'
Turn Lane	10'
Parking Lane	8' (including gutter pan)
Median	N/A
Verge	5'+
Sidewalk	5'+
Shared Use Path	10'
Bicycle Facility	N/A
Street Tree Spacing	50'
Lighting Spacing	100' (alternating)

*Travel lane dimension does not include curb and gutter width.



- KEY IMPROVEMENTS:**
- LANE REALLOCATION
 - ON-STREET PARKING
 - CENTER TURN LANE
 - SHARED USE PATH
 - INCREASED TREE CANOPY
 - PEDESTRIAN CROSSINGS (RRFB)





PRIORITY PROJECTS

PRIORITY PROJECTS PROCESS

PRIORITIZATION

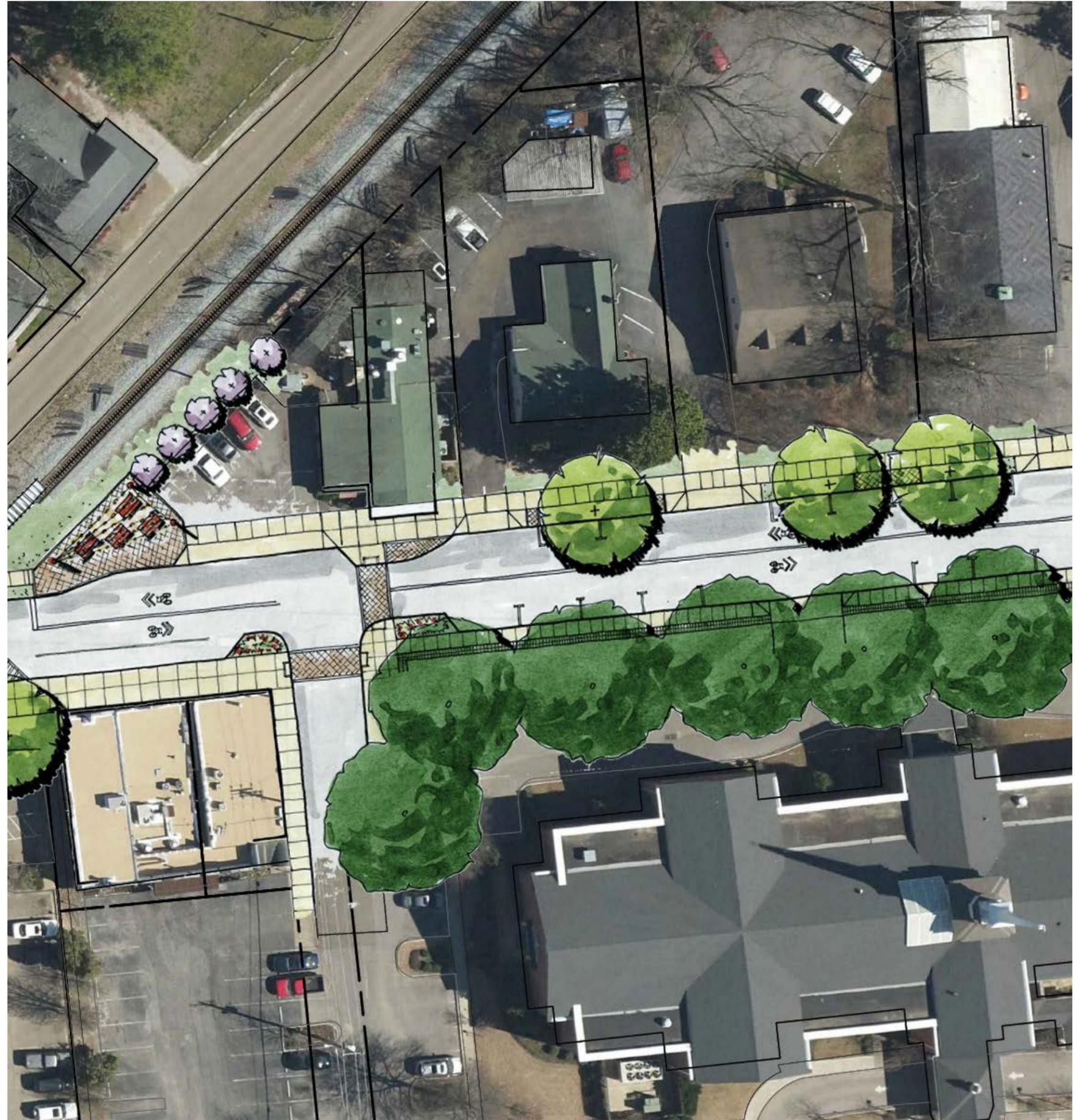
Following development of the project list, projects were prioritized based impact vs. cost, as well as on need identified by the stakeholders and the public.

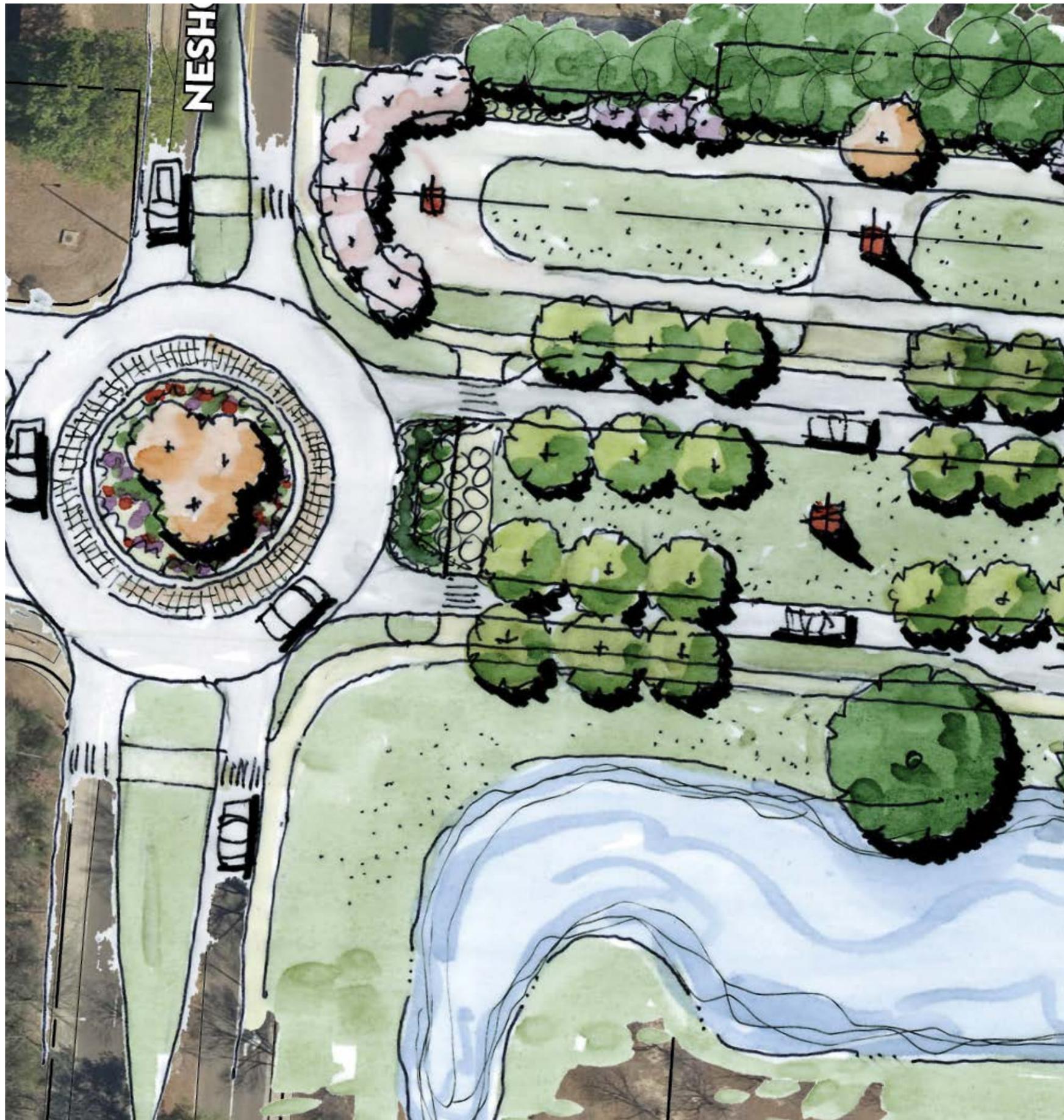
OLD GERMANTOWN

Old Germantown Road (South Germantown Road) improvements were identified as the first priority for implementation. This project has the potential highlight the history of Germantown, to spur economic development, and to greatly increase pedestrian safety for the public in the historic walkable core of the City.

CBD

Exeter Road was identified as the second priority project. With an emphasis on Exeter Road between Neshoba Road and Farmington Boulevard, the project has the potential to leverage adjacent city owned property to transform the roadway into dynamic public space that can be used for festivals, events, and other public uses.

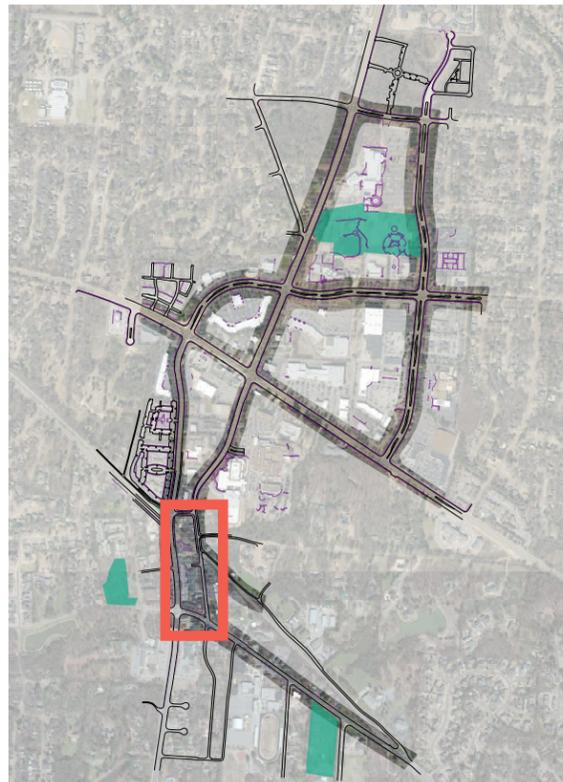




FUNDING

The City of Germantown has allocated \$2.5 million over the next five year period to fund portions of the streetscape enhancements included in this study. The first project to be funded out of this effort is the streetscape detailed herein for Old Germantown; other projects contained in this report could be candidates for implementation under this funding allocation. In addition, knowing that many of the streetscapes contained in this document would cost more to implement than the funding allocation, the City should look toward public and private funding opportunities through grants and redevelopment efforts to fully implement the recommended streetscapes to transform the CBD.

PREFERRED DESIGN ALTERNATIVE FOR SOUTH GERMANTOWN ROAD



OLD GERMANTOWN ROAD

EXISTING CONDITIONS

South Germantown Road through Old Germantown is currently two travel lanes, with a center turn lane and informal on-street parking. Many of the existing sidewalks are in need of repair and curb/grass strip separation from vehicular traffic. There are currently no dedicated bicycle facilities.

This roadway is in the historic downtown of Germantown, and currently serves the numerous adjacent churches as well as restaurant and retail uses, in addition to through traffic connecting S Germantown Road to the north and south.

PROPOSED CONDITIONS

Reallocating the existing ROW allows the roadway to become a complete street, with wider sidewalks, formalized on-street parking, sharrows for bicyclists, and shorter pedestrian crossings. Decorative pavement at crosswalks and along the sidewalks will support the historic character of the areas, while providing more traffic calming and additional visibility for pedestrians.

Public and private entities should also partner to develop additional public space for visitors and residents to enjoy Old Germantown. A plaza adjacent to The Commissary was identified through the charrette process as a great opportunity to provide informal outdoor dining for the restaurant, while providing a comfortable place for the general public to rest. This plaza is depicted in the rendering on the next page, shown with picnic tables, decorative pavement, and improved pedestrian-scale lighting.

Old Germantown Road (South Germantown Road) between the railroad and Poplar Pike is the first designated project, with implementation slated for 2016/17.



DESIGN ALTERNATIVES FOR SOUTH GERMANTOWN ROAD + POPLAR PIKE INTERSECTIONS

ESTIMATED COST (EXCLUDING INTERSECTION IMPROVEMENTS):

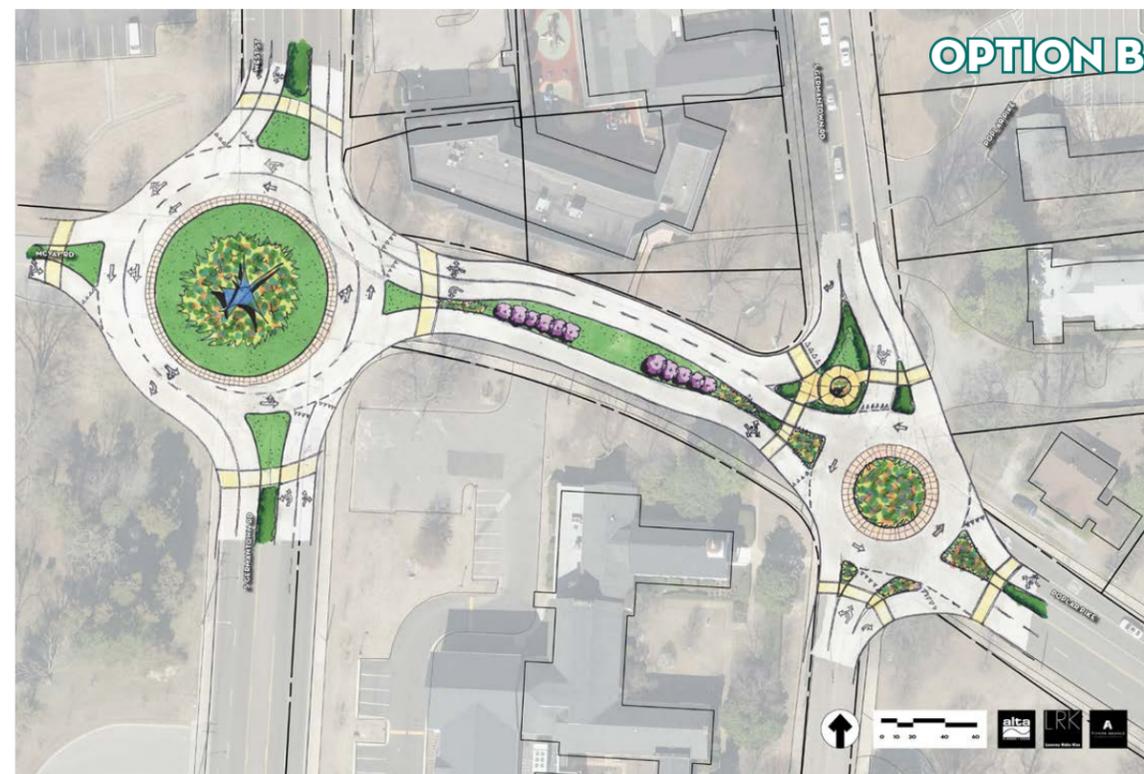
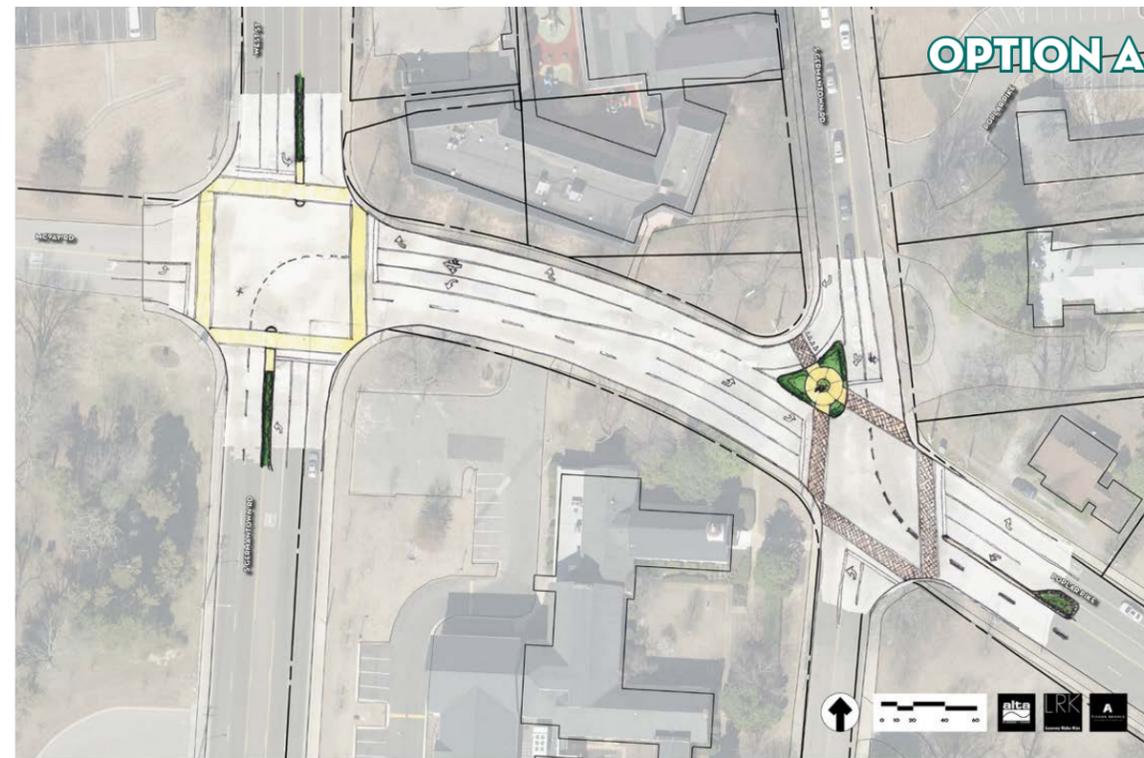
DESIGN: \$45,000

CONSTRUCTION (LOW): \$400,000

CONSTRUCTION (HIGH): \$535,000

Since Alta Planning + Design (Alta) has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor(s)' methods of determining prices, or over competitive bidding or market conditions, Alta's opinion of probable Total Project Costs and Construction Cost are made on the basis of Alta's experience and qualifications and represent Alta's best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but Alta cannot and does not guarantee that proposals, bids or actual Total Project or Construction Costs will not vary from opinions of probable cost prepared by Alta. If prior to the bidding or negotiating Phase the Owner wishes greater assurance as to Total Project or Construction Costs, the Owner shall employ an independent cost estimator.

See Appendix B for additional estimate details.



ADDITIONAL IMPROVEMENTS

In addition to the proposed improvements along Old Germantown Road, the design team recommends improvements to the intersections of Old Germantown Road/Poplar Pike and West Street/Poplar Pike/South Germantown Road. As shown on the left, the design team identified two solutions.

Intersection Adjustment

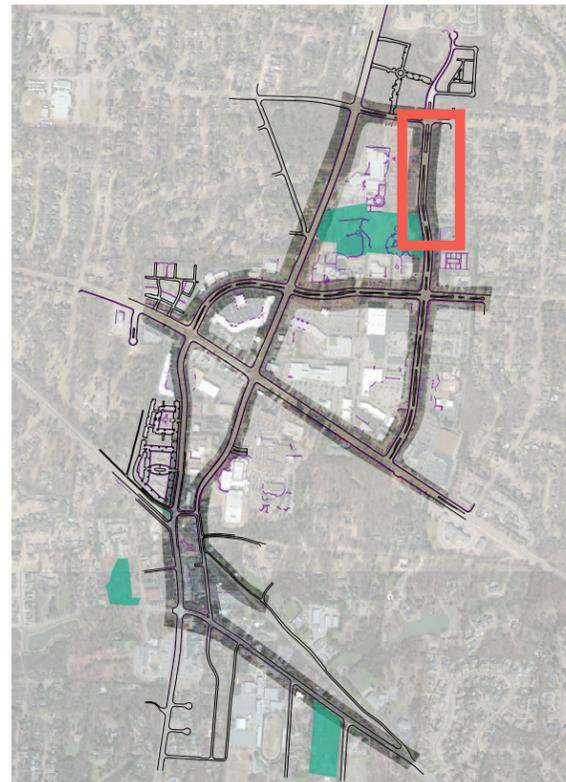
Relatively low impact improvements are recommended to the turn lanes on Old Germantown Road and Poplar Pike in order to make traffic flow more smoothly through the transition of South Germantown Road through Poplar Pike. Currently, there is one right turn lane, one through/straight lane, and one dedicated left turn lane from Old Germantown Road to Poplar Pike. It is recommended to convert the through/straight lane to a through/straight or left turn lane and to adjust the signals accordingly. This allows for dual stacking of left turns onto Poplar Pike, limiting the impact of the intersection further north. The design team also recommended expanding the landscape island at the intersection to further shorten pedestrian cross distances as well as to provide space for a gateway feature.

Currently on Poplar Pike at South Germantown Road/West Street, there is one left turn lane, one through/straight lane, and one right turn lane. Similar to the solution on Old Germantown, it is recommended to convert the through/straight lane to a through/straight and left turn lane and to adjust the signal accordingly.

Dual Roundabouts

As an alternative solution to make traffic flow more smoothly through the transition of South Germantown Road through Poplar Pike, the design team and stakeholders explored the concept for two roundabouts. The concept was vetted by the design team and was found to have impacts to private property adjacent to the roadway and would require significant funding to implement. Further engineering study will be required to verify the capacity of a dual roundabout from a traffic flow perspective.

38 **PREFERRED DESIGN ALTERNATIVE FOR EXETER ROAD**



EXETER ROAD

EXISTING CONDITIONS

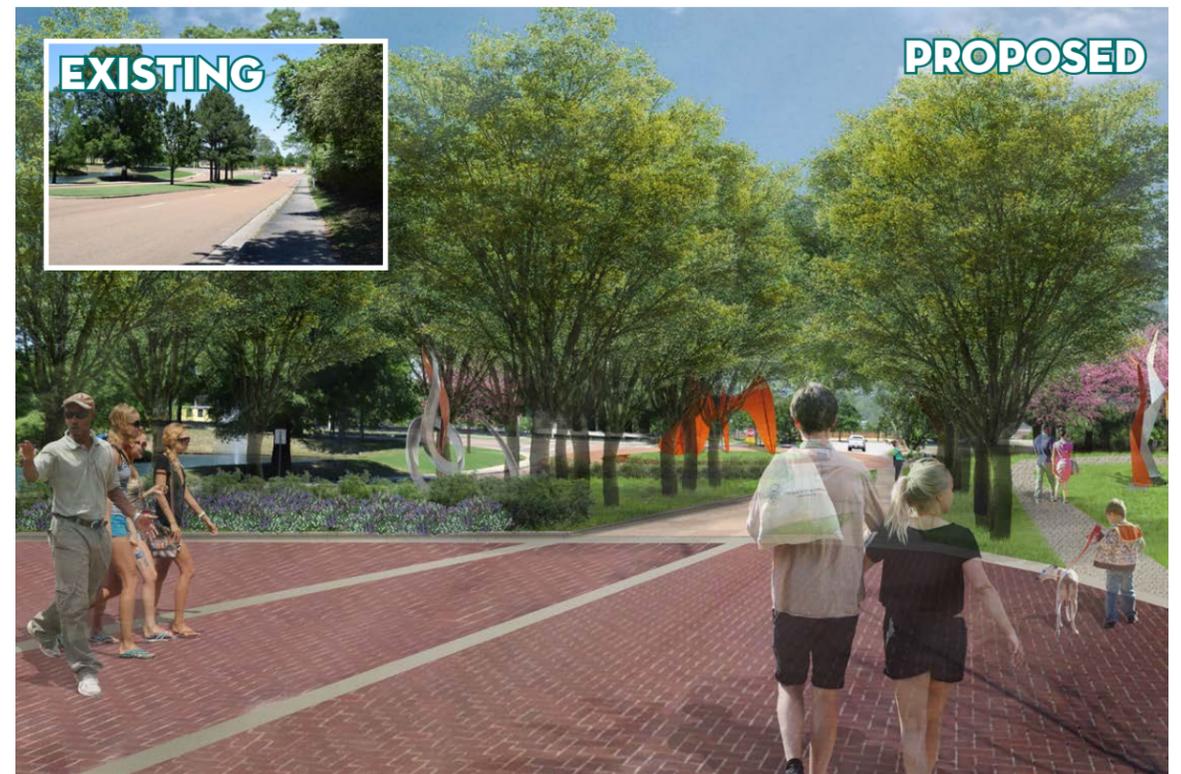
Exeter currently carries about 10,000 vehicles per day (vpd) on four travel lanes, down from a peak of 12,500 vpd in 2004, (counted south of Farmington Boulevard). That volume can easily be accommodated within two travel lanes (capacity in the range of 15,000-20,000 vpd), which affords the opportunity to rebalance the street for other uses as depicted in the recommendations.

PROPOSED CONDITIONS

Exeter Road between the Neshoba Road and Farmington Boulevard is expected to be the second designated project, with implementation slated for 2017/18. The roundabout at Neshoba Road and Farmington Boulevard may be implemented in later phases if approved.

In addition to increased public park space, reallocating the existing pavement can also create opportunities for on-street parking, additional landscape/tree plantings, and public art. Improved pedestrian crossings are recommended at Neshoba Road, Farmington Boulevard, as well as a midblock crossing between Neshoba Road and Farmington Boulevard.

Three design concepts have been developed for the improvements along Exeter Road. See above and on the next page. Each concept varies in aesthetic elements, infrastructure impact, and cost of implementation. Further study will be required for the final recommended design solution.





ESTIMATED COST (NESHOBA RD TO FARMINGTON BLVD):

DESIGN: \$400,000

CONSTRUCTION (LOW): \$2,665,000

CONSTRUCTION (HIGH): \$3,900,000

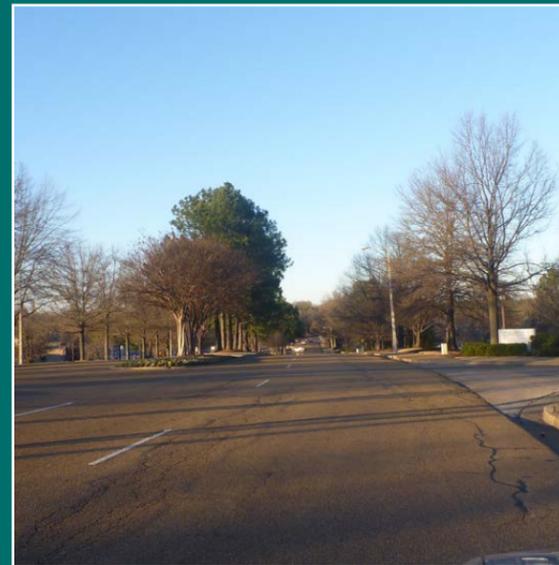
Since Alta Planning + Design (Alta) has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor(s) methods of determining prices, or over competitive bidding or market conditions, Alta's opinion of probable Total Project Costs and Construction Cost are made on the basis of Alta's experience and qualifications and represent Alta's best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but Alta cannot and does not guarantee that proposals, bids or actual Total Project or Construction Costs will not vary from opinions of probable cost prepared by Alta. If prior to the bidding or negotiating Phase the Owner wishes greater assurance as to Total Project or Construction Costs, the Owner shall employ an independent cost estimator.

See Appendix B for additional estimate details.

DESIGN ALTERNATIVES FOR EXETER ROAD @ THE PERFORMING ARTS CENTER







APPENDICES

APPENDIX A - GLOSSARY

The following list is comprised of common terms, acronyms and concepts used in complete streets planning, design and operation.

AASHTO

American Association of State Highway and Transportation Officials

ACCESSIBLE ROUTE

A continuous route on private property that is accessible to wheelchair users and those with disabilities. There must be at least one accessible route linking the public sidewalk, greenway trail, and parking area.

ADA

Americans with Disabilities Act of 1990; broad legislation mandating provision of access to employment, services, and the built environment to those with disabilities.

ADAAG

Americans with Disabilities Act Accessibility Guidelines published by the U.S. Access Board.

ADT

Average Daily Traffic (Volume)

AT-GRADE CROSSING

A junction where shared use path or sidewalk users cross a roadway over the same surface as motor vehicle traffic, as opposed to a grade-separated crossing where users cross over or under the roadway using a bridge or tunnel.

AUDIBLE PEDESTRIAN SIGNALS

Pedestrian signal indicators that provide an audible signal to assist visually impaired pedestrians in crossing the street.

BICYCLE FACILITIES

A general term used to describe all types of bicycle-related infrastructure including shared use paths and other provisions to accommodate or encourage bicycling, including bike racks and lockers, greenway trails, and showers at employment destinations.

BOLLARD

Post used to restrict motor vehicle use of space dedicated to bicyclists and/or pedestrians.

CLEARANCE INTERVAL

The length of time that the DON'T WALK indication is flashing on a pedestrian signal indication.

CLEARANCE, LATERAL

Width required for safe passage of users as measured on a horizontal plane.

CLEARANCE, VERTICAL

Height required for safe passage of users as measured on a vertical plane.

CROSSWALK

Any portion of a roadway at an intersection or elsewhere that is distinctly indicated for pedestrian crossing. Where there are no pavement markings, there is a crosswalk at each leg of every intersection, defined by law as the prolongation or connection of the lateral lines of the sidewalks.

CURB RAMP

A combined ramp and landing to accomplish a change of level at a curb in order to provide access to pedestrians using wheelchairs. Also known as a wheelchair ramp.

DIRECTIONAL SIGNS

Signs typically placed at road and bike/ped facility junctions (decision points) to guide users toward a destination or experience.

GEOMETRY

The vertical and horizontal characteristics of a transportation facility, typically defined in terms of gradient, radius, and superelevation.

GRADE SEPARATION

Vertical separation of travelways through use of a bridge or tunnel so that traffic conflicts are minimized.

GRADE-SEPARATED CROSSING

A bridge or tunnel allowing pedestrians and bicyclists to cross a major roadway without conflict.

GREENWAY

Linear, natural areas that are primarily unassigned open space, providing valuable buffers, environmental preserves, or wildlife corridors. These often have trails routed along them.

MEDIANS

Area in the center of the roadway that separates directional traffic; may provide a striped crossing and halfway point for pedestrians (also can be effective traffic calming design). Medians may be level with the surrounding roadway or "raised" using curb and/or gutter. Medians may include landscaping, concrete, paint/stripping or any combination thereof.

MUTCD

Manual on Uniform Traffic Control Devices

NACTO

The National Association of City Transportation Officials (NACTO) is a coalition of the Departments of Transportation of 22 of the largest cities in North America, and 17 affiliate member cities.

PAVEMENT MARKING

An assortment of markings on the surface of the pavement that provide directions to motorists, pedestrians, and cyclists as to the proper use of the road or adjacent facilities (the MUTCD determines these standard markings).

PEDESTRIAN

A person afoot; a person operating a pushcart; a person riding on, or pulling a coaster wagon, sled, scooter, tricycle, bicycle with wheels less than 14 inches in diameter, or a similar conveyance; a person on roller skates, skateboard, wheelchair or child in a stroller.

PEDESTRIAN SIGNAL INDICATION

the lighted WALK/ DON'T WALK (or walking man/hand) signal that indicates the pedestrian phase.

PROWAG

Public Rights-of-Way Accessibility Guidelines published by the U.S. Access Board and adopted by TDOT as the official standard for right-of-way facilities funded and approved by TDOT.

REFUGE ISLANDS

Corner raised triangles or medians, used by pedestrians and bicyclists at intersections or mid-block crossings for assistance with crossing wide streets, especially where motor vehicle right turn lanes exist.

RIGHT-OF-WAY (ROW)

The right of one vehicle, bicycle or pedestrian to proceed in a lawful manner in preference to another vehicle, bicycle, or pedestrian. Also the strip of publicly owned property in which a transportation facility or other facility is built.

SHARED USE PATH

A paved facility at least 10' in width that is intended for shared use by pedestrians and bicyclists. If adjacent to a roadway, the facility is often referred to as a side path. If not adjacent to a roadway, it is commonly referred to as a greenway. See also, greenway.

SHARROW

A shared-lane marking or sharrow is a street marking placed in a vehicular travel lane to indicate where people should preferably cycle.

SIDEWALK

An improved facility intended to provide for pedestrian movement; usually, but not always, located in the public right-of-way adjacent to a roadway. Typically constructed of concrete.

SIGHT DISTANCE

The distance a person can see along an unobstructed line of sight.

TRAFFIC CONTROL DEVICES

Signs, signals or other fixtures, whether permanent or temporary, placed on or adjacent to a travelway by authority of a public body having jurisdiction to regulate, warn, or guide traffic. These are normally specified and regulated by the MUTCD.

TRAFFIC VOLUME

The number of vehicles that pass a specific point in a specific amount of time (hour, day, year).

VERGE

The planting strip between the roadway/curb and the sidewalk/shared use path.

APPENDIX B - OPINION OF PROBABLE COST

PREFERRED DESIGN ALTERNATIVE FOR OLD GERMANTOWN ROAD

OPINION OF PROBABLE COST SUMMARY

Description	Est. Quant.	Unit	Unit Price	Total
INLET STRUCTURE FILTER	8	EACH	\$250.00	\$2,000
REMOVE PAVEMENT (FULL DEPTH)	200	S.YD.	\$15.00	\$3,000
REMOVE CURB & GUTTER	180	L.FT.	\$15.00	\$2,700
MILLING EXISTING ASPHALT PAVEMENT 2.0"	4000	S.YD.	\$11.50	\$46,000
REMOVE CONCRETE WALKS & DRIVES	500	S.YD.	\$23.00	\$11,500
CONCRETE CURB AND GUTTER (1'-6") VERTICAL FACE	1280	L.FT.	\$17.50	\$22,400
FINE GRADING	5000	S.YD.	\$4.00	\$20,000
CONCRETE SIDEWALK (4")	10791	S.FT.	\$4.00	\$43,164
PAVERS: DECORATIVE CROSSWALKS	2280	S.FT.	\$18.00	\$41,040
8" AGGREGATE BASE	400	S.YD.	\$10.00	\$4,000
CONCRETE DRIVEWAY & RAMP (6")	3257	S.FT.	\$12.00	\$39,084
HOT MIX ASPHALT SURFACE COURSE TYPE C	400	TONS	\$105.00	\$42,000
PAVERS - PLAZA + VERGE	2290	S.FT.	\$15.00	\$34,350
THERMO. ARROW	3	EACH	\$250.00	\$750
THERMO. STRIPING (STOP BARS)	60	L.FT.	\$5.00	\$300
THERMO. STRIPING (4" WHITE)	750	L.FT.	\$1.00	\$750
THERMO. STRIPING (4" YELLOW)	1700	L.FT.	\$1.00	\$1,700
DRAINAGE STRUCTURE ADJUSTMENT	3	EACH	\$1000.00	\$3,500
CATCH BASIN-TYPE 1 CB	5	EACH	\$1,750.00	\$8,750
12" CONCRETE DRAINAGE PIPE	650	L.FT.	\$40.00	\$26,000
IRRIGATION WATERING BAGS	7	EACH	\$25.00	\$175
MULCH	1	L.SUM	\$1,500.00	\$1,500
ORNAMENTAL TREES	7	EACH	\$400.00	\$2,800
SHRUBS	55	EACH	\$70.00	\$3,850
GROUND COVER	2000	EACH	\$7.00	\$14,000
SOD	2500	SQ.FT.	\$1.00	\$2,500
BENCHES	7	EACH	\$1,500.00	\$10,500
PEDESTRIAN LIGHT FIXTURE INSTALLATION	11	EACH	\$2,500.00	\$27,500
TRASH CANS	3	EACH	\$1,500.00	\$4,500
SIGNAGE	1	L.SUM	\$3,000.00	\$3,000
CONTRACT ITEMS			SUBTOTAL	\$422,813
MOBILIZATION		7.5%		\$31,711
CLEARING AND GRUBBING WITHIN ROADWAY		1.0%		\$4,228
CONSTRUCTION STAKING		1.0%		\$4,228
TRAFFIC CONTROL		5.0%		\$21,141
CONSTRUCTION TOTALS				\$484,121
CONTINGENCIES		10.0%		\$48,412
TOTAL ESTIMATED COST				\$532,533

PREFERRED DESIGN ALTERNATIVE FOR EXETER ROAD (NESHOPA RD TO FARMINGTON BLVD)

OPINION OF PROBABLE COST SUMMARY

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
CONSTRUCTION STAKES, LINES AND GRADES	LS	1	\$25,200.00	\$25,200.00
CLEARING AND GRUBBING	LS	1	\$6,300.00	\$6,300.00
ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	4500	\$8.00	\$36,000.00
BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	2100	\$12.00	\$25,200.00
WATER	M.G.	316	\$10.00	\$3,160.00
CURB INLET PROTECTION (TYPE 4)	EACH	20	\$200.00	\$4,000.00
MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	1200	\$40.00	\$48,000.00
PORTLAND CEMENT CONCRETE BASE (PLAIN) 6"	S.Y.	950	\$50.00	\$47,500.00
PORTLAND CEMENT CONCRETE BASE (REINFORCED) 6"	S.Y.	1650	\$75.00	\$123,750.00
ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	330	\$150.00	\$49,500.00
ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	220	\$150.00	\$33,000.00
BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	10	\$800.00	\$8,000.00
BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	5	\$1,000.00	\$5,000.00
SAW CUTTING ASPHALT PAVEMENT	L.F.	9000	\$2.00	\$18,000.00
ACS MIX(PG70-22) GRADING D	TON	205	\$150.00	\$30,750.00
18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	375	\$50.00	\$18,750.00
24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	225	\$60.00	\$13,500.00
MANHOLES, > 4' - 8' DEPTH	EACH	5	\$4,000.00	\$20,000.00
ADJUSTMENT OF EXISTING CATCHBASIN	EACH	8	\$750.00	\$6,000.00
CATCH BASINS, TYPE 12, > 4' - 8' DEPTH	EACH	12	\$4,000.00	\$48,000.00
CONCRETE SIDEWALK (4")	S.F.	44000	\$6.00	\$264,000.00
BRICK SIDEWALK	S.Y.	1200	\$25.00	\$30,000.00
CONCRETE DRIVEWAY	S.F.	3000	\$8.00	\$24,000.00
CONCRETE CURB RAMP	S.F.	1300	\$25.00	\$32,500.00
CONCRETE CURB	C.Y.	100	\$500.00	\$50,000.00
CONCRETE COMBINED CURB & GUTTER	C.Y.	525	\$500.00	\$262,500.00
TRAFFIC CONTROL	LS	1	\$100,600.00	\$100,600.00
FLEXIBLE DRUMS (CHANNELIZING)	EACH	120	\$27.00	\$3,240.00

WARNING LIGHTS (TYPE C)	EACH	120	\$37.00	\$4,440.00
SIGNS (CONSTRUCTION)	S.F.	175	\$18.00	\$3,150.00
TEMPORARY BARRICADES (TYPE III)	L.F.	125	\$15.00	\$1,875.00
"U" SECTION STEEL POSTS	LB.	625	\$5.00	\$3,125.00
FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	130	\$20.00	\$2,600.00
REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1	\$250.00	\$250.00
RELOCATE SIGN	LS	1	\$250.00	\$250.00
PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	80	\$20.00	\$1,600.00
PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	2	\$200.00	\$400.00
PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	L.F.	200	\$35.00	\$7,000.00
PLASTIC PAVEMENT MARKING (8IN LINE)	L.M.	0.15	\$7,500.00	\$1,125.00
SPRAY THERMO PVT MRKNG (60 mil) (4IN LINE)	L.M.	0.10	\$7,500.00	\$750.00
MOBILIZATION	LS	1	\$150,900.00	\$150,900.00
WATER (SEEDING & SODDING)	M.G.	120	\$30.00	\$3,600.00
SHREDDED HARDWOOD MULCH(LANDSCAPING)	C.Y.	250	\$35.00	\$8,750.00
TREES	EACH	254	\$350.00	\$88,900.00
SHRUBS	EACH	2952	\$30.00	\$88,560.00
SODDING (NEW SOD)	S.Y.	13300	\$4.00	\$53,200.00
BRICK PAVING	S.F.	15000	\$25.00	\$375,000.00
PARTICIPATING COST SUBTOTAL				\$2,131,925.00
MINOR ITEMS		5.0%		\$106,596.25
CONTINGENCIES		20.0%		\$426,385.00
PARTICIPATING COST TOTAL				\$2,664,906.25
IRRIGATION SYSTEM	LS	1	\$65,000.00	\$65,000.00
LIGHTING	LS	1	\$350,000.00	\$350,000.00
ROUNDBOUT	LS	1	\$625,000.00	\$625,000.00
NON-PARTICIPATING COST SUBTOTAL				\$1,040,000.00
CONTINGENCIES		20.0%		\$208,000.00
NON-PARTICIPATING COST TOTAL				\$1,248,000.00
CONSTRUCTION COST TOTAL				\$3,912,906.25



