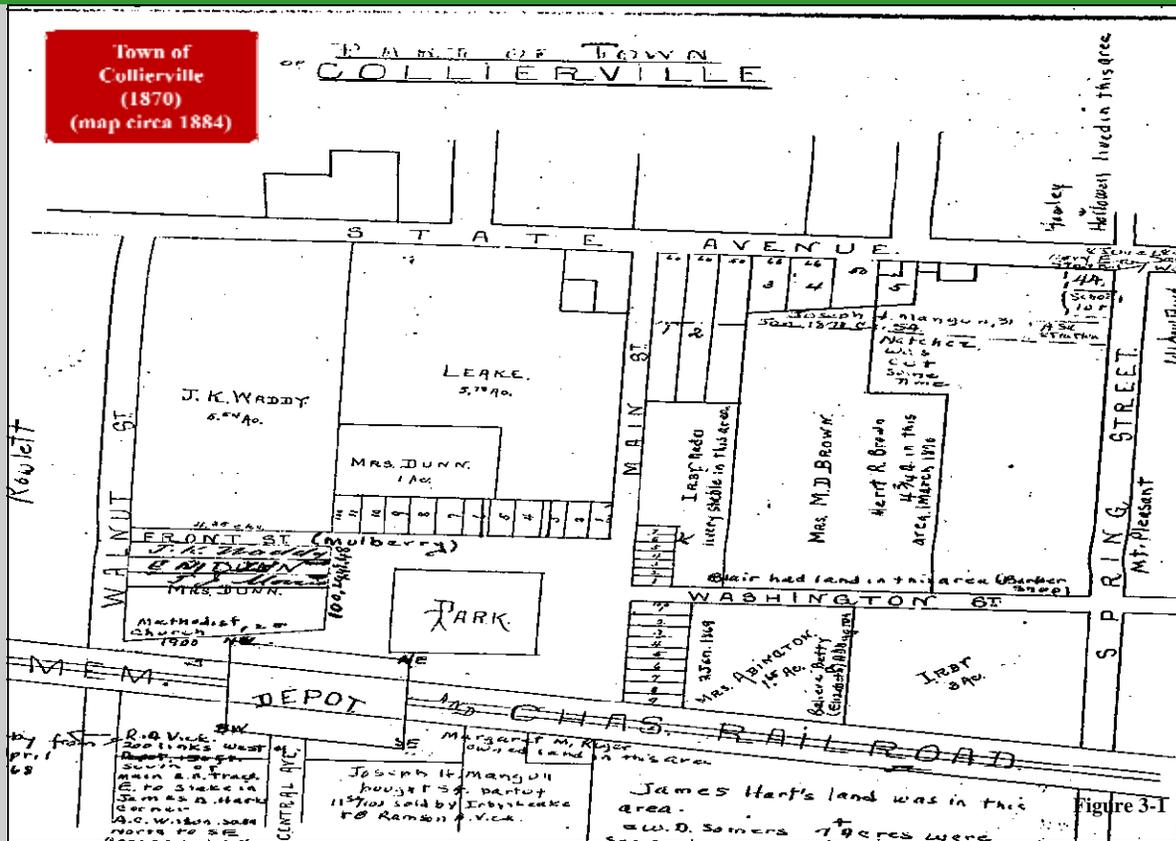


CHAPTER 3: INFRASTRUCTURE, PUBLIC SERVICES, AND FACILITIES



INTRODUCTION

Chapter 3 describes the existing public and quasi-public infrastructure in the Downtown Collierville planning area. It outlines the approaches needed to most effectively implement the vision and guiding principles described in Chapter 1. In some cases, such as with block patterns and open space distribution, this chapter clearly recommends future improvements and best practices, while in other cases, such as with public parking or stormwater conveyance, more study is needed. This chapter is intended to be used by private, public, and quasi-governmental sectors as a guide for decision-making regarding proposed new development, redevelopment of real estate, capital improvement plan (CIP) expenditures, grant requests, rezonings, and planned developments (PDs).

It took Collierville over 150 years to evolve from a small pre-Civil War railroad stop with minimal infrastructure to a modern Town of almost 50,000 people in 2010. Of all of the changes that have taken place since the Town was founded in 1870, the three infrastructure components that have most endured the test of time are the road/block network, open space, and railroad (see Figures 3-1, 3-2, and 3-3). To effectively implement the vision of this Plan over the generations to come, Parks and Recreation and the Transportation System are expected to remain as the most influential municipal infrastructure components to Downtown Collierville's built environment.

PARKS & RECREATION

Town-wide, Collierville has over 14 community or neighborhood parks with approximately 300 acres of parkland, 26 athletic fields, 6 tennis courts, and over 10 miles of greenbelt trails. Within the Study Area are significant park resources, Town Square, Tom Brooks Park and Suggs Park; however, although there are

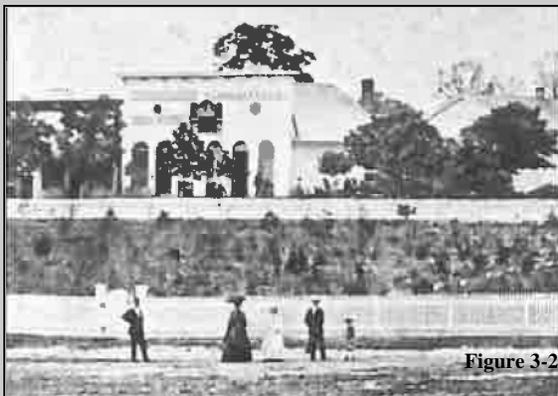


Figure 3-2



Figure 3-3



Figure 3-4
Collierville Example



Figure 3-5
Collierville Example



Figure 3-6
Collierville Example

planned portions of the greenbelt, none currently exist. Located in the heart of Downtown, Town Square (Figure 3-4) is the trademark of the Town. It features turn-of-the-century walkways, cast iron fences, an antiqued-styled clock, and a charming bandstand. 13-acre Suggs Park (Figure 3-6), located on South Street just east of Center Street, has 2 lighted baseball/softball fields, open green space areas, a water spray park, restroom facilities, a pavilion, a playground, and picnic areas. Tom Brooks Park (Figure 3-5), comprised of around 1 acre of open play area on Walnut Street, is a passive park and has not been fully planned and constructed.

Town Square and Tom Brooks Park should be retained in their entirety as public parks. The two parks are publicly-accessible and located in the Heart of Downtown, meet the needs of the immediate area, and are flanked by public parking. They are places for passive recreation, small informal gatherings, special community events, and to serve as a scenic vista. Some of the Special Area policies in Chapters 5 and 6 recommend that some of the edges to existing parks, such as Suggs, may be better utilized for new development in the form of houses facing parks, rather than backing up to them, or possibly even a centrally-located civic use (farmers market shed, Civil War interpretive center, school, etc).

Created with the Police Court Building was a new public space at the northwest corner of Walnut Street and North Rowlett, which will serve as a pocket park for the area. Also created with the Police Court project was a small public parking area on the northeast corner of Walnut Street and North Rowlett to provide for overflow parking.

Suggs Park provides important active and passive recreation for the surrounding residents, and it is imperative that any future use of the Suggs Park keep some form of publically-accessible parkland, and any lost parkland (and types of park uses and programming) is replicated nearby (walking distance). Generally, if parkland is removed from the Study Area, it should be replaced acre-per-acre in a similar form and use within, or very near, the Study Area.

Pedestrian Friendly Park Locations: Tom Brooks Park, Suggs Park, and Town Square collectively provide significant open space for the Heart of Downtown Collierville; however, many neighborhoods, homes, and businesses located on the periphery are too far from these open spaces (more than a 5 minute walk). The parks are not connected to each other, to other nearby parks, such as Nikki McCray Park, or the Town's successful greenbelt programs (see Figure 3-9). Additional public parks or forms of private and/or formal open space are needed to fill gaps where parks are more than a 5 minute walk and where compact residential densities will occur (see Figure 3-10). Pedestrian friendly routes should be created to link existing or planned "Activity Centers," greenways, and park space. These new routes should be provided through the Town's Greenbelt System, which is related to the Green Corridors/Infrastructure Character Area described in Chapter 5.

There is a documented correlation in relationship between parks and house premiums facing or near a park, per an MIT study by Andrew Miller. What he discovered is that property premiums are highest on the park and fall off rather rapidly and that beyond 600 feet there is no premium. The diagram (Figure 3-8) classifies lots based on the study, identifying "A lots" as those on the park, "B lots" as those within



300 feet, “C lots” as those between 300 hundred and 600 feet and “D lots” those lots beyond 600 feet. The average “A lots” should receive a premium value in excess of 17%. Ideally, open space should be located 950’ apart to continue the premium (Figure 3-8).

If the assumptions of the MIT study are correct, there is obvious aesthetic value in the open space and improved streetscapes. In addition, these amenities will provide economic stability of property values, which directly contributes to the long-term vibrancy of Downtown Collierville anticipated by the Vision and Guiding Principles as described in Chapter 1. Contained in Chapter 5 are recommendations that houses face these open spaces (see Figure 3-7).

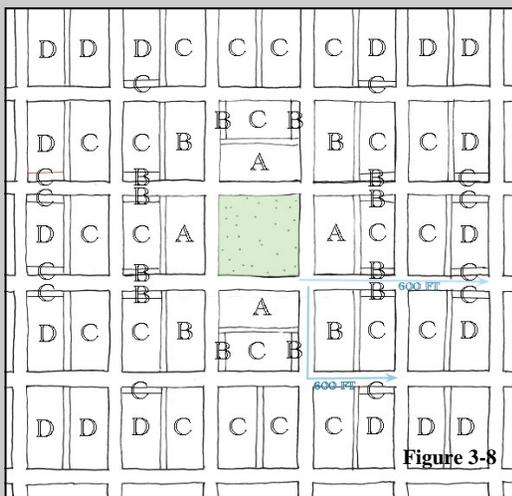
Not surprisingly, 76% percent of the study area is currently within a 5 minute walk of open space (see Figure 3-9); however, these open spaces are not well connected. Through improved streetscapes along selected corridors, the expansion of the Local Greenbelt and GreenStreet system within the study area, and by following the Green Corridors/Infrastructure Map, parkland and open space can be interconnected and distributed throughout the study area in such a way that 100% percent of the study area will be within a 5 minute walk of open space, Greenbelt, or a Greenbelt connector sidewalk upon buildout of this Small Area Plan (see Figure 3-10).

New Local Greenbelt Trails: The Collierville Greenbelt System is designed to enhance the natural beauty of Collierville by providing the means to maintain a natural environment in areas that are affected by urban development. The system offers protection to waterways and reduces the fragmentation of wildlife habitats and biological stagnation. During the creation of the system’s overall master plan, a hierarchy of

trails were established based on their function and the trail’s overall use in the broader network, which has relevance for the Downtown Collierville Small Area Plan. There are three major components of the Collierville Greenbelt System:

- **Regional Trails**—planned connection to other regional greenbelt systems such as Shelby County or Germantown (example is the Nonconnah Greenbelt Trail).
- **Local Trails**—designed to connect users with key components of the town such as parks, schools and retail outlets (generally follow Nonconnah Creek and the Wolf River tributaries).
- **Sidewalk Connections**—although the smallest in terms of anticipated usage, sidewalks are an integral part of the success of the overall trail system, filling in trail gaps to complete trail “loops.” The Collierville Greenbelt System is also intended to be an alternative transportation system designed Town-wide for over sixty (60)-miles of trails and sidewalks connecting parks, schools, neighborhoods and commercial districts. The GreenStreet description below expands heavily upon the Sidewalk Connections concept by vastly improving pedestrian mobility within Downtown Collierville.

A new Local Trail system addition to the Collierville Greenbelt System running through the Heart of Downtown and its Surrounding Neighborhoods should be created, and is identified as a Priority Project identified in Chapter 6. It should have a public edge that is physically and visually accessible to the public. The purpose is to connect the existing parks to other parks in the Town. This system will create points for passive recreation, small informal gatherings, environmental education opportunities and scenic vistas, but it can also be designed to help provide improved stormwater conveyance.



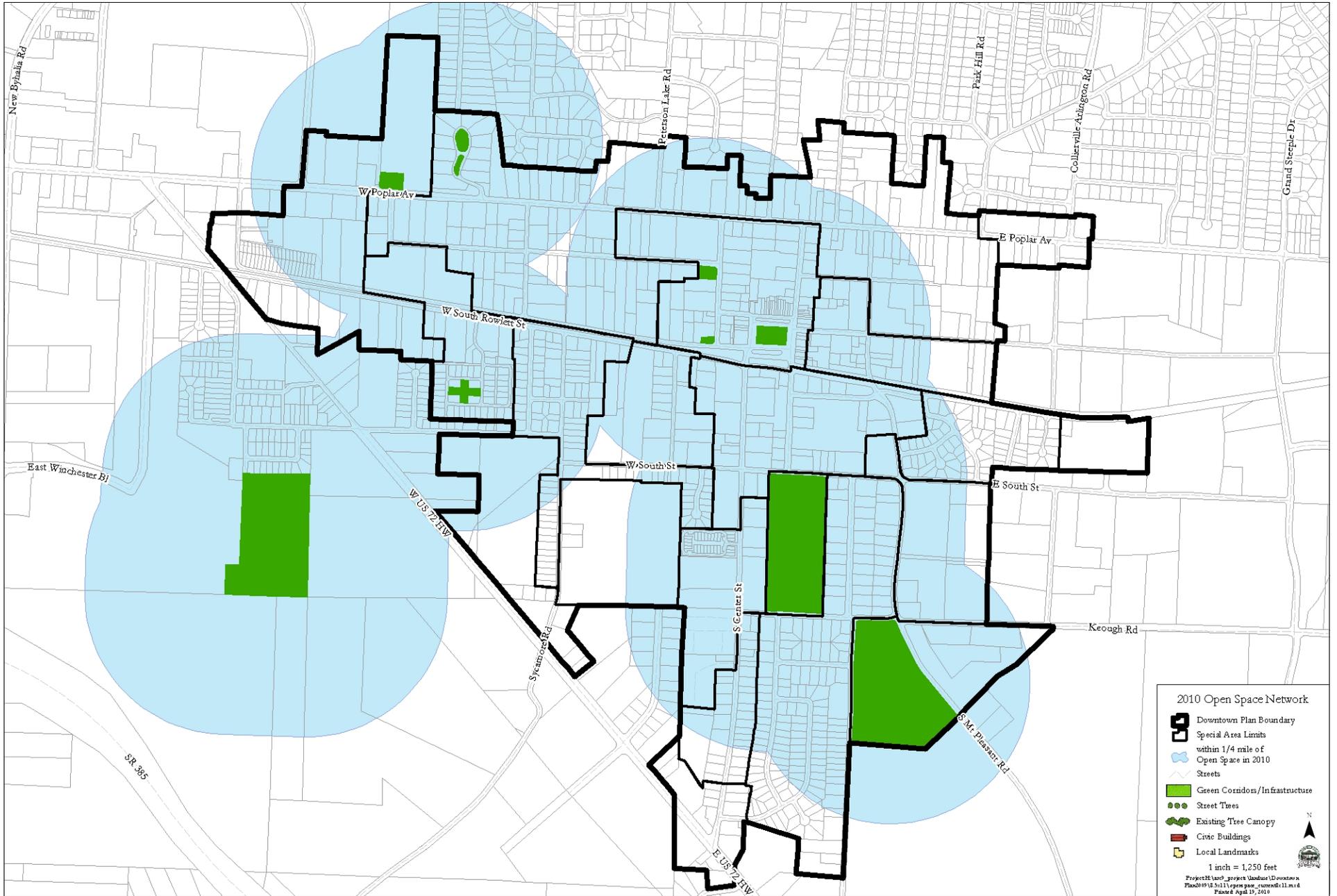


Figure 3-9

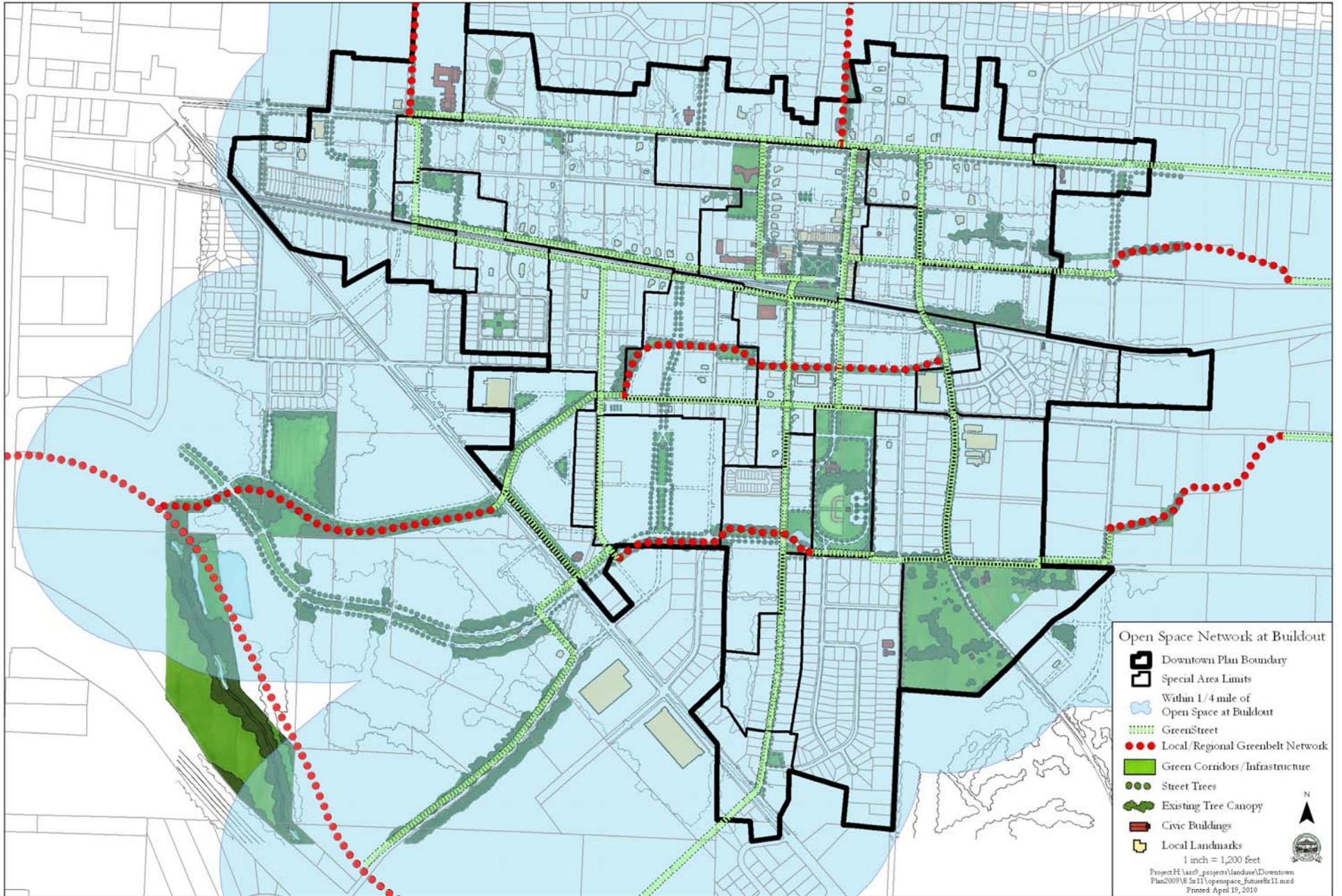


Figure 3-10

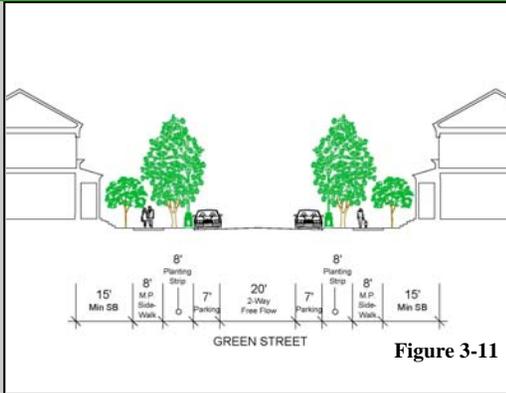


Figure 3-11



Figure 3-12



Figure 3-13
Collierville Example

GreenStreets: These segments of the Collierville Greenbelt System are actually just extensions of the “Sidewalk Connections” concept in the current system, but anticipated usage should be higher within the Study Area. Since the area is mostly built out, and creating new Local Trails in Downtown Collierville is a difficult task, other options must be considered. Sidewalks are an integral part of the success of the overall trail system by filling in trail gaps between the Regional and Local Trails to complete trail “loops.” Essentially, GreenStreets are new and/or improved sidewalks in certain areas (see Figures 3-11, 3-12, and 3-13) that will connect parks and greenbelts, while improving the walkability of Downtown, a main goal of this Small Area Plan. Generally in downtown areas, just like parks in more suburban settings, streetscapes and sidewalks are also part of the public realm, and should be adequately sized for heavy pedestrian activity, and include street trees, wayfinding signage and special pavement colors and textures, pedestrian scale lighting, and street furniture.

Specifically, GreenStreets will serve as an “urban greenway” segment in the Collierville Greenbelt System and connect neighborhoods, parks, recreation facilities, schools, commercial activity areas, and even wildlife habitats when they are provided along with linear greenbelts. GreenStreets are intended to enhance the pedestrian environment and introduce park-like elements into neighborhoods. Planned on a neighborhood scale, GreenStreets will provide residents a preferred means of connecting to neighborhoods, parks, and recreation areas in ways that are attractive to pedestrians and bikers. Allowing for the planting of new landscapes and vegetation, GreenStreets should enhance neighborhood livability by enhancing the pedestrian environment and introducing park-like

elements into neighborhoods. These aesthetically improved corridors will also be part of the Visual Cues Initiative described in Chapter 6. Improving neighborhood livability and mobility is also consistent with the Neighborhood Stabilization Initiative. Furthermore, landscapes and trees contribute environmental benefits such as reduced summer air temperatures caused by the urban heat island effect, carbon sequestration, air pollution screening, and wildlife habitat corridors. In addition to stormwater reduction, properly designed GreenStreets can improve water quality by filtering stormwater, removing contaminants and cooling the stormwater before it encounters groundwater or surface water bodies, such as rivers, both of which ultimately benefit watershed health.

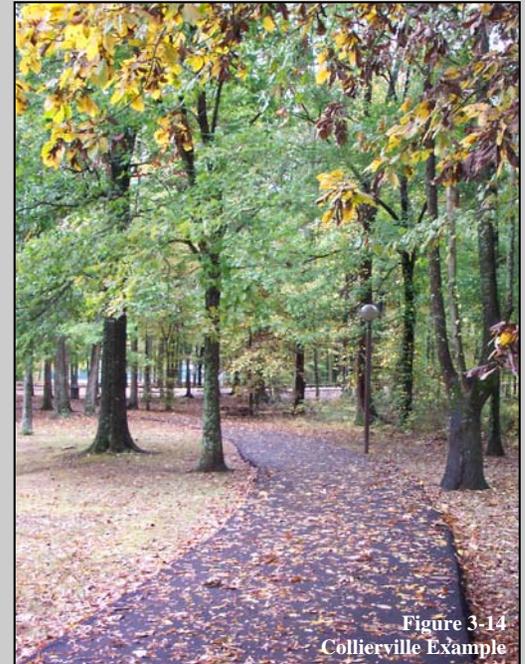


Figure 3-14
Collierville Example

TRANSPORTATION AND CORRIDORS

One striking comment heard during the 2009 visioning efforts described in Chapter 1 was that Downtown Collierville was hard to find. This was reinforced by the previous efforts to study downtown, such as the Market Street Study and the Chamber Study, which sought ways to make Downtown Collierville more accessible. Through the Recommended Block Pattern (Figure 3-20), there are three main themes

- Improved North/South Movement
- Improved East/West Movement
- Smaller Blocks for Increased Walkability and Improved Traffic Distribution

Improved North/South Movement: The Recommended Block Pattern promotes this through retention of key corridors like Main Street and Center Street; however, new north/south con-

nections should be studied in future updates to the Major Road Plan, as Downtown is not easily reached from the overtaxed Byhalia Road, which is our only uninterrupted north/south road on the east side until the new I-269/SR385 extension is completed. Such a new north/south corridor would intersect the extension of Keough Road as described in this Chapter.

A southern extension of Peterson Lake, emerged during the Design Workshop Week as such a north/south road, but the Steering Committee decided that the Small Area Planning effort was not the appropriate mechanism to explore such an extension and it is not shown on the Recommended Block Pattern. Another alternative is to extend Collierville-Arlington Road and Eastly to the south to cross the railroad tying to Moore Road which intersects with

Keough. The Collierville-Arlington Road route, not shown on the Recommended Block Pattern, is largely outside of the study area, and would need further study.

Improved East/West Movement: Extension of Keough is needed to intersect with the Winchester Boulevard extension at Highway 72; however, Winchester can take on a new character of a divided boulevard east of Byhalia and change the tone of this thoroughfare to be more representative of Downtown Collierville and provide a significant western entry point to downtown. An extension of South Street to Highway 72, eventually tying to Winchester Boulevard, should also occur to reduce block sizes, provide for improved east/west movements, and provide additional access to Nikki McCray Park and to additional residential population to the west (Schilling Farms, Villages at Porter Farms, etc).

Smaller Blocks for Increased Walkability and Improved Traffic Distribution: According to SmartCode Version 9.2 the ideal pedestrian shed or walking distance is a 5 or 10 minute walk and should be centered on a common destination. The TND Design Rating Standards Version 1.5 suggests that the ideal block dimension to promote walkability be in the range of 250 to 500 feet for individual block faces (block faces less than 150 feet and more than 800 feet are discouraged) with the ideal block perimeter dimension of approximately 1,200 feet.

The existing block faces and perimeters within the study area are too large. For example, within a 10 minute walk of the Square, the existing average block face and perimeter is 600 and 2,390 linear feet, respectively. Only three out of 10 blocks near the Square are near the ideal block perimeter of 1,200 linear feet.

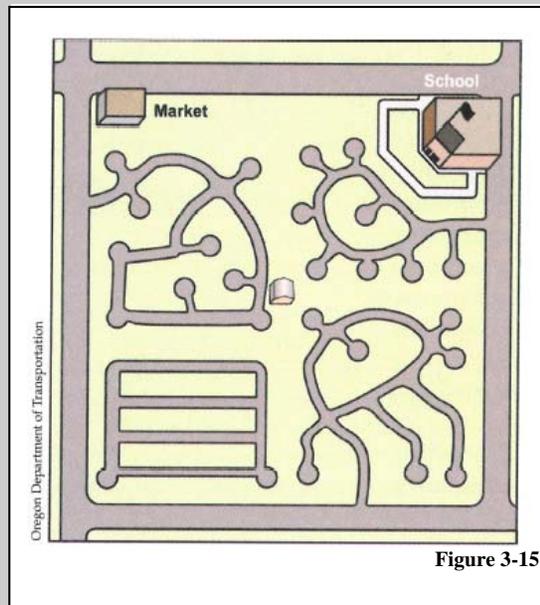


Figure 3-15

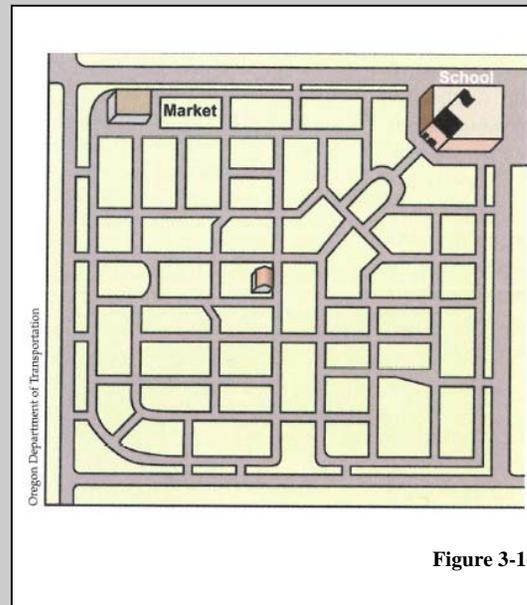


Figure 3-16

According to the SmartCode, block perimeter dimensions should not exceed a maximum of 2000 linear feet in mixed use activity centers and 2400 linear feet in traditional development. Today the smallest perimeter block dimension within a 10 minute walk from the Square is 1,200 feet, with seven out of 10 blocks measuring well over the 2000 to 2400 feet recommended maximum dimensions. Upon the building-out of the Recommended Block Pattern (see Figure 3-18), the existing average block face

and perimeter within a 10 minute walk of the Square can become 415 and 1,712 linear feet, respectively, and be within acceptable ranges for mixed use activity centers. At build-out, only three of 20 blocks are over 2,000 linear feet in perimeter.

Role of the Recommended Block Pattern: The Recommended Block Pattern (Figures 3-18 and 3-20) is a component to Collierville's Major Road Plan and is a long range vision for road

interconnectivity. It establishes corridors, approximate block patterns based on the walkable block sizes advocated by this chapter, and integrates with the roads shown on the Major Road Plan. The local road network portrayed in the Recommended Block Pattern, for the most part, was not on the Town's adopted Major Road Plan in 2010. Because of this, the hope is that the Recommended Block Pattern will serve as inspiration for future Major Road Plan Amendments for collector and arterial roadways. Such amendments will allow the Town to plan for road projects that will aid in the functionality of the road network and add needed connectivity. It will ensure future opportunities to create a stronger road network as properties develop along these corridors.

The Recommended Block Pattern creates a system of roads with multiple routes and "connectivity". The term "connectivity" in this Plan describes how an entire area is connected by the road system and includes factors such as the number of intersections along a segment of road, parallel routes, and cross connections within an area. An example of a well-connected road system is the traditional grid pattern in early Downtown Collierville (see figure 3-1). Establishing better road connectivity helps to disperse traffic through the system, reducing the volume on major corridors (Figure 3-16). It increases accessibility and can reduce vehicle miles traveled and average trip length. Sidewalks created by the completion of the Recommended Block Pattern will make the Downtown Area more walkable, increasing walking with reduce average vehicle trips.

The Recommended Block Pattern will be used by Town of Collierville staff and the Planning Commission in a manner similar to and in support of the Major Road Plan. The routes depicted will help establish general corridors for the



Figure 3-17



Figure 3-18

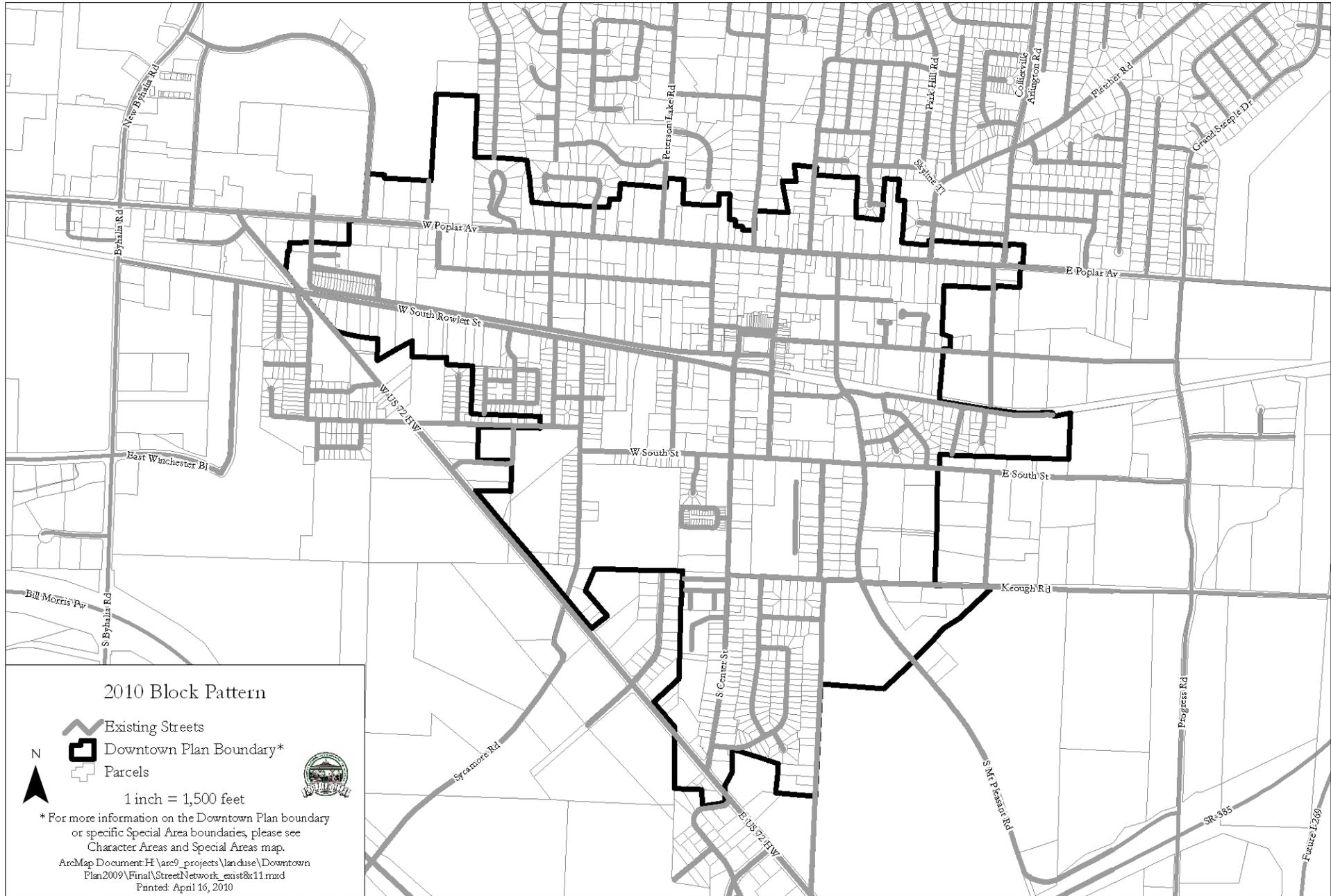


Figure 3-19

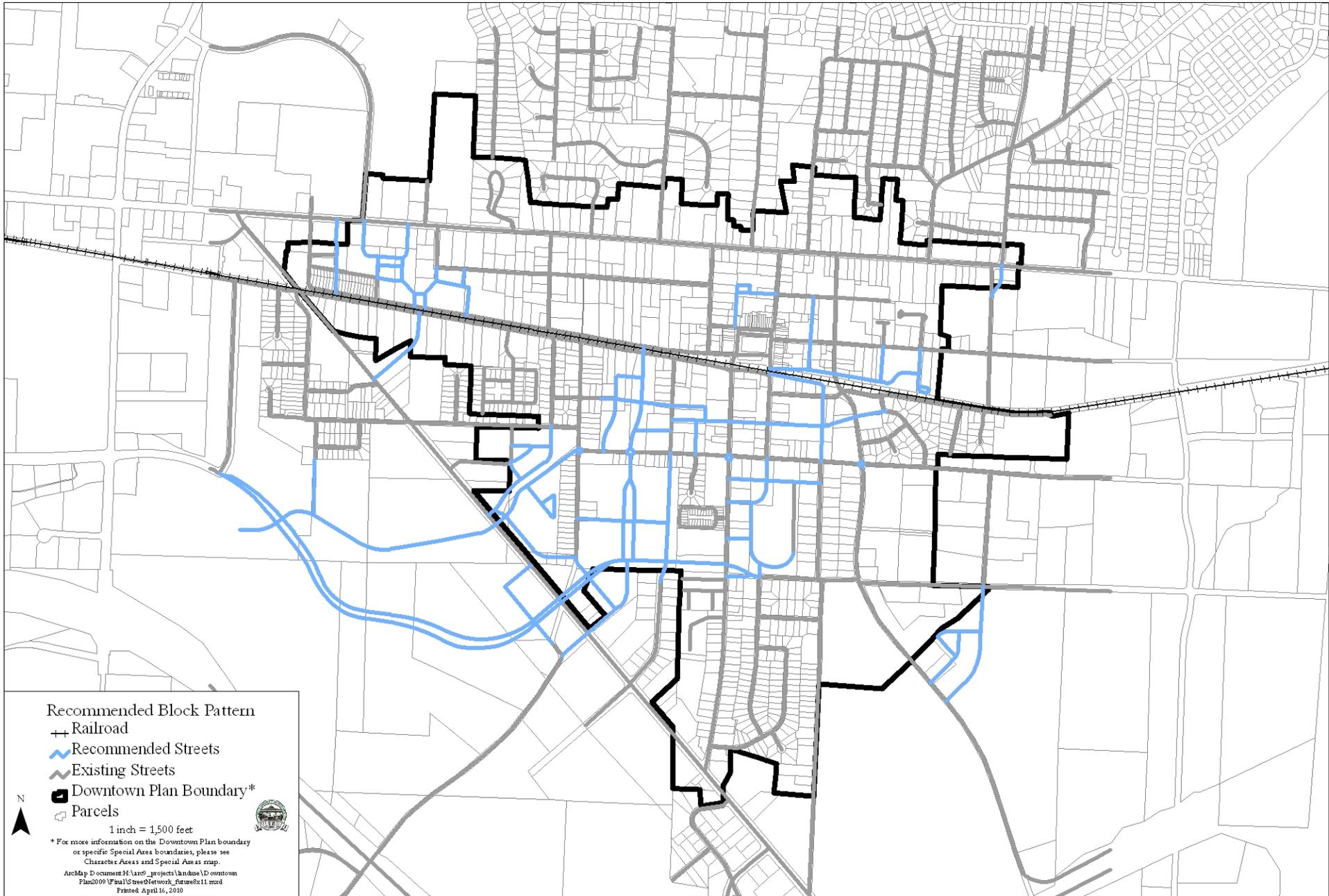


Figure 3-20

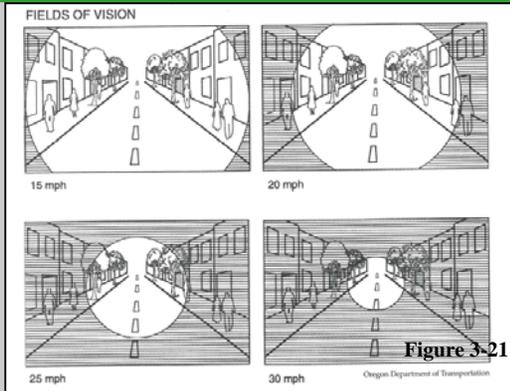


Figure 3-21



Figure 3-22

right-of-way for local roads. It is important to note that this document is not a detailed engineering document, but rather a planning tool. Specific roadway alignments for new local roads will be set during design or when properties develop that intersect or are adjacent to the Plan. The Recommended Block Pattern is a dynamic plan and will be regularly revisited and expanded over time. Factors that contribute to the chosen corridors of this Plan include topography, bodies of water, existing buildings, and property lines.

When smaller blocks are achieved and combined with the initiatives described in Chapter 6, Downtown Collierville can become an extremely walkable environment, contributing to the long-term vibrancy anticipated by the Vision and Guiding Principles as described in Chapter 1.

Other Transportation Issues: Other issues discussed related to improving vehicular traffic flow and promoting walkability are:

- *Access Management:* Chapter 6 advocates improving the intersection of Hwy 72 and Center Street with landscape medians as a priority project. This is not just a beautification project, but an important safety improvement to this area, as raised medians can reduce vehicle conflicts (see Figures 3-23 and 3-25).
- *Speed Reduction:* By designing the roads in the Downtown area for a lower design speed, a safer environment for the pedestrian can be created (see Figure 3-21).
- *Passenger Rail:* Special Area 3 in Chapter 5 advocates a potential light rail stop that could utilize the parking structure being planned for that area (see Figure 3-22). With the number of dwelling units in the study area going from over 800 in 2010 to approximately 2,400 in a walkable and

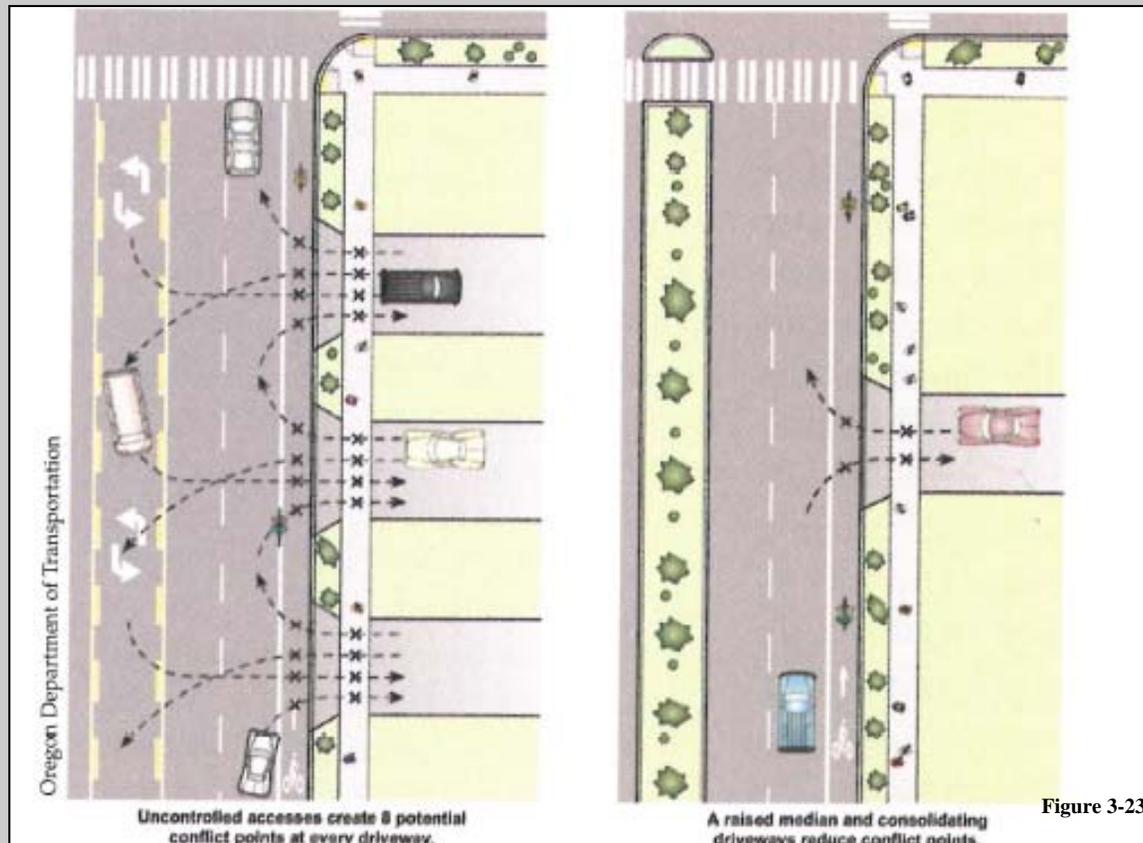
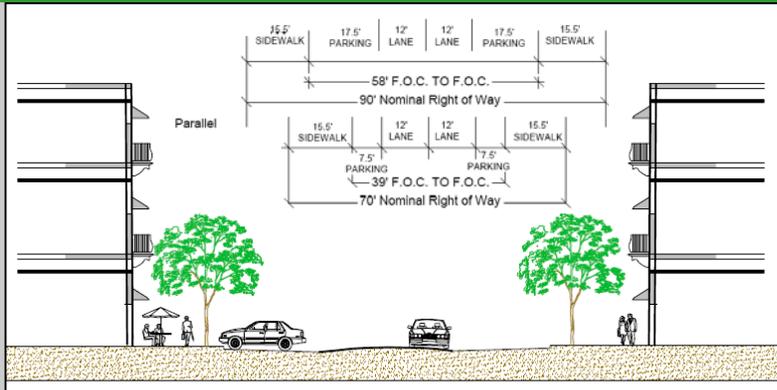


Figure 3-23

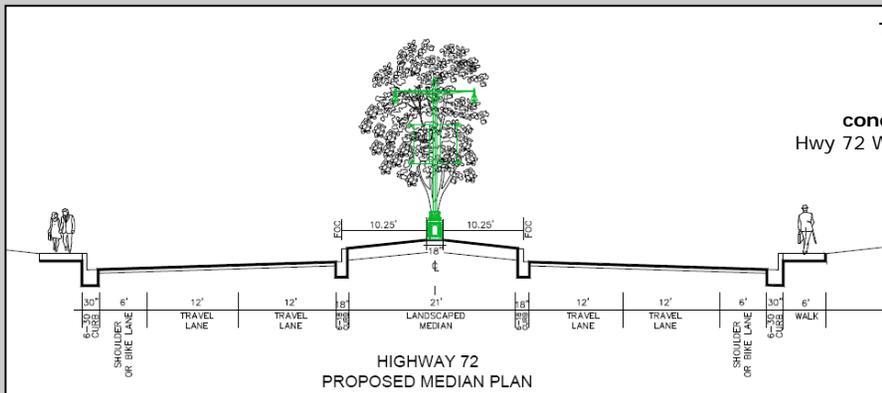


Type of Road Cross Section:
Walkable Commercial Road

Examples of where this condition could be appropriate:
Main Street
Center Street (north of South Street)
Washington Street (west of Mt. Pleasant)
East South Rowlett

Attributes:
On-street parking
Wide commercial sidewalk
Street trees
Buildings Built to Back of Sidewalk

Figure 3-24

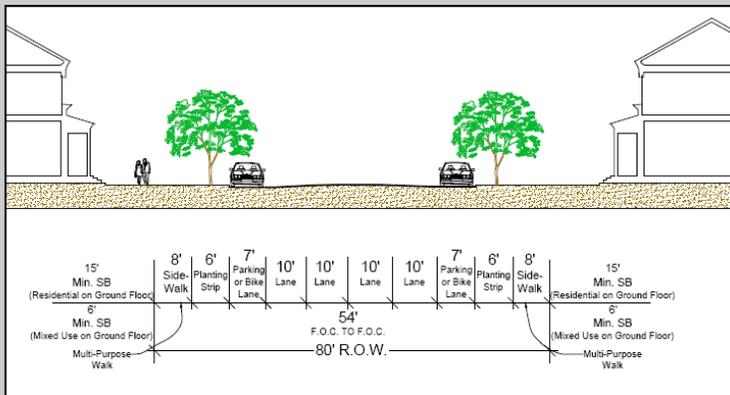


Type of Road Cross Section:
Improved Highway 72

Examples of where this condition could be appropriate:
Hwy 72 Widening (Poplar to Chaney Dr)

Attributes:
Landscape Median
Sidewalks
Decorative Light Poles
Street trees
Bike Lane

Figure 3-25



Type of Road Cross Section:
Avenue

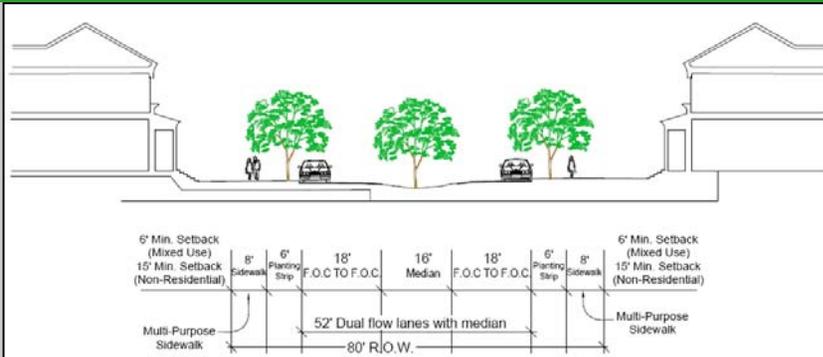
Examples of where this condition could be appropriate:
Poplar Avenue Improvements
Winchester/Keough Extension

Attributes:
Landscape Median
Narrow Travel Lanes
Sidewalks
Decorative Light Poles
Street trees in planting strip
Bike Lane or Dedicated on-street Parking
Shallow Building Setbacks Possible

Figure 3-26

compact environment at build-out, the study area may be perhaps the most viable location in Collierville for an east/west passenger rail line.

- **Lane Reduction:** Similar to the issue of promoting increased walkability, smaller blocks have the effect of increasing the number of roads in the network. It then becomes possible to reduce or even eliminate the number of 4 lane arterials by increasing the number of small, narrow and slow moving streets, while at the same time accomplishing a much more pleasant walking environment.
- **New Types of Road Cross Sections Needed:** The Town needs to develop, through amendments to its Subdivision Regulations and Major Road Plan, new cross sections to achieve the objectives described in Chapter 3, and to make viable the types of land uses and building forms recommended by Chapter 5. Although more cross sections are likely to be produced, at a minimum, six new road types are needed in Downtown Collierville:
 - Walkable Commercial Road (Figure 3-24)
 - Improved Highway 72 (Figure 3-25)
 - Avenue (Figure 3-26)
 - Boulevard (Figure 3-27)
 - Major Neighborhood (Figure 3-28)
 - Minor Neighborhood (Figure 3-29)
- **Bicycle:** Because of the limited right-of-way on existing roads in the study area, and the desire to have reduced lane widths and other traffic calming techniques, it is presumed that bicycles and cars will share the same travel lanes within the Downtown Area. Possible expectations would be use of the Town's greenbelt system for cyclists, along new or improved major roads into, or adjacent to, Downtown. Such thoroughfares appropriate for bike lanes include:

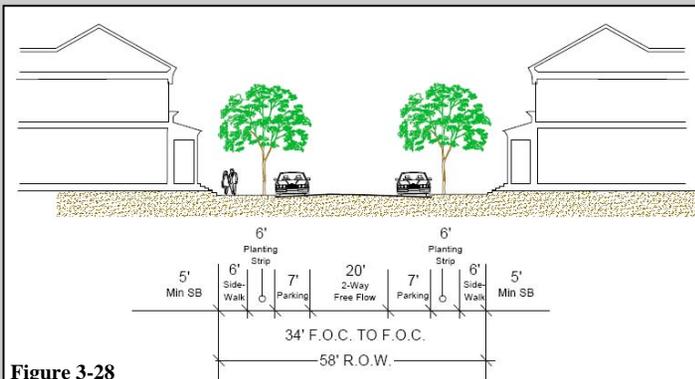


Type of Road Cross Section:
Boulevard

Examples of where this condition could be appropriate:
Winchester/Keough Extension

Attributes:
Landscape Median
Sidewalks
Decorative Light Poles
Street trees in planting strip
Informal on-street
Shallow building setbacks possible

Figure 3-27

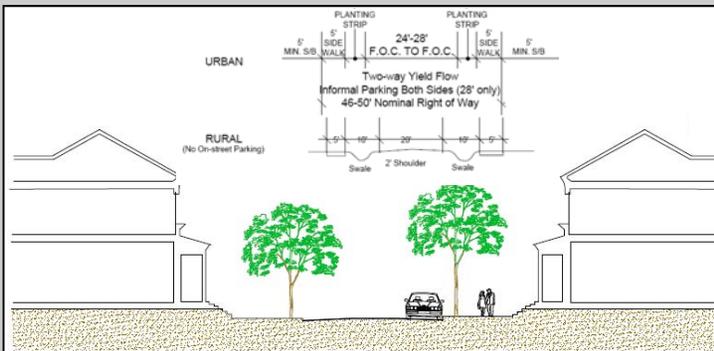


Type of Road Cross Section:
Major Neighborhood Road

Examples of where this condition could be appropriate:
South Center Street
South Street
West South Rowlett

Attributes:
Narrow Travel Lanes
Sidewalks
Decorative Light Poles
Street trees in planting strip
Dedicated on-street parking lane
Shallow building setbacks possible

Figure 3-28



Type of Road Cross Section:
Minor Neighborhood Road

Examples of where this condition could be appropriate:
Washington Street (east of Mt. Pleasant)
Mt. Pleasant (north of railroad tracks)
Natchez Street

Attributes:
Narrow Travel Lanes
Open swales possible where contextual
Sidewalks
Decorative Light Poles
Street trees in planting strip
Informal on-street parking lane (detached res. only)
Shallow building setbacks possible

Figure 3-29

- **Hwy 72 Widening:** With the widening of Hwy 72, the Town is requesting that TDOT revise its cross section to be similar to Figures 3-25 and 3-30, which shows a landscape median where appropriate, as well as 6-foot bike lanes on either side of the road. This important bicycle route will serve as a haven for cyclists going to Downtown Collierville from points beyond.
- **Center Street:** As the existing pavement width is more than ample for two travel lanes of at least 10 or 11 feet, this road leading directly to the Square should be striped for bike lanes a minimum of 6 feet from the Square to the intersection of Hwy 72. Such a linkage is critical to connect to the bike lanes recommended for the Hwy 72 widening (see Figure 3-25). It is possible to have a bike lane on both sides of Center Street, and may be reduced to only one side to the south as pavement widths reduce.
- **Keough Extended and the North/South Road Bisecting Special Area 8 and 9:** As these important new corridors are developed to provide additional vehicle and pedestrian connections to Downtown, the cross sections should include bike lanes to connect to those recommended for Hwy 72 and Center Street (see also Figures 3-20, 3-26, and 6-2).

Bike lanes should be of a standardized design and width. The following minimum dimensions have been provided as a guide for bike lanes, with the ultimate widths approved by the Town Engineer.

- 4 feet: minimum width of bike lane on roadways with no curb and gutter
- 5 feet: minimum width of bike lane when adjacent to parking, from the face of the curb or guardrail

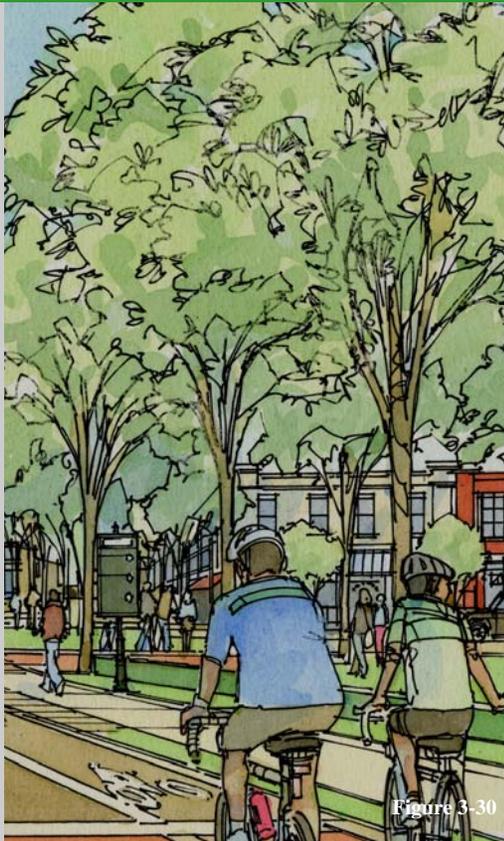


Figure 3-30



Figure 3-31

- 11 feet: total width for shared bike lane and parking area, no curb face
- 12 feet: shared bike lane and parking area with a curb face

Bicycle lane stripe width:

- 6-inch: solid white line separating bike lane from motor vehicle lane (possibly increased to 8-inches where emphasis is needed)
 - 4-inch: optional solid white line separating the bike lane from parking spaces
- *Truck Movements in the Area:* In the future study of the Highway 72 corridor as recommended by the I-269 Small Area Plan, prohibition of truck routes should be considered, but only after the Town has sought feedback from the companies in the vicinity. Consider limiting trucks east of Highway 72 and west of Mt. Pleasant Road.
 - **Railroads:** Part of the charm and historical significance that makes Downtown Collierville such a unique place, is its long railroad history. The rail line that bisects the Town of Collierville is part of the Norfolk and Western Railway today known as Norfolk Southern. Norfolk Southern is the product of more than 200 railroad mergers spanning a century and a half. Beginning in 1838 with a nine-mile line from Petersburg, Va., to City Point, Va., NW grew to a system serving 14 states and a province of Canada on more than 7,000 miles of rail.

Although volumes vary with the economy, in 2010, as many as 35-45 trains traversed through the Town on a given day, carrying a vast variety of materials and commerce (Figure 3-31). Rail provides a safe and economic way to provide logistic support to Memphis and the mid-south.

The Memphis MPO (Metropolitan Planning Organization) conducted the Poplar Southern/Corridor Study in 2009 and 2010 in an attempt to enhance mobility and address safety concerns along the Norfolk-Southern Railroad by identifying and analyzing the major north/south roads within the study limits and then determining the best locations for potential improvements. This study also analyzed the possible impact these improvements may have on the surrounding communities.

Many factors go into the decision of which crossings would be appropriate as grade-separated, including the existing grades and utilities, funding, land uses and impacts to adjacent properties. One of the findings publicized stresses that land uses adjacent to railroad crossings should have a land use of mixed-use with a residential and retail component. These types of land uses are proposed in Chapter 5 of this Plan. Regional passenger rail may one day become viable for our region, with Downtown Collierville a significant stop along that corridor.

SEWER

Sewer for the study area is provided by the Town, and some of the lines are aging and need replacement or upgrading. Private developers will be responsible for upgrades to sewer lines to meet the needs of their projects.

If the funding initiatives were to occur as described in Chapter 6 (e.g. Tax Increment Financing or TIF), then sewer line improvements could be needed. It would be practical for such improvements to occur with projects such as new roads, road widening, or greenbelt extensions (assuming the funding structure allows). Without such funding, such targeted improvements could not be possible. The Town main-

tains a computerized sewer model, and the build-out projections shown in Appendix A-3, which are based on the land use policies of Chapter 5, should be tested through this model. The results of such modeling were not completed when this plan was adopted in 2010; however, preliminary estimates show that the flows are approximately 200,000 gallons per day (GPD) over the Town's current build-out estimates for the area (about 23-24% over), based on Appendix A-3's aggressive estimation of 1,045,364 GPD at build-out. This overage is due to planning for approximately seven buildings that would be four stories and twelve buildings that would be three stories at build-out, two of which are hotels. It is unlikely that all of these buildings would be built due to issues related to the acquisition of property, the need to maintain compatible scale with the surrounding buildings, and other considerations (parking, traffic impact, etc). Should the Town see such intensities Downtown, the sewer line adequacy should be closely monitored.

WATER

Water for the study area is provided by the Town, and many of the lines are aging and need replacement or upgrading. Private developers will be responsible for upgrades to water lines to meet the needs of their projects. If the new funding initiatives were to occur as described in Chapter 6, such as through Tax Increment Financing (TIF), water line improvements could be needed and practical with projects such as new roads, road widening, or greenbelt extensions, the Town will make (assuming the funding structure allows for this). Without such funding, such targeted improvements could not be possible.

The Town maintains a computerized water model, and the build-out projections shown in Appendix A-3, which are based on the land use

policies of Chapter 5, should be tested through this model. Although the results of such modeling were not completed when this plan was adopted in 2010, it is anticipated that the water needs of the area can be reasonably accommodated with the aforementioned approach.

NATURAL GAS AND ELECTRICITY:

Natural gas and electric service will be provided by Memphis Light, Gas, and Water (MLG&W). The Town will work with MLG&W to identify locations that meet system requirements based on build-out scenarios for Downtown. The timing will be coordinated with each developer to provide natural gas and electricity to their development. The visibility of any substations needed in the study area should be minimized from public rights-of-way and from existing residential areas. There may be a need for additional electrical substations in the area to meet the needs of the projected buildout for the area if the planned substations near the I-269 Small Area Plan study limits cannot accommodate the growth. The Town will work with MLG&W to identify locations that meet the system requirements and minimize the aesthetic impacts on the area. Typically, substations require approximately three acres each. Furthermore, to implement the streetscapes described in Chapters 3, 5, and 6, and minimize the aesthetic impact on the area, underground utilities (where practical) or relocating lines to less-visible locations, such as along rear lot lines or internal to blocks, should be pursued.

STORMWATER

Most of Downtown is served by a system of ditches and streams, with some concrete or stone-lined ditches constructed as WPA projects in the 1930's. Few of these commercial sites or residential neighborhoods Downtown have on-site detention structures. As with most developed areas, communities change over time.

New development has brought more impervious surfaces and the aging of tree canopies has restricted the growth of grass, which will added to surface changes. Because of this, some areas experience storm water volumes in excess of what can be accommodated by the existing infrastructure, consequently causing many erosive and potentially damaging flooding problems. In recent years (2005, 2009, 2010 well documented rain events), the existing stormwater infrastructure in Downtown has begun to show its age, and proven in some places to be undersized to accommodate the modern growth experienced over the past decades, as well as pressure from the high-rainfall during extreme storm events.

This is a concern not only for existing uses, but for the ability to accommodate the impervious surfaces and increased runoffs created by the build-out scenarios (see Appendix A-3). Because of this, Chapter 6 advocates comprehensive modeling of the four drainage basins downtown through the Town's modeling software as a "Tier 1 Project". This modeling and identification of short and long-term CIP projects to improved stormwater functions in these basins is an imperative first step for Downtown Development that should occur before the intensity of development recommended by Chapter 5 and as estimated in Appendix A-3 can occur. There is believed to be a direct correlation between the east/west greenbelt and long-term solutions to storm water problems Downtown, and the recommended modeling will identify the best area for improved conveyances and regional retention or detention. Because of this, for efficient use of scarce funding resources, CIP projects should try to address as many public needs as possible, such as the build-out open space network (see Figure 3-10) or the recommended block pattern (see Figure 3-20). The Town should explore various funding sources

for improvements to the stormwater infrastructure, such as changes to the stormwater utility fee structure, grants, and possibly Tax Increment Financing (TIF) (see also Chapter 6).

SCHOOLS

Public school services are provided by Shelby County Schools (SCS), and the study area currently contains Collierville Middle School. SCS has indicated a desire to replace this aging facility, and the Steering Committee recommends that the Collierville Middle School remain in Downtown Collierville (see also Special Area 1 recommendations in Chapter 5) as a walkable neighborhood school and an attractor for Downtown (see Destinations Initiative in Chapter 6). Schools are an institution that can reinforce a sense of community, and the presence of SCS Downtown directly relates to the vision for Downtown as a living and vibrant neighborhood. The Collierville Middle School campus contains a building built in 1905 that was the Collierville High School. This structure should be preserved and adaptively reused as either:

- continued use as a Middle School, or
- other type of civic or institutional building is encouraged (see the Destinations Initiative and Adaptive Reuse Initiative in Chapter 6).

Should the Middle School relocate to a new site within Downtown, SCS has indicated that the ideal campus size is between 16 and 20 acres. Chapter 5 encourages the design of schools to be contextual and coordinated with overall neighborhood design, and the construction of any new school facilities, whether SCS or other public or private institutions, should take into consideration the design recommendations of Chapter 5 to the maximum extent practicable. Infrastructure, especially road improvements related to traffic impacts and movements, should be studied in detail if the middle school

is to relocate to a new site within the study area.

POLICE

Substantial renovations to the Police Department and Town court facilities completed in 2010 at its downtown location in Special Area 1 (see Chapter 5) have been designed with future growth and centralization in mind; however, the demands on the Police Department due to increased growth will need to be monitored to ensure adequate service levels upon ultimate build-out of the Town. It is anticipated that Downtown will continue to be served by the Town's patrol zone concept, and each new development would need to be analyzed for its impact on shift and patrol needs. In the drafting of this Plan, the Collierville Police Department provided the following recommendations:

- The Town should model traffic impacts when considering the new rooftops advocated by Chapters 5 and 6, and make sure that the road infrastructure can accommodate the new growth.
- Extension of South Rowlett to Quinn Road will be important to providing efficient vehicle movements Downtown.
- The width of existing roads, such as Mill Street, should be improved to handle new volumes created by the build-out projections.
- Bike lanes, particularly a standardized design and width across the study area are needed.
- Collierville-Arlington and Poplar intersection improvements would improve traffic flow and safety.
- Connecting the Winchester Road extension to the recommended Keough Extension at Hwy 72 may provide much-needed relief from traffic congestion on Byhalia Road, and this should be modeled by the Town.
- On greenbelts, consider mile markers as means of identification and wayfinding for emergency response.

FIRE

With historic Firehouse #1 in place on Main Street, and with an improved road network (see Figure 3-20), based on the Town's March 2002 Fire Station Location and Resource Allocation Study, it is not currently anticipated that a new fire station will be needed in Downtown. The demands on the Fire Department due to increased growth in the study area should be closely monitored.

Concerning the possibility of buildings taller than 30 feet in Downtown, stringent construction codes will allow for such if the building/site is designed properly. To achieve building heights taller than 30 feet Downtown, Class III standpipe systems will have to be installed throughout buildings where the floor level of the highest story is located more than 30 feet above the lowest level of the fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet below the highest level of fire department vehicle access. Any building or structure exceeding three stories in height will need to have the Fire Department Connection (FDC) located a distance away from the structure or building at least half the height of the structure but in no case shall the distance be less than 40 feet.

Regarding parking garages, the code allows for standpipes in open parking garages where the highest floor is located not more than 150 feet above the lowest level of fire department vehicle access. Since the maximum height anticipated being 3 stories, with a handful of four story buildings possible, building heights should come nowhere close to this range. Fire-flow calculation area for open parking garages will be determined by the area of the largest floor. Commercial enclosed parking garages will require automatic sprinkler systems and must be provided throughout buildings used for storage

of commercial trucks or buses where the fire area exceeds 5,000 square feet.

Fire lanes shall be provided for all commercial and industrial buildings or those that are set back more than 150 feet from a public road or exceed 30 feet in height and are set back more than 50 feet from a public road. However, nothing shall prevent modification to this requirement by the Fire Chief or his or her designee to impose fire lane requirements for special use facilities such as care homes, multi-family dwellings, hazardous operation or any area that does not provide for immediate or adequate emergency access for emergency apparatus for purposes of rescue and extinguishment.

PARKING AS INFRASTRUCTURE

The availability of free/low-cost, accessible parking was a documented concern of property owners and small businesspeople during previous efforts to study Downtown, and this was heard in 2009 and 2010 as this Plan was developed.

There are special issues associated with parking in Downtown Collierville, where land is valuable and relatively scarce and large numbers of people converge to work, shop, and visit. The lack of parking is sometimes cited as a reason for stagnant or declining vitality of downtown business districts in general. Parking is not an end in itself but is intended to serve the needs of the various users of downtowns, including workers, shoppers, tourists, and others.

Providing adequate parking can be challenging in downtowns of all sizes, and Collierville is no exception. Some smaller communities, especially tourist communities, have developed systems of parking lots and shuttles to reduce the demand for parking in the town center. In most cities, there is likely to always be a need for a

certain amount of parking, whether it be on-street or off-street.

Some downtowns, like much of the Square Area, predate the widespread use of the automobiles and were not laid out with parking in mind. At its heart, Downtown Collierville is typically compact, which also means that there is not ample space for parking, especially on the same lot as the building. Because of this, parking in Special Area 1, 2, and 3 of Downtown Collierville, with the exception of dwelling units that can provide parking on their own lot and/or in garages, parking should be treated like other forms of infrastructure, such as regional storm water detention, and provided via on-street parking, off-street surface parking, or structure parking garages for the common use by downtown patrons and businesses.

Parking is not intrinsically an aesthetic asset for maintaining or improving Downtown Collierville's character, and extensive parking lots would be particularly jarring in its historic downtown environment and could disrupt streetscapes and walkability. For downtown businesses to successfully compete with suburban shopping centers, a workable balance of parking, bicycle and pedestrian facilities, and other access options is essential. To accomplish this, the follows steps are recommended:

- **First:** Targeted revisions to Town Zoning requirements to meet accepted standards for shared parking and downtown uses.
- **Second:** The Town should conduct a parking study for the Square area, and model existing, mid-term, and long-term parking supply and demand. In this study, the Town should identify locations for new surface and/or structured parking lots, either adjacent to the Town Square, or in a strategically accessible location, based on the results of the parking study.

- **Third:** Funding sources for the new surface and/or structured parking lots need to be identified. With the funding initiatives described in Chapter 6, such as Tax Increment Financing (TIF), the ability of the Town to create such parking lots/structures will be greatly increased.
- **Fourth:** New surface and/or structured parking lots would be added to the CIP and incrementally constructed, as funds become available. Unless funding sources are clearly identified for structured parking, new surface lots and additional on-street parking may be the realistic options in the decades to come for increasing the supply of parking space.

Off-street parking between the building and street, whether at street corners or mid-block, is highly discouraged because it disrupts visual enclosure, is contrary to the downtown streetscapes recommended by Chapter 5, and inhibits the enhanced walkability efforts for Downtown described in this Chapter. Parking lots (public or private) at street corners are highly discouraged for this reason; however, it is acknowledged that they may occur to provide relief for increasing parking demand downtown. If used, it should be recognized that they are not the ideal, they should be temporary in nature, and be designed to allow for future infill development and completion of the urban fabric for downtown. In all cases, parking lots (public or private) in Downtown Collierville should be well illuminated, screened from public streets through walls, fences, or vegetation, and buffered from any adjacent residential uses.