



# MEMPHIS/SHELBY COUNTY: UNIFIED DEVELOPMENT CODE *CRITIQUE OF EXISTING REGULATIONS*

RECOMMENDATIONS TO PROMOTE REINVESTMENT AND REVITALIZATION  
OF THE INNER URBAN CORE WHILE PROVIDING FOR ORDERLY  
DEVELOPMENT IN THE SUBURBAN AND  
EXURBAN AREAS OF THE  
COUNTY

# Memphis/Shelby County Unified Development Code

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## Introduction

The City of Memphis and Shelby County have retained a nationally recognized team of consultants to assist in the preparation of a unified development code to regulate land development in the City of Memphis and unincorporated portions of Shelby County.

### What a Unified Development Code Is...

It is admirable that Memphis and Shelby County has recognized the benefits of consolidating the zoning and subdivision ordinances, along with development-related regulations found elsewhere in the City or County code, into one consolidated document. A state-of-the-art unified development code is more than just a simple compilation of existing development regulations. Rather a unified development code should:

- Incorporate multiple, sometimes conflicting ordinances into one cohesive document
- Contain a uniform set of consistent definitions
- Integrate procedures that detail the sequence of all development approvals
- Include a coordinated system for review and enforcement

The process of consolidating the existing development regulations will reveal inconsistencies and duplication that can be eliminated. The unified development code will be a total regulatory package that is greater than the sum of its parts.

### What a Unified Development Code is Not!

This report will describe what a unified development code can regulate. However, it is equally important to recognize what a unified development code is not.

- It is not property tax policy. It will not raise the property tax rate.
- It is not a capital improvement program. It does not establish policy for the extension of roads, water, sewer, or drainage infrastructure.
- It is not a building code. A building code regulates how structures are constructed to ensure structural soundness and safety.
- It does not establish provisions for community services such as fire, police, or waste removal services.

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## Purpose of this Report

This report identifies opportunities for improving regulations that primarily address zoning and subdivision. This document will help the City/County and consultant reach agreement on regulatory approaches before beginning the drafting process. In a sense, this report will serve as the “road map” for regulatory changes. Major changes in direction in the midst of the drafting process result in wasted time, effort, and overall frustration. On the other hand, having clear policy direction will enable the drafting process to occur efficiently and result in a better finished product.

Be assured that recommendations offered in this report and throughout the drafting process are proven solutions from across the country and the state of Tennessee. In other words, crafting of the unified development code will not serve as a means of experimentation or for testing out unproven or risky regulatory approaches. However, all parties involved in the process should recognize that there is always a learning curve when it comes to administering new regulations. Over time, procedures and standards that at first seemed unfamiliar or complicated often prove to be useful and easy to administer.

## Basis of Recommendations

The technical assessment of Memphis and Shelby County’s zoning and subdivision regulations is based on:

- Independent consultant analysis of the zoning and subdivision ordinances
- Driving tours of Memphis and the surrounding County
- Stakeholder comments
- City and County staff comments
- Public official comments

Independent analysis allows the consultant to recommend “best practices” to address inadequacies in the current regulations, based on experience elsewhere in the country. These best practices represent potential solutions that may or may not necessarily be acceptable in Memphis or Shelby County, but serve as the starting point for discussion of specific problems. The input received from the stakeholders, staff, and local officials offer an invaluable local perspective on ordinance deficiencies and development issues.

The approach used in preparing this report requires the consultant to read existing provisions very literally. In other words, the technical review focuses on what the existing ordinances actually “say” and not on how they have been interpreted or administered over time. While this approach can result in occasional misinterpretations of regulatory intent or established local traditions, such miscues provide valuable insight into provisions in need of clarification.

Finally, it is important to note that inconsistencies or weaknesses in the current regulations are in no way intended to reflect poorly on the drafters or administrators of the current ordinances. The existing ordinance has not been comprehensively updated for many years, so it is to be expected that piecemeal amendments prepared by various people have resulted in both substantive and stylistic inconsistencies.

## Project Goals

Based on information presented in the initial Memphis and Shelby County Request for Qualifications, key goals of this effort are to create a unified development code that:

- Creates walkable communities
- Breaks down barriers for redevelopment in the inner city
- Encourages compact development on the urban fringe
- Incorporates a new, workable mixed use zoning districts that blends commercial and residential uses
- Improves the appearance and accessibility of neighborhood commercial districts
- Provides new roadway design standards that offers reduced street widths in neighborhoods and with improved connectivity
- Encourages street interconnection
- Eliminates the two acre subdivisions on septic systems, which disguise the need for urban services
- Requires a master plan for all commercial planned developments and subdivisions
- Incorporates subdivision standards that are reflective of the entire community, not just the suburban areas
- Preserves open space and natural areas
- Strengthens the urban fabric
- Allows for new and unique employment arrangements
- Provides an avenue for innovative design

## A Call for Change

The Memphis and Shelby County Zoning Ordinance was originally adopted in 1980 and the Subdivision Regulations were adopted in 1986. Over the years, these two documents have become outdated, fragmented and very difficult to understand or even use. The subdivision ordinance has only been amended a couple of times since its adoption. The zoning ordinance has been amended on numerous occasions. Both entities, the City and the County, keep separate versions of each ordinance. The County’s on-line version of the zoning ordinance appears to have been kept relatively up-to-date. The City, however, has not been as diligent, codifying amendments sporadically up to January 2002 and not at all since that time.

The existing regulations also reflect a previous desire to “suburbanize” the City and County with larger lot sizes than existing lots, and development standards that reflect an auto-dominated environment. While the unified development code will build upon the regulations in place, it will also reflect the challenges of developing Memphis/Shelby County in the 21st Century. We hope to address the unique challenge of offering regulations which enable both the redevelopment of inner-City Memphis and encourage healthy, new development on the urban fringe.

## Next Steps

In companion to this document, the consultant will develop an organizational outline and format for the proposed unified development code. The critique report and outline will then be incorporated into an educational and decision-making hearing presented to the City Council and Board of County Commissioners, respectively. Following review, comment, and refinement, the consultant team will begin drafting the unified development code.

# Building Communities Not Subdivisions

Many of Memphis/Shelby County's new suburban subdivisions are models of efficiency from an engineering perspective – maximizing the number of lots created from the least amount of land. However, these subdivisions often do as little as is required to protect the natural environment of the site, to encourage pedestrian opportunities, and to provide parks and open space for future residents. These “cookie-cutter” subdivisions are partially the result of the way the City/County regulates the creation of new lots under their zoning ordinance. Like a majority of communities in the country, the Memphis/Shelby County residential districts specify a minimum lot area and lot width, which yield a minimum lot depth through simple division. This unfortunately has a tendency to lead to “cookie-cutter” subdivisions as developers attempt to maximize profits and land use efficiency. The best way to achieve maximum density under the current regulations is to design a pattern of lots with little consideration for the natural features of the site.



## Key Recommendations

### ❑ Allow Multiple Patterns of Subdivision

- Create standards that continue to allow conventional subdivisions, while providing an option for innovative cluster and conservation subdivisions.

### ❑ Get Streets Right the First Time

- Set street standards to ensure improved layout, reduced design speeds, and pedestrian-friendly features (where appropriate) such as on-street parking, street trees and sidewalks.

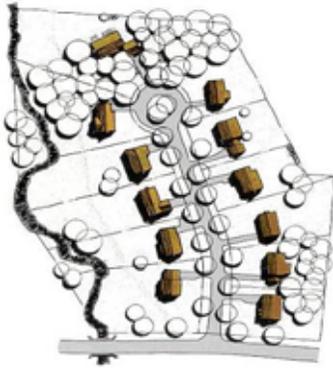
### ❑ Zone for a Choice in Housing

- Allow a wider range of housing types, and encourage a variety of housing in each subdivision.

### ❑ Look at Density-Based Design

- Establish a system for evaluating design features of new development.
- Trade additional density for elements of public value such as alternative transit options, better building form, additional open space and incorporation of compatible nonresidential uses.





R-E District  
*Conventional Subdivision*  
 Minimum Lot Size: 22,000 sf  
 Density: 2 units/acre  
 Common Open Space: 0%



R-E District  
*Cluster Subdivision*  
 Density: 2 units/acre  
 Common Open Space: 40%



R-E District  
*Conservation Subdivision*  
 Density: 2 units/acre  
 Common Open Space: 60%

## Make More Efficient Use of Land

The use of conventional lot standards in suburban areas on irregularly-shaped parcels, small sites, or properties with natural resources results in reduced development efficiency and excessive requests for variances. Any degree of variation on a site is translated into lost efficiency—which generally means fewer lots and lengthened streets and utilities per dwelling unit. All these factors lead to a loss of revenue and increased cost per unit. As an alternative, lot size and width as a determinant of density could be replaced with gross density and an open space ratio. This technique allows for higher levels of efficiency while still achieving certainty and protection for neighboring properties.

## Allow Multiple Patterns of Subdivision

To provide flexibility and certainty in base residential districts, consider alternative residential subdivision design types such as cluster and conservation development. Generally, in a conventional subdivision, only one housing type is permitted. We recommend an approach that permits mixing of housing types (see Zone for a Choice in Housing on page 9). Where a conventional subdivision might require open space only as needed to accommodate stormwater management facilities on-site (5 to 10 percent of the site), a cluster development would allow a mix of housing types and require 20 to 40 percent open space and a conservation development would require 60 percent open space. A cluster or conservation subdivision could be permitted by-right in certain residential districts that would allow reduced lot sizes and widths in trade for common open space. This provision could be offered with increased density as an incentive if the City/County so desired (for further information see discussion on density-based design on page 10). Certain requirements are also necessary to protect open space in perpetuity.

## Consider Lot Averaging

Lot averaging permits modest flexibility in lot sizes without requiring the more complex review process typically associated with clustering. Lot averaging is an effective technique where flexibility in lot size may help preserve site resources.

Lot averaging permits one or more lots in the subdivision to be undersized, provided that the average lot size for all lots in the development is no less than the minimum lot size for the zoning district. Lot averaging is a technique that has been frequently overlooked as communities adopt more sophisticated cluster or open space development regulations. Allowing lot sizes to be averaged over an entire site offers flexibility to adjust lot sizes and still meet resource protection goals

## Get Streets Right the First Time

Almost every parcel of land abuts one or more streets. Streets are therefore perhaps the most prevalent of public spaces. Narrower residential streets that are more pedestrian-oriented appeal both to developers and homebuyers alike. Planting of street trees helps recreate the canopy streets found in older neighborhoods. It is important to consider that there are alternative street design standards in use across the country that differ from the street design standards used in many of Memphis and Shelby County's suburban subdivisions. Streets designed correctly eliminate the future need for expensive traffic calming devices.

## Basic Street Layout

In Memphis/Shelby County, standard suburban street design is characterized by a hierarchical, tree-like pattern that proceeds from cul-de-sacs and local streets to collectors to wide arterials. The use of streets in residential areas for inter-community and through-traffic is minimized by limiting access—constructing few perimeter intersections, reducing interconnections between streets, and by using an excessive number of cul-de-sacs in the development. Alternate street design standards should be developed that allow for an interconnected network of streets and sidewalks to disperse vehicular trips and to make human-powered modes of travel (such as walking and biking) practical, safe, and attractive for short trips. By reducing dead ends and designing more streets to be interconnected, neighborhoods provide multiple route choices for trips. By using narrow streets and constructing more of them, more, yet smaller, intersections are created. In concept, therefore, overall network capacity is increased, traffic is dispersed, and congestion is reduced. A series of reduced width street cross-sections with improved pedestrian features should be adopted for use in new subdivisions.



*Alleys give design flexibility by permitting narrow lots with fewer driveways on local streets.*



*Narrower residential streets that are more pedestrian-oriented appeal both to developers and homebuyers alike.*

### **Using Alleys**

Generally, planners discourage alleys in standard suburban residential areas. In a typical suburban development, an alley behind homes serves no function because garages and their driveways are accessed from the street. However, alleys give neighborhood planners design flexibility by permitting narrow lots with fewer driveways on local streets. Fewer driveways also mean more affordable, smaller home sites and more space for on-street parking, especially if the home-owners use the alleys for their own vehicular access. Alleys provide space for underground or unattractive overhead utilities while freeing streets for trees and other plantings. Alleys also can be used for trash collection and emergency vehicle access. Alleys eliminate the need for backing up onto the street, which would otherwise occur and is inherently unsafe. Specifications for alleys should be developed so that they can become part of the design of new subdivisions, where appropriate.

### **Street Design Speed**

In Memphis and the surrounding County, design speeds for suburban neighborhood streets range from 25 to 45 mph. Often, the signing of wide streets for 25 to 45 mph simply results in more speed violations. It is not unusual for neighbors to complain of speeding traffic on neighborhood streets and to request actions to slow the traffic. Stop signs, speed bumps, “Children at Play” signs, and the like may have to be used to slow vehicles from the original design speed of the street. Alternate design standards should be developed that attempt to control vehicle speeds through careful design of streets and the streetscape. Street design speeds should be more in the range of 15 to 20 mph. The goal is to create more “active” streetscapes, involving more of the factors that slow drivers. These include parked cars; narrow street width; and eye contact between pedestrians, bicyclists, and drivers. The overall impact of these elements of design is enhancement of the mutual awareness of drivers and pedestrians, drivers are more likely to expect pedestrians and avoid them in emergency situations. New subdivision streets should reflect the appropriate design speed required for the number of trips anticipated. Lower street speeds are more desirable.

### **Street Width**

In Memphis/Shelby County, suburban neighborhood street types, widths, and design speeds are based on projected vehicle volumes and vehicle types. The focus is on the automobile, often to the exclusion of pedestrians. Typical paved widths for local streets range from 30 feet for a minor local to 36 feet for a major local. In many suburban subdivisions, the minimum street width must accommodate cars parked on both sides, an emergency vehicle with its outriggers, and one open travel lane. These “possible uses” of the street, instead of “reasonably expected uses,” lead to a worst-case design scenario, an excessively-wide street, and probable higher travel speeds. Alternate street widths should be developed that are determined using the projected volumes and types of all the users of the street, including pedestrians. A basic residential street should have two lanes, one for each direction, and space for parking on at least one side. The resulting minimum width may be as narrow as 28 feet. Design considerations, however, may preclude parking in some areas, perhaps to provide space for bicyclists. Memphis/Shelby County currently allows narrower rights-of-way, but only with additional building setback. To encourage narrower streets, consideration should be given to removing the additional setback requirement. A series of acceptable street widths for rural, suburban areas and urban areas should be established.

### ***Curb Radii***

Curb radii in Memphis/Shelby County suburban neighborhoods should match expected vehicle type, turning radius, and speed to help ensure in-lane turning movements. In order to accommodate the right-hand turning movements of larger vehicles, no matter what their



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*Many of Memphis/Shelby County's new suburban subdivisions are models of efficiency from an engineering perspective – maximizing the number of lots created from the least amount of land.*

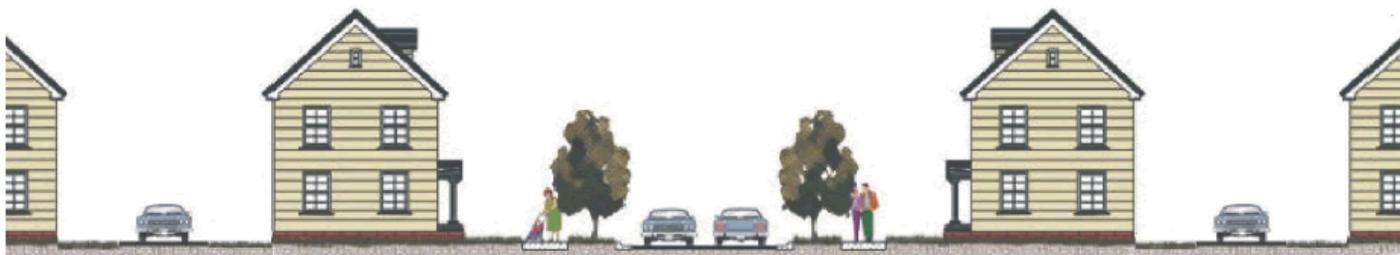
frequency of street use, suburban streets typically have minimum intersection curb radii of 30 to 40 feet. What such large curb radii do for smaller vehicles is to encourage rolling stops and higher turning speeds. These conditions increase the hazards for crossing pedestrians. The large curb radii effectively increase the width of the street, the pedestrian crossing time, and the exposure of pedestrians to vehicles. Curb radii in new subdivisions should be more dependent on the types of vehicles that most often use the street, not the largest expected vehicle, and be more in the range of 10 to 15 feet. The smaller the curb radii, the less exposure a crossing pedestrian has. Furthermore, an additional parking space or two may extend toward the intersection with small curb radii, or if parking is prohibited, additional room for turning vehicles is created. Reduced curb radii should be available in new subdivisions with a pedestrian orientation.

### ***Street Trees***

Trees and landscaping form an essential element of the streetscape. The relationship of vertical height to horizontal width of the street is an important part of creating a properly configured space or “outdoor room.” While providing shade and lowering street and sidewalk temperatures, street trees create a sense of closure in a vertical plane. The landscape and screening regulations control the size and location of trees and other plantings. Memphis/Shelby County currently places trees outside of the sidewalk along major roads to keep them away from underground utilities and not hinder visibility at intersections. There is no street tree requirement for roads other than major roads. Trees should be required along all streets. Memphis/Shelby County should investigate options for alternative utility placements and alternative street tree species. For streets with lower design speeds and space for parked cars, trees should be located closer to the street.

### ***Sidewalk Width***

In Memphis/Shelby County, suburban neighborhood sidewalks are a minimum of four feet in width. A more appropriate minimum sidewalk width is five feet because this distance allows two pedestrians to comfortably walk side-by-side. Where sidewalks are attached directly to the curb along major roadways, additional width may be important to the feeling of pedestrian safety. Sidewalk widths should be established in conjunction with the street cross-sections discussed above.



*A series of acceptable alternative street type standards for rural, suburban areas and urban areas should be established.*

## Building Setbacks

In the residential zoning districts, front yard setbacks range from 20 to 50 feet. To move residential units closer to the street, Memphis/Shelby County should consider providing an option that specifies maximum setbacks (“build-to” lines) instead of minimum setbacks. The goal is to integrate residential and street activity and, for example, to allow the opportunity for passers-by to greet neighbors on their front porches. Furthermore, the walls of nearby buildings help to vertically frame the street, an important functional and aesthetic dimension.

## Parking

The importance of parking for suburban projects cannot be over-emphasized because nearly all trips are by car. On-street parking is a concern for some traffic engineers. The concern is that “dart-out” accidents (where pedestrians, especially children, dart-out from between parked vehicles into the traffic stream) will increase if on-street parking is encouraged. The proponents of on-street parking argue that a row of parked vehicles enhances pedestrian activity by creating a buffer between pedestrians and moving traffic, that the overall street design slows moving traffic so that any accidents that do occur are less severe, and that the active streetscape makes drivers more alert to pedestrians. There is also some evidence that children in conventional neighborhoods are susceptible to driveway backing accidents. On-street parking, therefore, must be limited to streets where the design fosters low speeds (20 mph or less) for moving traffic.

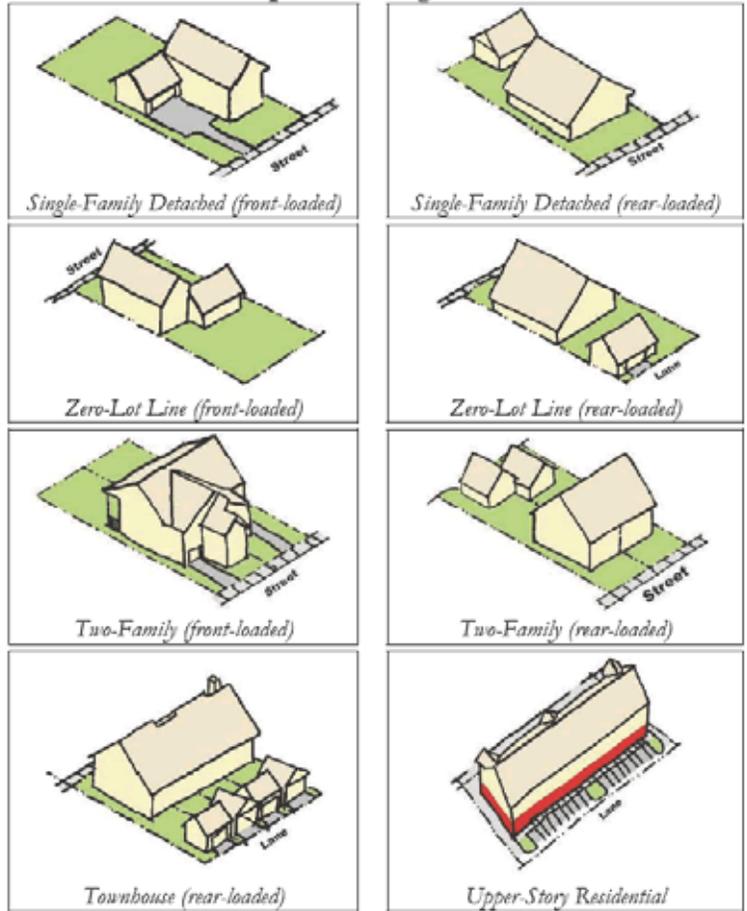
## Zone for a Choice in Housing

In an effort to support affordable and workforce housing choice, we recommend the allowing a wider range of housing types in certain residential districts. A housing palette providing lot and bulk standards for varying dwelling unit types is an important flexibility option that allows a developer to seize the optimum market opportunity at any point in time without going through the rezoning process. Adding semi-attached, zero lot line, two-family, townhouses, upper-story residential and other reduced cost housing types to existing single-family districts ensures life-cycle housing for all. The addition of accessory dwelling units (“granny flats”) is an option for smaller units within existing neighborhoods. While some of these housing types are not expressly prohibited, they should be defined and standards put in place to ensure citizens in the community are offered a choice in housing. In suburban areas, perimeter buffers and increased open space standards can be used to alleviate concerns of adjacent property owners where housing types change.

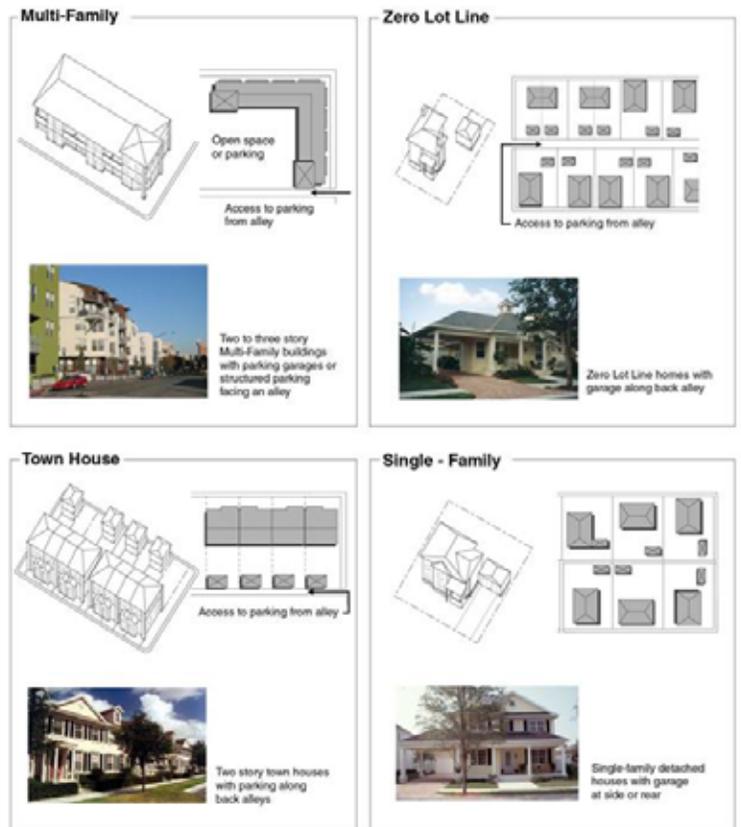
## Life Cycle Housing

Life cycle housing is defined as the opportunity to provide a person’s housing needs for their entire lifetime within a single neighborhood or area. The concept implies that mixed neighborhoods, containing starter homes, larger homes for families, apartments, condominiums or townhouses for the retiree population, and assisted living facilities for the elderly, should all be located in relatively close proximity so that one’s entire lifetime could be spent within a single neighborhood. Current housing patterns move the population around in a way that historic patterns of development never required. Use of the housing palette, along with careful thought about permitted housing types in each district, will allow future development of communities serving all of the segments of our lifestyles.

### Sample Housing Palette



Use of a housing palette, along with careful thought about permitted housing types in each district, will allow future development of communities serving all lifestyles segments.



**Courtyards**

Another approach to ensuring that smaller housing can be accommodated in areas with existing large-scale homes is to require townhouses or apartments that face an internal courtyard. All entryways and balconies face inwards, increasing the level of privacy for surrounding development. Parking areas can also be incorporated in the courtyard, reducing impacts that may affect surrounding development.

**The Big House**

One approach to ensuring that smaller housing can be accommodated in areas with existing large-scale homes is to construct buildings of similar size that incorporate multiple units (as condominium or apartment units). Successful projects throughout the country illustrate the appeal of this approach where the surrounding context calls for larger buildings.

**Accessory Units**

The zoning ordinance allows accessory dwelling units in most of the nonresidential districts; however, accessory units are not permitted in any of the residential districts. Throughout the country, accessory dwelling units are becoming a common approach to providing for life-cycle and affordable housing. Accessory units often serve as an opportunity for owners of larger homes to acquire income for upkeep of the principal structure. They also provide smaller, affordable housing units for elderly residents and young adults. We recommend allowing accessory

units in certain residential districts provided they meet specific requirements. Standards for accessory dwelling units often require owner-occupancy of one of the units, and a size limit for the accessory dwelling of no more than 25 percent of the floor area of the principal dwelling. Accessory units can be attached or detached from the principal structure. Detached units are often required to be a certain distance from the primary unit and must meet all setback requirements. Accessory units should always be architecturally compatible with the primary residence and on-site parking must be provided to serve additional residences.

**Look at Density-Based Design**

As a way to encourage better looking subdivisions, Memphis/Shelby County should consider allowing increased densities in certain residential districts by right provided certain enhancements are incorporated into the design of the development. Poorly designed density increases public frustration. Whether it is through more efficient use of the land, the use of narrow streets, improved compatibility standards, increased transit options, better building form or improved subdivision design, raising a community’s tolerance for higher density development can be achieved. The extent of any density bonus should be fully discussed with decision-making bodies in both the City and County. In some com-

munities, the intended densities set for the base districts cannot be met due to environmental and other constraints. Allowing developers to simply achieve the maximum density of the base district is often sufficient enough incentive.

**Create Better Places to Live**

Opens spaces, parks, plazas, playgrounds and clubhouses enhance the community experience. They provide gathering spaces and focal points for the community. Open space and recreational areas can be used as a factor in determining the appropriate level of density – with small lots, narrower streets and higher densities conditioned on the provision of the appropriate allocation of open space and recreational areas. Alternative residential design types such as cluster and conservation subdivisions could be allowed with increased density, provided that additional open space and recreational areas are also developed. Such space should be usable, both in its size/design and location within the development, to serve as an amenity for the proposed development.

Other neighborhood amenities that enhance the overall quality of life for residents could be required for developments looking for increased density options. Some possible amenities to include:

- Picnic areas
- Paths and trails
- Play areas
- Ball fields, basketball courts
- Health clubs
- Meeting/activity rooms
- Swimming pools
- Squares
- Wider sidewalks with narrower streets
- Street trees
- Natural stormwater retention
- Entrance features



*This “Big House” project in Tampa, Florida where multifamily buildings look like large single-family homes.*



*Courtyards can help ensure smaller housing can be accommodated in areas with existing large-scale homes.*



*Neighborhood amenities, such as natural stormwater retention, that enhance the overall quality of life for residents should be required in new residential developments.*

### **Connect People and Places**

Alternative transportation options give people the freedom to walk and take a bus, train or bicycle for part or all of their daily travel, as they commute to work or school, run errands or pursue extracurricular activities. Density creates opportunities for the increased ridership needed to make bus and rail transit a viable and competitive transportation option. Higher density development expands transportation choices by making it easier to use non-automobile transportation—walking, bicycling, bus and rail transit—by locating activities closer together. At densities of eight units per acre and higher, neighborhoods begin to support bus and rail transit by increasing the number of transit users within walking and bicycling distance of a bus or rail station. Increased density options could be offered in exchange for alternative transit options being made available to subdivision residents.

### **Mix More Uses**

Mixing uses helps create a community in place of just a sea of houses. Mixing of uses allows more choices and improves quality of life by letting people decide if they want to live near their work, walk to the store, or bike to the local library with their kids. Mixed use comes in many forms. It may be a corner store in the neighborhood. It may be a neighborhood work center for people who sometimes telecommute during the week. Mixing uses also includes live-work units or civic buildings such as recreation centers, bandstands or a library, or to ensuring an elementary school is within a 15-minute walk of each house. A density bonus could be offered in exchange for incorporating certain compatible nonresidential uses into a subdivision.

### **Require Better Building Form**

Certain characteristics help create inviting places to live. A well-designed streetscape makes people feel comfortable and invites residents to walk or bike to destinations. Part of this relationship is formed between the building height and street width; certain relationships make people feel comfortable by creating “outdoor rooms.” In such places, there is a pleasant sense of enclosure, supported by orienting buildings parallel to the street, and placing them within a short distance of the sidewalk. These buildings should also have some architectural detail on the façades, and no blank walls facing the street. Local architectural styles help incorporate new development into an existing community. Porches, balconies and other additions add to the outdoor room to create a sense of community and a welcoming place to be. Additional density could be granted for the inclusion of provisions that enhance the look and feel of buildings from the street.

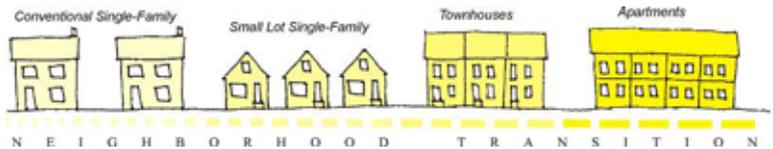
### **Ensure Neighborhood Compatibility**

Developments with smaller lots, a variety of housing types and increased densities should be compatible with existing established subdivisions. For new smaller projects where modest transitions are expected to occur, we recommend that development standards on the outer lots of the subdivision match the development standards of abutting lots of the adjacent subdivision. Lots on the edge of the new subdivision would be required to have the same house type, lot size, and setbacks as those of adjacent subdivision.

A more sophisticated approach for large-scale, master planned communities adjacent to conventional single-family requires the blending of standards from within the development to the outer edge. The more intense housing types (townhouses, multi-family) and higher densities with smaller lots and reduced setbacks should be located furthest from existing development. As the subdivision transitions outward, the standards gradually change until they are compatible with adjacent development. The edge of the subdivision should contain the least intense housing types (conventional single-family, small lot single-family), lower densities with larger lots and increased setbacks.

Ensuring compatibility of mixed use projects with existing single use development requires blending uses from within the development towards the outer edge. The more the intense uses (neighborhood commercial and office) are located nearest to a major roadway, furthest from existing residential, leaving the less intense uses (single-family and townhouses) acting as a buffer to abutting residential development. This approach works best when master planned, larger-scale projects are proposed.

When commercial development is forced to abut residential development, the upper stories of nonresidential buildings should be stepped back along a height plane. Height limits increase along the height plane as upper stories are stepped from the street or perimeter of the building. This approach works best for constrained commercial buildings adjacent to existing residential neighborhoods.



# Developing Rules Specific to Older Areas

Throughout the portion of Memphis developed prior to 1955, there are older platted lots and vacant parcels that are too small or oddly-shaped to accommodate redevelopment and associated site improvements under existing regulations. Many properties are located along major corridors where road widening has resulted in shallow lot depths. This shallow lot depth makes it difficult to meet the required parking, landscaping, drainage and access requirements on these sites. Contaminated industrial sites (brownfields) have their own problems associated with clean-up that reach beyond the unified development code. However, underutilized sites (greyfields) such as vacant strip shopping centers provide a real opportunity for new development activity in the City. Finally, vacant residential parcels and dilapidated housing provide an opportunity for site-by-site infill in many neighborhoods.

Infill can be challenging where site constraints make it difficult to meet current development standards. However, one of the key goals of this project is to break down barriers for redevelopment in the inner city, and craft development regulations that are flexible enough to fit both the urban and rural portions of the County. Regulations need to be developed that allow for quality infill development that will upgrade both the function and appearance of “pockets” of vacant or underutilized land.



## Key Recommendations

### ❑ **Make Small Lots Conforming**

- Create and apply a new base or overlay district that allows a smaller minimum lot size and width in order to make the majority of existing lots conform to the new regulations.

### ❑ **Develop Standards that Fit**

- Replace current “greenfield” or suburban standards with urban infill standards for elements such as building placement, parking, drainage, landscaping and access.

### ❑ **Create an Infill Density Bonus**

- Allow bonus residential density in return for the provision of important infill elements such as transit connections and pedestrian improvements.
- Increase residential density along major roadways through a bonus system.

### ❑ **Promote Adaptive Re-Use**

- Modify the approval process to make approving adaptive re-use projects easier.
- For adaptive re-use projects, allow expansion of nonconforming structures, reduce parking where necessary, and allow higher lot coverage.



## **Involve Residents**

Engaging neighborhood residents early in the planning process will help to reduce opposition to infill projects. Educate residents through public workshops or open houses. Invite them to raise concerns about infill development in their neighborhoods. This will help establish what types of development are acceptable in the community. Neighbors are often anxious about traffic, parking, gentrification, and loss of privacy. With community involvement, these concerns can be addressed and resolved. Neighborhood plans should be developed with input from local residents to plan the future for infill development in their community.

There are two possible options for ensuring early input. The first is similar to the approach in Uptown Memphis, where a specific planning study and later detailed standards were developed to control the character of infill development. While this requires substantial staff time to work with neighborhoods, it defines the acceptable level of infill development—in advance of any development proposals.

The second option to consider requires developers to meet with residents of the surrounding area to solicit their input on infill project design before finalizing their development plans. This step would be required at the time of submission of an application for an infill or redevelopment project.

## **Assemble Small Lots**

There are many reasons why infill lots have been skipped over in the development process, but two of the most important reasons are 1) the fractured pattern of land ownership into small lots and multiple owners, and 2) site constraints due to problems with flooding and poor access. The development regulations cannot resolve the problems of land ownership, but they can help resolve issues due to site constraints by providing additional flexibility—and often exemptions—for infill or redevelopment projects.

The City, in partnership with local community members and businesses, should work to assemble small lots into larger parcels to support redevelopment. Where necessary, a redevelopment authority should apply the power of eminent domain to consolidate lots in blighted areas in need of redevelopment.

## **Make Small Lots Conforming**

Many lots in the pre-1955 portion of the City are unbuildable at present without substantial effort due to their size. The smallest base single-family zoning district applied in the City (R-S6) requires a minimum 6,000 square foot lot, and a minimum 50-foot lot width. Many older lots are less than 50 feet in width, and many also do not meet the minimum area requirement. This means that construction of a new single-family house requires a variance through the Board of Adjustment prior to new construction, a

costly and time-consuming process. Memphis/Shelby County has made several efforts to make small single-family lots more buildable. A new residential infill district, the R-S6I District, was adopted that allows average setbacks to be used and places restrictions on structured parking. Also, reductions in lot size and width are allowed for nonconforming lots of record. This provision should be expanded to apply to all small lot residential districts.

The City has several other options for making smaller lots buildable:

- Reduce lot size and width in existing zoning districts
- Apply new zoning district with smaller minimum lot size and width
- Apply new overlay district with smaller minimum lot size and width

These options should be discussed and implemented as soon as possible – perhaps even prior to the adoption of the full unified development code.

## **Develop Standards That Fit**

The current development regulations in Memphis/Shelby County are designed to regulate development on “greenfield” sites (undeveloped raw land on the fringe of the developed area). For example, the existing parking, stormwater, lot area, setback and buffering requirements cannot be accommodated on today’s typical infill parcel or lot. Due to the multitude of variances needed, developers are discouraged from developing on these lots. Under the current regulations, corner lots must meet the front yard requirements on two sides. To aid infill on smaller lots, consider allowing corner lots to meet the side yard setback on the secondary street.

## **Parking**

Parking is the often the “Achilles heel” of infill and redevelopment. The City should reduce parking requirements for infill and redevelopment projects that are mixed use or are close to transit facilities. Alternative parking plans for infill and redevelopment projects that allow modification of strict ratios should be allowed. Don’t place surface parking in front of buildings—locate parking in courtyards, behind buildings or in parking garages. Design compatible public parking garages as mixed use buildings with ground floor retail or residential units. Wherever possible, provide adequate parking to serve both residents and businesses in the neighborhood. In mixed use developments, create pedestrian networks so that visitors can park once and have access to a series of activities without returning to their car. Provide meaningful incentives to encourage structured and shared parking facilities.

**Drainage**

Develop drainage standards for infill and redevelopment areas, including options for shared stormwater facilities. Develop and adopt drainage design criteria to ensure that site drainage can be accomplished in a manner that minimizes site disturbance and negative impacts on natural site features. Site drainage should serve as an amenity that is incorporated into the overall landscape design of a site. Wherever possible, provide stormwater treatment for parking lot runoff using bio-retention areas, filter strips or other practices that can be integrated into required landscaping areas and traffic islands. Relax setback and parking requirements to allow for natural on-site drainage facilities.

**Lot and Building Orientation**

Blending new projects with existing development also includes ensuring that the orientation is the same as that of adjacent sites. This idea is equally important in residential settings, where existing lots may face the adjacent street, but a developer has proposed an internally-oriented series of infill units. The change along the street edge from front doors to the side or rear of homes can create incompatibilities.

**Site Layout**

To ensure that buildings relate appropriately to surrounding neighborhoods, the layout of a site should be a consideration of development approval for infill projects. Parking and other vehicular use areas should not dominate the site. Where possible, parking should be to the side or rear of buildings so that the visual impacts of the parking area are minimized. Buildings should be sited so that the character of existing land forms and site features are enhanced and the relationships between buildings are strengthened. To protect existing neighborhoods from unnecessary noise and glare, all parking and loading areas, outdoor lighting, dumpster facilities, drive-thru facilities, and illuminated signage should be kept well away from abutting residential development.

**Access & Circulation**

To promote safe and efficient vehicular and pedestrian access and circulation into, out of, and within an infill development site, ensure that site circulation provides a consistent balance between pedestrian and vehicular activity. Site access and circulation patterns should provide for smooth, safe, convenient and functional movement of all modes of transportation into, out of and within the development, with a priority to pedestrian traffic. Site access should match the intensity of the proposed project. Major commercial projects should be located at the intersection of two major thoroughfares so that access is available for both east/west and north/south traffic. The number of driveway and private street intersections with public streets should be minimized through the use of shared driveways with adjoining uses where feasible.

**Make it Easier to Mix Uses**

One of the primary reasons redevelopment occurs is through an increase in the intensity of a site, and this often means adding mixed use. An example might be demolishing a one-story retail building, and replacing it with a multi-story retail and residential structure. This has multiple benefits, in that it provides modern retail space, improves overall site appearance (through enhanced parking, landscaping, buffers and other site amenities), and adds “eyes on the street” for increased public safety by including residential units.

Many of the existing districts do not permit this kind of mixed use development. And the existing regulations for commercial districts severely constrain the ability to develop small-scale mixed use projects that include residential development (see Encouraging Mixed Use Development on page 32 for a discussion of alternative ways to encourage mixed use development).



*Parking and other vehicular use areas should not dominate the site. Where possible, parking should be to the side or rear of buildings so that the visual impacts of the parking area are minimized*



*The current development regulations in Memphis/Shelby County are designed to regulate development on “greenfield” sites (undeveloped raw land on fringe of developed area).*

## **Managing Nonconformities**

There are hundreds of so called “nonconforming” buildings and lots in the inner city. Originally built in compliance with existing rules, they no longer “conform” since development regulations have changed—or were instituted—since their construction. Their nonconformity could be anything, including failure to meet current setback, floor area, height, parking, drainage, landscaping or density standards. Many people, unfortunately, confuse nonconforming with illegal. A much better description for these structures might be “previously conforming” buildings, denoting that they did comply when they were built.

### ***Allow Building Expansions***

Nonconforming status causes problems for owners when they propose certain improvements. Currently, building additions are not permitted unless the addition—and, in some cases, the structure itself—are made to conform with certain provisions of the zoning district.

Let’s say you’re adding a second story to a one-story building that doesn’t comply with the side yard setback requirement. The addition would have to be set back from the side wall, even though that wall had been in place for decades. The same would hold true for a small ground-floor addition. This can pose obstacles to even minor building additions and, like the other regulatory barriers discussed above, can make the difference in an owner’s decision to rehab or sell. The existing ordinance language should be clarified to offer a more common-sense interpretation of the rule governing additions to “previously conforming” buildings. For nonconforming buildings, the staff should have the authority to approve additions, provided they do not encroach further than the existing building and comply with all height, floor area, and density limits.

### ***Add Flexibility to Base Districts***

Reducing certain development standards such as lot sizes, setbacks, drainage and parking requirements for targeted infill areas will bring some structures back into conformance, creating viable redevelopment sites.

### ***Rethink Existing Thresholds***

Consolidate or change thresholds at which an infill or redevelopment project must comply with certain requirements is another option available to the City. Currently, any type of development or construction requires site plan approval. Small infill or redevelopment projects could be made exempt from the site plan approval process.

## **Fast Track Infill**

### **Projects**

Developers accrue continuing costs during the development review process – long delays could make or break a project with slim profit margins. Infill development could benefit substantially from expedited development review and approval. The City can fast track applications for targeted infill areas. The City could streamline permit processing to allow for concurrent review and processing of related development permits for development in targeted infill areas.

### **Modify Administrative Waiver Thresholds**

The City may want to increase the thresholds for administrative waivers or approvals as another way to speed up infill projects by eliminating time consuming public review of routine or minor matters. The addition of infill and redevelopment specific regulations will ensure a sense of comfort about issuing more administrative waivers or approvals. Staff can be given the additional authority to grant administrative adjustments for certain infill or redevelopment standards such as height, setbacks, parking and drainage. Additional administrative authority will allow staff-based decisions to replace the more time consuming and onerous quasi-judicial proceedings of the Board of Adjustment.

### **Create an Infill Density Bonus**

Higher densities allow more intensive development of infill parcels and allow the opportunity to spread development costs over more units. The City can offer an infill density bonus for developments that meet certain prerequisites.

Connections to existing local and collector streets could be used as a factor in determining the appropriate density of infill development, with higher density conditioned on the provision of appropriate access to the local street network. Pedestrian connectivity could be also used as a factor in determining the appropriate density of infill development, with higher density conditioned on the provision of appropriate pedestrian access to employment and commercial opportunities. Developments that accommodate multi-modal design features, such as bike lanes, bike parking facilities, trails, on-site transit facilities or cross-access and joint use driveways, could be approved with higher densities.

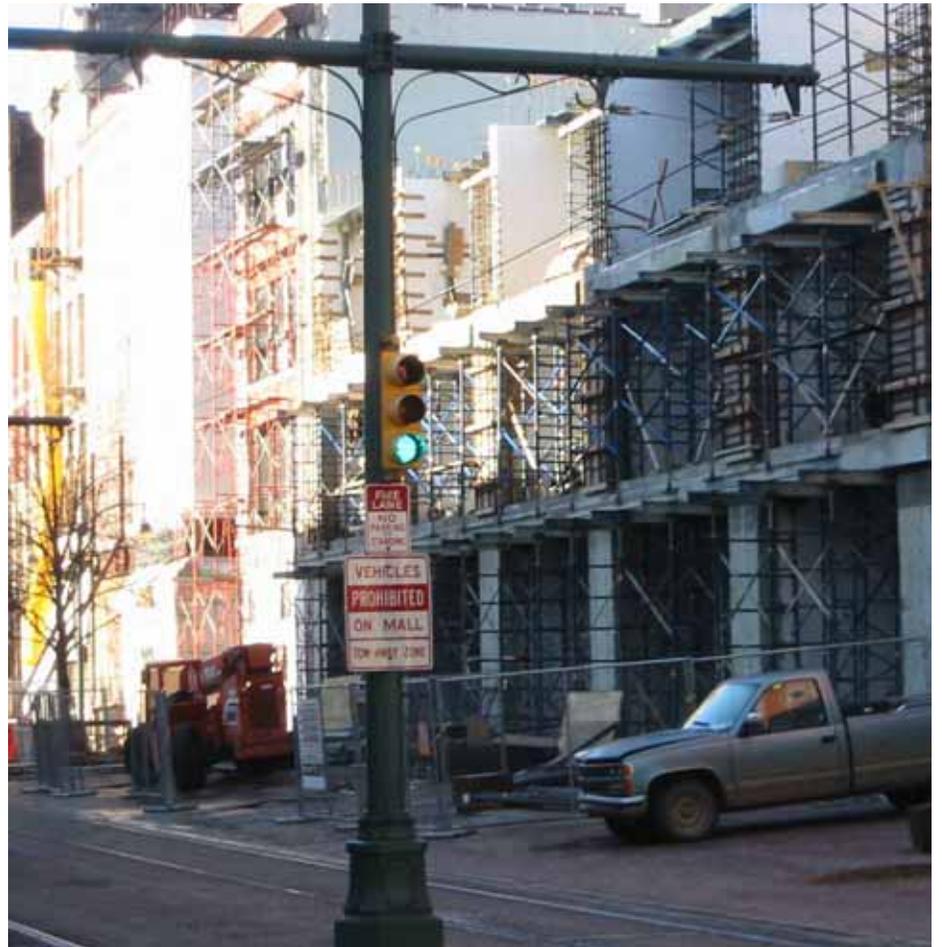
To encourage more intense development along major roadways, the area for a development located adjacent to a street with a wide right-of-way could credit a portion of the right-of-way towards the development. This has the effect of increasing the project area, allowing a higher density for the proposed development. (Note that this does not mean developing the right-of-way itself, but rather, allocating additional density on parcels adjacent to wider streets.)

**Promote Adaptive Re-Use**

In many communities, adaptive re-use of older buildings for new purposes is a key redevelopment mechanism. The Planning and Development offices in an old hospital are one good example. Communities similar to Memphis have seen successful revival of industrial buildings refitted as residential lofts, often with ground-floor retail uses.

In many cases, property owners would initiate reuse and expansion of existing buildings if the approval and permitting processes were less onerous. It is recognized that there can be building and health code issues that preclude the rehabilitation of older buildings; however, often the primary obstacle is existing development standards and site design requirements. Many older buildings exceed current lot coverage requirements or encroach into required setbacks. Where this is the case, variances are needed to permit any expansion of the structure.

Some communities build flexibility into the provisions for nonconformities by permitting the extension of nonconforming walls, provided they avoid further encroachment into required yards. Typically, this type of flexibility is only offered for extension of nonconforming side or rear walls. The City could also allow reduced height setbacks or parking requirements to accommodate adaptive reuse of obsolete commercial and industrial structures.



# Protecting Residential Character

The City and surrounding County has within its jurisdiction residential neighborhoods that are unique community resources, worthy of protection from incompatible land uses and activities that are inconsistent with the residential character of neighborhoods.

Memphis/Shelby County must continue to provide residents with stable and quiet residential neighborhoods. Residential neighborhoods should continue to be protected from adverse impacts associated with incompatible land including, but not limited to, noise, air and water pollution, glare, excessive traffic, and inadequate on-site parking.

The established character of residential neighborhoods must be preserved for generations to come. As land values increase and commutes lengthen those that can afford it will be driven back to the City. It will become important overtime for measures to put in place that protect established neighborhoods from both new residential and new nonresidential development.



## Key Recommendations

### ❑ **Expand Historic Conservation District Efforts**

- Protect desirable and unique characteristics of existing neighborhoods by expanding the use of historic conservation districts.

### ❑ **Don't Forget About Local Scenic Roadway Corridors**

- Protect scenic roadway corridors from improvements that destroy their scenic character.
- Implement alternative transportation improvements such as parallel roadways.

### ❑ **Rethink Home Occupation Provisions**

- Permit compatible home occupations “by right” in all residential zoning districts.
- Do not allow home occupations that infringe on the residential character of a neighborhood.

### ❑ **Evaluate Regulations for Religious Institutions**

- Define two or three different size categories for religious institutions, with larger religious institutions allowed only in more intense zoning districts.
- Establish acceptable accessory uses for religious institutions within neighborhoods.





Three historic conservation districts currently exist (Evergreen, Lea's Woods and Central Gardens). Memphis/Shelby County should consider expanding this approach to other neighborhoods where additional protection is desired.



Memphis and Shelby County have identified a number of local scenic roadway corridors in need of protection. These beautiful, tree-lined roadways are a vibrant part of the heritage of the County, and should be protected from road widening and other improvements.

## Expand Historic Conservation District Efforts

A historic conservation district is a tool used to identify and protect the character of established neighborhoods. The objective is to maintain and conserve existing neighborhood's character by outlining procedures and policies for alterations or demolition of existing structures and design of new construction in the district.

Goals for a historic conservation district may include:

- Protecting and strengthening the desirable and unique design characteristics, physical features, identity, charm, and 'flavor' of a specific area
- Promoting compatible new development while preventing incompatible alterations or infill development
- Providing property owners with clear guidelines for remodeling and new construction
- Encouraging civic pride and incentives for enhancement of properties within the district, while working to prevent deterioration and blight

Three historic conservation districts currently exist (Evergreen, Lea's Woods and Central Gardens). Memphis/Shelby County should consider expanding this approach to other neighborhoods where additional protection is desired.

## Don't Forget About Local Scenic Roadway Corridors

Memphis and Shelby County have identified a number of local scenic roadway corridors in need of protection, such as Rocky Point Road, Pisgah Road, and Collierville-Arlington Parkway. These beautiful, tree-lined roadways are a vibrant part of the heritage of the County, and should be protected from road widening and other improvements that would negate their character. Existing large trees along these roadways deserve special protection, and immediately adjacent areas should be considered for special treatment to protect the remaining unique characteristics. Alternative transportation improvements, such as parallel roadways, should be considered that allow these roadways to function in their constrained form, in spite of increased transportation needs in the surrounding area. While modest safety improvements may be necessary, special care should be taken to retain as much of the existing character (including canopy trees) as possible.

## Eliminate Ability to Create Flag Lots

Flag lots were described by many stakeholders as creating problems in the City and County. The numerous, closely-grouped curb cuts that flag lots tend to create are unsafe. Flag lots also require more infrastructure than conventional lots. Currently, lot width is defined

as “the distance on a horizontal plane between the side lot lines measured at right angles to the lot depth at the minimum front yard line, except for flag-shaped lots.” Eliminating flag lots is easily accomplished by removing the exception for “flag-shaped lots.” Furthermore, we recommend deleting the defined term for flag-shaped lots from the definitions section of the zoning ordinance.

## **Rethink Home Occupation Provisions**

Home occupations are a commercial accessory use in a residential structure. Home occupations are only allowed in one residential district, the R-MH District. Where home occupations are invisible to the neighborhood, they should be allowed in a residential setting. This will require adopting performance measures to be certain that home occupations stay in character with residential neighborhoods.

Home occupations are currently permitted in less intense nonresidential districts subject to approval as a special use and more intense nonresidential districts as a matter of right. Home occupations are allowed in the O-L, O-G, C-P, C-L, C-N, C-H and CBD districts. However, residential units are not permitted in the C-P, C-L, and C-H districts (and presumably there are no “homes” to have occupations in). It also seems unnecessary to require home occupations to obtain special use permits in office districts where similar services are already permitted by-right.

## **Change Group Care Facility Provisions**

The current regulations allow a wide range of group care facilities in the residential districts; however, there are no limits on the size or nature of these group care facilities. State law mandates that “single family residence” includes any home in which eight or fewer unrelated mentally retarded, mentally handicapped or physically handicapped persons reside, and may include three additional persons acting as houseparents or guardians, who need not be related to each other or to any of the mentally retarded, mentally handicapped or physically handicapped persons residing in the home. As a result, personal care homes for the elderly and supportive living facilities are appropriately permitted by-right in all residential districts. We recommend that the City/County consider restricting other types of group care facilities from districts dominated by single-family detached housing. Larger group care facilities are more appropriate in multifamily residential districts, and should be permitted subject to specific use regulations.



*Home occupations are a commercial accessory use in a residential structure. Home occupations that are invisible to neighbors, such as a home office, should be permitted by-right in a residential setting. Home occupations that begin to infringe on the residential character of a neighborhood, such as a charter bus service, should be discouraged.*



## **Modernize Standards for Child Care Facilities**

The State of Tennessee regulates child care facilities. Definitions include a family child care home providing care for at least five but not more than seven children, and a group child care home providing care for at least eight but not more than 12 children. Child care centers provide care for 13 or more children. Drop-in centers provide casual care for no more than 15 children, not to exceed ten hours per week and not for more than six hours per day for any individual child while parents or other custodians are engaged in short term activities. Drop-in centers are operated in connection with a business establishment, recreational facility, or similar activity. Drop-in centers are not currently regulated and should be added as permitted accessory uses to applicable principal uses.

We also recommend reexamining the permitted use structure for all child care facilities. Child care facilities designed for eight or more children should be subject to special use approval in all residential districts, regardless of the size of facility. Larger, more intense child care facilities should be restricted to more appropriate commercial districts.

## **Evaluate Regulations for Religious Institutions**

Churches and other religious institutions are regulated under the Religious Land Use and Institutionalized Persons Act (RLUIPA). The land use provisions of this federal act protect individuals, places of worship, and other religious institutions from discrimination under zoning regulations. With this act, the U.S. Congress found that the right to assemble for worship is at the core of the free exercise of religion, and therefore, it prohibits zoning regulations that substantially burden a religious use or treat places of worship or other religious institutions differently than nonreligious institutions.

Under the current ordinance, churches are permitted by right in most districts. This regulatory approach generally treats churches and other places of assembly in a similar manner, and would likely withstand legal challenge. However, we strongly recommend using a

generic term, such as “place of worship” or “religious institution,” rather than the narrower term “church.”

It should also be recognized that some communities face issues related to the impact of places of worship and associated accessory uses on surrounding properties. To address potential impacts (the 3rd U.S. Circuit Court of Appeals has ruled that municipalities may legally prohibit churches and other places of public assembly in residential neighborhoods if noise and traffic might become a problem), some communities define two or three different sizes of religious institutions, with the larger ones allowed only in more intensive, non-residential zoning districts. In order to better preserve the residential character of existing neighborhoods, consider making all places of public assembly subject to approval as special uses in residential districts. It must be noted; public schools, museums and libraries are generally considered places of public assembly and must be treated equivalently to religious institutions under the law.

To allow for greater control in residential districts, certain accessory uses should be considered principal uses and regulated accordingly. Accessory uses that should be addressed include homeless shelters, soup kitchens, day-care centers operating five or more days a week, for-profit programs, education programs other than religious education or programs meeting the K-12 requirements of the state (this would include dance classes, karate classes and other such activities), recreation centers above a certain size or with certain types of facilities (recording studios, broadcast studios, printing shops, movie theaters, bowling alleys, full-sized gyms, swimming pools), residences for multiple persons (such as a monastery or dormitory), storage for vehicles requiring a commercial drivers’ license to operate, and vehicle maintenance. All of these uses are necessarily problematic; however, it is essential that decisions be made about the appropriateness of such uses in residential neighborhoods.



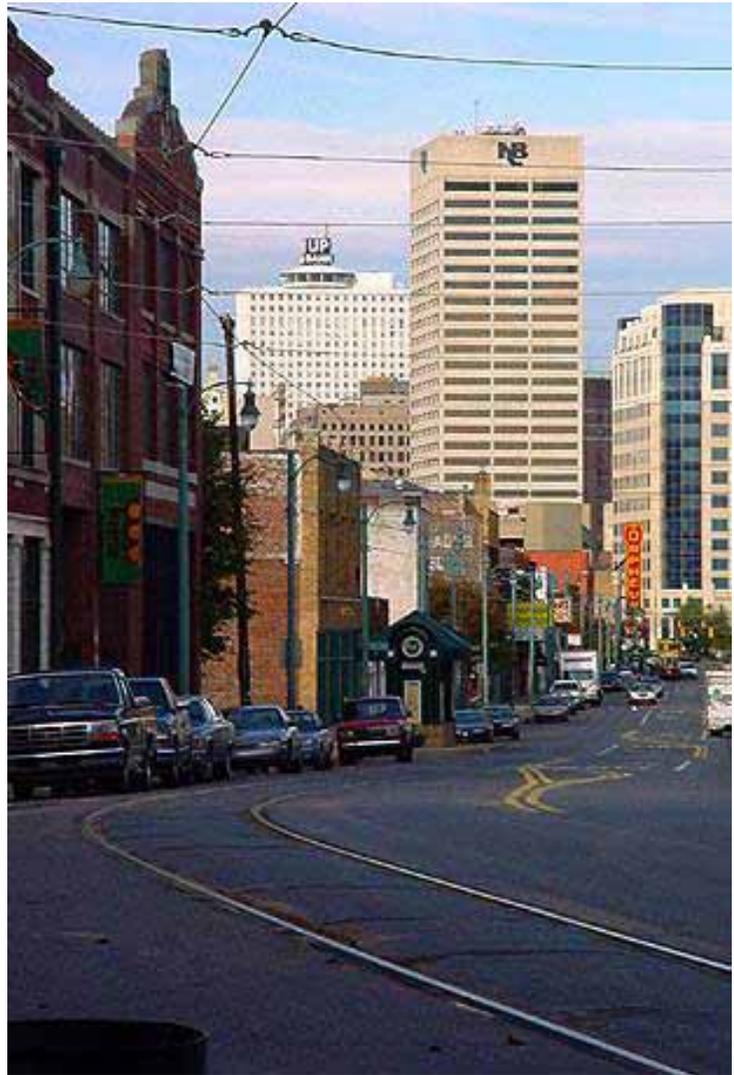
*One way of retaining the residential character of areas of change is to establish either a base zoning district or an overlay district that permits more intensive use of the single-family houses for office, and sometimes even light commercial uses.*

### **Consider an Office-Residential District**

In many communities, corridors develop over time with wider roadways and higher traffic than originally contemplated. Single-family houses along these corridors often lose their desirability as their site area is reduced and traffic impacts increase. One way of retaining the residential character of these areas is to establish either a base zoning district or an overlay district that permits more intensive use of the single-family houses for office, and sometimes even light commercial uses. Allowing this more intensive zoning for the first half-block away from the corridors protects the neighborhoods, and helps resolve a problematic situation.

### **Rethink Manufactured Home Regulations**

Tennessee state law mandates that cities and counties allow manufactured homes in all residential districts. However, it does allow for jurisdictions to impose design standards on all residential structures (including manufactured homes) to ensure that they are compatible with conventional residential neighborhoods. Memphis is following this approach to some degree. Currently, manufactured homes are permitted by-right in the A-G, R-D, R-TH, R-ML, R-MM, R-MH, R-MO, O-L, O-G, H and CU districts and are subject to additional development standards in the R-S8, R-S6, CBD, CTSD and SMSD districts. In the R-E, R-S15 and R-S10 districts, manufactured homes are permitted subject to approval as special uses. Under state law, manufactured homes must be treated as single-family detached residential units. Except for the AG District, we recommend manufactured homes be allowed in any district that is predominantly zoned for single-family detached residential units subject to meeting a set of development standards that is required of all residential development in that district. In the AG District, no additional standards are required.



# Strengthening Commercial Districts

New commercial district regulations should include enhanced outdoor lighting, signage, outdoor storage and landscaping requirements. These types of provisions should be expanded to promote functional and attractive commercial areas that serve as positive assets to the residential communities they border.



# Key Recommendations

## ❑ Address the Character of Commercial Areas

- Create different standards for pedestrian-oriented, auto-oriented and transitional streets.

## ❑ Improve Site Development Standards

- Develop enhanced provisions for outdoor lighting, signs, mechanical equipment and dumpster screening , and outdoor storage and display.

## ❑ Develop Temporary Use Regulations

- Establish an administrative procedure that allows temporary uses upon the issuance of a temporary use permit. Temporary uses include circuses, carnivals, fairs, tent sales and model homes, .

## ❑ Reduce Dependence on Planned Developments

- Develop base district compatibility standards for urban, suburban and rural portions of the County.
- Increase the flexibility of base districts to allow accommodation of market trends.



## Address Character of Commercial Areas

The physical character of commercial areas should be addressed. If commercial streets are the store windows to our treasured neighborhoods, then care must be taken to ensure that those windows present a positive image. As with the residential districts, commercial character is all about how an area looks and functions. Elements such as building placement, vehicular access and parking location should be considered if commercial areas are to serve as assets to the community. Of course, not all of commercial areas are the same, and a one-size-fits-all strategy will not work. To address the character of future commercial development it is important to identify the different types of commercial areas in the City and County. In turn, these classifications might help form the necessary criteria to guide development. Our analysis suggests there are three basic types of commercial places in Memphis/Shelby County.

- Pedestrian-oriented, such as those that currently exist along stretches of South Main, Beale, Cooper Young, Overton Park, Madison, Walker and Mississippi.
- Auto-dominated, such as those that currently exist along portions of Wolf Chase, Germantown Parkway and Winchester Road.
- Transitional, such as those that currently exist along parts of Union, Summer, Poplar, Broad and Jackson.

### ***Pedestrian-Oriented***

In Memphis/Shelby County, pedestrian-oriented developments are characterized by narrow rights-of-way, landscaped sidewalks, numerous small storefronts, and lots of pedestrian activity. Whether we think about it or not as we walk down the street, the things that appeal to us are fairly simple. The buildings in these places, which are usually two or three stories tall, are built up to the sidewalk. There are few, if any, places where the “street façade” has been broken up by parking lots, vacant parcels, or buildings set back far from the street. Large window areas line the sidewalk, providing views into the stores or to display areas inside the windows. Shop entrances are right next to the sidewalk, and the sidewalks themselves are fairly wide (at least six to eight feet). Transit access is usually excellent, and on-street parking spaces are typically located next to the sidewalk. The sum effect is that people feel safe and involved as they walk along these streets and through these places. Pedestrians are protected from cars (since they’re not crossing the sidewalk into parking lots) and have easy access between stores. This is the same model that shopping center developers are now trying to recreate in suburban communities across the country. Memphis has attractive, walkable shopping areas, which should be preserved. Preserving the

character of the City and County’s best pedestrian-oriented places will require new development standards that will help protect what makes Memphis/Shelby County special. Standards which are geared toward preserving the qualities that make these areas attractive to pedestrians should ensure the preservation of a continuous street façade by requiring that new buildings be built at or very close to the sidewalk, with special emphasis on corner buildings. Parking areas should always be located to the side or rear of buildings.

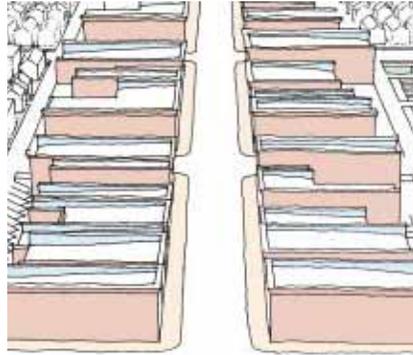
### ***Auto-Oriented***

In contrast to their pedestrian-oriented cousins, auto-oriented developments are characterized by wide rights-of-way, buildings that are set back far from the street, numerous curb cuts and off-street parking in front of buildings. Commercial development is geared almost exclusively toward attracting auto traffic. This emphasis can come at the expense of a street appearance and the safety of pedestrians. Rarely are there “pedestrian safety refuges” in large parking lots, which forces those who are walking—either from parked cars or from the sidewalk—to share driving aisles with moving cars. Too many closely-spaced driveways can erode the block face and make it difficult for pedestrians to walk safely down the sidewalk. Parking lots within auto-dominated developments are usually located in front of the commercial buildings. Unfortunately, many have minimal or nonexistent landscaping. This not only makes them unattractive, it also provides no relief from heat buildup, which occurs as the sun beats down on a sea of unbroken asphalt pavement. Adding trees and shrubbery along the street and within parking lots makes good sense from both the customer and the environmental standpoint. Standards for auto-oriented developments should allow more sensible spacing between driveways with more connections between abutting parking areas and require landscaping, screening, and appropriate buffers to “soften” large parking lots.

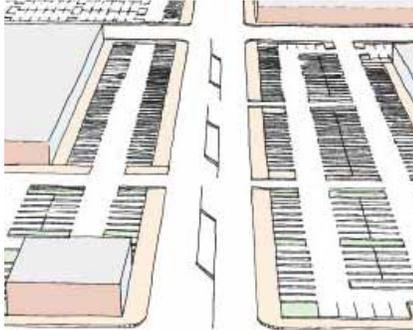
### ***Transitional***

Pedestrian- and auto-oriented developments constitute the most recognizable commercial classifications in Memphis/Shelby County, but they are really the minority. Most developments don’t fit neatly into either category. Most, in fact fall somewhere in between. Transitional areas have developed over time, blending a mixture of pedestrian-oriented and auto-oriented characteristics. The challenge is to accommodate cars and parking without destroying the area’s attractiveness to pedestrians.

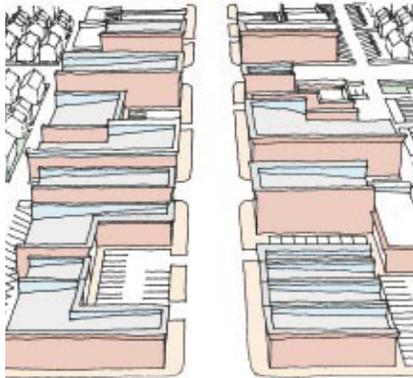
## THREE TYPES OF COMMERCIAL AREAS



The **pedestrian-oriented street** is home to small neighborhood stores. They are characterized by narrow rights-of-way, numerous storefronts, and attract mainly pedestrians.



**Auto-dominated streets** are characterized by wide rights-of-way, parking lots, numerous driveways, buildings set back from the street—and traffic. Large stores may attract customers from the entire region. The challenge is to “soften the edges,” creating safe walking routes, efficient circulation, and well-designed parking areas



**Transitional Commercial streets** incorporate a mixture of pedestrian-oriented street controls and auto-oriented standards. The challenge is to accommodate cars and parking without destroying the area’s attractiveness to pedestrians.

## Improve Outdoor Lighting Standards

The current regulations contain insufficient lighting standards to minimize “light pollution.” The zoning ordinance includes some general provisions for athletic and recreation fields to prevent excessive glare onto adjacent properties. Outdoor lighting is regulated for planned commercial developments containing self-storage facilities. Also, lighting used to illuminate off-street parking lots must be so arranged to prevent direct glare onto adjacent property or streets. Standards for site lighting, including requirements for light pole and bollard height and location, fixture design (i.e. full cut-off fixtures), and foot-candle intensity should be developed for all nonresidential development. Consideration should also be given to enhanced standards that restrict the use of laser light sources, searchlights, or other types of high intensity lighting, the re-direction of light fixture heads, and a requirement for recessed lighting under gas station canopies. The City/County may also want to impose specific light standards for certain types of residential development. Proposed lighting should be reviewed as part of the site plan review process by requiring the submittal of details for lighting fixtures and a photometric grid that indicates light intensity across the site.



*Sumoco Station: Springfield, MA Original lighting*



*Same station with recessed flat lens lighting installed.*

## Enhance Sign Provisions

Updating the sign regulations is part of the scope of work for this project. However, no significant modifications to the allocation of sign area or sign height are expected. Some changes may be required to meet the requirements of recent court cases

SIGNS REQUIRING A SIGN PERMIT	
SIGN TYPE/DEFINITION	ILLUSTRATION
<b>BUILDING SIGNS</b> <b>AWNING OR CANOPY SIGN</b> Any sign painted on, attached to or otherwise displayed on a canopy or awning. This sign type does not include canopies over gas pumps (wall signs). <b>Standards:</b> (a) No such signs shall exceed 20 percent of the area of each awning or canopy (top plus all sides). (b) No awning sign shall be back-lit.	
<b>WALL SIGN</b> Any sign attached to the exterior wall of a building. This sign type shall include wall signs, canopy signs, projecting signs, marquee signs and signature signs. <b>Standards:</b> (a) The maximum size of a wall sign is set forth in Section 7.4.9. (b) Any such sign shall not project more than 18 inches from the building to which it is attached. (c) Wall signs shall not project above the elevation of any building or structure. (d) Wall signs shall not be located above the bottom of the second floor window line, except that building identification signs may be located immediately below the roof line of the structure. (e) Special standards for signature signs are found in Section 7.4.9.d.	
<b>MARQUEE SIGN</b> A sign attached to the face of a marquee and not projecting above or beneath said marquee face. A marquee is a permanent roof-like structure that projects from the wall of a building and may overhang the public way. <b>Standards:</b> (a) No more than one such sign shall be permitted for each building frontage that includes an entrance available to the general public. (b) The marquee shall not extend beyond the top or sides of the building. (c) A marquee shall not be oriented toward any residential district.	

*A sample sign table prepared for Sarasota County, Florida.*

regarding constitutional issues. The existing regulations will be reorganized and reformatted to improve overall usability.

## Create a Consolidated Sign Table

The sign section should contain a table that summarizes the sign requirements by sign type and district.

## Clarify Permitted Signs

Clarifying existing sign types allows for easier enforcement. Providing a table of permitted sign types clarifies exactly what type of sign is being regulated. A sample sign table developed for the Sarasota County, Florida zoning ordinance is provided above

## Consider Special Sign Districts

Certain areas of Memphis and Shelby County have unique characteristics that require special signage treatment. Specific sign standards have been developed for the Uptown area and the South Central Business Improvement District. However, Beale Street is an entertainment district where extensive neon signage is perfectly acceptable. Consideration should be given for developing specific sign requirements for the Beale Street area and other areas in the City/County with defining characteristics.



*Beale Street is an entertainment district where extensive neon signage is perfectly acceptable.*

## Enhance Mechanical and Dumpster Screening

Where possible loading docks, truck parking, outdoor storage, trash collection, trash compaction, recycling collection and other similar areas should be integrated into the overall design of buildings and should be fully contained and out of view. Where integration it is not feasible, such areas should not be visible from the street, sidewalks or parking areas or should be fully enclosed by an opaque wall or fence, and if applicable, contain self-closing access doors. Air compressors, mechanical pumps, water heaters, water softeners, utility meters, utility boxes, air conditioners and other similar types of equipment should be placed in rear or side yards, or roof and should be fully screened from view if visible from the public right-of-way.



## Expand Controls on Outdoor Storage and Display

The standards for outdoor storage and display should be expanded to include all nonresidential and multifamily development. Outdoor display is the outdoor display of products actively available for sale. The outdoor location of soft drink or similar vending machines should also be considered outdoor display. Outdoor display should not include merchandise or material in boxes, in crates, on pallets or other kinds of shipping containers (this should be considered outdoor storage). Memphis/Shelby County should clearly specify which districts or uses permit outdoor display. Outdoor display should be permitted in most nonresidential districts provided certain restrictions are enforced. All outdoor display should be removed and placed inside a fully-enclosed building at the end of each business day. Outdoor display should only be allowed adjacent to the façade of a building, and should be limited in its total extent (currently outdoor display is limited to a maximum area not greater than 15 percent of the total building area occupied by the principal use).



One common approach to regulating outdoor storage is to set up two types; limited outdoor storage and general outdoor storage. The first category includes the overnight outdoor storage of vehicles awaiting repair, merchandise or material in boxes, in crates, on pallets or other kinds of shipping containers, shopping carts, garden supplies, building supplies, plants, fleet vehicles and other similar merchandise, material or equipment. The second category includes more intense uses such as salvage yards, vehicle storage yards, overnight outdoor storage of shipping containers, lumber, pipe, steel, junk and other similar merchandise, material or equipment. Different standards are developed for each and the districts in which each category is permitted are clearly set forth.



**Common uses that should require a temporary use permit**

- Temporary religious revivals* ▪
- Outdoor Vending Facilities* ▪
- Circuses, carnivals or fairs* ▪
  - Tent sales* ▪
  - Model homes* ▪

**Develop Temporary Use Regulations**

Outdoor vending facilities are currently regulated through the special use permit process. The current regulations fail to regulate other common temporary uses such as circuses, carnivals, fairs, tent sales and model homes. Temporary outdoor uses should not be confused with permanent outdoor activities (for example, a car sales lot) that are only allowed in certain districts, nor should they be confused with an outdoor display (for example, a garden center that is part of a building supply store) that may be a part of a retail store. We recommend establishing an administrative review procedure that allows temporary uses occurring on property outside of the public right-of-way upon the issuance of a temporary use permit. Use standards (like those currently in place for outdoor vending) would be developed for specific uses.

**Evaluate Adult-Oriented Business Regulations**

Historically, in Memphis and unincorporated Shelby County, adult-oriented businesses (in particular hourly rate hotels/motels and adult novelty sales) have been an area of some concern. This ordinance revision process provides the City/County with the opportunity to reevaluate some of the existing provisions. As this can be a legally precarious subject, we will not be making any recommendations until meetings with the appropriate City and County legal departments have been conducted.



## Reduce Dependence on Planned Developments

The original concept of planned development, as introduced some 30 years ago, was to trade a developer some flexibility in lot size or width, street layout and other design parameters, in order to do a better job of preserving natural resources on the development site. Projects ranged from those simply requiring modest flexibility to move lot lines to save a few trees, all the way to developments with substantial clustering (and reduction of lot sizes) in trade for large open space areas.

One of the first signs that a community's development regulations are not functioning effectively is the overuse of the planned development process. The purpose of a planned development is to permit the application of higher quality, innovative design that is not possible under a strict interpretation of the provisions of the current regulations. When base districts no longer accommodate desired development patterns, the planned development district often becomes the option of choice for the development community—in spite of the arduous and time-consuming process of getting approved.

In order to allow the planned development process to return to its intended focus on creative design, preservation and open space, two fundamental changes should occur:

1. Base districts must be updated and made more flexible to accommodate the current marketplace.
2. Compatibility standards should be developed, to eliminate the debate over compatibility of each individual site.

### Base District Improvements

The focus for any base district improvements should be on options employed in planned developments previously approved that are unavailable under the existing regulations. The best possible standards are those with flexibility inherent in them, such as the use of minimum standards for setbacks, lot width and lot area. For specific uses that have compatibility issues, standards can be designed to address that particular use. In fact, there are a number of conditions that have been regularly applied to planned developments that should simply be codified in the base districts.

### Compatibility Standards

System-wide improvements to general development standards such as buffering, landscaping, hours of operation, lighting and building heights will allow more development to move through the standard approval process, reducing the need for time-consuming, heated debates over the perimeter of each planned development.

Recent planned development approvals should be reviewed to determine the level of compatibility in the areas of:

- Height, (especially near single-family residential areas)
- Buffers and landscaping
- Site lighting
- Hours of operation

These issues may be resolved in a variety of ways across the City and County. For example, rural areas may have a lower tolerance for site lighting than more urbanized portions. However, this does not mean that standards—differentiated by location in the County—could not be applied to resolve these compatibility issues. Recommendations on improving each of these areas are included through this report.



### Consider Liner Buildings

The use of liner buildings is one solution that enhances the attractiveness of commercial development from the street. Liner buildings are small, narrow retail shops placed adjacent to the sidewalk on the periphery of large parking lots to create a bona fide street edge. Liner buildings address the inherent ugliness of the typical “big box” or mall area by improving the appearance and encouraging pedestrian activity. The buildings often contain two primary entrances (one for pedestrian access and one for vehicular access). Liner buildings eliminate very few potential parking spaces, and theoretically increase income due to additional leasable space.

# Encouraging Mixed Use Development

A variety of uses—residential, commercial, civic, office—is a critical component of any vibrant community. It provides opportunity and convenience, and accommodates many households and types. A mix of land uses enables neighborhood residents to walk from their house to the corner store to pick up milk or drop off their dry cleaning.



## Key Recommendations

### ❑ **Develop a Mixed Use District**

- Allow additional residential uses in commercial zoning districts to create “by right” mixed use opportunities.

### ❑ **Allow Upper-Story Residential**

- Permit upper-story residential units in all commercial zoning districts.

### ❑ **Bring Back the Neighborhood Store**

- Allow modest scale neighborhood commercial development in residential neighborhoods.
- Develop neighborhood commercial standards for urban and suburban settings.

### ❑ **Zone for Building Types**

- Increase reliance on building form for compatibility by focusing more on building type, rather than on individual uses.



## **Develop a Mixed Use District**

Memphis/Shelby County doesn't currently have a base mixed use district. The South Central Business Improvement District and the Uptown District each contain a mixed district that allows a variety of land uses. However, these two districts only apply in their respective areas – the majority of mixed use projects in other portions of the City and County are approved through the planned development process.



## ***Inclusion of Residential Uses***

Conventional zoning uses should be defined as broadly as can be tolerated in order to allow mixing of uses, and change in use, to occur as easily as possible. Additional residential uses can be added to existing commercial districts to allow for establishment of “by right” mixed use developments. This approach is best used when the level of regulatory tolerance allows residential uses into commercial districts as a matter of right.

## ***Overlay District***

An overlay district is another possible way to permit additional uses beyond those allowed in the base districts. The development standards for the base districts would remain in place wherever possible, only allowing additional uses on parcels encompassed by the overlay. This approach is best used when the level of regulatory tolerance requires input into what types of uses are proposed.

## ***New Base District***

A new mixed use district could be developed that permits a variety of land uses. The district would contain its own development standards. This approach is best used when the level of regulatory tolerance requires input into what types of uses are proposed and what development standards are to be implemented.

## **Allow Upper-Story Residential**



Many communities are beginning to realize the benefits of mixing land uses, especially for those developments that combine residential and commercial uses in close proximity to each other. This form of development can be particularly attractive because it can provide more sales opportunities for local merchants, convenience for residents, and nearby housing for local workers. Upper-story residential development is already permitted in the South Central Business Improvement District. Consider expanding this provision to the base commercial districts, such as the C-N, C-L, C-H and CBD districts.

## Bring Back the Neighborhood Store



Whether renting a movie, getting a carton of milk or dropping off dry cleaning, conventional developments often force residents to drive out of their neighborhood whenever they are in need of basic goods and services. Memphis/Shelby County should investigate development alternatives that include convenience shopping within walking distance of residential units. This arrangement reduces traffic and pollution, makes the neighborhood more desirable, and gives neighbors the opportunity to meet one another.

Minor modifications to some of residential districts could encourage the return of neighborhood stores to new and existing communities. Small neighborhood stores designed to serve the surrounding community could be permitted provided certain controls were put in place that regulate such elements as size and scale, parking, access, location, screening, buffering and hours of operation.

The City of Savannah, Georgia, recently adopted a series of new districts for one of their currently unprotected National Register Historic Districts – the Thomas Square Streetcar Historic District. Four new districts replaced approximately 19 existing districts in the area, bringing back corner stores, and employing form-based standards that allow for a fine-grained mixing of uses. The aim was to strengthen existing neighborhood patterns and enhance commercial development by concentrating it in nodes and corridors, thus creating business synergies and consumer recognition.



The neighborhood of Prospect, Colorado, now in its third phase of development, will eventually have up to 585 units on 340 lots. A town center is being built around a skating rink and will include shops, restaurants and offices all within a five-minute walk of resident's homes. Prospect is a mixed use community with a variety of building and use types. In addition to detached, single-family houses, it incorporates town and courtyard houses, apartments, live-work units, and commercial retail, office and restaurant space. Accessory units above detached garages are encouraged, and can be used as guest or rental housing, or office space. This broad range of options allows residents to live, work and shop in the same neighborhood, and to walk from one activity to the others. It also means that when a resident's life circumstances change, with the arrival or departure of children to or from their household for instance, their housing type can change accordingly without the need to leave the community.



*Consider two distinct flavors for neighborhood commercial, one would be applied in suburban settings and the other would be applied in more urban areas.*



We recommend the City/County consider two distinct flavors for neighborhood commercial, one would be applied in suburban settings and the other would be applied in more urban areas. Neighborhood commercial in urban settings would adhere to a modified set of development standards, focusing more on the pedestrian and reducing the emphasis on the automobile. If the City/County decides to pursue this approach, specific standards addressing both suburban and urban neighborhood commercial uses can be developed.



*An approach that encourages a better mix of uses is one that regulates building type, placing less emphasis on use, allowing for a dynamic change in use over time as the needs of the community and owner evolve.*



### **Zone for Building Types**

Traditional zoning relies on the separation of uses. An alternate approach that encourages a better mix of uses is one that in certain districts regulates building type, placing less emphasis on use, giving the owner more flexibility to determine the specific uses. As such, the look and layout of the street is carefully controlled to reflect neighborhood scale, appropriate parking standards, and pedestrian accessibility.

This approach allows for a dynamic change in use over time as the needs of the community and owner evolve. With regulations in place to monitor impacts (such as parking, noise, level, and hours of business), former residential areas may, for example, accommodate low intensity nonresidential uses such as small offices of doctors, dentists, and lawyers and small convenience stores. Residential areas would not, however, be



*Boca Raton, FL. As shopping malls and strip retail centers become obsolete, communities should explore ways to reuse such spaces—which are often very large tracts of land—as mixed use developments.*



suitable for large retail uses because of building and parking standards in place. As a result, a neighborhood preserves its residential feel while providing services within walking or biking distance.

## Convert Declining Shopping Malls into Mixed Use Developments

As shopping malls and strip retail centers become obsolete, communities should explore ways to reuse such spaces—which are often very large tracts of land—as mixed use developments. Underperforming regional shopping malls, such as the now defunct Mall of Memphis, constitute prime opportunities for redevelopment. Left untouched, these areas not only represent an enormous loss in potential revenue, but may also signal disinvestment and decline to the surrounding community. Reuse of these sites helps to maximize the value of its resources (access to a ready market, adequate infrastructure and existing transportation networks).

## Consider Live-Work Units

As community residents seek relief from daily commuting nightmares, the idea of the home as a place to escape the workaday world is fading. The term live-work refers to the combination of both residential and commercial uses in a single unit. Early examples included the use of SoHo lofts for artists work spaces, galleries and living spaces. The predominant use of a live-work unit is residential, and commercial activity is a secondary use; employees and walk-in trade are not usually permitted. As such, it enables both the possibility of far less reliance on the automobile by its residents and the relief that diminished traffic impact brings to its neighbors. One of the primary challenges in creating live-work is identifying which parts of the unit are residential and which parts of the unit are commercial. As this is a viable housing option in use today, we recommend the City and County considers this housing option as a way to not only encourage a mix of uses but reduce congestion and enhance pedestrian-oriented neighborhoods.

## Wrap All Parking Structures

Parking structures that reach to the street are usually an eyesore – designers often try to hide them behind greenery, but they are inherently massive and often just concrete. When feasible, the City/County should require all future structured parking to incorporate uses on the ground floor. Such uses often include a wrap of townhouses, or even retail bays set into the parking structure. The success of such facilities in other areas should serve as a model for Memphis. It is our understanding that a similar approach has already been applied to structured parking in the South Central Business Improvement District.



*Kentlands, MD. Live-work units not only encourage a mix of uses but reduce congestion and enhance pedestrian-oriented neighborhoods.*

*The City/County could require future structured parking to incorporate uses on the ground floor*



# Promoting Redevelopment and Reuse

Conventional zoning is use-based. It regulates via abstract statistics and use categories which can result in very different (and often unpredictable) physical environments. Form-based coding is an innovative new land development regulatory tool that places primary emphasis on the physical form of the built environment with the end goal of producing a particular or specific type of “place”—whether it is big city or small town, a main street or a neighborhood. The principal of form-based coding is that physical design is more important than use. Simple and clear graphic prescriptions for height, siting, and building elements are used to control future development. More specifically, form-based coding regulates things that directly effect the way a building and street function—building mass, building placement on lots, the form and creation of streets and other public spaces, building heights, fenestration, entrances/doorways—to encourage (or discourage) pedestrian activity and a mixing of uses.



## Key Recommendations

### □ Consider a More Form-Based Approach

- Encourage and direct desired types of development in targeted areas through the use of form-based zoning, with a focus on mixed use.
- Develop a form-based solution for the former Mall of Memphis site and a corridor such as Summer Avenue or Broad Street.
- Apply the principles learned from these sites to solve similar problems on a much broader scale throughout the community.





Steve Price image

*The vision for the Columbia Pike in Arlington, VA: The form-based regulations established new, clear development requirements and streamlined the development approval process to produce the “main street” environment that the community endorsed. Since adoption more than \$500 million in new projects are now in the design and development stage, two of which have broken ground.*

## Consider a More Form-Based Approach

Conventional zoning is fundamentally about keeping things apart, but in order to create healthy neighborhoods, towns and cities, zoning must work to integrate different aspects of daily life. With proper urban form, a greater integration of building uses can become natural and comfortable. Land use is not ignored, but more loosely regulated using broad parameters that can respond to market economics, while also prohibiting socially or environmentally undesirable uses. Other specific use-related concerns can be addressed through public management or policy (rather than through the development regulation process.)

Form-based approaches to zoning are being used in a variety of settings around the country, from large scale greenfield or brownfield mixed-use development to small scale infill and redevelopment projects involving multiple parcels with many owners. This increased emphasis on building form has become a particularly effective tool for encouraging and directing desired types of development in targeted areas. In short, this approach to zoning has become an effective way to translate desired outcomes into regulatory language that helps create the physical place envisioned by a community.

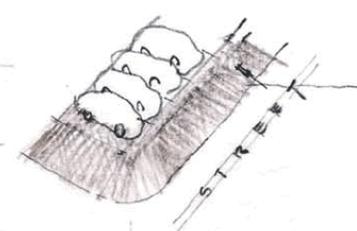
### Why Use Such an Approach?

While form-based coding is being used successfully in a wide variety of contexts, it is a particularly effective tool for encouraging redevelopment of existing properties on greyfield sites and along major thoroughfares. This approach allows both landowners and neighbors to easily foresee the possibilities for future development. The abstract statistical tools of conventional zoning, such as the floor area ratio, can produce dramatically different outcomes. Similarly, land use designations are constantly being revisited and amended as the market changes. Where conventional zoning controls land use to an extreme level of specificity, a form-based approach fosters and protects a healthy balance of uses, while allowing small-scale market economic forces to function, by establishing broad parameters for such uses.

Rather than relying on use and density prescriptions, Memphis/Shelby County could utilize a form-based approach to specifically describe the form of the built environment in specific areas of the City and County. Instead of permissive guidelines, consider setting standards for key elements such as build-to lines, minimum and maximum building heights,

parking locations and building bulk and mass. Similarly, other development standards, such as, access, drainage and landscaping can be established for the area as a whole rather than on a lot-by-lot basis, greatly reducing the necessity to assemble land in order to promote and achieve infill and redevelopment. While a form-based code can be applied at a citywide scale; we are not currently proposing such an approach. A form-based code should not be thought of as a "one-size-fits-all" document. Different parts of the City and County have different character and context. A form-based code is written specifically to result in the development (or preservation) of a physical place, so it is important to have a clear vision and plan to produce the code for each specific area. Although different parts of the City and County play different roles and have different features, some base similarity would be expected between the building form standards for various neighborhoods.

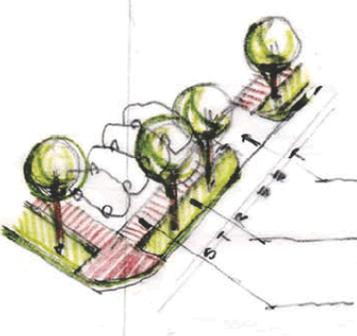
**TYPICAL EXISTING CONDITION**



- # EXCESSIVE CURB-CUTS
- # LACK OF SIDEWALKS
- # LACK OF STREET TREES
- # VERY UN-DEFINED SENSE OF EDGE -
- # CONCRETE APRONS SPILL INTO STREET.



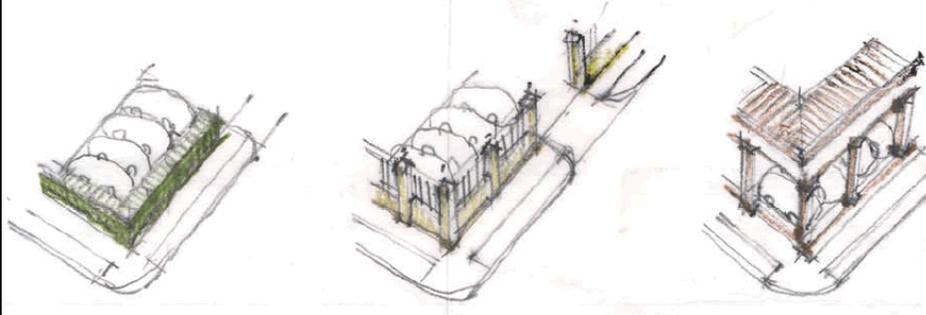
**PUBLIC IMPROVEMENTS REINFORCE EDGE**



- # REDUCED CURB-CUTS
- # ADDED "TREE LAWN" WITH STREET TREES
- # SIDEWALKS ENCOURAGE PEDESTRIANS.



**PRIVATE IMPROVEMENTS**





*Uses car sale lots can often detract from the urban landscape. Pedestrian walkways are often hindered as cars encroach into the public right-of-way. A form-based approach that focuses on an improved street edge can make used car sales a more tolerable use.*

Sofia & Sothe Urban Design

## Where to Use Such An Approach?

For targeted areas and corridors, a form-based approach is both more predictable (less open to interpretation and litigation) and more flexible than a conventional approach for promoting good development and an economically viable physical environment, both in the short and long term. In analyzing the current situation in Memphis/Shelby County, it is clear that in certain areas the conventional system for regulating development is producing less than desirable results. Many problematic developments in the region were built under the existing zoning requirements, serving a short-term economic purpose, and have been left either obsolete, unsustainable, or underutilized with little or no potential for reuse in their current configuration.

Current development patterns in Memphis/Shelby County offer congested streets and roadways lined with strip malls and drive-thru facilities, isolated subdivisions, and office towers in the middle of parking lots—all built to the current zoning requirements. Predictably, people oppose new development because of these types of development patterns. The Mall of Memphis is an example of a development that failed under the conventional approach to zoning. The old Mall of Memphis site provides the perfect opportunity to demonstrate the benefits of a form-based approach. A model form-based code could be developed for this site that could be then strategically applied to other areas of the City and County.

Corridors, in particular, have fallen victim to the existing rules—ever-widening roadways with excessive curb cuts and no place for pedestrians to walk and no destinations within walking distance. They were developed so exclusively for the automobile that in fact, they do not function at all for people who are not driving cars, and ironically, not very well for those who are in vehicles. In fact,

*The old Mall of Memphis site provides the perfect opportunity to demonstrate the benefits of a form-based approach.*



*A model form-based code could be developed that could then be strategically applied to other areas of the City and County.*



*Corridors have fallen victim to the existing rules, developed so exclusively for the automobile that in fact, they do not function well for people who are not driving.*



*Broad Street and Summer Avenue are a pale reflection of the streets they used to be. A model form-based code could be developed for either corridor.*



these automobile-oriented corridors are the result of a planning model that segregates housing, recreation, workplace and government into distinct zoning districts (and assumes a single mode of transportation). While streets have historically been thought of as public spaces, the late-20th Century development model has been to treat them solely as transportation corridors, much to the detriment of the surrounding neighborhoods. For example, Summer Avenue and Broad Street are a pale reflection of the streets they used to be. Clearly too much weight has been given to their roles as thoroughfares for commuter traffic moving through and around the Memphis area. How can commercial strip corridors once again become a spine of local activity and a point of connection between adjacent neighborhoods rather than a dividing line within the City or County? By rethinking current development patterns, scale, orientation, use, function, transportation can all be reshaped by utilizing a more form-based approach to land development with these existing corridors. In addition to the old Mall of Memphis site, a model form-based code could be developed for either Summer Avenue or Broad Street. The model developed could then be applied to similar corridors throughout the City and County.

## Where Else has this Approach Been Used?

Historically in the United States, many towns regulated development through systems which were primarily form-based. More recently, form-based regulations have been used most frequently in developing new planned communities, but are increasing in popularity for communities looking to encourage infill and redevelopment or are concerned about protecting the existing form and character of the community.

■ In Arlington County, VA the Columbia Pike Special Revitalization District is producing dramatic results. This three and one-half mile corridor—lined primarily with parking lots, one-story retail, two-story garden apartments, and a few high-rise condominiums—had seen no development over the past 30 years other than fast food establishments and other drive-thru conveniences. The form-based regulations established new, clear development requirements and streamlined the development approval process to produce the “main street” environment that the community endorsed. Since adoption as part of the County’s zoning ordinance in February 2003, more than \$500 million in new projects are now in the design and development stage, two of which have broken ground.



*Architects rendering of a 58 unit mixed use infill project one block off Columbia Pike. KGP Design Studio Architects.*

■ Farmers Branch, TX—a typical Dallas bedroom community comprised of subdivisions, strip-malls, and office and industrial parks—is soon to have one of the regions new DART light-rail stations. The City saw the opportunity to create the Downtown it had never had, but recognized that the existing zoning would produce more of what was already there—low density, auto-oriented, sprawling development, with plenty of surface parking. The new form-based provisions require mixed-use, multi-story buildings fronting the streets and create a pedestrian-oriented environment throughout the area. The new regulations replaced the existing zoning for the 100-acres. Phase I is currently in pre-development.



LCA/Seth Harry

■ When a large, undeveloped parcel within Iowa City became available, the City determined that the majority of it should be preserved as park and natural reserve, but that the balance should be developed as a traditional neighborhood, with a mixture of housing types (detached single-family houses, townhouses, row houses and small apartment buildings) as well as some neighborhood-scale mixed-use storefront buildings. The form-based regulations were recently adopted and the neighborhood (Peninsula) is currently under construction.



■ The Pleasant Hill BART Station in Contra Costa County, CA, has been sitting in the middle of an 18-acre parking lot for nearly 20 years. After opposing numerous conventional developments, the citizens developed a vision of what they would like to see built through an extensive public charette process. New form-based regulations were written to translate the urban design master plan into a workable implementation tool, regulating development to ensure a variety of building types and uses, including housing, retail, and office space. It also specifies the architectural aesthetic—including building materials and architectural detailing—that the citizens determined was fundamental to the character of their community. The developer is currently in the project approval process.



# Enhancing Transportation Options

Providing residents of Memphis/Shelby County with more transportation alternatives should be a key goal of this project. Communities around the country are increasingly seeking a wider range of transportation options in an effort to improve overwhelmed transportation systems. Traffic congestion is worsening across the country. In fact, over the last several years, congestion has worsened in nearly every major metropolitan area in the United States. In response, communities are beginning to implement new approaches to transportation, such as better coordination between land use and transportation; increasing the availability of high quality transit services; providing flexibility for parking solutions; and ensuring connectivity between pedestrian, bikes, transit and road facilities. In short, they are compiling a multimodal approach to transportation with supportive land use patterns that create a wider range of transportation options.



# Key Recommendations

## ❑ Address Parking and Loading

- Evaluate existing parking ratios.
- Implement maximum parking limits.
- Create option for an alternative parking plan.
- Give credit for on-street parking (where appropriate).

## ❑ Rethink Access and Circulation

- Increase connectivity between residential neighborhoods.
- Add future alignment of collectors to the roadway plan.
- Expand stacking requirements.
- Ensure adequate connections between commercial developments.

## ❑ Encourage Transit-Oriented Development

- Develop form-based regulations surrounding proposed transit nodes.
- Encourage high density, mixed use development surrounding proposed or existing transit routes.



**Alternative Parking Plan Elements**

- Shared parking ▪
- Off-site parking ▪
- Bicycle parking ▪
- Public parking ▪
- Carpooling ▪
- Staggered work hours ▪
- On-street parking ▪
- Valet parking ▪
- Land-banking ▪

**Address Parking and Loading**

Transportation experts have widely varying opinions on transportation, traffic congestion, and parking issues. Some believe that traffic congestion can only be addressed by requiring more off-street parking spaces, while others claim that increasing the parking supply will only lead to even more congestion. The availability of parking does, however, influence an individual choice to drive, walk, bike or take transit.

**Evaluate Existing Parking Ratios**

The existing parking ratios should be updated to accommodate contemporary parking trends. Memphis/Shelby County should take advantage of this project to reexamine parking ratios in use today. An example of an existing requirement that might be outdated is the one parking space requirement for single-family, townhouses and two-family units with two bedrooms or less. Most contemporary parking requirements require at least two parking spaces regardless of number bedrooms, as a majority of households today have at least two cars. Also, one additional parking space above what is currently stipulated should be required for any unit containing an accessory dwelling. We recommend addressing the parking requirements and adjusting them accordingly. Parking ratios should also vary by geographic area.

**Consider Maximum Parking Ratios**

Many communities are implementing maximum, rather than minimum, parking ratios in an attempt to reduce excessively large paved parking lots often requested by large retail users. Maximum parking

ratios are often expressed as a percentage of the minimum requirements. For example, the Memphis/Shelby County could permit no more than 110 percent of the minimum required parking. Any parking over the permitted 110 percent maximum would have to be paved with a pervious parking surface. In areas well served by transit, the use of maximum parking requirements prevents auto-oriented uses from occupying land near rail and bus stations.

**Change Method of Calculating Parking Ratios**

Most of the parking requirements are based on floor area, seating, or beds. However, some requirements are based on number of employees or students. Since this figure can change, all parking requirements should be modified to be based on a consistent, measurable characteristic such as the gross floor area of the building.

**Create an Alternative Parking Plan Option**

The current regulations recognize that it is often difficult to meet parking requirements, and therefore, allows some discretion to reduce parking requirements in certain areas near downtown. However, a more objective means for providing parking flexibility would be to permit an applicant to submit an alternative parking plan. Such a plan would provide more flexible parking requirements by allowing an applicant to change required parking ratios and accommodate parking in less-conventional ways.

In order to change the required parking ratios, the applicant would submit an alternative parking plan providing data from an established source such as the Institute of Transportation Engineers Manual justifying reduced (or increased) number of spaces. An applicant could reduce the number of required on-site parking spaces by showing documented proof that the required number of spaces their request uses could be met by alternative means, such as shared parking, valet parking or on-street parking.

Another option is to permit on-site “land-banking” of parking spaces. Under this approach, the number of required parking spaces could be reduced, provided that an on-site area of sufficient size to accommodate the additional parking spaces is maintained. This area would only need to be converted if over time the use generates a need for additional parking.



***Allow Tandem Parking***

The revised regulations should allow tandem spaces (i.e. one parking space located immediately behind another space) for specific circumstances when the spaces are assigned to the same unit, and near enough to the apartment that so the inevitable jockeying of cars is practical, including such uses as townhouse and small lot single-family development.

***Give Credit for On-Street Parking***

Cars parked to either side of a street's traffic lanes deter high speed traffic, buffer pedestrian activity on sidewalks, and distribute parking evenly throughout the neighborhood. Also, on-street parking reduces the need for parking lots and long driveways. Buildings therefore occupy more buildable lots and help shape continuous neighborhood streets. Memphis/Shelby County could give credit for the provision or availability of on-street parking facilities in certain areas of the community.

***Rethink Access and Circulation***

Site access and circulation patterns should provide for smooth, safe, convenient and functional movement of all modes of transportation into, out of and within the development, with a priority to pedestrian traffic.

***Increase Commercial Connectivity***

Cross-access allows pedestrians and motorists to move easily from one development to another without using the adjacent roadway system. Memphis/Shelby County should consider provisions mandating vehicular and pedestrian cross-access connections that serve adjacent and surrounding development. An incentive-based approach could offer some flexibility in exchange for the removal of curb-cuts on existing sites. For example, a reduction in required parking spaces could be offered for the removal of a curb-cut on certain roadway when redevelopment occurs.

***Increase Pedestrian Circulation***

Memphis/Shelby County should address pedestrian circulation within both commercial and residential developments. Sidewalks are the most basic and traditional element of a walkable community. They are the “pedestrian lanes” that provide people with safe spaces to travel



within the right-of-way that are separated from roadway vehicles. They improve mobility for pedestrians and provide access for all types of pedestrian travel: to and from home, work, parks, schools, shopping areas, transit stops, etc. Sidewalks should be part of every new and renovated facility, and over time, efforts should be made to retrofit most streets that do not currently have sidewalks, including those in rural areas where there is likelihood for pedestrian usage. A simple, basic provision could be to require sidewalks on all streets, except in rural areas, where specific density standards would trigger sidewalk requirements. Accommodations must be made to ensure adequate bike and pedestrian movement across bridges in rural areas.

Commercial buildings should be sited to facilitate pedestrian circulation with adjacent building and uses. When feasible, vehicular and pedestrian traffic should be clearly separated. Consider the use of low shrubbery, berms, fences, walls, gates, bollards, curbs, shade structures and other similar design elements in order to minimize vehicle and pedestrian conflicts. Consider walkways that lead the pedestrian directly from parking areas to building entrances. Pedestrian spaces and walkways should be designed to invite walking throughout and around the development. At each point a pedestrian walkway crosses a parking area, internal street or internal driveway; the walkway shall be clearly defined through a change in texture, color or height of paving materials.

## Connect Neighborhoods

New residential subdivisions in Memphis and unincorporated Shelby County should have enhanced connectivity requirements as a way to facilitate pedestrian activity and to lessen automobile traffic on certain streets by permitting traffic to disperse throughout the entire street network. The City/County should implement a performance-based approach that quantifies the number of external and internal connections into, out of and within a residential subdivision. The number of streets (links) within a subdivision can be divided by the number of nodes or end links, including cul-de-sacs to yield a subdivision connectivity ratio. The example to the right assumes a connectivity ratio of 1.40.

At the very least, residential subdivisions should be required to provide vehicular and pedestrian connections to uses that serve them, including schools, neighborhood commercial areas, and transportation facilities. The City/County should continue to require “stub streets” for subdivisions and mandate connection to them when adjoining property is developed.

### Add Collectors to the Roadway Plan

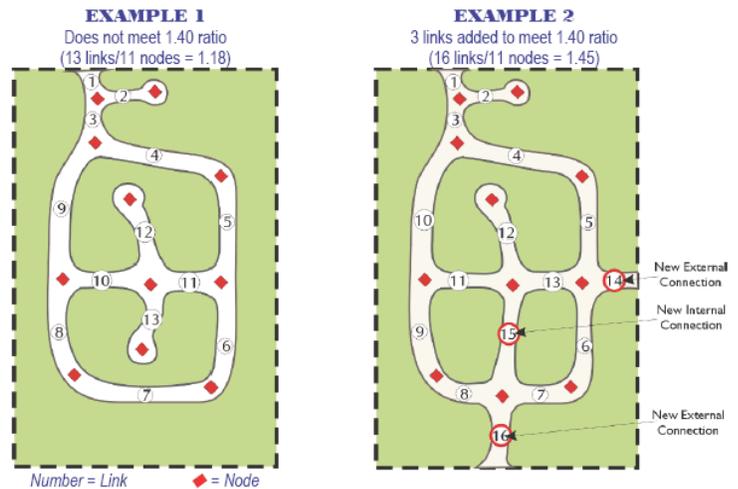
It is our understanding that roadway plan fails to indicate the future alignment of collectors on the major roadway system. The current approach seems to allow for the ad-hoc, piecemeal distribution of collector roadways. To more effectively control future development through a well-planned, well-connected roadway system that disperses traffic throughout the entire street network, the roadway plan must be updated to map the future location of collector roadways. The City/County has standards in place that regulate the spacing of collectors; however, stakeholders indicate the existing provisions are not working. In conjunction with collector mapping efforts, we recommend the collector roadway spacing standards be re-evaluated.

### Consider Traffic Impact Analyses

There is currently no formal process in place to evaluate the potential traffic and transportation impacts associated with a proposed development. The City/County could require developments to submit a traffic analysis. Such systems can operate one of three ways:

- Informational only – used to support decision-making
- “Pay and Go” – used to ensure that each development pays their fair share of necessary improvements, but not used to stop development
- Adequate public facilities – used to stop development where inadequate roadway capacity is available, and improvements cannot be guaranteed by the developer.

We recommend further discussion of the potential for such a system in Memphis/Shelby County.



### Break Up Large Parking Lots

To improve the aesthetics and functionality of large parking lots in the City and County, and allow for incremental redevelopment, consider limiting parking areas (or “parking rooms” as they are sometimes called) to no more than 200 spaces. The parking room should be connected to an internal system of roadways. To reduce the number of access points into and out of the development, outparcel access should be taken from within the site.



To allow for the incremental redevelopment of big box sites, limit “parking rooms” to no more than 200 parking spaces.

### Look at Residential Driveways

There are two types of paved driveways – slab and ribbon. The most common driveway is the full width; single slab made of asphalt or concrete. The “ribbon” driveway consists of two strips of pavement two-feet in width with grass in between. The ribbon drive is cheaper to install, is less conspicuous and contains less impervious surface. However, some feel ribbon designs are impractical where driveways are long or curved. We recommend the City/County consider an option that allows ribbon driveways in certain situations. Also, consider porous driveway surfaces, including porous asphalt and

concrete mixes, paver blocks and brick laid in sand, concrete and grass grid pavers, crushed stone and gravel. Where porous driveways are used, ensure that a proper sub-base, capable of infiltrating and cleansing stormwater is installed. As a general rule, keep the number of driveways to a minimum, and as short, narrow, and porous as possible. Where possible, encourage detached garages located in the rear yard.

**Expand Stacking (Queuing) Requirements**

The current regulations mandate stacking spaces for gatehouses, financial institutions, car wash bays and drive-thru restaurants. The City/County needs stacking requirements for all drive-thru and drive-up facilities, including automated teller machines, gasoline pump islands, dry cleaning/laundry and pharmacy pickup windows, and valet parking.

**Look at Traffic Calming Options**

To effectively manage traffic problems in residential areas, Memphis/Shelby County should investigate alternative methods to reduce the speed of traffic through existing and proposed neighborhoods. The City of Austin has developed a program identifying and addressing the problems related to speeding motorists, excessive traffic volumes and overall concern for safety on residential streets. Neighborhood residents participate in developing and evaluating the various requirements, benefits and trade-offs of traffic calming projects within their own neighborhood and become actively involved in the decision-making process. The same traffic calming methods used to retrofit established neighborhood could be used in new developments, although narrower streets should always be the first option.

**Encourage Transit-Oriented Development**

A transit-oriented development is a compact, mixed-use activity area centered on a transit station or transit route that by design encourages residents, workers, and shoppers to drive their cars less and ride transit more. The centerpiece of a transit-oriented development is the transit station—connecting the residents and workers to the rest of the region—and the civic and public spaces that surround it. The design, configuration, and mix of buildings and activities emphasize pedestrian-oriented environments and encourage use of public transportation. The land uses within a transit-oriented development are linked with convenient pedestrian walkways, and parking is designed and managed to discourage dependence on the automobile.

Transit comes in variety forms, such as buses, light rail, and trolley lines. The Memphis Area Transit Authority (MATA) and other local officials have em-



*Traffic circles are raised landscaped islands constructed at the center of intersections. They are typically landscaped with ground cover, bushes and trees. Traffic circles require drivers to slow to a speed that allows them to comfortably maneuver around them.*



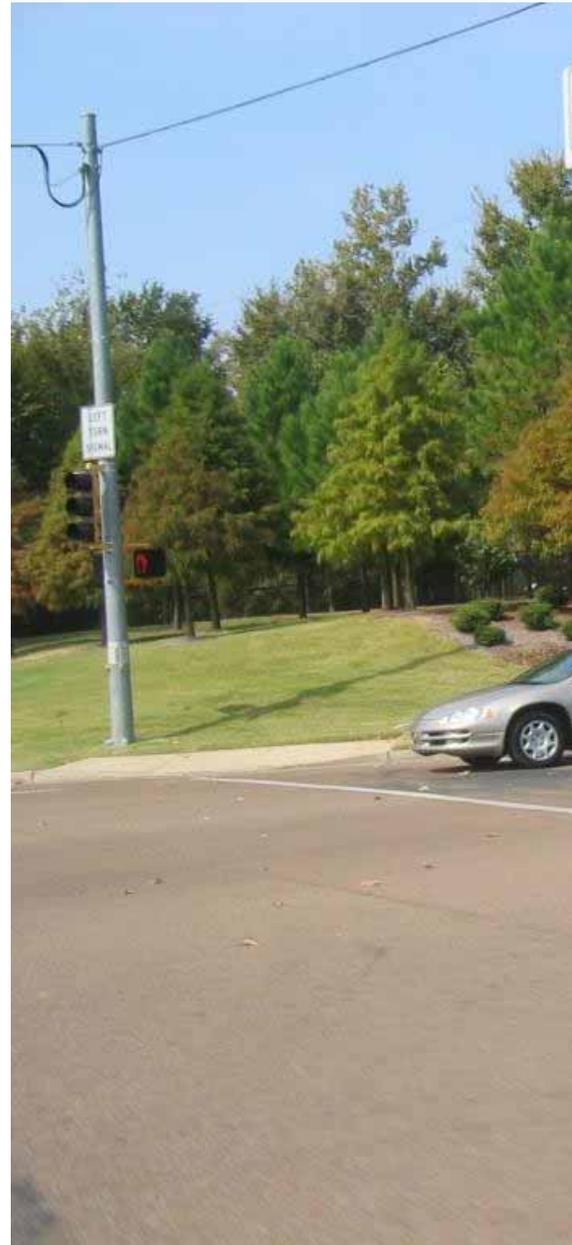
*A chicane is a series of two or more staggered curb extensions on alternating sides of the roadway. Horizontal deflection influences motorists to reduce speed through the chicane. A raised island is added to the center of the road to prevent motorists from crossing the center line.*



braced the concept of alternate forms of mass transits because it contributes to the achievement of not only transportation goals, but economic development, land use, and environmental goals as well. MATA completed a Regional Transit Plan in June 1997 that includes rail projects in three major corridors. The Memphis Metropolitan Planning Organization (MPO) has adopted the Regional Transit Plan as the Transit Element of the Long-Range Transportation Plan. The City/County should take advantage of this process and develop specific standards that encourage high density, mixed use development along and near to proposed or existing transit routes. Each future station area should be regulated by developing a form-based code for the area. The results from one station could be used as model regulations for future transit stations around the region.

# Retaining Industry and Attracting Jobs

Retaining or attracting jobs is a high priority for the City of Memphis and unincorporated Shelby County. Memphis and Shelby County's offer several financial incentive programs to businesses that help to lower operating costs, reduce taxes and provide access to qualified workers. Having a complete set of update-to-date user-friendly development regulations can help to retain jobs and attract industry to an area.



## Key Recommendations

### ❑ Fix Permitted Uses in Industrial Districts

- Reduce range of non-manufacturing uses allowed in industrial districts.

### ❑ Add a Warehouse/Distribution District

- Create a warehouse/distribution district specifically tailored to logistic and warehouse-related industries.

### ❑ Consider a Business/Office Park District

- Add a business/office park district with two distinct characters: suburban and urban.
- Delete the H and CU zoning districts.





## Fix Permitted Uses in Industrial Districts

When you think of manufacturing and industry, you think of businesses that produce products, assemble goods, or provide services. You don't necessarily think of strip shopping centers, banks, campgrounds, barber-shops, schools, bakeries, restaurants or veterinary clinic. Yet these types of non-manufacturing uses, and others, are allowed in the industrial districts. While this may not seem like a big deal, it makes the industrial districts unpredictable. Will an area remain a viable location for industry, or will it begin to change to more commercial uses? This creates uncertainty, which is bad for property owners and businesses considering investments. When businesses choose not to invest, it is often a sign that jobs will be lost—either to other nearby counties or to the region as a whole. Also, when non-manufacturing uses are permitted, it creates heightened competition for available industrial-zoned land. The resulting increase in land costs can cause displacement of existing manufacturing businesses. In the unified ordinance, we are recommending that the range of uses allowed in industrial districts be trimmed to include just heavy commercial, office, and manufacturing uses. In doing so, Memphis and Shelby County will help ensure that industrial-zoned lands are reserved for industry and other value-added employment uses.

## Add a Warehouse/ Distribution District

Warehouse and distribution is most likely the areas strongest economic asset. However, the zoning regulations fail to accommodate such uses effectively. Currently, truck or motor freight terminals are only permitted as a special use in the I-L District and by-right in the I-H District. Due to the number of associated uses, rezoning property to industrial takes significant time and money. Warehouses are currently permitted in the C-H, CBD, I-L, and I-H districts. Memphis/Shelby County should consider developing a warehouse/distribution district that is tailored to logistic and warehouse-related industries. Such a district would promote co-location of similar industries, make development decisions more predictable, fair and cost effective, and be able to more effectively control modern land uses, such as flex space.



## Consider a Businesses/ Office Park District

The current development regulations fail to zone for any type of business or office park. Currently, a proposed business or office park has to be approved through the planned development process. This not only adds time, but can lead to uncertainty throughout the entire approval process. To make the Memphis area more attractive to corporate or regional headquarters and other large-scale office developments, research facilities, we recommend the creation of a business/office park district with two distinct flavors, one for suburban settings and one for urban settings. Consideration should be given to eliminating the existing H- and CU districts and moving associated uses into the new district.

The district would be intended to accommodate office, research and development, light manufacturing and processing uses, and campus like developments, such as hospitals, colleges and universities, allowing for clustering opportunities that help improve overall efficiency. Administrative offices and training facilities for research or research application would be strongly encouraged. Development regulations would encourage originality and flexibility in design to ensure that the development is properly related to its site and to surrounding suburban or urban development patterns. Limited commercial uses would be allowed; however, such uses would be primarily for the convenience of employees or users of the district.

The suburban version would not be commercial in nature, it would be more campus- or park-like in character, and the emphasis would be on low-rise development patterns that blend flawlessly into the natural environment. Landscaping requirements would be significant and development patterns would be characterized by deep, gracious setbacks.

The urban version would be more office or institutional in nature, and the emphasis would be on compact, vertical, more pedestrian-oriented development that fits seamlessly into the built environment. Landscaping requirements would be reduced with buildings pulled up much closer to the street.



# Expanding Environmentally Responsive Zoning

Communities have long recognized the importance of environmentally responsive zoning. Tree and woodland preservation is an emerging environmental issue as communities also address concerns involving wetlands, floodplains, stormwater, water quality, steep slopes, and air quality. New construction too often leads to tree loss and remaining trees lose vigor because of damage sustained during construction. Communities can mitigate both tree loss and tree damage with well conceived landscaping and tree preservation policies. Enhanced landscaping can have a great deal of financial value, from increased property values to various environmental benefits.

Plant material stabilizes the soil and controls water pollution, yield advantageous microclimatic effects which conserve energy, preserve and foster air quality by removing carbon dioxide (CO<sup>2</sup>) and airborne pollutants, abate visual and noise pollution, and provide a natural habitat for wildlife. Plant material also provides welcome shade to people and add color and interest to the urban landscape, providing a psychological boost to urbanites. People are generally more satisfied with their neighborhoods if there are trees and shrubbery . Workers are more productive and hospital patients recover faster if they can see greenery outside their windows. The benefits of established landscaping in our communities are subtle and often overlooked.



# Key Recommendations

## ☐ Enhance Landscaping Provisions

- Develop buffers that measure the ability to screen new development (opacity) accurately.
- Require that commercial buildings with ten or more spaces meet parking lot landscaping provisions.
- Encourage foundation planting along the base of buildings.
- Ensure landscape diversity by requiring a mix of plant species.

## ☐ Protect More Trees

- Implement a tree replacement rate that increases with the size of tree removed.
- Establish specific levels of protection for forested areas, require a tree survey, and eliminate the exemption for tree harvesting.
- Develop a heritage tree program to protect trees of exceptional size or significance.
- Adopt tree maintenance standards.
- Implement provisions to protect saved trees during construction.





## Enhancing Landscaping Provisions

Landscaping enhances the appearance, character, and value of property—of this there is little doubt. In community preference surveys, pictures with good or excellent tree cover always score higher than comparable pictures with no trees or small recently planted trees.

### Quantify Buffers

In land use planning, there is a hierarchy of uses from low-density, single-family residential to heavy industrial. The low-density, single-family is considered the highest use; heavy industry, the lowest. The further apart two land uses are in the hierarchy, the greater the potential nuisance there is to the higher use. A buffer is a means of mitigating the nuisance. The current regulations apply a single set of buffer options, regardless of the nuisance potential.

Contemporary buffers use a quantifiable measure—opacity—to rate the visual effect of buffers. Opacity is the degree to which something is obscured from view by the buffer. A buffer that is 100 percent opaque would completely screen the view of the object, use, or building. An opacity of 50 percent means one sees 50 percent of the object to be screened. Visually, the greater the nuisance potential, the higher the opacity should be. If there are noise or glare problems, greater opacity than 100 percent may be desirable because

visibility is not a measurement of noise reduction. Fences or berms may be desirable to attenuate the nuisances that are not visual. The current regulations use the same basic standards for all uses. There is no change in the level of protection between any use.

The buffers currently used in the City and County are inconsistent. Buffers within the same category should have similar opacity ratings. However; analysis shows some buffers within the same category have vastly different opacity ratings. For example, buffer B-3 only requires a chain link fence, while buffer B-1 requires a masonry wall. In spite of additional planting required with buffer B-3, it is not as opaque as B-1 with a wall. Allowing these two buffers interchangeably means some sites will be adequately buffered, and others will not.

Buffer requirements should be performance-based, using an opacity rating system that allows various plant materials and screening selection options that may include a combination of plant materials, berms, walls, or fences within a specified buffer width. The use of a model ensures that buffers that are intended to serve the same function are equivalent in opacity, even with varying screening and plant materials. With an opacity rating, the staff would be empowered to permit any buffer configuration of width, plant material, and structure, provided it met the required opacity. A computer model can be provided that would allow developers to pretest buffer options.

PLANT UNIT OPTIONS		
Plant Unit Option	Quantity, Size & Type of Plants	Illustration
<b>STANDARD PLANT UNIT</b>	<ul style="list-style-type: none"> <li>1. 20' x 40' x 6' Energy Tree</li> <li>2. 10' x 10' x 6' High Double x 2</li> <li>10. 5' High Shrub</li> </ul>	
<b>OPTION A</b>	<ul style="list-style-type: none"> <li>1. 20' x 40' x 6' Energy Tree</li> <li>2. 10' x 10' x 6' High Double x 2</li> <li>10. 5' High Shrub</li> </ul>	
<b>OPTION B</b>	<ul style="list-style-type: none"> <li>2. 10' x 10' x 6' High Double x 2</li> <li>2. 5' High Shrub x 2</li> <li>10. 5' High Shrub</li> </ul>	
<b>OPTION C</b>	<ul style="list-style-type: none"> <li>1. 20' x 40' x 6' Energy Tree</li> <li>2. 10' x 10' x 6' High Double x 2</li> <li>10. 5' High Shrub</li> <li>4. 4' Fake Trees</li> </ul>	
<b>OPTION D</b>	<ul style="list-style-type: none"> <li>2. 20' x 40' x 6' Energy Tree</li> <li>4. 5' High Shrub</li> </ul>	

*Buffer requirements should be performance-based using an opacity rating system that includes various plant materials and screening selection options.*

***Remember the Streetscape***

All streets are similarly treated, so that landscaping of a minor residential street is identical to a major arterial highway. The standard for street trees does not vary by the classification of the road. The landscaping required for building residential next to an interstate should be different from other streets because of the high noise levels. If the intent of this objective is to use landscaping to provide a visual identity to different roads, this is not achieved. Across the nation, city and county’s have often proposed specific street profiles to achieve clarity in streets, with width and landscaping varying from road classification to classification. The use of boulevards is another streetscape tool that could become the standard for major arterials. The City needs to consider whether it wants a range of streetscapes that relate to the type of road or to community character. Both performance- and form-based approaches provide regulations that coordinate landscaping and street design controls.

***Enhance Landscaping in Parking Lots***

Currently, only parking lots developed for 100 or more vehicles are required to meet the internal landscaping requirements, this leaves a great number of parking lots without any required plant material. If the purposes of the regulations are to be met, internal landscaping should be required in parking areas for all commercial buildings and should apply to parking lots with ten or more spaces.

Current regulations stipulate one tree is required for every 20 parking spaces. This requires five trees to be planted in a parking lot for 100 cars. The breaking up and shading of parking is critical and parking ratios of 10 to 15 trees per 100 spaces should be considered in place of the current standard. The standard could be related to the geographic area or land use. Parking lot trees are less critical in industrial or warehouse areas where there are huge roof areas and relatively little parking, than in commercial areas where parking is over twice the area of the buildings.

A tree island of least 300 square feet in area is currently required for each tree. An alternative standard is based on an island the size of a typical parking stall of 9 by 18 feet. If this area is used as a standard, the planting area can be figured out by deducting the curb area



*Foundation planting can soften the look of large blank walls, and in some communities, may be substituted for more sophisticated façade articulation requirements.*



and rounding of the island to permit turning, resulting in about 133 square feet per tree. This allows more trees to be planted in more tree islands. The use of large tree islands with sizable areas of grass does nothing for shading or breaking up the parking lot.

There is no requirement for separation from a curb or curb stop, which is needed to protect trees in islands. A minimum width of five feet clear of vehicle intrusion is recommended for the minimum width of an island.

The plant material appropriate for parking areas should be clearly specified. Material should be readily available at local nurseries and should be suitable for the local climate.

***Encourage Foundation Planting***

Foundation planting can soften the look of large blank walls, and in some communities, may be substituted for more sophisticated façade articulation requirements. Memphis/Shelby County should encourage foundation planting along the bases of buildings.

### ***Diversify Plant Species***

Large buffers or street tree plantings should provide diversity. More and more trees in urban environments are subjected to stress from invasive pests, air quality, poor planting environments, micro climate, and other factors, many species across the nation are having problems with health. The more diverse the species mix, the better able the trees are to withstand these problems. The die-off of elms and chestnuts left many city streets across the nation with a greatly altered character. Single species planting increases the risk of similar damage. A mix of species is desirable to maintaining good health and preventing a rapid loss of trees. Consideration should be given to limiting the number of plants from any one genus. If the concern is to have a unified character at a particular time of the year, use understory trees or flowering ground covers to introduce color or a theme since they are not as critical to a streetscape or buffer as the large trees.

### ***Re-Specify Measurement Requirements***

Tree size is currently measured 12 inches above ground. It is recommended that the forestry definition of diameter at breast height (DBH) be used instead—this is five feet above ground and is the criteria used in the Tree Ordinance. DBH is a better measure for multi-stemmed trees, and is easier to measure trees in the field. The 12-inch above ground measure is used for landscape stock where the plant is dug out; this measure is most convenient for checking plants that have already been dug up.

### ***Encourage Low-Water Landscaping***

Xeriscaping is a form of landscaping that requires significantly less water than conventional landscaping. Encouraging drought tolerant plant material will help to conserve water in City and County, especially during hot, dry weather. Optional standards should be developed for landscaping material that conserves water, such as an alternative plant list. Incentives or rebates should be implemented that encourage applicants to use more water efficient forms of landscaping.

### ***Consider the Need for Additional Qualified Personnel***

Memphis and Shelby County currently lacks dedicated personnel to ensure required landscaping and buffering provisions are installed and maintained correctly. No one on staff has the sufficient knowledge or expertise to ensure required plant material is appropriately installed and maintained. We recommend the City/County consider the need for a qualified landscape architect or urban forester.

### ***Be Careful Not to Impede Redevelopment***

While it is generally important to improve landscaping as quickly as possible, the City/County need to be cautious about applying landscape requirements to every change in use. The threshold for improvements to older commercial centers may be very low. Thought needs to be given to whether a viable tenant (without new landscaping) is better than a vacant storefront.

### ***Protect More Trees***

Currently, the Tree Ordinance allows trees with at least ten inches of DBH to be replaced by four 2-1/2 inch trees, regardless of the size of the existing tree. This means a 10-inch tree and a 48-inch tree have the same replacement value despite the fact that the 48-inch tree is far more significant and important. We recommend a rate of replacement that increases with size so there is added protection for very larger or specimen trees.

A tree survey should be required for all development on land that has forest cover in the most current aerial photos in the planning office. The survey should be required to identify all trees of at least a certain size, tag them, and identify by tag number the diameter, trunk type, species, and health. The location of each tree should be identified by survey on a plan of the property. The survey should be taken before a site plan is filed. There could be certain exemptions from tree surveys.

If the objective of a tree ordinance is to preserve trees in new developments, then the exemption for tree harvesting is a tremendous loophole. It provides a means of making money while clearing the site and avoiding the preservation of trees. A better approach is to issue a permit that locks the property into protection based on current aerial photography. The developer would be required to provide data on trees and the number of acres cleared as a means of determining the amount of replacement vegetation required.

It is recommended that specific levels of protection be established for forested areas. The standards can vary by the type of forest (hardwood climax, evergreen), maturity (size of trees), or in combination with physical features (drainage courses or steep slopes). In addition, the protection levels should be sensitive to the character of the area. A high level of protection of trees can make an urban development suburban in character.



*Trees can be damaged or killed by a wide variety of construction activities. We recommend the City/County consider implementing provisions designed to protect saved trees during the construction process.*

Tree protection regulations can encourage or discourage tree preservation. The current regulations encourage cookie cutter development to achieve the permitted density. Thus, any resource or tree protection can lead to loss of density. A loss of density is an economic disincentive to protect trees. Ordinances that permit clustering—using smaller lots as a matter of right—can eliminate this disincentive or even create an incentive. If tree protection or any other resource protection is desired, clustering with several levels of required open space should be permitted as a matter of right so that developers can work to protect the trees without having to go to a public hearing.

One issue which is not addressed in the current regulations is survivability. With mature trees, loss or impending loss is often not obvious immediately. A full tree inspection should be done for both newly planted trees and preserved trees before the construction bonds for a new development are released. At that point, a last inspection should identify any trees, either newly planted or preserved that are not surviving and replacement should be mandated.

Memphis/Shelby County has no way to identify, celebrate, or protect its special trees. Consideration should be given to implementing some type of heritage tree program. Such a program would allow trees with historical significance or trees which are landmark to the community or trees of exceptional size or form to remain protected for generations to come. If directed, we will investigate the options available to implement such a program in Tennessee.

Trees are a major element of the landscaping provisions. Specific standards should be developed for the maintenance of trees once installed. Pruning performed on trees should adhere to the latest standards and recommendations made available by industry professionals and the International Society of Arboriculture. Standards for watering, fertilizing, and other general maintenance practices should also be considered.

Trees can be damaged or killed by a wide variety of construction activities. We recommend the City/County consider implementing provisions designed to be protect saved trees during the construction process. Once it has been determined which trees are to be saved, it is essential that the soil beneath them be kept free of machinery, equipment and if possible even foot traffic. Traditionally, the “drip line,” the area from the edge of the canopy to the trunk, has been suggested as the protected area. But more is better, as much of the area beyond the tree’s drip line as possible should be protected.

Orange snow fencing is often used to delineate the root protection zone, although industry professionals suggest more secure methods. Sturdy wood fences or chain link fencing are generally better choices, especially on busy construction sites. To further protect the tree, a thick layer (about six inches deep,) of organic mulch is highly recommended. Wood chips work well and are inexpensive or free in most places. Gravel to a depth of about four inches could also be used if it is more readily available. Paving over tree roots should also be avoided. There should be additional language to prevent root suffocation caused by a grade change, the dumping or pouring of soil contaminants (such as concrete, lime, or paint thinner), and unauthorized pruning or trimming of branches. Tunneling for underground installations should be required within the drip lines of saved trees.

## Reduce Soil Erosion

Soil erosion is a significant component of non-point source pollution. It is a major contributor to pollution during and immediately after construction. Good soil erosion regulations can significantly reduce environmental impacts. Memphis/Shelby County should seek to avoid soil erosion problems by first leaving existing plant material in place and avoid disturbing the most erodible areas of a site. Erosion is variable by soil type and topography; some soils, sand for instance, erode more easily. The steeper the slope of the land, the greater the erosion, because the run-off velocities are higher. There is no discussion in the current regulations regarding this issue. Regulations that prevent construction on the steepest of slopes are the best way to address the relationship of erosion to slope. Similarly, existing tree cover provides the lowest possible erosion rates. A series of resource protection standards would be the best protection for existing cover that reduces erosion. This can also be achieved with clustering provisions. Focus should then be on establishing ground cover as quickly as possible after construction. By re-establishing cover, the erosion rate is reduced as plants re-establish a protective cover from the impact of rain and roots bind the soil. The current regulations do not discuss the reestablishment of ground cover.



# Making Development Decisions Predictable, Fair and Cost Effective

The development review and approval process in Memphis and Shelby County is often adversarial, pitting residents against developers, developers against staff, and staff against staff. For development regulations to be effective, the review process must be efficient, and the community's substantive planning and development goals must be embedded in the review process. Efficient development review is achieved when the framework for permitting is not redundant, the procedures and review criteria result in a reasonable degree of certainty, and the review process for each permit type is streamlined to the greatest degree possible. The length of time it takes to obtain approvals and the lack of predictability in the application of standards were identified as key shortcomings with the existing system. The old adage “time is money” applies when it comes to development review. This section responds to these concerns and provides some approaches for streamlining the review system.



## Key Recommendations

### ❑ Clarify Approval Criteria for All Procedures

- Establish approval criteria for text amendments, zoning map amendments, site plan review, preliminary plans and final plats.

### ❑ Determine the Appropriate Level of Review

- Evaluate the appropriate level of review for specific types of submittals.

### ❑ Shift Site Plan Review Responsibility

- Remove the distinction between administrative and legislative site plans.
- Create a staff technical committee to review and approve all site plans.

### ❑ Consider Mandatory Meeting with Neighbors

- Require developers to meet with neighborhood residents to solicit input before the formal public hearing process begins.



## Relocate Application Submission Requirements

The zoning and subdivision ordinances contain lists of materials required for various submittals. We always recommend removing all application submission requirements from the regulatory language, and including them as a separate packet, checklists or manual. This reduces the length of certain procedural sections and allows the submittal requirements to be modified as needed without the need for a text amendment.

## Consolidate Procedures

The zoning and subdivision regulations both contain various independent procedural elements. We recommend consolidating all review procedures from both ordinances into a separate article that identifies all required permits and approvals.

## Separate Amendment Procedures

The procedure for text amendments, map amendments (rezoning) and comprehensive rezonings needs to be clarified. Many of the requirements (for hearings and notice) are different for a text amendment and map amendments or comprehensive rezoning. To clarify the approval procedures for each type of amendment, we recommend creating different sections for each.

## Clarify Approval Criteria for All Procedures

Clear approval criteria for special permit uses, special exceptions, planned developments and variations are established in the zoning ordinance. However, the approval criteria for text amendments, zoning map amendments and site plans are not clearly stipulated. Also, a clear set of approval requirements for preliminary plans and final plats should be identified.

## Don't Forget Appeals

Avenues for appeal should be clearly identified for each procedure. Appeals to administrative decisions should be cross-referenced to the appropriate section. Appeals to legislative decisions should stipulate the appropriate "court of competent jurisdiction." The appeal procedures must be consistent with state law.

## Identify All Review Bodies and Officials

The existing regulations establish and very briefly list the roles of the Land Use Control Board, Board of Adjustment, Office of Planning Development, Building Department, and Subdivision Technical Review Committee (the Landmarks Commission has a very detailed list of power and duties). We strongly recommend expanding on the existing provisions to provide a complete list of the powers and duties for each respective entity (something along the lines developed for the Landmarks Commission). Furthermore, the power and duties for the City Council and Board of County Commissioners must be established.

## Summarize Review Authority

All development review procedures, including each step in the review process and body or official responsible for implementing the step, should be summarized in a consolidated matrix. A summary of the existing review authority is presented below

## Determine the Appropriate Level of Review

Determining the appropriate level of review for specific types of submittals should be reviewed in conjunction with this project. The best way to ensure that greater reliance on administrative review is acceptable to the community is to assure them that their goals will be implemented

	Landmarks Commission	Technical Review Committee	Planning Department	Building Department	Board of Adjustment	Land Use Control Board	Legislative Body
<b>ZONING</b>							
Comprehensive plan amendment			Review (H)				Decision (H)
Certificate of occupancy				Decision			
Text amendment			Review			Review (H)	Decision (H)
Map amendments (rezoning)			Review			Review (H)	Decision (H)
Comprehensive rezoning			Review			Review (H)	Decision (H)
Administrative site plan			Decision (1)	Decision			
Legislative site plan				Review			Decision
Special permit use						Review (H)	Decision (H)
Variation						Decision	
Special exception						Decision	
Interpretation			Review	Decision			
Appeals from administrative decision					Decision		
Planned development							
Outline plan			Review			Review (H)	Decision (H)
Modification			Review			Decision	
Final plan			Decision				
Amenity Incentive				Decision			
Certificate of appropriateness	Decision						
<b>SUBDIVISION</b>							
Variances						Decision	Decision
Text amendment			Review			Review (H)	Decision (H)
Preliminary plan		Review	Review			Decision (H)	
Final plat			Decision				
Minor subdivision			Decision				
Street dedications (acceptance)		Review	Review			Review (H)	Decision
Street and alley closing		Review	Review			Review	Decision

(H) = Public hearing required

Notes:

(1) Planning Department approves administrative site plans in the Uptown District and the South Central Business Improvement District.

through the application of uniform standards. We hope this process will evolve during review of revised language for the unified development code.

## **Shift Site Plan Review Responsibility**

The Building Department currently reviews all site plans and approves administrative site plans. The City/County should employ a staff committee that reviews all site plans (similar to the subdivision technical review committee already in place). The review committee should be composed of department heads who would attend periodic meetings (usually weekly or bi-weekly) and comment on each application (if applicable to their department). This will help address the frustration felt by many due to a lack of communication between various departments during the approval process. Consideration should also be given to allowing the staff committee to approve all site plans and removing the distinction between administrative and legislative site plans.

## **Expand Mandatory Pre-Application Conferences**

Many communities rely on pre-application meetings with staff as they provide an applicant with valuable input about what is expected and inform staff of an applicant’s development intentions. A pre-application conference is currently required prior to the submittal of an application for a planned development and suggested prior to the submittal of a preliminary plan, proposed street dedication or street or alley closing. The proposed regulations should expand on this provision and mandate a pre-application conference for the following:

- Rezoning;
- Special permit uses;
- Site plan approval;
- Preliminary plan approval;
- Street dedications; and
- Street and alley closings.

The intent is not to lengthen the development review process, but to give staff an opportunity to provide information at an early stage to improve application completeness and ultimately expedite review timeframes by other reviewing bodies.

## **Consolidate Public Hearing and Notice Provisions**

Public hearing and notice requirements for different types of review are included in various parts of the zoning and subdivision ordinances. A more user-friendly format would place all hearing and notice provisions in one comprehensive section so that similar notification requirements that apply to multiple review procedures don’t have to be continuously re-

peated. A matrix that clearly identifies public hearing and notice requirements for all development review applications should also be developed.

## **Consider Mandatory Meetings with Neighborhoods**

Engaging neighborhood residents early in the planning process will help to reduce opposition to new development. Educating residents through public workshops or open houses invites them to raise concerns. This will help establish what types of development are acceptable in the community. Neighbors are anxious about traffic, parking, gentrification, and loss of privacy. With community involvement, these concerns can be addressed and resolved. In some instances the approval process can be less contentious when developers and residents of an surrounding area can reach a compromise on a proposed development. Consider requiring developers to meet with residents to solicit their input before finalizing their development plans.

## **Codify Amendments on a Regular Basis**

Once the unified development code has been prepared it will become very important to ensure all amendments are codified on regular basis. For our analysis, it was very frustrating to discover the extent of amendments to the zoning ordinance that were simply uncoded. We strongly recommend the day-to-day upkeep of the proposed regulations be handled by another means than currently done so now. Today’s codifiers have typically been unable to do an adequate job in addressing modern, user-friendly zoning and subdivision ordinances.

## **Expand Administrative Adjustments**

Presently staff is authorized to approve up to a ten percent reduction of a required building setback subject to certain requirements. This concept should be expanded to allow staff waivers of other elements of the base districts such as height, landscaping and parking.

## **Consider Minor Modifications**

The regulations need the freedom to determine whether or not changes to development plans and site plans should require the applicant to move through the entire process again, or whether the determination may be made at the staff level. Minor modifications can be spelled out in the procedures (normally they are changes that do not affect the perimeter of the site, or increase the density or intensity of the use). Moving development more quickly through the system benefits all parties – the developer, the various Boards who no longer need to review modest changes, and the staff. By codifying what acceptable minor modifications are, the community is protected from significant changes as well.

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