

# **BYPASS DESIGN STANDARDS**



LEWISBURG, TENNESSEE



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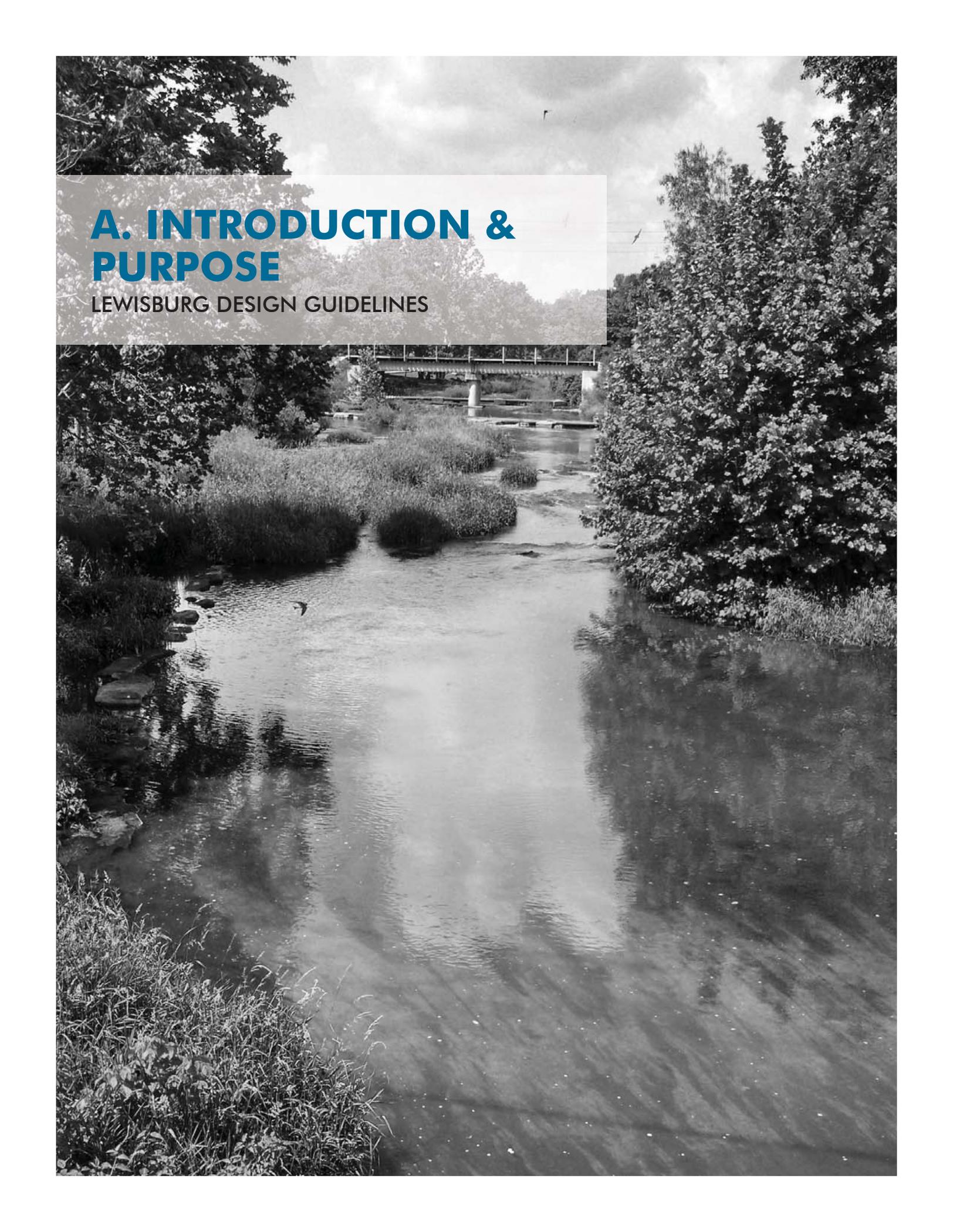
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*“Plan for the future because that’s where you are going to spend the rest of your life.”*

*- Mark Twain*



# A. INTRODUCTION & PURPOSE

LEWISBURG DESIGN GUIDELINES

# A1

## PURPOSE & INTRODUCTION

### PURPOSE

This Design Standards Manual contains the design and construction criteria that are minimum City of Lewisburg requirements for the design and construction of facilities and infrastructure in the specified sub-areas of the City. The manual is primarily intended for use by Developers, Architects, Landscape Architects, and Engineers as a reference for City requirements.

The developer and the developer's design team shall be responsible for the applicability of the information contained in this manual relative to the particular development. The developer and the developer's design team shall also be responsible for the accuracy of the information furnished in the design of all facilities as it pertains to both the development and other affected properties. Concurrence by the City in the design shall not be construed to relieve the owner or the owner's engineer of any responsibility.

In the event that specific circumstances dictate additional requirements, it shall be the responsibility of the developer's design team to provide the necessary details for construction to be approved by the City's reviewing team.

The following guidelines are meant to supplement the existing City of Lewisburg Zoning Ordinance. Where conflicts or discrepancies may exist, the zoning ordinance shall prevail. Where these guidelines may conflict with other local, state or federal guidelines, those guidelines shall prevail.

**The plan submittal process, including zoning appeals process, established by the City of Lewisburg Zoning Ordinance shall be followed for these guidelines.**

## INTRODUCTION

The Ellington Parkway Corridor is a 3/4 bypass around the central core of the City of Lewisburg. It is primarily a 5-lane highway (2 lanes in each direction plus a middle turn lane) and is zoned Intermediate Business for a majority of the site. It is a primarily vehicular highway, with a majority of the corridor's users and shoppers accessing the corridor by vehicle. Parking requirements will be greater in this corridor than in a typical walkable community. Although one of the design goals is to create a more walkable community in the City of Lewisburg, the design guidelines take into consideration that the primary access to the corridor will be by vehicle.

The guidelines in this document are based on best practices from communities throughout the Middle Tennessee region, as well as other cities in Tennessee and throughout the United States.

**These design guidelines were also created using the principles established in the Vision Lewisburg 2035 Plan, in which historical analysis, physical and policy inventory, and stakeholder and public input were reviewed and analyzed by the planning team in order to gather a thorough understanding of Lewisburg's present condition and most pressing needs.** From this analysis, the team set forth to create sets of Guiding Principles for this Corridor. These Principles serve as a critical tool for focusing both the planning team and Lewisburg's leaders in charting a proactive, logical and effective path forward, as well as guiding the direction for the design guidelines.

As established in the Vision Plan, vehicular Corridors are the gateways to Lewisburg and play a critical role in defining the character of the City. As one travels from the rural outskirts of Lewisburg into its more urban core, corridors should reflect this transition. The following principles, objectives and goals provide a roadmap for the design guidelines, protecting important visual corridors and transforming those that have eroded and developed inappropriately over time.

### Principles from Vision Lewisburg 2035

1. Create functional and attractive corridors.
2. Preserve rural character of corridors by concentrating development at key intersections.
3. Adopt "Complete Street" street model to encourage multi-modal transportation and sustainable design practices.
4. Maximize economic potential of interstate interchanges while preserving rural character between exits and downtown.
5. Plan and implement city wide way finding strategy to better orient visitors

This document defines broad principles that can be applied to the many different types of sub-areas in the city of Lewisburg. The principles in this document can also be applied to a wide variety of development projects, including small-scale infill development that includes only one or two buildings; new developments that are built on large infill sites; and public improvements, such as streetscape projects and civic buildings, that are completed by local jurisdictions.

## **Principles of Smart Growth**

Smart growth development is guided by a set of principles that promote strong communities with a range of opportunities for all residents. These principles ensure a spectrum of housing, employment and transportation choices within walkable and livable neighborhoods.

The following section explains smart growth's ten most basic principles, which shaped Lewisburg's Vision Plan.

### **1. Mixed Land uses**

The availability of stores, offices and residences in close proximity allows residents to work and shop close to home. A mixture of land uses promotes job creation, encourages healthy lifestyles and reduces dependence on the automobile.

### **2. Compact Development**

Building compactly minimizes the amount of land that is needed to accommodate new homes, offices and stores. As a result, more land can be preserved as open space and for recreation. Compact development also increases the viability of public transit by placing a larger number of potential riders near transit lines.

### **3. Range of Housing Opportunities**

Great communities include a diverse range of residents. Communities with a variety of housing types, densities and levels of affordability meet the needs of families, singles, and households of all income levels, as well as residents with unique needs, such as the elderly and people with disabilities.

### **4. Open Space and Farmland Preservation**

Open spaces, ecological resources and agricultural land are necessary parts of a community. Preservation of natural open space helps to maintain water quality and protects animal and plant habitats. Ready access to the natural environment and undeveloped land also enhances people's quality of life, which can lead to increased economic prosperity. As Lewisburg strives to embrace and preserve its rural character, preserving open space and farmland is especially important for preserving the city's identity.

### **5. Development in Existing Communities**

Locating new development within existing communities reduces sprawl and conserves open space and agricultural land. In addition, infill development takes advantage of existing services and infrastructure while strengthening or revitalizing existing neighborhoods.

## **6. Walkable and Bikeable Neighborhoods**

Neighborhoods that are designed for pedestrians and bicyclists allow for less dependence on the automobile. Specifically along this corridor, opportunities for safe bike paths incorporated into the ROW should be pursued. In walkable, bikeable neighborhoods, difficult street crossings and dead-end streets are minimized, and pedestrians and bicyclists can use a network of well connected streets, sidewalks and paths.

## **7. Distinctive, Attractive Communities**

Communities with distinctive neighborhood character are desirable for residents, visitors and workers alike. They are designed with a careful understanding of their topographic and climatic contexts, and new development builds on the character of existing development.

## **8. Transportation Choices**

Communities with a broad range of mobility options allow all residents to enjoy comfortable, independent lifestyles. Bicycle facilities and pedestrian-oriented streets are located throughout the community, and frequent, convenient public transit service provides a desirable alternative to the private automobile. These qualities can lead to improvements in community health and energy conservation, as well as reductions in greenhouse gas emissions.

## **9. Predictable Development Decisions**

The successful implementation of smart growth depends upon investment from the private sector. Local governments can promote high-quality development by providing economic incentives for innovative projects, investing in the infra- structure improvements that are needed to support growth, and establishing efficient land use policies. The Vision Lewisburg 2035 Plan contains a series of feasible goals within its implementation matrix in an effort to have predictable development decisions.

## **10. Community and Stakeholder Collaboration**

Development should respond to the desires of the community. Collaboration between residents, developers and civic leaders promotes development that fits the community's sense of how it wants to grow.

## **Quantifiable Reasons for Specific Design Guidelines**

There are quantifiable reasons for establishing Design Guidelines specific to Lewisburg:

- Stabilize property values
- Give residents greater control over development in their neighborhood
- Promote heritage tourism
- Provide affordable housing
- Preserve natural resources by conserving building materials

There are less quantifiable reasons for establishing Design Guidelines specific to Lewisburg:

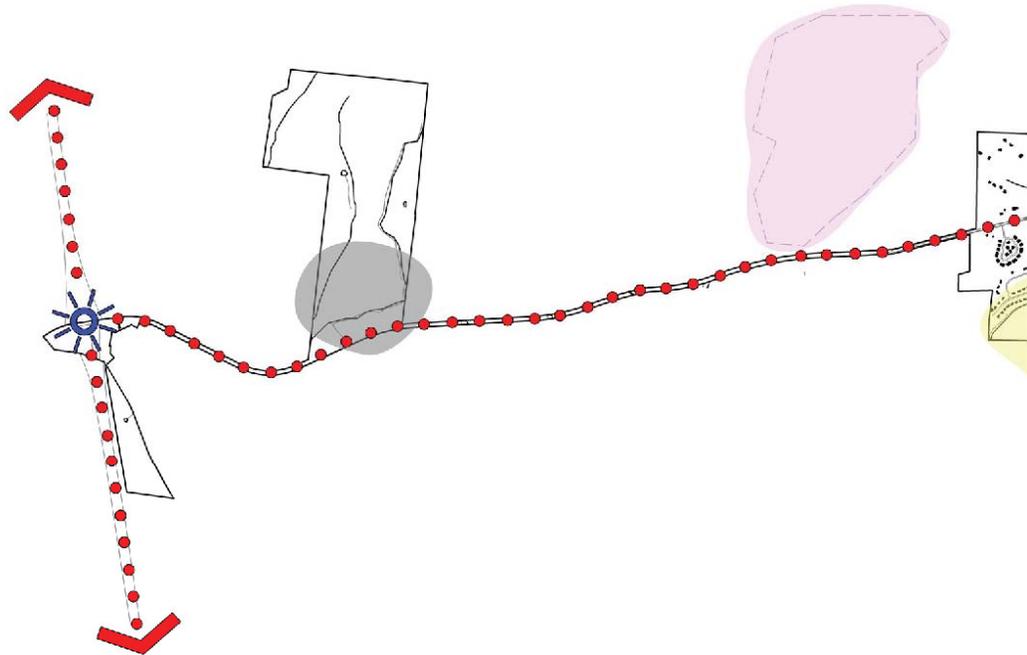
- Protect Lewisburg's past and distinct character for future generations
- Nurture a sense of community
- Provide a sense of place.

# A2 CITY CONTEXT MAP

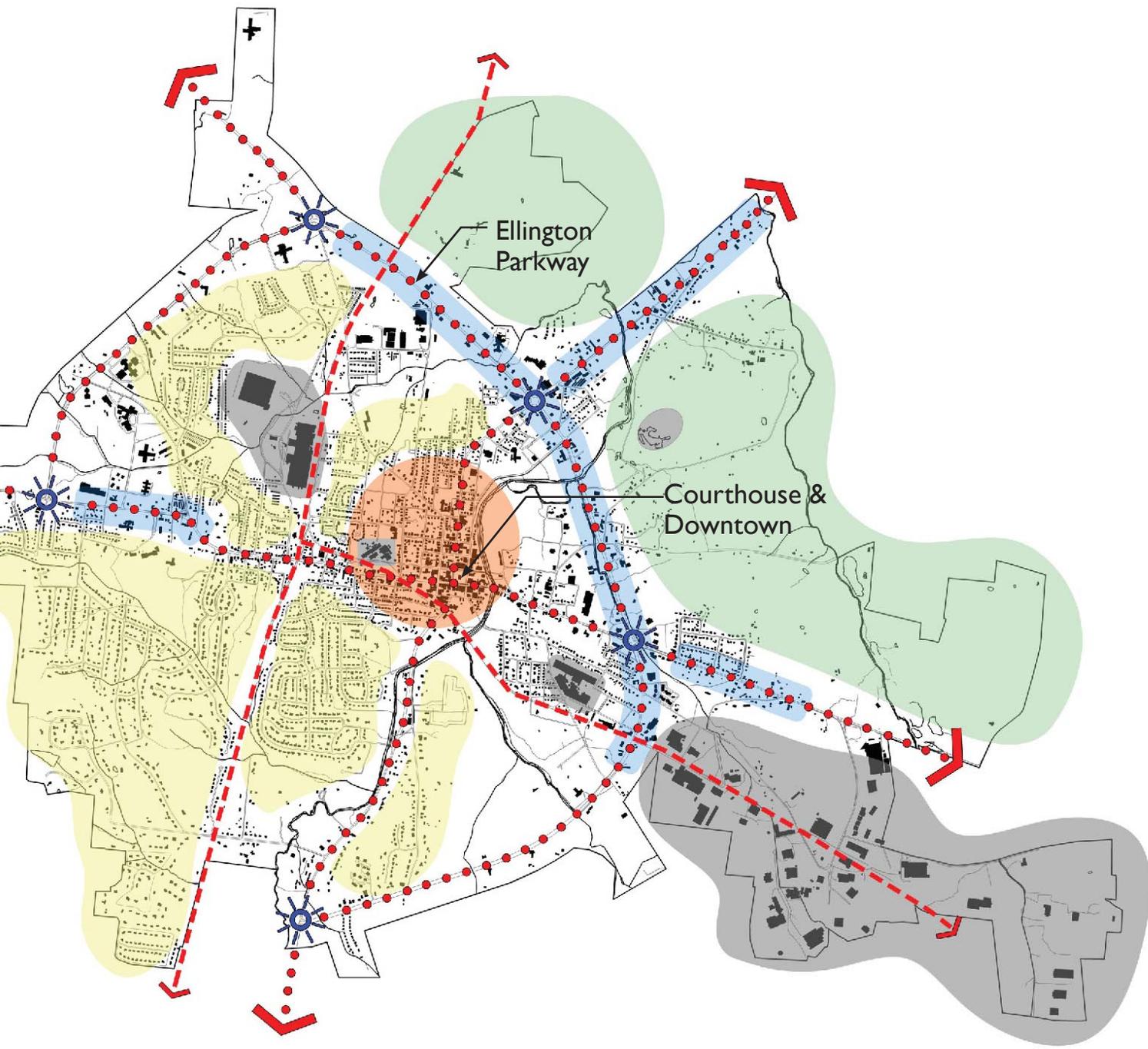
## BUILT ENVIRONMENT MAP LEGEND

- rural farmland
- commercial strip
- residential
- industrial
- landfill
- historic downtown

This set of Design Guidelines aims to connect with and build off of the Vision Lewisburg 2035 put together for the City of Lewisburg. The Vision Plan strives to adopt revised zoning ordinances that will preserve open space along corridors and encourage attractive new development at key intersections. Zoning policy is one of Lewisburg's most effective tools in shaping development over time. Without revising the present zoning policy, key commercial corridors will continue to develop without constraint and/or physical design guidelines. Designating key intersections for higher density develop with more rigorous design guidelines, while identifying other corridors for buffering are strategies the city should employ to maximize development impact and minimize visual clutter. These Principles help serve as a backbone for the Design Guidelines.



Not to Scale



# A3 SUB-AREAS & EXISTING ZONING MAP

The Guidelines designate three sub-area overlay districts along the corridor: Natural Buffer, Strip Commercial, and Commercial Nodes and are all distinguished by their current land use and well as their future zoning potential based partly on principles and research completed for the Vision Lewisburg 2035 Master Plan. The goal of these designations is to preserve natural buffers along the corridor where possible, encourage and ensure attractive development along the corridor between the commercial nodes, and encourage more dense and compact development (walkable) at the designated commercial nodes.

These subareas are meant to serve as an overlay over the existing base zoning as specified in the City of Lewisburg Zoning Ordinance and will help produce the appropriate growth for the City of Lewisburg as the City grows and expands around the Parkway..

**Natural Buffer:** The Natural Buffer along the Ellington Parkway Corridor runs from Old Columbia Rd to Hwy 50 at the north end of the site and from Hwy 11 to E Commerce St at the south end of the site.

**Strip Commercial:** Commercial development which is not located at an intersection of major streets (collectors or arterials), or within a mixed use development. The Strip Commercial Zone along the Ellington Parkway Corridor runs on one side of the Corridor at the North of the site from Old Columbia Rd to Hwy 50, on both sides of the Corridor from Rock Crusher Rd to Hwy 11 at the middle portion of the corridor, and on one side of the Corridor from Hwy 11 to E Commerce St at the south end of the corridor.

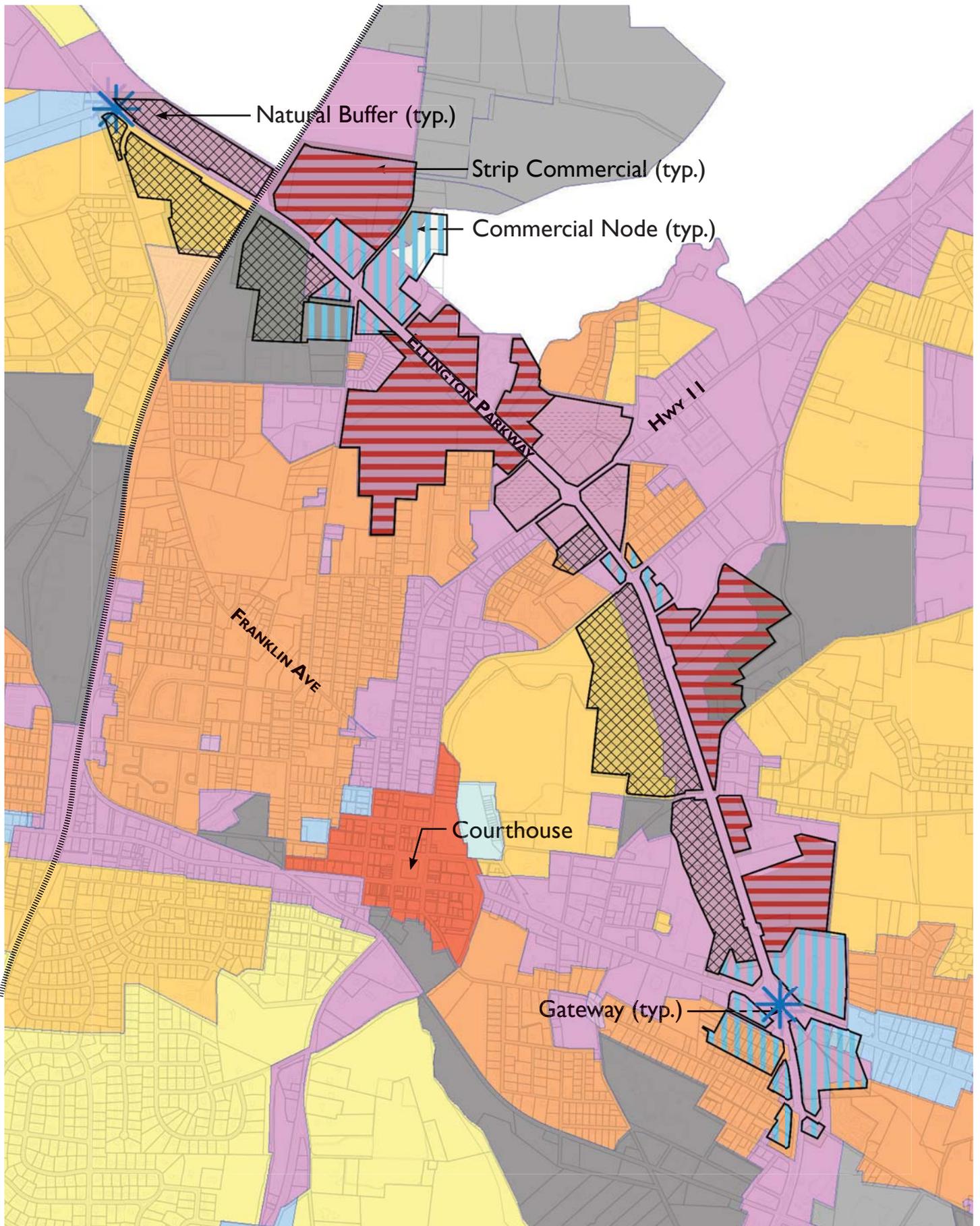
**Commercial Nodes:** An intersection or corridor where there is a concentration of commercial activities- such as shopping, dining and business services. The Commercial Nodes along the Ellington Parkway Corridor are located where Rock Crusher Rd, Hwy 11, and E Commerce St intersect Ellington Parkway.

## SUB-AREAS LEGEND

	Natural Buffer
	Commercial Nodes
	Strip Commercial

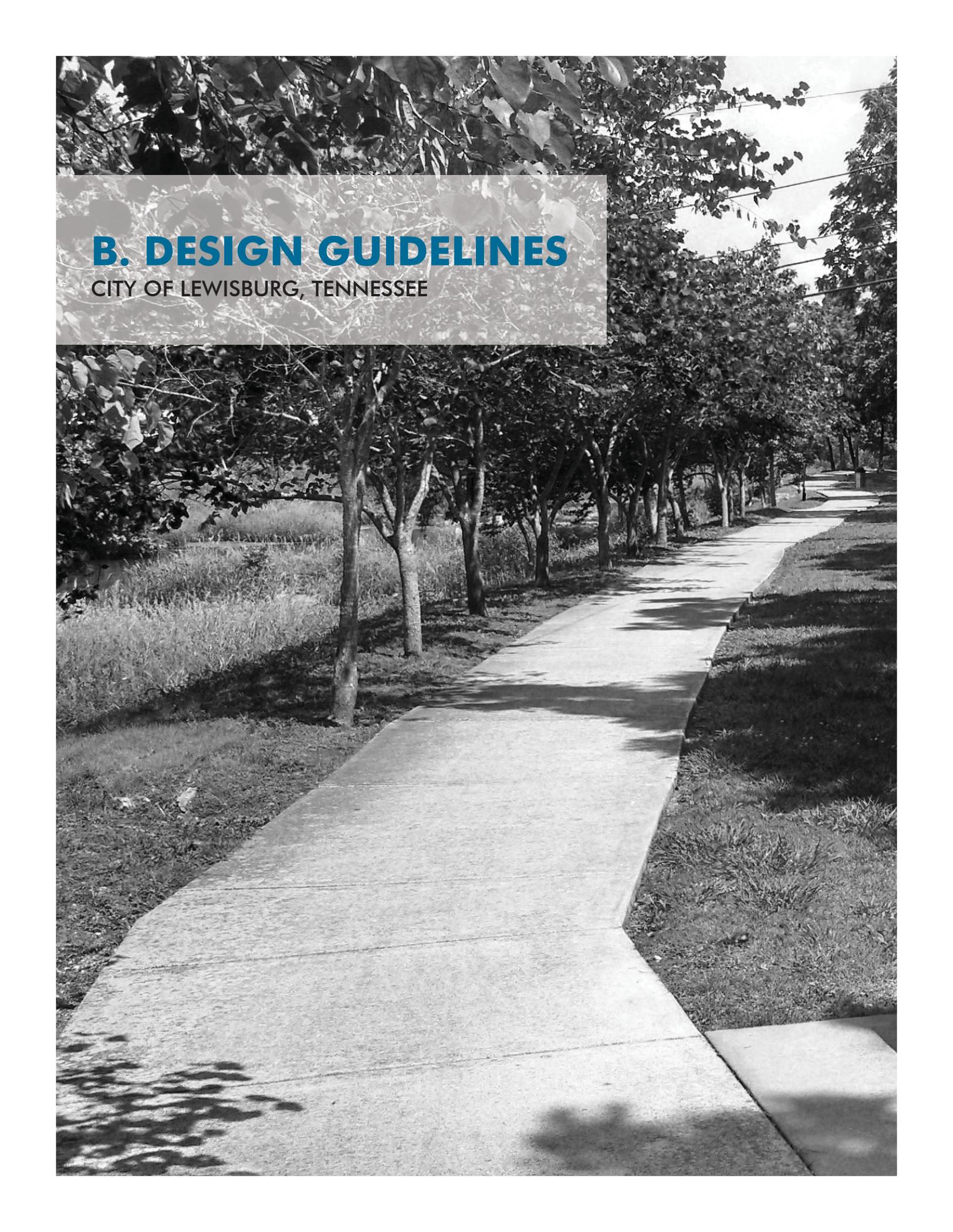
## EXISTING ZONING LEGEND

low-density residential		R-1
med-density residential		R-2
high-density residential		R-3
mobile home park		MHP
central business		C-1
intermediate business		C-2
neighborhood service business		C-3
medical / professional		C-4
light industrial		I-1
industrial park		I-2
special industrial		I-3
floodway		FW
planned unit development		PUD
business park		BP



*“We must not build housing, we  
must build communities.”*

*– Mike Burton*



# **B. DESIGN GUIDELINES**

CITY OF LEWISBURG, TENNESSEE

# B0 GENERAL BUILDING GUIDELINES

## B0.1 BUILDING SETBACKS AND ARRANGEMENT

## B0.2 BUILDING MASS & SCALE

## B0.3 BUILDING ELEMENTS & MATERIALS

The purpose of the Design Guidelines is to provide direction for the physical characteristics of development along the Ellington Parkway Corridor in a way that implements the principles and objectives of the Lewisburg Vision Plan. A key motivator behind these objectives is to preserve open space and encourage attractive new development at key intersections while maintaining the character of Lewisburg for future generations. These key intersections, or nodes of development, should promote stabilization of the surrounding areas while drawing on the character and personality of Lewisburg. Because people transition daily between where they live, shop, work, and play, these places can and should feel different from each other. This hierarchy or feeling of distinction between areas, can reinforce the balance of places through building mass, placement, and materials.

To address this challenge, the City's Vision Plan lays a comprehensive groundwork for changing the pattern of new development with the goal of achieving a more attractive, functional, and citizen-friendly design. That plan called for the development of design guidelines to put these concepts into action. These Design Guidelines, in addition to the existing zoning ordinances, will ensure unified and compatible developments and provide a consistent level of quality along Ellington Parkway. The guidelines present general design priorities and core design principles that can be adapted to individual circumstances of site and subdivision layout. While specific examples are provided, the enduring strength of guidelines relies on their flexibility. Not every case and circumstance can be anticipated, nor is the goal to prescribe the design of every development in Lewisburg. In fact, given the scale and level of variation, it is anticipated that developers will be able to build on these principles and create unique and viable projects that meet the vision.

The Design Guidelines are therefore a direct result of the public planning process used to develop the Vision Plan. This manual was developed by consultants in close collaboration with city staff. Ample input was provided, through in-depth workshops with a focus group made up of citizens and developers. The Ellington Parkway Corridor Design Guideline is intended to serve a number of purposes.

They are to:

1. Educate property owners, developers, the public, and plan reviewers on what is expected and desired for new development along the Ellington Parkway Corridor;
2. Present clear principles and priorities for achieving this vision;
3. Present clear policy guidelines and criteria for development to implement the design vision; and
4. Illustrate specific techniques to use when planning and designing developments.

In order to maintain the current "feel" of Lewisburg created by mostly one and two-story buildings, certain methods in building design will be required so that new development will not sharply contrast with the existing built environment. The vision for Lewisburg emphasizes denser development at key intersections, or nodes, with density decreasing as it reaches the outlying residential areas. This vision for the key intersections suggest buildings that will be larger, taller, placed closer together, and closer to street fronts in many areas.

## B0.1 BUILDING SETBACKS AND ARRANGEMENT

Building setback and arrangement are critical elements for creating the kind of community envisioned for Lewisburg. They create spaces for pedestrians to move and congregate as well as for parking, and they create continuity between

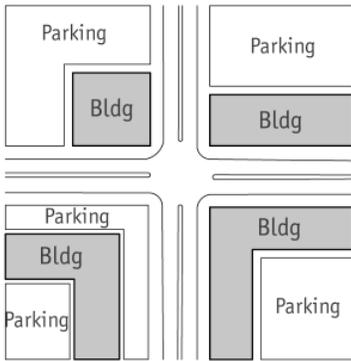
developments. Building arrangement and setbacks help establish an architectural presence at important intersections.

- **Setback** is generally the space between a building and the property line.
- Building **arrangement** refers to the way that buildings are oriented to each other and to the street and how they are sited and arranged on a parcel.

### A. Building Orientation

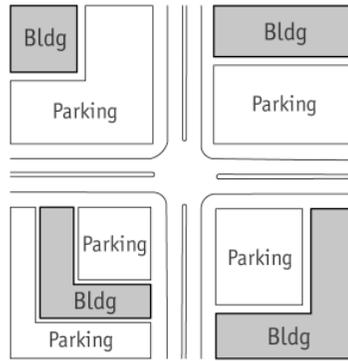
Arrange buildings to orient to and help define the street, to frame corners, to encourage pedestrian activity and define spaces, particularly at key intersections.

- Limit setbacks at major intersections so that the architecture can define the area.
- Use compact building arrangements when a project is close to the core of a Key Intersection to reduce the feeling of expansive parking, encourage pedestrian activity and define space.



**Do This:**

Place buildings next to the street, especially at corners.



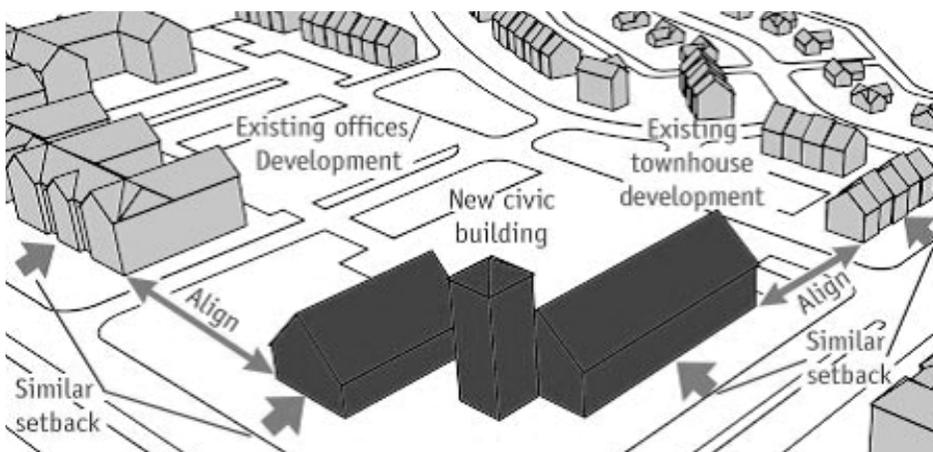
**Avoid This:**

Avoid deep setbacks behind parking lots or vacant land.

- Strive for contiguous building arrangement along the street-face, and avoid large breaks between buildings.

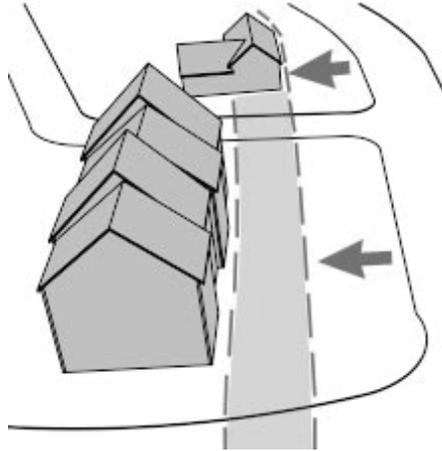
### B. Building Location

- If existing buildings front the street, new buildings should have a similar orientation.
- Orient a portion of shopping centers to adjoining neighborhoods and to local streets leading into the adjoining neighborhoods.
- Provide breaks in large developments and building masses to allow pedestrian connections between developments.
- Avoid orienting service areas toward primary elevations of adjoining developments.



### C. Building Setbacks

Relate setbacks of new construction to setbacks of existing buildings or developments. Limit setback variation to 20 percent of average setback of existing appropriate development on a street for both residential and non-residential development. Consult Sub-Area Standards where no appropriate context exists.

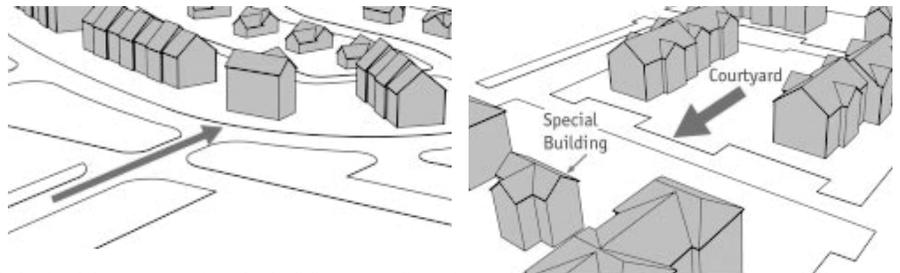


### D. Define Edges

Around common open space, use buildings to define edges and provide a comfortable scale.

### E. Building Arrangements

Choose building arrangements that offer an attractive termination of vistas.



In both of these examples, the buildings are aligned to present an attractive view at the end of a street or at the end of a common space

### F. Entrance Orientation

Entrance orientation refers to the direction of prominent entrances and “front” facades of a building. Generally, the entrance facade will be the most prominent elevation of a building.

- A building can have more than one orientation. For instance, the prominent front elevation can face a major collector or corridor while elevations facing local streets, parking or adjoining developments can have secondary facades and entrances. Design the needed entrances with a hierarchy to properly address the view of the building from various orientations.
- Orient entrance elevations for convenient access from adjacent buildings, sidewalks, parking, bike paths and transit stops. At a minimum, present a compatible view to adjoining sites.
- Orient at least part of public elevations of shopping centers to adjoining neighborhoods.

## G. Service & Loading Areas

Building service areas or loading areas should not be visible from public streets or from adjacent residential areas. They should be located away from the street and/or adequately screened.

## B0.2 BUILDING MASS AND SCALE

Historically, the buildings in Lewisburg were small one and two story structures that related well to the human scale. Newer developments have been more massive with large big-box stores and expansive parking areas. These developments have begun to corrode the human, intimate scale of Lewisburg.

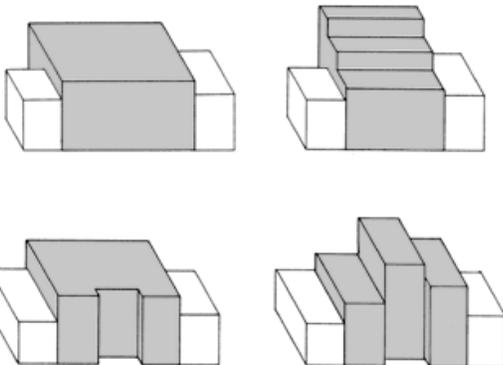
Many techniques suggested in this document provide tools for allowing large development while reducing their perceived massiveness. While the footprint of new commercial development may remain large, massing and organization of building forms can help to retain the more desirable human scale.

There is a difference between massively scaled buildings and monumentally scaled buildings. Monumental buildings still relate to the human scale but are carefully made larger to exhibit a sense of importance. Buildings such as churches and institutional buildings are often built with this kind of scale in mind.

Massive buildings are simply huge buildings that dwarf and are not intended to relate to human scale. Airplane hangers, for instance, relate to the scale of an airplane and are therefore massive. When large retail stores become as massive as an airplane hanger, they lose their relationship to the human user and feel unfriendly.

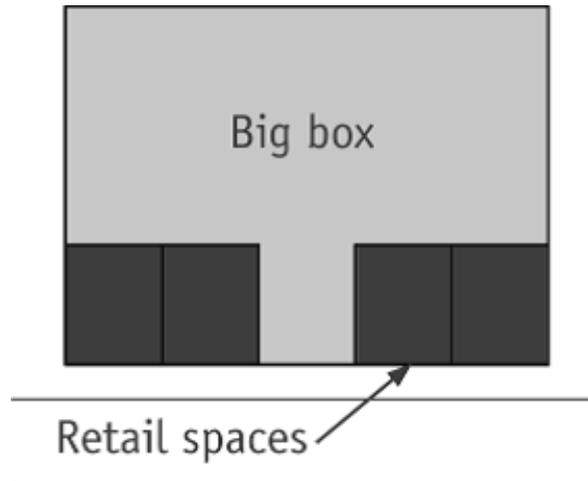
### A. Building Forms and Perceived Mass

- Building forms should be tailored to be compatible with surrounding residential buildings with regard to massing, scale, proportion of openings, roof types and degree of detail.
- Use techniques to reduce the perceived mass of large buildings. When making transitions to lower density areas, modulate the mass of the building to relate to smaller buildings. Heights can be greater if the mass is modulated and other scale techniques are adopted. Reduce height near low density uses. Use step backs, varied wall surfaces, varied heights and varied widths to bring the building down to the human scale and to eliminate large expanses on buildings.



- Use building mass appropriate to the site. Place buildings of the greatest footprint, massing, and height in activity center core areas or at the heart of office developments where the impact on adjacent uses is the least.
- Floor-to-floor heights of a building can have an impact on the mass of a building. For instance, typical ceiling heights in a residence are 8-9 feet.

First floors of office buildings or retail shops can range from 10-15 feet. Upper floors that include residential or office are generally 8-12 feet in height. Big-box retailers may have floor to ceiling heights exceeding 15 feet. When actual or implied floor-to-floor heights exceed these dimensions on the exterior, then a building may begin to read more massive than human scaled. When articulating large buildings, keep these dimensions in mind.



Building Plan

- Reduce massive appearance of “big box” retailers by placing smaller retail spaces along the front elevation of the building.

### BO.3 BUILDING ELEMENTS & MATERIALS

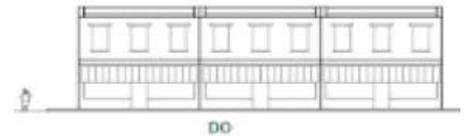
This section addresses the design elements that impact the exterior appearance of a building including:

- roof form and articulation
- pattern of solids and voids
- facade articulation
- architectural details
- materials and textures
- color

These elements contribute to a human scale and provide an interesting and coherent architectural character to the Town. Over-scaled features, haphazard designs, and bland use of materials can undermine the overall character and quality of the community. Use these guidelines to create a cohesive architectural character throughout the entire Lewisburg community.

#### A. Use designs that contribute to a human scale

- Avoid large expanses of blank walls where pedestrian movement is desired. Blank walls at ground floor street facades should be utilized only in combination with landscape plantings.
- Avoid oversized design elements.
- Include human-scale elements, particularly at street level and on facades with a pedestrian focus.



## **B. Establish a Design Theme**

As appropriate, establish a design theme to give a distinctive character to a specific area.

- Establish design themes at the key intersections, or nodes that: have a palette of materials, forms and features; create a coordinated but inviting mix of buildings and spaces; and establish a unique identity for each node.
- Establish design themes for residential neighborhoods. For instance, a neighborhood of Colonial Revival-styled houses will have different yard, setback, lighting and fence characteristics from a neighborhood of more neo-Victorian styled houses. Establish a palette of house designs and street elements. Variety can be introduced into neighborhoods with a mix of lot and house sizes.
- Establish design themes for office and industrial parks. These types of developments can take on a “campus” appearance where roof forms, building heights, materials, and details such as windows all relate more closely to one another, creating a very unified appearance.

## **C. Attractive Facade Treatments**

Provide attractive facade treatments on any elevation that is visible from streets or from any primary elevations of adjoining developments. Use the same materials for all building elevations. Avoid blank walls on elevations facing arterials and collector streets.

## **D. Design Element Repetition**

Balance repetition of design elements with room for individuality.

- Similar setbacks and spacing can create a similar character while allowing diversity among building designs.
- Use repetitive design elements enough to provide continuity but avoid having more than two to three identical buildings in a row.
- Provide opportunities for different colors or other individual design elements.
- Consider using different styles, but similar scale, quality of construction, and siting.

## **E. Development Transitions**

When making transitions between developments, avoid jarring contrasts in materials or building styles.

## **F. Designs and Materials**

Strive for designs and materials that reflect the architectural traditions of the region such as gable roofs, brick and siding.

## **G. Roof Forms**

Use roof forms that complement the building design and contribute to a human scale.

- An articulated roof adds visual interest and human scale. Avoid a monolithic expanse of roof on large-scale buildings. Break the roof mass with elements such as gables, dormers, or parapets.
- Steeper forms are associated with more traditional design and can be appropriate in and near residential neighborhoods.
- Roofing materials and shape should reflect the character of the area. Pitched roofs are preferred in residential areas and can use metal standing seems or asphalt shingles. Flat roofs should have parapets that screen roof top equipment and mechanical penetrations

## H. Solids (Walls) to Voids (Openings)

The relationship of solids (walls) to voids (openings) as well as the number and size of openings in a wall has an effect on the how well a building relates to the user. Aside from allowing natural ventilation and light, windows provide a great deal of design character and warmth to a building. Vertical windows give a more traditional feel, while horizontal windows lend a contemporary look. Generally, retail buildings have a greater area of openings (storefronts and entrances) on the ground floor with solid parapets above. Multistory, mixed-use or office buildings have more glass at ground level and less on upper levels. Residences typically have a greater wall than window area and more vertical openings.

- Use a regular pattern of solids and voids. Maintain an overall pattern so that all of the floors seem part of a whole. Use special windows, window groupings, a mixture of large and small windows to create a hierarchy of importance on a building, particularly around entrances.
- Use a proportion of openings (vertical or horizontal) that generally is consistent throughout a development.

## I. Architectural Details

Architectural details are important tools to create human scale and architectural character. Techniques include highlighting foundations, lintels, sills and cornices with contrasting materials and breaking up the mass of the building with bands at floor levels or projections at entries. These techniques are only a few of the ways to transform a massive building into one of human scale. Consider the facade design of all buildings; even service buildings can have attractive facades. Fences and screens that are attached, or extend from the building, should complement the building facades.

## J. Materials and Texture

The combination of building materials and colors used within the bypass will have an impact on the overall character of the street scope. While the use of a variety of materials and colors is permitted, it is important that each building utilizes them in a manner that creates a pleasing composition and is compatible with the materials and colors of adjacent buildings and streetscape elements. The materials and colors proposed for each building are subject to review and approval by the City and should be specified on all plans submitted to the City.

1. All exterior walls, other than the windows and doors, shall be comprised primarily of one material. Complementary second colors are recommended to provide detail and scale. The architectural treatment shall extend to all sides of the building, and to all accessory structures. The primary material shall extend over a minimum of sixty (60) percent of the exterior wall, excluding windows and doors.
2. Building on the same site shall be compatible in material and color selection.
3. Primary colors should be muted, and bright colors used for accent or contrast.
4. Fences and screens that are attached or extended from the building, shall be comprised of permitted materials that match or compliment the building.
5. Preferred wall materials are restricted to brick, natural or cast stone, integral color block or ground face block.

6. Stucco (including synthetic stucco and metal siding) is permitted as a secondary material and shall cover no more than 40% of exterior walls, excluding windows and doors. Where stucco is used, a masonry base shall be provided at a minimum of two (2) feet in height.
7. Metal panels with exposed fasteners shall be prohibited.
8. Concrete block shall be painted to match the primary material and shall be relegated to the rear of the building only when and where it is not visible.
9. Integral color or split-face block is permitted as a primary material and shall cover no more than 65% of exterior walls, excluding windows and doors, only when the secondary materials are constructed of a preferred material or 60% of exterior walls excluding windows and doors, when used with a secondary material constructed of stucco.
10. Sloping roofs shall have durable materials. Metal with standing seems is the preferred material. Shingles are permitted.
11. Flat roofs must have parapets that screen roof top equipment and mechanical penetrations.
12. Awnings are permitted. Materials and colors are to be submitted to the City for approval.
13. Vinyl siding is prohibited.

## **K. Color**

Color is an integral element of the overall design. Brick, concrete, and stone will have an inherent color, created by nature or during the manufacturing process. Other surfaces will get their color from applied materials such as paint. Awnings provide another opportunity for color.

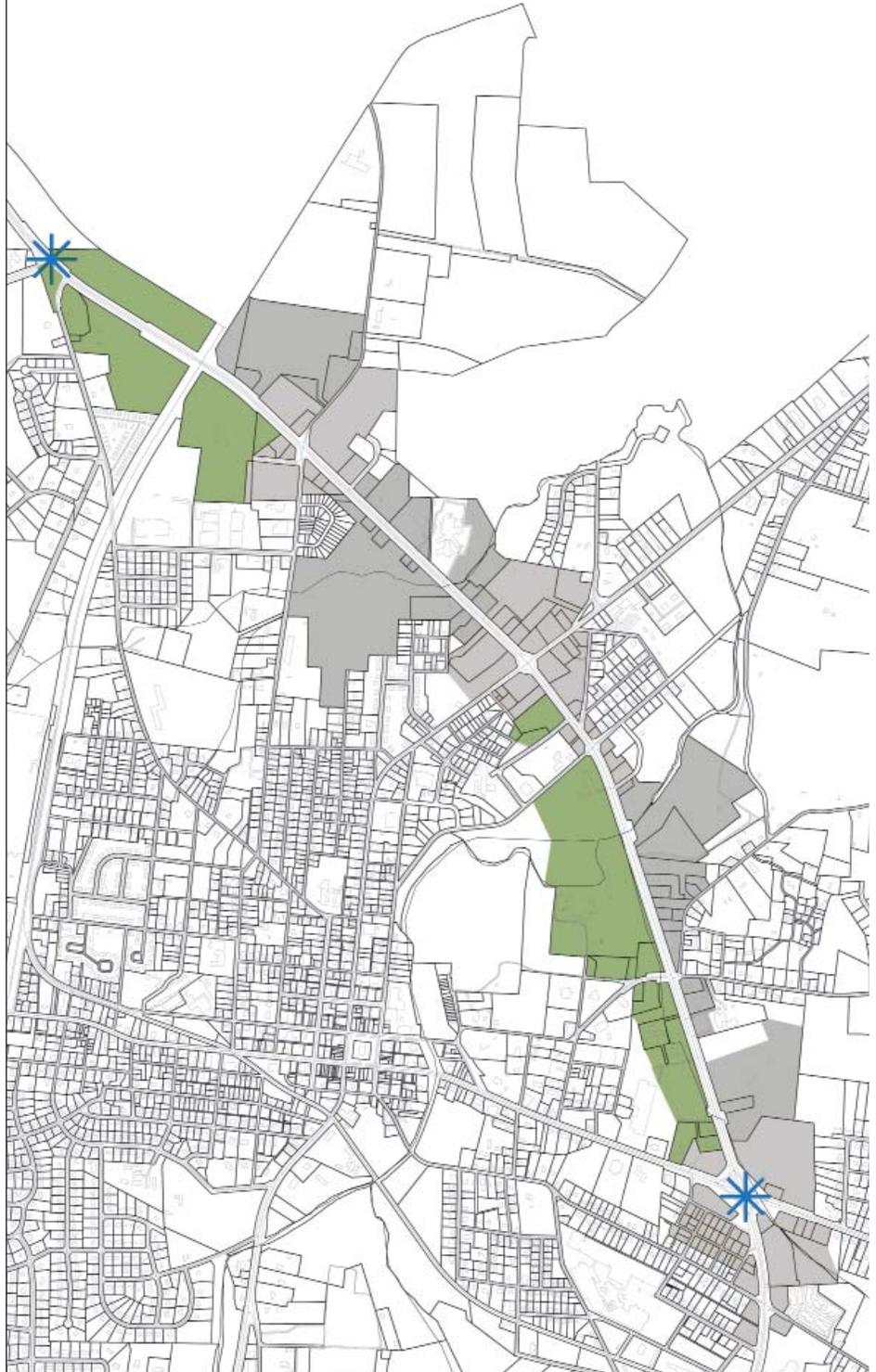
- A coordinated palette of colors should be created for each development. This palette should be compatible with adjacent developments.
- Set the color theme by choosing the color for the material with the most area. If there is more roof than wall area in a development, roof color will be the most important color choice and will set the tone for the rest of the colors.
- Limit the number of color choices. Generally there is a wall color, trim color, accent color, and roof color.
- Use natural tints of materials such as reds, browns, tans, grays, and greens as primary colors. Save bright accent colors for awnings and signs on commercial buildings. Brighter palettes of colors can be employed on residential buildings.
- Use color variation to break up the mass of a building and provide visual interest.

# B1 SPECIFIC SUB-AREA BUILDING GUIDELINES

B1.1 NATURAL BUFFER

B1.2 STRIP COMMERCIAL

B1.3 COMMERCIAL NODES



## B1.1 NATURAL BUFFER STANDARDS

A variable width area maintained with natural vegetation between a pollutant source and a water body that provides natural filtration and other forms of protection

### BUILDING SETBACK & ARRANGEMENT

- |   |  |
|---|--|
| A. Allowable Frontage Types with Required Build-to Zone |  |
| Primary Street  |  |
| Storefront Frontage                                     | 45' from buffer                        |
| Secondary Street  |  |
| Storefront Frontage                                     | 45' from buffer                        |
| B. Facade Width   |  |
| Primary Street  | 80% of lot frontage min. (less buffer) |
| Secondary Street  | 80% of lot frontage min. (less buffer) |
| C. Minimum Building Depth                               |  |
|   | 25' from building facade               |

### BUILDING MASS & SCALE

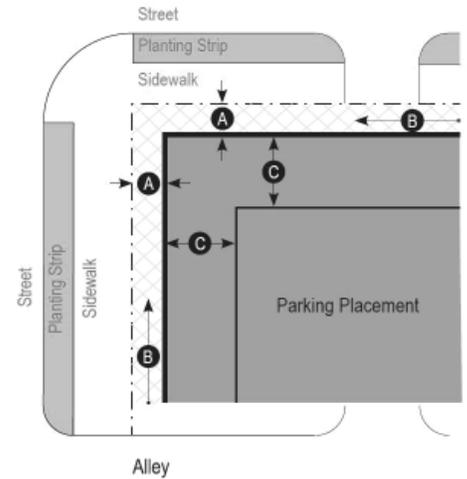
- |                            |                  |
|----------------------------|------------------|
| D. Minimum Building Height | 20'              |
| E. Maximum Building Height | 3 stories or 45' |

### BUILDING ELEMENTS & MATERIALS

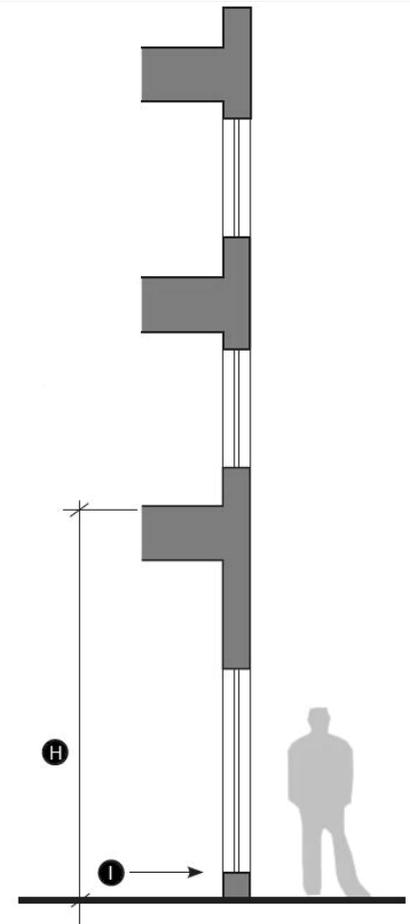
- |                                 |              |
|---------------------------------|--------------|
| F. Primary Building Divisions   | 20'-50' wide |
| G. Secondary Building Divisions | 1'-5' wide   |

Secondary building divisions are defined by solid vertical elements that consist of changes in materials or planes within the facade.

- |                       |   |
|-----------------------|---|
| H. First Floor Height | 16' minimum   |
| I. Windows            |   |
| Ground Floor          | 60% glazing required from 2' above grade to the finished floor of the second story. |
| Upper Floors          | 40% glazing required  |
| Window Sill Height    |   |
| First floor           | 0"  |
| Upper floors          | 24"-48"   |



Building Plan



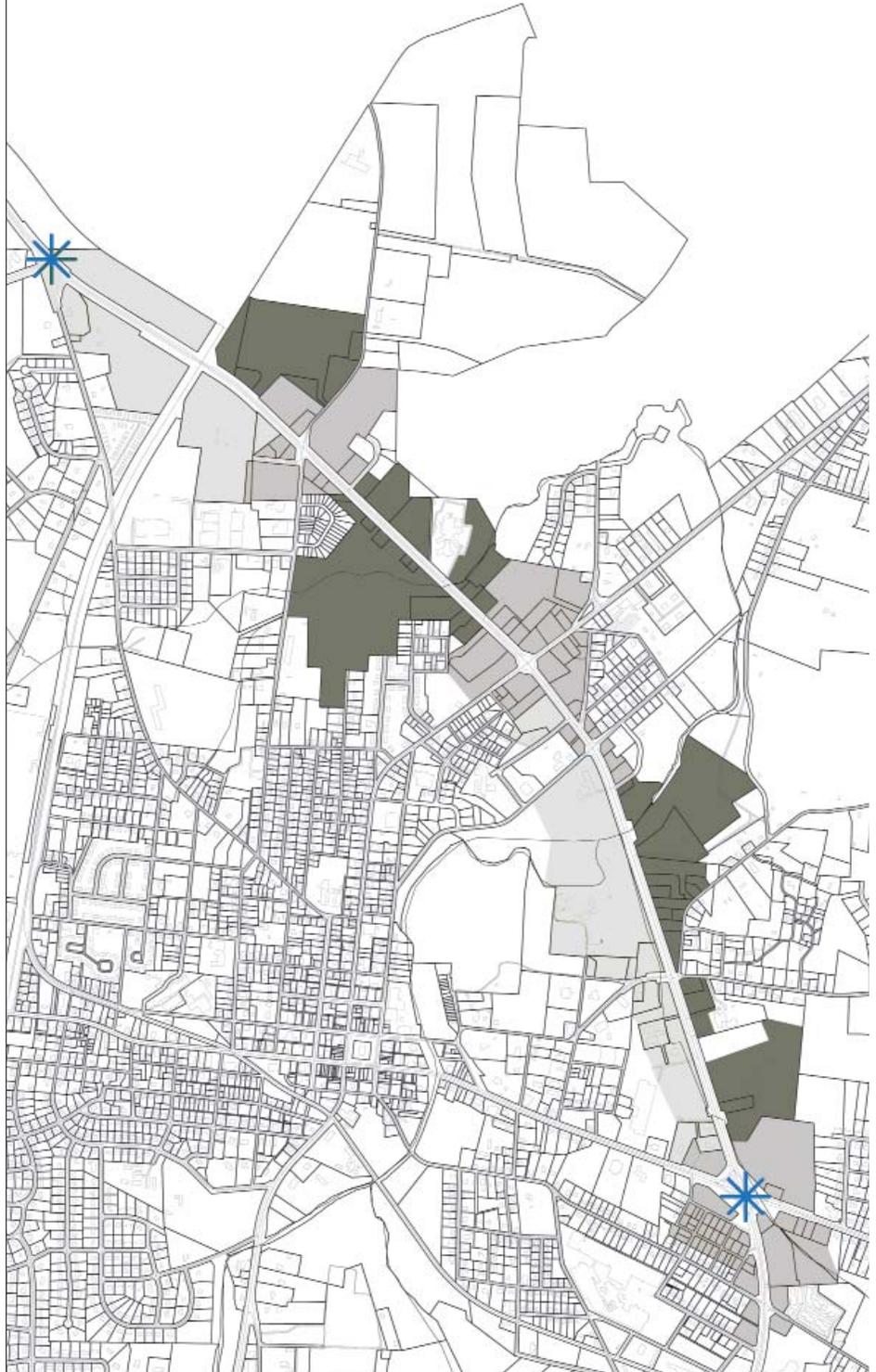
Section

# B1 SPECIFIC SUB-AREA BUILDING GUIDELINES

B1.1 NATURAL BUFFER

B1.2 STRIP COMMERCIAL

B1.3 COMMERCIAL NODES



## B1.2 STRIP COMMERCIAL STANDARDS

Commercial development which is not located at an intersection of major streets (collectors or arterials), or within a mixed use development

### BUILDING SETBACK & ARRANGEMENT

- A. Allowable Frontage Types with Required Build-to Zone
- |                     |         |
|---------------------|---------|
| Primary Street      |         |
| Storefront Frontage | 25'-65' |
| Secondary Street    |         |
| Storefront Frontage | 25'-45' |
- B. Facade Width
- |                  |                          |
|------------------|--------------------------|
| Primary Street   | 60% of lot frontage min. |
| Secondary Street | 40% of lot frontage min. |
- C. Minimum Building Depth
- |  |                          |
|--|--------------------------|
|  | 25' from building facade |
|--|--------------------------|

### BUILDING MASS & SCALE

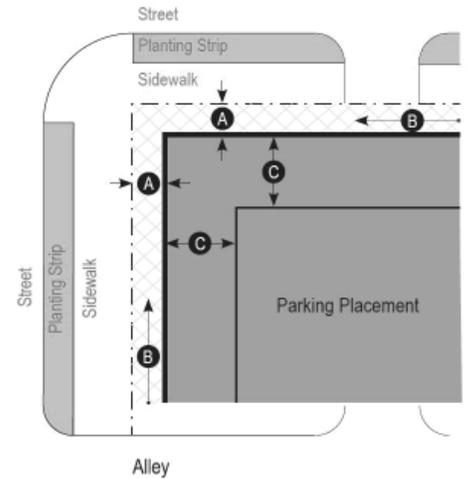
- D. Minimum Building Height
- |  |     |
|--|-----|
|  | 20' |
|--|-----|
- E. Maximum Building Height
- |  |                  |
|--|------------------|
|  | 3 stories or 45' |
|--|------------------|

### BUILDING ELEMENTS & MATERIALS

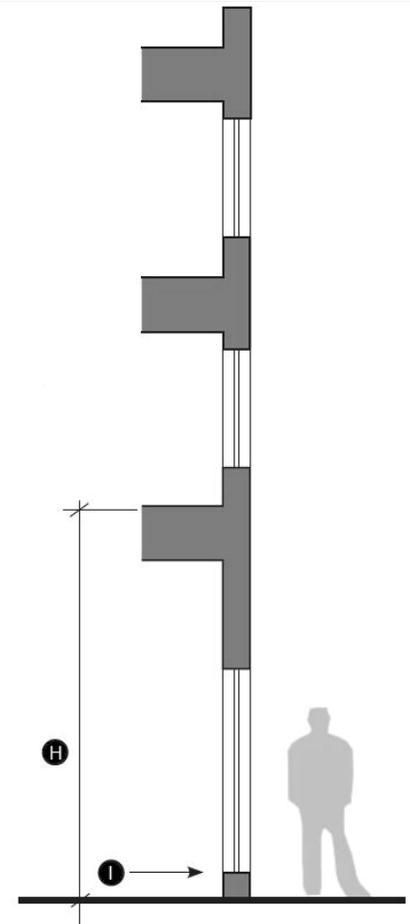
- F. Primary Building Divisions
- |  |              |
|--|--------------|
|  | 20'-50' wide |
|--|--------------|
- G. Secondary Building Divisions
- |  |            |
|--|------------|
|  | 1'-5' wide |
|--|------------|

Secondary building divisions are defined by solid vertical elements that consist of changes in materials or planes within the facade.

- H. First Floor Height
- |  |             |
|--|-------------|
|  | 16' minimum |
|--|-------------|
- I. Windows
- |              |  |
|--------------|--|
| Ground Floor | 60% glazing required from 2' above grade o the finished floor of the second story. |
| Upper Floors | 40% glazing required   |
- Window Sill Height
- |              |         |
|--------------|---------|
| First floor  | 0"      |
| Upper floors | 24"-48" |



Building Plan



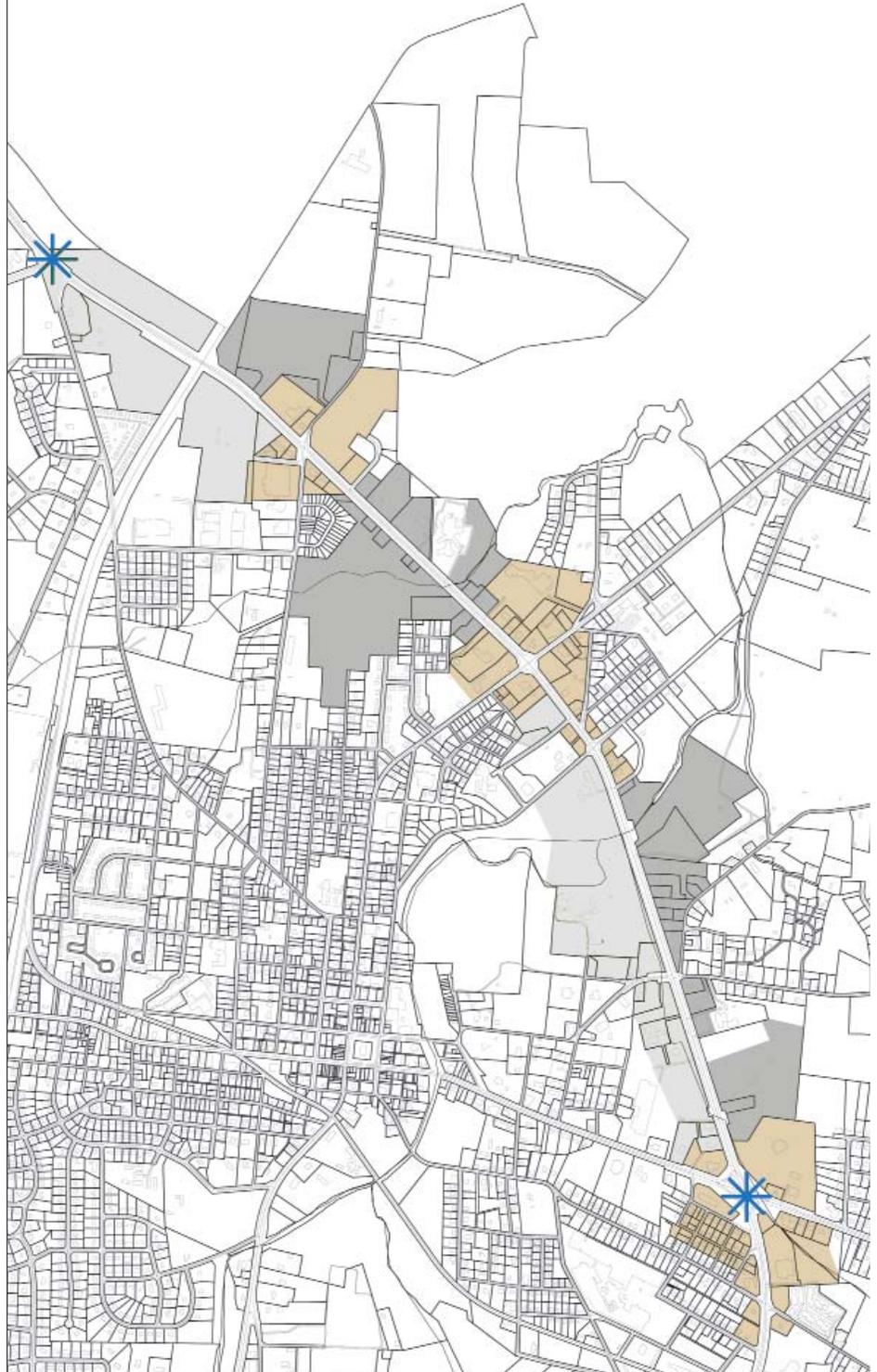
Section

# B1 SPECIFIC SUB-AREA BUILDING GUIDELINES

B1.1 NATURAL BUFFER

B1.2 STRIP COMMERCIAL

B1.3 COMMERCIAL NODE



## B1.2 COMMERCIAL NODE STANDARDS

An intersection or corridor where there is a concentration of commercial activities such as shopping, dining, and business services.

### BUILDING SETBACK & ARRANGEMENT

- A. Allowable Frontage Types with Required Build-to Zone
- |                     |        |
|---------------------|--------|
| Primary Street      |        |
| Storefront Frontage | 0'-10' |
| Secondary Street    |        |
| Storefront Frontage | 0'-10' |
- B. Facade Width
- |                  |                          |
|------------------|--------------------------|
| Primary Street   | 80% of lot frontage min. |
| Secondary Street | 80% of lot frontage min. |
- C. Minimum Building Depth
- |  |                          |
|--|--------------------------|
|  | 15' from building facade |
|--|--------------------------|

### BUILDING MASS & SCALE

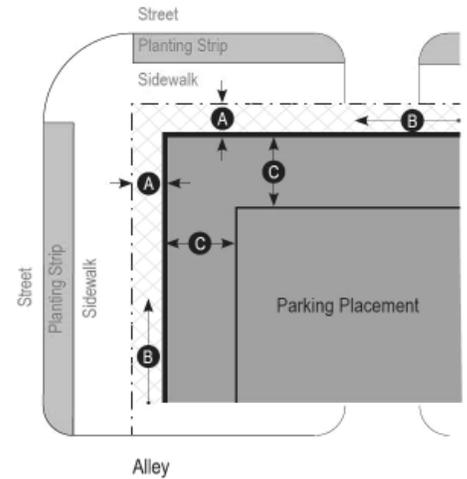
- D. Minimum Building Height
- |  |     |
|--|-----|
|  | 20' |
|--|-----|
- E. Maximum Building Height
- |  |                  |
|--|------------------|
|  | 3 stories or 45' |
|--|------------------|

### BUILDING ELEMENTS & MATERIALS

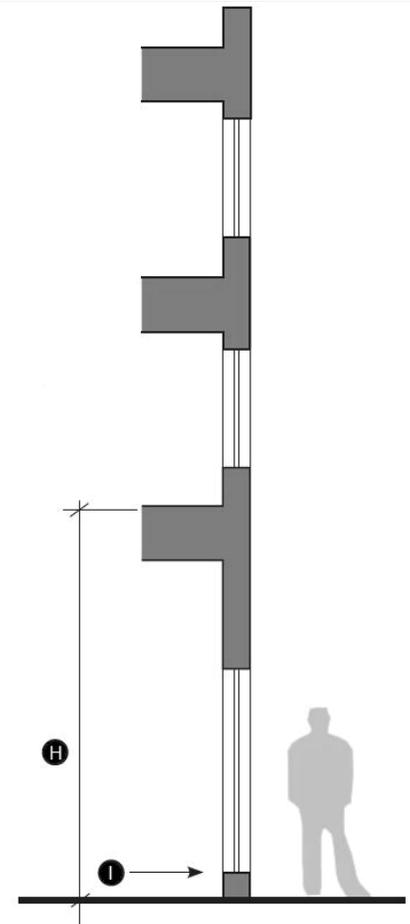
- F. Primary Building Divisions
- |  |              |
|--|--------------|
|  | 20'-50' wide |
|--|--------------|
- G. Secondary Building Divisions
- |  |            |
|--|------------|
|  | 1'-5' wide |
|--|------------|

Secondary building divisions are defined by solid vertical elements that consist of changes in materials or planes within the facade.

- H. First Floor Height
- |  |             |
|--|-------------|
|  | 16' minimum |
|--|-------------|
- I. Windows
- |              |   |
|--------------|---|
| Ground Floor | 60% glazing required from 2' above grade to the finished floor of the second story. |
| Upper Floors | 40% glazing required  |
- Window Sill Height
- |              |         |
|--------------|---------|
| First floor  | 0"      |
| Upper floors | 24"-48" |



Building Plan



Section

# B2 PARKING GUIDELINES

## B2.1 PARKING LOT LAYOUT

### B2.2 PARKING DESIGN FEATURES

### B2.3 SCREENING AND BUFFER REQUIREMENTS

### B2.4 POROUS PAVER AND SUSTAINABLE MATERIALS

A primary goal of smart growth is to enable people to modify their travel behavior by using alternate modes of travel, reducing trip length and combining trips. As a result, communities that reflect the principles of smart growth will have a reduced number of vehicle trips and vehicle miles traveled. However, not all vehicle trips will be replaced by transit, walking or bicycling trips. A well-designed place must accommodate all modes of travel, including the automobile. The challenge is to provide a parking supply that is slightly constrained but does not deter customers, frustrate tenants or create problems for nearby residents. It is also essential to accommodate parking while still creating walkable, pedestrian-oriented streets.

The Ellington Parkway Corridor is a 3/4 bypass around the central core of the City of Lewisburg. It is primarily a 5-lane highway (2 lanes in each direction plus a turn lane) and is zoned Intermediate Business for a majority of the site. It is a primarily vehicular highway, with a majority of the corridor's users and shoppers accessing the corridor by vehicle. Although one of the design goals is to create a more walkable community in the City of Lewisburg, the design guidelines take into consideration that the primary access to the corridor will be by vehicle.

## B2.1 PARKING LOT LAYOUT

### 1. Perpendicular Parking (90 degree)

#### Recommendations

- Perpendicular parking requires less knowledge of the circulation pattern because two-way aisles are used.
- Wider aisle widths (22' & 24') are necessary to allow for two-way traffic and to allow drivers to pass a waiting vehicle. *See Photo B2.1.1*
- A slightly higher number of stalls can be accommodated in a rectangular lot when compared to angle parking layouts.

### 2. Angle Parking (most often 60 degrees)

#### Recommendations

- One-way aisles are used.
- Most drivers find angled-in parking easier to use.
- It is appropriate for short stays with high turnover, i.e. in safety rest areas.
- Angled parking generally takes more space than perpendicular parking.
- Angled parking has been used successfully in oddly dimensioned sites to achieve layout efficiency. *See Photo B2.1.2*
- Planting areas are easier to provide.

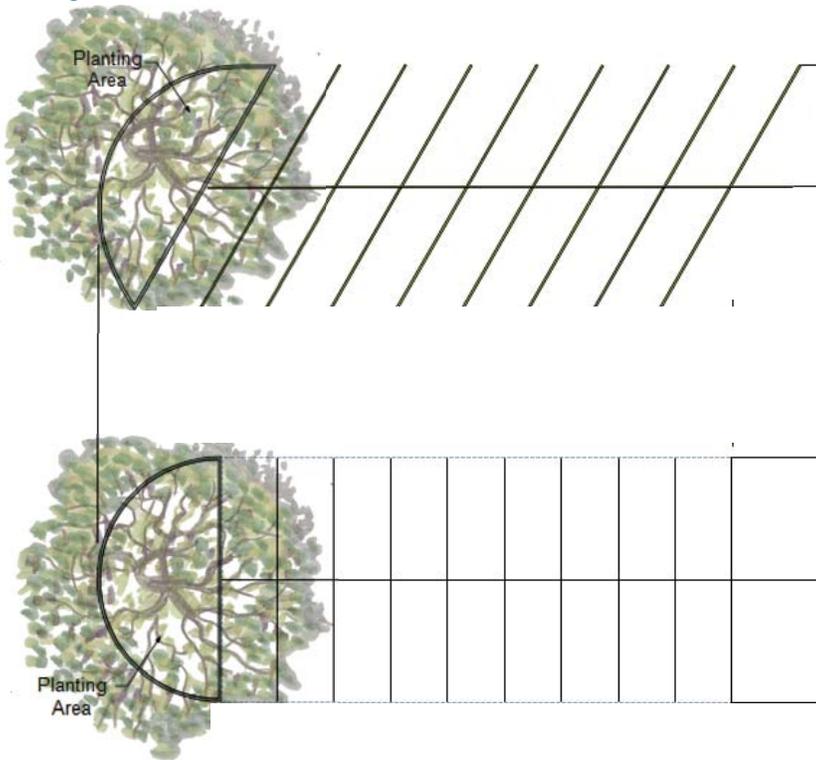
*Figure 2.1.1* shows a comparison between angled and perpendicular parking. It demonstrates the wider aisles and necessary turning radius needed when parking and perpendicular stalls and the minimum aisle width. As stall width decreases, aisle width increases. Perpendicular parking is more difficult when aisle widths are not wide enough. Other stall angles are used less commonly. For example, a 45-degree angle can provide stall space in a narrow lot because stall-to-curb dimensions and aisle widths decrease with angle of stall.

### 3. Surface Parking Lot Placement

#### Recommendations

- Parking lots should be visually separated from the street, as well as the surrounding residential uses.
- Place parking lots behind buildings wherever possible, so that pedestrians can access buildings more easily and to ensure that buildings have a visual presence on the street. (*See Building Guidelines*)

Figure 2.1.1



- If a parking lot is adjacent to a residential area, provide fences, walls and landscaping to create a buffer around the back and side of the lot. (See Section B2.3: Screening and Buffer Requirements)

## B2.2 PARKING DESIGN FEATURES

### 1. Parking Lot Interiors & Island Requirements

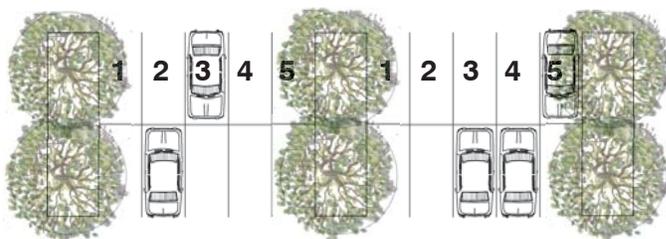
#### Requirements

The area of the parking lot is considered to be all aisles, parking spaces, and driveways. Any new parking lots must connect to existing lots with an access road where grade permits.

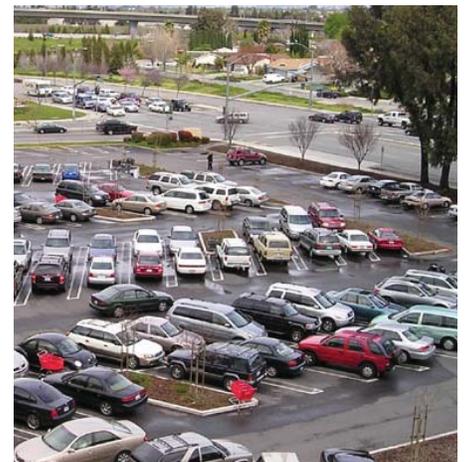
The minimum size of a parking lot island shall be 8.5' x 18' (to match minimum stall dimensions) to insure proper growth and protection of the landscaping materials planted therein. See Figure 2.2.5, See photos B2.2.1 (All)

5 parking spaces is the maximum number of stalls that shall occur before a landscaped island is proposed if the lot has less than 20 spaces. The end of every parking aisle shall have a landscaping island. Islands shall be centrally located throughout the lot. See Figure 2.2.1 Below (All)

Figure 2.2.1



B2.1.1 Perpendicular Parking (90 degree)



B2.1.2 Angle Parking (60 degree) at start of establishing parking island trees/vegetation



B2.2.1 Parking Lot Islands



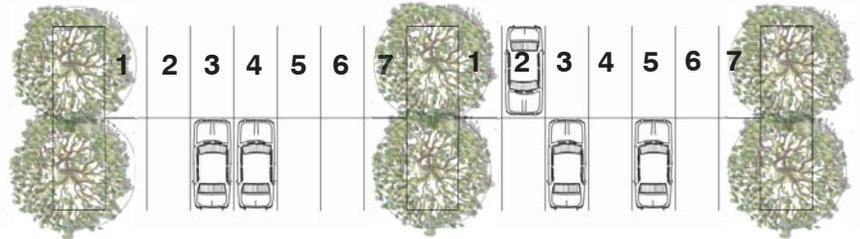
B2.2.2 Perimeter Parking Lot Trees



B2.2.3 Perimeter Parking Lot Trees

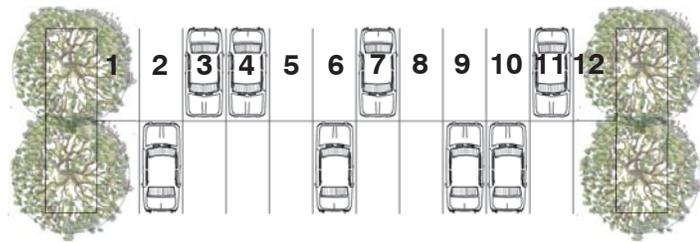
7 parking spaces is the maximum number of stalls that shall occur before a landscaped island is proposed if the lot has 20-40 spaces. The end of every parking aisle shall have a landscaping island. Islands shall be centrally located throughout the lot. See *Figure 2.2.2 Below (All)*

Figure 2.2.2



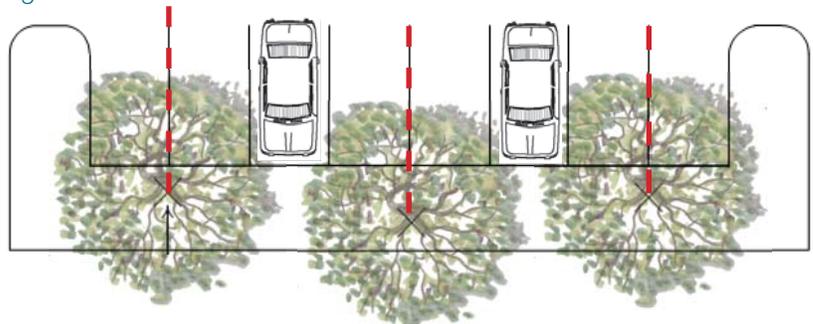
12 parking spaces is the maximum number of stalls that shall occur before a landscaped island is proposed if the lot has *more* than 40 spaces. The end of every parking aisle shall have a landscaping island. Islands shall be centrally located throughout the lot. See *Figure 2.2.3 Below (All)*

Figure 2.2.3



Plant trees aligned with parking stall lines to avoid damage from cars. See *Figure 2.2.4 and photo B2.2.2 (All)*

Figure 2.2.4



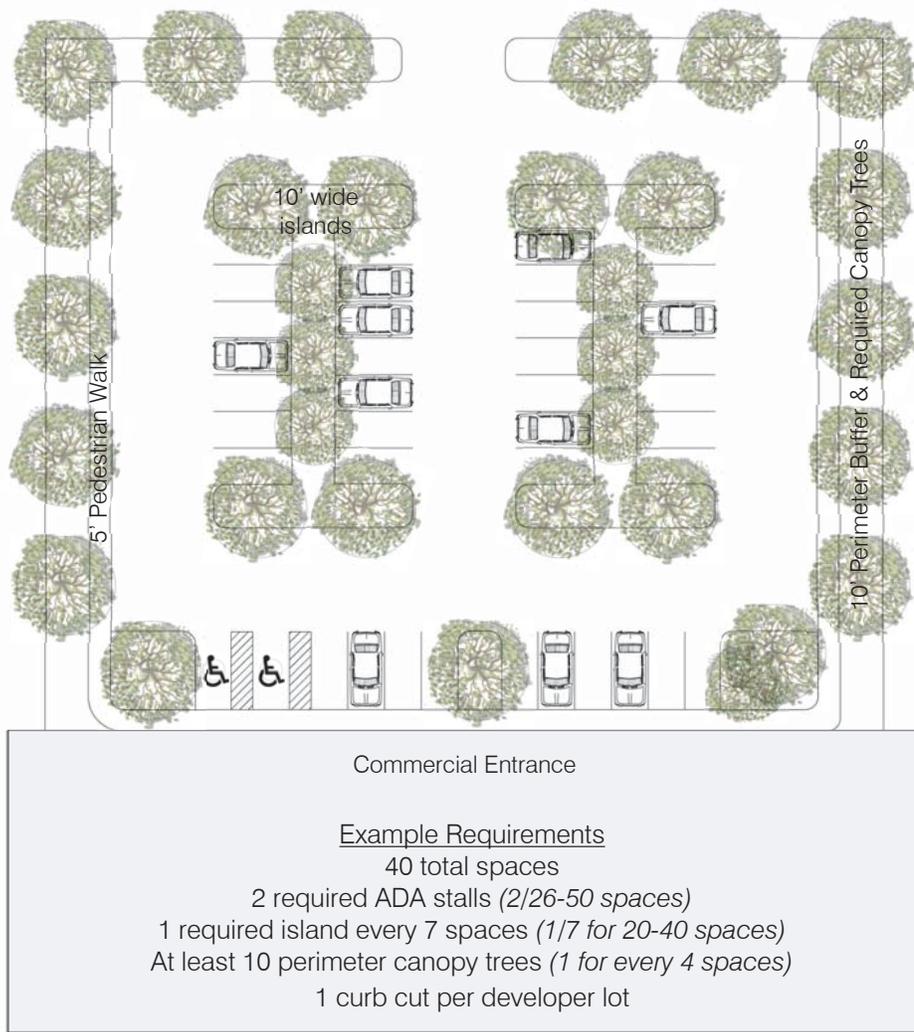
### Recommendations

This landscaping may include additional vegetation over and above the minimum required islands. (All)

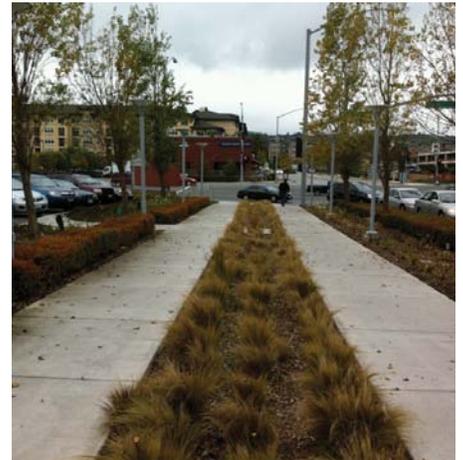
## 2. Parking Lot Perimeter Requirements

Plant canopy trees throughout the parking lot to provide shade and create visual interest. Studies show that the use of shaded parking in hot weather can reduce noxious emissions by up to a ton a day for a municipality. See *photo B2.2.3*.

Figure 2.2.5 (Refer to Zoning Ordinance for parking lot dimension requirements.)



B2.2.4 Interior Parking Lot Trees



B2.2.5 SafeGrowth: Pedestrian Walkways within Surface Parking Lots for Pedestrian Safety



B2.2.6 SafeGrowth: Pedestrian Walkways within Surface Parking Lots for Pedestrian Safety

### Requirements

1 canopy tree shall be planted and spaced evenly in the 10' perimeter surrounding the surface parking lot per every 4 spaces in the lot.

### 3. Parking Lot Pedestrian Paths

#### Requirements

All pedestrian paths shall follow the ASTM International Active Standard ASTM F1637: Standard Practice for Safe Walking Surfaces. See photo B2.2.5-B2.2.6 and Figure 2.2.5. (All)

Provide clearly marked pedestrian paths between all parking areas and the buildings they serve.

Pedestrian paths shall be placed on the outer edge of parking lots from the outermost space to the building entrance.

#### Recommendations

Highlight pedestrian paths with decorative paving, trellises, canopies and similar improvements is recommended. (All)

Use landscaping and pedestrian paths to divide large parking lots into smaller units, and provide lighting along these paths. (All)



B2.2.7 Parking Lot Lighting



B2.2.8 Parking Lot Lighting



B2.2.9 Parking Lot Lighting

#### 4. Parking Lot Lighting

Consider adjacent land uses when designing the illumination plan. Using trees and tall shrubs to screen the parking facility's vehicle activity and lighting from adjoining residential land use can be effective. See photos B2.2.7-B2.2.9.

##### Recommendations

All parking lot lights should be dark sky compliant, as they help to reduce light pollution. Reducing light pollution can help achieve an increased number of visible stars at night, reduce the effects of unnatural lighting on the environment, and cut down on energy usage. (All)

LED lights should be used as they, in general, have better lighting quality, better energy efficiency, and virtually no maintenance. (All)

Recommended pole height should not exceed 25' tall and maximum wattage should not exceed 400 watt. Illumination attributable to a parking lot lighting system recommended not exceed 0.50 horizontal foot-candles beyond the perimeter of the parking lot. (All)

The illumination uniformity ratio is recommended not to exceed 3:1. The use of unnecessarily high wattage lights can actually lead to a less secure environment by creating dark pockets just outside the range of the lights. (All)

Pay particular attention to the scale of lighting fixtures in pedestrian areas. Standard heights for roadway lighting are not appropriate for pedestrians. Pedestrian lights recommended not to exceed 14' in height. (All)

The placement of light poles should, if possible be within raised curb planter areas. When poles conflict with parking lot trees, which can obscure the lighting, curb placement should try to be avoided. (All)

Use downward-directed lighting and cut-off shields to avoid casting light onto adjacent properties or into the sky. (All)

### B2.3 SCREENING AND BUFFER REQUIREMENTS

#### Parking Lot Screening and Buffers

##### Requirements

Screening is required along the street frontage of commercial and residential parking lots (Reference existing zoning codes). (Strip Commercial, Commercial Node)

Plants should screen adequately, while still providing a view of the street from within the parking lot. A car exiting a parking lot should have a clear view of the sidewalk and street; landscaping must not obscure this view. (All)

**Parking Areas Adjacent to Public Streets:** Parking areas adjacent to public streets shall be separated from the edge of the right-of-way by a perimeter landscape strip. Perimeter landscape strips shall be continuous and unbroken except for driveways or sidewalks required to access the parking area. No single driveway/sidewalk penetration shall exceed thirty-five feet.

Perimeter landscape strips adjacent to public streets with four or more travel lanes shall be a minimum of ten (10) feet in width. (See Figure 2.2.5)

Perimeter landscape strips adjacent to public streets with less than four travel lanes shall be a minimum of five (5) feet in width.

(If berms are used) Berms with slopes flatter than 4:1 may be stabilized with lawn grasses, and berms with slopes in the range of 2:1 to 4:1 shall be stabilized by a continuous perennial plant groundcover which does not require mowing in order to maintain a neat appearance. The wall or combination of berm and perennial groundcover shall be a minimum of two and one-half feet in height. Berms shall not have slopes steeper than 2:1 (horizontal to vertical).

Landscape Materials: In areas where the parking area and the adjacent public street or common property line are within thirty inches average elevation of one another, as measured from the centerline of the nearest travel lane and the edge of the parking area paving, a minimum of one tree shall be preserved or planted for each fifty feet of parking area perimeter.

Trees planted to meet this requirement shall measure a minimum of two inches in caliper, and eight feet in height, as applicable for the type of material specified. The remaining area within the perimeter landscape strip which fronts on a street right-of-way shall be planted with one continuous row of evergreen shrubs which shall be expected to mature at a height not greater than two and one-half feet, except as modified for berms or walls.

The remainder of the area within all perimeter strips not occupied by trees or shrubs shall be covered by organic or mineral mulches, other shrubs, groundcover plants or grassed lawns. The use of concrete, asphalt or other impervious surfaces shall be prohibited.

Variants of the above conditions for parking areas which are elevated above or depressed below the elevation of the public street are as follows:

In cases where the parking area is elevated above the adjacent public street or private property by a minimum average height of at least thirty inches, the tree spacing requirement shall be reduced to one tree for each one-hundred feet of parking area perimeter, and the requirement for shrub plantings shall be increased to two continuous rows of evergreen shrubs. All other standards remain as stated above. See Figure 2.3.1

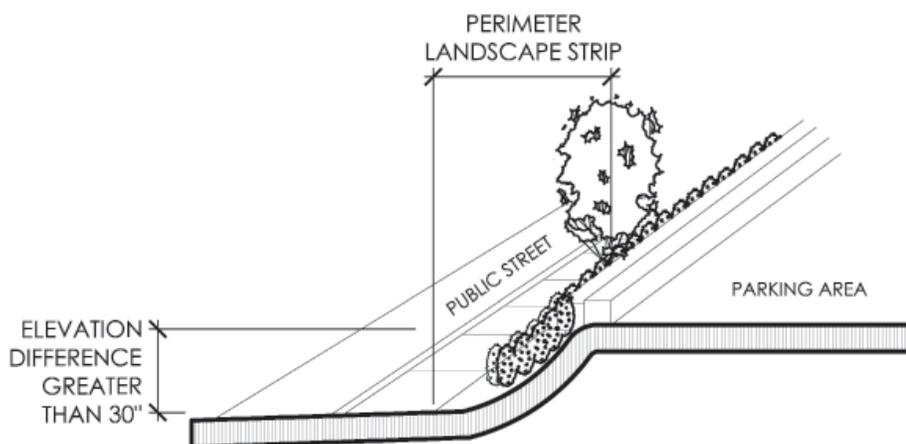


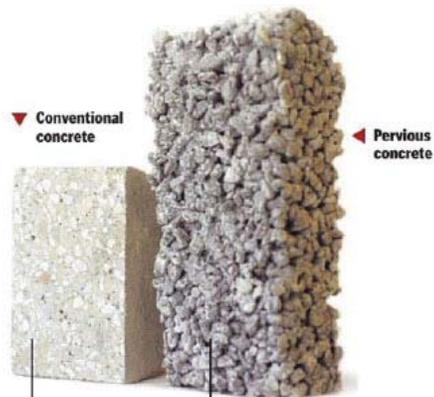
Figure 2.3.1 (Drawing depicts 100' of parking perimeter)



B2.4.1 Porous Pavers



B2.4.2 Permeable Parking Lot Using Pavers



B2.4.3 Pervious Concrete vs Conventional Concrete

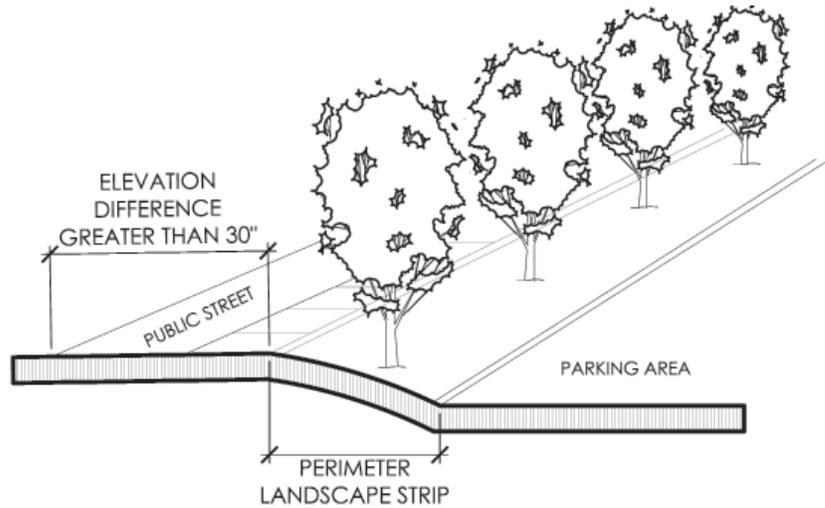


Figure 2.3.2 (Drawing depicts 100' of parking perimeter)

In cases where the parking area is depressed below the adjacent public street or private property by a minimum average distance of at least thirty inches, the tree spacing requirement shall be increased to one tree for each twenty-five feet of parking area perimeter, and the requirement for shrub plantings shall be eliminated. All other standards remain as stated above. (See Figure 2.3.2)

Corner Visibility. Trees and other landscaping required in the perimeter strip shall be maintained to assure unobstructed corner visibility

**Recommendations**

Permanent landscape strips which use low walls no greater than 35" in height or earthen berms are desirable for the reliability of the screening effect they provide.

Incorporate high quality and attractive landscape or drainage features (i.e. bioswales) which provide adequate screening or buffering and are well integrated into the development design. (All)

Incorporate significant topographic or natural features. Existing topography, hedgerows or natural features provide significant screening. (All)

Design site in a manner so that adjacent residential properties are not negatively impacted. (All)

**B2.4 POROUS PAVER AND SUSTAINABLE MATERIALS**

**1. Permeable Concrete Pavements & Porous Pavers**

No-fines porous concrete pavement is an emerging technology that has been used in the eastern United States and in Europe. Costs are slightly higher (approximately 25% more) than that of conventional Portland cement concrete pavement. However, because porous concrete pavement infiltrates water at 270 to 450 inches per hour per square foot (3-5 gallons per minute per square foot), stormwater detention facilities are usually not needed to mitigate those surfaces, thereby reducing costs for stormwater mitigation. See photos B2.5.1-B2.5.3

If porous pavers are used, they must be open graded, crushed stone (not pea gravel), meaning that the particles are of a limited size range, with no fines, so that small particles do not choke the voids between large particles. Open-graded crushed stone of all sizes has a 38 to 40% void space, allowing for substantial subsurface water storage.

### Requirements

Please refer to the *City of Lewisburg Stormwater Ordinance*, which references the updated *“Tennessee Green Infrastructure Handbook for Local Governments.”* (All)

## 2. Bioswale and Rain Garden Design

Bioswales convey stormwater from surface parking lots and the surface runoff is filtered and cleaned through native wetland plantings. Bioswales improve water quality by cooling runoff, slowing down runoff and cleaning runoff. Bioswales are encouraged to be designed with approval from the Engineering Department. The vegetation should be a mix of plantings appropriate for the location. (See Bioswale Acceptable Plants List on Page 45)

Flood-tolerant plants should be used which will remain healthy when used in bioswales. Rain gardens are depressed areas that absorb excess water and slow down the water’s flow with native vegetation to release stormwater gradually. Rain gardens are encouraged to be designed with approval from the Engineering Department. Rain gardens provide benefits such as: Filtering sediment from storm events at an on-site location close to the source of the run-off, Reducing flow of pollutants from run-off, Improving natural aesthetics of impervious areas, and encourage biodiversity. See *photos B2.5.4-B2.5.6*

### Requirements

Please refer to the *City of Lewisburg Stormwater Ordinance*, which references the updated *Tennessee Green Infrastructure Handbook for Local Governments.* (All)



B2.4.4 Parking Lot Bioswale



B2.4.5 Parking Lot Bioswale



B2.4.6 Parking Lot Bioswale

# B3

## LANDSCAPE GUIDELINES

### B3.1 TREE UNIT REQUIREMENTS

### B3.2 REQUIRED PLANT OPTIONS

### B3.3 IRRIGATION REQUIREMENTS

### B3.4 BUFFER REQUIREMENTS

### B3.5 STREET TREE REQUIREMENTS

The following Landscape Guidelines have been designed to ensure a base level of landscaping for new or renovated developments along the corridor. Better and attractive landscaping within new developments increases property values, enhances the environment and increases the overall perception of a city and place. Preserving existing trees should be of paramount importance for any new development, as preservation of existing trees is much more effective than new plantings. However, when existing trees can't be saved, the following guidelines will ensure a base standard of landscaping.

Tree Unit Requirements and standardized tracking helps ensure that Lewisburg stays vegetated, stays sustainable, and continues to preserve the farmland and natural features that help retain Lewisburg's rural character.

Future use of these unit requirements could help establish a baseline so that the city of Lewisburg can begin to track gains and losses in its forest. When tracked, it also shows potential areas for tree plantings to help prioritize putting trees where they are most needed. This, in turn, helps with energy use, and stormwater runoff, as well as have a positive impact on the local economy.

## B3.1 TREE UNIT REQUIREMENTS

### 1. Calculation of Required Tree Density Units: General Format

**STEP 1.** CALCULATE AREA OF LOT IMPACTED BY SITE GRADING IN ACRES MINUS (-) AREA OF BUILDINGS IN ACRES. THIS EQUALS (=) AREA OF REQUIRED COMPLIANCE.

**STEP 2.** MULTIPLY AREA OF REQUIRED COMPLIANCE (FROM STEP 1) TIMES (x) 14. THIS EQUALS (=) REQUIRED TREE DENSITY UNITS.

**STEP 3.** CALCULATE EXISTING/PROTECTED TREE DENSITY UNITS PROVIDED (CHART LISTED BELOW).

#### PROTECTED TREES THAT REMAIN:

<input type="checkbox"/> 6" DBH x 1.2 =	<input type="checkbox"/> 34" DBH x 10.5 =
<input type="checkbox"/> 8" DBH x 1.4 =	<input type="checkbox"/> 36" DBH x 11.7 =
<input type="checkbox"/> 10" DBH x 1.6 =	<input type="checkbox"/> 38" DBH x 12.9 =
<input type="checkbox"/> 12" DBH x 1.8 =	<input type="checkbox"/> 40" DBH x 18.4 =
<input type="checkbox"/> 14" DBH x 2.1 =	<input type="checkbox"/> 42" DBH x 20.2 =
<input type="checkbox"/> 16" DBH x 2.4 =	<input type="checkbox"/> 44" DBH x 22.1 =
<input type="checkbox"/> 18" DBH x 2.8 =	<input type="checkbox"/> 46" DBH x 24.1 =
<input type="checkbox"/> 20" DBH x 4.3 =	<input type="checkbox"/> 48" DBH x 26.1 =
<input type="checkbox"/> 22" DBH x 4.9 =	<input type="checkbox"/> 50" DBH x 28.3 =
<input type="checkbox"/> 24" DBH x 5.7 =	<input type="checkbox"/> 52" DBH x 30.5 =
<input type="checkbox"/> 26" DBH x 6.6 =	<input type="checkbox"/> 54" DBH x 32.8 =
<input type="checkbox"/> 28" DBH x 7.5 =	<input type="checkbox"/> 56" DBH x 35.2 =
<input type="checkbox"/> 30" DBH x 8.4 =	<input type="checkbox"/> 58" DBH x 37.7 =
<input type="checkbox"/> 32" DBH x 9.4 =	<input type="checkbox"/> 60" DBH x 40.3 =

TOTAL DENSITY CREDIT OF PROTECTED TREES CALCULATED FROM CHART ABOVE.

#### STEP 4. ESTABLISH NEW TREE REQUIREMENT

REQUIRED DENSITY OF NEW TREES EQUALS (=) REQUIRED TREE DENSITY UNITS MINUS (-) TOTAL DENSITY CREDIT OF PROTECTED TREES CALCULATED IN STEP 3.

#### NEW TREES SHALL BE ADDED TO MEET REQUIRED DENSITY, ACCORDING TO FOLLOWING TABLE:

<input type="checkbox"/> 2" CAL x 0.5 =	<input type="checkbox"/> 8" CAL x 1.3 =
<input type="checkbox"/> 3" CAL x 0.6 =	<input type="checkbox"/> 9" CAL x 1.5 =
<input type="checkbox"/> 4" CAL x 0.7 =	<input type="checkbox"/> 10" CAL x 1.7 =
<input type="checkbox"/> 5" CAL x 0.9 =	<input type="checkbox"/> 11" CAL x 1.9 =
<input type="checkbox"/> 6" CAL x 1.0 =	<input type="checkbox"/> 12" CAL x 2.1 =
<input type="checkbox"/> 7" CAL x 1.2 =	<input type="checkbox"/> 14" CAL x 2.3 =

**STEP 5.** CALCULATE DENSITY CREDIT OF NEW TREES FROM CHART ABOVE.

**STEP 6.** TOTAL TREE DENSITY PROVIDED EQUALS (=) TOTAL NEW TREE UNITS PLUS FROM STEP 5 (+) TOTAL PROTECTED TREES THAT REMAIN FROM STEP 3.

*NOTE ALL EXISTING TREES OVER 6" CALIPER ON SITE ARE LISTED ABOVE. SEE EXAMPLE ON PAGE 29.*

## 2. Calculation of Required Tree Density Units: Project Example

### STEP 1. AREA OF REQUIRED COMPLIANCE

AREA OF LOT IMPACTED BY SITE GRADING (ACRES): 7.74 ACRES  
 MINUS (-) AREA OF BUILDINGS (ACRES): 1.27 ACRES  
 EQUALS (=) AREA OF REQUIRED COMPLIANCE: 6.47 ACRES (7.74-1.27)

**STEP 2.** AREA OF REQUIRED COMPLIANCE TIMES x 14 EQUALS (=)  
 REQUIRED TREE DENSITY UNITS: 90.58 UNITS (6.47x14)

### PROTECTED TREES THAT REMAIN:

0 - 6" DBH x 1.2 = 0	0 - 34" DBH x 10.5 = 0
0 - 8" DBH x 1.4 = 0	0 - 36" DBH x 11.7 = 0
1 - 10" DBH x 1.6 = 1.6 (1x1.6)	0 - 38" DBH x 12.9 = 0
4 - 12" DBH x 1.8 = 7.2 (4x1.8)	0 - 40" DBH x 18.4 = 0
5 - 14" DBH x 2.1 = 10.5 (4x2.1)	0 - 42" DBH x 20.2 = 0
0 - 16" DBH x 2.4 = 0	0 - 44" DBH x 22.1 = 0
3 - 18" DBH x 2.8 = 8.4 (3x2.8)	0 - 46" DBH x 24.1 = 0
1 - 20" DBH x 4.3 = 4.3 (1x4.3)	0 - 48" DBH x 26.1 = 0
0 - 22" DBH x 4.9 = 0	0 - 50" DBH x 28.3 = 0
3 - 24" DBH x 5.7 = 17.1 (3x5.7)	0 - 52" DBH x 30.5 = 0
0 - 26" DBH x 6.6 = 0	0 - 54" DBH x 32.8 = 0
0 - 28" DBH x 7.5 = 0	0 - 56" DBH x 35.2 = 0
0 - 30" DBH x 8.4 = 0	0 - 58" DBH x 37.7 = 0
0 - 32" DBH x 9.4 = 0	0 - 60" DBH x 40.3 = 0

**STEP 3.** TOTAL DENSITY CREDIT OF PROTECTED TREES = 49.1 UNITS  
 (1.6+7.2+10.5+8.4+4.3+17.1)

### STEP 4. NEW TREE REQUIREMENT

REQUIRED DENSITY OF NEW TREES EQUALS (=) REQUIRED TREE DENSITY UNITS MINUS (-) TOTAL DENSITY CREDIT OF PROTECTED TREES.

REQUIRED DENSITY OF NEW TREES: 41.48 UNITS (90.58-49.1)

### NEW TREES SHALL BE ADDED TO MEET REQUIRED DENSITY, ACCORDING TO FOLLOWING TABLE:

34 - 2" CAL x 0.5 = 17 (34x0.5)	0 - 8" CAL x 1.3 = 0
45 - 3" CAL x 0.6 = 27 (45x0.6)	0 - 9" CAL x 1.5 = 0
0 - 4" CAL x 0.7 = 0	0 - 10" CAL x 1.7 = 0
0 - 5" CAL x 0.9 = 0	0 - 11" CAL x 1.9 = 0
0 - 6" CAL x 1.0 = 0	0 - 12" CAL x 2.1 = 0
0 - 7" CAL x 1.2 = 0	0 - 14" CAL x 2.3 = 0

**STEP 5.** TOTAL DENSITY CREDIT OF NEW TREES = 44 UNITS (17+27) (VS. MIN QTY OF 41.48)

**STEP 6.** TOTAL TREE DENSITY PROVIDED: 93.1 UNITS (44+49.1) (VS. MIN QTY OF 90.58)

NOTE ALL EXISTING TREES OVER 6" CALIPER ON SITE ARE LISTED ABOVE



B3.1.1 Tree Protection During Construction



B3.1.2 Tree Protection During Construction



B3.1.3 Tree Protection During Construction

## B3.2 REQUIRED PLANT OPTIONS

### 1. Canopy Trees: Parking Lots & Street Trees

Common Name	Scientific Name	Cultivars
Green Mountain Sugar Maple	<i>Acer saccharum</i> 'Green Mountain'	
Katsuratree	<i>Cercidiphyllum japonicum</i>	
Ginkgo	<i>Ginkgo biloba</i>	'Fastigiata'
Honeylocust	<i>Gleditsia triacanthos</i>	inermis 'Shademaster'
Sawtooth oak	<i>Quercus acutissima</i>	
Swamp White Oak	<i>Quercus bicolor</i>	
Scarlet oak	<i>Quercus coccinea</i>	
Overcup oak	<i>Quercus lyrata</i>	
Swamp chestnut oak	<i>Quercus michauxii</i>	
Nuttall Oak	<i>Quercus nuttallii</i>	
Willow Oak	<i>Quercus phellos</i>	
Hightower Willow Oak	<i>Quercus Phellos</i> Hightower	
Chestnut Oak	<i>Quercus prinus</i>	
English oak	<i>Quercus robur</i>	'Fastigiata'
Northern Red Oak	<i>Quercus rubra</i>	
Princeton Elm	<i>Ulmus americana</i> 'Princeton'	
American Elm	<i>Ulmus americana</i>	
Lace-bark Elm	<i>Ulmus parvifolia</i>	
Allee Elm	<i>Ulmus parvifolia</i> 'Emer II' Allee	
Zelkova	<i>Zelkova serrata</i>	
Green Vase Zelkova	<i>Zelkova serrata</i> 'Green Vase'	

### 2. Small Flowering Trees

Common Name	Scientific Name
Serviceberry	<i>Amelanchier</i>
Eastern Redbud	<i>Cercis canadensis</i>
Chinese Fringe Tree	<i>Chionanthus retusus</i>
White Fringetree	<i>Chionanthus virginicus</i>
Flowering Dogwood	<i>Cornus florida</i>
Kousa Dogwood	<i>Cornus kousa</i>
Witchhazel	<i>Hamamelis xintermedia</i>
Crapemyrtle	<i>Lagerstroemia indica</i>
Star Magnolia	<i>Magnolia stellata</i>
Saucer Magnolia	<i>Magnolia x soulangiana</i>
Southern Magnolia	<i>Magnolia grandiflora</i>
Sweet Bay Magnolia	<i>Magnolia virginiana</i>
Crabapple tree	<i>Malus species</i>
Yoshino Cherry tree	<i>Prunus x yeodensis</i>
Kwanzan Cherry tree	<i>Prunus serrulata</i> 'Kwanzan'

### 3. Evergreen Trees (15-40'): Buffer/Perimeter Screening

<u>Common Name</u>	<u>Scientific Name</u>
Japanese Cryptomeria	<i>Cryptomeria japonica</i>
Leyland Cypress	<i>x Cupressocyparis leylandii</i>
American Holly	<i>Ilex opaca</i>
Southern Magnolia	<i>Magnolia grandiflora</i>
White Pine	<i>Pinus strobus</i>
Giant Arborvitae	<i>Thuja plicata</i>
Canadian Hemlock	<i>Tsuga canadensis</i>
Green Giant Arborvitae	<i>Thuja 'Green Giant'</i>

### 4. Evergreen Shrubs: Buffer/Perimeter Screening

<u>Common Name</u>	<u>Scientific Name</u>
Nellie Stevens Holly	<i>Ilex x 'Nellie R. Stevens'</i>
Oakleaf Holly	<i>Ilex 'Conaf' Oakleaf</i>
Chinese Holly	<i>Ilex cornuta</i>
Nigra Inkberry	<i>Ilex glabra 'Nigra'</i>
Giant Arborvitae	<i>Thuja plicata</i>
Otto Luyken Laurel	<i>Prunus laurocerasus 'Otto Luyken'</i>
Schip Laurel	<i>Prunus laurocerasus schipkaensis</i>
Prague viburnum	<i>Viburnum 'Pragense'</i>

### 5. Deciduous Shrubs: Buffer/Perimeter Screening

<u>Common Name</u>	<u>Scientific Name</u>
Glossy Abelia	<i>Abelia x grandiflora</i>
Buttonbush	<i>Cephalanthus occidentalis</i>
Sweet Pepperbush	<i>Clethra alnifolia</i>
Annabelle Hydrangea	<i>Hydrangea arborescens 'Annabelle'</i>
Spicebush	<i>Lindera benzoin</i>
Ninebark	<i>Physocarpus opulifolius</i>
Carolina rose	<i>Rosa carolina</i>
Elderberry	<i>Sambucus canadensis</i>
Anthony Waterer Spirea	<i>Spiraea x bumalda 'Anthony Waterer'</i>
Bigleaf snowbell	<i>Styrax grandifolia</i>
Mapleleaf viburnum	<i>Viburnum acerifolium</i>

## 6. Rain Garden & Bioswale Trees & Plants

<u>Common Name</u>	<u>Scientific Name</u>
Serviceberry	Amelanchier
Green dragon	Ariseama dricontium
Marsh milkweed	Asclepias incarnata
Purple milkweed	Asclepias purpurescens
Aromatic aster	Aster oblongifolius
Lady Fern	Athyrium filix-femina
Buttonbush	Cephalanthus occidentalis
White Fringetree	Chionanthus virginicus
Yellowwood	Cladrastis kentukea
Flowering Dogwood	Cornus florida
Green ash	Fraxinus pennsylvanica
Wild geranium	Geranium maculatum
Witchhazel	Hamamelis xintermedia
Oakleaf Hydrangea	Hydrangea quercifolia
Winterberry Holly	Ilex verticillata
Virginia Sweetspire	Itea virginica
Spicebush	Lindera benzoin
Sweetbay magnolia	Magnolia virginiana
New England aster	New England aster
Jacob's Ladder	Polemonium reptans
Swamp White Oak	Quercus bicolor

## 7. Prohibited Trees & Plants

<u>Common Name</u>	<u>Scientific Name</u>
Swingle Tree of Heaven	Ailanthus altissima (Mill.)
Mimosa	Albizia julibrissin Durazz.
Paper Mulberry	Broussonetia papyrifera (L.)L'Her. ex Vent.
Osage Orange	Maclura pomifera (Raf.) Schneid
Chinaberry	Chinaberry
White Poplar	Populus alba L
Bradford Pear	Pyrus calleryana Dcne.
Chinese Tallowtree	Triadica sebifera (L.) Small
Silver Birch	Betula pendula
Box Elder	Acer negundo
Catalpa	Catalpa speciosa
Siberian Elm	Ulmus pumila
Silver Maple	Acer saccharinum
Pin Oak	Quercus palustris

Please contact the City of Lewisburg for other species of trees that may be acceptable under certain conditions.

## B3.3 IRRIGATION

### 1. All Landscaped Areas

All required landscaping, excluding trees planted or preserved on residential property shall be watered by one of the following methods: 1. An underground sprinkler system; 2. An outside hose attachment within one hundred feet of all landscaping.

All irrigation systems should monitor the moisture levels with moisture meters around all plants including, but not limited to trees, lawn, shrubs, perennials,

groundcovers and annuals.

*Please refer to the City of Lewisburg Stormwater Ordinance, which references the updated Tennessee Green Infrastructure Handbook for Local Governments. (All)*

## **B3.4 BUFFERS**

The purpose of this section is to protect the value and integrity of property from the potential adverse effects of non-compatible land uses. To that end, this article requires that landscape buffer yards be provided at the boundaries within the corridor. The landscape buffer yard standards of this article are also employed by other chapters of this title to accomplish special screening and buffering objectives.

### **1. Buffer Yard Requirements**

In the Buffer Overlay parcels, a landscape buffer yard shall be located at the perimeter of the building site along the Corridor, or otherwise coincident with the edge of a specified facility that is to be screened, and shall not be located in any portion of a public right-of-way.

The purpose of this type of buffer is to maintain the rural character of certain portions of the corridor through natural landscaping. Therefore, no fencing and/or walls shall be used in place of natural landscaping. The buffer requirements only pertain to the front and side yards of parcels within the “buffer” overlay. All buffers are subject to approval by the Planning Commission. The commission reserves the right to request additional plantings to meet the intent of the buffer requirement.

When the gross floor area of a building legally existing on the effective date of the ordinance codified in this section is enlarged by more than twenty-five percent, that perimeter portion of the property in proximity to the area of expansion shall be brought into conformance with the landscaping buffer yards standard of this code to the greatest extent considered reasonable by the zoning administrator.

When incremental expansions occur over time, the total of all expansions shall be used by the zoning administrator in applying the provisions of this section.

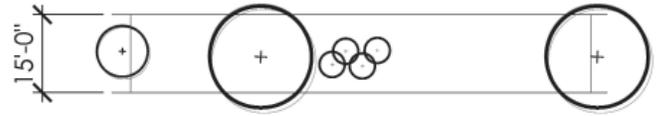
### **2. Landscape Buffer Yard Requirements**

Application of Landscape Buffer Yard Standards. The specifications contained in Figures 3.4.1 through 3.4.5, set out at the end of this section, shall be used to select the desired landscape buffer yard option for the building site. These yard requirements are stated in terms of minimum yard width and the density of required plant material per linear foot of yard. To determine the total number of plants required, the length of each side of property requiring a landscape buffer yard shall be divided by one hundred and multiplied by the number of plants shown in the illustrations. ([Buffer Overlay, Only](#))

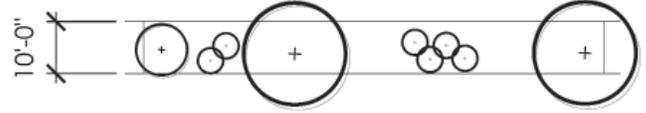
### **3. Other uses within landscape buffer yards Requirements**

Trails. Sidewalks or bike trails may occur within landscape buffer yards provided that the required effect of the yard is not compromised. In no event, however, shall the following uses be permitted in landscape buffer yards: playing fields, stables, swimming pools, golf courses, tennis courts, and other recreational facilities; parking areas and other vehicular use areas; dumpsters, equipment storage and other open storage; buildings or overhangs.

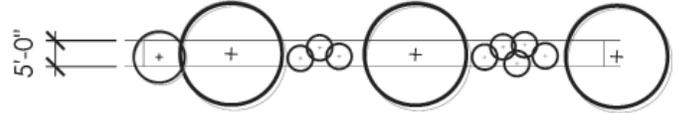
**A-1**  
 1.2 Canopy Trees  
 .4 Understory  
 4 Shrubs



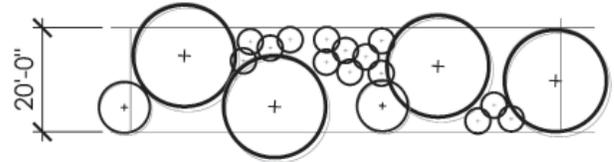
**A-2**  
 1.8 Canopy Trees  
 .6 Understory  
 6 Shrubs



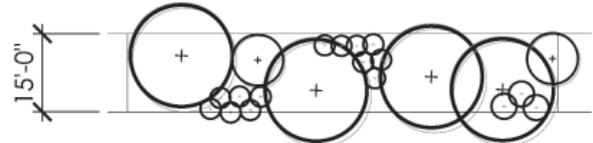
**A-3**  
 2.4 Canopy Trees  
 .8 Understory  
 8 Shrubs



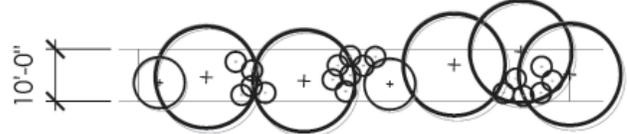
**B-1**  
 3.5 Canopy Trees  
 1.4 Understory  
 14 Shrubs



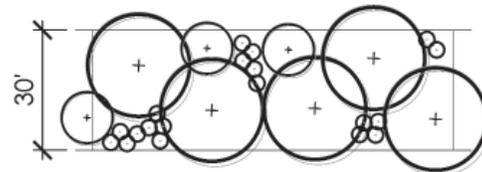
**B-2**  
 4 Canopy Trees  
 1.6 Understory  
 16 Shrubs



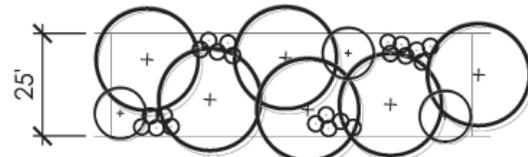
**B-3**  
 4.5 Canopy Trees  
 1.8 Understory  
 18 Shrubs



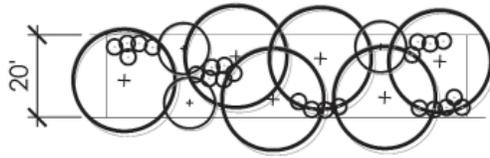
**C-1**  
 4.8 Canopy Trees  
 2.4 Understory  
 19 Shrubs



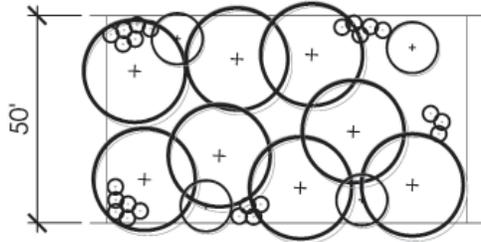
**C-2**  
 5.4 Canopy Trees  
 2.7 Understory  
 22 Shrubs



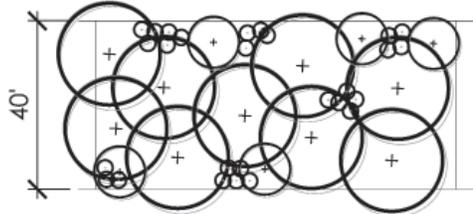
**C-3**  
 6 Canopy Trees  
 3 Understory  
 24 Shrubs



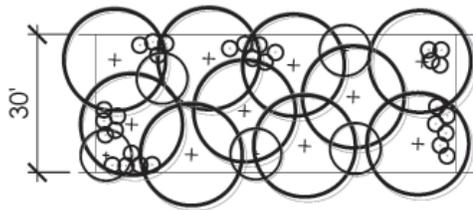
**D-1**  
 8 Canopy Trees  
 4 Understory  
 24 Shrubs



**D-2**  
 9 Canopy Trees  
 4.5 Understory  
 27 Shrubs



**D-3**  
 10 Canopy Trees  
 5 Understory  
 30 Shrubs



Stormwater Retention/Detention Facilities. Surface stormwater retention/detention facilities shall not be permitted to encroach into landscape buffer yards. Subterranean facilities which are designed in a manner so as not to interfere with the proper installation and maintenance of the yard are allowed.

Buffer yards shall be continuous and unbroken except for driveways or sidewalks required to access parking areas or streets. Driveway/sidewalk penetrations shall cross the buffer yard as close to perpendicular as possible and shall not exceed twenty-five percent of the entire buffer yard, with no single penetration to exceed thirty-five feet.

### Recommendations

Planting materials should be chosen which provide visual interest, support the local ecology, require little or no watering or maintenance, and make the pedestrian experience more pleasant. Care should be taken to choose plants whose growth will not create obstructions for the pedestrian nor damage the sidewalk. In particular, within ten feet (10') of driveways, plants should be no more than thirty-two inches (32") high and tree branches should not hang lower than eighty-two inches (82").

Grass is generally the easiest and least expensive to install but may be harder to maintain over time where mowing is difficult, such as on slopes or near walls. Alternatives should be considered, especially when caretakers can be identified who can provide plants and/or who will care for the area until plants are established (i.e. the property owner or a neighborhood group).

## B3.5 STREET TREES

### 1. Spacing & Layout

Street trees are important to our quality of life in the city. They are living elements of our street infrastructure. All overlay areas shall be required to plant new street trees 50' on center at a minimum. Final street tree layout to be approved by Planning Commission and must meet all TDOT standards for State Routes. Street Trees shall be located between the sidewalk and roadway curb, but no closer than 5' from the outside of the roadway curb.

Located in the public right-of-way, they provide cooling shade, cleaner air, and more beautiful urban streetscapes. Trees confer important aesthetic and ecological benefits to City of Lewisburg residents as well. Some of the key factors to maximize long-term plant survival are proper handling, careful planting, and immediate and continued aftercare. See *Photos B3.5.1 -B3.5.3*

### Requirements

Coordinate street tree locations with local utility department.  
Choose street trees from the approved street tree list.



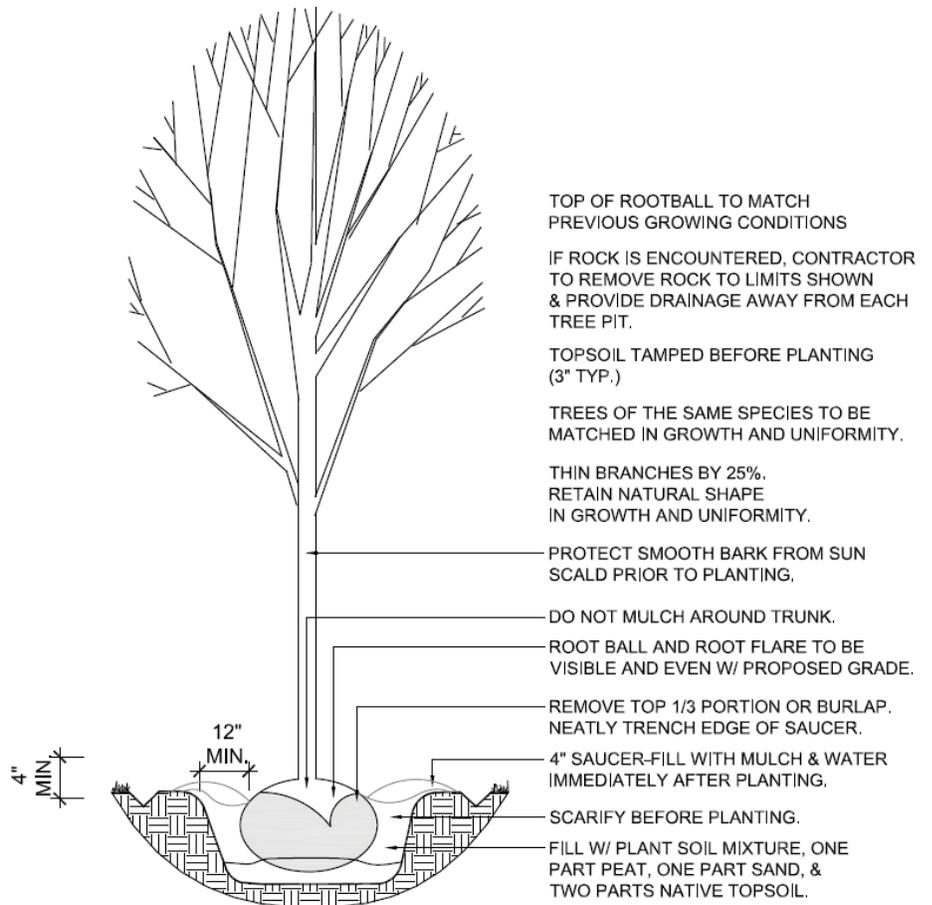
B3.5.1 Street Tree Pit: Continual Growing Strip



B3.5.2 Street Trees



B3.5.3 Street Trees





# B4 STREETSCAPE GUIDELINES

## B4.1 STREET LIGHT STANDARDS

### B4.2 FURNITURE STANDARDS



B4.1.1  
Sternberg Lighting  
Carson City LED  
LED Street Light  
Model: 1843 LED Carson City  
Finish: BKT Black Textured



B4.1.2  
Sternberg Lighting  
Hometown  
LED Pedestrian Light  
Model: XRLED G742 G743 G745  
Finish: BKT Black Textured

## B4.1 STREET LIGHT STANDARDS

Streetscapes are important elements of any city environment. Properly designed streetscapes help give streets proper scale for pedestrians, deter speeding, and in general make streets more attractive. Implementing streetscape guidelines can, over time, drastically enhance the overall appearance and function of streets. The goal of the streetscape improvement guidelines are to create a consistent, comprehensive, functional, and attractive streetscape along the entire corridor over time. A streetscape master plan for the corridor should be produced for the corridor, but shall adhere to the guidelines set forth in this document when produced.

### 1. Street Lights

Street lighting is intended to create an environment at nighttime in which people can see comfortably and can quickly and accurately identify objects on traveled roadways. Street lighting can improve, safeguard, facilitate, and encourage vehicular and pedestrian traffic. TNDOT is responsible for ensuring that recommended light levels are achieved and reviews street and pedestrian lighting requests.

Streetscape improvements should be completed by the City of Lewisburg either as stand alone projects or in conjunction and partnership with private development.

#### Requirements

Street lights shall use the Carson City LED (Model: 1843 LED Carson City) by Sternberg Lighting. See Photo B4.1.1

All street lights shall be dark sky compliant.

All street lights shall be TDOT compliant.

Maximum pole height not to exceed 33' tall and maximum wattage not to exceed 400 watt. All lights will be LED.

Lights will be placed at all street intersections except at major thoroughfares where median lighting is existing.

Lights will be spaced a maximum of 600 between intersections.

Lights will be spaced a maximum of 200 feet at major intersections.

All severe curves or areas with poor sight visibility shall be lighted.

Lights shall be placed so as to gain the maximum use of existing and proposed.

Electric service to the streetlight shall be underground.

Streetlights shall not be constructed in conflict with the sidewalk.

### 2. Pedestrian Lights

Good outdoor lighting can create and encourage a pedestrian friendly environment, which is especially beneficial to neighborhood business districts. Pedestrian lighting improves walkway illumination for pedestrian traffic and enhances community safety and business exposure. Lighting for

pedestrians is especially important along Main Streets, Mixed Use Streets and Local Connectors, and in other locations where the land use supports large volumes of pedestrians and vehicles.

### Requirements

Pedestrian lights shall use the Hometown LED (Model: XRLED G742 G743 G745) by Sternberg Lighting. See Photo B4.1.2

Pedestrian lighting illuminates the pedestrian walkway and shall be mounted 12 -14 feet above the sidewalk. This lighting should be considered when calculating the maintained foot candles and uniformity of roadway lighting. Pedestrian ways not adjacent to the roadway may require lighting as determined by the Traffic Engineer.



B4.2.1  
Model/Manufacturer: Victor Stanley  
Farmer's Modern Collection Bench  
Model # #FMS-324

## B4.2 STREETSCAPE FURNITURE STANDARDS

### 1. Benches and Seating

Public seating creates a comfortable, usable, and active public environment node where people can rest, socialize, read, or people-watch. It is a simple gesture that can go far to create an important sense of place. Seating creates places where people can see and be seen. This ability to entice people to linger is the hallmark of great and successful public spaces. Adding seating to the public realm is an easy street improvement that can be made by individuals, community groups, business districts, and others, often as part of an overall streetscape project.

Benches and seating may be installed by individual property owners, residents, and merchants, or by community groups like neighborhood or merchant's associations, or as part of a larger package of corridor-wide improvements. For all following sections, a furnishings zone refers to the area of the streetscape that provides a buffer between pedestrians and vehicles, which can contain landscaping, public street furniture, transit stops, public signage, and utilities.

When site furniture is installed along the corridor it shall adhere to the guidelines.

### Requirements

All streetscape benches provided by the city shall be Victor Stanley Farmer's Modern Collection Bench #FMS-324 Black, or similar. See Photo B4.2.1

Seating shall be located under trees where possible to provide shade and comfort and to integrate multiple elements.

Where seating is oriented parallel to the curb, it shall face toward buildings when located in the furnishings zone, or away from buildings when located in the frontage zone.

Where sidewalk width permits, seating in the furnishing zone shall be perpendicular to the curb.

No seating shall be permitted between the roadway curb and the sidewalk. All furniture placed within ROW shall be approved by the Planning Commission.

### Recommendations

Informal seating (low walls, etc.) may also be incorporated into other elements in the site furnishings zone, such as planter edges. Where space allows, benches can be built into planters.



B4.2.2  
 Model/Manufacturer: Victor Stanley  
 Prairie Sites Collection Tubular Steel Bike Rack  
 Model #:BK-4



B4.2.4  
 Model/Manufacturer: Victor Stanley  
 Ironsites Collection Litter Receptacle  
 Model #:S-42

On curb extensions, seating should be organized to create social spaces.

Seating incorporated into building forms, such as seatwalls, may be used as an alternative to free-standing benches.

Seating should be designed to encourage sitting and to discourage lying down.

## 2. Bike Racks and Bike Parking

Bicycle racks are an important element of the streetscape, both as an aesthetic aspect of the streetscape and as a functional element for those who travel by bike.

When site furniture is installed along the corridor it shall adhere to the guidelines.

### Requirements

All bike racks installed along the corridor by the city must be Victor Stanley Prairie Sites Collection Tubular Steel Bike Rack Model #:BK-4 Black, or similar.. See Photo B4.2.2

There must be at least a six-foot clear walkway, to comply with the Americans with Disabilities Act. This does not include frontage occupied by street furniture.

Bicycle racks shall be frequent in active commercial districts and Node overlay parcels. Racks shall be provided near major destinations such as schools, libraries, transit stops, major shopping and service destinations, and other locations with high pedestrian traffic.

Racks shall be located in either the furnishings zone or on curb extensions where possible. Racks shall not be placed at accessible parking (blue curb zones) or passenger loading zones.

At transit stops, bike racks should be placed near the back of the transit stop, further from the shelter (where present), or be placed outside of but adjacent to the transit stop. Bike-sharing pods, where provided, should be placed outside of but adjacent to the transit stop.

Placement and spacing of bicycle racks should consider dimensions when occupied.

Bike racks placed in the furnishings zone should be perpendicular to the curb where sidewalks are wide enough so that bikes parked at them do not project into the through-way or edge zone. Where this space is not available, bike racks should be placed parallel to the curb. Perpendicular bike racks should be placed at either edge of a tree basin, a minimum of 2 feet from the edge to allow a person to easily pull their bike in and out.

A rack should be at least 2 feet from the curb, with 3 feet preferred.

Bicycle racks should not be located directly in front of a store/building entrance or exit or in a driveway.

There should be at least 3 feet of clearance between bicycles parked at racks and any other street furniture, with the exception of other bike racks, which

should be placed a minimum of every 3 feet on center. Bicycles parked at a rack should have a minimum 1 foot clearance from utility vaults.

### Recommendations

Where parking meter consolidation programs are implemented, bike racks should be provided to replace meter poles, or meter poles should be retrofitted with rings to allow bike parking.

## 3. Trash Cans

Sidewalk trash cans and recycle bins are essential to the health and function of the city. Their presence along streets with high pedestrian discourages littering, resulting in a healthier more aesthetically pleasant environment. While trashcans are utilitarian, functional objects, they need not be utilitarian in their design. Attention to the design, materials and placement of trashcans enhances the public realm and adds to a sense of place.

### Requirements

All trash receptacles used along the corridor shall be Victor Stanley Farmer's Ironsites Collection Litter Receptacle Model #:S-42 Black, or similar. See Photo B4.2.4

Trash receptacles shall be located near as near to corners as is practicable.

They shall be located near high activity generators such as major civic and commercial and transit destinations.

There shall be a maximum of one trash receptacle every 200 feet along commercial streets within the Node overlay. Additional trash receptacles should be provided only if a private sponsor provides continued maintenance.

A maximum of four trash receptacles shall be provided at an intersection (one per corner).

### Recommendations

For private developments along the corridor, the following guidelines shall be followed:

When selecting trash receptacles, they should be considered as a design element, and design should reflect aesthetic as well as functional concerns.

Trash receptacles should be selected from the same or a similar design "family" as other site furnishings (such as benches, bollards, bike racks, etc.) and should be finished or painted to complement other site furnishings.

Trash receptacle construction should use durable, high quality materials, such as galvanized or stainless steel.

Materials should be painted to reflect colors similar to nearby elements. Material and paint selection should be graffiti resistant.

Trash receptacles should include recycling containers and should be able to open from the side to allow easy access for removal of garbage bags.

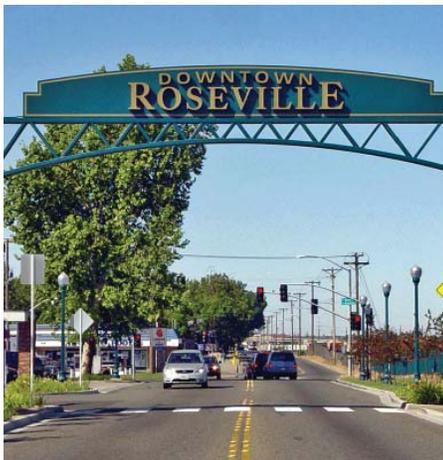
# B5 EXTERIOR ELEMENTS

## B5.1 SIGNAGE

## B5.2 PUBLIC ART



B5.1.1 Gateway Signage



B5.1.2 Gateway Signage

## B5.1 SIGNAGE

### 1. General Signage

The purpose of streetscape signage, including gateway markers, monumental signage, and directional (wayfinding) signage, is to provide an overall image of Lewisburg's neighborhood or district, mark edges or entry points, and give information about business directions, destinations, or the neighborhood in general. These regulations are also intended to provide a development-wide visual uniformity so that no one sign will dominate over, or reduce the visual value, impact or design properties of, other sign elements.

There are two types of primary signage along the corridor: those developed as a part of private development and those built by the city or county. Please see outline description below:

#### Public Signage

- Gateway Signage
- Directional Signage (External Wayfinding)
- City Monument Signage \*

#### Private Signage

- Monument Signage
- Directional Signage (Internal Wayfinding)
- Building Signage

\* Present City and Government monument signage standards override the following guidelines.

#### Requirements

All signs shall be designed, proportioned and positioned as an integral component of the design of the private development. All signs and lighting locations shall be included in the site submittal package and coordinated with building and site landscape plans. All signage to be approved by the Planning Commission. All indirect sign lighting fixtures shall be concealed from view by foliage or hardscape.

For private development, the owner of each project/parcel is responsible for all costs associated with the signs within the individual site. This includes the costs of design, review and required permits, manufacture, installation, maintenance, bulb replacement, as well as repair and/or replacement of damaged signs. When a sign is damaged or functioning improperly, it shall be the responsibility of the site Owner to promptly repair and/or replace the sign; bringing the subject sign into full compliance with these guidelines as quickly as possible.

No signs shall be located in such a way as to create a traffic or other hazard, obstruct any other sign or restrict visibility for vehicular or pedestrian circulation or views of the surrounding buildings and environment.

No signs, legends, graphic devices, color relationships, graphic layouts or portions thereof, shall be designed to be confused visually or functionally with any traffic control sign element.

All electrical source conduit, meters, cut-offs, wiring, transformers, rheostats, lamps, etc. must be concealed from view and/or placed underground.

All monument signs shall have a maximum of two (2) faces upon which graphics are a part.

Signs nailed/attached to a tree or other natural features are prohibited.

Pole signs, portable signs and temporary signs, including individual real

estate company signs, banners, campaign signs, and pennants are strictly prohibited.

Sign locating to meet City of Lewisburg Zoning Ordinance.

## 2. Gateway Signage

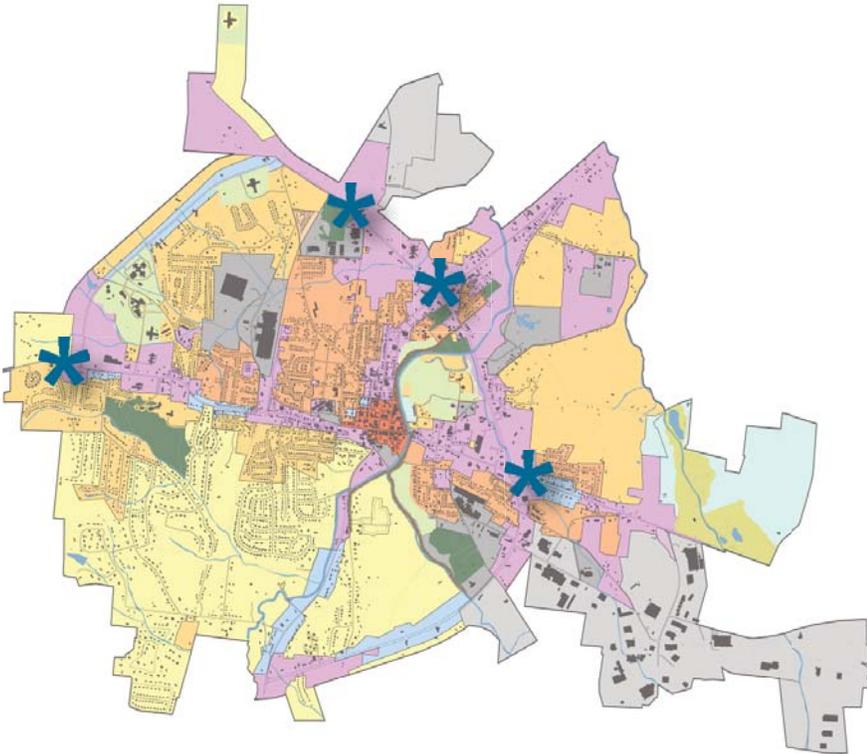
Gateways are markers or monuments located at the entrance to the Ellington Parkway or neighborhood to announce the entry to the particular area, or a transition from one area to the next. Gateways may be a literal gateway, markers on either side of a street, a singular large sculptural or iconic element, or even a unique landscape feature or plaza. They are generally more artistic or sculptural, and less literal or functional than other types of signage.

### Recommendations

Be large enough to attract attention and identify the neighborhood entrance.

Incorporate unique artistic, sculptural, or culturally-expressive elements appropriate to the particular neighborhood context.

Be placed on corner and mid-block curb extensions whenever possible.



### Requirements

Locate at defined entry points (\*see map of Gateway sign locations above) to a district or a neighborhood, or transitions from one neighborhood or district to another. They may also be appropriate at areas where a freeway becomes a surface road, or where there are other significant changes to the roadway, land use, or building form (for example, where a major roadway becomes a quiet residential street).

## 3. Monument Signage

Monument signs serve the function of identifying corporate site entry or building group entry within a specific development located within the boundary of The Ellington Parkway Corridor.



B5.1.3 Monument Signage

**Requirements**

**Height:** 8' Maximum from the ground, including the base.

**Overall size:** Thirty-eight (38) square feet; sign faces (each face of a double-faced sign) not to exceed twenty-eight (28) square feet for tenant/project ID area plus ten (10) square feet for address/building number identification only.

**Materials:** Painted, fabricated aluminum sign cabinet, with blind fasteners and visually seamless joints. Letters/logos/logotype/addresses can be fabricated aluminum, 1/4" cut plate letters, or push-thru.

**Mounting:** Signs are ground mounted on staked masonry pedestals. Masonry components of the sign presentation are attached to concrete and/or CMU internal cores. The internal core structure is connected to a structurally designed and engineered concrete footing. Concrete footing shall be below grade to allow ground cover or other landscape material around base of sign.

**Location:** Signs are to be positioned perpendicular (2-sided) or parallel (1-sided) to site entry drive, and its location must comply with setback requirements as outlined in the Signage Ordinance of the City of Lewisburg. For primary entrance one (1) sign shall be positioned at the side of the entrance.

**Lighting:** Push-thru style illumination with 1/2" acrylic, or standard face wash.

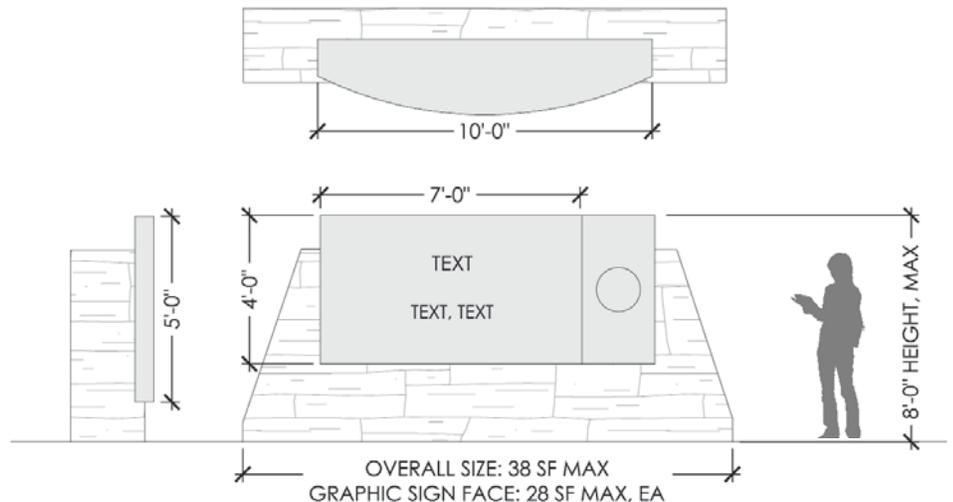
Electronic signs are permitted for the following uses: churches, government buildings, schools, and banks. Signs are limited to one line of text no greater than 24" in height. All bulb colors other than white are prohibited. Sign can not change text more than twice per minute.

**Graphic Layout:** Logo standard for tenant user not to exceed designated tenant ID area. If the user logo identity does not exist, typography and graphic devices shall be as follows:

**Helvetica Bold (Stylistic)**  
**ABCDEFGHIJKLMN OPQRSTUVWXYZ**  
**0123456789**

Helvetica Light (Info)  
 ABCDEFGHIJKLMN OPQRSTUVWXYZ  
 0123456789

Helvetica Regular (Headers)  
 ABCDEFGHIJKLMN OPQRSTUVWXYZ  
 0123456789



## 4. Directional Signage

### Public Signage

On most streets, the typical street sign is all that is needed to orient pedestrians to major destinations. However, on streets and public spaces with heavy pedestrian volumes, additional directional signage is often helpful. This is especially true on streets that handle greater numbers of visitors (such as downtown, ceremonial, or commercial streets), on major transit routes, or in tourist-oriented areas. As the City of Lewisburg grows, the need for directional signage, particular in the Commercial Nodes, will grow with it. Directional signs are typically much simpler than a neighborhood orientation sign, featuring only place names and wayfinding information. They should have a distinct and coordinated design in keeping with the character of the surrounding neighborhood or district. Well-designed directional signs can help create a distinct identity to a neighborhood.

### Private Signage

Within a private development directional signage can be used for internal wayfinding within private property. When such signage is used. The below standards apply:

### Requirements

**Height:** 7' Maximum from the ground, including the base.

**Overall Size:** Composed as a vertical rectangle, the cabinet shall be no greater than ten (10) square feet for public ROW and six (6) square feet for private areas.

**Materials:** Inscribed in building material or painted, fabricated aluminum sign cabinet, attached to a single ground mounted stacked stone base or aluminum post. Cabinet may have aluminum face with reflective vinyl display of legends and graphics.

**Mounting:** Single painted aluminum round or square tubing (all uniform) post, with mechanical connection to concrete footing stacked stone base connected to CMU core into concrete footing.

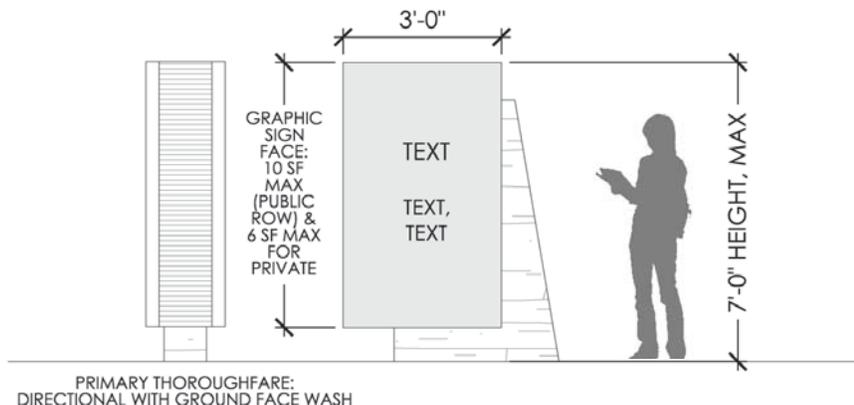
**Location:** (90 degrees) to centerline of subject roadway, immediately "upstream" of decision point.

**Lighting:** Reflective, internal illumination, or standard face wash.

**Graphic Layout:** Directional copy to be minimum 2" CAPS height reflective vinyl set in Helvetica Bold (upper case).

### Helvetica Bold (Stylistic)

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
0123456789



B5.1.4 Directional Signage



B5.1.5 Directional Signage



B5.2.1 Public Art



B5.2.2 Public Art



B5.2.3 Public Art

### Recommendations

Include destination icons, place names, and directional markers (e.g. arrows) for local destinations on blades or integral to the body of the sign. A map clearly showing current location and the best routes to nearby destinations should also be considered.

Share existing poles where possible consistent with the signage design, or be designed as an integral streetscape element. Historic streetlight poles, however, should not be used.

Locate in the furnishings zone and as near to intersection corners as is practicable (but outside of the corner zone).

Be easy to spot from far away, but designed to be read from nearby with a high level of detailing and craftsmanship.

Use external illumination that focuses light on the signs themselves, not on pedestrians. Internally illuminated signs should be avoided as they are typically designed to attract drivers and are too intense for pedestrians. Directional signs should use reflective coating to minimize glare.

### Allowable Signage Matrix (See Matrix Below)

Reference Building Standards for Building and facade-related signage guidelines and requirements.

						
	MONUMENT SIGNS	WALL SIGNS	PROJECTING SIGNS	WINDOW SIGNS	CAMPAIGN SIGNS	DIRECTIONAL SIGNS
NATURAL BUFFER	X		X			X
STRIP COMMERCIAL	X	X	X	X		X
COMMERCIAL NODE	X	X	X	X		X

## B5.2 PUBLIC ART

### 1. Public Art

Public art is an important component of many street improvements. On a large scale, public art has the ability to unify a district with a theme or identify a neighborhood gateway. At a pedestrian scale, it can provide visual interest for passersby.

Many street and transportation improvement projects are required to contribute 2% of the project budget to public art, subject to an Arts Commission approval.

Public artwork installations generally involve greater neighborhood outreach and a more complex process than simple projects like street trees or sidewalk landscaping, and are typically carried out by a neighborhood or business organization. Community groups seeking to sponsor a civic art project are encouraged to reach out to neighbors and stakeholders early on and include them in the design process. Many public art projects require a public process that allows community members to participate in the design process. The process will vary from project to project depending on the criteria established in the Call for Artists.

### Recommendations

Public art should be located along the corridor near the gateways and at commercial nodes. It may also be located in areas where few people pass to create unique and special places for people to enjoy.

Public art should be located so as to be a pedestrian amenity. A piece can act as a focal point in a park or plaza or present a “surprise” along a pedestrian path that rewards the passerby with visual interest.

Consideration should be given to incorporating art into otherwise standard street elements such as light poles, benches, trash receptacles, and utility boxes.

Art can provide information, such as including maps and signage, or be educational in regards to the history and culture of Lewisburg’s neighborhoods and citizens. All installations do not need an educational mission, however—art can be playful.

Public art should be accessible to persons with disabilities and must not be placed in a way that compromises the clear path of travel. Art pieces may require detectable warning strips around the base of the art piece.

## 2. Kiosks

Kiosks are public elements that are sources of information, and may include maps, bulletin boards, or other useful information. Kiosks can often be combined with gateway signage and provide an attractive and useful streetscape element.

### Recommendations

Kiosks should be located in the furnishings zone, leaving required throughway and edge zone widths. When more than one kiosk is installed on a street, all kiosks should be placed on the same axial line at regular intervals.

Public service kiosks (those primarily providing information) should be separated by at least 150 feet per block face with a maximum of two kiosks per block face. No more than two kiosks should be placed at any intersection.

Kiosks should not be placed within transit stops. Kiosks should be placed such that they do not block scenic views.

Kiosks should communicate information by including bulletin boards for community posting, enclosed cases for display of city information, or permanent lettering. Where a kiosk serves as a gateway element it should include a neighborhood, commercial district, street, or park name or other information.

When more than one kiosk is installed on a street, all kiosks should be of the same, or complementary, design and scale.

Kiosks can be artistic and expressive. They should reflect an area’s special character through their design and can be integrated with public art. Kiosks should include braille and be multi-lingual as necessary and appropriate to the specific location.



B5.2.4 Community Kiosks



B5.2.5 Community Kiosks



B5.2.6 Community Kiosks

## CASE STUDY A1.1

### Strip Development with Buffer & Parking

#### NASHVILLE WEST SHOPPING CENTER

Nashville, Tennessee

The Nashville West Shopping Center (at 6716 Charlotte Pike Nashville, TN 37209) was designed to be a pedestrian-friendly commercial strip. The initial design of this shopping center had buildings along the access drive, but redesigned the space with the buildings further back on the land as well putting a few flush with Charlotte Pike, letting the parking lot fall between them.

This particular commercial strip shopping center has 4 key elements that make it successful:

1. Strip Commercial Developments are set back away from the main road (Charlotte Pike).
2. Parking is placed in front of the Strip Commercial and behind the Charlotte-Pike developments flush with the road.

3. Charlotte-Pike developments fronting the main road bring down the scale, draw people in, and help hide the parking that lies between the Strip Commercial and main road-fronted developments.

4. Artistic, monument-style directional signage is placed at the entry points and within the site, itself, to engage visitors and shoppers in a meaningful and practical way.





\* Artistic Monument-style directional signage