# 



#### INTRODUCTION



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MAPS



#### Character Area Map **P8** Gateway Corridor **P**9 Overlay District Overview

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#### BUILT **ENVIRONMENT**



| Building<br>Scale | Mass &    |
|-------------------|-----------|
| Building          | Materials |
| Signage           |           |
|                   |           |

Lumpkin County Government **Development Authority of Lumpkin County** TSW University of Georgia Carl Vinson Institute of Government



#### LANDSCAPING **PATTERNS**



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#### CHAPTER 1 HOW TO USE THESE STANDARDS

"Lumpkin County: A historic mountain community that values small town tradition and balances responsible, focused growth, while also promoting quality of life and the experience of recreational living with southern charm."

#### Why Design Standards?

The Lumpkin County Design Guidelines for the Gateway Corridor Overlay District outlines basic standards for the public realm within the Gateway Corridor Overlay District of Lumpkin County, Georgia. This guide builds on the standards established in the Gateway Corridor Character Area of Lumpkin County Land Use Regulations, by providing a unified aesthetic to development that meets the needs of the community and its visitors.

The purpose of this document is to provide a single design resource for the County and its private partners to develop areas in a uniform, coordinated manner. It is intended to be used

as a reference for the desired standards for transportation, the built environment, and landscaping patterns for new development and substantial redevelopment projects specifically within the Gateway Corridor Overlay District.

It is the desire of Lumpkin County that by providing these guidelines to property owners and developers at the earliest stages of project design, the community will benefit from higher quality projects.

This guide shall be used as a framework for future development and requires builders to go through a design review process to receive final approval. This process is explained in detail on the following pages.

#### **Objectives**

- **Develop Overlay District**: Establishes the Land Use Development Standards, PUD zoning requirements, etc. \*\**Reference Ch. 27 Land Use Regulations*
- **Develop Transportation Regulations:** Interconnectivity between parcels, sidewalks, trail network, and parking requirements.
- **Develop Built Environment**: Building mass and scale, building materials, and signage types that are encouraged.
- Develop Landscape Patterns: Plant materials, hard-scape materials, and streetscape furnishings for streets and public spaces.







Four major goals for the Gateway Corridor Overlay District:

- 1. Preserve rural mountain community;
- 2. Protect scenic views along State Route 400;
- 3. Ensure development is the appropriate scale; and
- 4. Encourage mixed land uses and interconnectivity to limit traffic on the highway.

#### Plan Review Committee

In order to facilitate projects, Lumpkin County has established twice a month Plan Review Committee meetings that includes all of the departments involved in the development process.

Prospects are encouraged to contact the Planning Department early in their process to get scheduled!

#### **Questions?**

You can contact us at: **Development Authority of Lumpkin County** 342 Courthouse Hill Dahlonega, GA 30533 (706) 864-0423 picklumpkincounty.org Facebook: @PickLumpkinGA Instagram: @PickLumpkinGA

#### Lumpkin County Planning Department

342 Courthouse Hill Dahlonega, GA 30533 (706) 864-6894 lumpkincounty.gov

#### CHAPTER 1 **IMPLEMENTATION: NAVIGATING THE DESIGN REVIEW PROCESS**

#### **First things first - What** avenue should I follow?

Any development being proposed within the Gateway Corridor Overlay District will be required to submit applications that fall into one of the three following categories; small scale development less than 10,000 sf; master plan development more than 10,000 sf; and lastly, applicants may submit master plans as a Planned Unit Development (or PUD), that show extraordinary benefits to the community but are unable to meet the requirements set forth in processes one or two.

The purpose and intent of the Planned Unit Development Overlay (PUD) is to provide an avenue for approval for developments of extraordinary value to the community that do not necessarily comply with the underlying requirements of the Gateway Corridor Overlay District but which use innovative design practices that satisfy the purposes and goals of the land use regulations in this character area. A PUD approval provides greater latitude for internal site planning considerations and allows greater flexibility in design, design review, and project approval without having to resort to cumbersome and time-consuming variance procedures. Specific building location, height, type, building size, parking, signage and other limits of the underlying Gateway Corridor Overlay District may be waived provided that the spirit and intent of such requirements are satisfied within the overall development plan approved for such project.

There are three (3) development processes that can be pursued when applying to develop or redevelop properties or land within the Gateway Corridor Overlay District:



#### Small Scale Development in the **Gateway Corridor Overlay District**

- » < 10,000 sq,ft
- » < 2 acres disturbed
- » Site identified as particularly important to the corridor
- » Proposal meets Gateway Corridor Design Guidelines and Gateway Corridor Overlay District land use regulations

#### Some requirements include:

- » Must comply with Design Guidelines or:
  - » Be visually screened from State Routes 400 and 60
  - » Meet Performance Standards for the specific use/activity
  - » Screening must be either preserved vegetation or planted to have a natural appearance
  - » Must make allowance for interparcel connectivity



#### Master Plan Development in the **Gateway Corridor Overlay District**

- > > 10,000 sq.ft and/or > 2 acres disturbed
- Proposal meets Gateway Corridor Design Guidelines and Gateway Corridor Overlay District land use regulations

#### Some requirements include:

- » Must submit a site plan showing how they comply with the Design Guidelines
- Inter-parcel connectivity required
- Sidewalks and pedestrian pathways  $\gg$ required
- » Include public spaces and plazas
- Minimize cut and fill
- 20% open space requirement
- » Protect tree canopy as much as practical





#### Planned Unit Development (PUD) in the Gateway Corridor Overlay District

- » Allow a developer to negotiate a site plan for a larger development
- » Provides greatest flexibility to approve plans that meet community objectives
- » Needs to show extraordinary benefits to the community
- » Meeting Gateway Corridor Overlay District Design Guidelines is encouraged

#### Some requirements include:

- » Applicants must demonstrate good design and address the issues presented in the design guidelines
- » Heightened level of review by the County to ensure such development promotes the community's goals

#### Next, follow this step-by-step planning review process:

Depending on the development process that your project falls under (review P-5), you will follow one (1) of the three (3) planning review processes below:

![](_page_5_Picture_2.jpeg)

- Prospect creates a site plan for development.
- Schedule second meeting with Planning Review Committee to review site plan.
- Adjust and revise plan as necessary.

2

3

4

5

6

- Schedule final review of building plans with Planning Review Committee.
- Follow ordinance for permitting process in Chapter 26 of the Land Development Code.

![](_page_5_Picture_9.jpeg)

01:

![](_page_6_Picture_0.jpeg)

# Design Guidelines CHAPTER 2: MAPS

Lumpkin County Character Area Map
Gateway Corridor Overlay District Overview

P8

**P**9

![](_page_7_Figure_0.jpeg)

#### Lumpkin County Character Area Map

The planning area of Lumpkin County, Georgia, is divided into nine different Character Areas (CA) listed below and described on the Character Area Map (CAM) of Lumpkin County.

The county currently consists of approximately 271 square miles, and 173,268 total acres. The U.S. Forest Service land represents 33 percent off the total acreage, which equates to approximately 58,029 acres. The real total planning area is approximately 115,143 acres situated within its unincorporated boundaries.

The county has identified certain character areas that can best accommodate commercial growth and which provide the necessary infrastructure, services, and resources. In order to efficiently use land, growth must be focused into strategically located areas or into existing commercial character areas, thus minimizing development pressures on residential, rural, agricultural, and open space areas. This will in turn help to preserve the unique rural character of the county.

CHAPTER 02: MAPS

#### CHAPTER 2 GATEWAY CORRIDOR CHARACTER AREA & OVERLAY DISTRICT MAP

![](_page_8_Picture_1.jpeg)

#### Gateway Corridor Overlay District Overview

The Gateway Corridor Overlay District encompasses the area outlined in light blue as shown on this map and on the previous page.

It includes the southern portion of the existing Gateway Corridor Character Area from State Route 60 to the Lumpkin/Dawson county line. State Route 400 is considered a rural vista and provides the direct "Gateway" into Lumpkin County.

The Gateway Corridor Overlay District is established to enhance the quality and compatibility of development, to establish consistent design guidelines, to encourage the most appropriate use of land, and to promote safe and efficient movement of traffic.

All applicable developments proposed within the Gateway Corridor Overlay District shall be subject to procedures, standards, and guidelines specified. This includes requiring site plans and landscaping plans; buffering between incompatible uses; adhering to the signage and lighting guidelines; and screening large parking lots, loading, and unloading areas from view.

These aspects are in place to help protect the natural beauty while also accommodating for a variety of business uses and density that may be proposed.

This district will permit innovative development as a unified and integrated gateway to Lumpkin County.

![](_page_9_Picture_0.jpeg)

#### Design Guidelines

## **CHAPTER 3: TRANSPORTATION**

Vision Illustrations 1 & 2

Sidewalks & Connections

Trails

Parking

#### P11

P13

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#### CHAPTER 3 **VISION ILLUSTRATION SITE 1**

#### **Overview**

Site 1 includes the orange highlighted parcel shown on the location map. This parcel is located on the northwestern edge of State Route 400, across from the future Northeast Georgia Medical Center -Lumpkin site. The parcel is approximately 56 acres, and has direct access to State Route 400 and the Chestatee River. This area is a prominent intersection in Lumpkin County and welcomes many commuters who are traveling into Lumpkin County.

The illustration below shows how this site could be developed in the future, following the regulations set forth in these design guidelines.

The illustration includes the following elements:

- Mixed-use development
- Trail and sidewalk network •
- Slip-lane with on-street parking
- Preserved canopy buffer from State Route • 400
- Parking in rear and sides of site •
- Shared entrance drive with future Northeast Georgia Medical Center - Lumpkin off of State Route 400

![](_page_10_Picture_11.jpeg)

![](_page_10_Picture_12.jpeg)

![](_page_10_Picture_13.jpeg)

![](_page_10_Picture_14.jpeg)

#### CHAPTER 3 **VISION ILLUSTRATION SITE 2**

#### **Overview**

Site 2 includes the property located along the eastern edge of the future Northeast Georgia Medical Center - Lumpkin. The site is approximately 116 acres with an easement to State Route 400. Given the direct connection to the future medical center, this site would be a prime location for any medical related office uses and/or mixed use buildings.

It is a priority of these Design Guidelines to incorporate a trail network into new developments such as this that would connect to adjacent properties and along waterways such as the Chestatee River. The illustration below shows how this site could be developed with this vision, following the regulations set forth in these Design Guidelines.

The illustration includes the following elements:

- Medical related office buildings •
- Connection to multi-use trail and nature trail path • along the Chestatee River
- Preserved canopy buffer from State Route 400
- Parking in rear of site
- Shared entrance drive with future Northeast . Georgia Medical Center - Lumpkin off of State Route 400

![](_page_11_Picture_11.jpeg)

![](_page_11_Picture_12.jpeg)

![](_page_11_Picture_13.jpeg)

![](_page_11_Picture_14.jpeg)

# TRANSPORTATION . M $\bigcirc$ $\mathbf{C}$ CHAPTE

#### CHAPTER 3 **SIDEWALKS & CONNECTIONS**

#### **Overview**

The Gateway Corridor Overlay District's vehicular system is typical of many suburban and exurban areas of America in that it is designed for ease of auto-mobile use. The roadways are, for the most part, designed to move many cars at high speeds. Lane widths are wide, curves smooth, and speed limits generous. While the corridor's vehicular orientation has benefited drivers, it has also

meant that pedestrian facilities have been built primarily as an afterthought.

#### Intent of Standards

The general standards identified below are intended to provide better conditions for not only vehicular movement between developments, but also pedestrian and bicycle movement throughout the corridor.

![](_page_12_Picture_6.jpeg)

> Example of piano striped crosswalks

#### **GENERAL STANDARDS**

#### Design on-site pedestrian connections to enliven properties

- Where painted crosswalks are provided, they should be "piano striped" to provide maximum visibility to drivers.
- All curb ramps shall have a landing at the top and bottom, a maximum slope of 1:12, a maximum cross slope of 1:50, and a minimum width of 36 inches, per the requirements of the Americans with Disabilities Act (ADA). Landings should have the same width as the ramp and a minimum depth of 48 inches.
- Two ramps are encouraged at street corners, but no less than one is required.
- Sidewalks in new developments shall connect to existing sidewalks on adjacent public streets. Where public streets do not have sidewalks, development sidewalks shall nevertheless connect to said streets in anticipation of future facilities.

- Walkways shall be linked to primary pedestrian entrances of all buildings via a pedestrian walkway or wheelchair ramp between three and four feet wide.
- Direct a walkway through a plaza, courtyard, natural areas or other outdoor use area, and along active street frontages, entries, and storefronts to help animate the space.

#### Provide direct automobile access across ad*joining properties, when feasible, to minimize* curb cuts onto streets.

- Create an internal circulation system that will link those of adjacent properties, when feasible.
- Reserve the opportunity to provide future connections to adjacent undeveloped properties. A cross-property easement may be used to assure access.
- Provide internal connections between parking areas on a large parcel.

![](_page_12_Picture_21.jpeg)

> Provide a continuous, safe, and convenient automobile circulation systems between adjacent properties. Connections should occur through parking areas.

![](_page_12_Figure_23.jpeg)

> Diaaram showina recommended wheelchair landing and a "dropped driveway"

![](_page_12_Picture_25.jpeg)

> Example of a pedestrian walkway through a plaza space

> Example of a commercial street that has adequate sidewalks, crosswalks, ramping, etc.

![](_page_12_Picture_30.jpeg)

> Example of a development that does not provide adequate sidewalks and/or appropriate connections to neighboring developments

# CHAPTER 3

#### **Overview**

Trails provide opportunities for recreation and active transportation that is separated from vehicle traffic. When trails are properly designed and located, they are used by people of all ages to commute, exercise, relax, socialize, and enjoy their surroundings.

These Design Guidelines recommend that multi-use paths generally follow roadways such as the State Route 400, and nature trails that follow scenic areas such as rivers and streams. Specific recommendations are shown in the connectivity overview map on page 18.

#### **Intent of Standards**

These standards are intended for a range of trail types, as well as trail crossings, and access points. They are intended to allow flexibility in design, location, and environmental conditions.

#### Multi-Use Trail

Multi-Use trails serve a variety of user groups and are substantially wider than other narrow natural-surface trails. Wherever possible, separate bicycle and pedestrian paths. If this is not feasible, additional width, signing and pavement markings should be used to minimize conflicts.

#### Multi-Use Trail Standards

- Tread width varies from four to eight feet;
- Allowance for passing;
- Obstacles occasionally present;
- Blockages cleared to define route and protect resources;
- Prevailing grade five percent, with limited steeper segments; and
- Clearances and turning radius to accommodate all uses.

#### **GENERAL STANDARDS**

#### Connectivity

- Site designs will be required to provide connections in terms of sidewalks, streets-capes, paths, and trails so that commercial areas are accessible by means other than a vehicle.
- When a site abuts a planned or existing county and regional trail, a connection shall be provided.
- Access walkways and/or off-street trails should be provided to community destinations such as open spaces, parks and schools, commercial centers, medical facilities, etc. from residential areas, to enhance pedestrian and bicyclist movement and safety.

#### Multi-Use Trails

• Multi-use trails should be constructed with asphalt or concrete at a minimum width of 10 feet.

![](_page_13_Picture_22.jpeg)

> Example of a natural surface trail

- Bike parking should be provided at important destinations along the multi-use trail network.
- Multi-use trails should be set back from high-speed roadways such as collector or arterial streets, with landscaping to provide an aesthetic barrier between the pedestrian and vehicles to increase the safety and comfort of trail users.
- All hard surface trails (multi-use paths) shall be designed in accordance to ADA accessible trail standards. See Appendix A4 for a complete list of ADA Trail Standards.

#### Natural Surface Trails

- Natural surface trails should be construct-ed of native soil or compacted granulated stone.
- Trails shall provide access to rivers, streams, natural areas, and connect into multi-use paths along major roadways.

![](_page_13_Picture_30.jpeg)

> Example of a paved surface trail in a natural environment

![](_page_13_Picture_32.jpeg)

> Example of a paved multi-use path

![](_page_13_Picture_34.jpeg)

> Example of a boardwalk trail

![](_page_13_Picture_37.jpeg)

#### **CHAPTER 3** PARKING

#### **Overview**

The car and its needs are an essential part of community planning, but the car's impact on community design should be balanced with a desire to achieve high standards of aesthetics and walkability.

In the Gateway Corridor Overlay District, carefully crafted parking standards ensure that the car does not overwhelm the desired scale and character.

#### Design

All parking spaces should be useable, safely and conveniently arranged, and well marked. The design of parking and internal circulation should be based on the natural features in and around the site. The design of parking areas should also provide for clearly marked pedestrian routes through and around the parking area.

Site development should minimize large expanses of impervious surface and pervious paving materials should be used whenever possible. The selection of landscaping materials should reflect the hierarchy of the circulation system within the site and context.

#### **GENERAL STANDARDS**

#### Recommendations to minimize the visual impact of driveways and parking areas.

- Locate a parking area to the interior, side, or rear of a site or building. This is especially important on a corner property.
- Maintain continuity of the sidewalk by minimizing the number of curb cuts for driveways. Concentrate curb cuts at side streets or mid-block crossings.
- Divide a large parking area into small "pods" that maintain the traditional sense of smaller parking areas.
- Soften the view of parked cars from a public sidewalk or street using a planted buffer of trees, shrubs, and ground cover, or a low wall constructed from materials compatible with the site.

- Site a surface parking lot to be compatible with the surrounding context and street frontage.
- Large parking lots shall not be located between the buildings and state highways. A maximum of 2 rows of parking and access isle may be located between the building and state highways for the length of the building.

#### Share parking between buildings to access surface parking areas, whenever possible.

- Provide cross-property easements to share driveways and reduce the need for additional curb-cuts, when feasible.
- Avoid parallel road conditions, in which two abutting properties have separate driveways.

![](_page_14_Picture_18.jpeg)

> Shared use of parking between buildings, land uses, or parcels is encouraged. Parking behind buildings is also encouraged.

![](_page_14_Picture_20.jpeg)

> Large parking area separated, adequately screened by landscaping, and paved for pedestrian safety.

![](_page_14_Picture_22.jpeg)

> Poor interface between pedestrian and parking, lacking a landscape buffer between parking spaces and sidewalk.

![](_page_14_Picture_26.jpeg)

> Soften the view of parked cars from roadways and public sidewalks using a planted buffer of trees, shrubs, and ground cover.

![](_page_14_Picture_28.jpeg)

> Large swath of parking dominates streetscape

![](_page_15_Picture_0.jpeg)

Design Guidelines

# CHAPTER 4: BUILT ENVIRONMENT

Building Mass & Scale **Building Materials** Signage

![](_page_15_Picture_4.jpeg)

P17 P18 P19

#### **CHAPTER 4 BUILDING MASS & SCALE**

#### **Overview**

Building mass and scale includes the basic characteristics of building size, height and design that influence how it is perceived from the street or sidewalk, and how the building relates to neighboring development. Details about height limitations can be found in the Land Use Regulations. The Design Guidelines build on those standards to address additional mass and scale considerations such as those discussed below and on the following pages.

#### **Intent of Standards**

A building that relates to its immediate context, and adjacent human activity helps unify the community experience and character.

#### Human Scale

A sense of human scale is achieved when one can reasonably interpret the size of a building by comparing features of its design to comparable elements in one's experience. Using building materials of a familiar dimension such as traditional brick is an example, as is using windows of similar dimensions.

#### **GENERAL STANDARDS**

#### Use articulation techniques, height variation, and setbacks to establish a sense of scale in the design of a larger building.

- Use materials that convey scale in their proportion, detail and form.
- Define the ground floor with a canopy, fenestration, change in materials or building step back
- Step back a larger building mass from the street wall when possible to reduce looming effects
- Use moldings, columns, a change in material or offset in the wall plane to break up long wall places and define vertical building modules.
- Use vertical articulation to express traditional facade widths where a new larger building is adjacent to existing smaller-scale buildings.

Use moldings, a change in material, or a wall offset to provide horizontal expression

#### Harmonize relationships between buildings, streets, and open spaces

- Relate building scale and massing to the size and scale of existing buildings
- Modulate building massing vertically and/ or horizontally to a scale compatible to its context.
- Since Lumpkin County has topographic changes, shape new development to respond to those changes and blend naturally into the landscape.
- Shape the height and bulk of taller buildings with respect to views from important vantage points around the county.

![](_page_16_Picture_20.jpeg)

> Example of buildings at varied heights that are appropriate for the Gateway Corridor Overlay District.

![](_page_16_Picture_22.jpeg)

> Example of a building that step back towards less intensive uses that are appropriate for the Gateway Corridor Overlay District.

![](_page_16_Picture_24.jpeg)

> Avoid large blank walls which are more susceptible to graffiti

![](_page_16_Picture_26.jpeg)

Variations in Height

Varied heights, including differences in roof form and parapet height, can help a building appear to be a combination of parts that better relate to the mass and scale of existing buildings.

#### **Stepbacks**

Stepping taller building heights away from lowerscaled neighbors and providing a front yard setback adjacent to smallerscale buildings, encourages a comfortable pedestrian environment and helps new larger-sale buildings fit in.

#### **Building Articulation**

Vertical or horizontal changes in materials, texture, or wall plane can divide the mass and scale of a building into smaller parts that relate to traditionallyscaled buildings, provide a sense of human scale.

> Design buildings with a variation in height that works with the existing topography changes

# CHAPTER 4 BUILDING MATERIALS

#### **Overview**

The choice of materials and texture has great significance and can affect the long-term appearance and maintenance of the built environment. Exterior building material is directly related to the durability of the building against weathering and damage from natural forces. Materials can be classified based on their application as either a primary or an accent material. Primary materials are the dominant materials of a building's exterior walls and typically comprise 75% to 90% of each building face. Accent materials are utilized to provide architectural interest and variety on a building and typically comprise 10% to 25% of each building face.

#### **Intent of Standards**

These requirements are intended to complement the surrounding environment and existing building types. Materials should blend in with the mountainous landscape and natural wooded setting of Lumpkin County.

![](_page_17_Picture_6.jpeg)

> Use changes in material to express human scale. Materials such as stone and wood that emulate the mountainous surrounding landscaping is desired by the community.

#### **GENERAL STANDARDS**

#### Use materials to convey a sense of human scale and visual interest.

- Apply trim, metal- and woodwork, lighting, and other details in a harmonious manner, consistent with the proportions and scale of the building(s).
- Use changes in material to express human scale while assuring that the overall composition of the building design remains intact and does not appear overly busy.
- Select building materials, such as architectural details and finishes that convey a sense of permanence.
- Do not use large panelized products or other materials that produce extensive featureless surfaces.
- Earth tone building materials that have a pleasing visual texture, such as stone and brick, are strongly preferred.

- Metal exterior wall cladding panels are the only permitted metal that may be used as an exterior wall material (excluding architectural accents). Corrugated metal, residential-grade aluminum siding, shipping containers, and pre-engineered metal buildings are prohibited.
- The type of detailing of building materials should be consistent on all sides of a structure. Materials used on primary facades, if not used for the entire building, should return along secondary sides a minimum distance based on visibility be utilized on secondary sides to maintain visual consistency.
- Building wall materials may be combined on each facade only horizontally, with the heavier material below the lighter material.
- Use white or reflective paint on rooftops and light paving materials to reflect heat away from buildings and reduce the need for mechanical cooling.

![](_page_17_Picture_19.jpeg)

> Example of an appropriate use of metal on a building in the Gateway Corridor Overlay District.

![](_page_17_Picture_21.jpeg)

> Example of a pre-engineered metal building that is not permitted in the Gateway Corridor Overlay District.

![](_page_17_Picture_23.jpeg)

> Example of a mixed-use building that has combined materials split horizontally.

![](_page_17_Picture_25.jpeg)

> Example of materials that are desired on a small, office building.

![](_page_17_Picture_27.jpeg)

> Transparent materials such as glass should be balanced with solid, durable materials such as stone, steel, high-grade wood, and masonry.

#### **CHAPTER 4** SIGNAGE

![](_page_18_Picture_1.jpeg)

#### **Overview**

Signs are very common in our society and necessary at some circumstances to convey messages, business advertisement, etc. However, it is important to recognize that they are not standalone objects on the landscape. They coexists with other signs, buildings, streetscape, people, vehicles, and innumerous other elements. Even though signage needs to convey its message, it needs to respect the environment where it is meant to work.

#### **Intent of Regulation**

This page focuses on how signage can be effective without visually overwhelming the Gateway Corridor Overlay District. The signage standards shown below and referenced visually to the right, shall apply to all new signage erected in the Gateway Corridor Overlay District.

#### **GENERAL STANDARDS**

#### Improve the streetscape by reducing visual clutter of signage.

- At large retail developments, provide maps and signs in public spaces showing connections, destinations, and locations of public facilities.
- Limit the total number of colors used in any one sign.
- Select sign materials that are durable and compatible with the design of the facade on which they are placed.

- In general, a maximum of one business wall sign should be installed per business frontage on a public street.
- In commercial and mixed-use buildings with multiple tenants, develop a coordinated sign program establishing uniform sign requirements that identify appropriate sign size, placement, and materials.
- If a sign is externally illuminated, only indirect lighting is permitted

![](_page_18_Picture_14.jpeg)

> Example of signage that uses materials that are durable

![](_page_18_Picture_16.jpeg)

> Example of appropriate monument sigage for commercial development

![](_page_18_Picture_18.jpeg)

digital screens can be

distracting

> Streetscape is cluttered with excessive signage that lacks compatibility in color, height, size, and material.

![](_page_18_Picture_21.jpeg)

> Example of appropriate entry signage

![](_page_18_Picture_23.jpeg)

> The top rated image for signage per the Visual Preference Survey (view Appendix A.5)

![](_page_18_Picture_26.jpeg)

![](_page_19_Picture_0.jpeg)

- ann

## CHAPTER 5: LANDSCAPING PATTERNS

Streetscape Materials Site Furnishings Plant Materials

| P21 |  |
|-----|--|
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| D26 |  |

# CHAPTER 5 STREETSCAPE MATERIALS

#### **Overview**

The streetscape is comprised of the public space located between blocks and encompasses all portions of the street including pedestrian and vehicular areas.

The selection of appropriate street-scape materials should be based upon the following: desired visual image, compatibility with adjacent paving materials, safety and performance, durability, maintenance requirements, environmental benefit, and cost. Consideration should be given to the massing of impervious material, the heat impact of paving material, and the storm-water runoff caused by paving materials. Landscaping should be used to break up large expanses of impervious paving material. Permeable surfaces can not only minimize storm-water runoff, but can add aesthetic variation to the landscape. As the natural ground surface filters rainwater through its soil, permeable surfaces provide the function and durability of pavement with the filtration benefits of the soil. Permeable pavement also provides a means for surface water to infiltrate into the groundwater aquifer. With less water on the street, permeable pavements also reduce the occurrence of hydroplaning and similar rain-related traffic accidents.

| Material                                | Parking<br>Lots | Sidewalks /<br>Crosswalks | Trails | Plazas /<br>Patios | Roadways |
|---|-----------------|---------------------------|--------|--------------------|----------|
| Wood                                    |                 | X                         | X      | Х                  |          |
| Granite Fines / Slate Chips /<br>Gravel |                 |                           | X      | X                  |          |
| Pavers (brick, etc.)                    | Х               | X                         |        | Х                  | X        |
| Exposed Aggregate<br>Concrete           |                 | X                         |        | X                  |          |
| Concrete                                | Х               | X                         | X      | Х                  | X        |
| Asphalt                                 | Х               |                           | X      |                    | X        |

X = Style is allowed on the indicated site element

#### **GENERAL STANDARDS**

#### Use of pervious hardscape materials is encouraged.

- · Pervious pavement is encouraged in alleys, parking lots, plazas
- Brick pavers and other special paving materials or overhead features shall be used to distinguish pedestrian walkway surface areas

![](_page_20_Picture_11.jpeg)

> Brick Pavers

![](_page_20_Picture_13.jpeg)

> Asphalt

![](_page_20_Picture_15.jpeg)

> Exposed aggregate concrete and smooth concrete

![](_page_20_Picture_17.jpeg)

> Granite Fines, Slate Chips, & Gravel

![](_page_20_Picture_19.jpeg)

> Permeable Paving

![](_page_20_Picture_21.jpeg)

> Large expanses of non-pourus asphalt parking without vegetation

# CHAPTER 5 SITE FURNISHINGS: BENCHES, RACKS, & RECEPTACLES

#### **Overview**

When street furniture is installed, it shall conform to the requirements of this section.

#### Design

Site furnishings, such as benches and trash receptacles should be appropriately styled and scaled to complement building architecture and to reinforce the character of the streetscape. Streetscape furnishings and streetlights should coordinate with each other in style, color, and finish.

#### **BIKE RACK**

![](_page_21_Picture_6.jpeg)

U Bike Rack - Square Tube Item # 509-2040 Mounting: In Ground Finish: Black www.theparkcatalog.com

![](_page_21_Picture_8.jpeg)

#### **BIKE REPAIR STATION**

![](_page_21_Picture_10.jpeg)

#### HuntcoSiteFurnishings

Deluxe Public Work Stand + Tools

Mounting: In Ground Finish: Powder Coat

Matte Black (BK-08) www. huntco.com

#### TRASH RECEPTACLE

![](_page_21_Picture_16.jpeg)

![](_page_21_Picture_17.jpeg)

#### BACKLESS BENCH

![](_page_21_Picture_19.jpeg)

Bench 501 Product #: 501-60HSNA 6' Steel Backless Bench, No Arms, Steel Seat **Mounting**: S-1 Embedment **Finish**: Powder Coated "Textured Charcoal" www.dumor.com

#### DuMor Inc.

Receptacle 502 Product #: 502-32HS-FTO 32-Gallon Steel Receptacle, Top Deposit **Mounting:** S-1 Embedment **Finish:** Powder Coated "Textured Charcoal"

www.dumor.com

#### DuMor Inc.

Bench 500 Product #: 500-60HS 6' Steel Bench Steel Seat **Mounting:** S-1 Embedment

Finish: Powder Coated "Textured Charcoal"

www.dumor.com

#### DuMor Inc.

# CHAPTER 5 SITE FURNISHINGS: LIGHTING

#### **Overview**

Outdoor lighting should be designed in regard to placement, intensity, timing, duration, and color. These regulations support lighting that does the following:

#### **Promote Safety**

Too heavy of lighting can result in unsafe glare conditions for motorists and could thus, contribute to more accidents on the roadways. The roadway and/or pedestrian lighting should illuminate circulation and activity zones and facilitate safe pedestrian and vehicular movement. Appropriate illumination should be provided at points of decision, such as intersections, arrival points, and other special features.

Consistent levels of illumination should be maintained in public areas. Safe and comfortable circulation depends more on the consistency of illumination than on the level or brightness of the lighting. All light sources should be shielding to reduce glare, spill light, and wasted light.

#### **Be Better Neighbors**

Lighting in commercial areas should not spill over onto adjacent residential areas. The color of light source should be considered. High pressure sodium produces a yellow colored light, and metal halide is a more natural white light.

#### Save Money

Light fixtures with efficient light bulbs such as LEDs are more expensive in the short-term but cost-effective over time because they use less energy.

#### Reduce Skyglow

The clear view of the night sky is a resource in Lumpkin County and is significantly important to county residents to be retained. Stray and

#### **GENERAL STANDARDS**

- Outdoor lighting shall be established so that adjacent properties and roadways are not adversely affected and no direct light is cast upon them unless the lighting is specifically intended to illuminate pedestrian paths or other means of interparcel connectivity. It shall be designed to provide adequate illumination, but light shall not be excessive so as to cause light pollution, create a negative visual impact, or safety concerns.
- The specific standards for outdoor lighting plan are contained in the Guidelines for Good Exterior Lighting Plans, developed by the International Dark-Sky Association, and which is contained within the Gateway Corridor Overlay District Design Guidelines.
- Permanent mounted exterior neon lights and laser sourced lights for outdoor advertising or entertainment are prohibited.

excessive lighting contribute to "light pollution", clutter, and unnatural "sky glow".

Discouraged or unacceptable light fixtures include those that produce glare and light trespass. Acceptable light fixtures are those that shield the light source to reduce glare and light trespass, and to facilitate better vision at night.

#### Full Cut Off and Fully Shielded

Full cut off and fully shielded light fixtures are recommended for the Lumpkin County Gateway Corridor Overlay District. Full cut off light fixtures do not allow light to be emitted above the fixture and the fixture reduces glare by limiting the light output to less than 10% at and below 10 degrees below the horizontal. Fully shielded fixtures are constructed and installed in such a manner that all light emitted by it, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the fixture, is projected below the horizontal. See the diagram at right.

#### **Be Attractive**

The finish on street lights and site furnishings should coordinate in overall design, color, finish, and placement.

The lighting fixtures shown on the following page are considered acceptable light fixtures for the Lumpkin County Gateway Corridor Overlay District.

![](_page_22_Figure_24.jpeg)

> Example diagram showing a cut off light fixture. No light should be at or above the 90 degrees.

![](_page_22_Picture_26.jpeg)

> Example of an appropriate pedestrian path light (specs shown on following page)

![](_page_22_Picture_28.jpeg)

> Example of non cut-off lighting that produces too much glare

#### CHAPTER 5 **SITE FURNISHINGS: LIGHTING CONT.**

#### **BOLLARD: UNLIT**

![](_page_23_Picture_2.jpeg)

#### Huntco Site Furnishings

5-Inch Square Bollard Standard Flat Top Size: 36" Height, 10" Length, 10" Width

Mounting: In Ground

Finish: Powder Coat Matte Black (BK-08)

www.huntco.com

![](_page_23_Picture_8.jpeg)

#### **BOLLARD: LIT**

Lumens Open Top Square LED Bollard

Landscape Light By Kuzco Lighting Size: Length 5.88", Width

5.88", Height 36" Finish: Black

Temperature: 3000K

www.lumens.com

#### MAST ARM (FULL CUTOFF)

#### **Light Poles Plus**

Single Fixture Mount, 4' Long, Aluminum Tapered Elliptical Mast Arm Bracket, Pole Top Hub Mount

#### Part Number:

VA-A-MST-R30-1-000-FP-SG-48

Finish: Black (VA-BK) www.lightpolesplus.com

**Note:** Pole to be chosen by qualified engineer to analyze loading design.

![](_page_23_Picture_22.jpeg)

#### PEDESTRIAN PATH LIGHT

![](_page_23_Picture_24.jpeg)

#### Lumens LED Garden and Pathway Luminaire - 77263/77264 By BEGA Size: Width 4.38", Height 27.5" Finish: Graphite Temperature: 3000K www.lumens.com

#### **PEDESTRIAN AREA LIGHT**

![](_page_23_Picture_27.jpeg)

Open Square LED Bollard Landscape Light By Kuzco Lighting

Size: Length 5.88", Width 5.88", Height 36"

Finish: Black

Temperature: 3000K www.lumens.com

#### **STREET LIGHT (FULL CUTOFF)**

![](_page_23_Picture_33.jpeg)

**GA Power LED** Decorative Post Top Lighting Model: Philips MetroScape LED Post-Top (MPTR) Temperature: 3000K Fixture Color: Black (BKTX) www.georgiapower.com

> » The location of trees may affect the consistency of illumination along the streetscape. The distance between a street tree and a a street tree should be no closer than 12 feet from a streetlight.

street light will depend on the type of light. Generally, the center of

# CHAPTER 5 SITE FURNISHINGS: FENCING & RETAINING WALLS

#### **GENERAL STANDARDS**

No graded slope may be steeper than 3:1 horizontal to vertical. Any slope steeper will require a retaining wall. Retaining walls shall meet the following minimum requirements, though alternative designs may be approved if they adequately address the negative aesthetic impacts of the wall:

- I. The height and length of retaining wall shall be minimized and screened with appropriate landscaping.
- II. Concrete or block retaining walls with smooth face are prohibited. Walls visible from the roadway shall be faced with brick, stone, or other architectural treatment.
- *III. Terracing and multi-tiered walls should be considered as an alternative to the use of tall or prominent retaining walls, particularly in highly visible areas on hillsides.*
- *IV.* Retaining walls shall be located beyond any landscape buffer along any right of way.

#### COLUMN: FENCE ANCHOR

![](_page_24_Picture_8.jpeg)

Granite Column Design: Custom, by project Pattern: Grey Granite Ashlar

#### RETAINING WALLS: HIGHLY VISIBLE COMMERCIAL AREAS

![](_page_24_Picture_11.jpeg)

Granite Block Design: Custom, by project Color: Grey Granite

![](_page_24_Picture_13.jpeg)

> Example of a smooth face concrete/cinderblock wall that is not permitted in the Gateway Corridor Overlay District

#### FENCE: RESIDENTIAL APPLICATIONS

![](_page_24_Picture_16.jpeg)

Vinyl Fence and Deck Black Vinyl Horse Fence Style: 3-Rail "Heavy Duty Black Vinyl 3" Height: 4.5 feet Mounting: In Ground Finish: Black www.vinylfenceanddeck.com

#### FENCE GATE

![](_page_24_Picture_19.jpeg)

#### RETAINING WALLS: MODERATELY VISIBLE AREAS

![](_page_24_Picture_21.jpeg)

Wood Design: Custom, by project Color: Dark Stain Pattern: Horizontal

![](_page_24_Picture_23.jpeg)

#### Vinyl Fence and Deck

Black Vinyl Horse Gate **Style:** Single Swing **Height:** To Match fence height; 4.5 feet **Finish:** Black www.vinylfenceanddeck.com

![](_page_24_Picture_26.jpeg)

#### **Plant Selection**

Plant materials should be adaptable to existing soils, climatic and lighting conditions, and be disease resistant. Native plant species are encouraged. Whenever possible, landscape design should incorporate drought-tolerant tree and plant species that are native to North Georgia. In some cases, it may also incorporate non-native species that are hardy in local climate, and historically-appropriate. (see a full list of recommended trees and plantings in the Appendix A.1). Site landscaping should complement and soften new construction and building architecture and plant materials should create spaces by providing walls and canopies in outdoor areas. In addition, landscaping should provide a sense of scale and seasonal interest.

#### **Species Diversity**

Landscape plans should include diverse plant species, including evergreen, flowering, and shade tree species combined with shrubs, ground covers, and annual and perennial plantings. However, to create a uniform treelined street, generally no more than two species of street tree should be used along a single block face of a roadway. A different tree species may be used to highlight intersections, where appropriate.

#### Maintenance

Maintenance should be considered when selecting landscaping materials. Significant healthy trees should be preserved and maintained. Trees on public and private property should be appropriately trimmed around utility lines. Hazardous dead or dying trees on

#### **GENERAL STANDARDS**

#### Preserve and maintain mature trees and significant vegetation.

- As many existing trees should be preserved as possible, particularly any large, rare, or historically significant trees.
- Include existing vegetation as a part of a landscape design scheme where appropriate.
- Identify healthy trees and vegetation clusters for preservation. Special consideration should be given to mature trees, 6" or greater in diameter, and to vegetation clusters with signification visual impact.

#### Use native tree and plant species in landscape design, whenever possible.

• Use drought-tolerant species, native to the region and suitable to the North Georgia climate.

- Reserve the use of high-maintenance plants, if necessary, for small accent areas in the landscape.
- See Appendix A.1 to review the complete list of recommended plants.

#### Use a coordinated landscape palette to establish a sense of visual continuity in the design of a site (includes lighting structures, paving materials, plantings, and street furniture).

- Use a consistent plant palette throughout the property.
- Consider how the design of streetscape furnishings can relate to those in the public way that abut the property.
- Use plantings to highlight building entries.

![](_page_25_Picture_22.jpeg)

> This image was the highest rated image among Lumpkin County residents in the Visual Preference Survey (results can be found in Appendix A.3). The community would like to see more natural, undisturbed type greenspaces using native plant species when possible.

County-owned property should be removed and replaced.

#### Intent of Standards

These regulations are intended to provide the Gateway Corridor Overlay District with consistent vegetation that provides visual continuity.

#### **Street Trees**

The following street trees are all native to North Georgia and permitted in the Gateway Corridor Overlay District. Crown raising is restricted to less than 15% of the live crown height. Leave the crown at least two thirds of the total height of every tree. Only limbs 1/2" - 3".

![](_page_26_Figure_4.jpeg)

![](_page_26_Picture_5.jpeg)

HIGHTOWER WILLOW OAK Quercus phellos 'Hightower' (Native)

**Recommended use:** as a street tree due to its upright-oval form and proven urban adaptability and durability

**Characteristics:** likes full sun/part shade; tolerates air pollution; yellow fall color

![](_page_26_Picture_9.jpeg)

NUTTALL OAK Quercus nuttalli (Native)

![](_page_26_Picture_11.jpeg)

**GREEN ASH** *Fraxinus pennsylvanica* (Native)

![](_page_26_Picture_13.jpeg)

JEFFERSON ELM Ulmus americana 'Jefferson' (Native)

Recommended use: large median plantings; Characteristics: tolerates drought and air pollution; high tolerance to Dutch Elm Disease; yellow fall color

![](_page_26_Picture_16.jpeg)

**GEORGIA GEM GREEN ASH** *Fraxinus pennsylvanica 'Georgia Gem'* (Native)

**Recommended use:** fast growing shade tree or street tree; as windbreaks

**Characteristics:** tolerates air pollution; tolerates wet soils; yellow fall color

![](_page_26_Picture_20.jpeg)

AMERICAN SYCAMORE Platanus occidentalis (Native)

**Recommended use:** as a natural early colonizer of disturbed sites with yellow fall color; use in bioswales and rain gardens; use in medium-wet soils; tolerates air pollution

#### **Flowering Trees**

**Understory Tree** 

The following small flowering trees are all native to North Georgia and permitted in the Gateway Corridor Overlay District.

![](_page_27_Picture_3.jpeg)

**DOGWOOD** *Cornus* variety (var. florida = Native)

**Recommended use:** as a shrub border or backdrop species and can be used under powerlines; as single specimen

**Characteristics:** attracts birds/butterflies; less than full-day sun; tolerates clay soils; showy flowers in April-May

SWEETBAY MAGNOLIA Magnolia virginiana (Native)

**Recommended use:** as a specimen tree in wet soils; for buffer strips around parking lots or for median strip plantings

**Characteristics:** tolerates clay and wet soils; tolerates air pollution; semi-evergreen with showy flowers in May-June

![](_page_27_Picture_10.jpeg)

LITTLE GEM DWARF SOUTHERN MAGNOLIA Magnolia grandiflora 'Little Gem' (Native)

**Recommended use:** privacy screens; hedges; espaliers; in very wet areas

**Characteristics:** evergreen with large white flowers during late spring to summer

![](_page_27_Picture_14.jpeg)

**DOWNY SERVICEBERRY** *Amelanchier arborea* (Native)

**Recommended use:** as a naturalistic planting (shrubby form if root suckers not removed); as a specimen or in grouping; can be used under powerlines

**Characteristics:** attracts birds; likes full sun/part shade; tolerates clay soils; tolerates air pollution; yellow to orange to red fall color with white flowers in March-April

![](_page_27_Picture_18.jpeg)

AMERICAN HOLLY Ilex opaca (Native)

Recommended use: privacy screens Characteristics: attracts birds; tolerates clay soils; tolerates air pollution; evergreen foliage for year round color

![](_page_27_Picture_21.jpeg)

#### **FRINGE TREE** *Chionanthus virginicus* (Native)

**Recommended use:** in front of a dark backdrop; as individual specimens or in groups as mixed shrub borders; can be used under powerlines

**Characteristics:** attracts birds; prefers full sun/ part shade; tolerates clay soils; tolerates air pollution; showy flowers May-June

#### Shrubs

The following shrubs are all native to North Georgia and permitted in the Gateway Corridor Overlay District.

![](_page_28_Picture_3.jpeg)

**DWARF YAUPON HOLLY** *Ilex vomitoria* (Native)

Recommended use: foundation plantings; along a fence; as a low hedge; in rain gardens Characteristics: attracts birds; tolerates air

pollution and wet soils; evergreen

![](_page_28_Picture_7.jpeg)

![](_page_28_Picture_8.jpeg)

ADAMS NEEDLE Yucca filamentosa (Native)

**Recommended use:** suited to containers; for year round interest and fast growth rate

**Characteristics:** attracts butterflies; prefers full sun and dry-medium soils; tolerates rabbits, deer, drought, erosion, shallow rocky soils, and air pollution; evergreen

VIRGINIA SWEETSPIRE Itea virginica (Native)

![](_page_28_Picture_13.jpeg)

ADAM'S NEEDLE Yucca filamentosa (Native)

![](_page_28_Picture_15.jpeg)

ARROWWOOD VIBURNUM Viburnum dentatum (Native)

![](_page_28_Picture_17.jpeg)

**OAKLEAF HYDRANGEA "RUBY SLIPPERS"** *Hydrangea quercifolia* (Native)

#### Ornamental Grasses, Sedges, & Groundcovers

The following groundcovers and grasses are all native to North Georgia and permitted in the Gateway Corridor Overlay District.

![](_page_29_Picture_3.jpeg)

LITTLE BLUESTEM Schizachyrium scoparium (Native)

![](_page_29_Picture_5.jpeg)

MUHLY GRASS Muhlenbergia capillaris (Native)

**Recommended use:** mass grouping planting or container plantings; naturalized areas; partial to full sun/part shade

**Characteristics:** tolerates drought; tolerates air pollution; semi-evergreen with summer-fall pink blooms

![](_page_29_Picture_9.jpeg)

BUTTERFLY WEED Asclepias tuberosa (Native)

**Recommended use:** rain gardens; naturalized areas; specimen plant

**Characteristics:** attracts several butterfly species; needs full sun; tolerates deer, drought, erosion, and rocky soils; bright orange flowers from summer-fall

![](_page_29_Picture_13.jpeg)

SHENANDOAH SWITCH GRASS Panicum virgatum 'Shenandoah' (Native) Recommended use: mass background plantings or containers; meadows, wild gardens, naturalized areas; rain gardens

**Characteristics:** fast growing; prefers full sun/ part shade; tolerates droughts, erosion, wet soils, and air pollution; reddish-pink flowers in the summer and burgundy leaves in the fall

![](_page_29_Picture_16.jpeg)

**CAREX SPECIES** *Carex spp.* (Native)

![](_page_29_Picture_18.jpeg)

**CONEFLOWERS** Echinacea (purpurea 'Tiki Torch', purpurea 'Sundown') (Native)

**Recommended use:** as a vertical element addition to the landscape; best in containers or borders; naturalized area

**Characteristics:** attracts birds and butterflies; prefers full sun/part shade; tolerates deer, drought, clay soils, and rocky soils; long lasting showy flowers

![](_page_30_Picture_0.jpeg)

# Design Guidelines CHAPTER 6: APPENDIX

A.1 Suitable Plant List

P32

# APPENDIX A.1 SUITABLE PLANT LIST

| Scientific Name            | Common Name  | Mature<br>Height | Mature<br>Width | Wet Soils<br>Tolerant | Drought<br>Tolerant | Suitable<br>Underneath<br>Powerlines | Good<br>Evergreen<br>Buffer/Screen |
|----------------------------|--|------------------|-----------------|-----------------------|---------------------|--------------------------------------|------------------------------------|
|                            | OVERSTORY TREES (>   | 60' HEIGHT       | AT MATUR        | PITY)                 |                     |                                      |                                    |
| Carya spp.                 | Hickory Species  | n/a              | n/a             | -                     |                     | -                                    | -                                  |
| Fagus grandifolia          | American Beech   | n/a              | n/a             | -                     | -                   | -                                    | -                                  |
| Fraxinus pennsylvanica     | Green Ash  | n/a              | n/a             | <b>&gt;</b>           | Ø                   | -                                    | -                                  |
| Ginkgo biloba (not native) | Ginkgo (Male/Fruitless Varieties Only For<br>Streets/Parking Lots) | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Juglans nigra              | Black Walnut   | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Liquidambar styraciflua    | Sweetgum (Fruitless Varieties Only For Streets/<br>Parking Lots)   | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Liriodendron tulipifera    | Tulip Poplar   | n/a              | n/a             | -                     | -                   | -                                    | -                                  |
| Magnolia grandiflora       | Southern Magnolia (Non-Dwarf Varieties)                            | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Platanus occidentalis      | American Sycamore  | n/a              | n/a             | Ø                     | -                   | -                                    | -                                  |
| Quercus alba               | White Oak  | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Quercus falcata            | Southern Red Oak   | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Quercus georgiana          | Georgia Oak  | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Quercus lyrata             | Overcup Oak  | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Quercus nuttalli           | Nuttall Oak  | n/a              | n/a             | Ø                     | Ø                   | -                                    | -                                  |
| Quercus palustris          | Pin Oak  | n/a              | n/a             | Ø                     | Ø                   | -                                    | -                                  |

CHAPTER 05: APPENDIX

| Scientific Name                                 | Common Name  | Mature<br>Height | Mature<br>Width | Wet Soils<br>Tolerant | Drought<br>Tolerant | Suitable<br>Underneath<br>Powerlines | Good<br>Evergreen<br>Buffer/Screen |
|---|--|------------------|-----------------|-----------------------|---------------------|--------------------------------------|------------------------------------|
| Quercus phellos                                 | Willow Oak   | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Quercus shumardii                               | Shumard Oak  | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Quercus stellata                                | Post Oak   | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Ulmus americana                                 | American Elm (Dutch Elm Resistant Varieties<br>Only) | n/a              | n/a             | -                     | <b>S</b>            | -                                    | -                                  |
| Ulmus parvifolia (not native)                   | Chinese Elm  | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| MID-STORY TREES (30' TO 60' HEIGHT AT MATURITY) |  |                  |                 |                       |                     |                                      |                                    |
| Acer rubrum                                     | Red Maple  | n/a              | n/a             |                       | -                   | -                                    | -                                  |
| Acer saccharum                                  | Sugar Maple  | n/a              | n/a             | Ø                     | -                   | -                                    | -                                  |
| Betula nigra                                    | River Birch  | n/a              | n/a             | $\bigcirc$            | -                   | -                                    | -                                  |
| Cladrastis kentukea                             | American Yellowwood                                  | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Halesia tetraptera                              | Carolina Silverbell                                  | n/a              | n/a             | -                     | -                   | -                                    | -                                  |
| Nyssa sylvatica                                 | Blackgum   | n/a              | n/a             | Ø                     | Ø                   | -                                    | -                                  |
| Ostrya virginiana                               | Eastern Hophornbeam                                  | n/a              | n/a             | -                     | Ø                   | -                                    | -                                  |
| Oxydendrum arboreum                             | Sourwood   | n/a              | n/a             | -                     | -                   | -                                    | -                                  |
|   | UNDERSTORY TREES (                                   | <30' HEIGH       | ΓΑΤΜΑΤυ         | RITY)                 |                     |                                      |                                    |
| Acer buergerianum (not native)                  | Trident Maple  | n/a              | n/a             | -                     | -                   |                                      | -                                  |
| Amelanchier arborea                             | Serviceberry   | n/a              | n/a             | -                     | -                   |                                      | -                                  |
| Carpinus caroliniana                            | American Hornbeam                                    | n/a              | n/a             | <b>S</b>              | -                   |                                      | -                                  |
| Cercis canadensis                               | Eastern Redbud                                       | n/a              | n/a             | -                     | Ø                   |                                      | -                                  |

CHAPTER 05: APPENDIX

| Scientific Name                           | Common Name                                  | Mature<br>Height | Mature<br>Width | Wet Soils<br>Tolerant | Drought<br>Tolerant | Suitable<br>Underneath<br>Powerlines | Good<br>Evergreen<br>Buffer/Screen |
|---|--|------------------|-----------------|-----------------------|---------------------|--------------------------------------|------------------------------------|
| Cercis chinensis (not native)             | Chinese Redbud                               | n/a              | n/a             | -                     | -                   |                                      | -                                  |
| Chionanthus retusus (not native)          | Chinese Fringe Tree                          | n/a              | n/a             | -                     | -                   | Ø                                    | -                                  |
| Chionanthus virginicus                    | Fringetree                                   | n/a              | n/a             | -                     | -                   | Ø                                    | -                                  |
| Cornus florida                            | Flowering Dogwood                            | n/a              | n/a             | -                     | -                   |                                      | -                                  |
| Cornus kousa (not native)                 | Kousa Dogwood                                | n/a              | n/a             | -                     | -                   | Ø                                    | -                                  |
| Lagerstroemia indica (not native)         | Crape Myrtle                                 | n/a              | n/a             | -                     | -                   |                                      | -                                  |
| Parrotia persica (not native)             | Persian Ironwood                             | n/a              | n/a             | -                     | -                   |                                      | -                                  |
| Sassafras albidum                         | Sassafras                                    | n/a              | n/a             | -                     | -                   | Ø                                    | -                                  |
|   | CONIFER AND BROAD                            | DLEAF EVER       | GREEN TR        | EES                   |                     | '                                    | 1                                  |
| Cedrus deodara (not native)               | Deodar Cedar                                 | 30-60'           | 20-40'          | -                     | -                   | -                                    |                                    |
| llex opaca                                | American Holly                               | 30-60'           | 20-40'          | -                     | -                   | -                                    | Ø                                  |
| Juniperus virginiana                      | Eastern Redcedar                             | 30-60'           | 8'-20'          | -                     | Ø                   |                                      | Ø                                  |
| Magnolia grandiflora                      | Southern Magnolia (Dwarf Varieties Included) | 20'-60'+         | 10'-40'         | -                     | Ø                   |                                      | Ø                                  |
| Magnolia virginiana                       | Sweetbay Magnolia                            | 10'-20'          | 10'-20'         | Ø                     |                     |                                      | Ø                                  |
| Metasequoia glyptostroboides (not native) | Dawn Redwood                                 | >60'             | 20'-25'         | Ø                     | Ø                   | -                                    | -                                  |
| Pinus strobus                             | White Pine                                   | 30-60'           | 30'-40'         | Ø                     | -                   | -                                    | -                                  |
| Pinus virginiana                          | Virginia Pine                                | <30'             | 20'-30'         | -                     | <b>&gt;</b>         | Ø                                    | -                                  |
| Taxodium distichum                        | Bald Cypress                                 | >60'             | 20'-30'         | Ø                     |                     | -                                    | -                                  |
| Thuja occidentalis                        | American Arborvitae                          | <30'             | 10'-20'         | -                     | -                   |                                      |                                    |

CHAPTER 05: APPENDIX

| Scientific Name           | Common Name                            | Mature<br>Height | Mature<br>Width | Wet Soils<br>Tolerant | Drought<br>Tolerant | Suitable<br>Underneath<br>Powerlines | Good<br>Evergreen<br>Buffer/Screen |
|---------------------------|--|------------------|-----------------|-----------------------|---------------------|--------------------------------------|------------------------------------|
|                           | 5                                      | SHRUBS           |                 |                       |                     |                                      |                                    |
| Cephalanthus occidentalis | Button Bush                            | n/a              | n/a             | Ø                     | -                   | n/a                                  | n/a                                |
| Clethra alnifolia         | Summersweet Clethra                    | n/a              | n/a             | Ø                     | Ø                   | n/a                                  | n/a                                |
| Fothergilla gardenii      | Dwarf Fothergilla                      | n/a              | n/a             | Ø                     | -                   | n/a                                  | n/a                                |
| Hamamelis virginiana      | Common Witchhazel                      | n/a              | n/a             | Ø                     | -                   | n/a                                  | n/a                                |
| Hydrangea quercifolia     | Oakleaf Hydrangea                      | n/a              | n/a             | -                     | -                   | n/a                                  | n/a                                |
| llex glabra               | Inkberry                               | n/a              | n/a             | Ø                     | -                   | n/a                                  | n/a                                |
| Ilex verticillata         | Winterberry                            | n/a              | n/a             | Ø                     | -                   | n/a                                  | n/a                                |
| Itea virginica            | Virginia Sweetspire                    | n/a              | n/a             | Ø                     | -                   | n/a                                  | n/a                                |
| Lyonia lucida             | Fetterbush                             | n/a              | n/a             | Ø                     | -                   | n/a                                  | n/a                                |
| Myrica cerifera           | Wax Myrtle                             | n/a              | n/a             | Ø                     | -                   | n/a                                  | n/a                                |
| Rhododenron spp.          | Native Azalea and Rhododendron Species | n/a              | n/a             | -                     | -                   | n/a                                  | n/a                                |
| Vaccinium spp.            | Blueberry Species                      | n/a              | n/a             | -                     | -                   | n/a                                  | n/a                                |
| Viburnum acerifolim       | Mapleleaf Viburnum                     | n/a              | n/a             | -                     | -                   | n/a                                  | n/a                                |
| Viburnum dentatum         | Arrowwood Viburnum                     | n/a              | n/a             | Ø                     | -                   | n/a                                  | n/a                                |
| Yucca filamentosa         | Adam's Needle                          | n/a              | n/a             | -                     | Ø                   | n/a                                  | n/a                                |

CHAPTER 05: APPENDIX

| Scientific Name         | Common Name           | Mature<br>Height | Mature<br>Width | Wet Soils<br>Tolerant | Drought<br>Tolerant | Suitable<br>Underneath<br>Powerlines | Good<br>Evergreen<br>Buffer/Screen |
|-------------------------|-----------------------|------------------|-----------------|-----------------------|---------------------|--------------------------------------|------------------------------------|
|                         | ORNAMENTAL GRASSES, S | EDGES, AN        | D GROUND        | COVERS                |                     |                                      |                                    |
| Andropogon virginicus   | Broomsedge            | n/a              | n/a             | $\diamond$            |                     | n/a                                  | n/a                                |
| Carex spp.              | Carex species         | n/a              | n/a             | 0                     | -                   | n/a                                  | n/a                                |
| Chasmanthium latifolium | River Oats            | n/a              | n/a             | <b>S</b>              | -                   | n/a                                  | n/a                                |
| Deschampsia flexuosa    | Common Hairgrass      | n/a              | n/a             | -                     | Ø                   | n/a                                  | n/a                                |
| Eragrostis spectabilis  | Purple Lovegrass      | n/a              | n/a             | -                     | Ø                   | n/a                                  | n/a                                |
| Liriope muscari         | Lilyturf              | n/a              | n/a             | -                     | Ø                   | n/a                                  | n/a                                |
| Muhlenbergia capillaris | Pink Muhly Grass      | n/a              | n/a             | -                     | Ø                   | n/a                                  | n/a                                |
| Muhlenbergia sericea    | Puple Muhly Grass     | n/a              | n/a             | -                     | Ø                   | n/a                                  | n/a                                |
| Panicum virgatum        | Switchgrass           | n/a              | n/a             | Ø                     | Ø                   | n/a                                  | n/a                                |
| Schizachyrium scoparium | Little Bluestem       | n/a              | n/a             | -                     | Ø                   | n/a                                  | n/a                                |
| Sorghastrum nutans      | Yellow Indian Grass   | n/a              | n/a             | -                     | Ø                   | n/a                                  | n/a                                |
| Sporobolus heterolepis  | Prairie Dropseed      | n/a              | n/a             |                       |                     | n/a                                  | n/a                                |