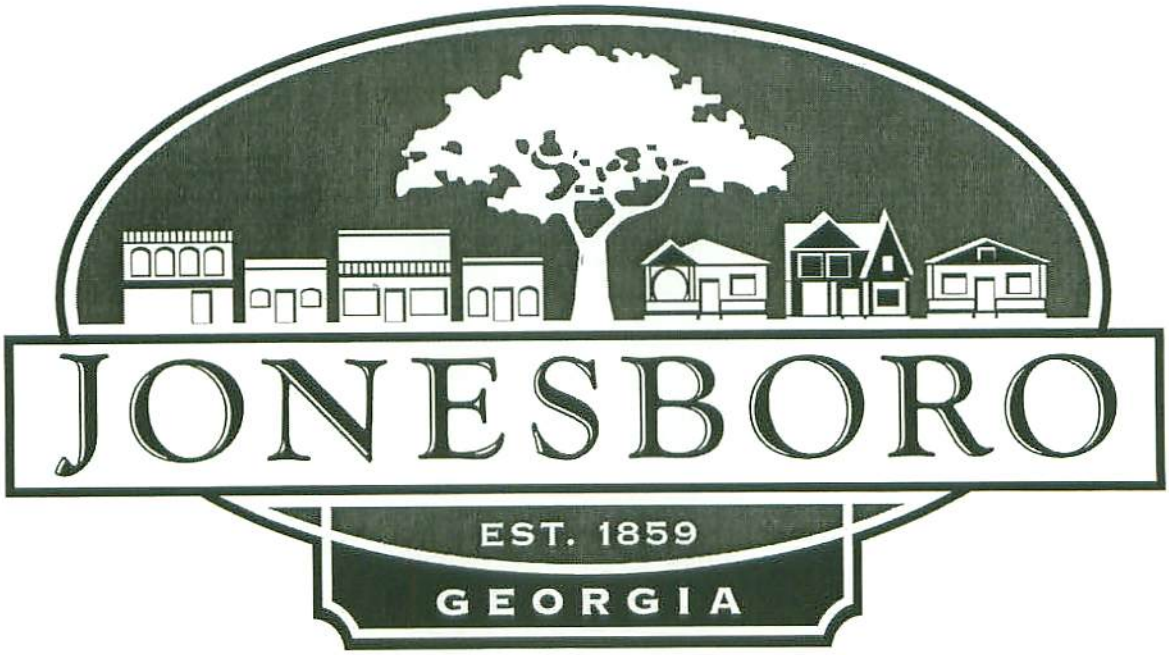
Jonesboro Thoroughfare Plan



City of Jonesboro, Georgia

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Jonesboro Thoroughfare Plan. This Section represents the application of those standards and design criteria to the Jonesboro context, and comprises the proposed Thoroughfare Plan standards and criteria.

Background

The approach characterizing the Jonesboro Thoroughfare Plan stems from "New Urbanism" and "Traditional Neighborhood Development" models. The approach is also to "Keep It Simple," and accordingly, the name of the plan is proposed as the Jonesboro Thoroughfare Plan.

Post-war Development Model

The following excerpt conveys the roots of these development models that spell a return to a traditional development model that preceded widespread automobile ownership and suburbanization of America.

> "Prior to WWII, the traditional neighborhood street was in the range of 28 feet - 30 feet wide with corner radius of 5 feet -10 feet. Since that time, the typical local street has grown to a width of 36 feet, with a corner radius of 25 feet. The wider street was intended to move traffic more quickly and efficiently. It has. Unfortunately, faster traffic and increased amounts of asphalt have diminished the quality of our neighborhoods.
>
> Through the first quarter of this century, the United States was developed in the form of compact, mixed-use neighborhoods. The pattern began to change with the emergence of modern architecture and zoning and ascension of the automobile. After World War II, a new system of development was implemented nationwide, replacing neighborhoods with a rigorous separation of uses that has become known as conventional suburban development, or sprawl. The majority of US citizens now live in suburban communities built in the last 50 years."

Source: CONGRESS FOR THE NEW URBANISM Compiled by: Alan B. Cohen AIA, CNU

Principles of New Urbanism

The strength of New Urbanism lies in the design of neighborhoods. This is guided by principles developed by town planners Andres Duany and Elizabeth Plater-Zyberk. According to these planners, an authentic neighborhood contains most of the following elements:

A. The neighborhood has a discernible center. This is often a square of a green, and sometimes a busy or memorable street corner. A transit stop would be located at this center.

B. Most of the dwellings are within a five-minute walk of the center, an average of roughly 2,000 feet.

C. There is a variety of dwelling types -- usually detached dwellings, townhouses and apartments -- so that younger and older people, singles and families, the poor and the wealthy may find places to live.

D. There are shops and offices at the edge of the neighborhood, of sufficiently varied types to supply the weekly needs of a household.

E. A small ancillary building is permitted within the backyard of each house. It may be used as a rental unit or place to work, e.g., office or craft workshop.

F. An elementary school is near enough so that most children may walk from their home.

G. There are small playgrounds near every dwelling -- not more than a tenth of a mile away.

H. Streets within the neighborhood are a connected network that disperses traffic by providing a variety of pedestrian and vehicular routes to any destination.

I. The streets are relatively narrow and shaded by rows of trees. This slows traffic, creating an environment suitable for pedestrians and bicycles.

J. Buildings in the neighborhood center are placed close to the street, creating a well-defined outdoor space.

K. Parking lots and garage doors rarely front the street. Parking is relegated to the rear of buildings, usually accessed by alleys.

L. Certain prominent sites at the termination of street vistas or in the neighborhood center are reserved for civic buildings. These provide sites for community meetings, education, religion or cultural activities.

Source: Gainesville Florida Land Development Code, Traditional Neighborhood Development, June 14, 1999.

Commonly-Accepted Standards

A number of state highway departments have developed standards that advance TND objectives. These standards are consistent with Jonesboro's historic development pattern and are presented here for application to the proposed Jonesboro Thoroughfare Plan.

Street Construction Design Guidelines

Design Speed

Maximum design speeds should consider the street type, vehicle use and the proposed speed limit. As most streets are "lanes" and "streets" which provide direct access to neighborhoods, the maximum desired vehicle speed is approximately 20 mph.

Street Types and Widths

Specific dimensions of each street element are provided in Table I; dimensions are from curb face to curb face.

STREET TYPES AND PROPOSED WIDTHS

Street Type	Lane	Parking	Bicycle	Gutter	Median Gutter
Lane	8 feet	8 feet	NA	1 foot	NA
Street	9 feet	6 feet	NA	2 feet	NA
Avenue	11 feet	6 feet	6 feet	2 feet	1 foot
Main Street	11 feet	6 feet	6 feet	2 feet	1 foot
Boulevard	11 feet	6 feet	6 feet	2 feet	1 foot
Parkway	12 feet	NA	NA	2 feet	1 foot

NOTE: Bicycle lanes are optional when alternate routes to the same destination are provided.

Many of the standards advocated in this reference are designed to accommodate the "most frequent and numerous users of TND street networks," that is, motorists, cyclists and pedestrians. Use by oversized vehicles, such as delivery trucks, moving vans, school buses and fire trucks, is generally infrequent, particularly on residential streets and lanes. A basic premise of TND-responsive design is that "A street should be no wider than the minimum width needed to accommodate the usual vehicular mix desired for that street. On a properly designed TND street, the occasional oversized vehicle may cross the centerline of a street when making a right turn."

Stopping Sight Distances

Minimum stopping distances are referenced to design speed. According to the TND standards advanced, sight distances should be accommodated for both vertical and horizontal alignments. Stopping distances must be increased for downhill grades. Distances under wet pavement conditions are as follows:

Design Speed	Minimum Stopping Distance
20 mph	125 feet
25 mph	150 feet
30 mph	200 feet

Vertical Curve Design

K values for vertical curve design should be consistent with design speeds. The maximum centerline grades should also be consistent with design standards.

Centerline Radii

The criteria for minimum centerline radius for design speeds of 25 mph or less (no super elevation) are:

Design Speed	Minimum Centerline Radius
20 mph	90 feet
25 mph	175 feet

Curb Radii

A minimum curb radius of 15 feet is recommended for design speeds of 20 mph. Certain intersections on avenues, main streets and boulevards may require a curb radius of as much as 25 feet. In instances of larger curb radii, sidewalks may be set back six to 10 feet from curbs. In addition, on-street parking may be prohibited within 30 feet of the intersection on each street.

Intersection Sight Triangles

The minimum sight triangle for stop conditions at street intersections shall be 70 feet along the major road right-of-way and 20 feet along the minor road right-of-way. The intersection sight triangle shall be permanent right-of-way. These dimensions may be reduced for lower design speeds on lanes and streets.

Curb Construction

All curbed streets shall be built in accordance with GDOT requirements for vertical curb and gutter construction. Gutters for lanes are to be two feet wide; street median gutters are to be one foot.

Pavement Design

Alleys shall conform to City of Jonesboro standards as to pavement section for local streets. All other roads shall meet the pavement design criteria established in the "City of Jonesboro Development Code."

Sidewalks

Minimum sidewalk width is five feet for neighborhoods and eight feet for commercial districts. Sidewalks shall also meet or exceed the guidelines of the Americans with Disabilities Act.

Cyclists

On lower volume streets, cyclists should be considered a normal part of the vehicle traffic on the street. On higher volume streets, cyclists should be accommodated with six-foot wide bike lanes; separate bikeways may be considered. Routing for cyclists may include signs and striping, including changing the color of the bike lane, as appropriate.

Transit

Road design should be compatible with transit. Transit should be addressed wherever it is present and should be appropriately planned for developing areas.

On-street Parking

Parking on lanes and local streets is not designated or marked. On-street parking along major streets should be signed, marked or otherwise clearly designated.

Curb Cuts.

Curb cuts, or driveways, should be minimized to reduce impacts to on-street parking, conflicts with pedestrians and cyclists and interruptions in traffic flow.

Planting Strips and Street Trees

Planting strips, located between the curb and sidewalk, parallel with the street, shall be six feet or more in width. Small street trees may be planted within three feet of the back of curb and should generally be planted along the centerline of the planting strip along streets with design speeds of 20 mph or less, or along streets with on-street parking. In commercial areas with high pedestrian volumes, grated tree wells may be used in lieu of planting strips. Trees and other objects should be restricted from corners for distances of 30 feet on all sides to maintain sight lines. Along all planting strips, the area between two feet and seven feet above ground shall be maintained as a clear zone to preserve sight lines and accommodate pedestrians.

Utilities

All utility installations within rights-of-way shall be consistent with the City of Jonesboro Development Regulations. Underground utilities may cross under or run longitudinally under the pavement in residential subdivision streets, provided future utility stub-outs are installed prior to paving. Underground utilities may cross under all other streets and roadways, but may not run longitudinally under the pavement, except in unusual situations approved by the City Engineer.

Lighting

Shorter light standards located on a reduced spacing are preferable to fewer, taller, high-intensity light standards. The scale of lighting fixtures and the illumination provided must be appropriate for both pedestrian and vehicular movement.

Source: North Carolina Department of Transportation Design Guidelines by Street Classification

Design Guidelines by Street Classification

Alleys

Alleys provide access to residential and commercial properties, but are not designed to handle through traffic. Alleys are found primarily in single-family residential developments and serve as rear access to garages. Business owners sometime use alleys for locating dumpsters. Utilities are often provided in alleys to connect to the rear of homes or businesses. A minimum right-of-way of 20 feet is required, with a minimum pavement width of 12 feet.

Lanes

Lanes provide access to single-family dwellings and are generally two to six blocks in length. A street width of 18 feet is typical, with storm drainage addressed by curb and gutter. On-street parking is permitted, though usually limited to guests. Planting strips six feet in width parallel five -foot sidewalks that are located on both frontages. The design speed for lanes is 20 miles per hour (mph) and a 40-foot right-of-way is required.

Streets

Streets provide access to many forms of housing and are generally two to six blocks in length. Streets are 28 feet wide, with curb and gutter and on-street parking. Planting strips six feet in width and five-foot sidewalks on both sides of each frontage are typical. Design speed for streets is 20 mph and a 50-foot right of way is required.

Avenues

Avenues convey vehicular traffic over short distances at moderate speeds. These routes serve as connectors between neighborhoods and mixed-use and commercial centers. Avenues often lie along an important axis, terminating at prominent buildings or plazas. Avenues may also provide circulation around squares or neighborhood parks.

Recommended street width is 26 feet on both sides of an 18-foot median. This configuration accommodates one 12-foot travel lane, a six-foot bike lane and an eight-foot parallel parking space. A minimum right-of-way of 98 feet and a maximum of two travel lanes are recommended. Planting strips with a width

of six feet and eight-foot sidewalks are also recommended on each side. Design speed for avenues is 30 mph.

Main Streets

Main streets provide low-speed access to neighborhoods and high-density residential and commercial districts. A 66-foot right-of-way is required to accommodate sidewalks, curb and gutter and on-street parking, which is to be striped. Travel lanes on main streets are 11 feet and limited to two travel lanes. Bike lanes are optional, but if provided, a minimum width of six feet is recommended. Sidewalks having a minimum width of eight feet and installed on each side of the right-of-way are also recommended. Planting wells using six-foot tree grates are recommended rather than medians. Bike lanes are optional.

Features unique to main streets are "bulb-outs" at intersections and mid-block crossings; both of which are intended to enhance pedestrian use and safety. Posted speeds should not exceed 25 mph.

Parkways

Parkways are designed to serve motorists at the edge of towns or in agricultural areas. They are used for travel into town, or for travel through natural areas. Parkways are not designed for developed areas as when the parkway enters town, these routes transition to a boulevard.

Parkways require a minimum right-of-way of 118 feet. Travel lanes are typically 11-12 feet and a typical section uses a shoulder with ditches to accommodate runoff. Parkways can accommodate abundant pedestrian amenities; landscaped medians up to 30 feet wide, multi-use trails ranging from 10 - 14 feet in width, planting strips of 7 - 20 feet and bikeways separated from travel lanes are not uncommon. Storm water runoff can be addressed using swales or curb and gutter. The multi-use trails may be established on either or both sides of a parkway.

A paved shoulder having a minimum width of six feet should be provided on high-speed parkways, that is, those with posted speeds greater than 45 mph. Maximum design speed for parkways is 50 mph.

Source: North Carolina Department of Transportation

Jonesboro Thoroughfare Plan

Standards and design criteria adopted by other jurisdictions can provide an appropriate frame of reference in considering local plans. However, this information must be tailored to the Jonesboro context. The following standards and design criteria are proposed:

The Jonesboro Thoroughfare Plan establishes a street hierarchy comprised of Primary Arterial, Major Collector and Local Street. These are organized in order of size, with the Interstate conveying the highest traffic volumes and the highest speeds; local streets carry the lowest volumes and are characterized by the lowest speeds. Each street classification in the hierarchy is described below:

- Primary Arterial
- Major Collector
- Local Street

Primary Arterials

Arterials are designed to provide a high degree of mobility and serve longer vehicle trips to, from, and within urban areas. Arterials form the skeleton of the roadway network, linking urban centers such as the Central Business District, industrial parks, commercial centers, major residential developments and other key activity centers. Primary Arterials are designed to carry between 45,000 and 75,000 trips per day. The City of Jonesboro has only one Primary Arterial and that is Tara Boulevard (Highway 19/41).

Major Collector Streets

Collector streets link neighborhoods to commercial districts and commuter traffic to secondary arterials. These streets are well traveled and are built to an urban standard. Collector streets are typically two to four lane facilities with an average daily traffic count between 7,500 and 15,000 vehicles. The following streets comprise Jonesboro's Major Collector Streets:

Fayetteville Road
North Avenue
North Main Street
South Main Street
McDonough Street
Smith Street
Stockbridge Road/Highway 138
Jodeco Road

Local Streets

Local streets serve neighborhoods and are generally arranged in a grid pattern although development out from Jonesboro's historic core tends to be served by curvilinear street patterns. These roads accommodate access to collector streets and local destinations at low speeds; sidewalks encourage pedestrian travel and community livability. Standards and design criteria pertaining to local streets are as follows:

- Local streets shall be limited to a two-lane section with a two (2) foot curb and gutter on each frontage.

- Pavement sections shall be comprised of two 12-foot lanes with parking permitted.

- Stormwater runoff shall be addressed using drainage swales.

- Five-foot sidewalks shall be established on each frontage as well as landscaped strips having a minimum dimension of four feet. Shade trees shall be planted on 50-foot centers.

- Right-of-way required for a local street shall be a minimum of 50 feet.

- All local streets in the "town center" shall have sidewalks and pedestrian-scale street lights.

The following streets comprise Jonesboro's local streets:

Adamson Drive
Arnold Place
Batiste Garden Circle
Batiste Lane
Batiste Park Road
Batiste Way
Broad Street
Brown Leaf Drive
Brown Drive
Burkshire Court
Burnette Street
Burnside Street
Carlton Drive
Carriage Lane
Cecelia Circle
Cecelia Drive
Chestnut Street
Church Street
Cloud Street/St.James Place
College St
Courthouse Alley/Courthouse St
Courthouse Way
Crowder Street
Dean Street
Dixon Road
Dixon Street
East Dixie Drive
East Mimosa Drive
Elaine Terrace
Evenview Circle
Evenview Drive
Fayette Ave
Gloria Drive
Government Circle
Hanes Street
Hightower Street
Huie St
Ingleside Drive
Irwin Street/Irvin Street
Johnston Street/Johnson St
Key Street
King Street
Lee Street
Memorial Avenue
Mercer Court
Mercer Drive
Moore Street
North Lake Drive
Old Morrow Rd
Old Stockbridge Road
Pharr Avenue
Pine Circle
Poplar Street
Porter Lane
Raymond Street
Red Briar Way
Rendor Street
Rhett Butler Drive
Riley Way/Plant St
Roberts Street
Rogers Avenue
Royston Street
Scarlett Drive
Scott Drive
Sims Street
Souder Way
South Ave
Spring Street
Starr Drive
Stewart Avenue
Sunnybrook Drive
Thornton Drive
Turner Rd
Wallis Street
Watterson Street
Wayne Avenue
West Avenue
West Mill Street
West Mimosa Drive
Whiteline Street
Wilburn Street
Williamson Mill Rd
Woodhaven Drive
Woodland Drive