

ARTICLE 6

ACCESS AND RIGHT-OF-WAY REQUIREMENTS; AND STREET  
IMPROVEMENT AND CONSTRUCTION REQUIREMENTS

6.1 ACCESS

- 6.1.1 When land is subdivided into larger parcels than ordinary building lots, such parcels shall be arranged and designed so as to allow for the opening of future streets and to provide access to those areas not presently served by streets.
- 6.1.2 No subdivision shall be designed so as to completely eliminate street access to adjoining parcels of land. Every development shall be designed to facilitate access to adjoining properties that are developed or anticipated to be developed in a manner substantially similar to the subject property. Locations of inter-parcel access shall be as required by and subject to the approval of the City.
- 6.1.3 Any lot required to provide minimum frontage by the zoning district in which the lot is located shall provide vehicular access directly from a public street along the frontage or along any other property line which abuts a public street, except as provided in Section 6.1.5.
- 6.1.4 Private streets as may be approved under the provisions of the Zoning Ordinance shall be constructed to the roadway construction standards of the City of Buford, as contained herein.
- 6.1.5 Vehicular access easements may be provided from a public street indirectly via easement in any one or more of the following circumstances:
  - a. The property is not required to provide a minimum frontage by the applicable zoning district, provided that the easement shall be in a location and the access driveway shall have a width and alignment acceptable to the Fire Services Division and the City.
  - b. The property is a buildable lot of record, as defined herein, but does not meet the minimum frontage requirement of the applicable zoning district. The property must be served by an exclusive access easement that shall be limited to the provision of access to only one principal use or structure.
  - c. The access easement serves a single-family residence on a lot which is otherwise a buildable lot of record, and which is

sharing a common driveway with no more than one other single-family residence.

- d. The access easement was lawfully established as such under the code, ordinances, or regulations of the City of Buford prior to the adoption of these Development Regulations.
- e. The access easement coincides with a private roadway approved under the code, ordinances, or regulations of the City of Buford. All new private roadways must be constructed to the roadway standards of these Development Regulations, and their ownership and maintenance responsibility by private party/parties must be clearly established on the final plat of the development.
- f. The access easement serves a buildable lot or record that meets the minimum frontage requirements of the Zoning Ordinance, but at which point the access is not achieved.

## 6.2 STREETS

### 6.2.1 Dedication of Street Right-of-Way:

Right-of-way for all public streets, existing and proposed, shall be dedicated in accordance with the street classifications as indicated herein or as otherwise required by the City Commission.

### 6.2.2 Street Improvements:

Streets, whether abutting or internal, existing or new, shall be constructed or improved under those circumstances and to standards as established in these Regulations. Roadway improvements shall be in accordance with the street classifications as indicated herein, or the Zoning Ordinance, as applicable, or as otherwise required by the City Commission.

## 6.3 MINIMUM RIGHT-OF-WAY AND STREET IMPROVEMENTS

### 6.3.1 Right-of-Way and Pavement Widths:

Minimum widths for new construction (new streets or widening sections) shall be as shown on the following tables. Table 6A and Table 6B (roadway width dimensions) are back-of-curb to back-of-curb.

6.3.2 Street Rights-of-Way:

- a. The minimum width of right-of-way shall be dedicated based upon the street categories as indicated in Table 6B and as contained in these Regulations.
- b. On any existing street that abuts a property, one-half ( $\frac{1}{2}$ ) of the required width of right-of-way shall be dedicated at no cost to the City of Buford as measured from the centerline of the roadway, along the entire property frontage.
- c. Additional street right-of-way width may be required to be dedicated at intersections or other locations fronting the property where deceleration lanes, acceleration lanes, turning lanes, storage lanes, medians, or realignments are required for traffic safety and minimum right-of-way standards would be inadequate to accommodate the improvements.
- d. Where streets other than local streets are defined in the Comprehensive Plan are located, in whole or in part, in a proposed development, or when these features have not been anticipated by the Comprehensive Plan and Planning Policy, but are considered essential by the City Commission, land for such features shall be dedicated. The developer may request the City Commission to approve a reservation instead of dedication. In such cases, the City Commission shall consider the request in its normal course of business and shall approve or deny the request within ninety (90) consecutive calendar days. (See Article 13.)

TABLE 6A

MINIMUM RIGHT-OF-WAY AND ROADWAY WIDTHS

FOR NEW STREETS AND WIDENINGS

<u>STREET CATEGORY</u>	<u>MINIMUM RIGHT-OF-WAY <sup>(1)</sup></u>	<u>MINIMUM ROADWAY <sup>(2)</sup></u>
Arterial		
Principal	120 ft (to 150 ft)	96 ft with median
Major	100 ft (to 120 ft)	72 ft with median
Minor	100 ft	72 ft no median
Collector		
Major	70 ft (to 80 ft)	53 ft
Minor	60 ft (to 80 ft)	29 ft
Local		
Non-Residential	60 ft <sup>(3)</sup>	33 ft
Non-Residential Cul-de-sac	60 ft Radius	50 ft Radius
Residential	50 ft	28 ft
Residential Cul-de-sac	50 ft Radius	40 ft Radius
Residential (R-140 or RA-200)	60 ft <sup>(4)</sup>	24 ft <sup>(5)</sup>
Residential Cul-de-sac	60 ft Radius	40 ft Radius

- (1) Greater right-of-way width shall apply under circumstances described in Section 6.3.2.c.
- (2) At intersections, greater pavement width as required for the provision of turn or other auxiliary lanes shall be added.
- (3) Utility easements shall be provided in a location and size as required by the County or City Public Utilities.
- (4) May be reduced to 50 feet if curb, gutter and piped drainage system is provided.
- (5) Measured edge to edge of pavement. Curb and gutter is not required in subdivisions zoned R-140 or RA-200.

TABLE 6B  
STREET CLASSIFICATIONS

ARTERIAL STREETS <sup>(1)</sup>			
a.	Georgia Highway 13 (AKA Atlanta Highway/Buford Highway/Gainesville Highway)		
b.	Georgia Highway 20 (AKA Buford-Lawrenceville Highway/Cumming Hwy./Buford Drive)		
c.	Georgia Highway 324 (AKA Gravel Spring Road)		
d.	McEver Road		
e.	Peachtree Industrial Boulevard		
f.	I-985		
g.	Lanier Islands Parkway (AKA SR 347)		
COLLECTOR STREETS <sup>(1)</sup>			
a.	Atwater Court	q.	Main Street
b.	Broadmoor Boulevard	r.	New Bethany Road
c.	B. U. Bowman Drive	s.	North Bogan Road
d.	Buford Dam Road	t.	Old Gainesville Highway
e.	Buford Mill Drive	u.	Robert Bell Parkway
f.	Commerce Drive	v.	Satellite Boulevard
g.	Enterprise Drive	w.	Sawnee Avenue
h.	Faith Industrial Drive	x.	Shadburn Ferry Road
i.	Golden Parkway	y.	South Bogan Road
j.	Hamilton Mill Road	z.	South Church Street
k.	Heraeus Boulevard	aa.	South Hill Street
l.	Hilltop Drive	bb.	South Lee Street
m.	Holiday Road (from Bethlehem Road to Buford Highway)	cc.	Southwest Church Street
n.	Horizon Parkway	dd.	Sudderth Road
o.	Lee Street	ee.	Suwanee Dam Road
p.	Luke King Parkway	ff.	Thompson Mill road
		gg.	Tuggle Greer Road
		hh.	Waterworks Road
		ii.	West Main Street
LOCAL STREETS			
a.	All other streets not listed as an arterial or collector street, above.		

(1) All buildings on these streets have to be of brick, stucco, rock or cultured stone with an architectural review and approval of building and site plans, signage, landscaping and elevations as provided by the 2000 Zoning Ordinance. Exterior paint colors shall be subject to review and approval as provided by Section 1316 of the 2000 Zoning Ordinance. In addition, architectural provisions shall be made to minimize visual exposure of the roof and roof appurtenances from public view. All brick and rock affixed to the exterior of the building shall remain in its natural color and the painting of such material is prohibited,

provided however, nothing herein shall prevent the landowner from seeking a variance pursuant to the provisions of Section 1600 of the 2000 City of Buford Zoning Ordinance. New streets originating from these streets must meet the same requirements.

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- e. If a new street or thoroughfare is proposed by the Comprehensive Plan or the State of Georgia to adjoin or traverse the property, the proposed road shall be accommodated in to the development plans of the property in accordance with Article 5 of these Regulations. These right-of-way requirements shall govern except where there exists clearly defined plans of the Georgia Department of Transportation or the City of Buford which require additional rights-of-way. In that case, the greater right-of-way requirements shall govern.

6.3.3 Street Widening – Single-Family Detached Residential Subdivisions:

- a. When property that abuts upon an existing or proposed county or City road is to be developed or redeveloped as a single-family subdivision and the property provides access to the county or City road, roadway improvements (pavement, curb and gutter) are required to bring the county or City road up to a typical standard section in accordance with the classification of the road and the standards of these Regulations. Associated drainage improvements and auxiliary lanes as deemed necessary by the City shall also be required.
- b. Required widening and curb and gutter shall be provided from the centerline of the roadway along the side of the road upon which the property abuts, and along the entire property frontage.
- c. A deceleration lane shall be required to be provided at each project driveway or subdivision street entrance, as applicable, that is provided street access to a county or City street. In the event a street has an existing or proposed median, and the developer desires to construct a median break to serve the project, a left turn lane leading to the median break shall be required to be provided by the developer and shall meet the standards contained in these Regulations.

- d. Deceleration lanes shall have a length of one hundred and fifty (150) feet, with an additional fifty (50) foot taper length, a pavement width of twelve (12) feet (exclusive of curb and gutter) and shall be provided with curb and gutter. Additional right-of-way to accommodate the deceleration lane and an eleven (11) foot shoulder shall be dedicated by the developer to City of Buford at no cost. Associated drainage improvements as deemed necessary by the construction of the deceleration lane shall also be required.
- e. Other project access improvements may be required by the City in order to ensure adequate site access, pedestrian access, convenience and safety to the motoring public.
- f. The developer shall be responsible for the relocation of public or private utilities and drainage structures as may be occasioned by the required roadway improvements.

6.3.4 Street Widening – Single-Family Attached, Multi-Family, and Non-Residential Developments:

- a. When property that abuts upon an existing or proposed county or City road is to be developed or redeveloped for single family attached, multi-family or non-residential purposes, and the county or City street will provide access to the property, roadway improvements (pavement and curb and gutter) are required along the said road across the entire property frontage at least in accordance with the classification of the road and the standards of these Regulations. Associated drainage improvements and auxiliary lanes as deemed necessary by the City shall also be required.
- b. Required widening and curb and gutter shall be provided from the centerline of the roadway along the side of the road upon which the property abuts. (NOTE: If the abutting street is substandard, a drainage swale ditch, shoulder, and adequate base shall be provided and the roadway paved on the opposite side of the road from the project, twelve (12) feet from centerline to edge of pavement. Please refer to Section 6.3.6, Substandard Streets, for additional information.)
- c. A deceleration lane shall be required to be provided at each project driveway or subdivision street entrance, as applicable, that is provided street access to a county or City street. In the event a street has an existing or proposed median, and the developer desires to construct a median

break to serve the project, a left turn lane leading to the median break shall be required to be provided by the developer and shall meet the standards contained in these Regulations.

- d. Deceleration lanes shall have a length of one hundred and fifty (150) feet, with an additional fifty (50) foot taper length, a pavement width of twelve (12) feet (exclusive of curb and gutter) and shall be provided with curb and gutter. Additional right-of-way to accommodate the deceleration lane and an eleven (11) foot shoulder shall be dedicated by the developer to City of Buford at no cost. Associated drainage improvements as deemed necessary by the construction of the deceleration lane shall also be required.
- e. The developer shall be responsible for the relocation of public or private utilities and drainage structures as may be occasioned by the required roadway improvements.

#### 6.3.5 New Streets:

- a. All new streets proposed to be constructed in a subdivision or other development, whether to be public or private, shall be designed and constructed at least to the standards contained in these Regulations in accordance with the category of said streets.
- b. If a new street or thoroughfare is proposed by the Comprehensive Plan or the State of Georgia to traverse the property, the proposed road shall be constructed in accordance with the street category as shown in the Comprehensive Plan and contained in these Regulations, or as shown on plans proposed by the City or State of Georgia.
- c. If the facility is to be a limited or controlled-access road and access to the property from the street or thoroughfare will not be allowed by the State or the county or City, the improvements shall not be required. The specific vertical and horizontal alignment of the proposed roadway shall be as established or approved by the City Engineer.
- d. As provided in Article 13 of these Regulations, the developer may file a waiver application seeking relief from this Section or participation in the costs by the City.
- e. In residential subdivisions, a dead-end (“stub”) street required under Section 6.4.4 to provide access to an abutting property may be exempted from construction of

roadway improvements and public utilities under the following circumstances:

- (1) No lot within the proposed subdivisions will gain access from the “stub” street.
- (2) A Concept Plan has not been submitted or approved on the neighboring tract.
- (3) The “stub” street shall be fully designed as part of the Development Plans. However, the right-of-way shall only be cleared and rough graded in accordance with the approved plans, and all disturbed areas grassed.
- (4) Connections for future extension of all public utilities shall be constructed as part of the subdivision. Curb returns shall be provided to the future “stub” street roadway location, and curb and gutter shall be installed across the roadway stub at the right-of-way line (extended).
- (5) The right-of-way for the “stub” street shall be dedicated as part of the final plat. Slope easements or construction easements, if required by the street design, shall be shown on the final plat.

#### 6.3.6 Substandard Streets:

- a. In the event that a development has access to a substandard street (i.e., is a dirt or gravel road), the following improvements shall be required:
  - (1) If the abutting substandard street provides the primary means of access to the development and is dirt or gravel, the street shall be upgraded to a standard paved roadway from the end of the improvements required under a (2), below, to the nearest standard paved road along the route of primary access.
  - (2) Along the entire length of the property frontage where the access is other than primary, in addition to the road widening requirements of Section 6.3.3 or 6.3.4, as applicable, along the entire property frontage, a drainage swale ditch, shoulder, and adequate base shall be provided and the roadway paved on the opposite side of the road from the project, twelve (12) feet from centerline to edge of pavement.

- b. Off-site improvements required under a (2) above, shall, at a minimum, result in a full-section roadway meeting the requirements of a local residential rural roadway [twenty-four (24) feet edge to edge of pavement, with drainage swale ditches as needed]. Responsibilities shall be as follows:
- (1) The developer shall design the road and provide the labor, equipment, and materials required for roadway improvements and necessary drainage improvements.
  - (2) If the county or City desires the roadway to be improved to a standard greater than that for a local residential-rural roadway, the City shall provide or pay the cost of the additional materials and labor.
  - (3) All right-of-way required for these off-site improvements shall be acquired by the developer at no expense to the City. If the developer is unable to acquire the right-of-way, the City shall initiate acquisition proceedings, at the expense of the developer, after authorization by the City Commission.

#### 6.3.7 Improvements Along State Highways:

For any development which abuts a state highway or other right-of-way controlled by the State of Georgia, improvements to the roadway and the location and design of any street or driveway providing access from the state highway shall comply with the standards and requirements of the Georgia Department of Transportation only when more restrictive than the requirements of these Regulations. A permit for the proposed access or improvements shall be required to have been approved by the Georgia DOT and incorporated into the construction drawings for the project prior to issuance of a development permit by the City.

### 6.4 GENERAL LAYOUT REQUIREMENTS

#### 6.4.1 Conformance:

The arrangement, character, extent, width, grade, and location of all streets shall conform at a minimum to the Comprehensive Plan and these Regulations.

#### 6.4.2 Local Streets and Minor Collectors

Local streets shall be so laid out that their use by through traffic will be discouraged. Minor collectors shall be provided to channel through traffic movements with a development, where appropriate to the design and a major thoroughfare is not proposed by the Comprehensive Plan. Minor collectors also may be provided as central routes within large residential subdivisions, where appropriate to the design, based on projected traffic demands exceeding two thousand (2,000) trips per day (ADT).

6.4.3 Cul-de-sac Streets:

- a. Dead-end streets designed to have one end permanently closed shall provide a cul-de-sac turnaround and may be no more than two thousand (2,000) feet in length. Additional length necessitated by topography or property configuration may be approved by the City.
- b. The length of a cul-de-sac street shall be measured from the center of the cul-de-sac to the center of the intersection with another street, whether a through street or another cul-de-sac or dead-end street.
- c. Eyebrow cul-de-sacs (half cul-de-sacs) will be allowed only at "right-angled" intersections having an interior angle between eighty (80) degrees and one hundred (100) degrees.
- d. Cul-de-sacs shall conform to the layout and dimensional requirements as shown in the Standard Drawings.

6.4.4 Other Dead-End Streets:

- a. A dead-end street shall be provided to the boundary of a subdivision where necessary to provide access to a land-locked abutting property, for planned continuity of future circulation, for improved access for public safety vehicles, or for the extension of public water or other utilities to neighboring lands. Such dead-end streets shall be designed so as to allow their reasonable extension, and shall be located so as to be reasonably incorporated into a street design for the neighboring property. The stub street requirement may be waived by the City, provided the City Commission concurs.
- b. Dead-end streets on abutting property shall be extended into a proposed subdivision and incorporated into the street design of the development. This requirement may be

modified by the City in cases of serious topographical hardship or dissimilar zoning which would create unacceptable land use conflicts between the two developments. This modification may be conditioned on the provision of easements necessary for the extension of public utilities, the provision of a cul-de-sac or other permanent turnaround on the dead-end street, or the removal of the dead-end street back to its nearest intersection.

- c. Where a dead-end street (other than a cul-de-sac) serves more than three lots, the developer shall be required to provide a temporary vehicular turnaround within the right-of-way. This requirement may be waived if extension of the dead-end street is approved and under construction prior to its inclusion in a final plat.
- d. Where a street dead-ends at the property boundary and the street exceeds one thousand (1,000) feet in length, a permanent cul-de-sac shall be required. In this situation, right-of-way to the property boundary shall be required, but the pavement shall not be extended to the property boundary beyond the edge of the paved cul-de-sac turnaround. In no case shall a dead-end street exceed two thousand (2,000) feet in length unless approved by the City due to unusual topographic conditions or property configuration.

#### 6.4.5 Service Roads:

Where a development borders on or contains a railroad right-of-way, or limited access highway right-of-way or major thoroughfare, a public street may be required to be constructed and dedicated within the development approximately parallel to and on each side of such right-of-way.

#### 6.4.6 Half-Streets:

Half-streets (new boundary streets having one-half of the minimum required right-of-way or pavement width) shall not be allowed nor access to same be permitted should it exist.

#### 6.4.7 Reserve Strips:

Land in private ownership adjacent to public rights-of-way which could control or are intended to control access to streets, alleys, or public lands shall not be permitted unless their control is given to the City under ownership, dedication, or easement conditions approved by the City Attorney or acceptable to the City. No

development shall be designed so as to deny access to abutting properties.

6.4.8 Alleys:

Alleys shall not be provided except where the subdivider produces evidence satisfactory to the City of the need for same. In the event the City approves a design that proposes alleys, the alley shall be constructed as though it were a local street pursuant to the standards contained in these Regulations.

6.4.9 Street Jogs:

- a. Street jogs shall either directly align or have offset of a minimum of one hundred twenty-five (125) feet for residential subdivision streets and a minimum of two hundred (200) feet for non-residential subdivision streets, as measured between centerlines of said streets.
- b. All major thoroughfares shall provide offsets as required by the department, where alignment is not desirable or feasible, but in no case be spaced less than six hundred (600) feet apart as measured between centerlines of said streets.

6.5 TRAFFIC CONTROL DEVICES

6.5.1 Traffic Control Signals:

- a. Street signs, traffic control signs, and devices such as striping and signalization, shall be provided through payment of fees to the City of Buford or Gwinnett County DOT for the installation thereof.
- b. A permit is required for installation of City of Buford or Gwinnett County DOT traffic signal. Traffic signal shall be mast arm type and shall be black in color.

6.5.2 Street Name Signs:

Street name signs shall have a green background with white legends mounted on channeled posts. Alternate post material shall be subject to the review and approval of the City. The posts and signs will be furnished and installed by the City of Buford or Gwinnett County DOT, as applicable at all street intersections. The developer (or homeowners association in the event an alternate

signpost is chosen at a later date) shall pay the county's or City's costs.

6.5.3 Traffic Signals and Signs:

All traffic signals and signs shall conform to the Manual on Uniform Traffic Control Devices (no decorative traffic control devices will be allowed).

6.5.4 Striping Requirements:

All newly constructed streets having 4 or more lanes (including auxiliary lanes) and existing streets being widened with one or more additional lanes shall be striped or the payment of said striping costs shall be required from the developer by the City prior to the Approval of Development Conformance for the project. Striping shall be accomplished with paint meeting Georgia DOT standards conforming to the Manual on Uniform Traffic Control Devices.

6.5.5 Payment of Fees:

Payment for materials and installation of street name and traffic control signs in new developments shall be required by the City prior to the Approval of Development Conformance.

6.5.6 Street Lights:

Street lights shall be provided by the developer in new subdivisions and developments which propose the construction of a new street to be dedicated to the City or which propose subdivision or development access to existing City, county or state streets. Street lights shall be provided by the developer as required by the City on all developments which propose construction on streets listed in Table 6B, Arterial Streets and Collector Streets, City of Buford Development Regulations.

- a. Prior to the approval of a Final Plat, the developer shall submit a copy of the approved Preliminary Plat to the City. The City shall prepare a street light design drawn on the Preliminary Plat based upon the City's street lighting standard, and as approved by the City. The design shall be forwarded to the appropriate power provider and the developer shall pay the appropriate power provider the cost

for materials and installation. For installations not installed by the City proof of payment to the power provider shall be provided to the City for record.

- b. All fixtures and poles shall meet the requirements of the City and all maintenance shall be the responsibility of the power provider. The City, in addition to other requirements, may require a light to be located at street intersections within or abutting the development.
- c. Street Lighting: Pole shall be black in color, 30-feet in height, round tapered aluminum, and base mounted. Truss arm shall be black in color, and 10 to 15 feet in length, as determined by the roadway width. Fixture shall be a 400 watt high pressure sodium cobra head fixture. Street lights shall be spaced 200-feet linearly along roadway, unless located within the Section 1315, Mall of Georgia Overlay District, Section 1316 Overlay District, or otherwise approved by the City. For lighting in the Mall of Georgia Overlay District (Section 1315), refer to Section 1315.2.1.E for standards and requirements.
- d. Pedestrian Lighting (Residential): Pole shall be black in color, 4-inch round tapered, aluminum, fiberglass, or as specified by the City, direct bury with 16-foot mounting height, unless approved otherwise. Fixture shall be black in color, post top mounted Town & Country style lantern, with 150-watt high-pressure sodium bulb, unless approved otherwise.
- e. Pedestrian Lighting (Commercial): Pole shall be black in color, 4-inch fluted aluminum, with decorative pedestal assembly, base mounted, and subject to compliance with the specifications of Hapco aluminum pole products, unless approved otherwise. Fixture shall be black in color, aluminum body, with prismatic polyacryl refractor globe, and subject to compliance with the specifications of HADCO products, unless approved otherwise. For lighting in the Mall of Georgia Overlay District (Section 1315), refer to Section 1315.2.1.F for standards and requirements.
- f. The City will provide and install all materials for street and pedestrian lighting, and upon completion will be reimbursed by the developer.
- g. Provide lighting throughout all parking areas. Lighting source shall be LED or similar. Lighting shall be directed to

avoid intrusion on adjacent properties and away from adjacent thoroughfares.

## 6.6 SPECIFICATIONS

Unless otherwise specifically set forth herein, all of the materials, methods of construction, and workmanship for the work covered in reference to street construction shall conform to the latest specifications of the Georgia Department of Transportation (Georgia DOT).

## 6.7 SUBGRADE PREPARATION FOR ALL STREETS

6.7.1 Subgrade preparation shall be in accordance with Georgia DOT specifications and these Regulations.

6.7.2 If any sections of the subgrade are composed of topsoil, organic, or other unsuitable or unstable material, such material shall be removed and replaced with suitable material and then thoroughly compacted as specified for fill or stabilized with stone or a geo-textile or geo-grid.

6.7.3 Fill shall be placed in uniform, horizontal layers not more than eight (8) inch thick (loose measurement). Moisture content shall be adjusted as necessary to compact material to ninety-five (95) percent of maximum dry density except for the top twelve (12) inches that shall be compacted to one hundred (100) percent of maximum dry density.

6.7.4 After the earthwork has been completed, all storm drainage, water, and sanitary sewer utilities have been installed within the right-of-way as appropriate, and the backfill in all such ditches thoroughly compacted, the subgrade shall be brought to the lines, grades, and typical roadway section shown on the plans.

6.7.5 Utility trenches cut in the subgrade shall be backfilled as specified herein. Compaction tests at the rate of one (1) per one hundred and fifty (150) feet of trench shall be provided to verify compaction.

6.7.6 The subgrade must pass roll-testing prior to placement of the base material. With the approval of the City, a geo-textile or grid may be used to stabilize a subgrade that does not pass proof-rolling.

6.7.7 When the street is to be used for construction traffic before the paving work is completed, a layer of stone (except crusher run) shall be laid as a traffic surface. This material shall not be used as a part of the base material. It may be worked into the subgrade, or it shall be removed before the base course is set up for paving.

6.7.8 Provisions shall be made to drain low points in the road construction when the final paving is delayed. A break in the berm section is required when the curbing has not been constructed. After installation, drainage under the curb to side slopes is required, using minimum four (4) inch diameter pipe sections.

## 6.8 ROAD WIDENING

6.8.1 For sections wider than four (4) feet, the widening section shall comply with the construction standards for new streets, in accordance with the street's category as shown on the Comprehensive Plan or Table 6B, whichever is greater. The base course must pass roll-testing prior to paving. If a delay in paving is reasonably expected by the developer or the City, the base shall be primed with one quarter (0.25) gallon of R.C. 70 per square yard and cured for seven (7) days before paving. Such improvements shall include public roadway adjacent to individual single-family detached or duplex residence on a buildable lots of record both remodels, with the addition of square footage, and new construction, except as provided in Section 4.1.1. In consideration of safety, the City, at its discretion, may require payments for improvements in lieu of installation by the permittee.

6.8.2 For road sections less than four (4) feet wide, eight (8) inches of Class "A" concrete base [six (6) inches on local and minor collector streets] and one and one-half (1½) inches of 12.5 mm Superpave shall be required. Such improvements shall include public roadway adjacent to individual single-family detached or duplex residence on a buildable lot of record, both remodels, with the addition of square footage, and new construction, except as provided in Section 4.1.1. In consideration of safety, the City, at its discretion, may require payments for improvements in lieu of installation by the permittee.

## 6.9 NEW LOCAL AND MINOR COLLECTOR STREETS

6.9.1 Local and Minor Collected Streets Within a Residential Subdivision:

a. Asphalt Streets: The following types of base materials may be used:

(1) Crushed Stone Base:

The base course shall consist of at least six (6) inches of graded aggregate base and shall be extended underneath the curb and gutter. After being thoroughly compacted and brought to proper section two (2) inches of 19 mm Superpave shall be applied. If a delay in paving is expected by the developer or

the City, the base shall be primed with one quarter (0.25) gallon of R.C. 70 per square yard the same day it is compacted, and cured for seven (7) days prior to paving. The final one and one-half (1½) inch of 9.5 mm or 12.5 mm Superpave wearing course shall be applied after ninety (90) percent of the houses on the street have been built, or prior to the end of the maintenance period (but after the 11<sup>th</sup> month), whichever occurs first. Prior to applying wearing course, a tack coat shall be applied to the binder course at a rate of no less than five hundredths (0.05) gallon per square yard. Type of tack shall be approved by the City prior to placement.

6.9.2 Local Residential-Rural Roads:

Where allowed (in the R-140 and the RA-200 zoning districts and upgrading off-site substandard streets), local residential-rural roads do not require curb and gutter. The road base shall be extended one (1) foot beyond the edge of pavement, and the shoulders shall extend eight (8) feet from edge of pavement to a standard ditch section on each side (see Standard Drawings). Otherwise, the roadway shall comply with the standard for new residential subdivision streets, above.

6.9.3 Non-Residential Subdivision or Development Streets:

The following standards shall apply to new local and minor collector streets in non-residential subdivision and other non-residential projects:

a. Asphalt Streets: The following types of base materials may be used:

(1) Crushed Stone Base:

The base course shall consist of at least eight (8) inches of graded aggregate base and shall be extended underneath the curb and gutter. After being thoroughly compacted and brought to proper section, two (2) inches of 19 mm Superpave shall be applied. If a delay in paving is reasonably expected by the developer or the City, the base shall be primed with one quarter (0.25) gallon of R.C. 70 per square yard the same day it is compacted, and cured for seven (7) days prior to paving. The final one and one-half (1½) inch of 12.5 mm Superpave wearing course shall be applied after ninety (90) percent of the buildings on

the street have been built, or prior to the end of the maintenance period (but after the 11<sup>th</sup> month), whichever occurs first. Prior to applying wearing course, a tack coat shall be applied to the binder course at a rate of no less than five hundredths (0.05) gallon per square yard. Type of tack shall be approved by the City prior to placement.

6.10 NEW MAJOR THOROUGHFARES

6.10.1 Minor collectors abutting a residential or non-residential project and major thoroughfares shall be constructed in accordance with designs prepared by Gwinnett County or Georgia DOT, or, if no design has been prepared, to the following standards:

TABLE 6-C

CONSTRUCTION STANDARDS FOR MAJOR THOROUGHFARES

CONSTRUCTION STANDARDS FOR MAJOR THOROUGHFARES					
STREET CATEGORY	BASE GAB	25 MM SUPERPAVE	19 MM SUPERPAVE	12.5 MM SUPERPAVE	9.5 MM SUPERPAVE
Principal Arterial	12 in.	4 in.	3 in.	1.5 in.	
Major Arterial	10 in.	4 in.	2 in.	1.5 in.	
Minor Arterial	10 in.	4 in.	2 in.	1.5 in.	
Major Collector	10 in.	4 in.	2 in.	1.5 in.	
Minor Collector	8 in.		4 in.		1.5 in.

6.11 CURB AND GUTTER

6.11.1 Any industrial or commercial development shall have curbing and drainage throughout the project. All new streets or street widening sections shall be provided with curb and gutter except in residential subdivision zoned R- 140 or RA-200, where swale ditches may be provided in lieu of curbing. All gutters shall drain smoothly with no areas of ponding.

6.11.2 Public Right-of-way Residential Curbing:

- a. Concrete shall be Class “A” (as defined by Georgia DOT) and have a minimum strength of three thousand (3,000) PSI at twenty-eight (28) days.

- b. Typical minimum section shall be 6 inch x 24 inch x 12 inch vertical curb.
- c. Graded aggregate base is required under all curbing.

6.11.3 Public Right-of-way Industrial or Commercial Curbing:

- a. Concrete shall be Class "A" (as defined by Georgia DOT) and have a minimum strength of three thousand (3,000) PSI at twenty-eight (28) days.
- b. Typical section shall be 8 inch x 30 inch x 14 inch vertical curb.
- c. Graded aggregate base is required under all curbing.

6.11.4 Public Right-of-Way Principal Arterial and Major Arterial Curbing:

- a. Concrete shall be Class "A" (as defined by Georgia DOT) and have a minimum strength of three thousand (3,000) PSI at twenty-eight (28) days.
- b. Typical section shall be 8 inch x 30 inch x 14 inch vertical curb.
- c. Graded aggregate base is required under all curbing.

6.11.5. Curbing not in Public Right-of-way:

- a. Concrete shall be Class "A" (as defined by Georgia DOT) and have a minimum strength of three thousand (3,000) PSI at twenty-eight (28) days.
- d. At the option of the developer, typical section may be either 8 inch x 30 inch x 14 inch or 8 inch x 24 inch x 14 inch vertical curb in industrial, commercial or multi-family projects. At the option of the developer, typical section may be either 6 inch x 30 inch x 12 inch or 6 inch x 24 inch x 12 inch vertical curb in detached single-family projects.
- e. Graded aggregate base is required under all curbing.

6.11.6 Construction Methods:

- a. Curb and gutter shall be set true to line and grade, horizontal be field staked, and finished to the section shown on the plans. Along the widening section of a road that the Public Works Department has identified for re-surfacing within one

(1) year of the construction, the grade of the new gutter shall be placed one (1) inch above widening pavement grade in areas where drainage will not be adversely affected.

- b. Line and grade shall be set by developer's engineer or surveyor on grades less than two (2) percent and over twelve (12) percent, and within one hundred (100) feet in both directions from all low points.
- c. One-half ( $\frac{1}{2}$ ) inch expansion joints or pre-molded bituminous expansion joint material shall be provided at all structures and radius points and at intervals not to exceed two hundred and fifty (250) feet in the remainder of the curb and gutter.
- d. Inferior workmanship or unprofessional construction methods resulting in unacceptable curb and gutter will be cause for rejection of the finished work.
- e. Disturbed areas along all curbing shall be backfilled, stabilized, and grassed.
- f. Graded aggregate base shall extend beyond the edge of pavement and under the full width of curb and gutter. Minimum thickness of GAB under curb and gutter shall be three (3) inches.

#### 6.12 UNDERGROUND UTILITIES:

6.12.1 All water and sanitary sewer utilities and storm drain facilities within the curbs shall be installed and the ditches backfilled and thoroughly compacted before any pavement or base is installed. All utility lines shall be located underground. Aerial sewer as approved by the City's engineer.

6.12.2 Once the base has been placed, all further installation of utilities under the roadway shall be bored or otherwise comply with Section 7.5. Street Cuts.

6.12.3 All utility manholes and valve boxes shall be brought flush to the finish grade within the roadway section.

6.12.4 All utility locations shall adhere to the details found in the Standard Drawings.

6.13 SIDEWALKS:

6.13.1 Where Required:

Sidewalks shall be required along all arterial, collector and local streets.

6.13.2 Location Requirements:

Sidewalks shall be located twenty-four (24) inches from back of curb. Where no curbing exists or future road improvements are anticipated, the sidewalks shall be placed in a location acceptable to the City. All new sidewalks shall provide a smooth transition to any existing sidewalk.

6.13.3 Construction Standards:

Sidewalks shall be concrete, a minimum of five (5) feet wide commercial, industrial, multi-family and residential projects installed on compacted soil. Concrete shall be Class "A (as defined by Georgia DOT) and have a strength of three thousand (3,000) PSI at twenty-eight (28) days. Disturbed areas along sidewalks shall be backfilled, stabilized, and grassed.