

Article III
Street Design Standards and Specifications

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8-46 Definitions and Acronyms

For the purpose of this Article the following words, terms, acronyms, phrases and their derivations shall have the meaning provided in this section. Words used in the present tense include the future tense. Words used in the singular include the plural and vice-versa. The word “shall” is mandatory while “may” is discretionary.

Words and terms not explicitly defined in this Article or in one of the documents incorporated by reference shall have the meaning given by common and ordinary use as defined in Webster’s New Collegiate Dictionary.

AASHTO – The American Association of State Highway and Transportation Officials, which publishes documents referenced in this Article.

Access – Entrance to or exit from land adjacent to a public road.

ADT – Average Daily Traffic – the total volume (i.e., number of vehicles) during a given time period (in whole days), greater than one day and less than a year, divided by the number of days in that time period.

Board of Commissioners – The Board of Commissioners of Fayette County, Georgia.

Construction Plans – Any plans required for the review, permitting and construction of a subdivision, including, but not limited to: Site; Grading; Street Profiles; Stormwater Management; Floodplain Management; Utility; Soil Erosion, Sediment, and Pollution Control; Soil Surveys; and Construction Details.

County – The County of Fayette, Georgia.

County Engineer – The official to whom the responsibilities normally associated with this title has been delegated.

Cul-de-sac – A street, or segment of a street, with only one way in or out and which terminates at a turn-around constructed in accordance with the Fayette County Development Regulations.

Development – A man-made change to improved or unimproved real estate, including, but not limited to any activity, action, or alteration that fundamentally alters the current use and/or density on the property and/or construction of buildings or other structures.

Developments of Regional Impact – Development projects that are likely to have an impact beyond the host local government’s jurisdiction and are subject to review and evaluation per the Georgia Planning Act.

Easement – An interest in land granted by a land owner to another person, consisting of the right to use or control the land, or an area above or below it, for a specific limited purpose, such as to cross for access to a public road.

Fayette County Thoroughfare Plan – The Thoroughfare Plan for the County of Fayette, Georgia, approved by the Board of Commissioners, indicating the designation of street type and is maintained by the Fayette County Planning and Zoning Department.

FHWA – The Federal Highway Administration.

GDOT – The Georgia Department of Transportation. References to on-line GDOT information is available at www.dot.ga.gov.

Gravel Road – An unpaved public road maintained by Fayette County. Gravel Roads may operate within public right-of-way or prescriptive easements.

ITE – The Institute of Transportation Engineers. ITE publishes Trip Generation Rates that shall be used in estimating daily trips associated with a proposed development.

Lot – A tract of land of varying sizes which is designated as a single unit of property.

MUTCD – The Manual on Uniform Traffic Control Devices, current edition.

Owner – The legal or beneficial owner of a site, including but not limited to, a mortgagee or vendee in possession, receiver, executor, trustee, lessee or other person, firm or corporation in control of the site.

Phase – A portion or section of a larger development delineated on an approved, recorded Final Plat.

Plat, Final – All divisions of a tract of land into two or more lots where the lots are less than five acres in size and/or new streets are created.

PROWAG – Proposed Right-of-Way Accessibility Guidelines developed by the Public Rights-of-Way Access Advisory Committee which provides technical assistance to transportation agencies and design professionals.

Right-of-Way – A strip of land, often of uniform width, that is owned by Fayette County and used, or may be used for transportation, utilities, or similar purposes.

Road – See “street”. For purposes of this Article the term road and street are used interchangeably.

Street – A public or private thoroughfare or road used for vehicular access to other streets and/or properties. Streets may be 1) owned, operated and maintained by Fayette County (i.e., those within a Public Right-of-Way); 2) privately owned but open for public use and maintained by Fayette County (i.e., those within a prescriptive easement); or 3) privately owned and maintained (i.e., a private road). Public streets are designated by type on the Fayette County Thoroughfare Plan.

Subdivider – Any person, firm, corporation, association or partnership or any agent thereof who undertakes or proposes to undertake the subdivision of land so as to create a subdivision as defined herein.

Subdivision(s) – All divisions of a tract of land into a minimum of two or more lots.

Technical Review Committee – A committee of County staff that performs monthly reviews of Preliminary and Final Plats prior to submittal to the Planning Commission.

Tract – A specified parcel of land.

Utility – Any service available to the public by means of an overhead or underground distribution and/or collection systems such as electricity, telephone, water, wastewater, stormwater, cable, natural gas, etc.

Zoning Administrator – The official to whom the responsibilities normally associated with this title have been delegated.

Zoning Ordinance – The Zoning Ordinance enacted by the Board of Commissioners of Fayette County, Georgia, which is maintained and implemented by the Fayette County Planning and Zoning Department.

8-47 Design Standards and Specifications

All roads and bridges constructed in unincorporated Fayette County shall conform to the standards and specifications set forth in this document as well as the following references:

- 1 *The GDOT Design Policy Manual*, latest edition as maintained by the Division of Engineering Office of Design Policy & Support and available on the GDOT webpage;
- 2 *GDOT Bridge and Structures Design Manual*, latest edition as maintained by the Office of Bridges and Structures and available on the GDOT webpage;
- 3 *GDOT Regulations for Driveway and Encroachment Control*, latest edition as maintained by the Office of Traffic Safety and Design and available on the GDOT webpage;
- 4 *GDOT Standard Specifications*, as applicable to the materials, methods of construction and workmanship used for street, drainage and bridge construction. The standards and specifications are available on the GDOT webpage and the most recent edition shall apply;
- 5 *A Policy on Geometric Design of Highways and Streets*, latest edition, published by the American Association of State Highway and Transportation Officials (AASHTO);
- 6 *Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT <= 400)*, latest edition, published by the American Association of State Highway and Transportation Officials (AASHTO);
- 7 *Manual on Uniform Traffic Control Devices (MUTCD)*, latest edition, published by the Federal Highway Administration; and
- 8 *U.S. Traffic Calming Manual*, latest edition, published by the American Planning Association.

For all applicable sections of this Article, sight distances shall be determined using the methods provided in AASHTO's *Geometric Design of Highway and Streets*, latest edition.

In the event of a conflict between the design standards and specifications set forth in this Article and one of the above-referenced documents, this code shall control.

In the event of a conflict between two or more of the above-referenced documents the County Engineer shall determine which controls.

8-48 Roadway Functional Classification

For purposes of this Article, roadway classifications are established by the County's Thoroughfare Plan. The Thoroughfare Plan is maintained by the Fayette County Department of Planning and Zoning. Any street not shown on the Thoroughfare Plan shall be classified by the County Engineer.

- 1 **Major Arterial** – All State Routes within the County. The primary purpose of these roads is to provide regional traffic movement. Freight and truck traffic shall be directed to Major Arterials.
- 2 **Minor Arterial** – Streets that provide traffic movement within the County and intersect one or more Major Arterials.
- 3 **Collector** – Streets whose primary function is to collect traffic from lower functional roadways and provide connectivity to minor and major arterials.
- 4 **County Local** – Streets that provide access to adjoining properties and traffic circulation within a limited area. Freight and truck thru-traffic is prohibited on County Local roads.
- 5 **Low-Volume Local** – A County Local road with an average daily traffic volume of 400 vehicles per day or less. A road shall be designated as Low-Volume Local if: 1) there is a specific request for such designation by County staff, property owners along an existing road, or the Owner of a proposed new road; 2) it meets the ADT criteria; and 3) the designation is approved by the Board of Commissioners.
- 6 **Internal Local** – Streets that primarily serve an individual development and provides traffic circulation within that development.

8-49 Traffic Impact Studies

Effective May 1, 2012, all subdivisions or site plans for proposed developments shall include an estimate of the average gross daily trips expected as a result of the project once fully developed and built-out. The number of trips shall be estimated using the ITE's *Trip Generation Rates*. A Traffic Impact Study shall be required for all developments estimated to generate a number of gross daily trips equal to or greater than threshold values established by the Engineering Department. The ADT of existing roads shall be determined by the Engineering Department and the data and means used to do so shall be shared with the project's Owner upon request.

Traffic Impact Studies shall be prepared under the supervision of a Professional Engineer licensed in Georgia and with appropriate experience and knowledge of the subject matter. The final report shall be stamped and signed by the Engineer.

The studies shall include, at a minimum, an assessment of existing and proposed traffic volumes and Level of Service for all existing roads and intersections within a "zone of influence" proposed by the design Engineer and approved by the County's Engineering

Department. Mitigation measures, to be agreed upon between the Owner and the Board of Commissioners, shall be required for developments causing a significant impact to the County's Transportation System, as determined by the Engineering Department. This may include, but is not limited to, a drop in Level of Service of two letter grades (e.g., from LOS B to D) or any drop to a LOS of E or below that is not predicted without the proposed development. LOS values shall be established for both roadway segments and intersections.

Traffic Impact Studies shall provide options for mitigation that at least maintain the LOS that are predicted without the proposed subdivision or development in the year full build-out is expected. Concept-level cost estimates for the mitigation measures shall be included in the report.

Traffic Impact Studies, if applicable, shall be submittal with the preliminary plat for subdivisions or with the site plan for other types of developments. Additional guidance on the development of Gross Daily Trips and Traffic Impact Studies is available through the County's Engineering Department.

Rezoning Applications – At the request of the Technical Review Committee, a concept-level Traffic Impact Study may be required by the applicant during the rezoning process. The purpose of the concept-level study is to ensure the applicant and County have 1) a mutual understanding of the expected traffic impacts associated with the project; 2) agreement on the probable need for mitigation measures, and 3) similar expectations on the order-of-magnitude for the mitigation measures, if needed. Development of a concept-level Traffic Impact Study does not preclude the need for a full study at time of subdivision or site plan submittal nor in any way limit the ultimate findings and conclusions of the full study.

8-49.1 Exemptions

At the discretion of the County Engineer, the following types of projects may be exempted from the Traffic Impact Study requirements:

- Developments of Regional Impact (DRI);
- Projects with one or more access point on a State Route; and
- Projects initiated by, or partially funded by, Fayette County or one of the County's incorporated areas.

8-50 Right-of-Way

8-50.1 When Permits/Approvals are Required

Approval from the Fayette County Public Works Department is required prior to performing any construction work or non-routine maintenance work within the County right-of-way. This includes but is not limited to the following: grading, landscaping, drainage work, and temporary access to land. Approval may be provided in the form of a Driveway Application Permit, Utility Permit, Construction Plans, Land Disturbance

Permit (issued by Stormwater Management Department) or written approval from the County Engineer for unique circumstances that are not covered by the aforementioned.

Work performed within County right-of-way without proper permits/approvals is subject to a stop-work order and/or barricade, displacement or closure by Public Works. Any costs incurred to correct work performed unlawfully shall be reimbursed to Fayette County by the adjacent property owner.

8-50.2 Right-of-Way Minimum Widths

The following table serves as a guide for planning, design and acquisition.

Functional Classification	Minimum Right-of-Way
Major Arterial	per GDOT
Minor Arterial	100 feet
Collector	80 feet
County Local	60 feet
Low-Volume Local	60 feet
Internal Local	60 feet

The above values are recommended minimum widths. Additional right-of-way may be required based on a road’s characteristics. In all cases the right-of-way shall extend at least 12 feet beyond the edge of pavement.

8-50.3 Right-of-Way Donation and Acquisition

Owners shall donate right-of-way to Fayette County, as needed, when developing or improving a property in one of the manners identified below. The amount of right-of-way required for donation shall be determined by Public Works using the Functional Classification minimum standards prescribed above.

No compensation shall be provided to the property owner for improvements (e.g., fences), landscaping, trees or other items located on the land to be donated, although Fayette County shall be responsible for removing such items, as needed, once the donation is made.

Subdivisions – Right-of-way donation shall be provided, as needed, per Article XIV of Fayette County Development Regulations, Subdivision Regulations, for any subdivision that is creating one or more new lots.

Non-Residential Developments – Any non-residential development requiring new or improved access to a public road and a site plan or Land Disturbance Permit from Fayette County shall donate right-of-way, as needed. Developments that front both sides of a public road that does not have the minimum right-of-way width shall donate the necessary land along the development’s road frontage to meet the requirements. The donation shall be made equally on both sides of the road such that the road’s

centerline is the center of the right-of-way. Developments abutting only one side of such a road shall donate the necessary land to provide a minimum of one-half the required right-of-way, as measured from the road’s centerline.

Development Along Gravel Roads – Any development along a gravel road maintained by Fayette County and requiring new or improved access and a site plan or Land Disturbance Permit from Fayette County shall donate right-of-way, as needed. Developments along both sides of a gravel road shall donate the necessary land along the development’s road frontage to meet the requirements. The donation shall be made equally on both sides of the road such that the road’s centerline is the center of the right-of-way. Developments abutting only one side of such a road shall donate the necessary land to provide a minimum of one-half the required right-of-way, as measured from the road’s centerline.

This requirement applies to residential as well as non-residential developments since any amount of development along a gravel road furthers the need for maintenance and increases the likelihood of paving the road in the future.

Future Transportation Projects – The Public Works Department shall maintain a list of Transportation Projects supported by the Board of Commissioners and planned for implementation at some point in the future. These projects may include, but are not limited to, new road construction, road widening, multi-use path construction, and intersection improvement projects. When a Future Transportation Project adjoins or traverses a proposed subdivision or development project, Fayette County may require the appropriate future right-of-way needed for the project to be platted as part of the subdivision or development project. Unless the “future transportation project” is required to support the proposed subdivision or development, Fayette County shall purchase the property from the Owner following the County’s policy for right-of-way acquisition.

8-50.4 Building Line Setbacks for Future Right-of-Way

The preceding section establishes requirements for right-of-way donation and acquisition associated with various land development and improvements projects. The purpose of this section is to establish appropriate building line setbacks for developments located along roads with right-of-way needs, per the Thoroughfare Plan, but exempt from providing the required right-of-way at the time of development or subdivision. Examples include residential building permit applications on paved roads and minor revisions to final plats.

These developments shall establish building line setbacks from the required future right-of-way line or existing right-of-way line, whichever is greater. Doing so ensures the building or other improvement will be located a sufficient distance from the road once anticipated safety, operational, or capacity improvements are made to the road. For example, a building application permit for construction of a new home on a paved road

with 60 feet of right-of-way shall establish setbacks using a future right-of-way line measured 40-ft from road centerline if the road is shown as a Collector per the County's Thoroughfare Plan.

For situations in which this requirement causes undo hardship, a variance may be sought through the Fayette County Zoning Board of Appeals per Article IX of the Fayette County Zoning Ordinance.

8-51 Construction Requirements for Roads and Streets

8-51.1 Road and Street Construction

1. *General Information* – Placement of the base material and asphalt shall be inspected and approved by the Engineering Department as specified below. The Owner of the project shall be responsible for requesting such inspections by the County. A minimum advance notice of 24 hours shall be provided when scheduling inspections. Placement of base and/or asphalt shall not be done until such inspections have been conducted. Unless noted otherwise, all tests and data, as required per this section, shall be provided by the Owner at no cost to Fayette County. All inspections shall be documented and include pertinent information such as date, time, inspector, weather, station numbers, results of inspection, required action, etc.
2. *Subgrade* – Fill areas shall be constructed in 8 to 12-inch lifts. Individual lifts shall be compacted using sheepsfoot rollers (or pneumatic tire rollers for cohesionless and low-cohesion soils) or similar equipment capable of obtaining the required compaction. The centerline profile shall conform to the established elevations within an acceptable tolerance of 0.1 ft (+/-). A surveyed as-built centerline profile shall be provided to the County for all collectors and arterials, and for any segment of a local road identified by the Engineering Department as having potential safety or drainage concerns.

Soil density tests shall be performed on roadway fills 4 feet in height or greater. Compaction tests shall be performed on every other lift (i.e., every 16 to 24 inches) at 100-foot intervals along the fill section. Compaction tests shall be performed to within 12 inches of the final grade of the subgrade. Fill areas shall be compacted to 95 percent maximum dry density per the standard proctor test (ASTM D-698, AASHTO T99). The locations of the density tests are subject to County approval and additional test locations may be required if there are areas of questionable compaction.

The density testing shall be conducted by an independent third party selected by the Owner and approved by the Engineering Department. If the subgrade compaction is less than the required percentage the Owner shall remove,

replace, and/or re-compact the area in question, or use other means approved by the Engineering Department, until the density meets the required standards. Signed copies of all test results shall be submitted to the Engineering Department.

The compaction of the top 12 inches of subgrade shall be inspected by a proof roll inspection (see below). The proof roll inspection of the subgrade shall not be conducted until all applicable density test results have been submitted to, and approved by, the Engineering Department.

3. *Lateral Subdrains* – Lateral subdrains shall be installed at locations shown on the approved Construction Plans. Unless approved otherwise, subdrains shall be placed at a minimum interval of every 500 feet for roads with a continuous grade of two percent or less and in all sag vertical curves and cul-de-sacs. The top of the stone surrounding the subdrain shall be at the interface of the subgrade and base. The subdrains shall extend from the road's centerline to the nearest drop inlet or ditch on either side of the road. In cul-de-sacs, the subdrain shall be designed to accommodate the location of the drop inlet and expected groundwater flow.

Subdrains shall consist of a 6-inch perforated plastic pipe placed near the bottom of a 2-ft wide by 2-ft deep ditch backfilled with clean No. 57 stone. Filter fabric shall be placed around the perimeter of the ditch prior to backfilling and the fabric folded over the top prior to placement of base material.

A *Lateral Subdrain Detail* is available from the Engineering Department to assist with design and installation.

4. *Base* – Base thickness shall be verified by field measurement and shall not be deficient in any area by more than ½ inch from the specifications on the approved construction drawings. Deficient areas shall be corrected by adding additional quantities of the same base material and rebuilt to the desired thickness. The Owner, at his/her expense, shall prepare the holes for measurement. Measuring holes shall be dug every 500 feet, or less, to confirm the required base thickness. At least one additional measurement shall be taken for every measurement that is less than the minimum base thickness (excluding the ½-inch tolerance). A representative from the Fayette County Engineering or Road Department shall determine the measuring hole locations and confirm the depth of base.
5. *Proof-Rolls* – Proof-Roll inspections shall be conducted on the subgrade prior to placing base and on the base prior to paving asphalt. The purpose of the Proof-Roll inspection is to ensure the subgrade and compacted based course have sufficient stability to support any and all types of heavy equipment used to build

the road without pumping (i.e., vertical or horizontal displacement of the material due to a variety of factors, including too much water, not enough compaction, etc.). Proof-Roll compaction inspections of the subgrade and base (two independent inspections) shall be by a loaded tandem-axle dump truck having a total weight of 56,000 pounds (28 tons). Any area not passing the Proof-Roll inspection shall be corrected by the Owner at no cost to Fayette County and then scheduled for re-inspection.

6. *Asphaltic and Portland Cement Concrete Construction of Roads and Street* – The following table indicates the minimum material type and thicknesses for various types of roads within Fayette County. At the discretion of the Engineering Department, the pavement design may be dictated by the anticipated surrounding land use rather than functional classification. Specifically, roads serving office-institutional and commercial uses shall be built to “collector” standards; and roads serving manufacturing or industrial uses shall be built to “arterial” standards.

Asphaltic Concrete Roads and Streets (minimum standards)

<i>Functional Classification</i>	Low-Volume Local, County Local and Internal Local	Collector	Arterial*
<i>Top Course</i>	1.5” 9.5 mm Type 2	1.5” 9.5 mm Type 2	1.5” 12.5 mm
<i>Binder</i>	2.0” 19 mm	2.5” 19 mm	2.0” 19 mm
<i>Asphaltic Base</i>	NA	NA	3.0” 25 mm
<i>Base</i>	6” Crusher Run or GAB on roadway 10” Crusher Run or GAB in cul-de-sacs	8” GAB on roadway 10” GAB in cul-de-sacs	8” GAB on roadway 10” GAB in cul-de-sacs

* The design for improvements to an arterial road or for the construction of a new arterial roadway shall include a pavement design that includes projected truck volumes. The pavement analysis shall follow current GDOT procedures and methods. Up to a 10 percent under-design may be allowed if approved by the County Engineer. In no case shall the pavement thickness be less than those shown in the table above.

The materials, methods and quality control used for installation of asphaltic concrete shall meet all applicable GDOT standards and specifications including, but not limited to, *Section 400 – Hot Mix Asphaltic Concrete Construction*.

Portland Cement Concrete Roads and Streets (minimum standards)

<i>Functional Classification</i>	County Local and Internal Local	Collector	Arterials
<i>Pavement</i>	6” concrete pavement	7” concrete pavement	8” concrete pavement
<i>Base</i>	4” Crusher Run, GAB or other material	4” Crusher Run, GAB or other material	4” Crusher Run, GAB or other material

	approved by Engineering	approved by Engineering	approved by Engineering
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The materials, methods and quality control used for installation of Portland cement concrete shall meet all applicable standards and specifications provided in the document titled *Section 439 – Portland Cement Concrete pavement for Local Roads, Streets and Parking Lots*, dated July 13, 2010. A copy of these standards and specifications are available through the County’s Engineering Department. Pavement and base thickness shall be established in the Concrete Design and Paving Plans prepared for each project and alternate designs (i.e., from those specified above) may be used if approved by the Engineering Department.

Exceptions to applicable GDOT standards and specifications, for either asphaltic concrete or Portland cement concrete, may be provided, upon request, by the Engineering Department. Exceptions shall only be valid if requested in writing and approved by the Engineering Department prior to start of paving operations.

7. *Core Samples* – Pavement thickness shall be verified by core samples. The pavement thickness shall be considered unacceptable if it is deficient in any sample by more than ¼ inch from the requirements on the approved construction drawings. Samples shall be taken every 500 feet from the center of a travel lane, alternating lanes between samples. A minimum of three samples shall be collected for every street (if less than 1,500 ft) with one of the three samples taken from the cul-de-sac, if present. Additional samples may also be required at pavement joint lines (typically road centerline) if field observations indicate a concern about thickness in these locations. At the discretion of the Engineering Department, additional samples may be required to isolate areas of concern around samples with asphalt thicknesses below the tolerance level.

The remedy to correct areas with insufficient pavement shall vary depending on the road type. For roads with no curb and gutter, the remedy shall include an overlay of an asphalt mix that matches the existing road surface and placed at a lift thickness within the accepted range for that mix type. Joints shall be milled to allow for a smooth transition between existing and new asphalt. The overlay shall extend to the nearest intersection if it is located within 100 ft of the problem area.

For roads with curb and gutter, the asphalt, base and subgrade shall be removed, as needed, to allow room for placement of base and asphalt in accordance with the County standards and approved Construction Plans. The finish elevation of the top course of asphalt shall be flush with the gutter. Joints shall be milled to allow for a smooth transition between existing and new asphalt. The overlay

shall extend to the nearest intersection if it is located within 100 ft of the problem area.

8-52 Design Standards

The latest edition of the AASHTO *A Policy on Geometric Design of Highways and Streets* is incorporated into this regulation by reference. The rules and requirements contained within the AASHTO document shall apply to County roads and streets unless a regulation is in conflict or superseded by other text in this Article. On County roads and streets, the Fayette County Engineering Department shall act as the implementing body in lieu of the Georgia Department of Transportation or AASHTO.

Applicable design standards established in *A Policy on Geometric Design of Highways and Streets* include, but are not limited to, the following:

- Sight Distance;
- Horizontal Alignment;
- Vertical Alignment; and
- Other Elements Affecting Geometric Design.

AASHTO's *Guidelines for Geometric Design of Very Low-Volume Local Roads* may be used to establish standards when the average daily traffic is expected to be less than 400 vehicles per day.

8-52.1 General Road Specifications

1. *Centerline Crown* – Except in areas of super elevation, all roads shall have a crown with a side slope of $\frac{1}{4}$ inch per foot (or approximately 2 percent).
2. *Tangents* – Between reverse horizontal curves there shall be a minimum tangent of 50 feet for local roads and 100 feet for collectors and streets within business parks. The minimum tangent for arterials shall be set by AASHTO.
3. *Superelevation* – Superelevation is not required for Internal Local and Low-Volume Local roads.
4. *Sight Distance* – Stopping Sight Distance shall be used for all applicable design criteria associated with Internal Local and Low-Volume Local roads.
5. *Sag Vertical Curves* – Minimum rates of vertical curvature (K values) less than those required by AASHTO may be approved by the Engineering Department for Internal Local and Low-Volume Local roads if doing improves the overall drainage characteristics of that section of road and/or minimizes impacts to streams or wetlands without an unacceptable impact to sight distance.
6. *Horizontal Curves* – The radius of horizontal curves on Internal Local streets shall be no less than 175 feet. The minimum horizontal radius for all other functional classifications shall be set by applicable AASHTO standards.
7. *Intersections* – The Minimum angle of intersection shall be set by applicable GDOT standards (see *Regulations for Driveway and Encroachment Control*).
8. *Design Speed, Grades and Pavement Width* – See below table.

Functional Classification	Design Speed	Min. Grade	Max. Grade	Pavement Width
Major Arterial	Per AASHTO ¹	Per AASHTO ¹	Per AASHTO ¹	Per AASHTO ¹
Minor Arterial	Per AASHTO ¹	Per AASHTO ¹	Per AASHTO ¹	Per AASHTO ¹
Collector	45 mph	2%	10%	24 ft
County Local	35 mph	2%	10%	22-24 ft
Low-Volume Local	25 mph	2%	12%	Per AASHTO ²
Internal Local	25 mph	2%	12%	22-24 ft

¹ *A Policy on Geometric Design of Highways and Street*, latest edition

² *Guidelines for Geometric Design of Very Low-Volume Local Roads*, latest edition

Minimum grades as low as 1.5 percent and maximum grades as high as 15 percent may be used for short segments if needed to accommodate site-specific characteristics and the use is approved by the Engineering Department. It is the responsibility of the Design Engineer to provide sufficient justification for the variance.

8-52.2 Cul-de-sac Specifications

1. *Dimensions* – Cul-de-sacs shall have a minimum paved radius of 40 feet, excluding curb and gutter. Larger minimum radii may be required for non-residential settings.
2. *Right-of-Way* – The minimum right of way around a cul-de-sac shall be either based on a 60-ft radius from the center of the cul-de-sac, or set such that the distance between edge of pavement and the right-of-way line along the roadway is maintained around the cul-de-sac, whichever is greater.
3. *Islands* – Landscape islands in cul-de-sacs are allowed however they shall be considered “common space” to the development and the ownership and maintenance responsibilities shall be clearly defined on the final plat. A minimum travel lane of 18 feet shall be provided around the island. The Construction drawings shall verify appropriate turning areas for school buses, tractor-trailers (53-ft) and emergency response vehicles.
4. *Alternatives to cul-de-sacs* – All streets shall terminate at an intersection, cul-de-sac, or other County-approved design that allows for safe and efficient turn around for emergency response vehicles, school buses, delivery vehicles, etc.

8-52.3 Stormwater Management Plan

1. Stormwater management requirements applicable to road design and construction are codified in Article XIII of the Fayette County Development Regulations, *Post-Development Stormwater Management for New Development and Redevelopment*.

8-53 Driveway and Encroachment Control

The latest edition of the GDOT *Regulations for Driveway and Encroachment Control* is incorporated into this regulation by reference. The rules and requirements contained

within the GDOT document shall apply to County roads and streets unless a regulation is in conflict or superseded by other text in this Article. On County roads and streets, the Fayette County Engineering Department shall act as the implementing body in lieu of the Georgia Department of Transportation.

In situations where the following provisions (Residential Access, Nonresidential Access, Access for New Road Construction and Auxiliary Turn Lanes) cannot be satisfied due to unusual site characteristics, technical, or legal reasons, the number and location of curb cuts or turn lanes shall be approved by the County Engineer with input from the County's Technical Review Committee.

8-53.1 Residential Access

1. *Zoning Ordinance Reference* – Every residential lot shall meet the minimum requirements of the Fayette County Zoning Ordinance, Article V, *Street Frontage for Access*.
2. *Driveway Application Permits* – No new driveway to County Right-of-Way or prescriptive easement shall be made without an approved Driveway Application Permit from the Engineering Department. Residential developments on Internal Local roads are exempt from the Driveway Application Permit requirement.
3. *Numbers of Driveways* – Residential lots shall have at least one (unless a shared driveway is authorized) and no more than two driveway cuts. Driveways to Agricultural-Residential (A-R) zoned properties for agricultural or other non-residential purposes are exempt from the two-per-lot limit but shall meet all other Residential Access standards.
4. *Location* – Driveways shall be located at least two feet from any side or rear property line.
5. *Maximum Width* – The maximum width of any driveway shall not exceed 24 feet at the right-of-way line. For roads with prescriptive easement, the width measurement shall be made 18 feet back from the edge of existing road.
6. *Multiple Road Frontage* – Residential lots with road frontage on multiple roads shall have the driveway(s) located on the street with the lowest functional classification unless authorized otherwise by the County Engineer. Exceptions may be provided if doing so improves safety, minimizes environmental impacts, or is appropriate based on site-specific physical characteristics of the property.
7. *Sight Distance* – Minimum sight distances shall be satisfied for all new driveways. Properties on local roads, or any other County road with a posted speed limit of 25 mph or less, shall have a minimum sight distance of 200 feet in either direction. Sight distance requirements and measurements for all other roads shall be per GDOT's *Regulations for Driveway and Encroachment Control*. Fayette County shall be responsible for removing vegetation within the County right-of-way if the vegetation is restricting sight distance below the required amount. The Owner shall be responsible for clearing vegetation or other obstructions, as needed, on private properties.

8. *Shared Driveways* – A maximum of two residential lots may share a single driveway if the following conditions are satisfied:
 - A. The shared driveway is justified by either insufficient sight distance at one of the lots or otherwise authorized by the County Engineer because doing so improves safety, minimizes environmental impacts, or is appropriate based on site-specific physical characteristics of the property;
 - B. The width of the shared driveway shall be a minimum of 12 feet and constructed of an all-weather surface approved by the Engineering Department;
 - C. The driveway shall have a minimum clear zone of 20 feet that extends, continuous, from the right-of-way to both homes served by the driveway. The purpose of the clear zone is to ensure unobstructed emergency access to the homes;
 - D. A permanent cross-access easement shall be recorded and the easement reflected on the plat and deed of both properties; and
 - E. The street address of each lot shall be clearly marked at the road and at all forks in the shared driveway.
9. *Circular Driveways* – Each lot may have one circular (e.g., a horseshoe drive) if the sight distance requirements can be satisfied for both entrances. Circular driveways may also connect multiple frontages if both streets have the same functional classification. Circular driveways shall count as one driveway cut with respect to limits on the number of driveways per lot.
10. *Mailing Address* – Mailing addresses are issued by the County’s Building Permits and Inspections Department.

8-53.2 Nonresidential Access

1. *Zoning Ordinance Reference* – Every nonresidential lot shall meet the minimum requirements of the Fayette County Zoning Ordinance, Article V, *Street Frontage for Access*.
2. *Driveway Application Permits* – No new driveway to County Right-of-Way or prescriptive easement shall be made without an approved Site Plan and/or Certificate of Zoning Compliance from the Planning and Zoning Department. This requirement may be waived by the Engineering Department if the reason for the new driveway is a result of a County-initiated project.
3. *Numbers of Driveways* – The number of driveways for nonresidential lots shall be determined by the available road frontage and the minimum spacing criteria established in the GDOT’s *Regulations for Driveway and Encroachment Control*.
4. *Multiple Road Frontage* – Nonresidential lots with road frontage on multiple roads shall have the driveway(s) located in a manner consistent with GDOT’s *Regulations for Driveway and Encroachment Control*.
5. *Sight Distance* – Minimum sight distances shall be satisfied for all new driveways. Properties on local roads, or any other County road with a posted speed limit of 25 mph or less, shall have a minimum sight distance of 200 feet in either direction. Sight distance requirements and measurements for all other roads

shall be per GDOT's *Regulations for Driveway and Encroachment Control*. Fayette County shall be responsible for removing vegetation within the County right-of-way if the vegetation is restricting sight distance below the required amount. The Owner shall be responsible for clearing vegetation or other obstructions, as needed, on private properties.

6. *Design Criteria* – All new or modified nonresidential driveways shall meet all applicable standards as established in the GDOT's *Regulations for Driveway and Encroachment Control*. Developments with Site Plans that requires changes to the parking area or internal drives shall improve existing driveways to meet current standards, including addition of left or right turn lanes, as applicable.
7. *Shared Driveways* – Shared driveways for nonresidential lots are encouraged, although the following criteria shall be satisfied.
 - A. The width of the shared driveway shall be a minimum of 24 feet (if two-way) and paved with asphalt or concrete per the approved Site Plan;
 - B. A permanent cross-access easement shall be recorded and the easement reflected on the plat and deed of both properties;
 - C. The street address of each lot shall be clearly marked at locations and with markers approved by the Fire & Emergency Services Department;
 - D. Each lot shall have the minimum required road frontage; and
 - E. Shared driveways are exempt from the 20-min offset from property lines specified in Section 8-217 of Article VIII.
8. *Interparcel Access* – Interparcel access shall be provided between adjacent nonresidential properties. If the neighboring property does not have an existing stub, parking lot or driveway feasible for tie-in, then a stub shall be constructed to the side or rear property line. Access easements shall be provided, as described above for shared driveways, to allow for thru traffic. This requirement may be waived by the County Engineer if site circumstances make interparcel access impractical, such as natural grades in excess of 15 percent, sensitive environmental areas, incompatible uses, excessive distances, etc.
9. *Mailing Address* – Mailing addresses are issued by the County's Building Permits and Inspections Department.

8-53.3 Access for New Road Construction

Listed below are the minimum distances to be provided between a new street/road and an existing street/road or nonresidential driveway.

Local	300 feet
Collector	400 feet
Arterial	500 feet

Distances shall be measured along a right-of-way line from its point of intersection with the proposed road's right-of-way line and the nearest edge of pavement of an existing road or nonresidential driveway.

New roads shall be aligned directly across from existing streets/roads and nonresidential driveways or offset a distance equal to or greater than those listed above. This

requirement is not applicable if there is a median prohibiting left turns into and out of the proposed road.

8-53.4 Auxiliary Turn Lanes

The need for and design criteria for auxiliary turn lanes shall be determined using the criteria set forth in the *GDOT's Regulations for Driveway and Encroachment Control*.

Furthermore, even if not warranted by the GDOT manual, any proposed road located on an existing County Local, Collector or Arterial and serving 20 or more single family houses shall have a deceleration lane. This requirement may be waived by the Engineering Department if the ADT on the main road is less than 1,500 vehicles per day. Larger radii (beyond the 25-ft typical) may be used for the right-turn-in to subdivisions with no deceleration lane with the goal of aiding that turning movement with minimum disruption to through traffic.

The Engineering Department shall make recommendations to the GDOT District Traffic Engineer on the need for auxiliary turn lanes on state routes.

A Subdivision Entrance Sign and Striping Detail is available from the Engineering Department to assist with design.

8-54 Resurfacing of County Roads and Streets

The following requirements shall apply to resurfacing projects of County roads and streets by an Owner as a result of a related subdivision or development project. Unless noted otherwise, all work shall be provided by the Owner at no cost to Fayette County.

1. All work and material shall meet minimum *GDOT Standard Specifications*, as available on the GDOT web page.
2. All weak areas, as identified by the Road Department, shall be removed and repaired with proper full depth patches. All debris (e.g., soil, GAB, asphalt, etc.) shall be removed and disposed of properly.
3. The surface to be overlaid shall be thoroughly cleaned and all debris removed.
4. A tack coat of asphalt, meeting GDOT standards, shall be applied to the entire surface to be overlaid.
5. Prior to placing the overlay, a County-approved leveling course shall be used where necessary or as determined by the Engineering Department.
6. The County Road Department will evaluate the existing pavement conditions and determine the overlay thickness using the methods in the Asphalt Institute's manual, *Asphalt Overlays for Highway and Street Rehabilitation*. For all streets other than residential, actual traffic counts will be obtained and coring (by Owner), or other acceptable methods of obtaining the actual existing pavement thickness, will be utilized. In no case shall an overlay thickness be less than 1 inch.
7. For roads with curb and gutter, the top layer(s) of asphalt shall be removed by milling if the top elevation of the proposed overlay will be 1.5 inches or more

above the top of gutter. Fayette County may elect to share milling costs if it is desired to remove more than the minimum thickness required for the resurfacing.

8-55 Traffic Control Devices

The fabrication and placement of all street names, signs, traffic control signs, posts, striping, pavement markings, raised pavement markers (RPMs), traffic signals and associated signage shall conform to the standards, materials, and requirements of the *Manual on Uniform Traffic Control Devices (MUTCD)*, latest edition and the GDOT Standards and Specifications.

It shall be unlawful for any person to alter, deface or take down any street name, property number, traffic control sign, or signal placed in accordance with this provision except for repair or replacement.

8-55.1 Street Names and Property Address Numbers

Street names shall not duplicate or be similar in sound or spelling to the names of existing streets in the county. Hyphenating, dividing one word into two words, affixing “Drive” for “Road”, etc., or other manipulations of an existing street name shall not constitute an acceptable street name. Similar sounding names shall be unacceptable regardless of spelling.

1. *Continuity of Street Names* – A continuous street, one proposed to be continuous, or one proposed to continue an existing street shall bear the same name throughout.
2. *Subdivision Street Address Numbering* – The County’s established street address numbering system shall be utilized for all subdivisions in the county.
3. *Maximum Character Count* – Street names shall be such that the maximum number of characters or spaces required on a sign is 20. (For example, “Brooks Woolsey Road” has a character count of 19.)
4. *Address Numbers* – Every building shall be assigned and display an address number. The size and location of the address number shall meet the International Fire Code requirements. If a mailbox is located at the street, such mailbox shall have the property number affixed thereto with numerals measuring at least three inches in height.

See Fayette County’s Subdivision Regulations for additional information on Property Addresses and approval of Street Names and Subdivision Names.

8-55.2 Street Signs and Traffic Control Signs

1. *Installation Responsibility* – Street name sign, traffic control signs, and posts shall be installed by the Owner at the Owner’s expense per a Sign and Marking Plan approved the Engineering Department.
2. *Decorative Posts and Frames* – Ornamental posts and frames may be used within Developments, pending approval by the Engineering Department, however all

signs shall conform to the MUTCD with respect to size, shape, color, material and reflectivity. Fayette County will not maintain or provide material replacements to match decorative frames and posts. If replacement of any ornamental traffic control sign within the right-of-way is required, Fayette County Road Department will provide a standard post, frame and sign.

3. *Field Approval* – All traffic control devices shall be installed and functional prior to Final Plat approval unless written exception is provided by the County Engineer, in which case installation requirements shall be incorporated into a performance bond for the subdivision.
4. *Intersection Ahead Warning Sign* – For each new subdivision entrance, the Sign and Marking Plan shall include two intersection warning signs (e.g., W2-2L) with accompanying intersecting street name placards for placement on the main road.

8-55.3 Pavement Markings

1. *Specifications* – Pavement markings shall be installed by the Owner at the Owner's expense per a Sign and Marking Plan approved by the Engineering Department. Striping and marking materials shall meet all applicable GDOT standards and specifications.
2. *Thermoplastic* – Thermoplastic pavement markings are required for all striping work on State Routes, arterials, collectors and at subdivision entrances.
3. *Internal Local Roads* – No pavement markings are required on internal local roads except for those indicated on the County's Subdivision Entrance Sign and Striping Detail.

8-55.4 Traffic Signals

1. *Specifications* – Traffic signal requirements vary dependent upon field conditions and proximity to other signals, however, GDOT and MUTCD standards shall be satisfied.
2. *Interconnectivity* – When, in the opinion of the Road Department, it is necessary to provide traffic signal interconnectivity, coordination and/or signal timing optimization due to the close proximity of a proposed signal (required for an Owner's project) with an existing signal, the Owner shall prepare and submit appropriate plans and traffic studies to the Road Department for review. Once approved, the Owner shall perform the work per the plans and schedule agreed to by the County. Performance bonds may be required for delayed work.
3. *Warrant Study* – A warrant study satisfying MUTCD criteria may be required prior to approval for installation of a traffic signal on a County Road. Signal installation on County Roads shall be permitted at the discretion of the Road Department.

8-56 Utilities

1. *Locations* – In order to promote uniformity in installation and more effective and less damaging maintenance, utilities shall be located per the locations specified in the Fayette County *Typical Utility Locations* detail, available from the Engineering Department. Exceptions to the designated utility location shall be made, in writing, to the County Engineer for consideration.
2. *Utility Permits* – No utility work shall be performed within County right-of-way without a Utility Permit approved by the Engineering or Road Department. Supporting information for the permit shall include a description of the proposed work, location (with starting and ending limits) and timeframe. In addition, the utility shall agree to the following conditions:
 - Any damaged caused to the existing pavement or shoulders of road will be repaired and guaranteed, at no cost to the County, by the utility company;
 - Fayette County shall not be liable for any un-willful damage to the utility by County maintenance forces in the future; and
 - The utility shall be relocated and/or adjusted by the utility company at no cost to Fayette County if it is ever necessary or desired to rebuild, widen or improve the road in a manner that conflicts with the utility.A fee may be required for the permit.

8-57 Sidewalks

Sidewalks may be installed by an Owner within County right-of-way in accordance with the following specifications:

1. *Location* – The location of proposed sidewalks shall be shown on the project’s construction plans and are subject to County approval. Consideration should be given to utility placement and any proposed trees. Water meters, valves and other access points shall be located outside the sidewalk. Sidewalks shall be located a minimum of 4 feet from back of curb to allow for sign placement and at least 8 feet from back of curb if street trees are proposed.
2. *Dimensions* – Sidewalks shall be between 4 and 6 feet wide and a minimum thickness of 4 inches. A standard width shall be maintained around all obstacles such as poles, utility boxes, etc.
3. *Material and Finish* – Sidewalks shall be Portland cement concrete with a minimum 28-day compressive strength of 3,000 psi. The concrete shall be finished with tamps, floats and stiff-bristle brooms.
4. *Cross-Slope* – The maximum allowable cross-slope shall not exceed 2.0 percent (PROWAG R301.4.1)
5. *Longitudinal Slope* – The longitudinal slope (grade) of a sidewalk shall not exceed the general grade established for the adjacent street (PROWAG R301.4.2). In cases where the sidewalk alignment deviates from the adjacent roadway, the longitudinal slope shall not exceed 8.3 percent (PROWAG 303.2.1.1).

6. *Curb Ramps* – In accordance with the ADA, accessible curb ramps shall be included on pedestrian facilities. The ramp profile shall have a running slope between 5.0 and 8.3 percent (PROWAG R406.2). The ramp shall be placed in line with pedestrian flow and crosswalks, and the edges of a diagonal curb ramp shall be parallel to the direction of pedestrian flow. Refer to *GDOT Construction Standards and Details* for additional information regarding the typical location, design and construction of sidewalks and curb ramps.
7. *Sidewalk Surface* – The surface of the sidewalk shall be firm, stable and slip resistant. Surface discontinuities shall not exceed ½ inch maximum vertical or horizontal (PROWAG R301.5.2).
8. *Expansion Joints* – One-half inch expansion joints shall be constructed with a pre-formed or pre-molded elastic and resilient material. Expansion joints shall be provided wherever a sidewalk abuts an existing structure, such as another sidewalk, curb, ramp or driveway, and at a maximum 60 feet interval along a sidewalk.
9. *Traverse Contraction Joints* – Contraction joints, or false joints, shall be spaced every 5 to 6 feet along the sidewalk. The joints shall be perpendicular to the edge and straight. All edges shall be rounded to ¼-inch radius.
10. *ADA Compliance* – Sidewalks shall be designed in accordance with the Americans with Disability Act’s Title II requirements.
11. *Sidewalk Repair* – Fayette County shall repair sidewalks that are damaged if located within the County right-of-way. Repairs shall be made in a prioritized manner and as funds allow. The responsibility and cost for repair may be deferred to the adjacent property owner if the damage was a result of negligence by the property owner. Fayette County shall not be responsible for the maintenance of sidewalks, including work such as edging of vegetation, insect control, or cleaning.

8-58 Roundabouts

The use of roundabouts for intersection control is encouraged. Design criteria shall follow the most recent guidelines available from the Federal Highway Administration, however exceptions to standard design criteria shall be considered by the Engineering Department if they are not appropriate or applicable for Internal Local or Low-Volume roads. Conflicts among one or more sources shall be discussed with the Engineering Department during concept design (i.e., at the preliminary plat for subdivision projects). The project Owner shall provide a traffic study to help determine the functionality and required design characteristics of the proposed roundabout. The study may be limited to demonstrating adequate turning radii for roundabouts within Internal Local or Low-Volume roads.

8-59 Traffic Calming

The use of traffic calming measures on local roads, particularly internal locals, is encouraged. The American Planning Association’s U.S. Traffic Calming Manual is one

guideline for determining appropriate use of and design of traffic calming methods, although other sources of reference material will be considered when evaluating designs. Physical traffic calming measures shall be provided within any section of new road having a tangent section of 750 feet or more and a functional classification of County Local or less.

Additional information on the use of non-physical and physical deterrents for traffic calming on County Roads is available through the Engineering Department.

8-60 Landscape Islands

Landscape islands within a road may be installed by an Owner within County right-of-way in accordance with the following specifications:

1. *Location* – The landscape island shall not restrict sight distance for vehicles making turns onto or off the road with the landscape island.
2. *Right-of-Way* – Right-of-way shall be increased to a minimum of 80 ft around the island and include appropriate transitions back to the standard right-of-way width.
3. *Curb and Gutter* – Landscape islands shall be delineated with curb and gutter regardless of whether curb and gutter is required in the remainder of the subdivision.
4. *Drainage* – the construction plans for the project shall provide positive drainage (2 percent minimum) away from the landscape island or provide catch basins on either side of the island.
5. *Island Width* – Landscape islands shall have a maximum width of 18 feet, measured back of curb to back of curb. Proposed green space wider than 18 feet shall be considered a median and addressed on a case-by-case basis by the Engineering Department.
6. *Travel Lanes* – Single travel lanes adjacent to landscape islands at the entrance of a subdivision shall have a minimum width of 16 feet, although the pavement shall be striped to maintain a 12-ft drive lane. Two lanes or more in the same direction may have the standard lane width used throughout the subdivision.
7. *Ownership and Maintenance* – Fayette County does not accept ownership of a landscape island within right-of-way as County property. The County shall not be responsible for the maintenance or repair of the island or its vegetation. Instead, maintenance and repair of island are the responsibility of the property owner (typically a Homeowners Association).
8. *Easements* – A permanent easement shall be provided from the owner of the landscape island to Fayette County. The purpose of the easement shall be to provide Fayette County the right to clear vegetation and structures from landscape areas if needed to maintain appropriate sight distance around the island. A minimum ten-day notice shall be provided to the owner prior to Fayette County performing any clearing in a landscape island. The easement shall also specify that Fayette County shall not be responsible for replacing or

compensating for any vegetation or structure(s) cleared or damage as a result of the effort to restore necessary sight distance.