

## **Article 10. - Project Design and Construction Standards**

### **Sec. 1001 - Purpose of Article 10.**

This Article sets out the minimum requirements and standards for construction of subdivisions and other land development projects, including general principals of design and layout and requirements for such public facilities as streets and utilities.

### **Sec. 1002 - Standards incorporated by reference.**

#### **1002 (a) Standard design specifications.**

The Construction Standards and Specifications of Douglas County, also referred to in this Code as "Standard Design Specifications," as maintained by the Department of Transportation and as may be amended from time to time by said department, are incorporated into this Code as though set forth within the body of this Code. In the case of a conflict between the Standard Design Specifications and the text of this Code, the text of this Code shall control.

#### **1002 (b) Traffic signs and street striping.**

The installation of all traffic control signs and street striping shall be governed by the standards contained in the *Manual on Uniform Traffic Control Devices*, latest edition, published by the Federal Highway Administration of the U.S. Department of Transportation.

#### **1002 (c) Georgia DOT standard specifications.**

Unless otherwise specially set forth in this Code or the Standard Design Specifications, all of the materials, methods of construction, and workmanship for the work covered in reference to street construction and storm drainage construction shall conform to the latest standard specifications of the Georgia Department of Transportation.

#### **1002 (d) AASHTO design standards.**

- (1) Design criteria and standards not specifically set forth herein or in the latest standard specifications of the Georgia Department of Transportation shall conform to the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*.
- (2) The latest edition of the *Roadside Design Guide* by the American Association of State Highway and Transportation Officials (AASHTO) shall be consulted regarding set-back criteria and clear zone distance criteria for structures within a public street right-of-way or private street easement. See particularly Sec. 1018.

#### **1002 (e) Street lighting.**

The *American National Standard Practice for Roadway Lighting* of the Illumination Engineering Society, as approved by the American National Standards Institute (1973), or as more recently amended, shall be consulted regarding illumination of public rights-of-way.

DIVISION I. - PROJECT DESIGN.

**Sec. 1003 - General design standards.**

**1003 (a) Suitability of the land.**

- (1) Land with a slope of 35% or more, land within an area of special flood hazard (the 100-year flood plain), and land otherwise determined by the Development Services Director to be physically unsuitable for subdivision or development because of flooding, poor drainage, topographic, geologic or other such features that may endanger health, life or property, aggravate erosion, increase flood hazard, or necessitate excessive expenditures of public funds for supply and maintenance of services shall not be approved for subdivision or development unless adequate methods are formulated by the developer for solving the problems. Such land shall be set aside for such uses as shall not involve such a danger.
- (2) Land within a proposed subdivision or development that is unsuitable for development shall be incorporated into the buildable lots as excess land or set aside as open space. Lots that do not comply with the requirements of this Code are prohibited.

**1003 (b) Conformance to the comprehensive plan and other adopted plans.**

In addition to the requirements established herein, all subdivisions and individual development projects shall comply with the following laws, rules and regulations:

- (1) All proposed subdivisions and individual development projects shall conform to the *Comprehensive Plan* and development policies in effect at the time of submission to the Development Services Department.
- (2) In subdivisions or developments related to or affecting any State or U.S. numbered highway, the Development Services Department may require the approval of the Georgia Department of Transportation.
- (3) Dedications and reservations.
  - a. All transportation facilities such as highways, major thoroughfares and other streets shall be platted by the developer in the location and to the dimension indicated on the *Comprehensive Plan* or the *Transportation Plan* , whichever is the most recently adopted or amended.
  - b. Public facilities other than transportation facilities, such as school sites, park sites, library sites, fire station sites, sites for public utilities or for other public use or open space, shall be shown as dedicated or as reserved on the preliminary and final plats under the following circumstances:
    1. When any of said public facilities are shown in the *Comprehensive Plan* and located in whole or in part in a proposed subdivision or development; or
    2. When any of said public facilities have not been anticipated by the *Comprehensive Plan* , but are considered essential to or extremely important to the development of the county or to that neighborhood or portion of the county within which the subdivision or development project lies, by the Board of Commissioners.
  - c. Time limitation on reservations.

If the developer reserves land for any public facility other than transportation facilities and it is not acquired by gift, purchase, condemnation or otherwise nor optioned by the appropriate public agency within 5 years from the date of recording of the subdivision or by the time Certificates of Occupancy have been issued for 75% of the dwelling units in the development, whichever occurs first, the subdivider may claim the original reservation, or portion thereof, and cause it to be subdivided in a manner suitable to the subdivider subject to the provisions of this Development Code.

d. Waiver of dedication or reservation requirement.

The Director of Development Services may waive the platting and reservation requirements of this Section 1003 (b)(3) whenever the public body responsible for land acquisition executes a written release stating that such a planned feature is not being acquired.

e. Refusal of dedication offer.

1. Whenever a plat or site plan proposes the dedication of land to public use that the Development Services Director finds not required or suitable for such public use, the Development Services Director shall refuse to approve the plat or site plan. The Director's opinion may be appealed to the Board of Commissioners.
2. Whenever a plat or site plan proposes the dedication of land to public use that the Board of Commissioners finds to be not required or suitable for such public use, the Board of Commissioners shall refuse to accept the dedication.

**1003 (c) Name of subdivision or development project.**

The name of each subdivision or development project must have the approval of the Development Services Department. The name shall not duplicate nor closely approximate the name of an existing subdivision or development project in Douglas County or any of its cities.

**1003 (d) Street names.**

- (1) Proposed streets obviously in alignment with other existing and named streets shall bear the names of the existing streets. In no case shall the name for a proposed street duplicate existing street names in Douglas County or any of its cities, irrespective of the use of a suffix such as: street, avenue, boulevard, road, pike, drive, way, place, court or other derivatives.
- (2) Street names are subject to approval by the Development Services Director.

**1003 (e) Street addresses.**

Street addresses shall be obtained from the Development Services Department and shall be shown on each final plat.

**1003 (f) Blocks.**

- (1) Residential blocks.
  - a. Unless otherwise approved by the Department of Transportation Director under unusual circumstances, block lengths shall not exceed 1,800 feet nor be less than 600 feet in length.

- b. In blocks greater than 1,000 feet in length, the Department of Transportation Director may require one or more public easements of not less than 10 feet in width to extend entirely across the block for pedestrian crosswalks, fire protection or utilities.
- c. Width: Residential blocks shall be wide enough to allow two rows of lots, except where reverse frontage lots on major thoroughfares are provided, or when prevented by topographic conditions or size of the property, or for lots along the periphery of the subdivision, or where abutting upon limited access highways or railroads, or where other situations make this requirement impractical, in which case the Department of Transportation Director may approve a single row of lots.

(2) Nonresidential blocks.

Blocks for other than residential use shall be of such length and width as may be suitable for the prospective use, including adequate provision for off-street parking and service.

**1003 (g) Lots.**

(1) Minimum lot dimensions and areas.

All lots shall meet or exceed the area and dimensional requirements of this Development Code for the zoning district and type of development in which the lots are located.

(2) Authority of Health Department.

Nothing contained in this Article shall be construed as preventing the County Health Department, after study of the conditions existing in a proposed subdivision, from requiring that all or any portion of the area of such subdivision shall not be built upon or that the minimum lot sizes set forth in this Development Code are inadequate and must be increased to ensure the protection of the public health.

(3) Adequate building sites.

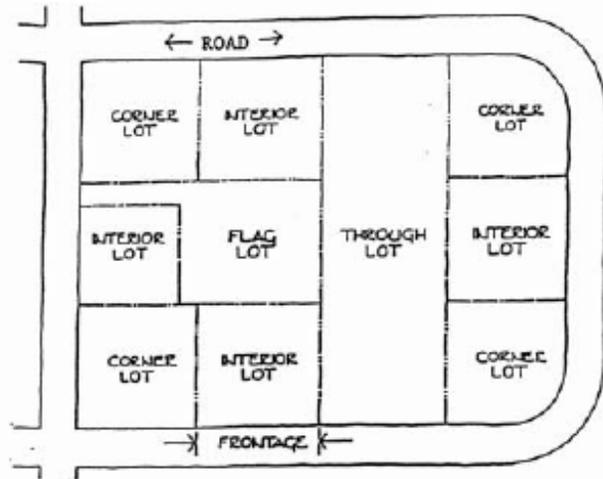
Each lot shall contain a site large enough for a normal building that will meet all building setback requirements as set forth in this Code and not be subject to flood or periodic inundation

(4) Arrangement.

Insofar as practical, side lot lines shall be at right angles to straight street lines or radial to curved street lines (including cul-de-sacs).

(5) Corner lots.

Corner lots shall be sufficiently large to permit the location of buildings so as to conform to the front building lines on both streets.



(6) Through lots.

On through lots (i.e., "double-frontage" lots) the minimum front yard setback for principal buildings shall be provided along each street.

(7) Flag lots.

Flag lots must meet the minimum lot width for the applicable zoning district at the minimum front setback line required for principal buildings.

(8) Lot remnants

Lot remnants (lots below minimum area or width left over after subdividing tracts of land) shall be prohibited. Such remnant areas shall be added to adjacent lots, rather than remain as unusable parcels.

(9) Lots abutting lakes.

The subdividing of land adjacent to or surrounding an existing or proposed lake, shall be such that lots abutting the lake shall be drawn to the centerline of the lake. Such requirements may be waived upon submittal to the Board of Commissioners of an acceptable method for the maintenance of the lake and any recreational operations to be provided thereon. The minimum required area of each lot shall exclude those areas as specified in Section 404(b) of the Lots and Building Standards Article of this Development Code.

**1003 (h) Areas reserved for future development.**

If any portion of a tract is reserved for future subdivision development, the minimum lot width and frontage of the reserved area may be reduced to the width required for a future street to serve such area.

- (1) Such a reserved area must be labeled "Reserved for Future Development" on the final subdivision plat, and the portion of the lot where a street will be built must be labeled "Future Street."

- (2) Such a reserved area will not be eligible for issuance of a building permit unless the lot meets all requirements of this Development Code, including minimum lot width and frontage requirements of the applicable zoning district.

**1003 (i) Plats straddling political boundaries.**

Whenever access to a subdivision is required across land in another governmental jurisdiction, the Department of Transportation Director may request assurance from the County Attorney, and/or the other jurisdiction that access is legally established, and that the access road is adequately improved. In general, lot lines shall be laid out so as to not cross jurisdictional boundary lines.

**1003 (j) Design standards for planned developments.**

- (1) The project design standards and requirements of this Article may be modified in the case of a master planned development (MPD) or planned unit development (PUD) which, in the judgment of the Board of Commissioners provides adequate public spaces and improvements for the circulation, recreation, light, air and service needs of the tract when fully developed and populated, provided zoning density standards for the entire tract are not exceeded, and which also provides such covenants or other legal procedures as will assure conformity to and achievement of the plan.
- (2) Plans for such developments shall be submitted to and approved by the Board of Commissioners as a Master Plan for a PUD or a Concept Plan for an MPD, as required by this Development Code. No building permits shall be issued until such approval has been given.

**Sec. 1004 - Required improvements.**

**1004 (a) Minor subdivisions.**

By definition, a minor subdivision does not involve the construction of major public improvements, such as new streets or stormwater detention. However, the following improvements are required in order to adequately serve the lots and protect the safe operation of the existing road:

- (1) Right-of way shall be dedicated along the property's frontage from the centerline of the existing road equal to  $\frac{1}{2}$  of the minimum requirement for the classification of the road, as established in Sec. 1008 (d)(3). Minimum road improvements, (i.e. additional lane widening, curb and gutter, roadway overlay, etc.) may be required if determined necessary by the Douglas County DOT to bring a substandard County road facility up to a minimum acceptable standard, within the limits of the property frontage being subdivided if the proposed subdivision is greater than 5 lots. The requirement for such road improvements shall not alter or change the designation from Minor Subdivision provided the provisions of Sec. 502(a) are applicable.
- (2) The potential location of a driveway connection serving each lot and meeting the requirements of these development regulations shall be indicated on the final subdivision plat. All proposed driveways must comply with Douglas County Residential Driveway Permit stipulations. Driveway Permits are obtained from Douglas County Department of Transportation. Driveways shall be positioned to provide maximum visibility along the County roadway.
- (3) The stormwater carrying capacity of the road, whether in an existing ditch or gutter, shall not be compromised. If the stormwater characteristics of the existing road are inadequate to

accommodate the new lots, the Department of Transportation Director may require improvement of the roadway ditch as appropriate.

- (4) Survey monument markers of all lot corners shall be provided in accordance with the requirements of Sec. 1005.
- (5) If any portion of the subdivision contains a primary conservation area as defined in the Environmental Protection Article of this Code, a natural resource easement is to be provided in accordance with the requirements of the Environmental Protection Article.

**1004 (b) Major subdivisions, multi-family and nonresidential developments.**

The following improvements shall be provided by the developer or at the developer's expense in every major subdivision or individual multi-family or nonresidential development in accordance with the requirements and standards contained in this Article.

- (1) Survey monumentation in accordance with Sec. 1005.
- (2) Streets providing access to such a development and to all lots in such a subdivision, including the extension of streets required to provide access to adjoining properties, in accordance with Sec. 1008.
  - a. Streets contained wholly within such a subdivision shall be improved to the full standards contained in this Article. Existing streets that adjoin such a development shall be improved to the minimum standards from the centerline of the street along the development's frontage.
  - b. Curb and gutter along all roadways, or drainage swale where allowed by Department of Transportation Director.
- (3) Street name signs, stop bars, striping and traffic control signs as approved by the County shall be installed by the developer in accordance with Sec. 1009.
- (4) Street lights in accordance with Sec. 1010.
- (5) Driveway access to each lot, shall be installed by the developer in accordance with Sec. 1011
- (6) Project access improvements (deceleration, turn lanes, etc.) as deemed necessary by the Department of Transportation Director under the provisions of Sec. 1012.
- (7) Sidewalks, if required under Sec. 1013.
- (8) Storm water drainage and detention facilities in accordance with Sec. 1014.
- (9) Public or private water supply as required under Sec. 1015.
- (10) Fire hydrants as required under Sec. 1016.
- (11) Public or private sanitary waste disposal as required under Sec. 1017.
- (12) If any portion of the subdivision contains a primary conservation area as defined in the Environmental Protection Article of this Code, a natural resource easement or conservation easement, as applicable, is to be provided in accordance with the requirements of the Environmental Protection Article.
- (13) All subdivision amenities to be controlled by the Property Owner's Association, including but not limited to all recreational and clubhouse amenities.

**1004 (c) Guarantee in lieu of completed improvements.**

No final subdivision plat shall be approved by the County or accepted for recordation by the Clerk of the Superior Court until one of the following conditions has been met:

- (1) All required improvements have been constructed or funded in a satisfactory manner and approved by the Development Services Director, or
- (2) The Board of Commissioners has received in escrow 150% of the estimated cost of installation of the required improvements, and has received a copy of an executed contract for installation of the improvements between the developer and a qualified contractor. The executed contract shall call for completion of the improvements within 24 months of approval of the final subdivision plat.
- (3) The improvements funded through the escrow fund shall be limited to final pavement topping for streets, final grassing of street shoulders, landscaping, all subdivision amenities to be controlled by the Property Owner's Association, and street and parking lot stripping and sidewalks.
- (4) Upon completion of deferred improvements, the as-built surveys are to be updated by the developer and submitted to the Development Services Department.

**Sec. 1005 - Survey monuments.**

Survey monuments shall be installed in accordance with Chapter 180-7, Technical Standards for Property Surveys, Rule 180-7-.05 of the Rules and Regulations of the State of Georgia. In the event of conflict, the State rules shall govern.

**1005 (a) Exterior development boundaries.**

- (1) An 2-inch iron pipe at least 24 inches long shall be placed at all corners of the exterior boundaries of the subdivision or development project being developed and shall be driven no less than 6 inches above the finished grade.
- (2) Existing permanent monuments that, in the professional opinion of a registered land surveyor, are of sufficiently durable construction shall be marked and maintained.

**1005 (b) Lot and street corners.**

- (1) All other street or lot corners shall be marked with a ¾-inch iron pipe at least 24 inches long and driven no less than 2 inches above the finished grade.
- (2) All such monuments shall be properly set in the ground and shall be approved by a registered land surveyor prior to the time of final plat approval.

**1005 (c) Floodplain elevations.**

On developments containing floodplains, flood elevation references shall be set.

**Sec. 1006 - Utility easements.**

**1006 (a) Notice of intention to utilize right-of-way.**

Any public utility seeking to condemn or utilize an easement over or through or within the paved portion of the public right-of-way which is under the supervision and control of the county, in order to run wires, pipes, cables, maintain dams, flow backwater, or for any other uses necessary to its purpose, shall first notify the Department of Transportation Director or its designated agent of the utility's intention to so condemn or utilize, and all cases other than condemnation said utility shall obtain a permit from the Department of Transportation Director. Utilization shall mean any manner of use of the above-described right-of-way, including but not limited to, cutting of the pavement or boring under the pavement. Such notification shall include the location and description of the right-of-way to be condemned or utilized and the purpose of the condemnation or utilization. In the event of emergency repair service involving utilization of the paved portion of the right-of-way during hours other than normal office hours, the utility shall notify the Department of Transportation on the next business day.

**1006 (b) Promulgation of standard specifications.**

The Department of Transportation Director is hereby authorized to prepare standard specifications regulating the installation of pipes, wires, cables, poles, lines, etc., over, through or within a public right-of-way. These specifications shall be in conformance with the requirements of this Section and shall be designed to protect and safeguard the welfare of the county and its citizens. (A copy of the specifications shall be available for public view during normal business hours at the Department of Transportation office.)

**1006 (c) Approval of installation.**

As to new installation, no public utility shall install any lines, wires, pipes or poles, or otherwise utilize a public right-of-way until after obtaining prior written approval from the Department of Transportation Director respecting the proposed location of said lines, wires, pipes, etc., in accordance with these regulations. The Department of Transportation Director shall determine if the installed location and placement of any utility along a public right-of-way meets the requirements of this Section and the standard specifications of the County (see Sec. 1006 (b)). The Department of Transportation Director shall then issue a written approval or disapproval to the public utility regarding the installation. Any installation made by any utility in a location other than that specified in this Section shall be removed and reinstalled in the proper location entirely at the expense of the utility. Failure to reinstall at the proper location will result in the withholding of any further installation permits. Failure to conform to this Section or the permit will result in the withholding of any further installation permits.

**1006 (d) Location of utility lines and structures.**

(1) Particular side of street for specific utilities.

Water, electrical, telephone and cable television lines shall be located on the south or west side of any road, highway or street; and gas, electrical, telephone and cable television lines shall be located on the north or east side of any road, highway or street. The determination of which side is north and which side is south and which side is east and which side is west shall be made at the point where said street, road or highway begins. If there is any question regarding which side of the highway, road or street any particular utility should use, then said utility shall contact the Department of Transportation Director. The Department of Transportation Director shall then instruct the public utility regarding which side of a specific road, street or highway the particular utility should use.

- (2) All utilities within existing or proposed County right-of-way shall be installed in accordance with the Douglas County Department of Transportation Utility Location Detail, and any utility placement guidelines or regulations in effect at the time of installation.

**1006 (e) Variances.**

The Department of Transportation Director is authorized to approve a variance from the requirements of Sec. 1006 (d), if, in its opinion, such variance is absolutely necessary under the conditions then and there existing; and, such variance will not create a public hazard or otherwise be detrimental to the best interest of the county and its citizens. The Department of Transportation Director shall keep a record of all variances granted under this subsection. This record shall include the name of the utility to which said variance is granted, the description and location of the variance, and the reasons for granting said variance.

**1006 (f) Use of minimum area; restoration of disturbed areas.**

Any utility shall condemn or utilize only that portion of a public right-of-way necessary for the purpose intended. It shall leave undisturbed the area surrounding the condemned or utilized right-of-way and shall replace or repair, in kind, any structures, shrubbery, driveways, embankments, ground cover, etc., which are altered or disturbed while installing pipes, wires, ditches, or otherwise using the public right-of-way, and shall regrade the undisturbed area to its original contours. The replacement of shrubbery, ground cover etc. shall not impede sight distance and plantings are limited to a mature height of two (2) feet.

**1006 (g) Excavations; backfilling.**

No street cuts for crossings will be made unless specifically approved by the Department of Transportation Director after at least three attempts to bore at different locations. Patches shall be made in accordance with county standards.

**1006 (h) Liability for costs and expenses.**

Any costs or expenses incurred by the county in repairing or replacing any such structures, etc., as described in Sec. 1006 (b), which are not left in their original condition by the public utilities shall be chargeable to the public utility, including reasonable attorney's fees incurred in the collection of said costs or expenses. Street cuts altering existing pavement markings shall replace pavement markings with like material as described in Sec. 1009 (c).

**1006 (i) Inspections.**

The utility cutting the asphalt of the roadway for the installation/repair of a utility is required to notify the Department of Transportation Director, in advance, of the date and time of the roadway backfilling and repaving so that the Department of Transportation Director can schedule an inspection of this work.

**1006 (j) Penalties.**

Any utility that does not notify the Department of Transportation Director in advance of the date and time of the roadway backfilling and repaving, shall be fined in accordance with Article 14 of this Development Code. In addition, the utility may be required by the Department of Transportation Director to core the patching, at the utility's cost, to determine its compliance with the Douglas County

Standard Specifications. All cost or expenses incurred by the county in repairing or replacing any structure, shrubbery, driveway, embankment, ground cover or any other item which has been altered or disturbed and not left or returned to the original condition by the utility, shall be chargeable to the utility which disturbed the area or cut the county roadway. The county shall be entitled to collect reasonable attorney's fees incurred in the collection of such costs or expenses and all costs of collection.

**1006 (k) Overlapping easements.**

Easements for water, sanitary sewers and drainage purposes may be combined, but must comply with all requirements of the WSA as to width, pipe separation, etc.

**Sec. 1007 - Other easements.**

Easements other than utility easements shall be required in connection with subdivisions or developments for the following purposes, among others:

**1007 (a) Pedestrian easements.**

Pedestrian easements not less than 10 feet wide, may be required where deemed essential to provide circulation, or access to schools, playgrounds, shopping centers, transportation, and other community facilities.

**1007 (b) Drainage easements.**

- (1) A publicly dedicated drainage easement is to be provided along any manmade drainage channel or drainage pipe located outside a street right-of-way. All easements shall be no less than 20 feet wide when used as an open ditch. Piped storm drainage shall have a minimum easement width of 20 feet wide.
- (2) Drainage easements off the street right-of-way shall be clearly defined on the plat and deed of the individual property owner, and such property owner shall keep the easement free of obstructions and maintain that part of the easement within the property owner's boundary line so that free and maximum flow is maintained at all times. The property owner shall not alter any drainage improvements without the prior written approval from the County.

**1007 (c) Conservation and natural resource easements.**

Conservation and natural resource easements, as may be required by this Development Code, shall be clearly defined on the plat and deed of the individual property owner, and must conform to the requirements set out for such easements in the Environmental Protection Article of this Code.

**Sec. 1008 - Streets.**

**1008 (a) Access.**

- (1) A publicly approved street meeting the requirements of this Article shall serve every development and every lot within a subdivision. Private streets must meet all public street standards unless modification is approved by the Board of Commissioners as part of a Master Plan for a PUD or a Concept Plan for an MPD pursuant to Sec. 1003 (j).

- (2) Every major subdivision (as defined in Article 5 of this Code) and every multi-family or nonresidential development project shall have access to the public street system via a paved road. Development and building permits shall not be issued unless continuous paved road access between the property and the public street system is provided by a publicly dedicated street or an approved private street. See also Section 1008 (g), Substandard streets.
- (3) A building permit shall not be issued on any property that does not front on or have approved access to a publicly dedicated street or an approved private street, in accordance with the minimum lot frontage and access easement provisions of this Development Code.
- (4) 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.
- (5) No subdivision or development shall be designed in a way that would completely eliminate street access to adjoining parcels of land.
- (6) Reserve strips which control access to streets, alleys and public grounds shall be prohibited unless their control is placed in the hands of the County under ownership, dedication, or easement conditions approved by the County Attorney and the Department of Transportation Director.
- (7) Subdivision streets that intersect a State or U.S. numbered highway shall do so at intervals of not less than 500 feet, or as required by the Georgia Department of Transportation, whichever is greater. On all other roads, at least 250 feet must separate street intersections on the same side of the road, measured centerline to centerline. Compliance with sight distance requirements of this Development Code may require greater distances between street intersections.

**1008 (b) Street classifications.**

Streets are classified according to the function that they serve, the type, speed, and volume of traffic they will carry and the required standards of design. The classifications of streets and roads are as shown on the latest approved or amended *Comprehensive Plan or Transportation Plan* for the County.

**1008 (c) Relation to present and future street system.**

- (1) The street pattern within a development or subdivision shall provide for the continuation or appropriate projection of the existing street pattern of anticipated development, if any, at the same or greater width, but in no case less than the required minimum width. Topography and natural features such as streams and tree growth shall be considered.
- (2) Existing streets that adjoin a development or subdivision boundary shall be deemed a part of the development or subdivision. The proposed street system within a subdivision or non-residential development shall have the right-of-way of existing streets extended no less than the required minimum width, or the minimum right-of-way width of the roadway classification. Subdivisions and development sites that adjoin only one side of an existing street shall dedicate one-half of the additional right-of-way needed to meet the minimum width requirement for the street classification. If any part of the subdivision includes both sides of an existing street, all of the required additional right-of-way shall be dedicated to the County at no cost.

- (3) Existing streets that adjoin a development or subdivision boundary shall be deemed a part of the development or subdivision. The proposed development must submit a traffic control devices plan for the existing streets and intersections for approval by the Department of Transportation.
- (4) All right-of way required for off-site improvements shall be acquired by the developer at no expense to Douglas County. If the Developer is unable to acquire the right-of-way, after making a good faith effort, the developer may petition the County for assistance, and the County may consider condemnation proceedings, at the expense of the developer, after authorization by the Douglas County Board of Commissioners.
- (5) Where, in the opinion of the Department of Transportation Director, it is necessary to provide for inter-parcel access to adjoining property, proposed streets shall be extended by dedication of right-of-way to the boundary of such property and existing streets through the development.
  - a. Where an existing street on the adjoining property terminates at the boundary of the development or subdivision, the street shall be extended into the development or subdivision.
  - b. Where no street exists on the adjoining property, a temporary turnaround shall be provided at the boundary of the development or subdivision at an appropriate location. See Section 1008 (d)(10)c for standards.
- (6) Subdivisions shall be laid out so as to discourage through traffic on local streets. However, the provision for the extension and continuation of arterial and collector streets into and from adjoining areas is required.
- (7) Where, in the opinion of the Department of Transportation Director or his designee, it is necessary to provide traffic calming measures to reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users, proposed developments will be required to submit traffic calming plans and/or studies to be implemented or coordinated through the approval, permitting, and construction process through the development procedures.
- (8) Where a subdivision abuts or contains an existing or proposed arterial street, the Department of Transportation shall require marginal access streets, single tier lots, or such other treatment as will provide protection for abutting properties, reduction in the number of intersections with the arterial street, and separation of local and through traffic.

**1008 (d) Design standards for streets.**

- (60) Arterial Streets.

All State or U.S. numbered highways shall meet all design requirements of and be approved by the Georgia Department of Transportation.

- (2) Local and Collector Streets.

All local and collector streets shall comply with the design and construction requirements of this Development Code, except that all State or U.S. numbered highways shall meet all design requirements of and be approved by the Georgia Department of Transportation.

- (3) Minimum width of right-of-way.

Minimum width of right-of-way measured from lot line to lot line shall be as shown on Table 10.1.

60. Only traffic control signs pertaining to traffic regulations, warnings, route guidance, recreational and cultural guidance, and for government agency public information purposes shall be permitted within a street right-of-way. Traffic control signs must conform to the requirements of the *Manual on Uniform Traffic Control Devices* (MUTCD) latest edition and the Douglas County Department of Transportation’s (DCDOT) standards and specifications. All signs must be submitted to the DCDOT for approval before being installed. **Table 10.1: Minimum Right-of-Way Width**

Street Classification	Width of Right-of-Way
Major Arterial Street* In low density areas In other areas	100 feet 120 feet
Minor Arterial Street* In low density areas In other areas	80 feet 100 feet
Collector Street* Residential (Single-family, Duplex)** Multi-family, commercial, industrial	60 feet 80 feet
Local Commercial or Industrial Street	80 feet
Local Residential Street w/swale ditches	60 feet
Local Residential Street w/curb & gutter	50 feet
Alleys	20 feet

\*Per Georgia DOT for State and U.S. numbered highways.

\*\*A Residential Collector is any street within a residential development that serves more than 100 dwelling units.

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(4) Right-of-Way Requirements.

- a. Subdivisions and all non-residential developments that border an existing street that does not conform to the minimum right-of-way requirements per Street Classification of this Code shall provide additional width along one or both sides of such street or road so that the minimum right-of-way required by this Article is established. Subdivisions and non-residential developments abutting only one side of such a street or road shall provide a minimum of one-half of the right-of-way required per Street Classification by these regulations measured from the center of the existing right-of-way.
- b. Proposed Right-Of-Way to be dedicated to Douglas County for residential, commercial or industrial developments must follow the requirements of the Right-Of-Way / Easement Dedication Document Checklist and must be reviewed and approved by Douglas County Land Acquisition Coordinator.
- c. When a future street or road, as proposed in the Comprehensive Plan, adjoins or traverses the subdivision or development project, the future right-of-way shall be platted as part of the subdivision or development project. No development will be allowed within the platted future right-of-way except for drives and landscaping, and the platted future right-of-way is to be treated as a lot line for the provision of all setback lines as required by this Article. The developer will be contractually bound to the County to sell this strip of land to the County at a future date, for the amount stated in the tax digest. A right-of-way agreement shall be executed before the Department of Transportation Director approves the development.

(5) Street grades.

- a. All streets shall have a minimum grade of 1 percent.
- b. Maximum grades for proposed streets by street classification shall be as shown on Table 10.2.
- c. The maximum grade across a cul-de-sac turnaround shall not exceed 5%.

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**Table 10.2: Street Grades and Design Speeds**

Street Type	Maximum Grade	Minimum Design Speed
Arterial street	4%	55 mph
Collector street	8%	45 mph
Commercial/ Industrial Street	8%	35mph

Local Street	12%*	25 <u>mph</u>
Alleys	Varies	None

\* Between 12 % and 14% may be allowed for distances not exceeding 150 feet.

(6) Minimum design speeds.

Street improvement requirements not otherwise addressed in this Development Code shall be designed to the minimum design speeds shown on Table 10.2.

(7) Vertical alignment of streets.

- a. Vertical alignments must meet the design criteria within the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* (commonly referred to as the "Green Book").
- b. In approaches to intersections, there shall be a suitable leveling of the street at a grade not exceeding 3% and for a distance of not less than 50 feet from the nearest line of the intersecting street.

(8) Horizontal alignment of streets.

- a. Horizontal alignments must meet the design criteria within the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* (commonly referred to as the "Green Book").
- b. Curved streets shall have a minimum tangent of 50 feet at intersections as measured from the centerline of cross streets. A tangent of a least 250 feet in length shall be introduced between reverse curves on arterial streets, 100 feet on collector streets, and 50 feet on local streets unless greater distance is required by DOT.
- c. Street jogs shall have a centerline offset of no less than 125 feet.
- d. Intersections. All streets shall intersect at no less than 60 degrees, and as near a right angle as possible. The angle of intersection is to be measured at the intersection of the street centerlines. Such intersecting streets shall provide an uninterrupted line of sight from the center point of the intersection for not less than the minimum sight distance required in accordance with this Development Code
- e. Multiple intersections involving the junction of more than two streets shall be prohibited unless otherwise approved by the Department of Transportation Director.
- f. Islands within roadways at intersections shall be subject to individual approval by the Department of Transportation Director. In no case shall any plantings or other improvements, with the exception of approved sign posts, extend more than 2 feet above the pavement within the right-of-way of the street.

- g. Curb lines at street intersections shall have a radius of curvature of not less than 30 feet measured at back of curb. Where the angle of street intersection is less than 90 degrees, a longer radius may be required.
  - h. Intersecting street right-of-way lines shall parallel the back of curb of the roadway.
- (9) Minimum sight distance.
- a. Minimum sight distance must meet the design criteria within the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* (commonly referred to as the "Green Book").
  - b. Intersection Sight Distance (ISD) shall be provided at all street intersections equal to, or exceeding AASHTO minimum requirements. Minimum Sight Distance shall be provided along street roadways in accordance with this Subsection. The sight line shall be clear along its entire minimum length and unimpaired by intervening changes in street grade, horizontal alignment or obstructions. Examples of obstructions are vegetation, ground cover, signs, existing topography, etc.
  - c. Exception.  

Where it is deemed by the Board of Commissioners that the application of a minimum sight distance requirement would render a property undevelopable, the Board of Commissioners, in its discretion, may reduce such requirements by 10% for each 5 miles per hour the maximum actual or design speed limit may be reduced on the major road involved, provided that:

    - 1. Written approval shall be obtained by the subdivider from the authority having jurisdiction over such speed limits; and
    - 2. The design speed shall not be reduced more than 10 miles per hour.
- (10) Dead-end streets (cul-de-sacs).
- a. A cul-de-sac street shall be no more than 600 feet long unless necessitated by topographic or other conditions and approved by the Department of Transportation Director. If these conditions exist, the maximum length shall be 800 feet unless a greater length is approved by the Board of Commissioners.
  - b. Turnaround dimensions.
    - 1. Cul-de-sacs in residential subdivisions shall terminate in a circular turnaround having a minimum right-of-way of at least 100 feet in diameter, and a paved turnaround with a minimum outside diameter of 80 feet.
    - 2. Cul-de-sacs in commercial and industrial subdivisions shall terminate in a circular turnaround having a minimum right-of-way of at least 160 feet in diameter, and a paved turnaround with a minimum outside diameter of 120 feet.
  - c. A dead-end street other than a cul-de-sac shall not be allowed except as a temporary stage of construction of a street that will be extended in a later stage of construction. Such a temporary dead-end street shall be provided with a temporary turn-around having a roadway radius of at least 40 feet if:
    - 1. one or more lots front exclusively on the street; and,

2. extension of the street is not under construction when the Final Plat is submitted for recording.
3. Temporary turnarounds shall consist of 3 inches of graded aggregate base and 1 inch of asphalt.

(11) Alleys and service drives.

- a. Alleys may be required at the rear of all lots used for multi-family, commercial or industrial developments.
- b. Alleys in residential subdivisions shall not be permitted, unless the alleys are intended to provide rear-access to garages on each lot.
- c. When allowed, dead-end alleys shall be provided with a turn-around having a roadway radius of at least 40 feet, a "T-head" turn-around, or other solution acceptable to the Department of Transportation Director.

(12) Half streets prohibited.

Half streets along development boundaries are prohibited. Whenever a street is planned adjacent to the proposed development or subdivision tract boundary, the entire street right-of-way shall be platted within the proposed development or subdivision.

(13) Split Level Streets.

A street that is constructed so as to have lanes in each direction at a different vertical level within the same right-of-way shall provide a pavement width of at least 14 feet in each direction and a vegetated median between the lanes having a slope of not greater than three to one. Split level streets will be allowed when:

- a. Topographic conditions are such that alternatives to the typical street construction would be more desirable.
- b. The shape and size of the parcel could be more efficiently developed.

In either case, approval must be obtained from the Department of Transportation Director for the specific design.

**1008 (e) Street improvements.**

Roadways shall be constructed and paved meeting the following standards:

(1) Minimum width of pavement.

- a. The minimum pavement width, measured from edge of pavement to edge of pavement, shall be as required for the street type on Table 10.3.

(2) Street base.

- a. Graded aggregate base course. The base course shall consist of mineral aggregate and may be a combination of natural deposit or a blend of the materials specified. All materials are subject to approval by the Department of Transportation Director. If a blend of materials is used, it shall be blended through a base plant that meets the latest specifications of the Georgia DOT.

- b. Street base material shall conform to the thickness as required for the street type on Table 10.3.
- c. GAB shall be extended at least 6 inches beyond the edge of pavement on streets without curb and gutter, and 6” beyond back of curb where curb and gutter is installed.
- d. Wherever unsuitable material is found in the subgrade, the unsuitable material shall be replaced with graded aggregate stone or acceptable fill material.

**Table 10.3: Street Base and Pavement**

Street Classification	Width of Pavement*	Base	Binder**	Topping
Arterials and Collectors				
4-Lane + turning lane	60 feet	10 inches GAB	4½ inches B	2 inches E or F
2-Lane + turning lane	36 feet	10 inches GAB	4½ inches B	1½ inches E or F
2-Lane (incl. Residential Collector)	24 feet	10 inches GAB	4½ inches B	1½ inches E or F
Local Commercial or Industrial Street	36 feet	10 inches GAB	4½ inches B	1½ inches E or F
Local Residential Street	24 feet	6 inches GAB	3½ inches B	1½ inches F
Alley	20 feet	6 inches GAB	1¾ inches B	1½ inches F

\*Not including curb & gutter, turn lanes, striped medians, etc.

\*\*B-Modified shall be used whenever final topping is deferred.

\*\*\*Per Georgia DOT for State and U.S. numbered highways.

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- (3) Pavement topping.
- a. Prime. After the base has been placed, mixed, compacted, shaped, inspected and accepted, it shall be primed with suitable asphaltic materials meeting Georgia DOT standards, if required.
  - b. Roadway binder. After the prime has been inspected and accepted, the roadway or street shall be surfaced with Type "B" binder as required for the street type on Table 10.3. Type "B-Modified" binder shall be required whenever final topping is deferred in accordance with Sec. 1008 (e)(3)e.
  - c. Tack coat shall be applied on a prepared road surface meeting Georgia DOT standards.
  - d. Final topping shall consist of asphaltic concrete pavement as required for the street type on Table 10.3.
  - e. Topping shall not be installed until one year after the final plat approval or building construction on 75% of all buildable lots has been completed, whichever comes first.
- (4) Curb and gutter.
- a. Curb and gutter are required along:
    1. All new commercial and industrial streets and internal circulation areas.
    2. All new residential subdivision streets except for those subdivisions in which the minimum lot size is 5 acres or more.
    3. Existing County streets and roads that abut a subdivision where curb and gutter are required, or abut a multi-family or nonresidential development.
    4. New construction on existing County streets and roads, including deceleration lanes and travel lane widenings.
  - b. All curb and gutter is to be 6-inch "L"-back type curb in accordance with County standards, unless roll-back type curb is approved by the County Engineer and the County Department of Transportation where grades permit and stormwater drainage will not be adversely affected.

**1008 (f) Private streets.**

- (1) Private streets, if approved by the County, shall meet all requirements and standards that apply to public streets unless modified in a PUD or master planned development under the provisions of Sec. 1003 (j).
- (2) The private street shall be located on a separate parcel owned by the Homeowner's Association or Property Owner's Association no less wide than that required for right-of-way for a similar public street with an easement covering the entire parcel. The easement must be recorded with each lot's deed and grant the right of vehicular access to every other lot served by the street, as well as the right to place public and private utilities therein, and shall state the maintenance of the street is the collective responsibility of all the property owners in the subdivision and/or Homeowner's Association/Property Owner's Association.

- (3) Owner's release.
  - a. At the time of purchasing property that is served by a private street, or upon any sale or resale of a lot, the purchaser shall acknowledge by execution of a release that the street is private and not maintained by the County, and that maintenance of the street is the responsibility of the owner or other private association or entity identified in the release. The release is to be prepared using a form acceptable to the County Attorney and shall be recorded with the Clerk of the Superior Court.
  - b. Failure to execute such a release shall not relieve the purchaser of maintenance responsibility for the private street.

- (4) Lot dimensional requirements.

For a property served by a private street:

- a. The building setback, lot width and other dimensional requirements of the zoning district in which the property is located shall be measured from the private street easement.
- b. Land located within the private street easement shall not be included in the area of the lot for the purpose of meeting the minimum lot area required by the zoning district in which the property is located.

- (5) Other standards.

- a. A private street subdivision shall meet all other requirements and standards that apply to public subdivisions, such as storm water runoff and detention requirements, the provision of utilities, and traffic and street name signs.
- b. Private streets shall be denoted as such on the street name signs for each such street. Proposed streets, which are extensions of, or in alignment with, existing or other proposed streets shall have the same name. Street names shall not duplicate or be phonetically similar to other existing street names. The County may require a different color than the standard color for the street name sign, or may require that an additional sign be affixed to the street name sign pole indicating that the street is not maintained by the County.
- c. Any gate placed across a private street that limits access to a subdivision or development shall provide for unimpeded access by emergency vehicles, governmental vehicles on official business, and delivery services including the U.S. Postal Service. Accessibility to such gated communities shall comply with all Standards and requirements of the County for access activation.

#### **1008 (g) Substandard streets.**

In the event that access to a subdivision or development project is from a substandard street (i.e., a dirt or gravel road), the following project access improvements may be provided by the developer in order to obtain a development permit or building permit, as applicable:

- (1) The substandard street shall be upgraded by the developer to a paved roadway from all project entrances to the nearest standard paved road along the route of access.
- (2) The roadway section shall be improved by the developer to meet the requirements of the road functional classification in the current County official map.

- (3) The developer shall design the road and provide the labor, equipment and materials required for roadway improvements and necessary drainage improvements.
- (4) The right-of-way required for these off-site improvements shall be acquired by the developer at no expense to the County. If the developer cannot acquire adequate right-of-way, the County Attorney shall initiate acquisition proceedings at the expense of the developer after authorization by the Board of Commissioners.
- (5) If the County desires the roadway to be improved to a standard greater than that of the current road functional classification, the County shall provide or pay the cost of the additional right-of-way, materials and labor.

**Sec. 1009 - Traffic Control Devices.**

**1009 (a) Street name signs.**

- (1) Street name signs and posts of a type approved by the Department of Transportation shall be placed at all intersections. Street name signs must conform to the requirements of the *Manual on Uniform Traffic Control Devices* (MUTCD), latest edition and the Department of Transportation's Standards and Specifications. Street name sign plans and details must be submitted for approval before being installed.
- (2) Street name signs shall be installed by the developer at the developer's expense (or a homeowners association in the event an alternate signpost is chosen at a later date). Ornamental posts and frames may be used within developments provided they meet the break-away standards per AASHTO, pending approval, however all signs must conform to the MUTCD in relation to size, shape, color, materials, and reflectivity requirements. The Department of Transportation will not maintain or provide material replacements or credit for replacement of non-standard and decorative posts, frames, and signs. If a decorative post and sign requires maintenance or replacement, the D.O.T. will only provide the standard post and signage as a replacement option.

**1009 (b) Traffic control signs.**

- (1) Traffic control signs and posts of a type approved by the Department of Transportation shall be placed on County roadways, and intersections. Traffic Control signs must conform to the requirements of the *Manual on Uniform Traffic Control Devices* (MUTCD), latest edition and the Department of Transportation's Standards and Specifications. Street name sign plans and details must be submitted for approval before being installed.
- (2) Traffic Control signs shall be installed by the developer at the developer's expense (or a homeowners association in the event an alternate signpost is chosen at a later date). Ornamental posts and frames may be used within developments provided they meet break-away standards per AASHTO, pending approval, however all signs must conform to the MUTCD in relation to size, shape, color, materials, and reflectivity requirements. The Department of Transportation will not maintain or provide material replacements or credit for replacement of non-standard and decorative posts, frames, and signs.

**1009 (c) Striping and pavement marking requirements.**

- (1) All new development streets accessing County roadways shall provide appropriate intersection pavement marking, channelization, and raised pavement markers as required by the Department of Transportation.
- (2) Thermoplastic pavement markings or a type approved by the Department of Transportation shall be placed on County roadways, and intersections. Striping and pavement marking, including the installation of raised pavement markers (RPMs), must conform to the standards, materials, and requirements of the Georgia Department of Transportation, *Manual on Uniform Traffic Control Devices* (MUTCD), latest edition and the Douglas County Department of Transportation's Standards and Specifications. Striping and pavement marking plans and details must be submitted for approval before being installed.
- (3) Striping, pavement marking, and raised pavement markers shall be installed by the developer at the developer's expense.
- (4) All newly constructed streets having 3 or more lanes (including auxiliary lanes) and existing streets being widened with one or more additional lanes shall be striped by the developer at the developer's expense per the Department of Transportation's standards and specifications.

**1009 (d) Traffic Signals and Signs**

- (1) All traffic signals and associated signage shall conform to the MUTCD, Georgia Department of Transportation, and Douglas County Department of Transportation standards and specifications. Traffic signal requirements will vary dependent on field conditions and proximity to other traffic control signals.
- (2) The Department of Transportation requires the installation of permanent traffic control signal devices and structures where wood poles are considered temporary support strain poles and are only to be used on temporary traffic control signal installations as approved by the D.O.T.
- (3) Where, in the opinion of the Department of Transportation Director or his designee, that it may be necessary to provide traffic signal control at new or improved intersections, a traffic signal warrant analysis, based on the requirements of the MUTCD, and a traffic signal installation will be required of the developer and at the developer's expense through the approval, permitting, and construction process through the development procedures.
- (4) Traffic signal plans and details must be submitted to the Department of Transportation Director for approval before being installed.

**1009 (e) Traffic Signal System Interconnectivity.**

- (1) Where, in the opinion of the Department of Transportation Director or his designee, it is necessary to provide traffic signal interconnectivity, coordination and signal timing optimization due to close proximity to an existing traffic signal, proposed developments will be required to submit plans and/or studies and fund the installation of these signal system impact improvements through the approval, permitting, and construction process through the development procedures.

**Sec. 1010 - Street lights.**

**1010 (a) Declaration of policy and purpose.**

The board of commissioners does hereby declare that it shall promote the health, safety and general public welfare of the citizens of the county by providing for the erection of streetlights in the public rights-of-way of the county. To that end, therefore, this Section is adopted in order to effect the creation of streetlight districts and to provide for the construction of LED streetlights in the public rights-of-way in the county. This Section shall not be deemed to apply to property in the county other than in the public rights-of-way.

**1010 (b) Street light tax districts created; register; responsibility for cost.**

- (1) There is created hereby special tax districts which shall be known as street light tax districts which shall be identified by a number assigned by the Development Services Department. Each such street light tax district identified by a street light tax district number shall contain and include the tax parcel number of each lot within the said street light tax district. Existing street light districts shall become street light tax districts upon the enactment of the legislation from which this subsection derived, and new street light tax districts shall be created upon application or proper petition and approval of the board of commissioners as provided hereinafter. Each new street light tax district so created shall be assigned a number and shall contain the tax parcel numbers of each lot contained therein.
- (2) A register of street light tax districts shall be maintained in the office of Development Services Department and the office of the Douglas County Tax Commissioner. Such registers shall be available to the public for inspection upon reasonable notice to either of these offices.
- (3) The cost of providing and maintaining street light services as provided by this Section shall be borne by the owners of the property receiving that service. The charge therefore shall be such as is determined by resolution of the board of commissioners, giving consideration for the street lights, electrical service charges, and the size and number of the lots serviced by the street lights. In the event of excessive vandalism to street lights within a district which results in a county being billed for repairs, the county may pro rate these repair bills and add a pro rata share of these bills to the charge. Charges shall be assessed against all lots within the street light district whether or not the lot is located within the boundaries of a particular subdivision, so long as the lot is located within the boundaries of the street light district.

**1010 (c) Collection and responsibility for administration.**

- (1) The charges for street lighting in each street light district shall be paid as a street light district tax, and shall be collected concurrently with the ad valorem tax billed to each lot or lot resident within each street light tax district.
- (2) The administration of the services herein provided and for all billing and accounting shall be the responsibility of the board of commissioners or some department of the county government to which that responsibility shall be assigned by the board of commissioners.
- (3) Whereas the office of the tax commissioner of Douglas County shall be responsible for the timely collection of the tax assessed to each street light tax district, it shall not be responsible for accounting beyond its internal accounting procedures in order to provide an adequate record of the collection and the transmittal of the funds collected.

**1010 (d) Lien created.**

In addition to any other rights of collection for late or unpaid charges, the county shall have the rights available under the laws of the state for assessment, the creation of a lien upon the property of the owner receiving the service provided, together with all rights of execution, levy, foreclosure and sale.

**1010 (e) Deposit required; forfeiture.**

In addition to the other charges authorized in this Section, the county shall have the right to require deposits from the lot owners receiving the streetlight service in such amount as shall be determined by the board of commissioners. This deposit shall be held by the county as security for payment for services rendered pursuant to this Section, and the county shall have the authority to set off against the deposit for nonpayment for services at such times and on such occasions as shall be determined by the county. Notice of such setoff shall be given to the lot owner by mail at the address of the property serviced by the streetlights, although advance notice of such setoff shall not be required. In the event of a reduction in the deposit of a property owner because of failure to pay charges assessed pursuant to this Section, the lot owner shall be required to restore the deposit to its required level upon request by the county.

**1010 (f) Streetlight construction by property developers.**

- (1) All developers of residential subdivisions in the county with lots less than 5 acres in size, and all developers of shopping centers, industrial parks, and similar such developments and nonresidential developments regardless of their size shall be required at their own expense to provide LED streetlight services in the public rights-of-way in such developments in conformity with this Section.
- (2) Such developers, or their designee, shall present a proposed streetlight layout, which details the streetlight service for the development. The proposal presented by the developer must be approved by the County Engineer prior to any streetlight installations for that development. All approved streetlights shall be installed prior to the expiration of any bonds associated with the development. All fixtures and standards/poles installed or to be used shall be approved not only by the county but also by the utility company which will provide electricity to the streetlights and which will be responsible for the maintenance of the facilities. All such fixtures shall have appropriate arm length to place the light over the street, provided that no arm shall be less than 2.5 feet long. Streetlights shall be designed to provide uniform illumination throughout their coverage area. Should the County Engineer disapprove the streetlight layout, the grounds for disapproval shall be communicated in writing to the developer. Any such disapproval by the County Engineer may be appealed to the board of commissioners by filing a request for review with the County Engineer within 30 days from the date of the written notice of disapproval. The County Engineer shall at that point transmit to the board of commissioners all papers and related documents pertaining to the action taken by the County Engineer, and the board of commissioners shall review the matter at the next regularly scheduled public meeting. The board of commissioners may reverse or affirm, entirely or in part, the decision of the County Engineer.
- (3) At the time of the submission of the final plat for the subdivision, or prior to the issuance of a Certificate of Occupancy for a shopping center, industrial park, office park or other such development on which streetlights have been constructed at the expense of the developer, the developer shall pay to county in advance a sum equal to the customary streetlight rates charged by the county for similar developments for a period of one year.

- (4) The County Engineer shall not approve the final plat until such time as all the provisions of this subsection have been satisfied, and until the developers further submit to the County Engineer proof of payment for construction and installation of the streetlights in the areas sought to be dedicated, together with a copy of an executed agreement with the appropriate utility company for complete maintenance of all streetlights and related structures, wires and installations.
- (5) Upon the recommendation of the subdivision review staff the board of commissioners shall approve or deny the final plat at a regularly scheduled board of commissioners meeting not later than 45 days following the submission of the recommendation of the review staff. The streetlight district is created upon the approval of the board of commissioners of the final plat. The date of creation for the streetlight district shall be the date of approval of the final plat.
- (6) Notwithstanding all other provisions of this Development Code and other Douglas County ordinances, any developer, contractor or other persons securing approval in accordance with Sec. 1010 (f) shall post a bond equal to the installation cost and one year's electrical power for the street lighting. This bond must be given at the time of written approval of design as specified in Sec. 1010 (f)(2). The bond shall be payable to the chairman of the board of commissioners of Douglas County, Georgia and will provide that it shall remain in full force and effect until such time as the county manager of Douglas County or his designed representative shall have indicated that the work required for the construction and installation of street lighting in a subdivision has been satisfactorily completed.

**1010 (g) Lighting in existing residential areas; creation of streetlight districts.**

- (1) Any lot owner in any unincorporated area of the county may present a request for the creation of a streetlight district to the County Engineer. Upon receipt of the request, the County Engineer shall determine the appropriate boundaries for a street lighting district which will serve the lot owner presenting the request and neighboring lot owners. The County Engineer shall then prepare a plat showing this proposed street lighting district, and a petition for the creation of the proposed street lighting district shall then be circulated among the lot owners in the proposed district. If 75 percent of the lot owners in the proposed district sign the petition for the creation of a street lighting district, the petition shall be presented to the board of commissioners. The board of commissioners shall conduct a public hearing for the purpose of determining whether or not to create the proposed street lighting district, giving consideration to safety and economic factors in making such determination. Unless 100 percent of the lot owners have signed the petition, the public hearing shall be advertised one time in the official organ of the county; and signs shall be posted in the proposed street lighting district giving notice of the hearing, at least 10 days before the public hearing. The number and size of the signs shall be such as is required by this Development Code for a request to rezone property.
- (2) The petition for creation of the proposed street lighting district must be returned to the County Engineer within 90 days after it is obtained from such engineer's office. The County Engineer, in such engineer's sole discretion, will verify the signatures on the petition prior to advertising the public hearing.
- (3) All other provisions of this Section with respect to payment for street lighting, including provisions for required deposits, shall apply equally to the services created and provided pursuant this subsection. The lot owners within the requested streetlight district shall be required at their own expense to provide the requested streetlight services in the public rights-of-way in such requested districts in conformity with this Section.

- (4) All fixtures and standards/poles installed or to be used shall be approved not only by the county but also by the utility company which will provide electricity to the streetlights and which will be responsible for the maintenance of the facilities. All such fixtures shall have appropriate arm length to place the light over the street, provided that no arm shall be less than 2.5 feet long. Streetlights shall be designed to provide uniform illumination throughout their coverage area.

**1010 (h) Lighting in other areas.**

Street lighting in any other areas in the county shall be authorized upon recommendation by the Department of Transportation Director, approval by the board of commissioners, and compliance with the rules and regulations established by this Section.

**1010 (i) Creation of districts under special conditions.**

In areas where special conditions as to safety, security, land topography, economic and other factors may be involved, the board of commissioners may create special lighting districts and provide for special street lighting under such terms and conditions as may be determined by the board of commissioners, any other provisions of this Section to the contrary notwithstanding; provided, however, that in such instances, a public hearing shall be held by the board of commissioners after advertisement in the official organ of the county one time at least 10 days before conducting such public hearing.

**1010 (j) Authority to contract with public utilities.**

The board of commissioners may contract with the public utilities for the purpose of carrying out the terms of this Section.

**1010 (k) Other lights in or near public right-of-way.**

The approval of the Department of Transportation Director shall be necessary before any person shall be authorized to install a security light or other such lighting fixture within the public right-of-way. All lighting fixtures within or near the public rights-of-way shall be installed and operated in such a manner so as to prevent interference with the normal use of the public rights-of-way in any manner, including glare, location of blinds, and other such means of potential interference.

**1010 (l) Operation standards.**

The Development Services Department and the Department of Transportation, in conjunction with the appropriate local utility companies, and in consideration of the *American National Standard Practice for Roadway Lighting* of the Illumination Engineering Society, as approved by the American National Standards Institute (1973), as amended, shall seek to insure adequate illumination of the public rights-of-way, and, to that end, shall be authorized to require lighting fixtures to be installed which comply with certain minimum foot-candle illumination standards.

**1010 (m) Exceptions to terms of this section.**

The board of commissioners may grant exceptions to the literal terms of this Section where special conditions or hardships exist.

**1010 (n) Federal, state laws to prevail in conflicts.**

If any provision of this Section is in conflict with any state or federal law, or with any rule, regulation or order of any agency of this state or federal agency having jurisdiction of the subject matter of this Section, it is hereby deemed to be the intention of the board of commissioners that the state or federal law or rule, regulation or order, as the case may be, shall prevail so that the remaining portion of this Section shall be deemed to be of full force and effect.

**1010 (o) Rate schedule.**

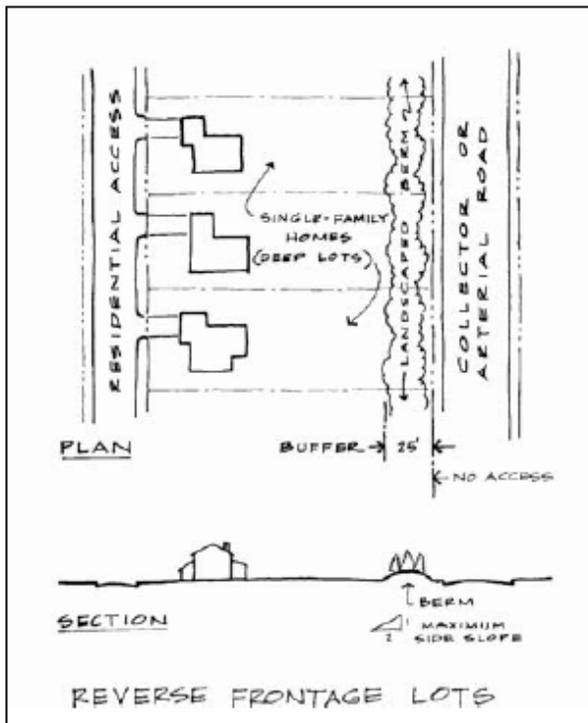
The board of commissioners is authorized to adopt a rate schedule from time to time in accordance with the provisions of Article 14 regarding schedules and fees.

**Sec. 1011 - Driveways and development entrances.**

All proposed subdivisions, subdivision lots and other land developments shall be provided with driveways or development entrances meeting the following requirements:

**1011 (a) Driveway access to a State road.**

Access onto a State road shall meet existing Georgia Department of Transportation requirements, except that the entrance must be paved within the right-of-way. A copy of the Georgia Department of Transportation permit shall be submitted to the Department of Transportation Director before the plans can be approved.



**1011 (b) Driveway access to County roads.**

- (1) Residential lots in any major subdivision shall have no direct driveway access to an arterial road or a collector (other than a residential collector) unless approved by the Board of Commissioners, or to a State or U.S. numbered highway unless approved by the Georgia DOT, and incorporated into the construction drawings for the project prior to issuance of a development permit by Douglas County.
- (2) Reverse frontage lots may be utilized but are not required in major residential subdivisions where direct access to a County road, or to a State or U.S. numbered highway, is not allowed.
- (3) An easement of at least 10 feet in width, across which there shall be no right of access, shall be provided in a major residential subdivision along the line of lots abutting any pre-existing collector or arterial road. A 10 foot no access easement when required by the Department of Transportation Director also applies for non-residential developments along any road functional classification.
- (4) The houses in a major residential subdivision adjacent to any pre-existing collector or arterial road must be screened from view from said road as follows:
  - a. The 10-foot no-access easement may be improved with a structural zoning buffer meeting the requirements of the Landscaping, Buffers and Tree Conservation Article of this Development Code; or
  - b. A 25-foot wide zoning buffer may be provided as follows:
    1. The buffer may retain its natural vegetation if existing trees and understory shrubs will adequately screen the view of the adjacent houses.
    2. Any combination of a landscaped berm, supplemental vegetation or opaque fencing may be added within the buffer to provide adequate screening.
- (5) When a driveway abuts on an existing or proposed minor or major arterial, a turnaround shall be required.

**1011 (c) Access easements.**

Vehicular access may be provided from a public street via easement in any one or more of the following circumstances:

- (1) The property existed in whole as a legal lot of record prior to the adoption of this Development Code, but does not meet the minimum frontage requirement for 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 on one lot.
- (2) The access easement serves one single-family residence on a lot which is otherwise a buildable lot of record, and which is sharing a common driveway with one other single-family residence, both of which meet the minimum size, frontage, lot width and other requirements of this Code.
- (3) The access easement was lawfully established as such prior to the adoption of this Development Code.

- (4) The access easement coincides with a private street approved by the County. The ownership and maintenance responsibility by private party(s) must be clearly established on the final plat of the development.
- (5) The access easement serves a buildable lot of record which meets the minimum frontage requirements of this Development Code, but from which access cannot be achieved.

**1011 (d) Residential subdivision entrances.**

- (1) Entrance streets to all major residential subdivisions containing more than 25 lots shall construct a deceleration lane at each entrance to the subdivision. See Sec. 1012, below.
- (2) New residential major subdivisions with 25 lots or fewer whose entrance is on an existing collector or arterial road shall install offset radii and 50 foot tapers.

**1011 (e) Commercial/industrial subdivision entrances.**

- (1) A deceleration lane shall be installed at all entrance roads into a commercial or industrial subdivision. See Sec. 1012, below.
- (2) The Department of Transportation Director may require a traffic study to determine if the project's size warrants a center turn lane, longer deceleration lane, an acceleration lane or other improvements. If the traffic study determines that the traffic generated by the project warrants it, the Department of Transportation Director will require the additional improvements or other mitigating measures.

**1011 (f) Driveways for multi-family and non-residential development projects.**

- (1) Multi-family and nonresidential development projects shall install a deceleration lane at each driveway entrance connected to a collector, arterial or local street. See Sec. 1012, below. For such a project located on a corner lot, a continuous 12-foot wide travel lane shall be provided in lieu of a deceleration lane along both intersecting streets for length of the property's frontage (but not exceeding 200 feet).
- (2) The spacing, geometric configurations and number of driveways for proposed commercial and non-commercial developments along the County road system will be determined by the Douglas County DOT and shall be in accordance with any formal Douglas County DOT driveway and encroachment control regulations, which may be in effect at the time development takes place, or may be determined by an approved traffic study prepared for and in conjunction with a specific development.
- (3) Commercial businesses on corner lots that have frontage on interior residential subdivision streets shall have access only from the main street.
- (4) The Department of Transportation Director may require a traffic study to determine if a center turn lane, a longer deceleration lane, an acceleration lane or other improvements will be necessary. If the traffic study determines that the traffic generated by the project warrants it, the Department of Transportation Director will require the additional improvements or other mitigating measures.

**Sec. 1012 - Deceleration lanes and turn lanes.**

**1012 (a) Deceleration and turning lanes; where required.**

- (1) A deceleration lane shall be required at each entrance to a residential subdivision of more than 25 lots, at each entrance to a commercial or industrial subdivision, and at each entrance to a multi-family or nonresidential development project at its point of access.
- (2) A left turning lane shall be required for each entrance to a subdivision or development project intersecting a major arterial street.

**1012 (b) Median breaks.**

If the street has an existing or proposed median, and the developer is approved by the County or Georgia DOT, as applicable, to construct a median break to serve the development, a left turn lane leading to the median break shall be provided by the developer meeting the design standards of the County.

**1012 (c) Deceleration and turn lane constructions standards.**

- (1) Deceleration lanes and turn lanes shall be a minimum length of 150 feet, with an additional 50 foot taper length, and a pavement width of 12 feet (exclusive of curb and gutter). Additional right-of-way to accommodate the deceleration lane or turn lane and a 12 foot shoulder shall be dedicated by the developer to the County.
- (2) Curb and gutter, deceleration lanes and tapers are required, unless otherwise waived or modified by the Department of Transportation Director due to site, drainage or continuity considerations.
- (3) Associated drainage improvements as deemed necessary by the construction of the deceleration or turn lane shall be required.
- (4) Other project access improvements may be required by the Department of Transportation Director in addition to or in lieu of a required deceleration lane in order to ensure adequate site access, pedestrian access, convenience and safety to the motoring public, based on a traffic study prepared by a professional engineer.
- (5) The developer will pay the cost of any catch basins that must be constructed along an existing County road as a result of the deceleration lane.
- (6) Utilities and drain pipes shall be relocated at the developer's expense outside of the deceleration lane.

**Sec. 1013 - Sidewalks.**

The Director of Douglas County Department of Transportation will have the authority to impose additional sidewalk requirements beyond what is specifically stipulated in this section. Sidewalks shall be installed according to County standards by the developer under the following circumstances:

- (1) A 5-foot sidewalk shall be provided within the right-of-way of any arterial, collector or local streets adjacent to any residential, commercial, or industrial development. The sidewalks shall be installed prior to final plat approval for residential developments or certificate of occupancy for commercial or industrial developments.
- (2) Within a residential subdivision, a 5-foot sidewalk shall be provided on both sides of every street within the subdivision. Beyond a 1-mile radius of any public school, a residential subdivision that

has lots averaging less than 3 acres in size and containing more than 10 dwelling units shall install a sidewalk on both sides of every street within the subdivision.

- (3) Sidewalks shall meet the following standards:
- a. The sidewalk must be 5 feet wide and the materials must meet Douglas County Department of Transportation standards and specifications.
  - b. The sidewalk must be located at least 4 feet from the back of the street curb. A setback of less than 4 feet from back of the street curb may be approved at the discretion of the Director of Transportation for specific site conditions, provided there is sufficient justification acceptable to the Director of Transportation.
  - c. ADA compliant ramps must be installed at street intersections and other locations where crosswalks are marked or where pedestrian crossing is anticipated. Ramps must contain Truncated Domes as detectable warning surface.

Alternative compliance. The intent of the sidewalk requirements is to ensure that sidewalks are provided for public pedestrian use on all developed sites. Occasionally, this intent is better served in a different location within the county. To provide a viable alternative for such cases, the developer may be allowed to contribute to the Douglas County Sidewalk Fund with the concurrence of the Director of the Department of Transportation.

1. The Director of the Department of Transportation must review and approve all requests for alternative compliance. The land disturbance permit will only be issued after the Development Services Department has approved the request and received the necessary documentation and/or funds.
2. If, in the opinion of the Director of the Department of Transportation, sidewalks would not be a benefit to the public at the development site due to lack of pedestrian traffic, dangerous conditions, etc., the permit holder may pay the County 100 percent of the total cost of labor and materials of sidewalks at the site, and the County will use this money to install sidewalks on public property. The site shall be clear of all obstacles and final graded as if the sidewalk will be constructed. Actual fees shall be set by the Board of Commissioners from time to time pursuant to the Administration and Enforcement Article of this Code regarding schedules and fees.
3. The Douglas County Sidewalk Fund will be administered by the Department of Transportation. A report for the Douglas County Sidewalk Fund will be made available to the Board of Commissioners by the Finance Department as part of the County's annual audit.

**Sec. 1014 - Storm drainage.**

Systems and facilities for the conveyance and control of stormwater shall be designed, installed and maintained in accordance with the requirements adopted by the WSA, subject to the following County standards.

**1014 (a) Stormwater pipes within streets.**

Within public street rights-of-way or private street easements, the following shall apply:

- (1) The stormwater pipe may not less than 24 inches in diameter when under a street and not be less than 18 inches in diameter otherwise.
- (2) No stormwater pipe running parallel to the existing primary road shall be located beneath acceleration/deceleration lanes. The Department of Transportation Director may modify or waive this requirement if unusual circumstances exist such as topography.
- (3) The inlet and outlet end of all stormwater pipes (including driveway pipe) shall have either safety slope end sections or rectangular concrete headwalls that meet the standards of GDOT.
- (4) Maximum continuous length of pipe shall be 300 feet unless otherwise approved by the Director of Development Services.
- (5) Junction boxes having access to the pipe shall be constructed to meet the requirements of GDOT.
- (6) Minimum clearances.
  - a. Two feet between the bottom of the base or sub-base, if used, and the exterior crown of the stormwater pipe are required under the roadway.
  - b. A minimum of 6 inches between underground utilities and the exterior crown of the stormwater pipe.

**1014 (b) Materials and installation.**

- (1) Table 10.4 sets out guidelines for the use of storm sewer pipes by pipe material and type of installation.

*Table 10.4: Selection Guidelines for Storm Sewer Piping*

		Corrugated Steel AASHTO M-36		Corrugated Aluminum AASHTO M-196	Plastic AASHTO M-294 Per Ga. DOT Standards	
Type of Pipe Installation	Reinforced Concrete Pipe (RCP)	Aluminized Type II CMP	Bituminous Coated CMP	Aluminum Alloy CMP	Corr. High Density Polyethylene Smooth Lined	Reinforced Concrete Box Culvert
LONGITUDINAL Grade less than 10%	YES	YES	YES	YES	See Note 1	n/a

LONGITUDINAL Grade 10% or more	NO	YES	YES	YES	See Note 1	n/a
CROSS DRAIN Local Street	YES	NO	NO	NO	NO	n/a
CROSS DRAIN Collector or Arterial St.	YES	NO	NO	NO	NO	n/a
CROSS DRAIN Flowing stream	YES	See Note 3	NO	NO	NO	n/a
CROSS DRAIN 25 year flow >200 cfs Fill depth > 18 feet	See Note 2	See Notes 2 & 3	NO	See Note 2	NO	YES

Note 1 Corrugated high density polyethylene pipe, smooth lined type "S", can only be used for residential driveway applications and must be manufactured and installed in strict compliance with Georgia DOT Standard 1030-P. HDPE applications shall not exceed 36 inches in diameter.

Note 2 Reinforced concrete box culverts are required under excessive flow and/or fill depth conditions. Approved pipe materials may be utilized in some instances, based on the Department of Transportation Director's assessment of existing conditions and future maintenance requirements.

Note 3 The addition of a Type "A" full bituminous coating is required. (AASHTO M-190).

- (2) Only reinforced concrete pipe shall be used within street rights-of-way for arterial roads, and major and minor collectors. On local streets, only reinforced concrete pipe shall be used under the roadway. Concrete pipe shall not be used on grades exceeding 10%. Metal pipe may be used within the rights-of-way of local streets (except under the roadway) and for driveway culverts. Metal pipe shall either be corrugated steel (AASHTO M-36) with aluminized Type II or bituminous coating, or corrugated aluminum alloy pipe (AASHTO M-196).
- (3) Corrugated high density polyethylene pipe, smooth lined type "S", can only be used for residential driveway applications and shall not exceed 36 inches in diameter.

- (4) Pipe installation shall conform to Georgia Department of Transportation Standard Specifications for construction of roads and bridges. Before any traffic over a storm drain is allowed, the developer shall provide an adequate depth and width of compacted backfill to protect the structure from damage or displacement. The developer shall remove any debris or silt that constricts the flow through a pipe as often as necessary to maintain drainage. All pipe structures shall be cleaned before the work is accepted. Any damage or displacement that may occur due to traffic or erosion shall be repaired or corrected at the developer's expense.
- (5) Trench construction for storm drainage pipe shall be in accordance with State Highway Standard 1030D (or most current).
- (6) Storm drainage pipe shall be bedded in Type 57 gravel where wet conditions are encountered.
- (7) Backfilling of trenches shall be accomplished immediately after the pipe is laid. The fill around the pipe shall be placed in layers not to exceed 6 inches with each layer being thoroughly compacted. All material shall have an in place density of 98% modified proctor to a depth of 6 inches below the finished grade, and 95% modified proctor at depths greater than 6 inches below the finished grade. Compaction requirements shall be attained by the use of mechanical compaction methods. Each layer of backfill shall be placed loosely and thoroughly compacted in place.
- (8) All backfill shall be non-plastic in nature, free from roots, vegetative matter, waste, construction material or other objectionable material. Said material shall be capable of being compacted by mechanical means and shall have no tendency to flow or behave in a plastic manner under the tamping blows.
- (9) Material deemed by the Department of Transportation Director as unsuitable for backfill purposes shall be removed and replaced with selected backfill material.
- (10) Water shall not be permitted to rise in trenches that are not backfilled after the pipe has been placed.

**1014 (c) Field changes.**

Minor changes to construction plans that are approved because of field conditions shall be documented as revisions to the approved development plans and correctly shown on the as-built surveys. Discrepancies between the as-built surveys and the approved development plans may result in delays in approving final plats or certificates of occupancy.

**1014 (d) Open Drainage Easements**

In cases where the developer chooses not to develop a particular property through which the drain runs, then the trench may be left open; however, in any case, a twenty (20) foot easement shall be shown on the plat and no building or driveway shall be built over or within forty (40) feet of the open drainage easement. In cases where stormwater conveyances exist or are proposed on buildable lots, stormwater pipes shall be designed and installed across said lots from property line to property line with the following exceptions as approved by the Development Services Director or his/her designee: 1.) The pipe may begin at proposed structures located on the right-of-way or where defined clearing limits are established upstream, and 2.) the outlet end may terminate at a point where existing state waters exist, where defined clearing limits are established, or at existing stormwater structures. No building permit will be approved unless the installation meets the requirements of the county.

**Sec. 1015 - Water supply.**

- (1) Public water service shall be provided to every lot in every subdivision and to every development for both domestic use and fire protection if public water is available or under bid or contract to be available within 1,000 feet of the subdivision or development.
- (2) All water system improvements and their installation shall meet the adopted standards of the Douglasville-Douglas County Water and Sewer Authority. A contractor approved by the WSA shall install all elements of the water system, including mains, valves, service laterals through the curb line, and fire hydrants at the developer's expense.
- (3) If a public water system is not available nor under bid or contract to be available, the subdivider shall provide a water supply system to each lot in conformity with the regulations of the County Health Department and the WSA.

**Sec. 1016 - Fire hydrants.**

- (1) Fire hydrants are required in all subdivisions and development projects served by a public water system.
- (2) Fire hydrants as specified by the Fire Department and the WSA shall be located every 500 feet and/or at every intersection, whichever is closer.

**Sec. 1017 - Sanitary sewage disposal.**

- (1) When in the written opinion of the Health Department and the Douglasville-Douglas County Water and Sewer Authority, public sanitary sewers are within reasonable access of the subdivision, the subdivider shall provide sanitary sewer services to each lot within the bounds of the subdivision. All sewer service lines in the subdivision shall be installed by the subdivider.
- (2) When in the written opinion of the WSA a public sanitary sewer is not acceptable, an alternate method of sewage disposal for each lot may be used when in compliance with the Health Department requirements. A community sewage disposal system may not be used.
- (3) In a drainage basin that, at the time of plat application, is scheduled for a public sewage system within 3 years, all subdivisions shall be provided with a temporary community sewage disposal system, as approved by the Health Department and the WSA. Such systems shall include permanent sewerage outfall lines plus a temporary treatment system to be installed by the subdivider.
- (4) Whenever the installation of a sanitary system is required as provided by these regulations, no new street shall be paved without such sewer being first installed in accordance with the requirements of the state department of human resources sewer specifications and the WSA specifications.

**Sec. 1018 - Location of utilities and street cuts.**

**1018 (a) Location of utilities in streets.**

- (1) Above-ground utilities.

Street light poles, junction boxes, transformers and other public or private utility structures placed above ground within a public street right-of-way or private street easement must meet

set-back criteria and clear zone distance criteria based on the latest edition of the *Roadside Design Guide*, by the American Association of State Highway and Transportation Officials, or at least 9 feet back from the back of the street curb (or edge of pavement) and 1 foot back from the edge of any sidewalk, whichever is farthermost from the roadway.

(2) Underground Utilities.

- a. All electric, telephone, cable TV and other wires shall be placed underground in any major subdivision, and in any multi-family or nonresidential development.
- b. Utilities placed underground shall be placed within the street right-of-way or easement as shown on the County Construction Standards and Specifications.
- c. The right-of-way is to be cleared and rough graded the full width prior to any utility installation.
- d. Any disturbance or construction in the completed (seeded and/or sodded) right-of-way by a public utility such as power, water, sewer, gas, phone and cable must be repaired and/or replaced with the specified materials as called for in the initial improvements.
- e. All utilities beneath pavement shall be installed and the ditch backfilled and thoroughly compacted before any pavement or base is installed, or the pipes shall be bored if installed after street construction.
- f. All utility manholes and valve boxes shall be brought to the finished grade within the roadway section. If delay of final topping is approved, manholes and valve boxes shall be installed flush with the binder, and shall be raised to finished grade by the developer when the final topping is installed.
- g. All private utilities that will cross under pavement shall be installed completely throughout the subdivision prior to any roadway base being applied. Installation of approved utility sleeves shall be considered as an alternate, or shall be bored is installed after the street has been constructed.

**1018 (b) Utility Permits.**

- (1) All construction plans for utility repairs or new utility installations within Douglas County rights-of-way shall be reviewed and approved by the Director of the Douglas County DOT and shall be in accordance with any formal Douglas County DOT utility permit regulations or guidelines which may be in effect at the time a request is received.
- (2) No existing County road can be open cut unless unusual circumstances as determined by the Douglas County DOT warrant it and shall be approved by the Director of the Douglas County DOT. Any request for approval to open cut an existing County road must be submitted with sufficient documentation to enable the approving authority to make a reasonable determination as to the necessity for an open cut.
- (3) If a pavement cut is approved, all trenches shall be backfilled and compacted the same day the trench is opened unless otherwise approved by the Director of the Douglas County DOT.
  - a. Trenches under the paving shall be returned to 95% compaction. The backfill in all such ditches will be thoroughly compacted in 6-inch lifts, the subgrade shall be brought to the lines, grades, and typical roadway section shown on the plans.

- b. See County Construction Standards and Specifications for details.

DIVISION II. - PROJECT CONSTRUCTION.

**Sec. 1019 - Overview—project construction.**

**1019 (a) Development activity.**

- (1) Preconstruction activity.

Following the issuance of any permit authorizing clearing and grading of a site, areas required to be undisturbed, such as natural zoning buffers or stream buffers, must be designated by survey stakes, flags, ribbon, or other appropriate markings and shall be inspected and approved by the Development Services Department prior to the commencement of any clearing or grading activities.

- (2) Construction Activities Restricted to Certain Hours

It shall be unlawful for any person to engage in or conduct any activity in the construction of any building or structure, the moving of earth, or the laying of any pavement, including, but not limited to, the making of any excavation, clearing or grading of surface land, and loading or unloading material, equipment, or supplies, except between the hours of 7:00 am and 7:00 pm, Monday through Saturday. A Special Permit issued by the Development Services Director will be required for work at different hours. Applications for such permits shall be made in writing to the Development Services Director and shall state the name of the applicant, his business address, the location of the proposed work, the reason for seeking a permit to do such work outside of the normally permitted hours, and the estimated time of the proposed operation. No such special permit shall be issued except where the public peace, health or welfare will not be adversely affected by such issuance or will be harmed by failure to perform the work at the times indicated.

- (3) Grading.

- a. Grading shall be done in accordance with the lines and grades drawn on the approved grading plan.
- b. Required erosion and sedimentation control measures and stormwater drainage facilities are to be installed in accordance with the approved plans as development progresses.

- (4) Bonds.

Performance and Maintenance bonds in accordance with Section 1027 shall be submitted prior to obtaining a Development Permit as deemed necessary by the Director of the Department of Transportation where construction activity related to any project could possibly damage County roads. The amount of the aforementioned bond shall be determined by the Director of the Department of Transportation.

**1019 (b) Development phase inspections.**

Requests for inspections shall be made by the owner or contractor to the Development Services Department at least 24 hours prior to when the inspection is needed. Inspections shall be made and passed prior to continuation of further activity or proceeding into new phases. Inspections are required

of each of the following phases, as applicable to the actual work to be performed under the development permit:

- (1) Prior to clearing or clearing and grubbing of the property or any portion included under the development permit, inspection of erosion and sedimentation control measures and protective devices for undisturbed areas. Inspection of erosion and sedimentation control measures will be conducted on a continuing basis.
- (2) Upon completion of street grading, inspection and approval shall be required prior to trenching or continuation with subgrade preparation.
- (3) Upon installation of storm drainage pipe, detention, or other storm water facilities.
- (4) Street curbing and gutter (if provided). Inspection shall be requested after the forms or string line have been set. Street width and vertical and horizontal alignment may be spot-checked.
- (5) Sub-grade of streets. After compaction and receipt of test reports by the Development Services Department. The sub-grade may be roll tested with an 18-ton load on a tandem dump truck and shall pass to the satisfaction of the Development Services Department Inspector.
- (6) Street base. After receipt of test reports by the Development Services Department, the base may be string-lined for depth and crown. The street base may be roll-tested with an 18-ton load on a tandem dump truck and shall pass to the satisfaction of the Development Services Department Inspector.
- (7) Paving. A Development Services Department Inspector may be on site during the paving process to check consistency, depth, and workmanship, as applicable. For asphalt paving, the temperature of the material will be monitored and the street will be cored after completion to check thickness and density. Satisfactory test results of the cores shall be delivered to the Development Services Department prior to approval of a final subdivision plat or certificate of occupancy.

**1019 (c) As-built surveys.**

- (1) Upon completion of the development activity as authorized by the development permit and prior to final development inspection of public and private improvements, the owner shall submit to the Development Services Department for review and approval a complete set of record drawings showing "as-built" conditions prepared by a registered land surveyor. These drawings shall show the location, vertical and horizontal alignment, and finished elevations of:
  - a. Drainage system pipes and channels.
  - b. Storm water detention facilities.
  - c. Sanitary sewer system (if any).
  - d. Water system.
  - e. Streets, including street centerlines showing angles of deflection and standard curve data of intersection, radii, length of tangents and arcs, and degree of curvature with basis of curve data.
- (2) The as-built surveys shall be certified and sealed by the registered land surveyor, subject to the tolerances of accuracy indicated in the survey certification.

**1019 (d) Final development inspection.**

- (1) Following submission and review of the as-built surveys, the Development Services Department shall conduct a final development inspection of the project.
- (2) The owner shall be responsible for correcting any deficiencies identified in the final development inspection prior to approval of a final subdivision plat.

**1019 (e) Bonds.**

Prior to approval of a final subdivision plat or issuance of a certificate of occupancy, a maintenance bond and/or performance bond in a form acceptable to the Development Services Department is required for all public improvements shown on the as-built surveys. Any required bond shall be with a company licensed to do business in the State of Georgia and included on the United States Department of Treasury's list of acceptable sureties. For details see the Procedures and Permits Article of this Development Code regarding acceptance of public improvements.

**Sec. 1020 - Site clearing and grading.**

**1020 (a) Development permit required.**

- (1) Clearing and grading shall not proceed until issuance of an approved development permit. No development permit authorizing clearing or grading shall be issued prior to review and approval by the County of landscaping, buffers and tree conservation plans as applicable to the property. See the Procedures and Permits Article of this Development Code for details.
- (2) Grading shall be done in accordance with the lines and grades drawn on the approved grading plan. Clearing, grubbing and grading of a site for development of a residential subdivision shall be limited to those areas necessary to construct the streets and utilities, the stormwater detention facilities, and necessary erosion and sedimentation control devices, along with related easements, rights-of-way and slopes. Clearance beyond these limits to balance cut and fill for the streets, drainage or utilities may be approved administratively by the Development Services Director based on a grading plan and cut/fill calculations prepared by a Georgia registered professional engineer qualified in site work, provided that the additional clearance is kept to the minimum deemed necessary by the Development Services Director.

**1020 (b) Erosion and sedimentation control measures.**

Required erosion and sedimentation control measures must be installed in accordance with the approved soil erosion and sedimentation control plan prior to any major development activity and as development progresses.

**1020 (c) Stormwater drainage facilities.**

Required stormwater drainage facilities are to be installed in accordance with the approved stormwater management plan as development progresses.

**1020 (d) Clearing and grubbing.**

The entire area within the typical grading section shall be cleared and grubbed of all trees, bushes, stumps and debris. Such debris shall be disposed of in a lawful manner.

**1020 (e) Earthen embankments.**

Earthen embankments shall be placed in uniform layers not to exceed a compacted thickness of 6 inches per layer and shall be compacted to a density of 95 percent of the maximum laboratory dry weight per cubic foot as determined by AASHTO Method T-99 in all areas where structures, parking lots and drives, streets, and utilities are to be placed; all roadway embankments must be 100% compacted within the top 1 foot. If necessary in order to obtain this compaction, the contractor shall add moisture to the material as it is placed. All other embankments are to be compacted to at least 90 percent. Floodproofing shall be accomplished prior to placement of embankments to detect soft spots.

**1020 (f) Slopes.**

- (1) The maximum slope for all cut or fill slopes shall be as shown on Table 10.5.
- (2) The depth of cut referenced in the table shall be construed to be the maximum cut or fill occurring in any one section of cut or fill. The slope on cut or fill shall be uniform throughout for each section of cut or fill. When a cut is made in rock that requires blasting, slope may be changed to vertical slope upon the written approval of the Department of Transportation Director.

Table 10.5: Maximum Cut or Fill Slopes

Depth of Cut or Fill	Cut Slopes*	Fill Slopes*
2 feet or less	2 to 1	2 to 1
2 feet to 5 feet	2 to 1	3 to 1
Over 5 feet	2 to 1	2 to 1**

\*Maximum distance of run to rise

\*\*Guardrails required (see Standard Details).

**Sec. 1021 - Excavating and trenching.**

**1021 (a) Definitions related to excavating and trenching.**

The following words, terms and phrases, when used in this Article, shall have the meanings ascribed to them in this Section, except where the context clearly indicates a different meaning:

*Excavation:* (1) The mechanical removal of earth material. (2) Any manmade cavity or depression in the earth's surface, including its sides, wall, or faces, formed by earth removal and producing unsupported earth conditions by reasons of the excavation. If installed forms or similar structures reduce the depth-to-width relationship, an excavation may become a trench.

*Excavation and trenching certificate:* The certificate issued upon satisfactory completion of a mandatory training/educational program regarding excavation and trenching safety practices, such program to be provided by or approved by the Douglas County Fire Department.

*Excavation and trenching certificate holder:* The holder of the "excavation and trenching certificate" identified above.

*OSHA:* The U.S. Department of Labor, Occupational Safety and Health Administration, or successor agency.

*Trench:* A narrow excavation made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench is not greater than 15 feet.

**1021 (b) Unauthorized excavating and trenching prohibited.**

No individual, partnership, corporation, or other entity of any kind whatsoever shall engage in any excavation or trenching except in compliance with the provisions of this Section and in compliance with any applicable laws of the State of Georgia or of the United States or the Occupational Safety and Health Administration (OSHA), or any other state or federal governmental entity or department rules and regulations applicable to excavating and trenching.

**1021 (c) Adoption of OSHA safety and health regulations.**

All safety and health regulations adopted by OSHA with regard to excavating and trenching operations, particularly part 1926, Subpart P—Excavations, Trenching, and Shoring Section 1926.650, 1926.651, 1926.652, 1926.653 of the Code of Federal Regulations, as the same now exist or may be hereafter amended, are adopted as a part of this Development Code as if quoted verbatim herein.

**1021 (d) Excavation and trenching certificate required.**

Douglas County will honor excavation and trenching certificates issued by other agencies if such agencies can satisfactorily show proof that their training/educational program meets or exceeds the Douglas County program regarding excavation and trenching safety practices.

**1021 (e) Permit required.**

- (1) No excavating or trenching shall be performed until a permit for same has been obtained from the Development Services Department. All applicants shall be required to acknowledge receipt and understanding of safety requirements before a permit will be issued. All such permits shall be conspicuously posted upon the job site.
- (2) No permit shall be issued unless an authorized agent of the applicant holds an excavation and trenching certificate.

**1021 (f) Enforcement of excavating and trenching requirements.**

- (1) The director of emergency management or his or her designated representative shall have the authority to cause any trenching or excavation work in progress to be halted upon a finding that these certificate requirements are not being met on the particular job site. The said director may issue a verbal warning or a written citation in his discretion or he may recommend to the board of commissioners a revocation of the permits of responsible persons.
- (2) No excavation and trenching certificate shall be suspended or revoked, except for due cause, and after a hearing before the board of commissioners of Douglas County upon written notice to the holder of such certificate of the time, place and purpose of such a hearing and a statement of the charge upon which such hearing shall be held. Three days notice shall be deemed reasonable, but shorter or longer periods of notice shall be authorized as the board of commissioners may deem appropriate. Due cause for revocation shall consist of the violating of any laws or ordinances regulating excavating or trenching. At any such hearing, the excavation and trenching certificate holder shall be entitled to be represented by an attorney and to cross examine any witnesses who may appear and to present evidence in his own behalf.
- (3) No excavating or trenching permit shall be suspended or revoked except for due cause and after hearing before the board of commissioners after notice to the permit holder of the date, time and place of hearing, along with a statement of the charges upon which the hearing is to be had. The violation of any laws or ordinances regulating excavating or trenching as set forth hereinabove shall constitute due cause for suspending or revoking such permit. Three days notice shall be deemed reasonable, but shorter or longer periods of notice shall be authorized as the board of commissioners may deem appropriate. At such hearing, the permit holder shall be entitled to be represented by an attorney, to cross-examine all witnesses who may appear against him, and to present evidence in his own behalf.

**1021 (g) Inspection by Douglas County.**

The director of the department of emergency management or his or her designated representative is authorized to periodically inspect trench/excavation sites during all reasonable hours, or outside reasonable hours in the event of any emergency threatening life or property. Such inspectors shall, among other things, verify the presence of the required permits, the existence of required excavation and trenching certificates and compliance with OSHA safety standards hereinabove adopted. Should access to any site be denied by the owner or other person having charge or control of the site, in the absence of any emergency threatening life or property, the director of the department of emergency management or his or her designated representative is authorized to obtain an inspection warrant pursuant to Article 14, Section 1410(b) of this Code.

**1021 (h) Violations.**

In addition to the provisions of the Administration and Enforcement Article of this Development Code, the following shall apply to violations under this Section:

- (1) Violations of this Section may result in revocation or suspension of any excavation and trenching certificate issued hereunder as set out above.
- (2) Violations of this Section may result in revocation or suspension of excavating/trenching permits issued hereunder as set above.

- (3) When oral notice is not deemed sufficient a written notice of violation may be issued for any deficiency. Upon receipt of such notice, the deficiency shall be corrected immediately.
- (4) Excavation and trenching work upon any job site shall be required to cease immediately upon discovery that there is trench activity by any person not an excavation and trenching certificate holder, when there is a refusal or failure to correct deficiencies immediately and/or when such work is being done without a permit.
- (5) If deficiencies identified in a notice or violation are not timely corrected, the building permit, land disturbance permit or any other permit issued by Douglas County may be suspended or revoked for due cause upon the conditions herein identified for revocation of authorization.
- (6) Flagrant and/or repeated violations shall be reported by Douglas County to OSHA for action by that agency.

**Sec. 1022 - Installation of stormwater drainage facilities.**

**1022 (a) Timing of installation.**

Construction of the stormwater system shall be initiated as part of the grading of the site. Storm water detention facilities shall be constructed prior to the installation of any other site improvements, and may be utilized under proper design as sedimentation basins during development. Installation of all other storm drainage pipes, culverts, headwalls, and ditches, shall be coordinated with the construction of streets and other site improvements, as appropriate, in accordance with a Stormwater Management Plan approved by the WSA.

**1022 (b) Maintenance responsibilities.**

- (1) The developer shall be responsible for removing temporary structures or facilities at the completion of the construction.
- (2) It shall be the responsibility of the developer to maintain all facilities required by the Stormwater Management Plan during construction and for a maintenance period following approval of the final subdivision plat or issuance of a certificate of occupancy, as applicable. The maintenance period shall coincide with the maintenance period required under Sec. 1019 (e) and detailed under the Procedures and Permits Article of this Development Code regarding acceptance of public improvements.
- (3) The owners of the property shall be responsible for maintaining the permanent facilities identified by the Stormwater Management Plan to remain after construction is complete, following the developer's maintenance period.
- (4) Should an owner or developer, whichever is the responsible party, fail to maintain the stormwater management facilities in a state of service intended by the Stormwater Management Plan, then the WSA shall notify the responsible party in writing of the deficiencies and specific minimum maintenance requirements to remedy such deficiencies.
- (5) If the responsible party fails to perform the required maintenance work within a reasonable period of time (30 days maximum) then the owner shall be in violation of the provisions of this Code and the rules and regulations of the WSA.

**Sec. 1023 - Installation of streets and utilities.**

All streets shall be installed and inspected in accordance with this Section, whether public or private.

**1023 (a) Grading.**

- (1) All streets shall be graded to their full width by the developer so that pavement extensions or sidewalks, where required or if installed in the future, can be constructed on the same level plane.
- (2) Preparation of roadway: Before grading is started the entire area to be paved shall be first cleared of all stumps, roots, brush and other objectionable materials. In all areas to be graded or filled, the developer shall stockpile the topsoil later to be spread in all disturbed areas not paved.
- (3) Grading shall be done in accordance with the Site Clearing and Grading Section of this Article.

**1023 (b) Installation of utilities; general.**

- (1) All utility manholes and valve boxes shall be brought to the finished grade within the roadway section.
- (2) All utility locations shall correspond to the typical cross-sectional layout contained in the Douglas County Construction Standards and Specifications.
- (3) No private improvements, such as private lawn sprinkler systems, yard lighting, and the like, shall be installed within a public right-of-way except by authorization of the Department of Transportation Director. Such authorization, if issued, shall require the owner to assume all repair costs of the owner's facilities should they become damaged.

**1023 (c) Installation of public water and sewerage systems.**

The standards, procedures and other requirements of the Douglasville-Douglas County Water and Sewer Authority shall be followed for the installation of public water supply and distribution facilities, and for the installation of public sanitary sewer facilities

**1023 (d) Street installation.**

- (1) After the earth work has been completed, all storm drainage and other underground utilities have been installed under the roadbed, and the backfill in all such ditches thoroughly compacted, the subgrade shall be brought to the lines, grades and cross section shown on the plans. All other utilities installed under the roadbed shall be bored.
- (2) If any sections of the subgrade are composed of unsuitable or unstable material, such material shall be removed to the depth directed by the Development Services Department and the Department of Transportation and replaced with suitable, thoroughly compacted material.
- (3) Preparation of subgrade.
  - a. Prior to placement of the street base, the subgrade shall be compacted to 100% density.
  - b. When the street is to be used for construction traffic before the paving work is completed, a layer of No. 3 stone can be laid as a traffic surface if the developer so desires.
  - c. This material shall not be used as part of the base material.

- d. It may be worked into the subgrade; or it shall be removed before the base course is set up for paving.
- e. Provision shall be made to drain low points in road construction when the final paving surface is delayed.
  - 1. Provide break in the berm section when the curbing has not been constructed.
  - 2. Use 6-inch pipe sections to provide drainage under curb to side slopes.
- (4) Abutting property shall be suitably sloped to the right-of-way line.
- (5) Street base, curbing and paving.

Street base, curbing and paving shall be installed by the developer in accordance with the requirements and standards of this Development Code.

**1023 (e) Testing requirements; streets.**

- (1) It is the responsibility of the developer to insure that all required tests are made and reported to the Development Services Department. The cost of all testing and quality control shall be performed at the expense of the developer by qualified testing laboratories authorized by the Director of Development Services.
- (2) The tests to be performed during and after completion of street construction are shown on Table 10.6. Such tests shall be performed on all streets whether intended to be dedicated as public streets or approved by the County as private streets.

Table 10.6: Testing Requirements

Type of Test to be Performed	Minimum Number of Tests	Testing Standards
Sub-grade Compaction	Each 1,500 linear feet of roadway (at least 1 per street)	100% Max Density
Base Compaction	Each 1,500 linear feet of roadway (at least 1 per street)	100% Max Density
Asphalt Content and Gradation— Intermediate	For each lane, 1 test per 3,400 linear feet, minimum 1 per road	GDT 83 or GDT 125 and GDT 38
Asphalt Content and Gradation— Surface	For each lane, 1 test per 5,000 linear feet, minimum 1 per road	GDT 83 or GDT 125 and GDT 38
Mix Temperature*	As deemed necessary	

Laydown Rate*	1 per 1,000 linear feet, minimum 1 per road	
Pavement Density	For each lane, 1 per 1,000 linear feet, minimum 2 per road	GDT 59
Lift Thickness and Base Thickness with Coring and Augering**	For each lane, 1 per 1,000 linear feet, minimum 2 per road	

\*To be tested by the on-site construction inspector during laydown.

\*\*To be tested at completion of paving of all roads.

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- (3) Prior to paving, the contractor shall submit the following to the Development Services Department:
    - a. Paving plan as described in the Standard Design Specifications.
    - b. Request for approval of asphaltic concrete job mix formula as described in the Standard Design Specifications, and job mix designs for each job mix formula approval requested.
  - (4) Evaluation of pavements during maintenance period.

Pavements shall be inspected and evaluated at the completion of construction, during the maintenance period required under 1019 (e), and prior to the end of the maintenance period. The entire length of the pavement shall be visually inspected for such deficiencies as: rutting, cracking, raveling, segregation, deformations, potholes, bleeding and slippage cracks. Any deficiencies shall be repaired by the contractor or developer to the satisfaction of the Director of Development Services at no cost to the County within 30 days of notification of the deficiencies identified.

**1023 (f) Protection of shoulders.**

- (1) Immediately after grading and filling and re-spreading of topsoil, all areas of disturbed soil shall be fertilized and seeded (or in steep areas sodded or otherwise appropriately treated) with suitable vegetative cover to retard erosion.
- (2) When all construction is completed, all slopes and shoulders shall be cleared of all rubbish and shall have a stand of grass to prevent undue erosion, either by sprigging or seeding.

**1023 (g) Traffic control devices and street lights.**

- (1) Street signs, traffic control signs, and devices such as striping and signalization, shall be by the developer at the developer's expense, with appropriate approvals from the Department of

Transportation . Traffic control devices may only be installed by the developer after receiving written approval from the Department of Transportation Director.

- (2) The installation of all street lighting fixtures within the right-of-way, except within residential subdivisions, must be approved by the Department of Transportation Director prior to such installation.

**1023 (h) Foreign material on streets.**

- (1) The developer, builders, and/or homeowners shall be responsible for keeping dirt, mud, building materials, concrete, etc., off of the pavement and curbing of existing public roads during construction of buildings in all developments covered by these regulations.
- (2) Before the streets are accepted by Douglas County, all litter and trash shall be removed from the dedicated rights-of-way and surrounding areas.

**1023 (i) Bridge piling.**

Bridge piling shall be driven to State Highway load standards for loading. Certification of pile load shall be by registered Professional Engineer.

**1023 (j) Burial of construction debris.**

No debris of any kind shall be buried at the site of any construction or development.

**Sec. 1024 - Building construction.**

**1024 (a) Building permit required.**

- (1) Building permits for all structures or interior finishes are issued after meeting the applicable requirements of the fire prevention and life safety code and the various health and building codes. A permit is also required for the movement of any house, structure or building.
- (2) For any structure served by an on-site sewage disposal system, a permit issued by the County Health Department shall be required prior to issuance of a Building permit. Said permit may first require approval by the County Health Department of a plan showing the location of the sewage disposal system and other on-site improvements, in accordance with their regulations.
- (3) Building permits shall only be issued on lots of record, as defined in this Development Code.

**1024 (b) Building inspection.**

- (1) Scheduling a building inspection.

Inspections shall be scheduled with the Building Inspector before the inspection is needed. Requests for inspection should include the street address, lot number, building permit number, and type of inspection.

- (2) Required inspections:

- a. Foundation. Verify minimum required building setbacks, footing, trenches dug and reinforcing steel in place.
- b. Plumbing Connections. Water supply line and sewer lateral in slab foundation.

- c. Framing. Completion of all rough-ins and after insulation is installed.
- d. Interior walls may not be covered until the following inspections are completed:
  - 1. Mechanical. Rough-ins complete with pressure test on gas line.
  - 2. Electrical. Rough-ins with neutral, ground, and service cable wired.
  - 3. Plumbing. Rough-ins complete and all fixtures installed.
- e. Final Inspection. Building is complete and ready to occupy.

**1024 (c) Certificate of occupancy required.**

A Certificate of Occupancy must be issued prior to the occupancy or use of any new or newly renovated building or structure, in accordance with the Procedures and Permits Article of this Development Code.

**Sec. 1025 - Dams.**

The provisions of O.C.G.A. 12-5-370 "Georgia Safe Dams Act of 1978", all applicable federal and state laws, and administrative rules and regulations shall apply to all dams located in Douglas County. Any person who desires to construct a dam shall be required to obtain a permit from the Georgia Environmental Protection Division and the owner(s) of all dams shall operate and maintain existing dams as per regulations set forth in the act. In the event proposed development(s) could be effected by existing dams located on-site or upstream as determined by the Development Services Director or his/her designee, prior to issuance of a Land Disturbance Permit the developer shall provide a detailed engineering analysis, including but not limited to a dam breach analysis, hydraulic and hydrologic evaluations, which shall be performed by a professional engineer licensed by the State of Georgia and any geological investigations are required to be performed by a professional geologist registered to practice in the State of Georgia demonstrating the dam is sufficient to protect against probable loss of human life and/or property damage downstream. Such analysis and evaluation shall find the dam to be in a safe and stable condition, with no foreseeable deterioration in condition or safety.

**1025 (a) Permanent pool impoundments.**

(1) General criteria.

Douglas County Dam Regulations shall apply to all new, rebuilt, or modified stormwater impoundments, including appurtenant works, with the exception of:

- (a) Any Category I Dam requiring permitting under the control of the Georgia Safe Dams Program;
- (b) Any dam owned and operated by any department or agency of the United States Government;
- (c) Any newly constructed dam financially assisted by the United States Natural Resource Conservation Service or any other department or agency of the United States Government when such department or agency designed or approved plans and supervised construction and maintains a regular program of inspection of the dam; and
- (d) Any dam licensed by the Federal Energy Regulatory Commission or for which a license application is pending with the Federal Energy Regulatory Commission.

- (e) Any dam currently constructed and operating is hereby grandfathered in its present state with the owner assuming all rights, responsibilities, and liabilities thereof. Any existing dam that is modified, other than for maintenance activities, becomes subject to these requirements.

All new dams of 25 vertical feet in height (or greater), impoundments containing a maximum storage volume of at least 100 acre-feet, or dams which have been ruled Category II by the Safe Dams Program shall be designed and constructed according to Category I Spillway Standards, as promulgated by the Safe Dams Program under the direction of a Georgia Licensed Civil Engineer and a Georgia Licensed Geotechnical Engineer, both experienced in the design and construction of dams. All dam heights will be measured from the streambed at the downstream toe to the top of dam.

Prior to construction of any dam over 15 vertical feet or any dam impounding more than 50 acre-feet, the contractor shall provide to Douglas County sufficient documentation of his/her qualifications to construct dams.

A pre-design meeting shall be held with representatives of the Development Services Department, to review any proposed dam or proposed dam changes for any dam over 15 vertical feet or impounding more than 50 acre-feet.

Residential or commercial structures may not be constructed or re-constructed on any dam and may not be constructed within the limits of the flood failure zone of any dam. Douglas County must be satisfied that a dam failure will not result in a probable loss of life downstream.

Depending on the level of downstream risk and size of impoundment, Douglas County may require a dam breach analysis to be submitted for any proposed or existing dam impacting a proposed development, utilizing the National Weather Service's DAMBREAK Program or other methodology approved by the Georgia Safe Dams Program. A DAMBRK analysis will be required for all Category I and II dams. When a dam breach analysis is required by Douglas County, as a minimum a sunny day dam breach analysis shall be performed under full pool conditions.

Guidelines are available from the State of Georgia Safe Dams Program (EPD) to assist the design/construction professional. Dam design documents shall include, but not be limited to:

- (1) Technical specifications;
- (2) Hydrology/hydraulic report;
- (3) Geotechnical report (with borrow study applicable);
- (4) Drainage basin map with land use and land improvement parameters;
- (5) Existing topography of site:

Dam = Plan view  
= Sections at all critical points  
= Details, complete;

- (6) Names and professional seals of design civil engineer and geotechnical engineer with 24-hour contact;
- (7) Designated contractor, if available.

Because of the variables associated with selecting spillway(s), outlet device(s) or appurtenant structure(s) to suit a given site condition, the design consultant is responsible for the selection, subject to the review and approval of the Development Services Department. The Development Services Department will include in its consideration the ease of maintenance, longevity of the system, blockage potential, and practicality of operations.

No orifice shall be less than 3 inches in diameter unless it is installed to meet a State or local requirement.

All risers (standpipes) shall be equipped with a debris deflector (trash rack) and an anti-vortex device. To facilitate outlet operation, curved or inclined trash racks designed to allow debris to rise with the water level are preferred. In all cases, trash racks shall be either hinged or removable to facilitate maintenance operations. Corrugated metal pipe is not permitted for standpipes.

Spillways: Every dam shall be provided with a principal spillway, fully capable of passing at least the 50-year flood, with excess spillway capacity provided by the emergency spillway(s) capable of handling excess flows up to the design storm. The principal spillway can be sized for floods of less magnitude than the 50-year flood only if the emergency spillway is appropriately armored against scour with concrete or other suitable lining as protection against more frequent usage.

Principal spillway: All spillways shall be analyzed (hydraulically rated) for both inlet and outlet control conditions using appropriate tailwater ratings. If a control-box or weir-box is affixed, then the total system (inlet control box and outlet conduit) shall be hydraulically rated to determine the stage-discharge relationship.

Emergency spillway(s): For every type of water impounding facility, a planned safe flow path must be provided for conveyance of flows of water in an emergency. In many instances, this function can be provided through installation of an emergency spillway. Emergency spillways may be excavated open channels, either vegetated or paved with reinforced concrete, weir sections of concrete walls, or appropriately designed conduit.

Any portion of an open channel spillway excavated into a dam embankment or other fill section must be paved with reinforced concrete equipped with appropriate seepage controls, underdrainage, and cut-off walls.

Any portion of any spillway excavated into undisturbed residual soil shall be vegetated in accordance with the practices described in the "Manual for Erosion and Sediment Control in Georgia" or protected against scour and erosion by other suitable measures if vegetation does not provide adequate stabilization. If the spillway is activated by storms smaller than the 50-year frequency, then vegetation alone will not be considered sufficient protection against scour according to these standards.

A 12-foot combined drainage and permanent access easement shall be established around the pond at the 100-year pool level or at the elevation of top of dam, whichever is greater to provide access and permanently prevent usage or modification of this flood storage area. A 12-foot combined easement shall also be provided along the toe of the dam. A 20-foot access easement from the public right of way shall be provided.

Emergency draining of the lake: Upon obtaining evidence which indicates that a potentially hazardous condition may exist, such as:

- (1) Excessive leakage transporting soil from the dam interior (i.e., piping);
- (2) Slope failure, excessive scouring, or other apparent soil instability;
- (3) Longitudinal cracks, bulging, or shifts in alignment;
- (4) Excessive sloughing or seepage; or
- (5) Failure of the spillways and/or outlet devices to function properly (due to clogage, damage, or other deficiency).

The County Administrator has the authority to order the immediate and complete draining of the lake in whatever manner deemed necessary at the time and to require the owner to keep the pool down until remedial work, as is deemed most appropriate to create a safe dam condition, is completed and approved by the Development Services Department.

All lakes shall have a permanent lake drain.

No public roadways shall be constructed over any permanent water impoundment structure. Private roadways and driveways over any permanent impoundment structure (including full indemnification to the County) shall be reviewed on a case-by-case basis by the County Administrator (access for public safety vehicles must be addressed in said indemnification).

No utilities are permitted to pass through any dam, either longitudinally or transversely, unless approved by the Development Services Department.

- (2) Specific criteria.

(Dams with vertical heights less than or equal to 6 feet.)

Earthen dams:

Any earthfill dam equal to or less than 6 feet in height is an exempt structure according to Georgia Safe Dams Act. The following minimum design criteria shall apply:

- (a) Design shall be by a professional engineer registered and licensed to practice engineering in the State of Georgia;
- (b) Plans shall be submitted to the Development Services Department for review and comment;
- (c) Construction shall be performed by a qualified contractor who has sufficient skills and experience to perform this work;

- (d) Design storm shall be at least SCS 24-hour 100-year event or equivalent approved by the Stormwater Management Division;
- (e) A minimum freeboard of two feet is required from the design flood pool to the top of the dam;
- (f) All soil shall be CL or ML material, compacted to 95% standard proctor; and
- (g) Side slopes shall be no steeper than 3:1 unless approved by the Development Services Department. Under no circumstance shall the slope exceed 2:1.

Reinforced concrete or masonry dam:

Design and construction supervision must be performed by civil engineer licensed to practice in the State of Georgia. Construction verification checklist to be submitted to the Development Services Department;

Design shall address and account for overturning, sliding uplift, and seepage with adequate safety factor (2.0 for over-turning, 1.5 for sliding) and adequate freeboard (0.5 feet above 100-year pool). Steel design shall conform to American Concrete Institute Code. Uplift loads can be reduced by 70%, if an under-draining system is provided. Construction verification checklist must be provided by design engineer or approved alternate. Design storm shall be at least SCS 24-hour 100-year event or equivalent approved the Development Services Department.

(Dams with vertical heights between 6 and 25 feet with less than 100 acre-feet of storage)

Earthen dam:

Design, construction supervision, and certification of completion according to plans and specifications to be by civil engineer and a geotechnical engineer both licensed to practice in the State of Georgia.

Design shall conform to the requirements of a Category I Spillway Standards Dam as classified by the Georgia Safe Dams Office and as published in "Georgia Safe Dams Act and Rules for Dam Safety," Act No. 796, as amended to date.

Design storm shall be at least 25% of the Probable Maximum Precipitation (6-hour) storm event.

Principal spillway shall be adequate to handle at least the 50-year flood. Emergency spillway(s) as a minimum shall be adequate to handle flows in excess of the 50-year flood, up to the ¼ PMP.

Front and back slopes shall not be steeper than 3:1 unless design includes a slope stability analysis, which confirms and documents that a steeper slope will be stable. In no condition, however, will a slope steeper than 2:1 be permitted.

All organics and topsoil shall be removed from the entire footprint of the dam and the foundation certified by a geotechnical engineer (PE).

Earthen fill shall be CL or ML material approved for use by geotechnical engineer (PE), placed, and compacted to not less than 95% standard proctor under said engineer's direction.

Compaction records accompanied by a geotechnical engineer's certification that soil compaction meets this specification should be forwarded to the Development Services Department.

The low-level outlet (lake drain) shall be concrete pressure pipe or ductile iron pressure pipe, cradled in concrete. Bedding shall be in concrete poured the full width of the exposed trench and as a minimum, up to the spring line of the pipe. Pipe and joints shall be rated for internal pressures exceeding that of the design storm and shall meet or exceed ASTM 361 or AWWA C-301. Corrugated metal pipe is not allowed.

A lake drain may also be comprised of a valve-operated siphon system designed by a registered civil engineer licensed in the State of Georgia. Piping for a siphon system shall be schedule 80 PVC in conformance with current state standards or ductile iron with mechanical joints or PV joints with adequate strength and anchoring to sustain the water forces incumbent with operation.

Freeboard of a dam, above the design storm maximum pool, shall be 3.0 feet in lieu of fetch calculations of wave height justifying a lesser freeboard. Douglas County reserves the right to require additional freeboard above the nominal 3-foot requirement, if supported by fetch calculations.

Crest width shall be not less than 12.0 feet.

Reinforced concrete or masonry dam:

Design, construction supervision, and certification of completion according to plans and specifications to be by design civil engineer and a geotechnical engineer both licensed to practice in the State of Georgia.

Design shall address and account for overturning, uplift, and seepage with adequate safety factor and adequate freeboard.

All slab on grade concrete, including concrete footings, shall be designed and constructed to control seepage and piping of foundation soil along the underside of the slab in incorporating cutoff walls or other appropriate measures.

Design storm shall be as specified by the Development Services Department. Generally, at least 25% of the Probable Maximum Precipitation 6-hour storm event ( $\frac{1}{4}$  PMP) is required.

Principal spillway shall be adequate to handle at least the 50-year flood unless the emergency spillway is appropriately armored against scouring.

Emergency spillway shall be adequate to handle flows in excess of the 50-year flood, up to the 6-hour PMP.

Freeboard of a dam, above the design storm maximum pool, shall be 3.0 feet in lieu of fetch calculations of wave height justifying a lesser freeboard. Additional freeboard above the nominal 3 feet required, if supported by fetch calculations.

Design shall conform to the requirements of a Category I Spillway Standards Dam as classified by the Georgia Safe Dams Office and as published in "Georgia Safe Dams Act and Rules for Dam Safety," Act No. 796, as amended to date.

All organics and topsoil shall be removed from the entire footprint of the dam and the foundation certified by a geotechnical engineer (PE).

Earthen fill (if any) shall be subject to the criteria specified above for earthen embankments.

Required 28-day compressive strength for concrete is 3000 psi.

**1025 (b) Temporary pool impoundments.**

Normally dry stormwater storage basins - impound stormwater temporarily, i.e., dry detention ponds.

(1) General criteria.

Design to be by registered civil engineer licensed to practice in the State of Georgia.

Detention pond dams equal to or greater than 15 feet in height or greater than 50 acre-feet of storage must conform to the corresponding design criteria for permanent impoundments, as referenced above.

(The following criteria apply to dry detention pond dams less than 15 feet high and less than 50 acre-feet).

- (a) Design storm shall be at least the 100-year storm.
- (b) Multi-frequency outflow control shall be provided for the 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year frequency storms.
- (c) Principal spillway shall be adequate to handle at least the 25-year flood.
- (d) Emergency spillway(s) shall be provided to handle flows in excess of the 25-year flood, up to the 100-year flood.
- (e) No orifice shall be less than 3 inches in diameter unless it is installed to meet a State or local requirement.
- (f) Install fencing around all ponds deeper than 6 feet as measured vertically from the crest of the dam down to the invert of the pond, or around all ponds deeper than 4 vertical feet in cases where walls are utilized to create the detention pond. Gates are to be at least 12 feet wide to permit access for maintenance equipment. Douglas County is not responsible for the replacing of any non-permitted structures or plantings destroyed, removed, or otherwise damaged during maintenance operations. Fencing shall not be installed across spillways or drainage ways.
- (g) A 12-foot combined drainage and permanent access easement shall be established around the pond at the 100-year pool level or at the elevation of top of dam, whichever is greater to provide access and permanently prevent usage or modification of this flood storage area. A 12-foot combined easement shall also be provided along the toe of the dam. A 20-foot access easement from the public right of way shall be provided.

(2) Specific criteria.

Earthen Dam:

Front slope shall not be steeper than 2.5:1 unless design includes a slope stability analysis, which confirms and documents that a steeper slope will be stable. In no condition, however, can any slope be steeper than 2:1.

All organics and topsoil shall be removed from the entire footprint of the dam and the foundation inspected and approved by the geotechnical licensed, qualified engineer prior to fill placement.

Earthen fill shall be CL or ML material approved for use by a geotechnical engineer (PE) and placed and compacted to not less than 95% Standard Proctor under said engineer's direction.

Freeboard of a dam, above the 100-year design storm maximum pool, shall be 2.0 feet in lieu of fetch calculations of wave height justifying a lesser freeboard. Douglas County reserves the right to require additional freeboard above the nominal two feet requirement, if supported by fetch calculations.

Crest width shall be not less than 12.0 feet, unless approved by the Development Services Department.

Proprietary design products may be considered on a case-by-case basis.

Reinforced concrete or masonry dams:

Design shall address and account for overturning, uplift, and seepage with adequate safety factor (2.0 for overturning, 1.5 for sliding) and adequate freeboard (0.5 feet above 100-year). Steel design shall conform to American Concrete Institute Code. Uplift loads can be reduced by 70%, if an underdraining system is provided. Construction verification checklist must be provided by design engineer or approved alternate.

All slab on grade concrete, including concrete footings, shall be designed and constructed to incorporate appropriate cutoff walls.

In no condition can any fill slope (if any) be steeper than 2:1.

All organics and topsoil shall be removed from the entire footprint of the dam and the foundation inspected and approved by the Development Services Department prior to gravity dam concrete or masonry placement.

Earthen fill (if required) shall be approved for use by a geotechnical engineer (PE) and placed and compacted to not less than 95% Standard Proctor under said engineer's direction.

Freeboard of a dam, above the 100-year design storm maximum pool, shall be 2.0 feet along any earthfill sections of the dam, in lieu of fetch calculations of wave height justifying a lesser freeboard. Douglas County reserves the right to require additional freeboard above the nominal two feet requirement, if supported by fetch calculations. Freeboard for the concrete section of the dam shall be a minimum of 0.5 feet.

Required 28-day compressive strength for concrete is 3000 psi.

**Sec. 1026 - Outdoor lighting.**

The regulations of this division are intended to:

- (1) Permit reasonable uses of outdoor lighting for nighttime safety, utility, security, productivity, enjoyment and commerce;
- (2) Curtail and reverse the degradation of the nighttime visual environment and the night sky;
- (3) Preserve the dark night sky for astronomy;
- (4) Minimize glare, obtrusive light and artificial sky glow by limiting outdoor lighting that is misdirected, excessive or unnecessary;
- (5) Conserve energy and resources to the greatest extent possible; and
- (6) Help protect the natural environment from the damaging effects of night lighting from human-made sources.

**1026 (a) Conformance with applicable regulations.**

All outdoor lighting devices must comply with the provisions of this division, the building code and the electrical code, required permits and inspections, as applicable.

**1026 (b) Prohibited lighting.**

The following are expressly prohibited:

- (1) Aerial lasers;
- (2) Searchlight style lights;
- (3) Light sources that exceed 200,000 lumens or intensity in any direction of 2,000,000 candelas or more; and
- (4) Exposed neon lighting.

**1026 (c) Exempt lighting.**

The following luminaries and lighting systems are expressly exempt from the regulations of this division:

- (1) Underwater lighting used for the illumination of swimming pools and fountains;
- (2) Temporary holiday lighting;
- (3) Lighting required and regulated by the Federal Aviation Administration, or other authorized federal, state or local government agency;
- (4) Emergency lighting used by police, fire, or medical personnel, or at their direction;
- (5) Security lighting controlled and activated by a motion sensor device for a duration of 10 minutes or less.

**1026 (d) Regulations.**

- (a) Applicability.
  - (1) The regulations of this section apply:
    - a. To all new land uses, new developments and new buildings that require a permit;
    - b. Whenever existing land uses, developments or buildings are expanded by 50 percent or more in terms of additional dwelling units, parking spaces or gross floor area, in which case the entire property must be brought into conformance with these regulations; and
    - c. Whenever existing outdoor lighting constituting 75 percent or more of the permitted lumens for the parcel is modified or replaced, no matter the actual amount of lighting already on the site.
  - (2) When existing developments or buildings are expanded by less than 50 percent in terms of additional dwelling units, parking spaces or gross floor area and the expansion requires a permit, the applicant must submit a complete inventory and site plan detailing all existing and any proposed new outdoor lighting. Any new lighting on the site must comply with the shielding and lamp type regulations of this division.
- (b) General regulations.
  - (1) Outdoor lighting fixtures must be full cutoff and placed so as to allow no light above the horizontal as measured at the luminaire, except as herein noted in this section (as in the case of period fixtures, cutoff fixtures may be used) and except as allowed in Article 7 (Sign Regulations).
  - (2) Outdoor lighting fixtures must be located, aimed or shielded to minimize glare and stray light trespassing across lot lines and into the public right-of-way.
  - (3) Flood or spot lamps must be positioned no higher than 45 degrees above straight down (half-way between the vertical and the horizontal) when the source is visible from any off-site residential property or public roadway.

**Table 10.7: Maximum Footcandles at Property Lines Including Rights-of-Way**

At Property Lines Including Rights-of-Way	Maximum Footcandles
At property line abutting a residential or an agricultural use	0.5
At property line abutting an office or institutional use	1.0
At property line abutting a commercial or industrial use	1.5

**Table 10.8: Minimum and Maximum Footcandles in Off-Street Parking Lots**

Off-Street Parking Lots	Minimum Footcandles	Average Footcandles	Maximum Footcandles
Residential areas	0.5	2.5	4.0
Office-professional areas	1.0	3.5	6.0
Commercial areas	2.0	7.0	12.0
Industrial areas	1.0	5.0	8.0

- (4) All light fixtures that are required to be shielded shall be installed and maintained in such a manner that the shielding is effective as described herein for fully shielded fixtures.
  - (5) Lighting on sites consisting of multiple uses must conform to the standards of the respective uses.
  - (6) Illumination levels are measured from any height and orientation of the measuring device at any location along the property line except the lighting of parking lots must be measured at grade with the meter sensor held horizontally at the surface.
- (c) Specific uses and activities.

This subsection establishes supplemental lighting regulations for specific types of uses and activities. All lighting not directly associated with the special use areas designated below must comply with all other applicable regulations of this division.

- (1) Service station canopies and parking garages.
  - a. All luminaries mounted on or recessed into the lower surface or service station canopies and parking structures must be fully shielded and utilize flat lenses.
  - b. The total light output of luminaries mounted on the lower surface, or recessed into the lower surface of the canopy, and any lighting within signage or illuminated panels over the pumps, may not exceed 50 footcandles. The total light output of other illuminated areas of a service station may not exceed 15 footcandles.
  - c. Illuminance levels for the interior of parking structures, where interior lighting is visible from outside the structure, must conform to IESNA recommendation RP-20.
  - d. Lights may not be mounted on the top or sides of a canopy, and the sides of the canopy may not be illuminated.
- (2) Security lighting.
  - a. Security lighting must be directed towards the targeted area.
  - b. Sensor activated lighting must be located in such a manner as to prevent direct glare and lighting into properties of others or into a public right-of-way, and the system

must be designed and maintained so that lights are not activated by activity off of the subject property.

- (3) Architectural accent lighting.
  - a. Fixtures used to accent architectural features, materials, colors, style of buildings, landscaping, or art must be located, aimed and shielded so that light is directed only on those features. Such fixtures must be aimed or shielded to minimize light spill into the dark night sky in conformance with the luminaire standards.
  - b. Lighting fixtures may not generate glare, or direct light beyond the facade onto a neighboring property, streets or into the night sky.
- (4) Parking areas.
  - a. All lighting fixtures servicing parking lots must be directed downward and not towards buildings or other areas.
  - b. Parking lots must be illuminated to a minimum illumination level of 0.4 footcandles at grade level, and the ratio of the average illumination to the minimum illumination may not exceed 4:1.
  - c. Light poles used in parking lots with 100 parking spaces or less may not exceed 20 feet in height. Light poles used in parking lots with more than 100 parking spaces may not exceed 35 feet in height.

**1026 (e) Plans.**

- (a) Applicants for any permit for any residential use required by any provision of the ordinances of the county involving outdoor lighting fixtures must submit evidence that the proposed work will comply with the outdoor lighting regulations of this division.
  - (1) The submission must include the following information with the application for the required permit:
    - a. Description of all proposed outdoor illuminating devices, fixtures, lamps, supports, reflectors. The description may include, but is not limited to catalog cuts and illustrations by manufacturers.
- (b) Applicants for any permit for any commercial use required by any provision of the ordinances of the county involving outdoor lighting fixtures must submit evidence that the proposed work will comply with the outdoor lighting regulations of this division.
  - (1) The submission must include the following information with the application for the required permit:
    - a. Plans indicating the location on the premises of each outdoor illuminating device, both proposed and any already existing on the site.
    - b. Description of all proposed illuminating devices, fixtures, lamps, supports, reflectors. The description may include, but is not limited to catalog cuts and illustrations by manufacturers.
    - c. Photometric data, such as that furnished by manufacturers or similar, showing the angle of cut-off of light emissions.

- d. Photometric plans must include the maximum and average light layout.
- (2) The above required plans, descriptions, and data must be complete and accurate so that the Development Services Department is able to readily determine whether the proposal will comply with the requirements of this division.

**Sec. 1027 - Bond requirements.**

- (1) When bonds are required, the developer must provide proof in writing on forms supplied by, or in a format approved by, Douglas County that a maintenance bond, letter of credit which shall be irrevocable and collateralized, or escrow account in the amount not less than 25 percent of the actual construction cost of the development and/or a performance bond, letter of credit which shall be irrevocable and collateralized, or escrow account in the amount of 150 percent of the actual construction cost of the development have been made payable to Douglas County to install and/or repair all infrastructure if deemed necessary at a future date. All required bonds shall remain current and in good standing or no future permits will be issued until sufficient bonds have been submitted and approved. The bond shall be with a company licensed to do business in the State of Georgia, included on the United States Department of Treasury's list of acceptable sureties, and shall have at least an "A++" or "A+" superior rating from A.M. Best or an equivalent rating from a Nationally Recognized Statistical Rating Organization. If provided from a bank, the bank shall be in good standing with the FDIC. The bond, letter of credit, or escrow amount shall remain in effect until the completion of all required repairs and improvements have been made, or the bond expiration date, whichever is greater.

At this time the Development Services Director or his/her designee shall either:

- (a) Release the bond and accept the bonded improvements.
- (b) Require an additional bond period of up to 12 months, if the project is not developed to the satisfaction of the county.
- (c) Call the bond and hold the bond proceeds until the project meets the county's satisfaction.
- (d) Call the bond and expend the bond proceeds to make the necessary improvements.

(2) Department of Transportation Bond Requirements for Proposed Road Improvements

- a) Performance Bonds and Maintenance Bonds are required for road improvements in Residential Development and all Commercial / Industrial Development.
- b) Bonds are required by the DOT to cover all cost for proposed work within the existing / proposed Right-Of-Way of an existing street or a new proposed street.
- c) Bonds or Letter Of Credit will be acceptable on Douglas County Department of Transportation forms only.
- d) A Performance Bond must be submitted and approved by the Department of Transportation Director or his / her designee prior to plan approval for all Residential, Commercial, and Industrial developments. The Performance Bond shall be 150% of the estimated construction

cost of proposed improvements within the County's Right-Of-Way. The term limit for the Performance Bond is 24 months.

- e) A Maintenance Bond must be submitted and approved by the Department of Transportation Director or his / her designee after the inspection, approval of road improvements and prior to release of the Performance Bond for Residential, Commercial, and Industrial developments. The Maintenance Bond shall be 25% of the estimated construction cost of proposed improvements within the County's Right-Of-Way. The term limit for the Department of Transportation Maintenance Bond is 36 months.
- f) The bond shall be with a company licensed to do business in the State of Georgia, included on the United States Department of Treasury's list of acceptable sureties, and shall have at least an "A++" or "A+" superior rating from A.M. Best or an equivalent rating from a Nationally Recognized Statistical Rating Organization. If provided from a bank, the bank shall be in good standing with the FDIC. The bond, letter of credit, or escrow amount shall remain in effect until the completion of all required repairs and improvements have been made, or the bond expiration date, whichever is greater.