

EXHIBIT A

construction or alteration as permitted. A temporary certificate of compliance may also be issued for a period not to exceed six (6) months to allow for utilities to be connected to an unoccupied structure for rent and/or sale. It shall be unlawful to permanently occupy any portion of a newly constructed or altered building or structure, or to allow a change of use to occur unless a Certificate of Compliance has been granted as prescribed in § 3.2.5. The procedures for issuance of a temporary certificate of occupancy shall be in the same manner as set forth for certificates of compliance in § 3.2.5.2.

3.2.7. GRADING PERMITS.

3.2.7.1. Application. Upon the effective date of this Ordinance, it shall be unlawful for any person(s) to commit any land disturbing activity, including removal of vegetation, until a Grading Permit has been issued by the Administrator.

3.2.7.2. Coordination with Erosion Control. A Grading Permit shall not be issued until a sedimentation and erosion control permit has been issued, ~~if applicable.~~

Land disturbance of under one (1) acre is subject to the requirements set forth in the Land Development Standards Manual (LDSM).

Land disturbance of over one (1) acre is subject to the requirements set forth in the Land Development Standards Manual (LDSM) and NCDEQ.

3.2.7.3. Approval Criteria. The grading permit shall be issued by the Administrator only if the application complies with the standards of Appendix B and as referenced below:

- the provisions for floodplain protection as prescribed in § 4.14 of this Ordinance;
- the provisions for vegetation protection and retention as prescribed in § 3.2.7.6 below; and
- as required by an approved conditional use permit, conditional rezoning, or site plan.

3.2.7.4. Exemption. A Grading Permit shall not be required for the following:

- agricultural uses, as defined in Table 4.6-1;
- ~~single family detached homes; or~~
- ~~land disturbing activities that do not disturb more than one (1) acre of land.~~

3.2.7.5. Validity. The grading permit shall be valid for one year. Resubmission of plans and an application for a new grading permit, including applicable fee(s), shall be required upon expiration of grading permit.

3.2.7.6. Vegetation Protection and Retention. Grading plans shall be designed to preserve existing trees and vegetation to the greatest extent possible and shall seek to incorporate existing significant stands of trees as well as individual trees. Certain excavation techniques used by utility companies and others can cause removal of vital roots, change drainage patterns and create conditions that could kill trees and plant materials or make them more susceptible to disease and deterioration. The intent of these regulations is to recognize the need to alter the landscape during site development activities while setting out standards necessary to ensure tree preservation to the greatest extent possible.

A. General Requirements. Existing trees and vegetation that are to be preserved should be protected from all construction activities including installation and/or replacement of utilities, earthwork operations, movement and storage of equipment and materials and dumping of toxic materials. Tree and vegetation protection techniques shall be shown in the Grading Plans and shall be in conformance with standard practices set forth in Appendix B of this Ordinance.

B. The Administrator shall use the guidelines below to assist in determining the approval of a Grading Permit. Vegetation should be removed if:

- the vegetation prevents the reasonable development of a property and without its removal, development of the land will be prevented;
- the vegetation poses a safety hazard to pedestrians or vehicles, buildings or structure;
- the vegetation imposes a disruption or potential disruption of utility services;
- the vegetation prevents access to property; or
- the vegetation is diseased or will become diseased due to infectious disease, insect infestation, wind or ice storm, or fire and poses a threat to the safety and welfare of the

public, vehicles, structures or buildings.

3.2.8. STORMWATER MANAGEMENT PERMITS.

3.2.8.1. Application. Upon the effective date of this Ordinance, it shall be unlawful for any person(s) to commit any land disturbing activity, including removal of vegetation, until a Stormwater Management Permit has been issued by the Administrator. See Article 9.

3.2.8.2. Coordination with Erosion Control. A Stormwater Management Permit shall not be issued until a sedimentation and erosion control permit has been issued as set forth in § 9.1, if applicable.

3.2.8.3. Approval Criteria. The Stormwater Management Permit shall be issued by the Administrator only if the application complies with the standards of Appendix B & ~~C~~ the LDSM and as referenced below:

- the provisions for Stormwater as prescribed in Article 9 of this Ordinance;
- as required by any approved conditional use permit, conditional rezoning, or site plan.

3.2.8.4. Exemption. A Stormwater Management Permit shall not be required for the following:

- agricultural uses, as defined in Table 4.6-1;
- single-family detached homes; or
- land disturbing activities that disturb less than 20,000 square feet.

3.2.8.5. Validity. The Stormwater Management Permit shall be valid for one year. Resubmission of plans and an application for a new permit, including applicable fee(s), shall be required upon expiration of permit.

buffering are described in detail in Article 7.

4.3.19.4. Standards for off-street parking and loading facilities, and vehicular access are described in detail in Article 8 **and the Land Development Standards Manual (LDSM).**

4.3.19.5. Environmental control regulations, including those for stormwater and soil erosion and sedimentation control are described in detail in Article 9 **and the Land Development Standards Manual (LDSM).**

4.3.19.6. Design and improvement standards for some types of development are regulated in accordance with Article 11. In addition, Article 11 contains specific design standards for the CC Center City District, the CD Campus Development District, and the I-1 Light Industrial District that are unique to the respective districts.

4.3.19.7. Sign regulations are described in detail in Article 12.

4.3.19.8 Adequate public facilities standards are described in detail in Article 14.

4.3.20. PURPOSE STATEMENT FOR OVERLAY ZONING DISTRICTS.

The overlay zone creates special siting, use and compatibility issues which require use development regulations in addition to those found in the underlying zoning districts. If any regulation in an overlay zoning district requires lower densities, greater setbacks, or otherwise imposes greater standards than those required by the base zoning district, the more restrictive standard applies. See §§ 4.12 - 4.17 and §§ 15.1 - 15.3 for the purpose statements and regulations applicable to the overlay zoning districts.

4.3.21. PURPOSE STATEMENTS FOR FLOATING ZONES.

Certain floating zones, such as Cluster and Hamlet Developments, PUD, TND, TOD and PID are established in order to provide design flexibility and for special design regulations for mixed use development or large uses which provide special public benefits. The purpose statement for each floating zone is set forth in the regulations pertaining to the district. (See §§ 4.9-4.11, 4.18).

residential purposes within or fronting the Town Center, shall conform to the Design and Improvements Standards of § 11.5.2.4, 11.5.2.6, and 11.5.2.7 of the CC District.

4.10.4.5. Street, Alleys, Sidewalks, Street Trees, Street Furnishings and Utilities.

4.10.4.5.1. The Connectivity Ratio set forth in the Article 6 shall apply to the TND.

4.10.4.5.2. The street standards for TND roadways can be found in the Land Development Standards Manual (LDSM), are based on proven techniques for traffic calming and acceptable levels of vehicular circulation. Reduced roadway widths are also based on a comprehensive approach of streets and alleys.

- ~~Neighborhood Center Street:~~
~~ROW — 60'~~
~~BOC — 38' w/st. parking~~
~~Design Speed — 20 mph~~
~~Curb Radius — 30'~~
- ~~Neighborhood Street:~~
~~ROW — 50'~~
~~BOC — 25'~~
~~Design Speed — 20 mph~~
~~Curb Radius — 30'~~
- ~~Alley:~~
~~ROW — 20'~~
~~Pavement — 16'~~
~~DS — 15 mph~~
~~Curb Radius — 30' (optional)~~
- ~~⁽⁴⁾Plaza Street (one way):~~
~~ROW — 40' (each way w/plaza under HOA ownership and not part of the right of way)~~
~~BOC* — 30' w/ on street parking (each direction)~~
~~21' w/o on street parking (each direction)~~
~~Design Speed — 20mph~~
~~Curb Radius — 30'~~
~~*On street parking must be provided on Plaza Streets~~
- ~~⁽⁴⁾Boulevard Entry (4 lane)~~
~~ROW — 100' minimum~~
~~BOC — 28' w/o on street parking (each direction)~~
~~Design Speed — 40mph~~
~~Curb Radius — 30'~~

4.10.4.5.3. There shall be a continuous network of alleys to the rear of building lots within the TND, except when topography or physical feature makes impractical and as otherwise permitted herein. Dead end alleys are strongly discouraged, but in no circumstances shall an alley have a dead end length of over 100’.

4.10.4.5.4. An on-site transit stop shall be provided where the proposed TND is within the service area of a City bus system, a Public Transportation Authority or a Regional Public Transportation Authority.

4.10.4.5.5. Sidewalks shall be located on both sides of the street and separated from the roadway by a planting strip and/or designated parallel parking. If a planting strip is provided, it shall be a minimum of 6 feet in width.

4.10.4.5.6. Canopy Street trees shall be planted on both sides of the street and shall be spaced according to species and to the standards established in the landscape section of this ordinance. No understory trees shall be used as street trees. A consistent variety and species of street tree shall be maintained by street, but adjacent streets shall diversify species as a precaution against blight. Street trees planted within the TND commercial district or within an area subject to heavy foot traffic, design measures (such as tree grates) shall be installed as a measure to protect the tree root system.

4.10.4.5.7. Street furnishings shall include but not limited to:

- Commercial Areas: Pedestrian scale decorative street lights, decorative street signs, benches, trash receptacles, water fountain and other appropriate decorative pedestrian oriented features.
- Residential Areas: Pedestrian scale decorative street lights, decorative street signs.

4.10.4.5.8. To the extent possible, underground utilities (and associated pedestals, cabinets, junction boxes and transformers) including electric, cable TV, telephone and natural gas service shall be located within the alley ROW and not along the streetscape frontage. It is assumed that domestic water service and sanitary sewer will serve from the streetscape frontage, but will

be located in such a way to cause the least impact on the planting strip and required street trees. Public Utility Departments, Companies and their contractors shall be required to cooperate with this effort.

4.10.4.6. Parking.

4.10.4.6.1. Except as otherwise provided by this subsection, parking requirements for all uses shall be in accordance with the Article 8 **and the Land Development Standards Manual (LDSM)** Parking Standards of this Ordinance.

4.10.4.6.2. On street parking is required where a particular land use will generate regular guest or customer parking use. Occasional on-street parking (such as within a single family area) can be accommodated without additional pavement width or delineation.

4.10.4.6.3. On-street parking shall be provided on streets abutting squares, small parks or other urban open spaces.

4.10.4.6.4. For interior commercial parcels, no less than 75% of the parking space shall be located to the rear of the building being served. Commercial parcels fronting on non-pedestrian oriented major arterials may located primary parking lots along this frontage. Where primary parking abuts streets within the interior of the TND, screen walls shall be erected on the frontage line where primary parking lots are located.

4.10.4.6.5. Primary parking lots (over 24 spaces) and parking garages shall not: (1) abut street intersections; (2) be located adjacent to squares or parks; or (3) occupy lots which terminate a street vista.

4.10.4.6.6. Adjacent parking lots shall have vehicular connections from an alley.

4.10.4.6.7. Parking for retail and service uses shall not require on-site parking provided, however, that: (1) the required parking, in accordance with the Parking Standards of this Ordinance, is available within a six-hundred-foot radius of the activity; (2) the total floor space for the individual uses does not exceed twenty-five hundred (2500) square feet of gross floor area; and (3) such uses are restricted to Retail and multi-family areas. Due to the pedestrian nature

of the TND, parking requirements for retail, service and institutional uses may be reduced by 25% of any use related parking standards established in Article 8 of this ordinance. On-street parking shall count toward any minimum parking requirements.

4.10.4.6.8. Loading areas shall adjoin alleys or parking areas to the rear of the Principal Building unless otherwise approved on the TND plan.

4.10.4.7. Landscaping and Buffering.

4.10.4.7.1. Except as otherwise provided by this subsection, landscaping requirements for all uses shall be in accordance with the Article 7 Landscaping and Screening Standards of this Ordinance.

4.10.4.7.2. The purpose of this Section is to ensure that trees are used as a design element to provide visual identity to the TND and to reinforce the public function of streets. Street trees shall be planted along all streets at an average center to center spacing based on the mature spread of the particular street tree.

4.10.4.8. Town Center.

⁽¹⁾Land Allocation and Location. The Town Center shall have a minimum area of one square foot per five hundred (500) square feet of gross site area of the entire TND site excluding Greenway areas. Commercial areas shall only be permitted where designated on the Site Plan. A town center shall be located only on a street with adequate capacity to serve it. Example: A proposed TND has a gross site area of 300 acres, with an additional 8 acres of greenway running through the site. The minimum square footage for the Town Center is 26,136 square feet (13,068,000 square feet gross site area / 500 square feet per gross site area).

4.10.4.8.1. Non-residential Uses. The goal of the Town Center is to incorporate a mixture of small-scale retail, office, and neighborhood service uses into the TND environment. However, larger anchor stores or uses may be included as part of an overall commercial package. Such proposals will be evaluated on a case-by case basis by the Planning & Zoning Commission.

4.10.4.9. Open Space.

4.10.4.9.1. The proposed development shall include at least the amount of open space as prescribed in Table 4.10-1. Open Space shall comply with the design requirements of Column (F) of Table 4.10-1. ⁽¹⁾Activities permitted within designated Open Space shall include those activities and their customary appurtenant improvements supporting open space uses as stated in the definition of Open Space shown in Appendix A.

4.10.4.10. TND Site Plan.

4.10.4.10.1. In addition to the preliminary plat and conditional use requirements specified in Appendix B, the TND Site plan shall also include all aspects of the spatial relationships proposed for the Traditional Neighborhood Development including:

- layout and dimensions of lots, setbacks (build-to-lines) ~~roadways, — alleys, underground utilities~~, open spaces and all information required to define the relationships within the streetscape;
- designated land uses and associated building heights with proposed streetscape enclosure ratios;
- proposed streetscape furnishings including the pedestrian lighting plan;
- proposed street tree landscape plan;
- outline covenants and design codes.
- Standards for roadways, alleys, and underground utilities can be found in the Land Development Standards Manual (LDSM).

4.10.5. TND INFILL.

All applications for a TND Infill site shall comply with the following development parameters:

4.10.5.1. Size and Location of Site. The maximum size of the site shall not exceed forty (40) acres, except as provided herein. The maximum size may be exceeded for sites zoned CC when the Application for Development Approval is filed.

4.10.5.2. Land Allocation and Density. A single land use category, as set forth in Table 4.10-1, may be approved as a TND Infill site. The requested densities shall conform to § Table 4.10-1.

4.10.5.3. Land Use.

4.10.5.3.1. The standards pertaining to abutting uses relate to the land use category of adjacent uses. The land use category may be determined from Table 4.11-1, below, where an adjacent site is developed as a TND Infill site, or from the Table below where the adjacent site is developed or within another zoning category. Uses listed in the Use Matrix within the zoning districts set forth in Column B, below, are within the “same land use category” as the corresponding TND land use category in Column A.

(A) <u>TND Land Use Category</u>	(B) <u>Zoning Category</u>
Civic	C-1, C-2
Retail	B-1, C-1
Office	C-2
Multi-family	RV, RC
Single-family	RE, RL, RM-1, RM-2

4.10.5.3.2. Carefully blended land uses form the essence of Traditional Neighborhood Development. Uses within different land use categories, may abut at rear lot lines or at side lot lines and facing (subject to subsection 4.10.8.3.3, below). Open space, such as parks, squares, greens and plazas shall be considered similar land uses with all TND use categories.

4.10.5.3.3. The following land use categories may abut at side lot lines or face across a street, square, park or common space:

- Single family may abut multi-family and small scale institutional;
- Multi-family may abut single-family, office, civic, institutional or retail;
- Retail may abut multi-family, office, civic or institutional. (Retail uses include shops, restaurants, entertainment and lodging.);
- Office may abut retail, institutional, civic, or multi-family.
- Institutional may abut single family (if the institutional use is small in scale), multi-family, office, civic or retail. (Institutional uses include privately owned uses including religious buildings, non-profit institutions, private recreational facilities, clubhouses, museums, cultural societies, visual and performance arts buildings.);
- Civic may abut institutional, multi-family,

standards. Retail and Office use buildings shall conform to §§ 11.5.2.4, 11.5.2.5, 11.5.2.6, and 11.5.2.7 of the CC District supplemental design standards.

4.10.5.6. Street, Alleys, Sidewalks, Street Trees, Street Furnishings and Utilities.

4.10.5.6.1. The Connectivity Ratio set forth in the Article 10 shall apply to the TND.

4.10.5.6.2. The street standards for TND roadways can be found in the Land Development Standards Manual (LDSM), are based on proven techniques for traffic calming and acceptable levels of vehicular circulation. Reduced roadway widths are also based on a comprehensive approach of streets and alleys.

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4.10.5.6.3. There shall be a continuous network of alleys to the rear of building lots within the TND, except when topography or physical feature makes impractical and as otherwise permitted herein. Dead end alleys are strongly discouraged, but in no circumstances shall an alley have a dead end length of over 100'.

4.10.5.6.4. An on-site transit stop shall be
 (1) City Council approved 9/27/2004

Transportation Authority.

4.10.5.6.5. Sidewalks shall be located on both sides of the street and separated from the roadway by a planting strip and/or designated parallel parking. If a planting strip is provided, it shall be a minimum of 6 feet in width.

4.10.5.6.6. Canopy Street trees shall be planted on both sides of the street and shall be spaced according to species and to the standards established in the landscape section of this ordinance. No understory trees shall be used as street trees. A consistent variety and species of street tree shall be maintained by street, but adjacent streets shall diversify species as a precaution against blight. Street trees planted within the TND commercial district or within a area subject to heavy foot traffic, design measures (such as tree grates) shall be installed as a measure to protect the tree root system.

4.10.5.6.7. Street furnishings shall include but not limited to:

- Commercial Areas: Pedestrian scale decorative street lights, decorative street signs, benches, trash receptacles, water fountain and other appropriate decorative pedestrian oriented features.
- Residential Areas: Pedestrian scale decorative street lights, decorative street signs.

4.10.5.6.8. To the extent possible, underground utilities (and associated pedestals, cabinets, junction boxes and transformers) including electric, cable TV, telephone and natural gas service shall be located within the alley ROW and not along the streetscape frontage. It is assumed that domestic water service and sanitary sewer will serve from the streetscape frontage, but will

be located in such a way to cause the least impact on the planting strip and required street trees. Public Utility Departments, Companies and their contractors shall be required to cooperate with this effort.

4.10.5.7. Parking.

4.10.5.7.1. Except as otherwise provided by this subsection, parking requirements for all uses shall be in accordance with the Article 8 Parking Standards of this Ordinance.

4.10.5.7.2. On street parking is required where a particular land use will generate regular guest or customer parking use. Occasional on-street parking (such as within a single family area) can be accommodated without additional pavement width or delineation.

4.10.5.7.3. On-street parking shall be provided on streets abutting squares, small parks or other urban open spaces.

4.10.5.7.4. For interior commercial parcels, no less than 75% of the parking space shall be located to the rear of the building being served. Commercial parcels fronting on non-pedestrian oriented major thoroughfares may locate primary parking lots along this frontage. Where primary parking abuts streets within the interior of the TND, screen walls shall be erected on the frontage line where primary parking lots are located.

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4.10.5.7.6. Adjacent parking lots shall have vehicular connections from an alley.

4.10.5.7.7. Parking for retail and service uses shall not require on-site parking provided, however, that: (1) the required parking, in accordance with the Parking Standards of this Ordinance, is available within a six-hundred-foot radius of the activity; (2) the total floor space for the individual uses does not exceed twenty-five hundred (2500) square feet of gross floor area; and (3) such uses are restricted to Retail and multi-family areas. Due to the pedestrian nature

of the TND, parking requirements for retail, service and institutional uses may be reduced by 25% of any use related parking standards established in Article 8 of this ordinance. On-street parking shall count toward any minimum parking requirements.

4.10.5.7.8. Loading areas shall adjoin alleys or parking areas to the rear of the Principal Building unless otherwise approved on the TND plan.

4.10.5.8. Landscaping and Buffering.

4.10.5.8.1. Except as otherwise provided by this subsection, landscaping requirements for all uses shall be in accordance with the Article 7 Landscaping and Screening Standards of this Ordinance.

4.10.5.8.2. The purpose of this Section is to ensure that trees are used as a design element to provide visual identity to the TND and to reinforce the public function of streets. Street trees shall be planted along all streets at an average center to center spacing based on the mature spread of the particular street tree.

4.10.5.9. Open Space.

4.10.5.9.1. The proposed development shall include at least the amount of open space as prescribed in Table 4.10-1. Open Space shall comply with the design requirements of Column (F) of Table 4.10-1. ⁽¹⁾Activities permitted within designated Open Space shall include those activities and their customary appurtenant improvements supporting open space uses as stated in the definition of Open Space shown in Appendix A.

4.10.5.10. TND Site Plan.

4.10.5.10.1. In addition to the preliminary plat and conditional use requirements specified in Appendix B, the TND Site plan shall also include all aspects of the spatial relationships proposed for the Traditional Neighborhood Development including:

- layout and dimensions of lots, setbacks (build-to-lines) ~~roadways, alleys, underground utilities~~, open spaces and all information required to define the relationships within the streetscape;
- designated land uses and associated building heights with proposed streetscape enclosure

- ratios;
- proposed streetscape furnishings including the pedestrian lighting plan;
- proposed street tree landscape plan;
- an outline of covenants and design codes.
- Standards for roadways, alleys, and underground utilities can be found in the Land Development Standards Manual (LDSM).

Runway - A defined area on an airport prepared for landing and takeoff of aircraft along its length

Structure - An object constructed or installed by man, including, but without limitation, buildings, towers, smokestacks, earth formations and overhead transmission lines.

Tree - Any object of natural growth.

4.13.3. LOCATION.

The AO Overlay District shall overlap and overlay the base zoning districts. The former City of Concord Airport Overlay District (AO) designated pursuant to the former City of Concord Zoning Ordinance § 790, is hereby designated as the AO Overlay District. Said overlay district may be expanded by adding additional land area from time to time by an amendment to this Ordinance.

4.13.4. PRINCIPAL AND ACCESSORY USES.

Permitted principal uses, conditional uses and accessory uses shall be those within the underlying zoning district as set forth in Table 4.6-1, provided that no use shall be made of land or water within any zone established by these regulations in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and others, result in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, attract birds or other concentrations of wildlife or otherwise in any way create a hazard or endanger the landing, take-off or maneuvering of aircraft intending to use the airport.

4.13.5. USE RESTRICTIONS.

Notwithstanding any other provisions of these regulations, no use may be made of land or water within any zone established by these regulations in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and others, result in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, attract birds or other concentrations of wildlife or otherwise in any way create a hazard or endanger the landing, take-off or maneuvering of aircraft intending to use the airport, [pursuant to NCGS § 143-214.7.](#)

4.13.6. AREA REGULATIONS.

Dimensional requirements such as lot size and building depth shall be governed by the underlying zoning districts. Height requirements shall be governed by the General Development Standards § 4.13.7, below, but in no event shall the height of any structure exceed the maximum height permitted by the underlying zoning district.

4.13.7. GENERAL DEVELOPMENT STANDARDS.

In order to carry out the provisions of these regulations, there are hereby created and established within the Concord Regional Airport. Such zones are shown on the Official Concord Regional Airport Hazard Zoning Map which is attached to these regulations and made a part hereof. An area located in more than one of the following zones shall be subject to the Airport Overlay District certain zones which include all of the land lying within the approach zones, transitional zones, horizontal zones and conical zones, as they apply to the more restrictive height limitation. The various zones are hereby established and defined in Column (B) of Table 4.13-1. Except as otherwise provided in these regulations, no structure or tree shall be erected, altered, allowed to grow or be maintained in any of the zones created by these regulations to a height in excess of the applicable height limit herein established for such zone. Unless otherwise specified, the height shall be measured from mean sea level. Such applicable height limitations are hereby established for each of the zones in Column (C) of Table 4.13-1.

6.4.8.9. The final subdivision plat application shall be accompanied by all formal irrevocable offers of dedication to the public of all streets, local government uses, utilities, parks, and easements, and the subdivision plat shall be marked with a notation indicating the formal offers of dedication as set forth in Appendix B.

6.4.8.10. In addition to the criteria as set forth in § 6.2 of this Ordinance, the Administrator shall not approve a final plat unless and until satisfactory evidence is filed that the final plat is in a form acceptable for recording with the Register of Deeds, and that all improvements have been satisfactorily installed or Subdivision Improvement Agreements have been signed by the applicant. The subdivider will also be required to submit a final subdivision plat fee, payment of all design costs for improvements, and appropriate performance surety.

6.4.8.11. The final plat shall comply with any staging or sequence plan set forth in the preliminary plat.

6.4.8.12. The applicant shall place reference monuments in the subdivision as required by NCGS § 47-30.

6.4.9. PHASING OF A PRELIMINARY PLAT. Whenever a subdivider applies for approval of a final plat which contains only a portion of the land encompassed in the approved preliminary plat, the final plat shall coincide with phase lines as established on the preliminary plat. Phasing of a preliminary plat shall not be permitted unless the phase lines are established and approved under the action of the Planning and Zoning Commission.

6.4.10. RECORDING A FINAL PLAT.

6.4.10.1. Within the time period prescribed by Table 6.4-1 of this Ordinance, after final plat approval, the applicant shall file the plat with the Register of Deeds as provided by law. The final plat approval shall expire within the above-referenced time period, unless the Administrator has granted an extension. Failure to record the final plat within the time frame noted shall cause the final plat approval to be void, and shall require a new application.

6.4.10.2. The applicant shall return a reproducible (mylar) copy of the recorded plat to the office of the Administrator.

6.4.10.3. Plat Review Officer. Final plats for major subdivisions shall be reviewed by a Review Officer in the same manner as set forth in § 6.3.7.4 of this Ordinance.

6.4.11. SCOPE OF APPROVAL FOR FINAL PLAT.

6.4.11.1. Approval of the final plat for a subdivision or section thereof shall not be deemed to be acceptance by the city or state of any street, alley, public space, utility or other physical improvements shown on the final plat and engineering plans for the maintenance, repair or operation thereof. (See § 6.4.13 for acceptance).

6.4.11.2. No zoning clearance permit or building permit shall be issued or approved until the expiration of ten (10) business days after a final plat has been recorded. The purpose of this time period is to permit the assignment of addresses and P.I.N.s (Parcel Identification Numbers) in the Land Records office of Cabarrus (or Rowan) County.

6.4.12. CONSTRUCTION PLANS.

6.4.12.1. Following approval of the Preliminary Plat, the applicant shall have prepared, by a professional engineer or professional landscape architect, registered in the State of North Carolina, construction plans, consisting of complete construction drawings and specifications of all easements, streets, traffic control devices, street lights, sanitary sewers, storm water facilities, water system facilities, sidewalks and other improvements required by Appendix C and the [Land Development Standards Manual \(LDSM\)](#) of this Ordinance and any additional technical manuals as adopted by the City. Construction plans shall be submitted to the Public Works Director for review and approval as an administrative permit. All improvements required pursuant to these regulations shall be constructed in accordance with the applicable requirements of this Ordinance, and, where applicable, the requirements and authorization of the appropriate state agency, utility company or local franchisee.

6.4.12.2. The Administrator shall delegate the authority to review and approve all construction plan applications to the Public Works Director.

6.4.12.3. All installations of improvements shall

conform to the approved construction plans. If the applicant chooses to make modifications in design and/or specifications prior to construction, such changes shall be subject to review and approval by the Public Works Director. It shall be the responsibility of the applicant to notify the Administrator in advance of any changes to be made from the approved drawings. In the event that actual construction work deviates from that shown on the approved construction plans, such unapproved work shall constitute a violation of this Ordinance and shall be remedied in accordance with Section 1.6. The applicant shall be required to correct the installed improvements to conform to the approved construction plans. In addition, the Administrator may take such other actions as may be deemed appropriate including, but not limited to, revocation of permits already issued and/or withholding of future approvals and permits until the violation is corrected.

6.4.12.4. As-Built Drawings.

Prior to final inspection of the required improvements, the applicant shall submit to the Administrator, per the Land Development Standards Manual (LDSM), one (1) reproducible copy and two (2) prints of as-built engineering drawings for each of the required improvements that have been completed. Each set of drawings shall be re-certified by the applicant's engineer indicating the date when the as-built survey was made.

6.4.12.4.1. As-built drawings shall show the constructed vertical elevation, horizontal location and size of all sanitary and storm sewers, manholes, inlets, junction boxes, detention basins and other appurtenances or elements of the sewerage and storm drainage systems constructed to serve the subdivision. In conjunction with the submittal of engineering plans and specifications, the subdivider shall be required to demonstrate compliance with the Sedimentation Control Standards of the overall area proposed to be developed. The subdivider shall cause all grading, excavations, open cutting and similar land surface disturbances to be mulched, seeded, sodded or otherwise protected to ensure compliance with the City's Sedimentation Control Standards. No work shall be initiated relative to the preparation of land or the installation of general improvements until such time as all aspects of the subdivider's engineering plans and sedimentation control proposals have

received approval.

6.4.12.4.2. As-built drawings shall depict water lines, valves, fire hydrants and other appurtenances or elements of the water distribution system constructed to serve the project. Such information shall include the horizontal location and size of water lines and location and description of valves with dimensional ties.

6.4.12.4.3. As-built drawings shall depict the location of all street rights-of-way, alignments, widths and vertical elevations.

6.4.12.4.4. As-built drawings shall show all control points and monumentation.

6.4.13. INSPECTION OF IMPROVEMENTS.

6.4.13.1. During the preparation of land and the installation of general improvements, periodic inspections shall be made to ensure conformity with the approved plans, specifications and standards. Appropriate agencies of the city and state may make inspections at any time during the progress of work.

6.4.13.2. All improvements required by these regulations shall be inspected prior to acceptance by the City. Where inspections are made by individuals or agencies, other than the Public Works Director, (or his/her designee), the applicant shall provide the Public Works Director with written reports of each final inspection.

6.4.13.3. Prior to beginning construction, the applicant shall arrange with the Public Works Director a pre-construction meeting for the purpose of coordinating construction activities.

6.4.13.4. It shall be the responsibility of the applicant to notify the Public Works Director (or his/her designee) of the commencement of construction of improvements one (1) full working day prior thereto. Inspections shall be required at each of the following stages of construction or as otherwise determined through and owner contract or development improvement agreement:

- Site grading/erosion control completion
- Underground utility installation
- Subgrade preparation prior to aggregate base installation
- Aggregate base compaction

Table 6.6-2. Maximum Number of Flag Lots

Size of Subdivision	Maximum Number or Percentage (%) of Flag Lots
2 – 20 lots	1 lot
Over 20 lots	1 per every 20 lots

- This table does not apply to the AG District. The AG district does not have a limit on the number of flag lots.
- The Administrator may approve additional flag lots if evidence is presented that physical hardships prevent development of land using conventional lot design.

6.6.9. INFRASTRUCTURE STANDARDS.

6.6.9.1. Standards for Street Design.

Public and/or private streets shall be designed in accordance with Article 10 of this Ordinance and the Land Development Standards Manual (LDSM).

6.6.9.2. Standards for Utilities.

Standards for the design and installation of public utilities shall be in accordance with Appendix C of this Ordinance and the Land Development Standards Manual (LDSM).

presented to the Administrator that these spaces will not be used regularly on a daily basis (will be used less than five times per week). Parking areas for which paving is waived shall maintain a gravel or crushed stone surface. The gravel must be at least two (2) inches deep throughout the vehicular use area, except as permitted in Watershed Protection Overlay Districts in Article 4. All parking areas for which paving is waived shall meet the minimum requirements of Volumes I-C and V of the North Carolina State Building Code for Accessibility and for Fire Prevention. All parking lots shall be constructed with proper drainage.

G. Overhang Protection - Wheel or bumper guards or curbing shall be provided, located and arranged so that no part of any parked vehicle will extend beyond the boundaries of the parking space and into a pedestrian crossing area.

1. Except where a wall is constructed, a minimum six (6) inch high vertical concrete curb (or individual bumper guard) shall be constructed or installed so that no part of a vehicle extends beyond the property line.

H. Striping Required - Off-street parking areas, as required by this Ordinance, shall be striped in accordance with the dimensions as set forth in this Article 8.

I. Backing Movements Prohibited. Except for single-, two-, and three-family dwellings on individual lots, parking spaces and driveways shall be arranged to require ingress and egress from the lot to a public street by forward motion of the vehicle.

J. Sight Triangles - Sight Triangles for intersections of driveways and public streets shall be regulated in accordance with [Appendix C of this Ordinance—Land Development Standards Manual \(LDSM\)](#).

K. Upfit to existing Public Street Required. New multi-family and nonresidential projects shall be required to provide curb and gutter and sidewalks* to adjacent public streets which provide access to the development, ⁽¹⁾in accordance with the policy on file in the office of the Public Works Director, except as where approved for an exception per Section C.1.8. Sidewalk, Curb, and Gutter Exception. Such

improvements may be subject to road widening and other related improvements. Road widening, sidewalks, curb and guttering, utility relocations, and all other related improvements shall be the responsibility of the developer and/or owner. Additional right-of-way dedication may be required, as deemed necessary, to accomplish future road improvements as determined by the City of Kannapolis Public Works Director. Design standards shall be subject to review and approval by the Public Works Director. Design standards for pedestrian upfits to state maintained roads shall be subject to review and approval by the Public Works Director, and the N. C. Department of Transportation.

*Note that sidewalks shall not be required ⁽¹⁾for development located in the I-1 and/or I-2 zoning districts. However, this shall not prohibit the requirement for other roadway improvements (such as curb and gutter or additional right-of-way).

L. Maintenance Standards - Parking lot access roads and off-street parking areas shall be properly maintained in all respects. In particular, parking lot access roads and off-street parking area surfaces shall be kept in good condition (free from potholes, structural failures, etc.) as determined by the City of Kannapolis Public Works Director, or his/her designee, and parking space lines or markings shall be kept clearly visible and distinct.

M. Fractions - When calculation of the number of required parking spaces results in a fractional number, a fraction of less than .5 shall be disregarded and a fraction of .5 or more shall be rounded to the next highest whole number.

8.1.3. DRIVEWAY AND PARKING SPACE REQUIREMENTS FOR SINGLE-FAMILY AND DUPLEX DWELLINGS ON INDIVIDUAL LOTS.

A. New Single-Family, Duplex, and Triplex dwellings shall construct and maintain a paved area large enough to accommodate two (2) 9'x18' off-street parking spaces per dwelling unit (excluding garage spaces) unless the public street on which the driveway connects is 20 feet wide or less of paved surface (excluding curb and gutter). In such cases, three (3) 9'x18' paved off-street parking spaces per dwelling unit shall be

8.2. (1) PRIVATE DRIVEWAY PROVISIONS.

8.2.1. SCOPE.

All proposed vehicular access points to connect to a public street shall conform to the Access Management provisions of this Section 8.2, as well as applicable sections of Article 10 and Appendix D of this Ordinance and the Land Development Standards Manual (LDSM). This Section 8.2 shall apply to all driveways or access points to be maintained on private property. The provisions of Appendix D of this Ordinance shall regulate that portion of a private driveway that connects to a public and extends to the edge of a public right-of-way.

A. If ingress and egress are the same, off-street parking spaces shall be connected to a public street by a paved driveway which affords safe and convenient ingress and egress provided, however, that the Administrator may waive this requirement where:

1. the driveway is connected to an adjacent driveway or series of driveways with access to a public street, and
2. the applicant has a valid easement providing for access to all driveways leading to the public street.

B. **Driveway Width** - The width of driveways shall be measured at the point of intersection with the public street right-of-way. Driveway width shall be regulated in accordance with ~~Table 8.2-1 below the LDSM~~, unless the Administrator determines the width should be expanded as set forth in § 8.2.1(C). Medians shall not be included in the calculation for the width of driveways. Where no right-of-way exists, the Administrator shall determine the most appropriate location for the measurement.

~~in Column "D" of Table 8.3-2~~

C. The Administrator may waive the requirements of § 8.2.1(B) only under the following conditions:

1. The Public Works Director determines that a wider turning area is needed in order to avoid a traffic hazard,
2. The Public Works Director and the Administrator jointly determine an appropriate distance from the point of intersection with the public street right-of-way where the driveway shall conform to the dimensional requirements of ~~Table 8.2-1 below the LDSM~~,
3. The design of the driveway is such that it progressively decreases in width to conform to the width as determined in ~~Table 8.2-1 below the LDSM~~,
4. Review and final approval of any proposed driveway design that does not conform to the dimensional limitation shall be under the authority of the Administrator upon recommendation from the Public Works Director.

Table 8.2-1 — Driveway Width		
Type	Min.	Max.
One way	*	20 feet
Two way	*	36 feet

*subject to parking design as set forth

TND Traditional Neighborhood Development
TOD Transit-Oriented Development

F. Uses Not Identified in Table 8.3-1 The Administrator shall determine the parking requirement for uses which do not correspond to the categories listed in Table 8.3-1. In such instances, the applicant shall provide adequate information by which the proposal can be reviewed, which includes but may not necessarily be limited to the following:

- type of use(s);
- number of employees;
- the Occupant Load (per Building Code) of the building;
- square feet of sales area and service area;
- parking spaces proposed on-site;
- parking spaces provided elsewhere; and
- hours of operation.

G. Multiple Uses - In those instances where there are clearly identified accessory or multiple uses within a structure or multiple structures, the minimum standards shall apply to each use or structure, resulting in a total parking requirement when summed, except as provided in § 8.3.1(I).

H. Seating Calculations. When seating consists of benches, pews, or other similar seating facilities, each 20 linear inches of seating space shall be counted as 1 seat. Where parking requirements relate to movable seating in auditoriums and other assembly rooms, 15 square feet of net floor area shall be construed to be equal to one seat.

1. Modification to Required Number of Spaces. In unusual circumstances, the standard parking requirement may not be appropriate. The Administrator shall have the authority to reduce the parking requirement by up to 10 percent, if fifty (50%) of the reduced area is used for parking lot landscaping. Additional landscaping must be in addition to that required by Article 7 of this Ordinance. Bonus landscaping area for reduced parking spaces shall only apply to industrial, commercial, and office/institutional districts.

I. Shared Parking - Off-street parking

requirements of a given use may be met with off-site, off-street parking facilities of another use when, and if, all of the following conditions are met:

1. In non-residential zoning districts, the parking may be up to five hundred (500) feet from the principal structure;

2. The applicant shall submit a shared parking study to the Planning Director clearly demonstrating the feasibility of shared parking. The study shall address, at a minimum, the size and type of proposed development and/or use, the composition of tenants, the anticipated rate of parking turnover, and the anticipated peak parking and traffic loads for all uses that will be sharing off-street parking spaces; and

3. A written agreement between the owners and lessees is executed for a minimum of ten (10) years, approved by the Administrator, recorded, and a copy maintained in the project file. Should the lease expire or otherwise terminate, the use for which the off-site parking was provided shall be considered to contain nonconforming site improvements. Future expansion of the use shall be prohibited unless the use is brought into compliance with the parking regulations of this Ordinance.

J. Developments which contain a mix of uses on the same parcel, as set forth in Table 8.1-5 below, may reduce the amount of required parking in accordance with the following methodology: (1) determine the minimum parking requirements in accordance with Table 8.3-1 for each land use as if it were a separate use, (2) multiply each amount by the corresponding percentages for each of the five time periods set forth in Columns (B) through (F) of Table 8.3-3, (3) calculate the total for each time period (Columns), (4) select the Column with the highest total, and (5) use this number as the required minimum number of parking spaces.

Minimum dimensions of standard parking spaces (other than compact car spaces and handicap spaces) and maneuvering area shall be as set forth in [Table 8.3-2 the LDSM](#).

8.3.2. PARKING AISLE AND SPACE

DIMENSIONS.

A. Handicapped Spaces – ~~Handicapped parking spaces shall be a minimum of 13 feet by 18 feet for a single non-van space (8 feet in width in addition to a 5-foot access aisle); a minimum of 16 feet by 18 feet for a single van space (8 feet in width in addition to an 8-foot access aisle); or 24 feet by 18 feet for a double van space, or a non-van and van double space (8 feet in width for each space with an 8-foot access aisle between spaces).~~ Parking spaces for handicapped or disabled persons shall comply **with the LDSM and** Chapter 4 of the North Carolina Accessibility Code. The required number of handicapped spaces is depicted in Table 8.3-4.

B. Compact Car Spaces – ⁽¹⁾Not more than twenty (20) percent of the spaces required by Table 8.3-1 shall be designed as compact car parking spaces. Each compact car parking space shall meet the requirements of ~~Table 8.3-2, Compact size vehicles~~ **the LDSM**. Compact car parking spaces shall be clearly marked or posted for “Compact Cars Only.” All other provisions of this Article relating to off-street parking requirements shall be met.

**FIGURE 8.3-1
STANDARD PARKING DIMENSIONS**

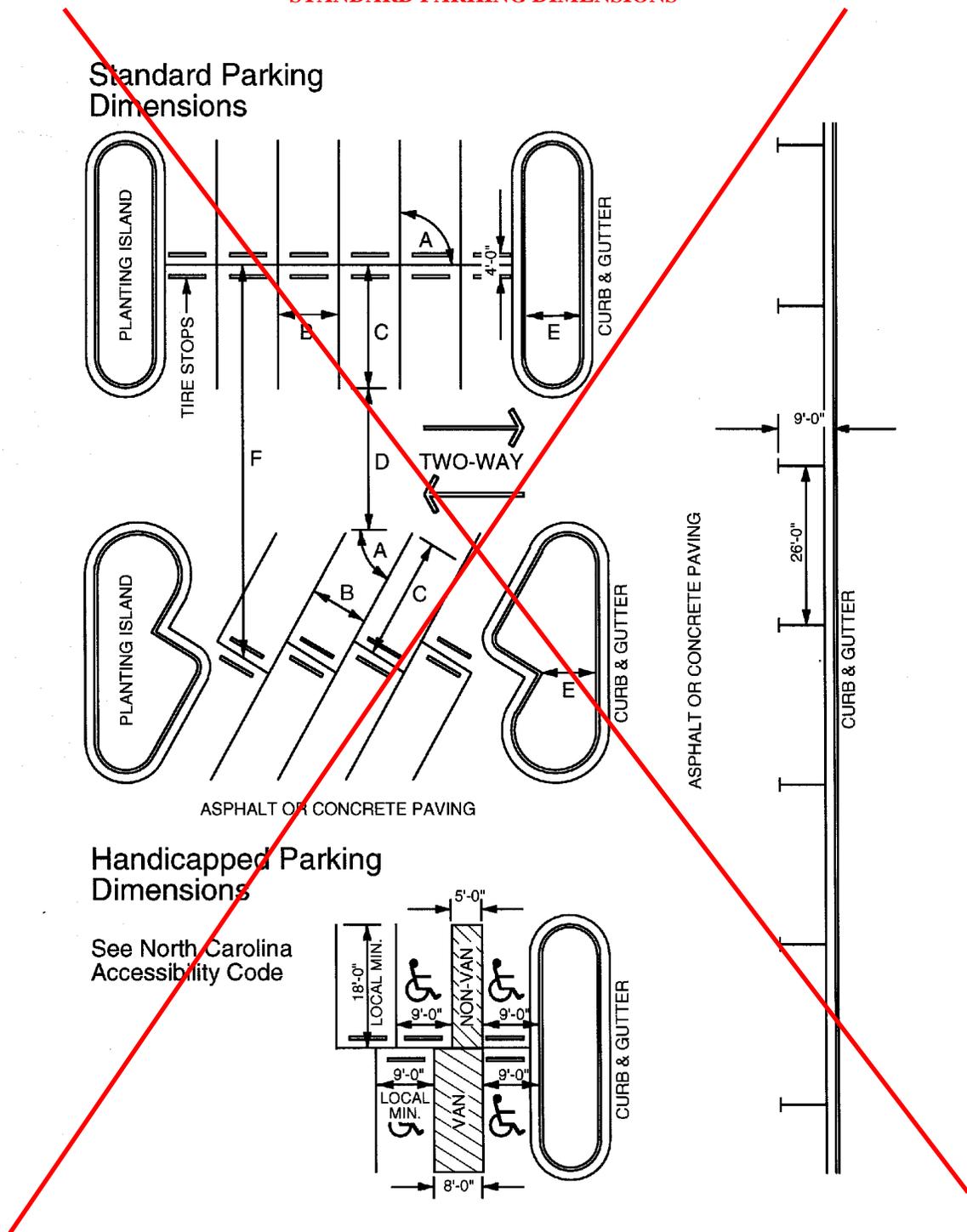


TABLE 8.3-2⁽¹⁾
PARKING AREA DIMENSIONAL STANDARDS

Standard-size Vehicles						
A	B	C	D	E	F	G
0°	9.0'	26.0'	12.0' ONE-WAY	N/A	N/A	N/A
*45°	9.0'	18.0'	12.0' ONE-WAY	6.3'	51.0'	2.0' / 4.0'
*60°	9.0'	18.0'	18.0' ONE-WAY	7.8'	58.0'	2.0' / 4.0'
*90°	9.0'	18.0'	24.0' TWO-WAY	9.0'	60.0'	2.0' / 4.0'

(2)*Parking located within a parking structure in the CC district may reduce parking stalls to a width of 8.5 feet.

Compact-size Vehicles						
A	B	C	D	E	F	G
45°	8.0'	16.0'	N/A	5.3'	N/A	1.5' / 3.0'
60°	8.0'	16.0'	N/A	6.8'	N/A	1.5' / 3.0'
90°	8.0'	16.0'	N/A	8.0'	N/A	1.5' / 3.0'

Key (also see Figure 8.3-1):
 A. Parking Angle
 B. Stall Width
 C. Stall Depth
 D. Aisle Width
 E. Planting Island Width (minimum width shown, refer to Article 7 for minimum area)
 F. Parking Bay Width
 G. Bumper Overhang (front / rear)

TABLE 8.3-3
SHARED PARKING ALLOWANCES BY LAND USE

A Land Use	B		C		D Daytime*	E Evening*	F Nighttime*
	Weekday		Weekend				
	Daytime*	Evening*	Daytime*	Evening*			
Office/Industrial	100%	10%	10%	5%	10%	5%	5%
Retail	60%	90%	100%	70%	100%	70%	5%
Hotel	75%	100%	75%	100%	100%	100%	75%
Restaurant	50%	100%	100%	100%	100%	100%	10%
Entertainment/ Commercial	40%	100%	80%	100%	100%	100%	10%

*Key:

- Daytime (6am – 5pm)
- Evening (5pm – midnight)
- Nighttime (midnight – 6 am)

**TABLE 8.3-4
HANDICAPPED PARKING SPACES REQUIRED**

Total parking spaces provided	1-25	26-50	51-75	76-100	101-150	151-200	201-300	301-400	401-500	501-1000	1001 & over
Minimum number of accessible spaces required	1	2	3	4	5	6	7	8	9	2% of total	20+ 1 for each 100 over 1000
Minimum Number of accessible spaces required to be van accessible (see note)	1	1	1	1	1	1	1	1	2	1 in every eight accessible spaces	1 in every eight accessible spaces

8.3.3 VEHICLE STACKING AREAS

The vehicle stacking standards of this subsection shall apply unless otherwise expressly approved by the Planning Director.

A. Minimum Number of Spaces.

+

1. Off-street stacking spaces shall be provided as required in Table 8.3-5.
2. Required stacking spaces are subject to the following design and layout standards.
 - a. **Size** – Stacking spaces shall be a minimum of 10 feet by 20 feet in size.

9.1 GENERAL PROVISIONS.

9.1.1 TITLE

This ordinance shall be officially known as “The Phase II Stormwater Ordinance.” It is referred to herein as “this ordinance.”

9.1.2 AUTHORITY

The Kannapolis City Council is authorized to adopt this ordinance pursuant to North Carolina law, including but not limited to Article 14, Section 5 of the Constitution of North Carolina; North Carolina General Statutes 143-214.7 and rules promulgated by the Environmental Management Commission thereunder; Session Law 2004-163; Chapter 160A, §§ 174, 185 and [; as well as Chapter 113A, Article 4 (Sedimentation Pollution Control)][]; Article 21, Part 6 (Floodway Regulation) [; Chapter 160A, Article 19 (Planning and Regulation of Development), ; Chapter 153A, Article 18].

9.1.3 FINDINGS

It is hereby found by the Kannapolis City Council that: Development and redevelopment alter the hydrologic response of local watersheds and increases stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, and reduction of groundwater recharge;

These changes in stormwater runoff contribute to increased quantities of water-borne pollutants and alterations in hydrology which are harmful to public health and safety as well as to the natural environment; and

These effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from development sites.

Further, the Federal Water Pollution Control Act of 1972 (“Clean Water Act”) and federal Phase II Stormwater Rules promulgated under it, as well as rules of the North Carolina Environmental Management Commission promulgated in response to federal Phase II requirements, compel certain urbanized areas, including this jurisdiction, to adopt the minimum stormwater controls such as those included in this ordinance.

Therefore, the Kannapolis City Council hereby adopts water quality and quantity regulations set forth in this Ordinance to meet the requirements

of state and federal law regarding control of stormwater runoff and discharge.

9.1.4 PURPOSE

A. General

The purpose of this ordinance is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-development stormwater runoff and nonpoint and point source pollution associated with new development and redevelopment as well as illicit discharges into municipal stormwater systems. It has been determined that proper management of construction-related and post-development stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, and general welfare, and protect water and aquatic resources.

B. Specific

This ordinance seeks to meet its general purpose through the following specific objectives and means:

1. Establishing decision-making processes for development that protects the integrity of watersheds and preserves the health of water resources;
2. Requiring that new development and redevelopment maintain the pre-development hydrologic response in their post-development state as nearly as practicable for the applicable design storm in order to reduce flooding, streambank erosion, nonpoint and point source pollution and increases in stream temperature, and to maintain the integrity of stream channels and aquatic habitats;
3. Establishing minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
4. Establishing design and review criteria for the construction, function, and use of structural ~~stormwater Better Management Practices (“BMP”)~~ **Stormwater Control**

Measure (SCM) that may be used to meet the minimum post-development stormwater management standards;

5. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for stormwater and the preservation of greenspace and other conservation areas to the maximum extent practicable;

6. Establishing provisions for the long-term responsibility for and maintenance of structural and nonstructural ~~stormwater BMPs~~ **SCM** to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;

7. Establishing administrative procedures for the submission, review, approval and disapproval of stormwater management plans, for the inspection of approved projects, and to assure appropriate long-term maintenance.

8. Coordinating site design plans that include open space and natural areas as referenced within the Unified Development Ordinance.

9. Controlling illicit discharges into the municipal separate stormwater system.

10. Controlling erosion and sedimentation from construction activities.

11. Assigning responsibility and processes for approving the creation and maintenance of adequate drainage and flood damage prevention.

9.1.5 APPLICABILITY AND JURISDICTION

A. General

Beginning with and subsequent to its effective date, this ordinance shall be applicable to all development and redevelopment, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to Subsection (B) of this Section, Exemptions, below.

B. Exemptions

Development and redevelopment that disturb less than one acre are not exempt if such activities are part of a larger common plan of development or sale, even though multiple, separate or distinct activities take place at different times on different schedules.

Activities that are exempt from permit requirements of Section 404 of the federal Clean Water Act, as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities) are exempt from the provisions of this ordinance.

C. No Development or Redevelopment Until Compliance and Permit

No development or redevelopment shall occur except in compliance with the provisions of this ordinance or unless exempted. No development for which a permit is required pursuant to this ordinance shall occur except in compliance with the provisions, conditions, and limitations of the permit.

D. Map

The provisions of this ordinance shall apply within the Kannapolis municipal boundaries and property within the extra territorial jurisdiction (ETJ) of the City.

9.1.6 INTERPRETATION

A. Meaning and Intent

All provisions, terms, phrases, and expressions contained in this ordinance shall be construed according to the general and specific purposes set forth in 9.1.4 Purpose. If a different or more specific meaning is given for a term defined elsewhere in Kannapolis Code of Ordinances, the meaning and application of the term in this ordinance shall control for purposes of application of this ordinance.

B. Text Controls in Event of Conflict

In the event of a conflict or inconsistency between the text of this ordinance and any heading, caption, figure, illustration, table, or map, the text shall control.

C. Authority for Interpretation

The Director of Public Works or his designee has authority to determine the interpretation of this ordinance. Any person may request an interpretation by submitting a written request to the Director of Public Works or his designee who shall respond in writing within 30 days.

The Director of Public Works or his designee shall keep on file a record of all written interpretations of this ordinance.

D. References to Statutes, Regulations, and Documents

Whenever reference is made to a resolution, ordinance, statute, regulation, manual (including the Design Manual), or document, it shall be construed as a reference to the most recent edition of such that has been finalized and published with due provision for notice and comment, unless otherwise specifically stated.

E. Computation of Time

The time in which an act is to be done shall be computed by excluding the first day and including the last day. If a deadline or required date of action falls on a Saturday, Sunday, or holiday observed by the City of Kannapolis, the deadline or required date of action shall be the next day that is not a Saturday, Sunday or holiday observed by the City of Kannapolis. References to days are calendar days unless otherwise stated.

F. Delegation of Authority

Any act authorized by this Ordinance may be carried out by the Director of Public Works or his designee.

G. Usage

1. Mandatory and Discretionary Terms

The words “shall,” “must,” and “will” are mandatory in nature, establishing an obligation or duty to comply with the particular provision. The words “may” and “should” are permissive in nature.

2. Conjunctions

Unless the context clearly indicates the contrary, conjunctions shall be interpreted as follows: The word “and” indicates that all connected items, conditions, provisions or events apply. The word “or” indicates that one or more of the connected items, conditions, provisions or events apply.

3. Tense, Plurals, and Gender

Words used in the present tense include the future tense. Words used in the singular number include the plural number and the plural number includes the singular number, unless the context of the particular usage

clearly indicates otherwise. Words used in the masculine gender include the feminine gender, and vice versa.

H. Measurement and Computation

Lot area refers to the amount of horizontal land area contained inside the lot lines of a lot or site.

9.1.7. DESIGN MANUAL

A. Reference to Design Manual ("Design Manual")

The Director of Public Works or his designee shall use the policy, criteria, and information, including technical specifications and standards, in the most recent edition of the North Carolina Department of Environmental and Natural Resources ("NCDENR") Manual of Stormwater Best Management Practices as the basis for decisions about stormwater permits and about the design, implementation and performance of structural and non-structural ~~stormwater BMPs~~ SCM.

The NCDENR Manual of Stormwater Best Management Practices includes a list of acceptable stormwater treatment practices, including the specific design criteria for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Phase II laws. Exceptions to the NCDENR ~~Stormwater BMPs~~ SCM Manual will be the decision of the Director of Public Works or his designee.

B. Relationship of Design Manual to Other Laws and Regulations

If the specifications or guidelines of the NCDENR Manual of Stormwater Best Management Practices are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the NCDENR Manual of Stormwater Best Management Practices.

C. Changes to Standards and Specifications

If the standards, specifications, guidelines, policies, criteria, or other information in the NCDENR Manual of Stormwater Best Management Practices are amended subsequent to the submittal of an application for approval

2. Notwithstanding the variance criteria above, variances may also be granted in the following instances:

- a. When there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of stormwater control best management practices (“**BMPs** **SCM**”); or
- b. When there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including, but not limited to, water sewer, or gas construction and maintenance corridor, as long as it is located fifteen (15) feet landward of all perennial and intermittent surface waters and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of **BMP’s** **SCMs**; or
- c. A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration, or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters.

3. The Board of Adjustment may place reasonable and appropriate conditions and safeguards on the variance as part of the approval to ensure that adequate mitigation measures are associated with the proposed use. Violation(s) of any of the conditions shall be treated in the manner set forth in § 1.6 of this Ordinance.

C. SCOPE OF APPROVAL.

The approval of a variance shall authorize the applicant to apply for final site plan approval pursuant to § 3.6 of this Ordinance. All variance approvals require approval of the final site plan. Any variance approval shall become null and void if a required site plan is not approved within twelve (12) months following the date of approval by the Board of Adjustment. No zoning clearance permits shall be issued until the variance and final site plan are approved. Approval of a variance does not authorize any development activity.

D. SUBSEQUENT APPLICATIONS.

Subsequent applications for a variance shall be handled in the same manner as that for rezonings prescribed in § 3.3.8 of the Ordinance.

9.2.6. APPEALS

See Article 3 for information regarding the appeals process for the issuance of stormwater permits.

Emergency spillway facilities shall be designed to accommodate the 50-year, 24 hour frequency storms. Cross-drainage storm sewers shall be designed for a 25-year, 24 hour frequency storm, unless located within a FEMA flood hazard area, in which case the storm sewer shall be designed for the 100-year, 24 hour storm event. All other storm sewers shall be designed for a 10-year, 24 hour frequency storm.

All industrial, commercial, and residential subdivision site plans shall include an analysis of off-site downstream features to determine the stormwater impacts on the receiving private and public properties. The analysis shall extend a minimum of one-fourth of a mile downstream from the project and include measures to mitigate these impacts.

9.3.5.1 CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL. The City Council hereby finds that hydrologic conditions in Cabarrus and Rowan County and Mecklenburg County are similar and that it is in the public interest to maintain a uniform regional procedure for computing the stormwater impacts of new development. Accordingly, the methodology of computing peak flows, runoff volumes, and discharge capacities for storm events and stormwater management facilities shall be computed using the methodology in accordance with the *Charlotte Mecklenburg Storm Water Design Manual*. U.S. Geological Survey and NOAA (National Oceanic and Atmospheric Administration) rainfall data for Cabarrus and Rowan County shall be used in the analysis of stormwater facilities. A copy of the Charlotte Mecklenburg Storm Water Design Manual can be viewed at the City of Charlotte-Mecklenburg County website, www.charmeck.org.

In any case where the *Charlotte Mecklenburg Storm Water Design Manual* and the NCDENR Manual of Stormwater Best Management Practices have conflicting design standards, the states **BMP SCM** requirements apply.

The following sections of the Stormwater Manual shall not apply to this Ordinance: Flood Analysis, Approximate Flood Limits, Storm Drain Location, Inlet Types and Spacing, Cross Slope, Curb and Gutter, and Detention Facilities Used for Credits, including any references to the Charlotte-Mecklenburg Land Development Standards Manual or to storm water fees.

9.3.6 STANDARDS FOR STORMWATER CONTROL MEASURES

A. Evaluation According to Contents of Design Manual

All stormwater control measures and stormwater treatment practices required under this ordinance shall be evaluated by the Director of Public Works or his designee according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice, in the Design Manual. The Director of Public Works or his designee shall determine whether they will be adequate to meet the requirements of this ordinance.

B. Determination of Adequacy; Presumptions and Alternatives

Stormwater treatment practices that are designed, and constructed, and maintained in accordance with the criteria and specifications in the Design Manual will be presumed to meet the minimum water quality and quantity performance standards of this ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the Design Manual, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this ordinance. The Director of Public Works or his designee may require the applicant to provide such documentation, calculations, and examples as necessary for the Director of Public Works or his designee to determine whether such an affirmative showing is made.

9.3.7 DEDICATION OF **BMPs SCMs**, FACILITIES & IMPROVEMENTS

Easements, rights-of-way, or other legal access shall be provided to all stormwater management facilities for inspection, periodic maintenance, and infrequent repairs. Property owners and their successors and interest are responsible for the maintenance and upkeep of the easement area, operation and per the Maintenance Agreement (hereinafter defined). Easements in favor of the City must be provided for access, inspection, and emergency maintenance by the City when a property owner defaults on the maintenance agreement. Emergency maintenance performed or directed by the City shall be completed at the cost

development and redevelopment that drains in whole or part to class NSW waters shall design and implement the best stormwater practices that reduce nutrient loading, while still meeting the other requirements of this ordinance.

9.3.12. ONSITE WASTEWATER

A. Operation and Maintenance Requirements

New and replaced onsite above ground systems for domestic wastewater installed after the effective date of this ordinance shall be subject to the same requirements for operation and maintenance as are structural **BMPs** **SCMs** for stormwater, including, at a minimum, annual inspection reports and a recorded operation and maintenance agreement, pursuant to Section 4 of this ordinance. Below ground systems shall be maintained in proper working order.

B. Standards for Operation and Maintenance

Onsite systems for domestic wastewater, which are privately owned by a property owner and covered by this ordinance, shall be operated and maintained so as to avoid adverse effects on surface water and groundwater, including eutrophication of surface water and microbial or nitrate contamination of groundwater. Septic tank residuals shall be pumped whenever necessary to assure the proper operation of the system to meet these standards, and the septage shall be reused or disposed of in a manner that does not present significant risks to human health, surface water or groundwater.

9.4. MAINTENANCE.

9.4.1. GENERAL STANDARDS FOR MAINTENANCE

A. Function of **BMPs SCMs** as Intended

The landowner or person in possession or control of the land upon which each structural **BMP SCM** is installed pursuant to this ordinance ("Owner") shall maintain and operate it so as to preserve and continue its function in controlling stormwater quality and quantity at the degree or amount of function for which the structural **BMP SCM** was designed.

B. Annual Maintenance Inspection and Report

The individual responsible for maintenance of any structural **BMP SCM** installed pursuant to this ordinance shall submit to the Director of Public Works or his designee an inspection report from a qualified registered North Carolina professional engineer, surveyor, or landscape architect performing services only in their area of competence. The inspection report shall contain all of the following:

1. The name and address of the land owner;
2. The recorded book and page number of the lot of each structural **BMP SCM**;
3. A statement that an inspection was made of all structural **BMPs SCM**;
4. The date the inspection was made;
5. A statement that all inspected structural **BMPs SCM** are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this ordinance; and
6. The original signature and seal of the engineer, surveyor, or landscape architect.

All inspection reports shall be on forms supplied by the Director of Public Works or his designee. An original inspection report shall be provided to the Director of Public Works or his designee beginning one year from the date of as-built certification and each year thereafter on or before the date of the as-built certification.

9.4.2 OPERATION AND MAINTENANCE AGREEMENT

A. In General

Prior to the conveyance or transfer of any lot or building site ("Lot") to be served by a structural **BMP SCM** pursuant to this ordinance, and prior to issuance of any permit for construction, development or redevelopment requiring a structural **BMP SCM** pursuant to this ordinance, the applicant or owner of the site must execute an operation and maintenance agreement that shall run with the land and be binding on all subsequent owners of the site, portions of the site, and lots or parcels served by the structural **BMP SCM**. Until the transference of all property, sites, or lots served by the structural **BMP SCM**, the original owner or applicant shall have primary responsibility for carrying out the provisions of the maintenance agreement.

1. The operation and maintenance agreement shall require the owner or owners or successors in interest to maintain, repair and, if necessary, reconstruct the structural **BMP SCM**, and shall state the terms, conditions, and schedule of maintenance for the structural **BMP-SCM**. In addition, it shall grant to the City of Kannapolis a right of entry in the event that the Director of Public Works or his designee has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the structural **BMP SCM**; however, in no case shall the right of entry, of itself, confer an obligation on the City of Kannapolis to assume responsibility for the structural **BMP SCM**.

2. Each operation and maintenance agreement shall contain, without limitation, the following provisions:

- a. A description of the property on which the **BMP SCM** is located and all easements from the site to the facility;
- b. Size and /configuration of the **BMP SCM**;
- c. A statement that properties which will be served by the **BMP SCM** facility are granted rights to construct, use, inspect, replace, reconstruct, repair, maintain, access to the device and to transport, store, and discharge stormwater to and from the device;

- d. A statement that each lot served by the **BMP SCM** is jointly or severally responsible for repairs and maintenance of the device and any unpaid ad valorem taxes, public assessments for improvements and unsafe building and public nuisance abatement liens charged against the facility, including all interest charges together with attorneys fees, cost and expenses of collection. A requirement of contribution in favor of each owner shall be included in the operation and maintenance agreement. That failure to maintain **BMP-SCM** is a violation of the City Code potentially subjecting each lot owner subject to this legal document to significant daily civil penalties and other enforcement actions.
3. If an association is delegated these responsibilities, then membership into the association shall be mandatory for each parcel served by the device and any successive owner, the association shall have the power to levy assessments for these obligations, and that all unpaid assessments levied by the association shall become a lien on the individual parcel.
4. An operation and maintenance plan or manual, together with a budget, shall be provided by the initial developer. The plan or manual shall indicate what operation and maintenance actions are needed, and what specific quantitative criteria will be used to determine when those actions are to be undertaken. The plan or manual must indicate the steps that will be taken to restore a stormwater system to design specifications if a failure occurs. The budget shall include both annual costs such as routine maintenance, periodic sediment removal and replenishment of rip-rap, insurance premiums, taxes, mowing and reseeding, required inspections, and a sinking fund for structural; biological; or vegetative replacement of the **BMP SCM**, major repair and replacement repair of the **BMP-SCM** and other cost of the stormwater control facilities. These required documents shall be attached to the property association declaration as an exhibit; and
5. A statement that the BMP shall be maintained in accordance with the attached stormwater operations and maintenance manual and budget, and at all times BMP shall comply with all applicable laws, ordinances, regulations, rules and directives of governmental authorities, and that the BMP shall perform as designed.
6. The BMP shall be maintained by the homeowners' association, property owners' association, or designated commercial lot owner(s) in accordance with the approved stormwater operations and maintenance manual and budget, which manual shall be attached to the operations and maintenance agreement as an exhibit, and at all times the BMP shall comply with all applicable laws, ordinances, regulations, rules and directives of governmental authorities, and that the BMP shall perform as designed.
7. Common expenses include but are not limited to : (i) maintenance of the BMP and (ii) premiums for liability insurance in an amount of not less than one million dollars (\$1,000,000.00) covering all occurrences commonly insured against for death, bodily injury and property damage arising out of or in connection with the use, ownership, or maintenance of common areas, including the BMP and the premiums of hazard insurance on the common area(s) insuring against all risk of loss commonly insured against, including fire and extended coverage of peril.
8. A statement that within permanently protected undisturbed open space areas no land-disturbing activity, placement of impervious surface, removal of vegetation, encroachment, construction or erection of any structure shall occur except in accordance with a permit first being issued by the City of Kannapolis.
9. A warning statement stating that the stormwater control measures are required to comply with Kannapolis City Code of Ordinances and that failure to maintain a **BMP-SCM** is a violation of the City Code potentially subjecting each lot owner subject to this legal document to significant daily civil penalties and other enforcement actions.
10. The operation and maintenance agreement must be approved by the Director

of Public Works or his designee prior to plan approval, and it shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. A copy of the recorded maintenance agreement shall be given to the Director of Public Works or his designee within fourteen (14) days following its recordation.

B. Special Requirement for Homeowners' and Other Associations

For all structural ~~BMPs-SCMs~~ required pursuant to this ordinance and that are to be or are owned and maintained by a homeowners' association, property owners' association, or similar entity, ("Association") the required operation and maintenance agreement shall include all of the following provisions:

1. Acknowledgment that the association shall continuously operate and maintain the stormwater control and management facilities.
2. Establishment of an escrow account, which can be spent solely for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the structural ~~BMPs-SCMs~~. If structural ~~BMPs-SCMs~~ are not performing adequately or as intended or are not properly maintained, the City of Kannapolis, in its sole discretion, may remedy the situation, and in such instances the City of Kannapolis shall be fully reimbursed from the escrow account. Escrowed funds may be spent by the association for sediment removal, structural, biological or vegetative replacement, major repair, and reconstruction of the structural ~~BMPs-SCMs~~, provided that the City of Kannapolis shall first consent to the expenditure.
3. Both developer contribution and annual sinking funds shall fund the escrow account. Prior to plat recordation or issuance of construction permits, whichever shall first occur, the developer shall pay into the escrow account an amount equal to fifteen (15) per cent of the initial construction cost of the structural ~~BMPs-SCMs~~. Two-thirds (2/3) of the total amount of sinking fund budget shall be deposited into the escrow account within the first five (5) years and the full amount shall be deposited within ten (10) years

following initial construction of the structural ~~BMPs-SCMs~~. Funds shall be deposited each year into the escrow account. A portion of the annual assessments of the association shall include an allocation into the escrow account. Any funds drawn down from the escrow account shall be replaced in accordance with the schedule of anticipated work used to create the sinking fund budget.

4. The percent of developer contribution and lengths of time to fund the escrow account may be varied by the City of Kannapolis depending on the design and materials of the stormwater control and management facility.

5. Grant to the City of Kannapolis a right of entry to inspect, monitor, maintain, repair, and reconstruct structural ~~BMPs-SCMs~~.

6. Each Owner, by acceptance of a deed or other instrument conveying title to a Lot, whether or not it shall be so expressed therein, is deemed to covenant and agree:

- a. to pay to the Association (or to any Person who may be designated by the Association to collect such monies) a stormwater assessment, ("Stormwater Assessment"), established and collected as hereinafter provided, and each Owner of a Lot, by acceptance of a deed or other instrument conveying title to a Lot, whether or not it shall be so expressed therein, is deemed to covenant and agree to pay to the Association (or to any person who maybe designated by the Association to collect such monies) such Stormwater Assessment. The annual budget for the Association shall include a line item evidencing the Stormwater Assessments, and the amount budgeted shall be sufficient to satisfy the total annual inspection, management and maintenance budget for the ~~BMP-SCM~~ and any replacement account. The Association shall honor its obligations under the Agreement, and the Association shall assess the Stormwater Assessment. Each Owner of a Lot shall be obligated to pay the Stormwater Assessment, whether or not the annual budget

contains the required line item for the Stormwater Assessment, and whether or not the annual budget is ratified by the members of the Association. No vote of the Owners is required to levy, collect, or foreclose a Stormwater Assessment. Stormwater Assessments shall be paid to the Association at the same time annual assessments are due. Stormwater Assessments to be levied against such Lot shall be used as follows:

1. to pay the actual and estimated expenses incurred or anticipated to be incurred by the Association, including any reasonable reserve funds, under any stormwater operation and maintenance agreement, including maintenance of any ~~BMP-SCM~~ so that at all times the ~~BMP-SCM~~ shall perform as designed and shall comply with the stormwater operations and maintenance agreement, the City Code, applicable regulations and rules and directives of the City;
 2. to pay all legal, engineering and other professional fees incurred by the Association in carrying out its duties as set forth herein, or in the stormwater operations and maintenance agreement in connection with the ~~BMP-SCM~~; and
 3. payments to the City pursuant to the operations and maintenance agreement.
- b. In the event of nonpayment of any Stormwater Assessment for a period of forty-five (45) days or longer after the payment due date, such Stormwater Assessment, together with interest at a rate not to exceed the highest rate allowed by North Carolina law), as computed from the date the delinquency first occurs, late charges, and costs of collection thereof, including reasonable attorney's fees, shall be a charge on the land upon the filing of a claim of lien, in the manner provided in G.S.47F-3-116(g), in the office of Clerk of Superior Court in the County in which the Lot is located and shall be a continuing lien upon each

- Lot against which the assessment is made until paid in full. The lien may be foreclosed in accordance with North Carolina law, or in any other manner permitted by law. When the holder of a first mortgage or first deed of trust of record or other purchaser of a Lot who obtains title to the Lot as a result of a foreclosure of a first mortgage or first deed of trust, such purchaser and its heirs, successors, and assigns shall not be liable for the Stormwater Assessments against such Lot which became due prior to the acquisition of title to such Lot by such purchaser. In such instances, such unpaid assessments shall be deemed a debt collectible from all Owners, including the new Owner.
- c. Each Stormwater Assessment, together with late charges, interest, the costs of collection thereof, including attorney's fees, shall also be the personal obligation or corporate obligation of each individual or entity who was the Owner of a Lot at the time when the Stormwater Assessment first became due and payable. If more than one individual or entity held an ownership interest in a Lot at the time the Stormwater Assessment first became due, then each individual or entity shall be both jointly and severally liable. An Owner's personal obligation for payment of Stormwater Assessments shall not become the personal obligation of a subsequent Owner unless expressly assumed by the subsequent Owner, although the lien shall continue against the Lot until the amount due is paid.
 - d. The creation of the Stormwater Assessments is for the benefit of the City, and the Stormwater Assessments may be collected and enforced by the City as provided herein and in the City of Kannapolis Code of Ordinances.
 - e. Additional real property annexed to the Association shall be subjected to any existing operation and maintenance agreement upon the recording of the document annexing the additional property, either in the form of a new agreement and/or an amendment to an existing agreement (as determined by the City) which

shall be entered into between the City and the Association to address the ~~BMPs—SCMs~~ of the additional property.

f. There shall be dedicated for the benefit of each Lot, the Common Area and each Owner thereof:

1. a perpetual, irrevocable and nonexclusive easement, right and privilege to discharge and store surface water drainage from such Lot or common area into the ~~BMP SCM~~ situated in private drainage easements that serve the property within the development, whether located on or off or the development, and
2. a perpetual, irrevocable and non-exclusive easement, right and privilege to use and maintain ~~BMPs-SCMs~~, including the right of access to and from the private drainage easements and other portions of the development as reasonably necessary to maintain the ~~BMPs-SCMs~~.

g. Each Owner of any portion of the property served by the ~~BMP-SCM~~ is jointly and severally responsible for maintenance of such ~~BMP—SCM~~, including payment of any unpaid *ad valorem* taxes, public assessments for improvements, and unsafe building and public nuisance abatement liens charged against the ~~BMP-SCM~~, and including all interest charges thereon, together with the costs and expenses of collection incurred by the City or other collecting entity, including court costs and reasonable attorney's fees actually incurred. Each Owner of any portion of the property served by the ~~BMP SCM~~ has a right of contribution against all other Owners of other portions of the property served by the same ~~BMP-SCM~~ for payment of such costs and expenses to the extent that the Owner having such right of contribution pays more than such Owner's prorata share thereof.

1. A statement that this agreement shall not obligate the City of Kannapolis to maintain or repair any structural ~~BMPs-SCMs~~, and the City of Kannapolis shall not

be liable to any person for the condition or operation of structural ~~BMPs-SCMs~~.

2. A statement that this agreement shall not in any way diminish, limit, or restrict the right of the City of Kannapolis to enforce any of its ordinances as authorized by law.
3. A provision indemnifying and holding harmless the City of Kannapolis its agents, contractors, and employees for any costs and injuries arising from or related to the structural ~~BMP SCM~~, unless the City of Kannapolis has agreed in writing to assume the maintenance responsibility for the ~~BMP-SCM~~ and has accepted dedication of any and all rights necessary to carry out that maintenance.

9.4.3 INSPECTION PROGRAM

Inspections and inspection programs by the City of Kannapolis may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in ~~BMPs SCMs~~; and evaluating the condition of ~~BMPs SCMs~~.

If the owner or occupant of any property refuses to permit such inspection, the Director of Public Works or his designee shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor. No person shall obstruct, hamper or interfere with the Director of Public Works or his designee while carrying out his or her official duties

9.4.4 PERFORMANCE SECURITY FOR INSTALLATION AND MAINTENANCE

A. May Be Required

The City of Kannapolis may, at its discretion, require the submittal of a maintenance performance security or bond with surety, cash escrow, letter of credit or other acceptable legal arrangement prior to issuance of a permit in

order to ensure that the structural ~~BMPs-SCMs~~ are:

1. installed by the permit holder as required by the approved stormwater management plan, and/or
2. maintained by the owner as required by the operation and maintenance agreement.

B. Amount

1. Installation

The amount of an installation performance security shall be the total estimated construction cost of the ~~BMPs-SCMs~~ approved under the permit, plus 25%.

2. Maintenance

The amount of a maintenance performance security shall be the present value of an annuity of perpetual duration based on a reasonable estimate of the annual cost of inspection, operation and maintenance of the ~~BMPs-SCMs~~ approved under the permit, at a discount rate that reflects the jurisdiction's cost of borrowing minus a reasonable estimate of long term inflation.

3. Default

Upon default of the owner to construct, maintain, repair and, if necessary, reconstruct any structural ~~BMPs-SCMs~~ in accordance with the applicable permit or operation and maintenance agreement, the Director of Public Works or his designee shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the owner to comply with the permit or maintenance agreement. In the event of a default triggering the use of installation performance security, the City of Kannapolis shall not return any of the unused deposited cash funds or other security, which shall be retained for maintenance.

4. Costs in Excess of Performance Security

In the event of default, the City may recover from the applicant, owner or successor the costs for enforcement actions including but not limited to court costs and attorney fees

failure by the applicant or owner, the City of Kannapolis may collect from the applicant or owner.

5. Refund

Within sixty days of the final approval, the installation performance security shall be refunded to the applicant or terminated, with the exception of any amount attributable to the cost (plus 25%) of landscaping installation and ongoing maintenance associated with the ~~BMPs-SCMs~~ covered by the security. Any such landscaping shall be inspected one (1) year after installation with replacement for compliance with the approved plans and specifications and, if in compliance, the portion of the financial security attributable to landscaping shall be released.

9.4.5 NOTICE TO OWNERS

A. Deed Recordation and Indications On Plat

The applicable operations and maintenance agreement pertaining to every structural ~~BMP-SCM~~ shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the operations and maintenance agreement shall be recorded with the county Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles.

B. Signage

Where appropriate as determined in the exclusive discretion of the Director of Public Works or his designee to assure compliance with this ordinance, structural ~~BMPs-SCMs~~ shall be posted with a conspicuous sign stating who is responsible for required maintenance and annual inspection. The sign shall be maintained so as to remain visible and legible.

9.4.6. RECORDS OF INSTALLATION AND MAINTENANCE ACTIVITIES

The owner of each structural ~~BMP-SCM~~ shall keep records of inspections, maintenance, and repairs for at least five years from the date of creation of the record and shall submit the same upon reasonable request to the Director of Public Works or his designee.

9.4.7. NUISANCE

The owner of each stormwater ~~BMP-SCM~~, whether structural or non-structural ~~BMP-SCM~~, shall maintain it so as not to create or result in a nuisance condition.

adequate maintenance and repair by a maintenance easement. The easement shall be recorded and its terms shall specify who may make use of the easement and for what purposes.

9.4.8. MAINTENANCE EASEMENT

Every structural ~~BMP-SCM~~ installed pursuant to this ordinance shall be made accessible for

9.4. 9.5 ENFORCEMENT AND VIOLATIONS.

9.5.1. GENERAL

A. Authority to Enforce

The provisions of this ordinance shall be enforced by the Director of Public Works, his or her designee. Whenever this section refers to the Director of Public Works, it includes his or her designee.

B. Violation Unlawful

Any failure to comply with an applicable requirement, prohibition, standard, or limitation imposed by this ordinance, or the terms or conditions of any permit or other development or redevelopment approval or authorization granted pursuant to this ordinance, is unlawful and shall constitute a violation of this ordinance.

C. Each Day a Separate Offense

Each day that a violation continues shall constitute a separate and distinct violation or offense.

D. Responsible Persons/Entities

Any person who erects, constructs, reconstructs, alters (whether actively or passively), or fails to erect, construct, reconstruct, alter, repair or maintain any structure, ~~BMP-SCM~~, practice, or condition in violation of this ordinance shall be subject to the remedies, penalties, and/or enforcement actions in accordance with this section. Persons subject to the remedies and penalties set forth herein may include any architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that results in or constitutes a violation of this ordinance, or fails to take appropriate action, so that a violation of this ordinance results or persists; or an owner, any tenant or occupant, or any other person, who has control over, or responsibility for, the use or development of the property on which the violation occurs. For the

purposes of this article, responsible person(s) shall include but not be limited to:

1. Person Maintaining Condition Resulting In or Constituting Violation

An architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that constitutes a violation of this ordinance, or fails to take appropriate action, so that a violation of this ordinance results or persists.

2. Responsibility For Land or Use of Land

The owner of the land on which the violation occurs, any tenant or occupant of the property, any person who is responsible for stormwater controls or practices pursuant to a private agreement or public document, or any person, who has control over, or responsibility for, the use, development or redevelopment of the property.

9.5.2. REMEDIES AND PENALTIES

The remedies and penalties provided for violations of this ordinance, whether civil or criminal, shall be cumulative and in addition to any other remedy provided by law, and may be exercised in any order.

A. Remedies

1. Withholding of Certificate of Occupancy

The Director of Public Works or his designee or other authorized agent may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site and served by the stormwater practices in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.

~~9.5.~~ 9.6 SEDIMENTATION AND EROSION CONTROL.

9.6.1. SECTION RESERVED

This section is reserved for future inclusion of local sedimentation and erosion control administration and enforcement. Until such time, the NC Department of Environment ~~and Natural Resources~~ ~~(DENR)~~ Quality shall have jurisdiction in Kannapolis. State standards, requirements and procedures shall apply to all projects in the City of Kannapolis City limits.

References: American Society of Civil Engineering Design and Construction of Urban Stormwater Management Systems (WEF Manual of Practice FD- 20, 1992), at 496-97; Dewberry & Davis, Land Development Handbook: Planning, Engineering & Surveying (McGraw-Hill: 1996), at 629.

10.1. STREET IMPROVEMENT STANDARDS.

10.1.1. PURPOSE.

The purpose of this Section is to prescribe minimum design standards for new public and/or private streets. These requirements may exceed the standards prescribed by NCDOT for the acceptance of streets into the Secondary System of State Highways.

(1) TA-2009-06 – City Council approved 7/27/2009
 (2) TA-2014-01 – City Council approved 3/24/2014
 (3) TA-2017-04 – City Council approved 7/24/2017

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10.1.2. PUBLIC STREETS.

10.1.2.1. Public streets shall be designed and constructed in accordance with Appendix C **and the Land Development Standards Manual (LDSM)**, of this Ordinance, except that streets constructed in a TND Traditional Neighborhood Development district shall conform to the provisions of § 4.10 of this Ordinance.

10.1.2.2. Pursuant to NCGS § 136-66.2, where a proposed subdivision abuts an existing street or roadway included in the City or North Carolina Department of Transportation street system, the applicant shall be required to dedicate ⁽¹⁾right-of-way as deemed necessary to accomplish future road improvements ⁽³⁾in accordance with the policy on file in the office of the Public Works Director.

10.1.2.3. Where a subdivision abuts an existing street or roadway included in the City or North Carolina Department of Transportation street system and, where permitted, is designed to utilize such street for frontage and direct access, the subdivider shall be required to improve such street in accordance with the ⁽³⁾policy on file in the office of the Public Works Director.

10.1.2.4. Street Classification System.

10.1.2.4.1. Classification of an existing or proposed street not already identified on the Thoroughfare Plan, for the purpose of determining the appropriate design of a roadway or development, or for the purpose of determining the appropriateness of a location for a proposed use, shall be done by the Administrator in consultation with the Director of Transportation.

10.1.2.4.2. The street classification system set forth in Table 10.1-1 is hereby adopted for rural and urban streets. Streets may be further categorized pursuant to the adopted *Cabarrus-South Rowan Urban Area Transportation Plan*.

Minor Thoroughfare
 Collector (residential and non-residential)
 Residential Street
 Alley

10.1.2.5. Determination Criteria. In determining the classification of a street, factors to be considered include the following existing or proposed features:

10.1.2.5.1. Facility Geometrics, including the number and width of traffic lanes, turning lanes, and parking lanes.

10.1.2.5.2. Access Conditions, including any restrictions on access, the spacing of private accesses, and average lot frontages.

10.1.2.5.3. Traffic Characteristics, including ADT, percentage of trucks, average operating speed, percentage of turning movements, origin-destination characteristics of the traffic, and peak hour characteristics of traffic.

10.1.2.5.4. In applying these factors, the Administrator may refer to § 10.1.2.4.2 and the sources listed therein, which are hereby incorporated by this reference.

10.1.2.6. Designation Authority. Utilizing the criteria of § 10.1.2.5, above, in conjunction with the Thoroughfare Plan Map and the narrative descriptions for each roadway classification provided in Appendix C **and the LDSM**, Director of Transportation shall determine which of the Thoroughfare Plan designations apply to the street under consideration.

10.1.3. PRIVATE STREETS.

10.1.3.1. Private streets that develop as part of a subdivision, or integrated commercial, industrial, multifamily residential or institutional development shall be designed and constructed to the public street standards set forth in Appendix C **and the LDSM** of this Ordinance. Private streets (with established right-of-way for public utilities) shall be allowed in

TND and PUD developments and should be designed in accordance with the standards of those sections in Article 4. ⁽¹⁾Private streets (with established right-of-way for public utilities) shall be allowed in single-family residential subdivisions with less than 100 lots subject to City approval. This section shall not include private accessways/driveways as regulated in Article 8

10.1.3.2. A legally responsible organization (i.e. homeowners association, special district, etc.) as acceptable to the Administrator shall be established to maintain a private street(s). Documents to assure private responsibility of future maintenance and repair by a homeowners association or a special district shall be approved as to form by the Administrator.

10.1.3.3. ⁽¹⁾A private street maintenance agreement, satisfactory to the Administrator and Public Works Director, must be recorded by the developer and/or property owner(s) in the office of the Register of Deeds to ensure proper maintenance. The agreement shall specify lot owners' responsibilities for maintenance of private streets and drainage systems, and shall provide for assessments to finance all maintenance activities. In addition, all property transfer instruments must contain reference to that agreement, as well as a statement indicating if the private street does meet public standards for maintenance and that it will not be considered for public maintenance unless improved by the legally responsible organization to those standards. This agreement shall also specify that unless the street is privately maintained in condition for safe passage of public service and emergency vehicles, the City may provide such maintenance, with charges therefore becoming a lien on the properties served, dividing among them proportionate to their assessed tax valuation.

10.1.3.4. ⁽¹⁾All gated or controlled access subdivisions within the jurisdiction of this Ordinance must provide continuous accessibility to subdivision lots for provision of public service and emergency vehicles. The method of continuous accessibility will be defined within the private street maintenance agreement, and shall be approved by the City Manager (and/or designees).

10.1.4. STREET LAYOUT STANDARDS.

This Section establishes general standards regarding the manner in which the public street system of a

development is planned.

(1) City Council approved 11/22/2004

related Collector Street Plan. The improvement standards of the Thoroughfare Plan shall not apply, except where such a standard has been specifically set forth in Appendix C **and the LDSM** of this Ordinance. Whenever a tract to be subdivided embraces any part of a collector street or thoroughfare so designated on a plan approved pursuant to NCGS § 136-66.2, such part of the proposed street or thoroughfare shall be platted by the subdivider in the location and width indicated on such plan. Stub streets within previously platted subdivisions shall be extended and the street system aligned thereto and to the Collector Street Plan.

10.1.5. STREET CONNECTIVITY REQUIREMENTS.

10.1.5.1. The City Council hereby finds and determines that an interconnected street system is necessary in order to protect the public health, safety and welfare in order to ensure that streets will function in an interdependent manner, to provide adequate access for emergency and service vehicles, to enhance non-vehicular travel such as pedestrians and bicycles, and to provide continuous and comprehensible traffic routes. [For reference, see Institute for Transportation Engineers, ITE Transportation Planning Council Committee 5P-8, *Traditional Neighborhood Development Street Design Guidelines* (June 1997)].

10.1.5.2. All proposed streets shall be continuous and connect to existing or platted streets without offset with the exception of cul-de-sacs as permitted and except as provided below. Whenever practicable, provisions shall be made for the continuation of planned streets into adjoining areas.

10.1.5.3. The street network for any subdivision shall achieve a connectivity ratio of not less than 1.40 (see example in Figure 10.1-1).

10.1.5.4. The phrase "connectivity ratio" means the number of street links divided by the number of nodes or link ends, including cul-de-sac heads.

10.1.5.5. A “link” means and refers to that portion of a street defined by a node at each end or at one end. Approved stubs to adjacent property shall be considered links. However, alleys shall not be considered links.

10.1.5.6. A “node” refers to the terminus of a street or the intersection of two (2) or more streets, except that intersections that use a roundabout shall not be counted as a node. For the purposes of this section, an intersection shall be defined as:

- any curve or bend of a street that fails to meet the minimum curve radius as established in the ~~second table of Section C.4 of Appendix C LDSM~~; or
- any location where street names change (as reviewed and approved by the Administrator).

10.1.5.7. For purposes of this subsection, the street links and nodes within the collector or thoroughfare streets providing access to a proposed subdivision shall not be considered in computing the connectivity ratio.

10.1.5.8. Residential streets shall be designed so as to minimize the block length of local streets, to provide safe access to residences with minimal need for steep driveways and to maintain connectivity between and through residential neighborhoods for autos and pedestrians.

10.1.5.9. Where necessary to provide access or to permit the reasonable future subdivision of adjacent land, rights-of-way and improvements shall be extended to the boundary of the development. A temporary turnaround may be required where the dead end exceeds 500 feet in length. The platting of partial width rights-of-way shall be prohibited except where the remainder of the necessary right-of-way has already been platted, dedicated or established by other means.

10.1.5.10. Exemption. New subdivisions that intend to provide one new cul-de-sac street shall be exempt from the connectivity ratio standard as set forth in this section, provided the Administrator determines that there is:

- no options for providing stub streets due to topographic conditions, adjacent developed sites, or other limiting factors; and
- interconnectivity (use of a looped road) within the development cannot be achieved or is unreasonable based on the constraints of the

property to be developed.

10.1.6. STREET HIERARCHY.

10.1.6.1. Streets shall be designed to create a hierarchy of streets according to the following standards, provided, however, that the Director of Transportation may recommend design modifications where such modifications are consistent with an adopted access management plan or necessary by reason of natural features or existing development, and do not create safety hazards or increased maintenance costs:

- Local Streets or Local Roads shall intersect with two streets of equal or higher classification, except where otherwise permitted by this Ordinance.
- Alleys shall intersect with Residential Collector Streets, or Residential Streets. ⁽¹⁾
- The Administrator may require a street to be of a collector level design where the anticipated ADT will exceed 3,000 vehicles per day and serves to collect and distribute traffic to the major street system identified on the Thoroughfare Plan.
- Reserve strips and cul-de-sac streets that interfere with street connections needed to serve existing or planned development are prohibited.

10.1.7. DRIVEWAY PERMIT REQUIRED.

A driveway permit is required prior to the construction of any new access point to a publicly maintained street. Said permits are issued by the NCDOT for a connection to any State Highway (19A NCAL §§ 2B.0601-2B.0605). A driveway permit is required in accordance to the standards of Appendix D to connect to a City maintained street. Applicants for preliminary subdivision plat or site plan approval shall submit copies of any driveway permit applications with the application for development approval.

10.1.8. ACCESS MANAGEMENT STANDARDS.

The following standards shall be used to determine the adequacy of lot layouts so that safe and adequate access to each lot is provided. The purpose of regulating the number, spacing and design of vehicular access points is to balance the need for providing access to individual private properties with the need to preserve an adequate level of capacity on the streets providing access. Vehicular access restrictions shall be required to be shown on subdivision plats.

10.1.8.1. Required spacing between adjacent access locations or a proposed access location and an adjacent street intersection ~~is shown in Table 10.1-2~~ **are listed in the Land Development Standards Manual.** For existing lots, driveways shall be located at the point of maximum separation if the standards of this section cannot be met.

Table 10.1-2 Driveway Separation Standards

Street Classification	Minimum separation between driveways (in feet)	Minimum separation between driveways and intersecting public street (in feet)
Thoroughfare	400	250
Collector	120	120
Local	40	60

- ~~• Access separation between driveways shall be measured from inside edge to inside edge of driveway.~~
- ~~• Access separation between a driveway and an intersection shall be measured from the nearest edge of the driveway to the intersecting street right of way.~~
- ~~• A maximum of three access points shall be allowed~~
- ~~• For single family lots, the Administrator may reduce the spacing requirements of this section if it can be demonstrated that a hardship exists and there is no opportunity to design a conforming access point.~~

10.1.8.2. Where lots in a proposed subdivision front on a thoroughfare, options for designing access that meets the standards of this Section shall include:

- the use of cross access easements in order to maintain private access points at intervals of no less than 400 feet.
- the use of lower level public streets to provide secondary access in accordance with § 6.6.5.2.

10.1.8.3. Notation shall be provided on an approved final plat to restrict vehicular access for lots along the frontage of thoroughfares,

(1) TA-2014-01 – City Council approved 3/24/2014

11.2. MULTI-FAMILY RESIDENTIAL DESIGN STANDARDS.

11.2.1. PURPOSE.

The purpose of this Section is to provide reasonable design standards for multi-family residential developments and single-family attached residential developments which:

- provide design flexibility;
- accommodate affordable housing for current and future residents of the City;
- protect the health, safety and general welfare of the general public and occupants of the units;
- protect the property values of surrounding dwelling units;
- promote a pedestrian-friendly, walkable streetscape; and
- provide for aesthetically pleasing development patterns.

11.2.2. APPLICABILITY.

11.2.2.1. The provisions of this Section apply to multi-family residential developments or single-family attached residential developments as permitted by Table 4.6-1 of this Ordinance.

11.2.2.2. ⁽¹⁾Single-family detached homes, duplexes on individual lots, and triplexes on individual lots are exempt from the standards of this Section.

11.2.2.3. ⁽²⁾The provisions of this section shall not apply to developments within the CC Center City District.

11.2.3. RULES OF CONSTRUCTION.

For purposes of computing the number of dwelling units to determine applicability of the standards of this Section, the number of existing or proposed dwelling units within any tract of land plus all existing or proposed Multi-family Residential Dwellings on any adjacent property under Common Ownership shall be counted.

11.2.4. BULK AND DENSITY STANDARDS.

Notwithstanding any provision of § 4.7 of this Ordinance to the contrary, the lot size, lot width, setback, and building separation standards shall conform to Table 11.2-1.

11.2.5. OFF-STREET PARKING AND ACCESS STANDARDS.

11.2.5.1. All projects shall conform to the parking requirements of Article 8.

11.2.5.2. Access to Public Street(s).

Developments with 40 or more dwelling units should have direct primary access on a major or minor thoroughfare as shown on the Thoroughfare Plan.

⁽³⁾Developments with 40 or more dwelling units without direct primary access on a major or minor thoroughfare shall require a Traffic Impact Analysis (TIA) to determine project feasibility.

Developments for one hundred 100 dwelling units are encouraged to have two (2) direct entrances onto at least one Major and/or Minor Thoroughfare as shown on the Thoroughfare Plan.

11.2.5.3. Off-street Parking.

11.2.5.3.1. No parking space shall be located in the required setbacks, except for the rear setbacks.

11.2.5.3.2. No off-street parking space shall be located closer than ten (10) feet to any residential building wall.

11.2.5.4. Accessway/Driveway Design.

11.2.5.4.1. No driveway shall be located closer than fifteen (15) feet to any wall of a residential building.

11.2.5.4.2. All proposed drives shall be improved in accordance with Article 8.

11.2.5.4.3. For developments of forty (40) or more dwelling units, a divided ingress-egress driveway with a landscaped median for all entrances from public streets shall be provided for all developments. Median design shall be in conformity with the standards in Appendix C of this Ordinance, **and the Land Development Standards Manual (LDSM).**

11.2.6. COMMON OPEN SPACE.

11.2.6.1. Applicability.

Common open space areas shall be required in accordance with Table 11.2-1 except as provided below.

11.2.6.2. The Administrator may waive up to fifty percent (50%) of the open space requirement if

(1) City Council 11/24/2003
 (2) TA-2008-05 – City Council 7/28/2008
 (3) TA-2014-02 – City Council 11/24/2014

all units within the development are located within 1,000 feet of a public park as measured along a public sidewalk, trail or bikeway.

11.2.6.3. The open space requirements of this Section shall not apply to multi-family residential developments which are second floor units above first floor commercial development, or to any residential developments in the CC zoning district which are above the first floor.

11.2.6.4. Open Space Characteristics.

Land designated as open space shall be maintained as active open space and may not be separately sold, subdivided, or developed except as provided below. Open space shall be required in accordance with Table 11.2-1.

11.2.6.4.1. Open Space Provisions and Maintenance Plan Required.

Any areas reserved as open space shall be indicated on a site plan. An Open Space Provision and Maintenance Plan shall be submitted as a part of the application for development approval including the project phasing schedule. This plan shall designate and indicate the boundaries of all open-space areas required by this Ordinance. The plan shall:

- Designate areas to be reserved as active open space. The specific design of open-space areas shall be sensitive to the physical and design characteristics of the site.
- Specify the manner in which the open space shall be perpetuated, maintained, and administered.

11.2.6.4.2. Spacing and Dimensional Limitations.

In order to ensure that all designated open space has suitable size, location, dimension, topography and general character, and proper road and/or pedestrian access, as may be appropriate, to be usable open space, the following standards shall apply.

- Open space provided pursuant to this requirement shall be accessible to all residents of the development and shall measure at least thirty (30) feet across its narrowest dimension.

11.2.6.4.3. Use of Stormwater Detention Basins.

Retention areas or detention basins which are required as part of this Ordinance shall not qualify as an open space area unless fifty percent (50%)

or more of the active and usable area is above the ten (10) year storm and is designed for multiple uses and the area(s) conforms to the requirements of subsections 1 and 2 below.

11.2.6.4.3.1. Retention or detention areas shall meander through the subdivision as a greenbelt, rather than as a single basin. Retention areas shall be improved so as to be useable and accessible. Retention areas shall not be inundated so as to be unusable for their designated recreational purposes.

11.2.6.4.3.2. Retention or detention areas shall be given a natural character and shall be constructed of natural materials. Terracing, berming and contouring is required in order to naturalize and enhance the aesthetics of the basin. Basin slopes shall not exceed a three-to-one slope.

11.2.6.5. Preservation of Open Space.

11.2.6.5.1. Open-space areas shall be maintained so that their use and enjoyment as open space are not diminished or destroyed. Open-space areas may be owned, preserved, and maintained by the owner(s) of the development or a homeowner's association (in the case of a single-family attached development) which assumes full responsibility for its maintenance. The restrictive covenants shall provide that, in the event that any private owner of open space fails to maintain same according to the standards of this Ordinance, the City Council may, following reasonable notice and demand that deficiency of maintenance be corrected and direct appropriate City staff, or a contractor to and direct appropriate City staff, or a contractor to enter the open space to maintain same. The cost of such maintenance shall be charged to those persons having the primary responsibility for maintenance of the open space.

11.2.7. PEDESTRIAN FACILITIES.

11.2.7.1. Sidewalks shall be constructed within the interior of the development to link residential buildings with other destinations such as, but not limited to: parking, adjoining streets, mailboxes, trash disposal, adjoining sidewalks or greenways and on-site amenities such as recreation areas. These interior sidewalks shall be constructed in accordance with the standards for sidewalks as set forth in Appendix C and the LDSM of this Ordinance.

11.2.7.2. Sidewalks, in combination with curb and gutter, shall be required adjacent to all public streets which provide access to the development; ⁽²⁾in accordance with the policy on file in the office of the Public Works Director. Such improvements may be subject to road widening and other related improvements. Road widening, sidewalks, curb and guttering, utility relocations, and all other related improvements shall be the responsibility of the developer and/or owner. Design standards shall be subject to review and approval by the City of Kannapolis ⁽²⁾Public Works Director. Design standards for pedestrian upfits to state maintained roads shall be subject to review and approval by the City of Kannapolis ⁽²⁾Public Works Director and the NC Department of Transportation.

11.2.7.3. A shelter shall be constructed at the location(s) (including at the perimeter of a development site) where a public school bus(es) pick-up/drop-off children as established by the appropriate School system. The shelter shall be constructed to a minimum size to accommodate the average number of children that may be awaiting pick-up. The shelter shall be included in the sidewalk design to ensure adequate access.

11.2.8. DIMENSIONAL AND DENSITY STANDARDS.

11.2.8.1. The maximum impervious surface coverage (impervious surface ratio) shall conform to the standards as set forth on Table 4.7-1 for the appropriate zoning district. Multi-family or Single-family attached developments that are allowed (by right or as conditional use) in non-residential districts shall use the dimensional and density standards of Table 4.7-1 as set forth for the RC district. Where a Watershed Overlay District (§ 4.16) exists, the more restrictive requirements shall apply.

11.2.8.2. The minimum spacing between buildings is 20 feet, plus one (1) foot for each one (1) foot of building height in excess of 30 feet.

11.2.9. BUILDING DESIGN.

11.2.9.1. In order to provide interesting and aesthetically attractive multi-family developments and to avoid monotonous, “barracks”-style buildings, the following standards shall apply:

11.2.9.2. Multi-family buildings shall have a multifaceted exterior form in which articulated facades are combined with window and door placements, as well as other detailing, to create an interesting and attractive architectural design which is comprised of more than flat walls with minimal features.

11.2.9.3. Buildings shall be arranged on multi-family sites in patterns that are not strictly linear. Adjacent buildings shall not be located in continuous straight lines. Limited linear building placements, which are part of an arrangement to define common space such as a courtyard, are acceptable.

11.2.9.4. Entryways shall face a street, sidewalk, or common area. Buildings shall not face the rear of other buildings on the same lot or parcel.

11.2.9.5. ⁽¹⁾All buildings within the CD-R District shall be designed with at least 40% of the overall façade consisting of masonry components.

11.2.10. UTILITIES AND LIGHTING.

11.2.10.1. All utility lines shall be located ~~underground~~ **in accordance with the standards in the LDSM.**

11.2.10.2. Outdoor area lighting shall be provided for security. Such lighting shall be shielded to direct light downward and not into dwelling units on, or adjacent to, the multi-family site. Lighting shall be provided to illuminate the intersections of primary interior driveways and building entryways.

11.2.11. LANDSCAPING REQUIREMENTS

A landscaping plan shall be submitted which shall incorporate all applicable landscaping requirements as set forth in Article 7 of this Ordinance.

11.2.12. RECYCLING FACILITIES.

Multi-family residential developments or single-family attached residential developments shall be required to provide a container(s) for the collection of recyclable materials. Such a container shall be subject to approval by the City’s Director of Environmental Services.

11.2.13. UNIT OWNERSHIP.

Developments in which property is proposed to be conveyed in Unit Ownership shall comply with the North Carolina Unit Ownership Act. Common areas,

11.3. STANDARDS FOR SHOPPING CENTERS AND SUPERSTORES.

11.3.1. APPLICABILITY.

The following standards and guidelines are applicable to any Retail Use Structure, or group of Structures primarily devoted to Retail Activities, which have a total in excess of twenty-five thousand (25,000) square feet of Gross Floor Area. Freestanding structures with less than 25,000 square feet of gross floor area that are developed along perimeter outparcels of a shopping center are not subject to the supplemental standards of this § 11.3.

11.3.2. SITE DESIGN.

11.3.2.1. Outdoor Space. Shopping centers and superstores shall provide at least one outdoor space, or site amenity, to beautify the site in addition to the minimum landscaping requirements of Article 7. The outdoor space or site amenity is intended to enhance the vehicular and pedestrian entryways to the site and the buildings on the site. An “outdoor space” or “site amenity” may include, but is not limited to, the following:

- A public plaza or courtyard on the site;
- A landscaped median for the driveway(s) leading into the site and landscaped pedestrian areas; or
- A public square or park on the site, or on adjacent land.

11.3.2.2. Design Features. The outdoor space or site amenity shall be improved with features which may include, but are not limited to:

- Landscaping
- Seating walls
- Benches
- Fountains
- Clock towers

11.3.2.3. Building Setbacks. The minimum setback for any building facade shall be seventy-five (75) feet from the nearest perimeter property line. Perimeter property lines are those that establish the boundaries of the development, including any and all perimeter outparcels.

11.3.2.4. Transit Stops. Each development shall provide an off-street transit bus stop for customers and employees if the development is located on an established or planned public transit

route.

11.3.3. LANDSCAPING.

A landscaping plan shall be submitted which shall incorporate all applicable landscaping requirements as set forth in Article 7 of this Ordinance.

11.3.4. PEDESTRIAN CIRCULATION.

11.3.4.1. Sidewalks shall be constructed within the interior of the development to link buildings with other destinations such as, but not limited to:

- parking,
- adjoining streets,
- adjoining sidewalks, or
- adjoining developments or amenities where appropriate pedestrian connections can be reasonably accomplished.

These interior sidewalks shall be constructed in accordance with the standards for sidewalks as set forth in Appendix C **and the LDSM**, of this Ordinance.

11.3.4.1.1. Sidewalks, in combination with curb and gutter, shall be required adjacent to all public streets that provide access to the development; ⁽¹⁾in accordance with the policy on file in the office of the Public Works Director. Such improvements may be subject to road widening and other related improvements. Road widening, sidewalks, curb and guttering, utility relocations, and all other related improvements shall be the responsibility of the developer and/or owner. Design standards shall be subject to review and approval by the City of Kannapolis ⁽¹⁾Public Works Director. Design standards for pedestrian upfits to state maintained roads shall be subject to review and approval by the City of Kannapolis ⁽¹⁾Public Works Director and the NC Department of Transportation.

11.3.5. OUTDOOR STORAGE.

Standards for outdoor storage and/or display shall be regulated in accordance with § 11.1 of this Article.

11.3.6. BUILDING DESIGN.

11.3.6.1. Facades.

11.3.6.1.1. In order to provide interesting and aesthetically attractive retail developments and to avoid monotony in design, the following standards shall apply:

- Facades greater than 150 feet in length, measured horizontally, shall incorporate wall plane projections or recesses to create an interesting and attractive architectural design which is comprised of more than flat walls with minimal features.
- Ground floor facades that face public streets shall have arcades, display windows, entry areas, awnings, or other such features along no less than 60 percent of their horizontal length.

11.3.6.2. Roofing.

11.3.6.2.1. The following standards are intended to foster variations in roof lines to soften and reduce the massive scale of large buildings. Roofs shall have the following features:

- Parapets concealing flat roofs and rooftop equipment, such as HVAC units from public view. The height of such parapets shall not exceed one-third of the height of the supporting wall. Such parapets shall feature three dimensional cornice treatment and shall not be of a constant height for a distance of greater than 150 feet.
- Three or more roof slope planes.

11.3.6.3. Exterior Materials and Color.

11.3.6.3.1. Predominant exterior buildings materials shall be high quality materials, including but not limited to brick, wood, stucco, sandstone, other native stone, or tinted, textured, or concrete masonry units.

11.3.6.3.2. Facade colors shall be low reflectance, subtle, neutral or Earth Tone colors. The use of high intensity colors, metallic colors, black or fluorescent colors is prohibited.

11.3.6.3.3. Building trim and accent areas may feature brighter colors, including primary colors.

11.3.6.3.4. No more than 50% of exterior building materials shall include smooth-faced concrete block, smooth-faced tilt-up concrete

panels or pre-fabricated steel panels.

11.3.6.4. Entryways.

11.3.6.4.1. Entryway design elements and variations shall provide orientation and aesthetically pleasing character to the building. The following standards identify desirable entryway design features. Each principal building on a site shall have clearly defined, highly visible customer entrances featuring no less than three of the following:

- canopies or porticos
- overhangs
- recesses/projections
- arcades
- raised corniced parapets over the door
- peaked roof forms
- arches
- outdoor patios
- display windows
- architectural details such as tile work and moldings which are integrated into the building structure and design
- integral planters or wing walls that incorporate landscaped areas and/or places for sitting

11.3.6.5. Mechanical Appurtenances.

11.3.6.5.1. To the greatest extent possible, mechanical appurtenances shall be located within the structure. External mechanical appurtenances such as heating and air conditioning equipment shall be screened from public view and finished to match the colors of adjacent building materials.

11.3.7. PARKING STANDARDS.

Off-street parking and vehicular standards shall be governed by Article 8 of this Ordinance **and the Land Development Standards Manual (LDSM).**

ENCROACHMENT – The advance or infringement of uses, fill, excavation, buildings, structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

ENGINEER - An Engineer licensed by the State of North Carolina.

ENGINEER, CITY – The City of Kannapolis Public Works Director **or his designee**.

ENHANCEMENT - Improvement of the functions or an existing wetland system. Enhancement may include improved flood control capacity, increased groundwater recharge capability, increased density and diversity of native wildlife and vegetation, and improved aesthetic values (e.g., by removing non-native impediments, structures, impervious surfaces).

ENLARGEMENT OR "TO ENLARGE" - An increase in size or addition to the Floor Area of a Building or Structure, or an increase in the portion of a Building, Structure, or land area occupied by an existing Use.

ENTRANCE ROAD - A Street which: (1) leads into a Subdivision, Planned Unit Development, or a Traditional Neighborhood Development, and (2) intersects with a higher order Street.

EQUIPMENT - Rolling stock or movable personal property except that, for the purpose of this Ordinance, it shall not include those items defined as Heavy Equipment.

EQUIVALENT DWELLING UNIT OR "EDU" - See "Equivalent Residential Unit."

EQUIVALENT RESIDENTIAL UNIT OR "ERU" - See Art. 14 "Adequate Public Facilities Standards".

ERECT - To build, construct, attach, hang, place, suspend, affix and/or apply.

EROSION CONTROL - See Article 9 of this Ordinance.

EVIDENCE - Any map, table, chart, contract or other document or testimony prepared or certified that is offered by a person to establish a claim, condition or assertion.

EXCAVATION - The removal of soil, rock or other matter from a land area.

⁽¹⁾EXISTING BUILDING AND EXISTING STRUCTURE – Any building and/or structure for which the “start of construction” commenced before date the community’s first floodplain management ordinance was adopted.

EXISTING CAPACITY - The Capacity of the existing built and operational Public Facilities, as determined by the service provider.

EXISTING DEMAND - See "Public Facilities Standards" of this Ordinance.

EXOTIC ANIMALS - See Other Animals.

EXOTIC SPECIES (PLANT) - A species or higher taxon of plant not native or naturalized in North Carolina but appearing in the Federal Endangered and Threatened Species List or in the appendices to the International Treaty on Endangered and Threatened Species. (Source: NCGS § 106-202.12)

EXTENDED STAY LODGING FACILITY - Any building containing six or more units intended or designed to be used, rented, or hired out to be occupied, or which are occupied for sleeping purposes for guests, and which units contain kitchen facilities for food preparation including, but not limited to, such facilities as refrigerators, stoves and ovens. Extended Stay Lodging Facilities may contain lobbies, conference rooms, meeting rooms, child play areas, and/or restaurants.

LANDSCAPE - An area set aside from structures and parking which is developed with natural materials (i.e. lawns, trees, shrubs, vines, hedges, bedding plants, rock) and decorative features, including paving materials, walls, fences and street furniture.

LANDSCAPE ARCHITECT - A person who holds a current certificate entitling him or her to practice "landscape architecture" and to use the title "landscape architect" in North Carolina under the authority of NCGS, chapter 89A. (Source: NCGS § 89A-1).

LANDSCAPE CONTRACTOR - Within the meaning of this Chapter any person, partnership, association or corporation which holds a certificate issued by the North Carolina Landscape Contractors' Registration Board. (Source: NCGS § 89D-1).

LATERAL SEWER - A sewer which discharges into a trunk line and has only collection lines tributary to it. A line from a structure or use which discharges into a collection line is not a lateral.

⁽¹⁾LETTER OF CHANGE MAP (LOMC) – An official determination issued by FEMA that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study. Letters of Map Change include:

- (a) Letter of Map Amendment (LOMA): An official amendment, by letter, to an effective National Flood Insurance Program map. A LOMA is based on technical data showing that a property had been inadvertently mapped as being in the floodplain but is actually on natural high ground above the base flood elevation. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property, portion of a property, or structure is not located in a special flood hazard area.
- (b) Letter of Map Revision (LOMR): A revision based on technical data that may show changes to flood zones, flood elevations, special flood hazard area boundaries and floodway delineations, and other planimetric features.
- (c) Letter of Map Revision Based on Fill (LOMR-F): A determination that a structure or parcel of land has been elevated by fill above the FBE and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations.
- (d) Conditional Letter of Map Revision (CLOMR): A formal review and comment as to whether a proposed project complies with the minimum NFIP requirements for such projects with respect to delineation of special flood hazard areas. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study; upon submission and approval of certified as-built documentation, a Letter of Map Revision may be issued by FEMA to revise the effective FIRM.

LDSM – Land Development Standards Manual, published by the Public Works Department.

LIBRARY OR MUSEUM - A room or building for exhibiting, or an institution in charge of, a collection of books; artistic, historical or scientific objects.

LICENSED GEOLOGIST - A person who is licensed as a geologist under the provisions of the North Carolina Geologists Licensing Act, NCGS, Chapter 89E.

LICENSED SOIL SCIENTIST - A person who is licensed as a soil scientist under the North Carolina Soil Scientist Licensing Act, NCGS, Chapter 89F.

⁽¹⁾LIGHT DUTY TRUCK – Any motor vehicle rated at 8,500 pounds Gross Vehicular Weight Rating or less which has a vehicular curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of 45 square feet or less as defined in 40 CFR 86.082-2 and is:

- (a) Designed primarily for purposes of transportation of property or is a derivation of such a vehicle; or
- (b) Designed primarily for transportation of persons and has a capacity of more than 12 persons; or
- (c) Available with special features enabling off-street or off-highway operation and use.

LIQUOR STORE - A store which sells or offers to sell alcoholic beverages, as defined in NCGS § 18B-101.

B.4. MAJOR SITE PLANS (Conditional use rezonings/Conditional use permits).

Contents required:

- 1) A description of the proposed development including proposed uses and coverage.
- 2) The following data, when such data is applicable to a given development plan:
 - Total number of dwelling units, by development phase;
 - Residential density and units per acre;
 - Total floor area and floor area ratio for each type of use;
 - Total area in open space;
 - Total area in developed recreational open space; and
 - Total number of off-street parking and loading spaces.
- 3) ⁽¹⁾A Plot Plan as defined in this Appendix B, with the following additions:
 - Location and widths of existing and proposed streets, drives, entrances, sidewalks, paths and any other pedestrian and vehicular circulation systems.
 - Size and/or types of yards as required by Article 7
 - Location for all ground-mounted signs.
 - Location, acreage and category of passive and active (if required) open space.
 - Location of solid waste container(s) with type of screening noted.
 - General phasing information if the project is to be completed in phases.
 - Noted areas (if any) of undisturbed land which is to remain as is.
 - Delineation of all areas of special flood hazard as defined in Section 4.14 or wetlands as defined in Appendix A.
 - Location and size, in acres, of any proposed school sites.
- 4) ⁽¹⁾Submission of an architectural plan consistent with the provisions of this Appendix B.
- 5) ⁽¹⁾A preliminary Utility Plan **and site plan which shall be consistent with the Land Development Standards Manual (LDSM) includes the following information:**
 - ~~Location of existing public utility easements, railroads, power lines, culverts, drain pipes, drainage channels, flood channels, water bodies, streams, swamps, parks, cemeteries, bridges, irrigation ditches, waterlines, sewer lines and natural gas lines.~~
 - ~~Preliminary proposals for connecting with existing water supply and sanitary sewer systems, or alternative means of providing water supply and sanitary waste treatment and disposal. Indicate approximate location of proposed lines or systems.~~
 - ~~Preliminary provisions for collecting and discharging surface water drainage~~

⁽¹⁾It is understood that the information provided above will be used by the Administrator to determine if adequate facilities are available to support the proposed development as set forth in Article 14 of this ordinance.

Number of copies to be submitted shall be specified on the application, as it may vary subject to the approving board(s) that may review plan.

B.5. MINOR SITE PLANS (Administrative permits).

- *Contents required:*
 - A description of the proposed development including proposed uses and coverage.
 - The following data, when such data is applicable to a given development plan:
 - Total number of dwelling units, by development phase;
 - Residential density and units per acre;
 - Total floor area and floor area ratio for each type of use;
 - Total area in open space;
 - Total area in developed recreational open space; and
 - Total number of off-street parking and loading spaces.
 - The location and arrangement of all proposed uses or lots. For uses other than single-family, the massing (height and width) and number of floors of all buildings shall be shown.
 - Location for all ground-mounted signs (and lighting).
 - Submission of an architectural plan consistent with the provisions of this Appendix B.
 - If a phased project, a development phasing schedule including the sequence for each phrase; approximate size in area of each phase; and, proposed phasing of construction of public improvements, recreation and common open space areas.
 - The approximate location and widths of proposed streets.
 - The location of all entrances onto adjacent roadways, whether existing or proposed.
 - The traffic and the pedestrian circulation system, including the location and width of all streets, driveways, entrances to parking areas and parking structures, walkways and bicycle paths.
 - Off-street parking and loading areas and structures, including the number of spaces; dimensions of spaces and aisles; and landscaping for parking areas.
 - Delineation of floodplain areas, wetlands, river/stream overlay areas, and watershed stream buffers and all other environmentally sensitive areas.
 - Preliminary proposals for connection with existing water supply and sanitary sewage systems, or alternative means of providing water supply and sanitary waste treatment and disposal; preliminary provisions for collecting and discharging surface water drainage.
 - The location of existing public utility easements, railroads, power lines, culverts, drain pipes, drainage channels, flood channels, water bodies, streams, swaps, parks, cemeteries, bridges, or irrigation ditches.
 - Location of proposed water and sewer lines.
 - Location of existing vegetative cover to be retained.
 - The proposed treatment of the perimeter of the development, including materials and techniques used, such as landscaped buffers, fences, berms or walls.
 - The location, acreage, category and type of improvements for passive and active (if required) open space.
 - Location of solid waste containers including proposed design provisions for screening.
 - Information relating to compliance with the adequate public facilities requirements of Article 14 of this Ordinance and consistent with the APF submission requirements as included in this Appendix B.
 - Location and size in acres of school sites (if planned).
 - Grading plan **and site plan shall be** consistent with the requirements of this Appendix B **and the Land Development Standards Manual (LDSM)**.
- The developer/applicant shall submit ten (10) folded copies of a minor site plan to the Planning Department for processing and referral to affected agencies along with the appropriate review fee and application..

B.7. GRADING AND CONSERVATION PLAN.

- *Contents Required:*
 - The plan shall have a minimum scale at 1" = 40' with 2' contour intervals.
 - The plan ~~may be on the same or~~ shall be on a separate plan sheet from the site plan and shall consist of one or more plan sheets showing:
 - topographic information showing existing features and conditions and proposed clearing and grading; and
 - the extent, location, and type of proposed fill materials.
 - proposed cuts and fills required by the location of all building structures and streets and roads.
 - The plan shall show the degree to which the proposed development will preserve existing features on the site. This shall include features such as healthy desirable trees, shrubs and other vegetation, waterways, vistas, and historic sites.
 - For the purposes of obtaining a Grading Permit (Section 3.2 of this Ordinance), Plan may also include information as required for a Flood Prevention Plan (see below).

APPENDIX C

Design Standards for Streets and Utilities.

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C.1. GENERAL PROVISIONS.

C.1.1. Compliance.

- Except as hereinafter provided, before any final plat of a subdivision shall be eligible for final approval, and before any street or utility shall be accepted for maintenance by the city, minimum improvements shall have been completed and approved in accordance with the Land Development Standards Manual (LDSM) ~~city engineering standards and specifications~~, or their completion shall have been guaranteed with an irrevocable letter of credit in accordance with Article 6 of this Ordinance.

~~• ⁽⁴⁾All utility lines shall be underground.~~

C.1.2. Intent of specifications.

- The intent of the specifications set out in this Appendix C and the LDSM is to prescribe minimum requirements for storm drainage, water supply, sanitary sewerage, sidewalks and street improvements to be undertaken by the developer within the city or its extraterritorial jurisdiction. Satisfactory completion of these improvements, attested by approval of the city engineer will qualify streets in the city and utilities in the city or its extraterritorial jurisdiction to be accepted for maintenance by the city.

C.1.3. Statement by owner.

- The owner of land, or his authorized agent, shown on a subdivision plat submitted for approval by the City Council shall sign a statement on the plat stating whether or not any land shown thereon is within the subdivision regulation jurisdiction of the City of Kannapolis.

C.1.4. Effect of plat approval on dedications.

- Pursuant to General Statutes 160A-374, the approval of a plat shall not be deemed to constitute or effect the acceptance by the city or public of the dedication of any street or other ground, public utility line, or other public facility shown on the plat. However, the City Council may, by resolution, accept any dedication made to the public of lands or facilities for streets, parks, public utility lines, or other public purposes, when the lands or facilities are located within its subdivision regulation jurisdiction. Acceptance of dedication of lands or facilities located within the subdivision regulation jurisdiction but outside the corporate limits of the city shall not place on the city any duty to open, operate, repair, or maintain any street, utility line, or other land or facility, and the city shall in no event be held to answer in any civil action or proceeding for failure to open, repair, or maintain any street located outside its corporate limits.

C.1.5. Abrogation.

- It is not intended that this ordinance repeal, abrogate, annul, impair, or interfere with any existing easements, covenants, deed restrictions, agreements, rules, regulations, or permits previously adopted or issued pursuant to law. However, where this ordinance imposed greater restrictions, the provisions of this ordinance shall govern.

C.1.6. Inspections of utilities. ~~RESERVED~~

- ~~• The office of the city engineer shall be notified twenty four (24) hours in advance of the work to be started so that an authorized representative of the city engineer may be assigned to make any and all necessary inspections of the work performed.~~
- ~~• The city engineer, or his representative, shall be allowed access to all parts of the work, and shall be furnished with every reasonable facility to ascertain whether or not the work is performed in accordance with the specifications.~~
- ~~• No material shall be placed nor any work performed except in the presence of the city engineer, or his authorized inspector, without special permission of the city engineer. Such inspections, however, shall not relieve the contractor from any obligation to perform all of the work strictly in accordance with the specifications.~~
- ~~• In case of any dispute arising as to the material furnished or the manner of performing the work, the~~

~~inspector shall have authority to reject materials or suspend work until the question at issue can be referred to and decided by the city engineer. The contractor shall remove any work or material condemned as unsatisfactory by the city engineer and shall rebuild and replace same to the standard required by the specifications, all at his own expense.~~

- ~~• The office of the city engineer will be responsible for all inspection.~~
- ~~• When conflicts occur between North Carolina State Highway Commission standards and the City of Kannapolis standards, the City of Kannapolis standard will apply.~~
- ~~• All contracts for the performance of work to construct required improvements must be approved by the city engineer.~~

C.1.7. Improvements variance.

- The city engineer may grant a variance from the terms of these improvements regulations when such variance will not be contrary to the public interest and where, because of the existence of unusual physical conditions, strict compliance with the provisions of this chapter would cause an unusual and unnecessary hardship on the subdivider. Such variance shall not be granted if it has the effect of nullifying the intent and purpose of these regulations. Furthermore, such variance shall not be granted by the city engineer unless and until:
 - A written application for an improvements variance is submitted to the office of the city engineer on forms provided by that office demonstrating:
 1. That special conditions and circumstances exist which are peculiar to the land, structures or required subdivision improvements involved and which are not applicable to other lands, structures, or required subdivision improvements;
 2. That a literal interpretation of the provisions of these regulations would deprive the applicant of rights commonly enjoyed by other properties with similar conditions;
 3. That the special conditions and circumstances do not result from the actions of the applicant;
 4. That the granting of the variance requested will not confer on the applicant any special privilege that is denied by these regulations to other lands, structures, or required subdivision improvements under similar conditions. No existing conditions on neighboring lands which are contrary to these regulations shall be considered grounds for the issuance of a variance.
- The city engineer shall make findings that the requirements of this section have been met.
- The city engineer shall further make a finding that the reasons set forth in the application justify the granting of the variance that would make possible the reasonable use of the land, buildings, or other improvements.
- The city engineer shall make further finding that the granting of the variance would be in harmony with the general purpose and intent of these regulations, will not be injurious to the surrounding territory, or otherwise be detrimental to the public welfare.
- The city engineer shall make all findings required by this section within seven (7) days of the date of receipt of the written application.
- An appeal from the finding of the city engineer may be taken to the City Council by any person aggrieved. An appeal is taken by filing with the zoning administrator a written notice requesting a subdivision variance and specifying the grounds therefore, as set forth in Article 6 of this Ordinance.
- An appeal must be taken within seven (7) days after the date of the findings by the city engineer.
- The City Council may reverse or affirm (wholly or partly) or may modify the findings appealed from and shall make any order, requirements, decision or determination that in its opinion ought to be made in the case before it.

C.1.8 ⁽¹⁾Sidewalk, Curb, and Gutter Exception.

- ~~The Planning Director, the City Engineer (or designee),~~ The Public Works Director (or designee) ~~and the Site Plan Review Coordinator, acting as the Sidewalk, Curb, and Gutter Committee,~~ shall make recommendations to the City Manager, who may grant an exception from the sidewalk, curb, and gutter requirements if any of the following scenarios exists:

~~C.2. WATER AND SEWER IMPROVEMENT STANDARDS.~~
RESERVED

~~C.2.1. General Standards.~~

- ~~• Design standards and specifications for water and/or sewer improvements shall conform to the most current adopted version of the City of Kannapolis Water and Sewer Policy. A copy of the Policy is available at the office of the Administrator or the office of the Public Works Director.~~

C.4. PUBLIC STREETS.

C.4.1. ~~Street Classification. RESERVED~~

Street Type	Description	ADT*
Freeway/ Expressway	Highway system serving travel, having characteristics of substantial statewide or interstate travel and exist solely to serve traffic	8,000
Major Thoroughfare	Streets that provide for expeditious movement of high volumes of traffic within and through urban streets	8,000
Minor Thoroughfare	Streets that perform the function of collecting traffic from local access roads/streets and carrying it to the major thoroughfare. Minor thoroughfares may be used to supplement the major thoroughfare system by facilitating minor through traffic movements and may also serve abutting property.	4,000
Major Collector	A road that serves intra county travel corridors and traffic generators and provides access to the Freeway/Expressway system.	3,000
Minor Collector	A road that provides service to small local communities and traffic generators and provides access to the Major Collector system.	1,000
Local Street	A local street serves to provide access to adjacent land, over relatively short distances.	250
Alley	An alley provides access to adjacent land, typically to the rear of parcels. Alleys are typically used for utilities, garbage service and garage access in residential areas.	100

*Refers to the minimum Average Daily Traffic (ADT) typically experienced by a given Street Classification.

~~Design Standards for the various Classes of Streets are listed below:~~

Characteristic	Expressway or Thoroughfare	Collector	Local	Alley
Maximum Grade	See Thoroughfare Plan	6% level 9% rolling 12% hilly 5% within 100 feet of an intersection	0.5% min. grade 12% max. 9% level 12% rolling 5% within 100 feet of an intersection	12% max.
Minimum Horizontal Centerline Curve Radius	See Thoroughfare Plan	230 feet	150 feet	90 feet
Minimum Tangent Between Reverse Curves	See Thoroughfare Plan	200 feet	100 feet	0
Minimum Intersection Corner Radius	See Thoroughfare Plan	30 feet	30 feet, except that a 15'² radius may be used with a 25' toe.	35 feet
Typical Design Speed	See Thoroughfare Plan	25-35 mph	25-35 mph	15 mph

Sources: Thoroughfare Plan; North Carolina Division of Highways, *Subdivision Roads, Minimum Construction Standards* (Jan. 1, 1999 or most current version as amended)

C.4.2 Construction Standards and Specifications for Street, Sidewalks and Storm Drainage RESERVED

C.4.2.1 Purpose. RESERVED

- ~~• Intent of these specifications is to prescribe minimum requirements for streets, sidewalks and storm drainage within the governing limits of the City of Kannapolis. Detail drawings and standards cross-sections are illustrated in Section C.7.~~
- ~~• Satisfactory completion of these improvements, attested by approval of the city engineer will qualify streets in the city to be accepted for maintenance by the city. Additional information is available in the design standards of the subdivision regulations.~~

C.4.2.2 Grading. RESERVED

- ~~• Grading: All streets shall be graded to their full right of way width or to a minimum of fifty (50) feet. Finished grade, cross section and profile of the roadway shall be designed by a professional engineer or registered land surveyor and approved by the city engineer~~
- ~~• Longitudinal grades shall have a minimum grade of 0.5 percent (0.5%) and a maximum grade of twelve (12) percent.~~
- ~~• Transverse grade or crown shall be one fourth (1/4) inch to one (1) foot slope. The maximum slope for cuts shall be two (2) to one (1) and for fill embankments, two (2) to one (1). Fill embankments shall be formed of suitable materials placed in successive layers of not more than six (6) inches in depth for the full width of the cross section, including width of slope area. No stumps, trees, brush, rubbish or other unsuitable materials or substances shall be placed in the embankments within any right of way or easement. Each successive six inch layer shall be thoroughly compacted by a sheepsfoot roller, ten ton, three wheel power roller, pneumatic tired roller or other method approved by the city engineer. Embankments over and around all pipes and culverts shall be of select material, placed and thoroughly tamped and compacted as directed by the city engineer or his representative. Any soft spots or rolling areas must be removed and replaced in the manner stated above until satisfactory compaction is achieved.~~

C.4.2.3 Cul-de-sac Streets. RESERVED

- ~~• Cul de sacs shall be subject to the same design guidelines as local roads, above, except as modified herein.~~
- ~~• In no event shall more than twenty (20) equivalent residential units (ERUs) take access from a cul de sac. ERUs are determined in Article 14. Temporary cul de sacs on stub streets are exempted from this limitation.~~
- ~~• The preliminary and final site plan shall show a stub connecting the cul de sac to adjoining areas or parcels where future roadways are delineated in the Thoroughfare Plan or Collector Street Plan, or on a recorded subdivision or site plan (provided reasonable connection can be achieved without the need for a bridge or other feature to negate substantial differences in topography). The stub shall be improved as a pedestrian walkway, trail, or bikeway.~~
- ~~• The radius for the circular terminus, or turnaround, shall be not less than 40 feet. An island may be planted in the center of the turnaround in accordance with the standards as set forth in the Section C.7 of this Appendix C. The island shall maintain a minimum of 10 foot radius.~~
- ~~• In no event shall the cul de sac exceed the lengths set forth below:~~

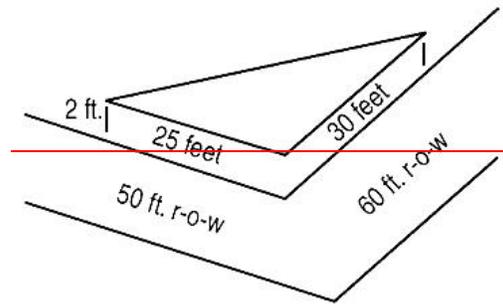
<u>District</u>	<u>Length (feet)</u>
AG, RE, RL	1,000 feet
RM 1, RM 2, RV	800 feet
RC	300 feet
B 1, O I, C 1, C 2	500 feet
CD, I 1, I 2	1,500 feet
CC	300 feet
PUD	500 feet

- Cul de sac length shall be measured from the first point of intersection with an existing street or the street providing access for the cul de sac.

C.4.2.4. Sight Triangles. RESERVED

- A Sight Triangle shall be maintained on each corner of property at the intersection of two streets, a street and an alley, a street and a railroad, and also at the point where driveways, private drives, or entrances to common parking areas intersect with a public or private street right of way. The Sight Triangle is a triangular area connecting the following points: The intersection of the right of way lines and the end points of the sight distance for the intersecting streets as set forth in the North Carolina Department of Transportation, Subdivision Roads Minimum Construction Standards (July 1, 1985), G.2 and Figures 3 and 4.
- In the event that a proposed new street connection is located on a site near an adjoining property not under the ownership of the developer, the City shall have the authority to acquire right of way (as set forth in NCGS 40 A) on the adjoining property for such area as necessary to establish a sight triangle.
- The following are the distances used to establish a sight triangle as measured from an intersecting right of way:

Right of Way width	Distance (feet)
50'	25'
60'	30'
70'	35'
80'	40'
90'	45'
100' (or greater)	50'



• Illustration of a typical sight triangle.

- A Sight Triangle shall contain no fence, structure, earth bank, hedge, planting, wall or other obstruction between a height greater than two (2) feet above the property line grade as established by the city engineer. The following are exempted from this provision:
 - Public utility poles.
 - Trees trimmed (to the trunk) to a height at least nine (9) feet above the level of the intersection.
 - Other plant species of open growth habit that are not planted in the form of a hedge and which are so planted and trimmed as to leave in all seasons a clear and unobstructed cross view.
 - A supporting member or appurtenance to a permanent building lawfully existing on the effective date of this ordinance.
 - Official warning signs or signals.
 - Signs which conform to the Sign Ordinance (Article 12) mounted ten (10) feet or more above the ground with supports that do not encroach on the clear vision area.
- The Administrator (or his/her designee) may waive this provision where the natural contour of the ground is such that there can be no cross visibility at the intersection.
- The requirements for Sight Triangles shall not apply in the CC District.

C.4.2.5. Roadway and Curb and gutter Design. RESERVED

- All new streets shall have concrete curbs and gutters constructed to City of Kannapolis standards. Concrete drive entrances shall be built as shown in this Appendix. Standard, vertical curb and gutter shall be used. Valley gutter shall be prohibited. Curb and gutter shall be provided along any street that provides access to the subdivision or non-subdivision development site, except that this requirement shall not apply to partially or fully controlled access highways not designed for a curb and gutter system⁽²⁾ See Section **C.1.8 Sidewalk, Curb, and Gutter Exception** regarding additional exemptions.

C.4.2.6. Curve Radius. RESERVED

- Property lines at the intersection of minor streets shall be rounded with a minimum radius and a maximum radius as follows:

<u>Underlying Zoning District</u>	<u>Minimum Radius</u>	<u>Maximum Radius</u>
AG, RE	30 feet	n/a
RL, RM 1, RM 2	30 feet	n/a
RV, RC, B-1, O-1, CC, PUD	30 feet	45 feet
C-1, C-2, CD, I-1, I-2, PUD	30 feet	n/a

C.4.2.7. Roadway Base. RESERVED

- The material for base course shall be crusher run stone with aggregate ranging from one and one half (1/2) inches to dust. The material shall consist of tough durable aggregate, containing sufficient fines to insure a well and uniformly bonded base after compaction. The aggregate shall be free from an excess of flat, elongated, soft disintegrated pieces, and shall not contain clay, silt, vegetable or other objectionable matter. The base shall not be less than that required by city standards. The mixing and shaping of the base course material shall be done with a power driven motor grader, equipped with a blade not less than ten (10) feet long, and of a size equal to a 212 Caterpillar. [See standard drawing(s) in Section C.7]
- The base shall be compacted by rolling with ring or temping roller and with pneumatic tired roller. When completed, the base course shall be smooth, hard, dense, unyielding and well bonded.
- Materials shall conform to the requirements of the State Highway Specifications, Section 401. Construction methods shall conform to Section 51. [See standard drawing(s) in Section C.7]

C.4.2.8. Roadway Surface. RESERVED

- Plant mix asphalt shall conform in all respects to State Highway Specifications, Section 140 (Type "I-2"), and in addition, the following special provisions will be used:
 - At least fifty (50) percent of the fine aggregate (material passing the No. 10 sieve) used in the mix shall consist of natural sand or approved screenings. The prime coat shall be applied only when the base course is dry. The surface course shall not be less than that required by city standards.

C.4.2.9. Sidewalks. RESERVED

- Sidewalks shall be provided for the safe movement of pedestrians, separate from the movement of vehicular traffic, through residential areas, as well as to commercial, industrial and public places.⁽⁴⁾ Except in the I-1 and I-2 zoning districts, sidewalks shall be constructed along both sides of all new streets in a subdivision and along any street that provides access to the subdivision or non-subdivision development site, provided the street providing access has existing curb and gutter or curb and gutter is required to also be installed.
- ⁽³⁾ See Section **C.1.8 Sidewalk, Curb, and Gutter Exception** regarding additional exemptions.

(1) City Council approved 4/28/2003
 (2) City Council approved 4/12/2004
 (3) City Council approved 9/26/2005

- ~~• Sidewalks shall:~~
- ~~• have a minimum of five (5) feet in width;~~
- ~~• be constructed of not less than three thousand (3,000) PSI concrete;~~
- ~~• be a minimum four (4) inches thick, except that where a sidewalk crosses a driveway, it shall be six (6) inches thick.; and~~
- ~~• shall be constructed on an adequately compacted and properly graded base~~
- ~~• shall have a lateral slope of one quarter (1/4) inch per foot toward the street.~~
- ~~• shall be steel trowelled and light broom finished and cured properly. Tooled joints shall be provided at intervals of not more than five (5) feet and expansion joints at intervals of not more than forty (40) feet.~~

C.4.2.10. Drainage System Requirements-RESERVED

- ~~• A drainage system shall be provided for by means of culverts under roadways and other drainage structures or outlet ditches that are necessary to provide adequate drainage of storm water for all streets in the subdivisions and for adjoining property where necessary. All such drainage systems shall be designed in accordance with sizes and specifications established in this Appendix C for Municipal Streets and the North Carolina Department of Transportation for State-maintained roads.~~
- ~~• Storm drainage systems shall be designed by a professional engineer or landscape architect according to specifications of the public utilities department of the City of Kannapolis and approved by the city engineer. Installation of same shall be in accordance with city specifications and standards.~~
- ~~• Adequate storm drainage shall be provided throughout by means of pipes or graded channels; storm drain pipe shall be placed at all low points in the street grade to transmit storm water transversely across the street with catch basins being constructed on both sides of the street at the low points. In no case, shall storm water be transmitted more than five hundred (500) feet in the gutter line. No open ditches will be permitted within the limits of the street rights of way except for pre-existing stream channels which may be approved by the city engineer.~~
- ~~• The minimum size pipe shall be fifteen (15) inches, regardless of drainage area. The minimum cover for all pipe shall be two (2) feet. Subdrainage shall be provided where ground water table is within two (2) feet of the subgrade. Six inch corrugated black plastic pipe or corrugated metal pipe with open joints or perforations laid on six (6) inches of clean sand or washed stone, covered with six (6) inches of clean sand or washed stone shall be used to lower water table. Ditches shall be minimum of thirty six (36) inches deep and two (2) feet in width.~~
- ~~• All surface drainage pipe shall be concrete conforming to state Highway Commission Standard Specification of Road and Structures. For special conditions, pipe recommended by the manufacturer for the type installation involved, and approved by city engineer will be considered. Any concrete pipe laid between the concrete curbs shall be reinforced. All pipe shall be laid with the bell or groove upgrade and joint entirely interlocking.~~
- ~~• Catch basins shall be built as shown on the standard drawings. Improvised grates will not be acceptable. Catch basins walls shall be built straight with inside joints struck smooth. Precast catch basins may be acceptable with the approval of the city engineer.~~

C.4.2.11. Sign Installation.

- **Standard street signs installed by the City of Kannapolis.** In all subdivisions which include public streets, except as provided for in below, standard street signs shall be installed by the City of Kannapolis. The developer shall reimburse the city for full costs of installation. Installation, maintenance and replacement shall be the responsibility of the city.
- **Custom street signs installed by the developer.** In nonresidential subdivisions with architectural standards, restrictive covenants, and a property owner's association, custom street signs may be installed by the developer with all costs of installation, maintenance and replacement paid by the developer and as set forth below.

- Such street signs shall comply with the Manual on Uniform Traffic Control Devices published by the U.S. Department of Transportation and may be installed only after written approval by the City Director of Streets and Traffic Engineering. Submission requirements for consideration of custom street signs shall include detailed color drawings, plans and specifications of the proposed street signs and a written statement describing funding for installation, maintenance and replacement.
- Replacement of lost or damaged regulatory or warning signs, as defined by the Uniform Manual, shall be accomplished immediately by the city using standard street signs until the developer or property owner's association installs replacement custom street signs. If the developer or property owner's association fails to install replacement custom street signs for regulatory and warning signs within ninety (90) days, the replacement by the city shall be considered permanent and full costs shall be paid by the developer or property owner's association. Replacement of lost or damaged guide signs, as defined by the Uniform Manual, shall be accomplished by the developer or property owner's association within ninety (90) days or the city shall install standard street signs with full costs paid by the developer or property owner's association.

C.4.2.12. ~~Street Intersections.~~ RESERVED

- ~~• Insofar as practical, streets shall intersect at an angle of ninety (90) degrees for a minimum of fifty (50) feet from the roadway intersection. In no case shall the angle be less than sixty five (65) degrees. Intersections having more than four (4) corners shall be prohibited.~~
- ~~• Proposed streets which intersect opposite sides of another street (either existing or proposed) shall be laid out to intersect directly opposite each other. Intersections which cannot be aligned shall be separated by a minimum length of 200 feet between survey center lines.~~
- ~~• Property lines at intersections shall be established so that the distance from the edge of pavement, of the street turnout, to the property line will be at least as great as the distance from the edge of pavement to the property line along the intersecting streets. This property line can be established as a radius or as a sight triangle.~~

C.4.2.13. ~~Median and Islands.~~ RESERVED

~~⁽¹⁾Where an entrance road median or island is desired, a median of not less than the designated width shall be provided and shall be landscaped at a density equivalent to a Class "A" buffer as set forth in the Landscaping Standards of this Ordinance. ⁽²⁾Islands and medians shall be a minimum of 75 square feet in size. Structures, permanent materials or plantings within the island shall not obscure the visibility of cars entering a cross street for a distance of 20 feet back from the curb face of the cross street, unless a larger setback is needed due to inadequate sight distance created by horizontal or vertical curve alignment. ⁽³⁾Medians and/or islands shall be designed in accordance with Figure 12 "Recommended Road Connection with Interior Island" and "Detail Section View of Interior Island and Marker of the Minimum Construction Standards/ Subdivision Roads, Division of Highways, NCDOT, June 1999 (or most current edition).~~

C.4.2.14. Unopened dedicated streets.

- Streets for which right-of-way has been dedicated by subdivision plat or deed to the North Carolina Department of Transportation or the City of Kannapolis recorded with the Cabarrus or Rowan County Register of Deeds, but which have never been constructed, shall not be constructed or maintained by the city until the following conditions have been met:
 - Right-of-way shall be dedicated, and surveyed if necessary, sufficiently wide for the street and utilities, as determined by the city engineer.
 - Right-of-way shall be cleared and graded to meet city standards for slope and drainage.
 - Roadway shall be improved with a surface of crusher-run stone to a depth of not less than six (6) inches, two (2) inches of HB binder, and one and one-half (1½) inches of I-2 asphalt. Width of roadway shall be not less than eighteen (18) feet.
 - The city engineer or his authorized representative shall inspect all work.
 - The city engineer or his authorized representative shall issue a certificate of completion for the required improvements.

~~C.5. STORMWATER MANAGEMENT.~~

~~C.5.1. General Requirements.~~

- ~~• A storm water drainage plan shall be required to provide for the proper drainage of surface water. The storm water drainage plan shall be designed in accordance with Section 9.3 Standards of this Ordinance and as indicated below, so that adjacent properties are not unreasonably burdened with surface waters as a result of the development of the subdivision. No surface water shall be channeled or directed into a sanitary sewer. The storm water drainage plan shall be approved by the Public Works Director.~~

~~C.5.2. Storm Water Drainage Plan.~~

- ~~• A storm water drainage plan submitted for approval under these provisions shall include, but shall not be limited to the following information:
 - ~~— A site plan showing existing and proposed buildings, existing utilities, storm water drainage facilities, soil types, and ground cover.~~
 - ~~— Site construction plans, grading plans, existing and proposed topography, existing and flow patterns, and existing and proposed drainage system receiving runoff from the parcel.~~
 - ~~— Drainage plan design date.~~
 - ~~— Drainage area map and hydrologic engineering calculations including offsite drainage effecting the property.~~
 - ~~— Projected area of impervious cover and total land area.~~
 - ~~— Proposed land use and development plans.~~
 - ~~— A written description of the methodology used to analyze the pre and post development runoff with supporting calculations and documentations.~~~~
- ~~• A storm water drainage plan submitted for approval under these provisions shall be prepared by a professional engineer or landscape architect in accordance with the standards of this Ordinance and approved by the Public Works Director or his designee.~~
- ~~• If a public storm drainage system is reasonably accessible to the subdivision either by being within or by adjoining its boundaries, the subdivider or developer shall connect with such storm drainage system and shall do all grading and ditching, and shall provide and install all piping, appurtenances and drainage structures deemed necessary by the Public Works Director or his designee to properly carry surface water to the storm drainage system. If the city determines that future development may require the use of the proposed storm drainage system that will require larger storm drainage structures than proposed, the city will pay the difference of cost between the proposed storm drainage system materials and the materials required for conveying stormwater flow from future development.~~
- ~~• If a storm drainage system is not reasonably accessible to the subdivision, the subdivider shall do all grading and ditching, provide and install all piping, appurtenances and structures that are necessary to properly carry the surface water to locations within the boundaries of the subdivision which are acceptable to the Public Works Director or his designee.~~
- ~~• In areas specifically designated as sensitive water quality areas, [for example, within watershed protection overly districts as shown on the Official Zoning Map (UDO 4.16), within the River/Stream Overlay District (RSOD)(UDO 4.15), or other applicable Overlay Districts (UDO Article 4)] the more stringent design criteria applies.~~
- ~~• The Public Works Director or his designee may waive the requirements for a drainage plan if the land to be developed is part of a larger tract which has received prior subdivision or development approval, and has implemented, an overall stormwater drainage plan under the provisions of this section, so long as run off from the property to be subdivided will not exceed the capacity of facilities constructed under the previously approved stormwater drainage plan.~~

~~C.5.3. Design Criteria.~~

- ~~• General design and construction criteria for detention facilities:
 - ~~— Design and installation of all storm water detention or other impoundment facilities shall comply~~~~

- with applicable federal, state and local laws.
- ~~— In no case, shall a habitable structure be located within the impoundment area of any storm water detention facility or over a storm water drainage line.~~
- ~~— No utilities (sanitary sewer lines, underground power lines, water lines, etc.) shall be located within any impoundment facility.~~
- ~~— No structures may be located over storm drain lines.~~
- ~~— Impoundment facilities located within automobile parking areas shall not exceed a maximum water depth of ten (10) inches.~~
- ~~— All impoundment facilities will be considered permanent.~~

C.5.4. Specific design and construction criteria for detention facilities:

- ~~• Impoundment facilities located within automobile parking areas shall not exceed a maximum water depth of six (6) inches in code required parking areas, ten (10) inches in additional parking area, and fifteen (15) inches in truck storage and loading areas.~~
- ~~• The following hydrologic soil groups shall apply for Cabarrus County, North Carolina:~~

<u>Series Name</u>	<u>Hydrologic Group</u>	<u>Series Name</u>	<u>Hydrologic Group</u>
Altavista	C	Hewassee	B
Appling	B	Iredell	C/D
Armenia	D	Kirksey	C
Badin	C	Mecklenburg	C
Cecil	B	Misenheimer	C
Chewacla	C	Pacolet	B
Coronaca	B	Poindexter	B
Cullen	C	Sedgefield	C
Enon	C	Tatum	C
Georgevill	B	Vance	C
Goldston	C	Wehadkee	D
Herndon	B		

Source: United States Department of Agriculture, Soil Conservation Service, *Soil Survey of Cabarrus County, North Carolina*, Table 16. Page 86 and pages 124-126 of the *Soil Survey of Cabarrus County, North Carolina* shows permeability ratings by depth and type for each soil type.

- ~~• Stormwater detention or impoundment facilities shall be located on the site from which the run off to be controlled is generated; provided, however, that off site impoundment facilities are acceptable provided the land area involved within the facility is delineated on an acceptable map and officially recorded by the Cabarrus or Rowan County Register of Deeds as a permanent “drainage detention easement.” Regional detention facilities are allowed if approved by the Public Works Director or his designee and if the development plans provide for the proper operation, inspection, and maintenance of the facilities in perpetuity through a restrictive covenant or other legal, enforceable mechanism.~~

~~C.6. RESERVED.~~

~~C.7. STANDARD DETAILS AND CROSS-SECTION DRAWINGS.~~

~~⁽¹⁾C.7.1. GENERAL STANDARDS. Standard details and cross-section drawings for streets shall conform to the most current adopted version of standard details and cross-section drawings. A copy of these details and drawings is available at the office of the Administrator or the office of the Public Works Director.~~

APPENDIX D

Rights-of-Way Regulations and Design Standards for Driveways, Drainage, and Utility Construction.

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D.1. PURPOSE OF DRIVEWAY ORDINANCE.

Applicability. This Appendix D shall apply to all driveways or access points planned to connect to a City maintained street. This provisions of this Appendix shall regulate only that portion of a private driveway that connects to a public and extends to the edge of a public right-of-way. The regulation of private driveways on private property is subject to the standards of Article 8 of this Ordinance **and the Land Development Standards Manual (LDSM)**.

- The safety and efficiency of a roadway is impacted by the amount and type of interference experienced by the vehicles moving on it. Some interference may result from other vehicles on the roadway, moving in either the same or the opposite direction. The major form of interference, however, is from vehicles entering, leaving, or crossing the roadway at intersecting streets and driveways. In order to reduce interference with traffic flow, minimize accidents and assure the best overall utilization of the roadway by the motoring public, it is necessary to regulate vehicles entering and leaving roadside developments and intersecting streets.
- The City of Kannapolis recognizes the legal rights of the abutting property owners to have access to their property. However, it must also consider the right of other roadway users to travel with relative safety and freedom interference. Since these rights are at times in conflict, it is the city's responsibility to reconcile and, to the extent feasible, satisfy the needs and desires of all roadway users.
- To accomplish this, the critical areas of driveway location, design and operation must be addressed. The City of Kannapolis has therefore adopted this driveway ordinance **and the LDSM** to establish standards for the location and design of driveways providing access from public roadways to developments on abutting property. This ordinance has been established to meet the following objectives.
 - (a) To provide maximum safety and protection to the public through the regulation of vehicles entering and exiting public streets and,
 - (b) To provide a uniform ordinance for the design, location, operation and construction of driveways throughout the city, and,
 - (c) To provide owners of abutting property with the maximum service feasible, consistent with the safe and efficient use of city streets.
- The city's intent is to further increase safety and decrease congestion along specified major thoroughfares. In order to accomplish these objectives, certain goals have been identified. These goals are:
 - (a) To prohibit driveways within a certain distance of intersecting streets unless alternate access is not available,
 - (b) To decrease the number of driveways along major thoroughfares, and
 - (c) To increase the distance between adjacent driveways along major thoroughfares.
- This Appendix D **and the LDSM** is to be administered by the City of Kannapolis Director of Traffic Engineering and/or his/her designee(s). The issuance of a Driveway permit as prescribed by this Appendix D **and the LDSM** shall be issued by the Kannapolis Director of Traffic Engineering and/or his/her designee(s).

D.4. PERMIT REQUIRED.

- (a) No person, firm, or corporation shall remove, alter, or construct any curb, driveway approach, gutter, pavement, or perform any other improvement in any public street or other property owned by or dedicated to the city without first obtaining a permit from the Director of Transportation authorizing such improvements ⁽¹⁾subject to the exceptions as listed in subsection (b).
- (b) ⁽¹⁾Single-family dwellings and duplex dwellings on individual lots are exempt from the requirement for a driveway permit, however, such uses are not exempt from the standards of this Appendix D **and the LDSM** unless specifically indicated.
- (c) A driveway permit is required prior to the issuance of a building permit for new construction, additions, or changes in use.
- (d) Existing driveways shall not be altered within the right-of-way until a permit is obtained. The maintenance of driveways located in or on the right-of-way shall be the responsibility of the property owner.
- (e) Failure to secure a permit as described herein or failure to construct the driveway to city standards or failure to correct or remove existing nonconforming driveway approaches is a violation of this ordinance and subject to enforcement procedures set forth in Article 1 of this ordinance. If the driveway is not removed or brought into compliance within thirty (30) days of notification of violation, the person, firm or corporation doing the original work shall be denied further permits to work on public streets within the city limits of Kannapolis.
- (f) In unusual circumstances minor variations of the minimum requirements may be permitted, based on sound traffic engineering principles, after an engineering investigation by the Director of Transportation.
- (g) No variation in the number and/or width of driveways shall be permitted.

D.5. PLAN SUBMISSION REQUIREMENTS.

- (a) No permit shall be issued until there is filed with the Director of Transportation for his approval ~~two (2) copies~~ of plans showing the location and dimensions of all proposed improvements.
- (b) ~~Four (4) additional~~ **Six (6) copies of the** plans will be required for driveway approaches to state highway system streets within the corporate limits, and six (6) NCDOT Driveway Permit forms.
- ~~(c) A minimum of three (3) working days shall be required for the initial review of the site plan by the Director of Transportation.~~
- (d) Information that must be shown on plans submitted ~~shall include~~ **shall be consistent with the Land Development Standards Manual (LDSM):**
 - ~~1) location of the property, including street name and address;~~
 - ~~2) the character of the present and future property use and the current zoning;~~
 - ~~3) location of all existing and proposed buildings;~~
 - ~~4) pavement and right-of-way width;~~
 - ~~5) for commercial and/or industrial facilities, the proposed location of off-street loading and unloading facilities.~~
 - ~~6) interior parking arrangements and traffic circulation patterns, and number of spaces required;~~
 - ~~7) location of existing utilities, retaining walls, storm drainage facilities, poles, and other physical features which affect the driveway location;~~
 - ~~8) all existing driveways, property lines, and driveways to be closed~~
 - ~~9) all proposed driveways, including all parcels reserved for future development.~~
 - ~~10) location of existing and proposed sidewalks, curbs, and wheelchair ramps on or adjacent to the property.~~
 - ~~11) driveways on the opposite side of the street;~~
 - ~~12) all existing and/or required turn lanes and transition tapers;~~
 - ~~13) proposed median openings with storage lanes and transition tapers;~~
 - ~~14) location of all easements;~~
 - ~~15) north arrow;~~
 - ~~16) scale, not greater than 1"=10' or less than 1"=40', 1"=20' is preferred;~~
 - ~~17) major developments may require a traffic study prepared by a transportation professional. Such studies shall include trip generation, existing and proposed traffic assignments, complete demographics of the development, and other information helpful in evaluating the proposed development.~~

D.7. INSPECTIONS.

- Once the permit is duly issued, the supervisor on the driveway construction site shall keep the permit available for on-the-job inspection by authorized personnel of the city.
- The applicant shall request an inspection by the Director of Transportation ~~24~~ **16 business** hours in advance of any concrete pouring. The Director of Transportation or his authorized representative shall have the authority to require the immediate stoppage of work not performed under the requirements of this article **and the LDSM.**
- In the event of failure to comply with the provisions of this article or the term of the permit or in the case of faulty workmanship or materials, the city may remove the non-complying driveway at the property owner's expense.

D.8. DRIVEWAY DESIGN STANDARDS.

Driveway Width

- The width, in feet, of a driveway approach and curb return flare or radius shall be within the minimum and maximum limits as specified below:

Land Use/Driveway Type	Driveway Width, Ft.		Flare/Radius, Ft.	
	Minimum	Maximum	Minimum	Maximum
Residential Single Family	12	20	4	3
Multi-family	24	36	10	30
Commercial/Industrial	24	36	5	10
Commercial/Industrial one-way	15	20	5	10
Private Street Entrance	24	48	30*	30*
Street Type Driveway	24	36	10	30

*radius only

- All driveway approach widths shall be measured at the street right-of-way line and the width of any driveway shall not increase when crossing the right-of-way except at properly designated curb returns.
- The width and radius of street type driveways and width of private street entrances shall be determined by the Director of Transportation within the limits of this ordinance.

Number and spacing of driveway approaches

- Driveways shall be allocated and spaced as outlined below, provided all other requirements of this article are met.

Road Classification	Minimum Separation Between Driveways	Minimum Separation Between Driveways and intersecting Streets
Local Streets	40 feet	60 feet
Collector Streets	120 feet	120 feet
Major and Minor Thoroughfares	400 feet	250 feet

- ⁽¹⁾Single family dwellings and duplex dwellings on individual lots shall be exempt from the minimum separation between driveways as shown in column two of the table above, however, such driveways shall maintain a minimum five feet of side clearance from property lines. Additionally, single family dwellings and duplex dwellings on individual lots shall be required to conform to the minimum separation between driveways and intersecting streets as shown in column three above.
- ⁽¹⁾In a situation where a lot does not provide adequate frontage to meet the standard spacing from the intersection as shown in column three above, the Director of Transportation shall have the authority to waive the requirement if evidence exists that such a connection will not result in negative impacts to the intersection.
- Access separation between driveways shall be measured from inside edge to inside edge of driveway. Access separation between a driveway and intersecting street shall be measured from the nearest edge of the driveway to the intersecting right of way lines. The maximum number of driveways allowed for any parcel prior to subdivision of property shall be three and shall meet the minimum spacing requirements of this ordinance.

Driveway Design

- All driveway approaches shall be a concrete apron section ("ramp" type), except that street type driveway entrances may be required to public or private developments that have parking spaces for two hundred (200) or more vehicles or when special conditions exist as determined by the Director of Transportation. The concrete

apron shall be installed to the right of way line or at least 10 feet from the edge of the roadway and/or back of curb.

- ~~Medians and Islands.~~ Medians or islands may be permitted for street type driveways and private street entrances only, upon approval of the Director of Transportation and subject to the following conditions:
 - (a) The raised median or island shall be constructed on private property to the rear of the right of way line;
 - (b) The minimum width of the median or island as measured nearest the right of way line(excluding the nose) shall be fifteen (15) feet, the minimum length shall be fifty (50) feet;
 - (c) For street type driveways with a median or island, the combined width of pavement of the separated driveway segments shall not exceed forty eight (48) feet;
 - (d) Medians and islands shall not be permitted for ramp type driveways.
- Ramp type driveway approaches may use either a standard drop curb opening or curb radius from the street curb to the inside sidewalk line. If a curb radius used, the top elevation of the curb radius must be held level with the elevation of the street curb, and the driveway apron must be raised to meet the elevation of the curbline at the inside sidewalk line.
- Driveway approaches shall cross the sidewalk area at the sidewalk grade established by the Director of Transportation. The sidewalk shall be constructed separately from the driveway apron. The driveway angle shall be ninety (90) degrees, unless engineering considerations dictate otherwise, as approved by the Director of Transportation.
- Where special pedestrian or vehicular hazards may be encountered, driveway approaches may be restricted to one way operation. Such driveways shall be clearly signed and marked as one way driveways using pavement arrows and directional signs. Failure to erect and maintain such signs or the failure to use these driveways in accordance with the signing and marking shall be considered a violation of this article.

Location of driveway approaches

- All driveway approaches shall have a minimum side clearance as specified below:

Land Use	Minimum Side Clearance
Single Family Residential	5 feet
All others	10 feet

- All driveway approaches shall have a minimum corner clearance of sixty (60) feet.
- At street intersections where the radius is sixty (60) feet or more, driveway approaches may encroach upon either end of the radius for a distance up to five (5) percent of the total length of the arc of the curb radius, thereby leaving at least ninety five (95) percent of the arc length of the radius free from driveway encroachment, provided that all other requirements of this article are met.
- No driveway approach shall be permitted to encompass any municipal facility, including but not limited to traffic signal standards, catch basins, fire hydrants, crosswalks, loading zones, utility poles, fire alarm supports, meter boxes, and sewer cleanouts. The driveway approach must be located a minimum of 3 feet from any such facility.
- Landowners of adjacent property, may, by written mutual agreement, construct a joint driveway to service both properties provided that all other requirements of this article are met with the exception of the side clearance restriction.

Specifications

- All work done and all materials used in the construction of driveway approaches shall conform to the current standards established by the Director of Transportation.

or vehicular hazards necessitate the one-way operation of driveways. The following standards apply to all instructional or directional signs and pavement markings used to designate private driveways as entrance and exists.

• **Sign Standards:**

- ~~Location: At a minimum, one double faced sign shall be located on private property at least 10 feet back from the curb to the right of each driveway approach. Additional signs may be placed on the opposite side of the approach. The sign should not be blocked from view by vegetation or other obstacles.~~
- ~~Size: The area of the sign shall be no less than 3 square feet and no more than 6 square feet.~~
- ~~Letters:~~
 - ~~Minimum letter size, uppercase: 6" (8" preferred)~~
 - ~~Minimum letter size, lowercase: 4" (6" preferred)~~
 - ~~Letters shall be black or white on a reflectorized or illuminated background of contrasting color. The first letter of each word shall be uppercase.~~
- ~~Copy Material: Only the words "Enter" and "Exit" or "In" and "Out" with the appropriate arrow shall be used. Arrow dimensions shall be a minimum of 6" long with a shaft width of at least 2". The arrow head shall be at least twice as wide as the shaft. Business logos may be used but shall not exceed 33 1/3 of the sign area.~~

Pavement Arrows:

- ~~Location: A sufficient number of pavement arrows designating the appropriate direction of traffic shall be installed in the driveway approach and driveway so that they are clearly visible from the street.~~
- ~~Size: Pavement arrows shall be a minimum of 8 feet in length and shall conform in size and proportion to the standards set forth in the Manual on Uniform Traffic~~

Control Devices (MUTCD):

- ~~All signs and markings shall be installed and maintained by the property owner.~~

Policy Regarding the Use of Asphalt Paving for Driveway Aprons and Approaches

- ~~The Director of Transportation has recognized the need for an established policy regarding the installation of asphaltic concrete driveway aprons in lieu of Portland cement concrete driveway aprons, and as a result has established, in consultation with the City Director of Engineering, the following policy:~~
- ~~The use of asphalt is permitted for the construction of a driveway apron or approach if and only if that apron or approach meets the following criteria:
 1. ~~(a) the adjoining public street is unpaved or constructed of stone only, OR~~
~~(b) the adjoining public street is constructed of asphalt ribbon pavement~~
~~AND~~
 2. ~~The pavement design to be used in the construction of the driveway apron or approach is approved by the City Director of Transportation.~~~~
- ~~Under NO circumstances is asphalt paving permitted on any driveway apron or approach where the adjoining public street is constructed with granite curbing or concrete curb and gutter.~~

D.12 STANDARD DETAIL DRAWINGS.

