

City of Goldsboro Planning Commission Agenda for February 4, 2026

The Commission

William Rose Jr. - Chairperson

Shirley Edwards– Vice Chairperson - Wayne County & ETJ Representative

Duke Cox

Kevin Woodard

Viola Figureoa

Glenn Barwick

Ronald Waters - Wayne County & ETJ Representative

The Staff

Mark E. Helmer, AICP, CFM, Planning Services Manager

Kenny Talton, MPA, Assistant Planning Services Manager

Holly Jones, MPA, Planning Executive Assistant

AGENDA
PLANNING COMMISSION
FEBRUARY 4, 2026

The Planning Commission will hold their meeting on Wednesday, February 4, 2026 at 6:00 p.m. in the Large Conference room, 200 N. Center St, in the City Hall Annex.

- I. Adoption of the Agenda
- II. New Member Installation
- III. Planning Commission Items:

- I. Unified Development Ordinance Change Requests:

- i. **UDO-01-26 – Unified Development Ordinance amendment to add Section 6.7 Erosion and Sediment Control** – The City of Goldsboro Engineering Department is establishing an Erosion and Sediment Control Program in accordance with the National Discharge Elimination System at the behest of the North Carolina Department of Environmental Quality’s request for all municipalities within the Municipal Separate Storm Sewer System permitting to have all six control measures established for auditing purposes.

- The purpose of this ordinance is to establish construction site runoff controls (control measure four) within our Municipal Separate Storm Sewer System Permit from the North Carolina Department of Environmental Quality.

- ii. **UDO-02-26 Unified Development Ordinance amendment to add Section 6.8 Engineering Design Manual** – As development activity continues to grow within the jurisdiction, the need for consistent, high-quality engineering design standards has become increasingly important. The Engineering Design Manual has been developed to provide clear guidance for developers, engineers, and contractors regarding required design criteria, construction standards, and submittal procedures for public infrastructure improvements.

- iii. **UDO-03-26 – Unified Development Ordinance amendment to remove the sidewalk fee in lieu money** – As development activity continues to grow within the jurisdiction, the need for consistent, high-quality engineering design standards has become increasingly important. Allowing for sidewalk fees in lieu is an obsolete practice that has resulted in gaps in the sidewalk network, limiting connectivity and safe pedestrian access throughout the community.

- IV. Adjournment

**CITY OF GOLDSBORO
AGENDA MEMORANDUM
FEBRUARY 4, 2026 PLANNING COMMISSION/BOARD OF ADJUSTMENT
MEETING**

TITLE: UDO-01-26 - Unified Development Ordinance amendment to add Section 6.7
Erosion and Sediment Control

DEPARTMENT: Planning

BACKGROUND:

The North Carolina State Department of Environmental Quality has asked that all MS4 take over delegation of construction site runoff controls to be in compliance with their MS4 permit.

DISCUSSION:

The City of Goldsboro Engineering Department is establishing an Erosion and Sediment Control Program in accordance with the National Discharge Elimination System at the behest of the North Carolina Department of Environmental Quality's request for all municipalities within the Municipal Separate Storm Sewer System permitting to have all six control measures established for auditing purposes.

The purpose of this ordinance is to establish construction site runoff controls (control measure four) within our Municipal Separate Storm Sewer System Permit from the North Carolina Department of Environmental Quality.

Construction site runoff controls are meant to reduce the unwanted transport of sediment and other pollutants from active construction sites. During construction land disturbance of the topsoil exposes subsurface soils that are easily transported by anthropogenic activities and erosion. Once sediment leaves the construction site it can bond with nutrients and chemicals increasing the transportation rate within the watershed concentrating pollution into the Nuese River. The Nuese River is the source of drinking water for both the City of Goldsboro and other communities across North Carolina. As total suspended solids (TSS) and nutrients/chemicals increase in the Nuese River it causes more complex pretreatment/treatment, increasing the city's financial burden to create safe drinking water. Additionally, increased TSS is an environmental hazard causing significant ecosystem disruption to the Nuese River directly impacting aquatic life within and along the Nuese River. The purpose of the Erosion and Sediment Control Ordinance is to reduce pollution within the Nuese River and protect wetlands within the City of Goldsboro and extraterrestrial jurisdiction.

The following is a summary of the Erosion and Sediment Control ordinance criteria.

1. Any land disturbance under half an acre will need a land disturbance permit previously a grading permit.

2. Land disturbance greater than .5 acres will need an erosion and sediment control review, where a permit will be issued upon approval. Once review is completed the city will issue an approval letter which can then be sent to the North Carolina Department of Environmental Quality for request of the NCG01 for any disturbance over 1 acre.

3. Control measures will be consistent with current state law and expectations.

The new ordinance will establish local regulation over construction site runoff from the state of North Carolina.

BUDGET RELATIONSHIP:

N/A

STRATEGIC PLAN RELATIONSHIP:

N/A

STAFF RECOMMENDATION:

Planning Staff recommends that the Planning Commission approve these ordinance changes to better the future of development in and around the city. If approved, the recommended changes will be taken to a public hearing at the March 2, 2026 City Council Meeting.

MANAGER'S RECOMMENDATION:

APPROVERS

Kenny Talton

Mark Helmer

ORDINANCE NO. 2026 -

**AN ORDINANCE AMENDING THE CITY OF GOLDSBORO
UNIFIED DEVELOPMENT ORDINANCE TO ADD
SECTION 6.7 EROSION AND SEDIMENT CONTROL**

WHEREAS, after notice duly given according to law, a public hearing was held before the City Council at a regular meeting held in the City Council Chambers, 214 N. Center St. in the Historic City Hall building, on **Monday, March 2, 2026**, at 5:30 p.m., for the purpose of considering and discussing the passing of an ordinance amending the City of Goldsboro Unified Development Ordinance; and

WHEREAS, The North Carolina State Department of Environmental Quality has asked that all MS4 take over delegation of construction site runoff controls to be in compliance with their MS4 permit; and

WHEREAS, City of Goldsboro Engineering Department, has submitted a petition to amend the text of the City of Goldsboro, North Carolina, Unified Development Ordinance, adding Section 6.7 Erosion and Sediment Control; and

WHEREAS, the applicant is proposing for a comprehensive text amendment that will add a section to the City of Goldsboro Unified Development Ordinance entitled: Section 6.7 Erosion and Sediment Control; and

WHEREAS, the proposed amendment would include language that regulates certain land-disturbing activity to control accelerated erosion and sedimentation in order to prevent the pollution of water and other damage to lakes, watercourses, and other public and private property by sedimentation, and establishes procedures through which these purposes can be fulfilled; and

WHEREAS, after completion of said public hearing the City Council of the City of Goldsboro deems it advisable and for the best interest of the City and those residing within its zoning jurisdiction that the City of Goldsboro Unified Development Ordinance be amended; and

WHEREAS, the City Council further deems it advisable and for the best interest of the City and those residing within its jurisdiction that the following City of Goldsboro Unified Development Ordinance amendment for the City of Goldsboro, North Carolina, be **adopted**.

6.7 EROSION AND SEDIMENT CONTROL

6.7.1 TITLE

This ordinance may be cited as the City of Goldsboro Erosion and Sedimentation Control Ordinance.

6.7.2 PURPOSE

This ordinance is adopted for the purposes of:

1. regulating certain land-disturbing activity to control accelerated erosion and sedimentation in order to prevent the pollution of water and other damage to lakes, watercourses, and other public and private property by sedimentation; and
2. establishing procedures through which these purposes can be fulfilled.

6.7.3 DEFINITIONS

As used in this ordinance, unless the context clearly indicates otherwise, the following definitions apply:

Accelerated Erosion - means any increase over the rate of natural erosion as a result of land-disturbing activity.

Act - means the North Carolina Sedimentation Pollution Control Act of 1973 and all rules and orders adopted pursuant to it.

Adequate Erosion Control Measure, Structure, or Device - means one which controls the soil material within the land area under responsible control of the Person conducting the land-disturbing activity.

Affiliate – means a Person that directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control of another Person.

Approving Authority – means the Division or other State or a local government agency that has been delegated erosion and sedimentation plan review responsibilities in accordance with the provisions of the Act.

Being Conducted - means a land-disturbing activity has been initiated and not deemed complete by the Approving Authority.

Borrow - means fill material that is required for on-site construction that is obtained from other locations.

Buffer Zone - means the strip of land adjacent to a lake or natural watercourse.

Coastal Counties - means the following counties: Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrrell and Washington.

Commission - means the North Carolina Sedimentation Control Commission.

Completion of Construction or Development - means that no further land-disturbing activity is required on a phase of a project except that which is necessary for establishing a permanent ground cover.

Department - means the North Carolina Department of Environmental Quality.

Director - means the Director of the Division of Energy Mineral and Land Resources of the Department of Environmental Quality.

Discharge Point or Point of Discharge - means that point where runoff leaves a tract of land where a land-disturbing activity has occurred or enters a lake or natural watercourse.

District - means the Wayne County Soil and Water Conservation District created pursuant to Chapter 139, North Carolina General Statutes.

Energy Dissipator - means a structure or a shaped channel section with mechanical armoring placed at the outlet of pipes or conduits to receive and break down the energy from high velocity flow.

Erosion - means the wearing away of land surfaces by the action of wind, water, gravity, or any combination thereof.

Ground Cover - means any natural vegetative growth or other material which renders the soil surface stable against accelerated erosion.

High Quality Waters - means those classified as such in 15A NCAC 02B .0224, which is herein incorporated by reference including subsequent amendments and additions.

High Quality Water (HQW) Zones –means, for the Coastal Counties, areas within 575 feet of High-Quality Waters; and for the remainder of the state, areas within one mile and draining to HQW's.

Lake or Natural Watercourse – means any stream, river, brook, swamp, sound, bay, creek, run, branch, canal, waterway, estuary, and any reservoir, lake or pond.

Land-disturbing Activity - means any use of the land by any Person in residential, industrial, educational, institutional, or commercial development, highway and road construction and maintenance that results in a change in the natural cover or topography and that may cause or contribute to sedimentation.

Local Government - means any county, incorporated village, town or city, or any combination of counties, incorporated villages, towns, and cities, acting through a joint program pursuant to the provisions of the Act.

Natural Erosion - means the wearing away of the earth's surface by water, wind, or other natural agents under natural environmental conditions undisturbed by man.

Parent – means an affiliate that directly, or indirectly through one or more intermediaries, controls another Person.

Person - means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, interstate body, or other legal entity.

Person Conducting the Land - Disturbing Activity - means any Person who may be held responsible for violation unless expressly provided otherwise by this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

Person Who Violates or Violator - as used in G.S. 113A-64, means: any landowner or other Person who has financial or operational control over the land-disturbing activity; or who has directly or indirectly allowed the activity, and who has failed to comply with any provision of the Act, the rules of this Chapter or any order or local ordinance adopted pursuant to the Act as it imposes a duty upon that Person.

Plan - means an erosion and sedimentation control plan.

Sediment - means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin.

Sedimentation - means the process by which sediment resulting from accelerated erosion has been or is being transported off the site of the land-disturbing activity or into a lake or natural watercourse.

Siltation - means sediment resulting from accelerated erosion which is settleable or removable by properly designed, constructed, and maintained control measures; and which has been transported from its point of origin within the site of a land-disturbing activity; and which has been deposited, or is in suspension in water.

Storm Drainage Facilities - means the system of inlets, conduits, channels, ditches and appurtenances which serve to collect and convey storm water through and from a given drainage area.

Stormwater Runoff - means the runoff of water resulting from precipitation in any form.

Subsidiary – means an affiliate that is directly, or indirectly through one or more intermediaries, controlled by another Person.

Ten-Year Storm - means a rainfall of an intensity that, based on historical data, is predicted by a method acceptable to the Approving Authority to be equaled or exceeded, on the average, once in ten years, and of a duration that will produce the maximum peak rate of runoff for the watershed of interest under average antecedent wetness conditions.

Tract - means all contiguous land and bodies of water being disturbed or to be disturbed as a unit, regardless of ownership.

Twenty-five Year Storm - means a rainfall of an intensity that, based on historical data, is predicted by a method acceptable to the Approving Authority to be equaled or exceeded, on the average, once in 25 years, and of a duration that will produce the maximum peak

rate of runoff for the watershed of interest under average antecedent wetness conditions.

Uncovered - means the removal of ground cover from, on, or above the soil surface.

Undertaken - means the initiating of any activity, or phase of activity, which results or will result in a change in the ground cover or topography of a tract of land.

Velocity - means the speed of flow through a cross section perpendicular to the direction of the main channel at the peak flow of the storm of interest but not exceeding bank full flows.

Waste - means surplus materials resulting from on-site land-disturbing activities and being disposed of at other locations.

6.7.4 SCOPE AND EXCLUSIONS

1. Geographical Scope of Regulated Land-Disturbing Activity. This ordinance shall apply to land-disturbing activity within the corporate limits of the City of Goldsboro and to the extraterritorial jurisdiction of the City of Goldsboro as allowed by agreement between local governments, the extent of annexation or other appropriate legal instrument or law.
2. Exclusions from Regulated Land-Disturbing Activity. Notwithstanding the general applicability of this ordinance to all land-disturbing activity, this ordinance shall not apply to the following types of land-disturbing activity:
 - a. Activities, including the production and activities relating or incidental to the production of crops, grains, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agriculture undertaken on agricultural land for the production of plants and animals useful to man, including, but not limited to:
 - (i) forage and sod crops, grain and feed crops, tobacco, cotton, and peanuts.
 - (ii) dairy animals and dairy products.
 - (iii) poultry and poultry products.
 - (iv) livestock, including beef cattle, llamas, sheep, swine, horses, ponies, mules, and goats.
 - (v) bees and apiary products.
 - (vi) fur producing animals.
 - (vii) mulch, ornamental plants, and other horticultural products. For purposes of this section, "mulch" means substances composed primarily of plant remains or mixtures of such substances.
 - b. An Activity undertaken on forestland for the production and harvesting of timber and timber products and conducted in accordance with standards defined by the Forest Practice Guidelines Related to Water Quality (Best Management Practices), as adopted by the North Carolina Department of Agriculture and Consumer Services. If land-disturbing activity undertaken on forestland for the production and harvesting of timber and timber products is not conducted in accordance with standards defined by the Forest Practice Guidelines Related to Water Quality, the provisions of this ordinance shall apply to such activity and any related land-disturbing activity on the tract.
 - c. An activity for which a permit is required under the Mining Act of 1971, Article 7 of Chapter 74 of the General Statutes.
 - d. A land-disturbing activity over which the State has exclusive regulatory jurisdiction as provided in G.S. 113A-56(a).
 - e. An activity which is essential to protect human life during an emergency.
 - f. Activities undertaken to restore the wetland functions of converted wetlands to provide compensatory mitigation to offset impacts permitted under Section 404 of

the Clean Water Act.

- g. Activities undertaken pursuant to Natural Resources Conservation Service standards to restore the wetlands functions of converted wetlands as defined in Title 7 Code of Federal Regulations § 12.2

3. Plan Approval Requirement for Land-Disturbing Activity. No Person shall undertake any land-disturbing activity subject to this ordinance without first obtaining a Plan approval from the City of Goldsboro.
4. Protection of Property - Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activity.
5. More Restrictive Rules Shall Apply - Whenever conflicts exist between federal, state, or local laws, ordinance, or rules, the more restrictive provision shall apply.
6. Plan Approval Exceptions. Notwithstanding the general requirement to obtain a Plan approval prior to undertaking land-disturbing activity, a Plan approval shall not be required for land-disturbing activity that does not exceed one-half (.5) acre in surface area. In determining the area, lands under one or diverse ownership being developed as a unit will be aggregated.

6.7.5 MANDATORY STANDARDS FOR LAND-DISTURBING ACTIVITY

No land-disturbing activity subject to the control of this ordinance shall be undertaken except in accordance with the following mandatory standards:

1. Buffer zone
 - a. Standard Buffer. No land-disturbing activity during periods of construction or improvement to land shall be permitted in proximity to a lake or natural watercourse unless a buffer zone is provided along the margin of the watercourse of sufficient width to confine visible siltation within the twenty-five percent (25%) of the buffer zone nearest the land-disturbing activity.
 - (i) Projects On, Over or Under Water. This subdivision shall not apply to a land-disturbing activity in connection with the construction of facilities to be located on, over, or under a lake or natural watercourse.
 - (ii) Buffer Measurement. Unless otherwise provided, the width of a buffer zone is measured horizontally from the edge of the water to the nearest edge of the disturbed area, with the 25 percent of the strip nearer the land-disturbing activity containing natural or artificial means of confining visible siltation.
2. Graded Slopes and Fills. The angle for graded slopes and fills shall be no greater than the angle that can be retained by vegetative cover or other adequate erosion control devices or structures. In any event, slopes left exposed will, within fourteen (14) calendar days of completion of any phase of grading, be planted or otherwise provided with temporary or permanent ground cover, devices, or structures sufficient to restrain erosion. The angle for graded slopes and fills must be demonstrated to be stable. Stable is the condition where the soil remains in its original configuration, with or without mechanical constraints.
3. Fill Material. Materials being used as fill shall be consistent with those described in 15A NCAC 13B .0562 unless the site is permitted by the Department's Division of Waste Management to operate as a landfill. Not all materials described in Section .0562 may be suitable to meet geotechnical considerations of the fill activity and should be evaluated accordingly.
4. Ground Cover. Whenever land-disturbing activity that will disturb more than one-half (.5) acre is undertaken on a tract, the Person conducting the land-disturbing activity shall install erosion and sedimentation control devices and practices that are sufficient to retain the sediment generated by the land disturbing activity within the boundaries of the tract

during construction upon and development of said tract, and shall plant or otherwise provide a permanent ground cover sufficient to restrain erosion after completion of construction or development. Provisions for permanent ground cover sufficient to restrain erosion must be accomplished within ninety (90) calendar days following completion of construction or development.

5. Prior Plan Approval. No Person shall initiate any land-disturbing activity that will disturb more than one-half (.5) acre on a tract unless, thirty (30) or more days prior to initiating the activity, a Plan for the activity is filed with and approved by the City of Goldsboro. An erosion and sedimentation control plan may be filed less than thirty (30) days prior to initiation of a land-disturbing activity if the plan is submitted under an approved express permit program. The land-disturbing activity may be initiated and conducted in accordance with the plan once the plan has been approved.
 - a. The City of Goldsboro shall forward to the Director of the Division of Water Resources a copy of each Plan for a land-disturbing activity that involves the utilization of ditches for the purpose of de-watering or lowering the water table of the tract.
 - b. The land-disturbing activity shall be conducted in accordance with the approved erosion and sedimentation control plan.

6.7.6 EROSION AND SEDIMENTATION CONTROL PLANS

1. Plan Submission. A Plan shall be prepared for all land-disturbing activities subject to this ordinance whenever the proposed activity will disturb more than one-half (.5) acre on a tract. The Plan shall be filed with the City of Goldsboro Engineering Department in accordance with City's standards and policies. The plan shall also be filed with Wayne County Soil and Water Conservation District 30 prior to the commencement of the proposed activity.
 - a. For land disturbance under one-half acre (.5) a land disturbance permit must be obtained through the City of Goldsboro Engineering Department.
 - (i) Land disturbance under one-half (.5) acres must maintain proper erosion and sediment control measures in accordance with city standards.
 - b. A project may be developed in phases with separate erosion and sediment control plans and land disturbing permits for each phase.

Financial Responsibility and Ownership. Plans may be disapproved unless accompanied by an authorized statement of financial responsibility and documentation of property ownership. This statement shall be signed by the Person financially responsible for the land-disturbing activity or his attorney in fact. The statement shall include the mailing and street addresses of the principal place of business of (1) the Person financially responsible, (2) the owner of the land, and (3) any registered agents. If the Person financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving notice of compliance or non-compliance with the Plan, the Act, this ordinance, or rules or orders adopted or issued pursuant to this ordinance. Except as provided in subsections (3) or (11) of this section, if the applicant is not the owner of the land to be disturbed, the draft erosion and sedimentation control plan must include the owner's written consent for the applicant to submit a draft erosion and sedimentation control plan and to conduct the anticipated land-disturbing activity.

- c. If the applicant is not the owner of the land to be disturbed and the anticipated land-disturbing activity involves the construction of utility lines for the provision of water, sewer, gas, telecommunications, or electrical service, the draft erosion and sedimentation control plan may be submitted without the written consent of the owner of the land, so long as the owner of the land has been provided prior notice of the project.
2. Environmental Policy Act Document. Any Plan submitted for a land-disturbing activity for which an environmental document is required by the North Carolina Environment Policy Act (G.S. §113A-1, et seq.) shall be deemed incomplete until a complete environmental document is available for review. The City of Goldsboro shall promptly

notify the Person submitting the Plan that the 30-day time limit for review of the Plan pursuant to this ordinance shall not begin until a complete environmental document is available for review.

3. Content. The Plan required by this section shall contain architectural or engineering drawings, maps, assumptions, calculations, and narrative statements as needed to adequately describe the proposed development of the tract and the measures planned to comply with the requirements of this ordinance. Plan content may vary to meet the needs of specific site requirements. Detailed guidelines for Plan preparation may be obtained from the City on request.
4. Soil and Water Conservation District Comments. The District shall review the Plan and submit any comments and recommendations to the City within twenty (20) days after the District received the Plan, or within any shorter period of time as may be agreed upon by the District and the city. Failure of the District to submit its comments and recommendations within twenty (20) days shall not delay final action on the Plan.
5. Timeline for Decisions on Plans. The City will review each complete Plan submitted to them and within 30 days of receipt thereof will notify the Person submitting the Plan that it has been approved, approved with modifications, or disapproved. Failure to approve, approve with modifications, or disapprove a complete Plan within thirty (30) days of receipt shall be deemed approval. The City will review each revised Plan submitted to them and within fifteen (15) days of receipt thereof will notify the Person submitting the Plan that it has been approved, approved with modifications, or disapproved. Failure to approve, approve with modifications, or disapprove a revised Plan within 15 days of receipt shall be deemed approval.
6. Approval. The City shall only approve a Plan upon determining that it complies with all applicable State and local regulations for erosion and sedimentation control. Approval assumes the applicant's compliance with the federal and state water quality laws, regulations and rules. The City shall condition approval of Plans upon the applicant's compliance with federal and state water quality laws, regulations and rules. The City may establish an expiration date, not to exceed three (3) years, for Plans approved under this ordinance whereby no land-disturbing activity has been undertaken.
7. Disapproval for Content. The City may disapprove a Plan or draft Plan based on its content. A disapproval based upon a Plan's content must specifically state in writing the reasons for disapproval.
8. Other Disapprovals. The City shall disapprove an erosion and sedimentation control plan if implementation of the plan would result in a violation of rules adopted by the Environmental Management Commission to protect riparian buffers along surface waters. The City may disapprove an erosion and sedimentation control plan or disapprove a transfer of a plan under subsection (11) of this section upon finding that an applicant or a parent, subsidiary, or other affiliate of the applicant:
 - a. Is conducting or has conducted land-disturbing activity without an approved plan or has received notice of violation of a plan previously approved by the Commission or a local government pursuant to this Article and has not complied with the notice within the time specified in the notice.
 - b. Has failed to pay a civil penalty assessed pursuant to this Article or a local ordinance adopted pursuant to this Article by the time the payment is due.
 - c. Has been convicted of a misdemeanor pursuant to G.S. 113A-64(b) or any criminal provision of a local ordinance adopted pursuant to this Article.
 - d. Has failed to substantially comply with State rules or local ordinances and regulations adopted pursuant to this Article.

In the event that an erosion and sedimentation control plan or a transfer of a plan is disapproved by the City pursuant to subsection (10) of this section, the local government shall so notify the Director of the Division of Energy, Mineral, and Land Resources within 10 days of the disapproval. The City shall advise the applicant or the proposed transferee and the Director in writing as to the specific reasons that the plan was disapproved. Notwithstanding the provisions of Section 6.7.15(a) the

applicant may appeal the local government's disapproval of the plan directly to the Commission.

For purposes of this subsection, an applicant's record or the proposed transferee's record may be considered for only the two years prior to the application date.

9. Transfer of Plans. The City administering an erosion and sedimentation control program may transfer an erosion and sedimentation control plan approved pursuant to this section without the consent of the plan holder to a successor-owner of the property on which the permitted activity is occurring or will occur as provided in this subsection.
 - a. The City may transfer a plan if all of the following conditions are met:
 - (i) The successor-owner of the property submits to the local government a written request for the transfer of the plan and an authorized statement of financial responsibility and documentation of property ownership.
 - (ii) The City finds all of the following:
 - a. The plan holder is one of the following:
 1. A natural person who is deceased.
 2. A partnership, limited liability corporation, corporation, or any other business association that has been dissolved.
 3. A person who has been lawfully and finally divested of title to the property on which the permitted activity is occurring or will occur.
 4. A person who has sold the property on which the permitted activity is occurring or will occur.
 - b. The successor-owner holds title to the property on which the permitted activity is occurring or will occur.
 - c. The successor-owner is the sole claimant of the right to engage in the permitted activity.
 - d. There will be no substantial change in the permitted activity.
 - b. The plan holder shall comply with all terms and conditions of the plan until such time as the plan is transferred.
 - c. The successor-owner shall comply with all terms and conditions of the plan once the plan has been transferred.
 - d. Notwithstanding changes to law made after the original issuance of the plan, the City may not impose new or different terms and conditions in the plan without the prior express consent of the successor-owner. Nothing in this subsection shall prevent the City from requiring a revised plan pursuant to G.S. 113A-54.1(b).
10. Notice of Activity Initiation. No Person may initiate a land-disturbing activity before notifying the City of Goldsboro Engineering department of the date that land-disturbing activity will begin.
11. Preconstruction Conference. When deemed necessary by the Approving Authority, a preconstruction conference may be required and noted on the approved plan.
12. Display of Plan Approval. A Plan approval issued under this Article shall be prominently displayed until all construction is complete, all temporary measures have been removed, all permanent sedimentation and erosion control measures are installed, and the site has been stabilized. A copy of the approved plan shall be kept on file at the job site.
13. Required Revisions. After approving a Plan, if the City, either upon review of such Plan or on inspection of the job site, determines that a significant risk of accelerated erosion or off-site sedimentation exists, the City shall require a revised Plan. Pending the preparation of the revised Plan, work shall cease or shall continue under conditions outlined by the appropriate authority. If following commencement of a land-disturbing activity pursuant to an approved Plan, the City determines that the Plan is inadequate to meet the requirements of this ordinance, the City may require any revision of the Plan that is necessary to comply with this ordinance.
14. Amendment to a Plan. Applications for amendment of a Plan in written and/or graphic form may be made at any time under the same conditions as the original application. Until

such time as said amendment is approved by the City, the land-disturbing activity shall not proceed except in accordance with the Plan as originally approved.

15. Failure to File a Plan. Any Person engaged in land-disturbing activity who fails to file a Plan in accordance with this ordinance, or who conducts a land-disturbing activity except in accordance with provisions of an approved Plan shall be deemed in violation of this ordinance.
16. Self-Inspections. The landowner, the financially responsible party, or the landowner's or the financially responsible party's agent shall perform an inspection of the area covered by the plan after each phase of the plan has been completed and after establishment of temporary ground cover in accordance with G.S. 113A-57(2). In addition, weekly and rain-event self-inspections are required by federal regulations, that are implemented through the NPDES Construction General Permit No. NCG 010000. The Person who performs the inspection shall maintain and make available a record of the inspection at the site of the land-disturbing activity. The record shall set out any significant deviation from the approved erosion control plan, identify any measures that may be required to correct the deviation, and document the completion of those measures. The record shall be maintained until permanent ground cover has been established as required by the approved erosion and sedimentation control plan. The inspections required by this subsection shall be in addition to inspections required by G.S. 113A-61.1.

Where inspections are required by Section 6.7.6 (17) of this Ordinance or G.S. 113A-54.1(e), the following apply:

- a. The inspection shall be performed during or after each of the following phases of the plan;
 - (i) initial installation of erosion and sediment control measures;
 - (ii) clearing and grubbing of existing ground cover;
 - (iii) completion of any grading that requires ground cover;
 - (iv) completion of all land-disturbing activity, construction, or development, including permanent ground cover establishment and removal of all temporary measures; and
 - (v) transfer of ownership or control of the tract of land where the erosion and sedimentation control plan has been approved and work has begun. The new owner or Person in control shall conduct and document inspections until the project is permanently stabilized as set forth in Sub-Item (iii) of this Item.
- b. Documentation of self-inspections performed under Item (a) of this Rule shall include:
 - (i) Visual verification of ground stabilization and other erosion control measures and practices as called for in the approved plan;
 - (ii) Verification by measurement of settling basins, temporary construction entrances, energy dissipators, and traps.
 - (iii) The name, address, organization affiliation, telephone number, and signature of the Person conducting the inspection and the date of the inspection shall be included, whether on a copy of the approved erosion and sedimentation control plan or an inspection report. A template for an example of an inspection and monitoring report is provided on the DEMLR website at: <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>. Any relevant licenses and certifications may also be included. Any documentation of inspections that occur on a copy of the approved erosion and sedimentation control plan shall occur on a single copy of the plan and that plan shall be made available on the site.
 - (iv) A record of any significant deviation from any erosion or sedimentation control measure from that on the approved plan. For the purpose of this Rule, a "significant deviation" means an omission, alternation, or relocation of an erosion or sedimentation control measure that prevents it from performing as intended. The record shall include measures required to correct the significant deviation, along with documentation of when those measures were taken. Deviations from the approved plan

may also be recommended to enhance the intended performance of the sedimentation and erosion control measures.

6.7.7 BASIC CONTROL OBJECTIVES

An erosion and sedimentation control Plan may be disapproved if the Plan fails to address the following control objectives:

1. Identify Critical Areas - On-site areas which are subject to severe erosion, and off-site areas which are especially vulnerable to damage from erosion and/or sedimentation, are to be identified and receive special attention.
2. Limit Time of Exposure - All land-disturbing activities are to be planned and conducted to limit exposure to the shortest time specified in G.S. 113A-57, the rules of the aforementioned Chapter, or as directed by the Approving Authority.
3. Limit Exposed Areas - All land-disturbing activity is to be planned and conducted to minimize the size of the area to be exposed at any one time.
4. Control Surface Water - Surface water runoff originating upgrate of exposed areas should be controlled to reduce erosion and sediment loss during the period of exposure.
5. Control Sedimentation - All land-disturbing activity is to be planned and conducted to prevent off-site sedimentation damage.
6. Manage Stormwater Runoff - Plans shall be designed so that any increase in velocity of stormwater runoff resulting from a land-disturbing activity will not result in accelerated erosion of the receiving stormwater conveyance or at the point of discharge. Plans shall include measures to prevent accelerated erosion within the project boundary and at the point of discharge.

6.7.8 DESIGN AND PERFORMANCE STANDARDS

1. Except as provided in Section 6.7.8(2)(b) of this ordinance, erosion and sedimentation control measures, structures, and devices shall be planned, designed, and constructed to provide protection from the calculated maximum peak rate of runoff from the ten-year storm. Runoff rates shall be calculated using the procedures in the latest edition of the United States Department of Agriculture (USDA), Natural Resources Conservation Service's "National Engineering Field Handbook", or other acceptable calculation procedures.
2. HQW Zones. In High Quality Water (HQW) zones the following design standards shall apply:
 - a. Limit on Uncovered Area. Uncovered areas in HQW zones shall be limited at any time to a maximum total area of twenty (20) acres within the boundaries of the tract. Only the portion of the land-disturbing activity within a HQW zone shall be governed by this section. Larger areas may be uncovered within the boundaries of the tract with the written approval of the Director upon providing engineering justification with a construction sequence that considers phasing, limiting exposure, weekly submitted self-inspection reports, and a more conservative design than the Twenty-five Year Storm.
 - b. Maximum Peak Rate of Runoff Protection. Erosion and sedimentation control measures, structures, and devices within HQW zones shall be planned, designed and constructed to provide protection from the runoff of the twenty-five year storm which produces the maximum peak rate of runoff as calculated according to procedures in the latest edition of the United States Department of Agriculture Natural Resources Conservation Service's "National Engineering Field Handbook" or according to procedures adopted by any other agency of this state or the United States or any generally recognized organization or association.
 - c. Sediment Basin Design. Sediment basins within HQW zones shall be designed

and constructed according to the following criteria:

- (i) use a surface withdrawal mechanism, except when the basin drainage area is less than one 1.0 acre;
- (ii) have a minimum of 1800 cubic feet of storage area per acre of disturbed area;
- (iii) have a minimum surface area of 325 square feet per cfs of the Twenty-five Year Storm (Q25) peak flow;
- (iv) have a minimum dewatering time of 48 hours;
- (v) incorporate 3 baffles, unless the basin is less than 20 feet in length, in which case 2 baffles shall be sufficient.

Upon a written request of the applicant, the Director may allow alternative design and control measures in lieu of meeting the conditions required in subparagraphs 6.7.3 (ii) through 6.7.3 (v) of this sub-section if the applicant demonstrates that meeting all of those conditions will result in design or operational hardships and that the alternative measures will provide an equal or more effective level of erosion and sediment control on the site. Alternative measures may include quicker application of ground cover, use of sediment flocculants, and use of enhanced ground cover practices.

- d. Grade. Newly constructed open channels in HQW zones shall be designed and constructed with side slopes no steeper than two horizontal to one vertical if a vegetative cover is used for stabilization unless soil conditions permit a steeper slope or where the slopes are stabilized by using mechanical devices, structural devices or other forms of ditch liners proven as being effective in restraining accelerated erosion. In any event, the angle for side slopes shall be sufficient to restrain accelerated erosion.

6.7.9 STORM WATER OUTLET PROTECTION

- 1. Intent. Stream banks and channels downstream from any land disturbing activity shall be protected from increased degradation by accelerated erosion caused by increased velocity of runoff from the land disturbing activity.
- 2. Performance standard. Persons shall conduct land-disturbing activities so that the post construction velocity of the 10-year storm runoff in the receiving watercourse to the discharge point does not exceed the greater of:
 - a. the velocity established by the Maximum Permissible Velocities Table set out within this subsection; or
 - b. the velocity of the ten-year storm runoff in the receiving watercourse prior to development.

If condition (1) or (2) of this Paragraph cannot be met, then the receiving watercourse to and including the discharge point shall be designed and constructed to withstand the expected velocity anywhere the velocity exceeds the “prior to development” velocity by 10%.

Maximum Permissible Velocities Table

The following is a table for maximum permissible velocity for storm water discharges in feet per second (F.P.S.) and meters per second (M.P.S.):

<u>Material</u>	F.P.S.	M.P.S.
Fine sand (noncolloidal)	2.5	0.8
Sandy loam (noncolloidal)	2.5	0.8
Silt loam (noncolloidal)	3.0	0.9
Ordinary firm loam	3.5	1.1
Fine gravel	5.0	1.5
Stiff clay (very colloidal)	5.0	1.5
Graded, loam to cobbles		

(noncolloidal)	5.0	1.5
Graded, silt to cobbles		
(Colloidal)	5.5	1.7
Alluvial silts (noncolloidal)	3.5	1.1
Alluvial silts (colloidal)	5.0	1.5
Coarse gravel (noncolloidal)	6.0	1.8
Cobbles and shingles	5.5	1.7
Shales and hard pans	6.0	1.8

Source - Adapted from recommendations by Special Committee on Irrigation Research, American Society of Civil Engineers, 1926, for channels with straight alignment. For sinuous channels, multiply allowable velocity by 0.95 for slightly sinuous, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels.

3. Acceptable Management Measures - Measures applied alone or in combination to satisfy the intent of this section are acceptable if there are no objectionable secondary consequences. The City recognizes that the management of storm water runoff to minimize or control downstream channel and bank erosion is a developing technology. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Some alternatives, while not exhaustive, are to:
 - a. Avoid increases in surface runoff volume and velocity by including measures to promote infiltration to compensate for increased runoff from areas rendered impervious;
 - b. Avoid increases in storm water discharge velocities by using vegetated or roughened swales and waterways in place of closed drains and high velocity paved sections;
 - c. Provide energy dissipators at outlets of storm drainage facilities to reduce flow velocities to the point of discharge;
 - d. Protect watercourses subject to accelerated erosion by improving cross sections and/or providing erosion-resistant lining; and
 - e. Upgrade or replace the receiving device structure, or watercourse such that it will receive and conduct the flow to a point where it is no longer subject to degradation from the increased rate of flow or increased velocity.
4. Exceptions - This rule shall not apply where it can be demonstrated to the City, storm water discharge velocities will not create an erosion problem in the receiving watercourse.

6.7.9 BORROW AND WASTE AREAS

If the same Person conducts the land-disturbing activity and any related borrow or waste activity, the related borrow or waste activity shall constitute part of the land-disturbing activity, unless the borrow or waste activity is regulated under the Mining Act of 1971, G.S. 74, Article 7, or is a landfill regulated by the Division of Waste Management. If the land-disturbing activity and any related borrow or waste activity are not conducted by the same Person, they shall be considered by the Approving Authority as separate land-disturbing activities.

6.7.10 ACCESS AND HAUL ROADS

Temporary access and haul roads, other than public roads, constructed or used in connection with any land-disturbing activity shall be considered a part of such activity.

6.7.11 OPERATIONS IN LAKES OR NATURAL WATERCOURSES

Land disturbing activity in connection with construction in, on, over, or under a lake or natural watercourse shall minimize the extent and duration of disruption of the stream channel. Where

relocation of a stream forms an essential part of the proposed activity, the relocation shall minimize changes in the stream flow characteristics.

6.7.12 RESPONSIBILITY AND MAINTENANCE

During the development of a site, the Person conducting the land-disturbing activity shall install and maintain all temporary and permanent erosion and sedimentation control measures as required by the approved plan or any provision of this Ordinance, the Act, or any order adopted pursuant to this ordinance or the Act. After site development, the landowner or Person in possession or control of the land shall install and/or maintain all necessary permanent erosion and sediment control measures, except those measures installed within a road or street right-of-way or easement accepted for maintenance by a governmental agency.

6.7.13 ADDITIONAL MEASURES

Whenever the City determines that accelerated erosion and sedimentation continues despite the installation of protective practices, they shall direct the Person conducting the land-disturbing activity to take additional protective action necessary to achieve compliance with the conditions specified in the Act or its rules. It is the responsibility of the owner to notify the City of Goldsboro Stormwater Administrator of any significant uncontrolled sediment conveyed offsite by erosion.

6.7.14 FEES

Fees for review and approval of plans and permits are determined by the, City's current fee schedule.

6.7.15 PLAN APPEALS

1. Except as provided in Section 6.7.15 (2) of this ordinance, the appeal of a disapproval or approval with modifications of a Plan shall governed by the following provisions:
 - a. The disapproval or modification of any proposed Plan by the City, shall entitle the Person submitting the Plan to a public hearing if such Person submits written demand for a hearing within fifteen (15) days after receipt of written notice of disapproval or modifications.
 - b. A hearing held pursuant to this section shall be conducted by the City council, within thirty (30) days after the date of the appeal or request for a hearing.
 - c. The agency conducting the hearings shall make recommendations to the governing body of the City, within thirty (30) days after the date of the hearing on any Plan.
 - d. The Governing Body of the City, will render its final decision on any Plan within thirty (30) days of receipt of the recommendations from the agency conducting the hearing.
 - e. If the City upholds the disapproval or modification of a proposed Plan following the hearing, the Person submitting the Plan shall then be entitled to appeal the City's decision to the Commission as provided in G.S. 113A-61(c) and 15A NCAC 4B .0118(d)
2. In the event that a Plan is disapproved pursuant to Section 6.7.6(10) of this ordinance, the applicant may appeal the City's disapproval of the Plan directly to the Commission.

6.7.16 INSPECTIONS AND INVESTIGATIONS

1. Inspection. Agents, officials, or other qualified Persons authorized by the City, will periodically inspect land-disturbing activities to ensure compliance with the Act, this ordinance, or rules or orders adopted or issued pursuant to this ordinance, and to determine whether the measures required in the Plan are effective in controlling erosion and sedimentation resulting from land-disturbing activity. Notice of the right to inspect shall be included in the certificate of approval of each Plan.
2. Willful Resistance, Delay or Obstruction. No Person shall willfully resist, delay, or obstruct an authorized representative, employee, or agent of the City, while that Person is

inspecting or attempting to inspect a land-disturbing activity under this section.

3. Notice of Violation. If the City determines that a Person engaged in land-disturbing activity has failed to comply with the Act, this ordinance, or rules, or orders adopted or issued pursuant to this ordinance, a notice of violation shall be served upon that Person. The notice may be served by any means authorized under GS 1A-1, Rule 4. The notice shall specify a date by which the Person must comply with the Act, or this ordinance, or rules, or orders adopted pursuant to this ordinance, and inform the Person of the actions that need to be taken to comply with the Act, this ordinance, or rules or orders adopted pursuant to this ordinance. Any Person who fails to comply within the time specified is subject to additional civil and criminal penalties for a continuing violation as provided in G.S. 113A-64 and this ordinance. If the Person engaged in the land-disturbing activity has not received a previous notice of violation under this section, the City shall offer assistance in developing corrective measures. Assistance may be provided by referral to a technical assistance program on behalf of the Approving Authority, referral to a cooperative extension program, or by the provision of written materials such as Department guidance documents. The notice of violation may be served in the manner prescribed for service of process by G.S. 1A-1, Rule 4, and shall include information on how to obtain assistance in developing corrective measures.
4. Investigation. The City, shall have the power to conduct such investigation as it may reasonably deem necessary to carry out its duties as prescribed in this ordinance, and who presents appropriate credentials for this purpose to enter at reasonable times, any property, public or private, for the purpose of investigating and inspecting the sites of any land-disturbing activity.
5. Statements and Reports. The City, shall also have the power to require written statements, or filing of reports under oath, with respect to pertinent questions relating to land-disturbing activity.

6.7.17 PENALTIES

1. Civil Penalties

- a. Civil Penalty for a Violation. Any Person who violates any of the provisions of this ordinance, or rule or order adopted or issued pursuant to this ordinance, or who initiates or continues a land-disturbing activity for which a Plan is required except in accordance with the terms, conditions, and provisions of an approved Plan, is subject to a civil penalty. The maximum civil penalty amount that the City may assess per violation is five thousand dollars (\$5,000.00). A civil penalty may be assessed from the date of the violation. Each day of a continuing violation shall constitute a separate violation. When the Person has not been assessed any civil penalty under this subsection for any previous violation, and that Person abated continuing environmental damage resulting from the violation within one hundred eighty days (180) days from the date of the notice of violation, the maximum cumulative total civil penalty assessed under this subsection for all violations associated with the land-disturbing activity for which the erosion and sedimentation control plan is required is twenty-five thousand dollars (\$25,000).
- b. Civil Penalty Assessment Factors. The governing body of the City, shall determine the amount of the civil penalty based upon the following factors:
 - (i) the degree and extent of harm caused by the violation,
 - (ii) the cost of rectifying the damage,
 - (iii) the amount of money the violator saved by noncompliance,
 - (iv) whether the violation was committed willfully, and
 - (v) the prior record of the violator in complying or failing to comply with this ordinance.
- c. Notice of Civil Penalty Assessment. The governing body of the City shall provide notice of the civil penalty amount and basis for assessment to the Person assessed. The notice of assessment shall be served by any means authorized under G.S. 1A-1, Rule 4. A notice of assessment by the City shall direct the violator to either pay the assessment, contest the assessment within thirty (30) days by filing a

petition for hearing with the City (as directed by procedures within the local ordinances or regulations adopted to establish and enforce the erosion and sedimentation control program), or file a request with the City for remission of the assessment within thirty (30) days of receipt of the notice of assessment. A remission request must be accompanied by a waiver of the right to a contested case hearing pursuant to Chapter 150B of the North Carolina General Statutes and a stipulation of the facts on which the assessment was based.

- d. Final Decision: The final decision on contested assessments shall be made by the governing body of the City in accordance with (the local ordinances or regulations adopted to establish and enforce the erosion and sedimentation control program.)
 - e. Appeal of Final Decision. Appeal of the final decision of the governing body of the City shall be to the Superior Court of the county where the violation occurred. Such appeals must be made within thirty (30) days of the final decision of the governing body of the City.
 - f. Remission of Civil Penalties. A request for remission of a civil penalty imposed under G.S. 113A-64 may be filed with the Goldsboro City Council within thirty (30) days of receipt of the notice of assessment. A remission request must be accompanied by a waiver of the right to a contested case hearing pursuant to Chapter 150B of the General Statutes and a stipulation of the facts on which the assessment was based. The following factors shall be considered in determining whether a civil penalty remission request will be approved:
 - (i) Whether one or more of the civil penalty assessment factors in G.S. 113A-64(a)(3) were wrongly applied to the detriment of the petitioner.
 - (ii) Whether the petitioner promptly abated continuing environmental damage resulting from the violation.
 - (iii) Whether the violation was inadvertent or a result of an accident.
 - (iv) Whether the petitioner had been assessed civil penalties for any previous violations.
 - (v) Whether payment of the civil penalty will prevent payment for necessary remedial actions or would otherwise create a significant financial hardship.
 - (vi) The assessed property tax valuation of the petitioner's property upon which the violation occurred, excluding the value of any structures located on the property.
 - g. Collection. If payment is not received within thirty (30) days after it is due, the City may institute a civil action to recover the amount of the assessment. The civil action may be brought in the Superior Court of the county where the violation occurred, or the violator's residence or principal place of business is located. Such civil actions must be filed within three (3) years of the date the assessment was due. An assessment that is not contested and a remission that is not requested is due when the violator is served with a notice of assessment. An assessment that is contested or a remission that is requested is due at the conclusion of the administrative and judicial review of the assessment.
 - h. Credit of Civil Penalties. The clear proceeds of civil penalties collected by the City under this subsection shall be remitted to the Civil Penalty and Forfeiture Fund in accordance with G.S. 115C-457.2. Penalties collected by the City may be diminished only by the actual costs of collection. The collection cost percentage to be used shall be established and approved by the North Carolina Office of State Budget and Management on an annual basis, based upon the computation of actual collection costs by the City for the prior fiscal year.
2. Criminal Penalties. Any Person who knowingly or willfully violates any provision of this ordinance, or rule or order adopted or issued by the Commission or a local government, or who knowingly or willfully initiates or continues a land-disturbing activity for which a Plan is required except in accordance with the terms, conditions, and provisions of an approved Plan, shall be guilty of a Class 2 misdemeanor which may include a fine not to

exceed \$5,000 as provided in G.S. 113A-64.

6.7.18 INJUNCTION RELIEF

- (a) Violation of Local Program. Whenever the governing body has reasonable cause to believe that any Person is violating or threatening to violate any ordinance, rule, regulation or order adopted or issued by the City or any term, condition, or provision of an approved Plan, it may, either before or after the institution of any other action or proceeding authorized by this ordinance, institute a civil action in the name of the City, for injunctive relief to restrain the violation or threatened violation. The action shall be brought in the superior court of the county in which the violation is occurring or is threatened.

- (b) Abatement of Violation. Upon determination by a court that an alleged violation is occurring or is threatened, the court shall enter any order or judgment that is necessary to abate the violation, to ensure that restoration is performed, or to prevent the threatened violation. The institution of an action for injunctive relief under this section shall not relieve any party to the proceedings from any civil or criminal penalty prescribed for violations of this ordinance.

6.7.19 RESTORATION AFTER NON-COMPLIANCE

The City may require a Person who engaged in a land-disturbing activity and failed to retain sediment generated by the activity, as required by G.S. 113A-57 (3), to restore the waters and land affected by the failure so as to minimize the detrimental effects of the resulting pollution by sedimentation. This authority is in addition to any other civil or criminal penalty or injunctive relief authorized under this ordinance.

6.7.20 SEVERABILITY

If any section or section or sections of this ordinance is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.

6.7.21 EFFECTIVE DATE

This ordinance becomes effective on July 1, 2026.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and City Council of the City of Goldsboro, North Carolina:

- 1. That City of Goldsboro Unified Development Ordinance is hereby amended to add Section 6.7 Erosion and Sediment Control.

- 2. The above amendment is effective on June 1, 2026.

Adopted this 2nd day of March, 2026.

Attested by:

Charles Gaylor, Mayor

Laura Getz, City Clerk

UDO TEXT AMENDMENT APPLICATION

Applicant Name*:

Address:

Phone:

Email:

Zoning District:

Parcel Identification Number:

UDO Section proposed for Amendment:

Explain the reason for your request:

Proposed Language of Text Amendment: (Use Exact language) (Attach additional pages if necessary.)

Proposed Language of Text Amendment: (Continued, if needed.)

APPLICANT ACKNOWLEDGEMENT

By submitting this application, you agree to the following statement:

I certify that I have read the instructions to this application and that the information I have included, and any accompanying documentation, is complete and accurate to the best of my knowledge.

SIGNATURE REQUIRED

Applicant – Printed

Applicant Signature

Date

~~Application Fee: \$ 500 (Includes advertisement fee)~~

Fee Type:

☐

Cash

☐

Check #

☐

Credit Card

Application Number: UDO-1-26 Date processed: _____ Initials: _____

**CITY OF GOLDSBORO
AGENDA MEMORANDUM
FEBRUARY 4, 2026 PLANNING COMMISSION/BOARD OF ADJUSTMENT
MEETING**

TITLE: UDO-02-26 Unified Development Ordinance amendment to add Section 6.8
Engineering Design Manual

DEPARTMENT: Planning

BACKGROUND:

As development activity continues to grow within the jurisdiction, the need for consistent, high-quality engineering design standards has become increasingly important. The Engineering Design Manual has been developed to provide clear guidance for developers, engineers, and contractors regarding required design criteria, construction standards, and submittal procedures for public infrastructure improvements.

DISCUSSION:

This manual helps ensure that all projects are designed and constructed in a manner that promotes public safety, long-term durability, regulatory compliance, and efficient review and approval processes. By establishing uniform expectations and technical requirements, the manual supports orderly development while protecting the municipality's infrastructure investments.

BUDGET RELATIONSHIP:

N/A

STRATEGIC PLAN RELATIONSHIP:

N/A

STAFF RECOMMENDATION:

Planning Staff recommends that the Planning Commission approve these ordinance changes to better the future of development in and around the city. If approved, the recommended changes will be taken to a public hearing at the March 2, 2026 City Council Meeting.

MANAGER'S RECOMMENDATION:

APPROVERS

Kenny Talton
Mark Helmer

ORDINANCE NO. 2026 -

**AN ORDINANCE AMENDING THE CITY OF GOLDSBORO
UNIFIED DEVELOPMENT ORDINANCE TO ADD
SECTION 6.8 ENGINEERING DESIGN MANUAL**

WHEREAS, after notice duly given according to law, a public hearing was held before the City Council at a regular meeting held in the City Council Chambers, 214 N. Center St. in the Historic City Hall building, on Monday, March 2, 2026, at 5:30 p.m., for the purpose of considering and discussing the passing of an ordinance amending the City of Goldsboro Unified Development Ordinance; and

WHEREAS, development activity continues to grow within the jurisdiction and the need for consistent, high-quality engineering design standards has become increasingly important; and

WHEREAS, City of Goldsboro Engineering Department, has submitted a petition to amend the text of the City of Goldsboro, North Carolina, Unified Development Ordinance, adding Section 6.8 Engineering Design Manual; and

WHEREAS, the applicant is proposing for a comprehensive text amendment that will add a section to the City of Goldsboro Unified Development Ordinance entitled: Section 6.8 Engineering Design Manual; and

WHEREAS, the Engineering Design Manual has been developed to provide clear guidance for developers, engineers, and contractors regarding required design criteria, construction standards, and submittal procedures for public infrastructure improvements; and

WHEREAS, the manual helps ensure that all projects are designed and constructed in a manner that promotes public safety, long-term durability, regulatory compliance, and efficient review and approval processes; and

WHEREAS, the Engineering Design Manual supports orderly development while protecting the municipality’s infrastructure investments by establishing uniform expectations and technical requirements; and

WHEREAS, after completion of said public hearing the City Council of the City of Goldsboro deems it advisable and for the best interest of the City and those residing within its zoning jurisdiction that the City of Goldsboro Unified Development Ordinance be amended; and

WHEREAS, the City Council further deems it advisable and for the best interest of the City and those residing within its jurisdiction that the following City of Goldsboro Unified Development Ordinance amendment for the City of Goldsboro, North Carolina, be adopted.

6.8 ENGINEERING DESIGN MANUAL

6.8.1 INTRODUCTION

Any proposed additions to the water distribution and sanitary sewer collection systems of City of Goldsboro must meet minimum design standards to conform to State rules and the requirements of the City of Goldsboro Engineering Department and Public Utilities departments. The City of Goldsboro requirements are contained in this “Engineering Design Manual, Technical Specifications, and Standard Details for Water and Sewer Systems” manual, hereinafter referred to as the “City of Goldsboro Design Manual”, or the “Design Manual”.

This design manual is divided into three sections. These are:

- A general Design Section to assist with understanding design requirements, legal requirements, and plan review and

approval procedures,

- Technical Specifications for the use of the design and contracting community, and
- Standard Details for water and sewer infrastructure to be included in all plan submittals.

Adherence to State and City of Goldsboro regulations and this Design Manual will ensure a quality water and sewer system for the citizens of City of Goldsboro and will also facilitate an increased system life span as well as a reduction in overall cost of operations and maintenance.

These guidelines have been adopted by the City of Goldsboro Council Members and shall be incorporated into the design and construction of all water distribution and sanitary sewer systems. City of Goldsboro realizes that there are occasions when extenuating circumstances occur and, therefore, these guidelines sometimes will not be the best choice for certain situations. In these cases, please consult with City of Goldsboro Engineering Department to obtain approval for any alternative designs.

Meetings may be requested with City of Goldsboro Engineering Department through phone call or email.

Copies of this Design Manual can be obtained from the City of Goldsboro web page or City of Goldsboro Engineering Department.

This design manual is subject to updates on a periodic basis. Revisions will be posted on the City of Goldsboro web page or may be obtained from City of Goldsboro Engineering Department. The pages are dated and numbered to assist in the maintenance of current information. It is the responsibility of the public to ensure they have the most recently approved version of the Design Manual for their use.

Any questions or comments concerning this Design Manual should be submitted to the City of Goldsboro Engineering Department Engineer Manager.

The city of Goldsboro will only consider for ownership, operation, and maintenance of public infrastructure installed:

- 1) Within the city limits of the City of Goldsboro and in the ETJ (service area) of the City of Goldsboro Public Utilities Department,
- 2) In accordance with this Design Manual,
- 3) In accordance with City of Goldsboro's most recent Water and Wastewater Master Plans. Developers and their design engineers are encouraged to contact City of Goldsboro, prior to beginning design, to ensure their project is consistent with City of Goldsboro Public Utilities' master planning for water and sewer systems,
- 4) In accordance with the latest version of the City of Goldsboro Sewer Use Ordinance and Utility Policy (on City of Goldsboro Utilities website),
- 5) In accordance with all minimum design criteria for water and sewer systems as published by the North Carolina Department of Environmental Quality (NCDEQ), Division of Water Resources (DWR),
- 6) In accordance with plans and specifications approved by City of Goldsboro and complying with the procedures outlined in this Design Manual,

- 7) In accordance with the provisions of a detailed agreement approved by the City Council if either or both systems require the installation of water supply facilities or wastewater treatment disposal facilities,
- 8) In accordance with the provisions of any water and/or sewer transmission reimbursement agreements approved by the City Council.

6.8.2 ADMINISTRATIVE INFORMATION

The following is a general description of the responsibilities of the parties involved with the design, review and approval of water and sewer installation projects in the City of Goldsboro:

1) City of Goldsboro Engineering Department

- a) City of Goldsboro Engineering Department will review plans submitted by a licensed professional engineer in the State of North Carolina and grant approval after all review comments have been satisfactory addressed.
- b) The City of Goldsboro reserves the right to request changes in the work that is not in accordance with this Design Manual, or if work is being performed in an improper manner that may result in incorrect installation.
- c) The City of Goldsboro reserves the right to disallow work from an Engineer or Developer who consistently does not comply with this Design Manual and other City of Goldsboro policies.
- d) The City of Goldsboro reserves the right to request revisions to the Design Engineer's plans for any discrepancies found during construction that may have been overlooked during review of the plans and specifications.
- e) Pre-Construction Conferences are required with City of Goldsboro Engineering Department prior to any work on City of Goldsboro owned utility systems, or systems the developer intends on the city taking over for maintenance.

2) Design Engineer of Record

- a) The Design Engineer of Record is a North Carolina state licensed professional engineer hired by a developer or property owner to prepare a set of plans and specifications for submittal to City of Goldsboro Engineering Department for review and approval.
- b) The Design Engineer will:
 - 1) Prepare plans and specifications in accordance with this Design Manual, all North Carolina Department of Environmental Quality (NCDEQ) regulations, and all other local, state and federal regulations pertaining to the project.
 - 2) Ensure plans are consistent with City of Goldsboro's water and sewer master plans.
 - 3) Submit plans and specifications to City of Goldsboro Engineering Department for review and approval.
 - 4) Make any revisions necessary to the plans and specifications to comply with all plan review comments received from City of Goldsboro Engineering Department staff.
 - 5) Submit all required permits with State agencies on behalf of

their clients after plan approval is received from City of Goldsboro Engineering Department.

- 6) Attend the mandatory Pre-Construction Conference once contracts are signed and all permits are issued, and the conference is scheduled as requested.
- 7) Review all phases of the work in progress during construction and conduct any required testing of systems to be able to issue "Engineering Certification" for the project.
- 8) Promptly furnish the City of Goldsboro with pertinent information concerning any changes which may be necessary during the progress of the work. No major changes shall be made without the prior approval of the City of Goldsboro.
- 9) Obtain final approval from City of Goldsboro and applicable state and federal agencies.
- 10) Provide sealed record drawings (as-builts) in paper, PDF, and AutoCAD format at the conclusion of the project per City of Goldsboro requirements. Currently the AutoCAD format for submitted record drawings must be in a newer version of AutoCAD. Individual PDFs of each plan sheet must also be provided as part of the as-built record drawing submittal. AutoCAD and PDF's must be submitted through a share file link.

6.8.3 CONSTRUCTION PROCESS

The following is a general description of the construction process for proposed extensions of the City of Goldsboro water distribution and sanitary sewer collection systems:

1) General Information

- a) The following items (as applicable) must be received by City of Goldsboro Engineering Department prior to scheduling a Pre-Construction Conference ("Pre-Con") and receiving permission to work on utility systems owned by City of Goldsboro:
 - NCDEQ/DWR water main extension permit
 - NCDEQ/DWR sewer main extension permit
 - NCDEQ/DWR sewer pump station permit
 - NCDOT/City of Goldsboro Right of Way Encroachment
 - Deed of Easement recorded for any required offsite public utility easements
 - Shop Drawings - City of Goldsboro may require the submittal of Shop Drawings for pumps, valves, hydrants, and other appurtenances involving construction of any public infrastructure. Notification will be made in writing to the Developer's design engineer if shop drawings are deemed necessary by City of Goldsboro Engineering Department for review and approval
 - Stormwater Permits – State and City of Goldsboro – if required to begin any site grading preparatory to installation of water and/or sewer infrastructure

- b) Construction should be coordinated in advance with City of Goldsboro Engineering Department – a minimum of forty-eight (48) hours' notice is required for scheduling purposes for the pre-construction meeting.
- c) Pre-Cons are held at City Hall in the large conference room or Anteroom at the specified time scheduled by the Engineering Department. At the discretion of the City of Goldsboro Engineer and the Engineering Inspector assigned to the construction project a field Pre-Con may be allowed. All field Pre-Cons will be scheduled by the Engineering Inspector assigned to the project.
- d) The design engineer and North Carolina licensed utility contractor must attend the Pre-Con – if any utility work is to be sub-contracted to a second firm that firm must also be a North Carolina licensed utility contractor and must attend the Pre-Con. The utility contractor foreman, supervisor, or project manager who will oversee daily work activities in the field must be present at the Pre-Con.
- e) At the pre-construction conference, the Notice to Proceed (NTP) document shall be prepared in advance and presented for execution by the designated authorized signatory.

2) **Construction Activity**

- a) After the completion of all required pre-construction meetings the contractor may commence construction on the project with a forty-eight (48) hour notice to the City of Goldsboro Engineering Department Construction Inspector.
- b) Once construction commences the primary contact person for the project will be the City of Goldsboro Engineering Department Construction Inspector assigned to the project.
- c) All water, sewer, and storm infrastructure will be installed in accordance with this Design Manual, and in accordance with the requirements in all State issued permits for the project.
- d) All required system testing will be conducted in accordance with this Design Manual, and under the direction of the City of Goldsboro Engineering Department Construction Inspector.
- e) If any requirements for carrying out construction are not met, City of Goldsboro reserves the right to issue a Stop Work Order for the project.
- f) If a Stop Work Order is issued for a project, a second Pre-Con will be required before work can commence again to discuss the issues and required corrective actions. This Pre-Con will be held in the offices of City of Goldsboro Engineering Department to discuss the relevant issues and requirements for work to be allowed to commence again.
- g) At the completion of construction and prior to start up the developer, design engineer, or contractor must provide (3) copies minimum, or as specified in the relevant Technical Specification for a particular system or piece of equipment, all operational, maintenance, and service manuals (O & M Manuals) as needed for any pump station equipment or other specialty type equipment specific to the project.
- h) The project will be deemed Substantially Complete once all the requirements in the SUBSTANTIAL COMPLETION section of this Design Manual have been met and approved by City of Goldsboro Engineering Department staff.

- i) There is a mandatory one-year warranty that must be provided by the Developer or Construction Company for all installed public infrastructure to be taken over for ownership by the city of Goldsboro. This warranty begins on the date of recordation of the Deed of Dedication and Affidavit by the City of Goldsboro Legal Department after review and acceptance by the City of Goldsboro City Council at a regularly scheduled Board meeting.

6.8.4 SUBSTANTIAL COMPLETION PROCESS

The following is a general description of the process for proposed extensions of the City of Goldsboro water distribution and sanitary sewer collection systems to be deemed Substantially Complete:

1) General Information

- a) When new water and/or sewer systems have been installed and have passed all required testing in accordance with this Design Manual and have also met all requirements in all State issued permits, the Developer and/or Design Engineer can submit all documentation required to City of Goldsboro Engineering Department to achieve Substantial Completion for the water and/or sewer systems.

CITY OF GOLDSBORO CONSTRUCTION CHECKLIST SUBSTANTIAL COMPLETION

Project: _____ Phase: _____ Lots: _____

Engineering Firm: _____ Contractor: _____

Date of Pre-Con Meeting: _____ Date of Notice to Proceed: _____

WATER / SEWER / STORMWATER/ALL

_____ Engineering Certification for Water
Rec'd from Engineer: _____ PWSS Partial or Final Approval: _____

_____ Engineering Certification for Sewer
Rec'd from Engineer: _____ DWQ Partial or Final Approval: _____

_____ Bacteriological Test Reports (from a N. C. licensed lab)

_____ All Testing Results

_____ Substantial Completion Walkthrough

_____ Water Indemnity Agreement

_____ Sewer Indemnity Agreement

_____ Copy of Contractor's Utilities License

_____ Copy of Contractor's Certificate of Insurance

As-built record drawings – (1) sealed paper set and a USB flash drive with AutoCAD file (AutoCAD must be newer version) and PDFs of all individual sheets; AutoCAD file must be georeferenced or as-built's will not be accepted
Note: Water and /or Sewer Certifications will not be processed without approved as-built's

- b) The Construction Checklist for Substantial Completion is available on the City of Goldsboro website at www.goldsboronc.gov or may be obtained from City of Goldsboro Engineering Department.

- c) Once newly installed water and sewer systems have achieved Substantial Completion a letter will be sent to the design engineer, and City of Goldsboro will allow a water meter to be installed and water service to commence.
NOTE: A Certificate of Occupancy (C.O) will not be issued until Final Acceptance (Deed of Dedication) has occurred.
- d) The requirements for as-built (record) drawings are covered in detail in City of Goldsboro Technical Specification 0010: Record Drawings.

1) Basic information required for as-builts:

- City of Goldsboro Cover with subdivision or project name, date, scale, and north arrow.
 - Sealed by a North Carolina licensed Professional Land Surveyor or Professional Engineer (engineer seal required for all profiles).
 - For sewer projects, the as-built plans shall include accurate information regarding pipe size, pipe material, pipe length, manhole construction (size of manhole, invert, rim, alignment, and location), services, and pump stations along with any relevant rights-of-way, utility easements, and property boundaries; profiles are required for sewer.
 - For pump stations, the as-built plans shall include accurate information regarding interior and exterior pipe sizes, material, and length, as well as all structural dimensions of the pump station, all electrical equipment (make and model), pump information (make, model, and impeller size), and site layout information. Both top view and side view drawings are required on the as-built plans.
 - For water projects, the as-built plans shall include accurate information regarding pipe size, pipe material, pipe length, valve locations, hydrant locations, fitting locations, services, and blow off locations along with any relevant rights-of- way, utility easements, and property boundaries.
- e) Contact City of Goldsboro Engineering Department concerning any guidance needed with the Substantial Completion Process.

6.8.5 FINAL ACCEPTANCE OF INSTALLED INFRASTRUCTURE PROCESS

The following is a general description of the process for proposed extensions of the City of Goldsboro water distribution and sanitary sewer collection systems to be legally conveyed to the City of Goldsboro for ownership, operation, and maintenance after achieving Substantial Completion:

1) General Information

- a) When new water and/or sewer systems have been installed and have passed all required testing in accordance with this Design Manual, and have been designated as Substantially Complete, the developer or the design engineer shall submit the following items to City of Goldsboro Engineering Department for Final Acceptance of the installed infrastructure to City of Goldsboro:

CITY OF GOLDSBORO CONSTRUCTION CHECKLIST FINAL ACCEPTANCE

_____Paving on all streets	_____Statement of Fixed Assets Amount
_____Final Walk Through with Engineering Inspector	Water_____
_____Revised As-builts (if any changes were made) AutoCAD, PDF and paper copy	Sewer_____
	Pump Station_____
	_____Deed-of-Dedication
	_____Lien Waiver Affidavit

- b) Once all required items have been received and approved by the City of Goldsboro Engineering Department, the dedication package will be placed on the city council agenda for final acceptance.
- c) The City of Goldsboro Engineering Department will keep a record of the Deed-of-Dedication and Affidavit after acceptance by the City Council. The required one-year warranty period for developer installed infrastructure will commence on the date of recording of the Deed of Dedication and Affidavit.
- d) Contact City of Goldsboro Engineering Department concerning any guidance needed with the Final Acceptance process.

6.8.6 LEGAL DOCUMENT REQUIREMENTS

The following information is provided as a general guide concerning permanent easements, pump station sites, temporary construction easements, plat maps, and the Deed of Dedication.

1) Public Utility Easements

- a) Public Utility Easements (PUE) shall be conveyed to City of Goldsboro in a standard format that is acceptable to City of Goldsboro Engineering Department and City of Goldsboro Legal.
- b) All required offsite public utility easements needed for a project shall be deeded and recorded at the Wayne County Registry of Deeds prior to requesting a Pre-Construction Conference to install any water and sewer infrastructure.
- c) All required offsite public utility easements required for a Plat Map shall be deeded and recorded either a) with the requested Plat Map or, b) as a separate Deed of Easement prior to the requested Plat Map being signed by City of Goldsboro Engineering Department.
- d) All onsite public utility easements can be deeded at the time of dedication of any publicly permitted infrastructure including utility easements for pump station sites using the City of Goldsboro Deed-of-Dedication.
- e) A developer must grant a public utility easement over all private streets within a subdivision if any public infrastructure is installed within the private street rights- of-way. This public easement may be granted with the Deed-of-Dedication for the infrastructure being legally conveyed to the City of

Goldsboro.

- f) Water and sewer mains shall be installed outside of street pavement whenever possible.
- g) All water and sewer mains within a public utility easement shall be installed per City of Goldsboro standards and must meet NCDEQ/DWR/PWS requirements for separation between water and sewer mains.
- h) Structures are not permitted within public utility easements.
- i) Clear all easements of trees and debris. The easement is to be grassed unless other treatment is specifically approved by the City of Goldsboro.
- j) Any proposed facility to be constructed within a public utility easement or any crossing of a public utility easement will require permission of City of Goldsboro Engineering Department and/or Public Utilities prior to commencement of construction.
- k) All references to easements herein shall refer to permanent public utility easements. Temporary construction easements shall be exclusive to the descriptions herein.
- l) No trees or shrubs shall be planted in public utility easements.
- m) No privacy berms or berms of any kind shall be placed in public utility easements.
- n) No fencing shall be placed in public utility easements.
- o) Required Easement Widths
 - a) Water Mains – minimum twenty (20) feet in width.
 - b) Sewer Force Mains – minimum twenty (20) feet in width.
 - c) Gravity Sewer Mains:

Easement width not in public road right-of-way: (20) feet minimum.
See table below for depth of sewer vs. required easement width:

Depth of Sewer (ft)	Easement Width (ft)
0-7.9	20
8-11.9	25
12-19.9	30
20-24.5	35
25+	40

- p) When more than one line is placed in the same easement, the Design Engineer shall coordinate with City of Goldsboro Engineering Department to determine the width requirement for the easement prior to plan preparation, with a minimum of 25 feet.

q) Sewer Pump Station Sites

- 1) Public pump station sites shall be a minimum of (50) feet x (50) feet (2,500 square feet) and may be required to be larger depending upon the size of the pump station and any SCADA antenna down guying requirements. City of Goldsboro Engineering Department and Utilities will determine the minimum size required for the pump station site for other than standard duplex sewer pump stations with the City of Goldsboro standard non-guyed antenna.

r) Water and Sewer Separation requirements in easements

- 1) When water and sewer mains are placed in the same easement, mains shall be laid to provide a minimum ten (10) foot horizontal separation between water and sewer. The width of the easement shall be increased to provide a distance from the edge of the easement to the sewer main not less than ten (10) feet and the distance from the edge of the easement to the water main not less than five (5) feet.

Prepared by:
(Note: Name of preparer must be on first page of this document.)

DEED OF DEDICATION

STATE OF NORTH CAROLINA

CITY OF GOLDSBORO

THIS DEED OF DEDICATION, made and entered into this the day of, 20 ____ ,
by and between_____, (Name of Developer) a North
Carolina_____, (Corporation or LLC) with an office and place of business
in City of Goldsboro, North Carolina, party of the first part, hereinafter referred to
as “Developer”, and City of Goldsboro, a governmental entity created and existing
under the laws of the State of North Carolina, whose mailing address is P.O.
Drawer A, Goldsboro, NC 27533, party of the second part, hereinafter referred to
as Grantee.

W I T N E S S E T H:

That whereas Developer is the owner and developer of a tract or parcel located at
_____ (Address), City of Goldsboro, North Carolina. And whereas
Developer has caused water mains, sewer mains, storm sewer mains, sidewalk,
curb and gutter, roadways, or any other public infrastructure under and along the
road rights-of-way hereinafter described and referenced. And whereas Developer
wishes to obtain public infrastructure from Grantee for the property and to make
public infrastructure from Grantee’s system available to individual owners. And
whereas Grantee has adopted through appropriate resolution stated policy
regarding public infrastructure under the terms of which, among other things, in

order to obtain all public infrastructure for said subdivision Developer must convey title to the public infrastructure to Grantee through an instrument of dedication acceptable to Grantee. NOW, THEREFORE, Developer, in consideration of Grantee accepting said public infrastructure available to said subdivision, has conveyed by these presents does hereby convey to Grantee, its lawful successors and assigns, the following described property:

[Description of Property]

TO HAVE AND TO HOLD said public infrastructure and equipment above described together with the privileges and appurtenances thereto belonging to Grantee forever. Non-exclusive easements over, along and upon the entire area of the streets and cul-de-sacs depicted on the maps and serving the areas referenced above for purposes of entry into the subdivision for maintenance, repair and upkeep of the public infrastructure and for connecting the same to the individual lots developed or to be developed lying adjacent to said streets and cul-de-sacs reserving unto Developers, its successor and assigns, equal rights of easement and easement over, in, along and upon said streets and cul-de-sacs for purposes of installing and maintaining such utilities as may be required for the development of said subdivision, including, but not limited to, electric, gas, telephone, cable and sewer. And Developer does hereby covenant that it is seized of said public infrastructure and equipment described above in fee simple and has the right to convey the same in fee simple, that the same are free and clear of encumbrances, and that it will warrant and defend the title to the same against all persons whomsoever. Developer warrants to Grantee that the system herein conveyed is of good quality and free from faults and defects and conforms to as-built drawings. Developer warrants said system for a period of one (1) year from the date of accepting this Deed of Dedication in the office of the City of Goldsboro City Hall.

IN WITNESS WHEREOF, the Grantor has caused this instrument to be duly executed, the day and year first above written.

(Name of Developer)

STATE OF NORTH CAROLINA

CITY OF GOLDSBORO

By: _____

(Name and Title of Officer signing)

I, _____, a Notary Public of the County and State aforesaid, do hereby certify that _____ personally came before me this day, and (I have personal knowledge of the identity of the principal) OR (I have seen satisfactory evidence of the principal's identity, by a current state or federal identification with the principal's photograph in the form of a) OR (a credible witness has sworn to the identity of the principal(s); and he/she acknowledged that he/she is (Title of officer, i.e.: President, Vice President, Member, Manager) of (Name of Developer), a North Carolina Corporation or LLC, and that he/she, as (Title of officer), being authorized to do so, executed the foregoing on behalf of the (Corporation or LLC).

Witness my hand and official seal, this the _____ day of _____, 20__.

Signature of Notary Public

(NOTARY SEAL)

Printed or Typed Name of Notary

Public

My Commission Expires: _____

ACCEPTANCE OF DEED

This Deed of Dedication and accompanying Affidavit for (Name of Developer) was accepted

by the City of Goldsboro City Council Members on the day of _____, 20__.

City of Goldsboro Mayor

Clerk to the Board

2) Temporary Construction Easements

- a) Temporary Construction Easements may be required for bore and jack operations, horizontal directional drilling operations, pipe staging areas, equipment laydown areas, pump station construction, and other situations related to the installation of water, sewer, and pump station infrastructure.
- b) For developer installed infrastructure projects the Developer, Engineer, and/or Contractor is responsible for obtaining any required Temporary Construction Easements.
- c) A copy of any agreement between the Developer, Engineer, and/or Contractor, and the private landowner, for a temporary construction easement, shall be provided to City of Goldsboro Engineering Department before commencement of any work related to the project on that private property.
- d) Contact the City of Goldsboro Engineering Department with any questions concerning temporary construction easement requirements.

3) Plats

- a) All plats that create a subdivision of land, or plats of easements, or

plats of rights-of-way, or any other proposed plat, that are submitted for Engineering Department review and approval shall meet all City of Goldsboro standards for design and recordation contained within the most recent version of the City of Goldsboro Unified Development Ordinance and all applicable Engineering and Utilities utility easement and drainage easement standards.

- b) Contact City of Goldsboro Engineering Department Engineering Manager with any questions concerning plat maps.

6.8.7 WATER UTILITY DESIGN STANDARDS

1) General

- a) These water system design standards are based on Federal, State and City of Goldsboro Engineering Department design criteria.
- b) Design criteria not indicated herein shall comply with “Ten States Standards”
- c) The design engineer should be familiar with the NCAC Title 15A Subchapter 18C - Water Supplies and specifically Section .0900 - Distribution Systems to ensure that plans submitted for City of Goldsboro plan review and approval adhere to those rules and standards for water systems.
- d) The design engineer is also directed to the NCDEQ/PWS document Engineering, Planning, and Development Guidance Document that can be found on the PWS website that addresses many required water system design topics.
- e) All installations are to meet the bacteriological and chemical quality standards of the NCDEQ –State Primary Drinking Water Regulations.
- f) These design standards are applicable to all developments including, but not limited to, residential, commercial and industrial developments, subdivisions, commercial and industrial developments, and/or parks requiring water service from City of Goldsboro.
- g) Comply with all applicable requirements of the Federal, State, and local regulations.
- h) Refer to City of Goldsboro Technical Specification 0018: Water Lines & Appurtenances and the City of Goldsboro water Standard Details for more information on water system construction requirements.

2) Water System Design Criteria

- a) Water transmission mains – twelve (12) inch diameter and larger - shall be sized by modeling of the city’s water system and shall be designed to provide one-thousand five hundred (1,500) GPM fire flow at twenty (20) PSIG residual pressure.
- b) Water distribution mains shall be sized to provide a minimum pressure at all points within the system of not less than twenty (20) PSIG during periods of peak demand (fire flow).
- c) Water mains shall not be less than two (2) inches in diameter.
- d) A two (2) inch water main shall not exceed one thousand (1,000) feet in length.
- e) Water mains shall be a minimum eight (8) inches in diameter unless otherwise approved by City of Goldsboro and all polyvinyl chloride (PVC) water mains shall be C-900 with a minimum DR-18 rating.

- f) Water mains less than six (6) inches in diameter shall not have fire hydrants.
- g) Water mains providing fire service shall be a minimum six (6) inches diameter.
- h) Water mains not designed for fire flow shall not have fire hydrants.
- i) Design mains so they are looped and interconnected at intersections.
- j) Fire hydrants shall be installed at the ends of dead-end water mains per City of Goldsboro Standard Details or as directed by City of Goldsboro staff.
- k) Water mains shall be constructed of PVC pipes except when other materials are required. Water service laterals shall be constructed of minimum one (1) inch diameter SDR-9 CTS polyethylene (PE) tubing.
- l) Hazen and Williams design coefficients:
 - 1) Ductile iron pipe: C=120 2) PVC / HDPE pipe: C=130
- m) When a design is being considered for a project, a main depth of between thirty- six (36) and forty-eight (48) inches below finished grade will be used to establish main and branch line profiles.
- n) Easements for waterlines not in public road rights-of-way shall be a minimum of twenty (20) feet wide or as required by the City of Goldsboro.
- o) All new subdivisions with City of Goldsboro water shall have a fire hydrant in close proximity to the subdivision entrance - either existing or a new installation.
- p) The maximum distance between fire hydrants in residential areas, or on water transmission mains in the right-of-way and/or a public utility easement, shall be five hundred (500) feet unless otherwise approved by City of Goldsboro staff.
- q) The maximum distance between fire hydrants in multi-family, commercial and industrial areas is four hundred (400) feet unless otherwise approved by City of Goldsboro staff.
- r) All new fire mains shall be equipped with a water meter of equivalent size to allow the City to monitor flow. Extensions of existing fire lines shall also include a same-size water meter installed at the original point of connection
- s) Where a building utilizes a sprinkler system, or has a Fire Department Connection (FDC), the required level of backflow protection is a Reduced Pressure Zone (RPZ) backflow preventer.
- t) Where a building utilizes a sprinkler system, or has a Fire Department Connection (FDC), then a fire hydrant shall be installed within one hundred fifty (150) feet of the FDC or as directed by the City of Goldsboro Fire Marshal.
- u) All building fire sprinkler systems, if required, shall be reviewed and approved by the City of Goldsboro Fire Marshal prior to including fire protection systems in any plan submitted to City of Goldsboro Engineering Department for water distribution system review and approval.
- v) Backflow prevention devices are required on all fire lines and sprinkler

systems to prevent cross-contamination of the City of Goldsboro's water transmission and distribution system. Please refer to the City of Goldsboro Public Utilities Department's [Cross-Connections and Backflow Protection Policy](#) for additional information.

- w) Backflow prevention devices shall be installed at the right-of-way or easement line immediately adjacent and downstream of the PIV. With City of Goldsboro approval, the backflow prevention device may be installed inside a building's mechanical room where the sprinkler riser is located if the building is within two hundred (200) feet of the City of Goldsboro's water main.
- x) Valves shall be installed on all system branches from feeder mains, on hydrant legs, at each end of horizontal directional drills per standard detail, per a), b) and c) as follows, or as directed by City of Goldsboro staff or the Engineer:
 - a) Install three (3) valves at crosses
 - b) Install two (2) valves at tees
 - c) Install one (1) valve on a fire hydrant leg
- y) For distribution, mains isolation valves are required at approximately every one- hundred (100) feet per one (1) inch diameter of the installed main up to a maximum distance of two thousand (2,000) feet between valves. For example, for an eight (8) inch diameter main install a main line isolation valves every eight hundred (800) feet. Place main line isolation valves near fire hydrants. Also adjust main line isolation valve placement to consider subdivision entrances, driveways, fences, street intersections, other underground utilities, etc., or as directed by City of Goldsboro staff.
- z) All valves shall open left – no right-hand open valves are allowed.
 - ii) Valves shall be rodded back to the cross or tee if within ten (10) feet of the cross or tee.
 - jj) City of Goldsboro uses the Sensus AMR/AMI water meter. All water meter boxes used in the service area of the City of Goldsboro Public Utilities must accommodate the Sensus AMR/AMI water meter. Refer to City of Goldsboro Standard Details – Water, Sheet 2 of 5, and/or City of Goldsboro Technical Specification 0018: [Water Lines & Appurtenances](#)– for current water meter box manufacturers and model information.

3) **Sizing of Mains**

- a) System Design and Fire Flow (pipe size six (6) inches and larger):
 - 1) Size piping based on either (1/5) the instantaneous maximum flow plus fire flow or maximum instantaneous demand, whichever is greater. When fire protection is to be provided, system design should be such that fire flows and facilities are in accordance with the requirements of the City of Goldsboro and the state Insurance Service Office (ISO).
 - 2) The minimum acceptable design fire flow for one- and two-family dwellings shall be one thousand (1,000) GPM at twenty (20) PSIG residual pressures.
 - 3) The minimum acceptable design fire flow for other than one- and two-family dwellings shall be one thousand five hundred (1,500) GPM at twenty (20) PSIG residual pressure or as approved by the City of Goldsboro Fire Marshal and/or the

North Carolina State Rating Response System.

- 4) All water transmission mains (12-inch diameter and larger) shall be designed to provide one thousand five hundred (1,500) GPM fire flow at twenty (20) PSIG residual pressure.
- b) Pipe size of four (4) inches and less (when approved by City of Goldsboro):
 - 1) Size piping based on either (1/5) of maximum instantaneous demand plus blow off flow to meet flushing requirements or maximum instantaneous demand - whichever is greater.
 - c) Design for (2.5) fps (feet per second) flushing velocity.
 - d) All water mains, including those not designed to provide fire protection, shall be sized using a hydraulic analysis based on flow demands and pressure requirements. The minimum pressure in all public water mains under conditions of maximum instantaneous demand shall be twenty-five (25) pounds per square inch. Twenty (20) pounds per square inch residual pressure will be acceptable when fire flows are provided in excess of maximum peak hourly flow.
 - e) The design engineer shall determine available static and residual pressures at the delivery point for the water to a new development. The data is to be obtained under the direction of a Professional Engineer who is registered in the State of North Carolina.
- f) Acceptable pipe material:

	<u>Nominal Diameter (inches)</u>	<u>Material Type</u>
ASTM gasketed pipe 235, DR18 235, DR 18 Class 250	1"	200 psi, SDR 9, HDPE
	2"	200 psi, SDR 9 HDPE or
		D2241, IPS, SDR21,
	4" – 12"	AWWA C900 PVC, Class
		or DIP Pressure Class 350
	14" and larger	AWWA C905 PVC, Class
		or DIP Pressure

Note 1: For horizontal directional drills (HDD) the mains may be High-Density Polyethylene (HDPE) with minimum SDR-9 rating.

Note 2: PVC water main pipe shall bear the seal of NSF

Note 3: PVC joints shall conform to ASTM D3139 or ASTM D3212

Note4: DIP water main shall have bituminous asphalt outside coating in accordance with ANSI/AWWA C151/A21.51

Note 5: DIP water main shall have an interior cement-mortar lining in accordance with ANSI/AWWA C104/A21.4

Note 6: Service line piping shall not have any joints between the main service tap and the meter stop

Note 7: In proven contaminated soil conditions service piping may be

required to be copper (Type K)

4) Fittings and Specials

- a) Fittings and specials shall be DIP, pressure class 350, mechanical joints in accordance with ANSI/AWWA C111/A21.11 or ANSI/AWWA C153/21/53, with elastomeric gaskets, and fittings shall be cement-mortar lined on the interior with exterior bituminous asphalt outside coating. Fittings shall be for bell and spigot pipe.

5) Materials and Requirements for Restrained Joints, Pipes, and Fittings on Water Systems

- a) Restrained joints are required to prevent movement of system piping caused by forces in or on buried piping tees, valves, branches, bends, plugs, etc.
- b) Restrained joints shall be installed as shown on the approved plans, standard details, or as directed by City of Goldsboro staff or the Engineer.
- c) Concrete thrust blocking shall be installed as shown on the approved plans, standard details, or as directed by City of Goldsboro staff or the Engineer.
- d) All carrier pipe installed inside a casing shall be pressure class 350 ductile iron pipe per City of Goldsboro standard details with restrained joints.
- e) All restrained joint systems shall have a pressure rating equal to or greater than that of the pipe on which they are installed.
- f) Restraint type gaskets that provide internal restraint by means of stainless-steel inserts embedded within the gasket are not permitted for use in City of Goldsboro.

g) Ductile Iron Pipe (DIP)

- 1) Install restraints in strict accordance with the manufacturer's recommendations.
- 2) All ductile iron bore-and-jack installations shall use boltless, integral, positive locking restraint systems that allow for joint deflection and disassembly should the need arise. The restrained joint system shall be a manufacturer's standard restrained joint system such as American (Flex-Ring or Lok-Ring), US Pipe (TR-Flex), or Griffin (Snap-Lok), or approved equal.

Note: the aforementioned boltless, integral, positive locking restraint systems are also acceptable for use in open cut pipe installation locations.

- 3) External bell restraint harness shall have ductile iron glands. The dimensions of the gland shall be such that it can be used with the standard mechanical joint bell. Twist off nuts with preset factory torque setting shall be used to ensure proper actuation of the restraint device. All nuts, bolts, and fasteners shall be high strength alloy steel. Mechanical joint restraints shall conform to ANSI/AWWA A21.11/C111 and ANSI/AWWA A21.53/C153, latest revision.

The restrained joint system shall be a manufacturer's standard restrained joint system manufactured by EBAA Iron, Inc., Smith-Blair, Inc., JCM, Inc., or approved equal.

- 4) Restraint for valves and fittings shall have ductile iron glands. Twist off nuts with preset factory torque setting shall be used to ensure proper actuation of the restraint device. All nuts, bolts, and fasteners shall be high strength alloy steel. Mechanical joint restraints shall conform to ANSI/AWWA A21.11/C111 and ANSI/AWWA A21.53/C153, latest revision.

The restrained joint system shall be a manufacturer's standard restrained joint system manufactured by EBAA Iron, Inc., Smith-Blair, Inc., JCM, Inc., or approved equal.

- 5) Stainless steel rodding and fasteners, Type 304 minimum, is acceptable per City of Goldsboro standard details. Manufacturer's restraint system and/or glands are preferred in lieu of rodding.

h) Polyvinyl Chloride Pipe (PVC)

- 1) Install restraints in strict accordance with the manufacturer's recommendations.
- 2) External bell restraint harness shall have ductile iron glands. The dimensions of the gland shall be such that it can be used with the standard mechanical joint bell. Twist off nuts with preset factory torque setting shall be used to ensure proper actuation of the restraint device. All nuts, bolts, and fasteners shall be high strength alloy steel. Mechanical joint restraints shall conform to ANSI/AWWA A21.11/C111 and ANSI/AWWA A21.53/C153, latest revision.

The restrained joint system shall be a manufacturer's standard restrained joint system manufactured by EBAA Iron, Inc., Smith-Blair, Inc., JCM, Inc., or approved equal.

- 3) Restraint for valves and fittings shall have ductile iron glands. Twist off nuts with preset factory torque setting shall be used to ensure proper actuation of the restraint device. All nuts, bolts, and fasteners shall be high strength alloy steel. Mechanical joint restraints shall conform to ANSI/AWWA A21.11/C111 and ANSI/AWWA A21.53/C153, latest revision.

The restrained joint system shall be a manufacturer's standard restrained joint system manufactured by EBAA Iron, Inc., Smith-Blair, Inc., JCM, Inc., or approved equal.

- 4) Stainless steel rodding and fasteners, Type 304 minimum, is acceptable per City of Goldsboro standard details. Manufacturer's restraint system and/or glands are preferred in lieu of rodding.

6) Valves

- a) Provide two (2) valves for a tee intersection, three (3) valves for a cross, and four (4) valves for two offset tee intersections.
- b) Sufficient main valves shall be provided on water mains so that the number of City of Goldsboro water customers out of service due to a main break or maintenance activity is minimized. Refer to Section 2 ff) and 2 gg) for required valve spacing.
- c) City of Goldsboro reserves the right to require additional valves on any design if it is deemed in the best interest of current and future City of Goldsboro water customers.
- d) Valves shall be properly located, operable, and at the correct

elevation. All valves and reducers shall be bolted or rodged to the tee or cross. Thrust blocking or other restraining methods shall be installed per standard details.

- e) The maximum depth of the valve nut shall be five (5) feet. When valve extension kits are used, they must be manufactured by the same company that manufactured the valve.
- f) Valve boxes shall be cast iron, adjustable, screw type with a lid marked WATER. The valve box shall be centered over the wrench nut and seated on compacted backfill with a masonry brick under the valve box for support as shown on the standard details. Valve boxes shall not rest directly on the bonnet of the valve.
- g) The valve box shall not touch the valve assembly. Valve boxes shall be brought flush to finished grade. Concrete valve markers are required except inside plated subdivisions and on fire hydrant gate valves.
- h) Provide one (1) valve for each fire hydrant branch.
- j) All valves shall be at a minimum of two (2) inches in diameter.

7) Industrial or Special Design Conditions

- a) Design of water systems for industrial or other systems not covered in this section shall be approved on a special case basis only. Special requests shall be submitted to the City of Goldsboro Engineering Department for review.

8) Dead End Mains

- a) Minimize dead end mains by looping of all mains whenever possible.
- b) Where permanent dead ends occur provide a fire hydrant, and water line stub out for future line extension.
- c) Do not connect any flushing device to any sanitary or storm sewer or any other non-approved connection.

9) Separation of Water Mains and Sewer Mains

- a) Horizontal and Vertical Separation
 - 1) Minimum horizontal separation between water mains and sanitary sewer shall be ten (10) feet. The distance shall be measured from edge of pipe to edge of pipe.
 - 2) Should ten (10) foot separation not be feasible, then the water main may be located closer to the sewer main provided that:
 - a) It is laid in a separate trench,
 - b) It is laid in the same trench with the water main located at one side on a bench of undisturbed earth,
 - c) In either of the above cases, crown elevation of the sewer main shall be at least eighteen (18) inches below invert elevation of the water main.
 - 3) Sewer mains crossing water mains shall be laid to provide a minimum vertical separation of eighteen (18) inches between the invert of the water main and the crown elevation of the sewer

main. The crossing shall be arranged perpendicularly so that the sewer main joints will be equidistant and at least ten (10) feet from the crossing in each direction.

- 4) If it is impossible to maintain the required horizontal and vertical separation as described above, or anytime sewer must be laid above a water main, then both the water main and sewer main must be constructed of pressure class 350 ductile iron pipe with watertight joints and pressure tested to (150) psi to assure water tightness before backfilling. At the discretion of City of Goldsboro, a ferrous sleeve may be installed around existing water mains and force mains to meet this requirement provided NCDEQ approval for the ferrous sleeve is first obtained by the Engineer.
- 5) Mechanical joints will be required for the transition in the sewer main at water main/sewer main crossings. Fernco couplings are not permitted to be used. Special structural support for the water and sewer mains may be required.

b) Special Cases involving water mains:

- 1) Water mains may not be placed in contaminated areas unless piping material, including gaskets, is adequate to protect the water quality
- 2) Water mains may not be less than ten (10) feet from any wastewater tile field or spray field.
- 3) There may not be any connection between the water distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminated materials may be discharged or drawn into the system.
- 4) Neither steam condensate nor cooling water from jackets or other heat exchange devices may be returned to the potable water supply.

10) Water Main, Sewer Main, and Storm Drainage System Interference Manholes

- a) No water pipe shall pass through or encounter any part of a sewer manhole or storm drainage pipe or structure. An interference box may be used if there is a conflict.

11) Exceptions

- a) The City of Goldsboro Engineering Department must specifically approve any variance from any separation requirements when it is impossible to obtain the specified distances as stated herein.

12) Surface Water and Wetlands Crossings

a) Surface water and wetland crossings, whether over or underwater, present special challenges. The City of Goldsboro Engineering Department should be consulted before plans are prepared. Water mains crossing surface waters must be adequately supported and anchored, protected from damage and freezing, and be accessible for repair or replacement. Any support or anchoring system should be designed to be corrosion resistant using concrete and/or minimum Type 304 stainless steel. Water mains crossing under water bodies must maintain a minimum cover of three (3) feet from the deepest point to the crown of the pipe. When crossing water courses which are greater than fifteen (15) feet in width, the following must be provided:

- 1) The pipe material and joints shall be designed appropriately.
- 2) Valves must be located so that the section can be isolated for testing or repair; the valves must be easily accessible, and not subject to flooding.

13) Thrust Block Design

- a) Maximum soil pressure: 1,000 lbs/sq ft.
- b) Minimum water pressure: 150 psi.
- c) Safety factor: 1.5.
- d) Concrete: 2500 psi minimum
- e) Refer to Water Standard Details for thrust blocking detail information.

14) Cover Over Water Mains

- a) Provide suitable cover for all water mains. Minimal cover depth for PVC pipe is thirty-six (36) inches – use ductile iron pipe if (36) inches depth of cover cannot be obtained for PVC pipe:
 - 1) 4" - 24" diameter main: 36-inch minimum cover.
 - 2) 30" diameter and larger main: 48 inches minimum cover.
 - 3) All piping located within a public right-of-way shall be constructed in accordance with applicable permits and City of Goldsboro's minimum requirements.
 - 4) Special conditions other than those listed above may be approved if requested in writing from the City of Goldsboro.
 - 5) No berms shall be placed over utility lines.

15) Tap Size in Relation to Main Size

- a) As a general rule all water service taps shall be a minimum of one size smaller than the water main being tapped. In the case where the water service tap is the same size as the main being tapped with a tapping sleeve, approved by City of Goldsboro Engineering Department, must be utilized instead of a tapping saddle. The city of Goldsboro reserves the right to stipulate the maximum size tap available off of any water main, or to require a cut- in tee instead of a tapping sleeve. It may be necessary to schedule a water system shutdown and install a main line tee versus a tapping saddle or tapping sleeve if the City of Goldsboro requires the full size cut in tee.
- b) Horizontal directionally drilled (HDD) pipe shall not have service taps.

16) Water Services

- a) Water meters shall be installed for all service connections to water mains.
- b) No water meters are allowed in driveways. Meters shall be in non-traffic areas and a minimum of (18) inches away from driveways or sidewalks.
- c) City of Goldsboro has standardized with the Sensus AMI/AMR meter – see City of Goldsboro Engineering Department for any questions

concerning proper meter selection.

- d) All non-residential water meters and all irrigation water meters must have an approved backflow cross-connection protective device installed to protect the City of Goldsboro water distribution system against cross – contamination.
- e) All new developments that will have public sewer in addition to public water are required to have separate water meter boxes on each lot to accommodate both the domestic and irrigation water meters – refer to City of Goldsboro standard water meter details.
- f) All water services 2” and larger shall have a square nut gate valve after the tee or saddle.

17) Utility Easements and Rights-of-Way

- a) No trees or shrubs shall be planted in utility rights-of-way and/or public utility easements.
- b) No privacy berms or berms of any kind shall be placed in utility rights-of-way and/or public utility easements.
- c) No permanent structures or fencing shall be placed in utility rights-of-way and/or public utility easements.
- d) Public utility easements shall be a minimum twenty (20) feet wide unless prior approval is obtained from City of Goldsboro Engineering Department.

18) Existing Driveways

- a) For new utility lines crossing existing concrete or asphalt driveways, concrete driveways shall be removed and reinstalled to nearest expansion joints and asphalt drives shall be saw-cut and replaced to a minimum of three (3) feet from each side of the open excavation for the utility line installation.

19) Fire Hydrants

- a) All hydrants shall be installed on a minimum six (6) inch water line and should be installed in close proximity to road intersections whenever possible. Only one (1) fire hydrant may be installed when the line is served by a six (6) inch tap and is not looped to another main. When placed at intersections hydrants shall be offset from the top of the intersection to minimize vehicular strikes to the hydrant. The minimum acceptable flow for fire hydrants is one thousand (1,000) GPM with twenty (20) PSI residual pressure for residential and one-thousand-five hundred (1,500) GPM with twenty (20) PSI residual pressure for all other areas unless otherwise specified by the City of Goldsboro Fire Marshal. The Engineer shall contact the local fire department and/or the City of Goldsboro Fire Marshal during the design phase to coordinate the proper location of all fire hydrants within the project area.
- b) All new residential subdivisions shall have a fire hydrant placed at the entrance to the subdivision and thereafter a maximum of five hundred (500) feet apart, measured along street centerlines, unless otherwise approved by the City of Goldsboro Fire Marshall.
- c) In multi-family, commercial, business, office, institutional and industrial zoning the maximum distance between hydrants, measured along street centerlines, shall be four hundred (400) feet, unless otherwise approved

by the City of Goldsboro Fire Marshal.

New buildings or additions that result in a total building area of ten thousand (10,000) square feet require hydrants to be installed at three hundred (300) foot intervals along sides of the building that are accessible to fire jumpers. These hydrants shall be at least fifty (50) feet away from the building.

- d) Where sprinkler systems are used, a fire department connection (FDC) shall be installed and shall be within one hundred fifty (150) feet of an accessible fire hydrant, or as directed by the City of Goldsboro Fire Marshal.

20) Automatic Fire Sprinkler Systems

- a) All automatic fire sprinkler systems shall be approved by the City of Goldsboro Fire Marshal. Design engineers shall obtain Fire Marshal review and approval as required.
- b) When a fire protection system is proposed the type of backflow prevention assembly to be installed to protect the public water supply shall be commensurate with the degree of any actual or potential hazard. At a minimum the backflow protection device will consist of a double check detector valve assembly. Refer to City of Goldsboro Utilities Cross – Connections and Backflow Protection Policy.
- c) All backflow protection devices for automatic fire sprinklers will meet the requirements listed in the City of Goldsboro Public Utilities Department Cross – Connections and Backflow Protection Policy. At a minimum the backflow protection device will consist of a double check valve detector assembly including (2) check valves, (2) OS&Y gate valves, and (4) test cocks. All fire systems using toxic additives or booster pumping facilities shall be required to be protected with an approved reduced pressure principal assembly (RPZ or RP). These backflow prevention assemblies shall be American Water Works Association (AWWA), National Fire Protection Association (NFPA), and the Foundation for Cross Control and Hydraulic Research of the University of Southern California (FCCCHR-USC) approved. All fire sprinkler backflow protection devices shall be installed on the supply side of the sprinkler fire protection line.
- d) The backflow prevention assembly shall be installed on the back side of the right-of-way on the customer's side of the water service and shall be installed above ground in an insulated box and shall be operated and maintained by the customer at his or her expense. No underground installations will be approved or accepted. If the building is (200) linear feet or less from the water main serving the building, then the backflow prevention device may be installed inside the building.
- e) A post indicator valve (PIV) shall be provided at the right-of-way line or edge of easement line. The top of the PIV shall be thirty-six (36) inches above finished grade. The City of Goldsboro shall own and maintain up to and including the PIV but not beyond the PIV on private property.
- f) Where automatic fire sprinkler systems are used a fire department connection (FDC) shall be provided in the direction of the City of Goldsboro Fire Marshal. The FDC shall be located within one hundred fifty (150) feet of a fire hydrant, or as directed by the City of Goldsboro Fire Marshal. When a sprinkler system serves only a part of a large structure, the FDC shall be labeled, with minimum (2) inch letters on a permanent sign, as to which section of the structure that sprinkler riser serves. Remote FDCs may be installed (versus wall mounted FDCs) with the approval of the City of Goldsboro Fire Marshal – refer to City of

21) Cross Connection and Backflow Protection Policy

- a) Refer to the City of Goldsboro Public Utilities Department Cross – Connection and Backflow Protection Policy for a complete understanding of the required protection for City of Goldsboro water mains for any proposed design.
- b) The intent of this policy is to define the authority of City of Goldsboro as the water purveyor, in the elimination of all hazards, both actual and potential, to the potable water within the City of Goldsboro's public water supply system.
- c) All commercial and industrial customers must have an approved backflow prevention device.
- d) All irrigation systems must have an approved backflow prevention device.

22) New In-Ground Irrigation Systems

- a) All new in-ground irrigation systems must have their own separate water meter with an approved backflow prevention device.

23) Locate Tape, and Tracing Wire

- a) Tape shall be three (3) inches wide, blue in color, bearing continuous message "CAUTION WATER LINE BURIED BELOW". Tape shall be made of plastic or other permanent material and shall be buried continuously above the water main at a depth of eighteen (18) inches below finished grade.
- b) All water mains shall have a #12 AWG, high strength copper clad steel conductor (HS-CCS) such as Copperhead Superflex, Pro Trace High Flex or approved equal, with HDPE insulation, and rated for direct burial. Listed and approved underground connectors shall be used for all splices. The wire shall be brought up in valve boxes per City of Goldsboro Standard Detail. In any event, the wire shall be brought up into a valve box at 1,000 feet maximum intervals to provide wire access points. The wire shall be taped to the top of the water main at minimum ten (10) feet intervals.
- c) The contractor shall be required to perform a signal strength test of the installed tracer wire at the end of the project with City of Goldsboro staff present. Refer to City of Goldsboro Standard Details for tracer wire information.
- d) Individual water services shall have tracer wire installed from the main to the meter box.

6.8.8 SANITARY SEWER UTILITY DESIGN STANDARDS

1) General

- a) These gravity sanitary sewer system design guidelines are based on federal, state and City of Goldsboro Engineering Department design criteria.
- b) These design standards are applicable to existing systems and new extensions of the City of Goldsboro sewer system including, but not limited to, residential, commercial and industrial developments.

2) Gravity Sewer System Design Criteria

- a) Minimum main line size for public sewer mains is eight (8) inches. Minimum main line size for private sewer mains is six (6) inches.
- b) Service lines:
 - 1) Single 4" or 6" PVC or DIP service lateral per residential unit.
 - 2) A single 6" service line may serve two residential units upon specific approval from City of Goldsboro Engineering Department.
 - 3) Commercial units utilize a single 6" service lateral.
 - 4) 8" service lines shall connect to a manhole only and not to a main.
 - 5) No Fernco couplings are allowed on sewer mains or service laterals, unless the main or service lateral are part of a rehabilitation project. The Fernco may be used, but CIPP liner must be used as a permanent fix.
- c) Minimum Pipe Slope in Feet per Thousand Feet (Ft / 1000): All pipe slopes shall comply with the minimum design criteria set forth by the North Carolina Department of Environmental Quality (NCDEQ)

3) Capacity Design

- a) All flows: comply with the unit contributory loading criteria, North Carolina Department of Environmental Quality (NCDEQ) regulations.

4) Sewer Mains

- a) Straight alignment and uniform slope between manholes – no exceptions.
- b) Depth adequate to receive wastewater from the lowest service and to prevent freezing.
- c) If slopes are greater than twenty (20) percent, then anchored using concrete blocking.
- d) Where two or more mains of different diameters enter a sanitary manhole, it is required to match the crown elevations of the different size pipes.
- e) Service laterals are to be a minimum of five (5) feet from each property corner pin and as far from water laterals as possible depending on site conditions. No cleanouts allowed in driveways.
- f) Locate sewer mains and manholes outside of paved roadways whenever possible.
- g) Restraint type gaskets that provide internal restraint by means of stainless-steel inserts embedded within the gasket are not permitted for use in the City of Goldsboro.

5) Separation of Sewer Mains and Water Mains

a) **Horizontal and Vertical Separation**

- 1) Minimum horizontal separation between water mains and sanitary sewer mains shall be ten (10) feet. The distance shall be measured from edge of pipe to edge of pipe.
- 2) Should ten (10) foot separation not be feasible, then the water main may be located closer to the sewer main provided that:
 - a) It is laid in a separate trench,
 - b) It is laid in the same trench with the water main located at one side on a bench of undistributed earth,
 - c) In either of the above cases, crown elevation of the sewer shall be at least eighteen (18) inches below invert elevation of the water line.
- 3) Sewer mains crossing water mains shall be laid to provide a minimum vertical separation of eighteen (18) inches between the invert of the water main and the crown elevation of the sewer main. The crossing shall be arranged perpendicularly so that the sewer main joints will be equidistant and at least ten (10) feet from the crossing in each direction.
- 4) If it is impossible to maintain the required horizontal and vertical separation as described above, or anytime sewer must be laid above a water main then both the water main and sewer main must be constructed of pressure class (350) ductile iron pipe with watertight joints and pressure tested to (150) psi to assure water tightness before backfilling. At the discretion of City of Goldsboro, a ferrous sleeve may be installed around existing water mains and force mains to meet this requirement provided NCDEQ approval for the ferrous sleeve is first obtained by the Engineer.
- 5) Mechanical joints will be required for the transition in the sewer main at water main/sewer main crossings. Fernco couplings are not permitted to be used. Special structural support for the water and sewer mains may be required.

6) Cover over Sewer Mains and Utility Easement Widths

- a) Provide suitable cover on all lines. Minimal cover depth as follows:
 - 1) All PVC mains shall have a minimum of thirty-six (36) inches of cover.
 - 2) 8" to 20" diameter mains shall have minimum thirty-six (36) inches of cover.
 - 3) 24" diameter and larger mains shall have minimum forty-eight (48) inches of cover.
 - 4) All piping located within a public right-of-way shall be constructed in accordance with applicable permits and City of Goldsboro's minimum requirements.

- 5) Special conditions other than those listed above may be approved if requested in writing from City of Goldsboro Engineering Department and if the requested condition meets or exceeds the NCDEQ/DWR requirements in the document “Minimum Design Criteria for Gravity Sewer”.
- 6) Easement width not in public road right-of-way shall be a minimum twenty (20) feet wide.

<u>Depth of Sewer (ft)</u>	<u>Easement Width (ft)</u>
0-7.9	20
8-11.9	25
12-19.9	30
20-24.5	35
25+	40

7) Ductile Iron Pipe (DIP) required usage

- a) The use of ductile iron pipe on public sewer is only allowed with express written consent of City of Goldsboro Public Utilities or Engineering. If ductile iron pipe with sanitary sewer is allowed the following must be followed:
 - 1) It has a depth of cover less than thirty-six (36) inches.
 - 2) It has a depth of cover greater than eighteen (18) feet.
 - 3) Crosses beneath storm drainpipe with less than twenty-four (24) inches of clearance – refer to City of Goldsboro Standard Details for additional information.
 - 4) Crosses above storm drainage or other pipe with less than two (2) feet of clearance.
 - 5) Crosses creeks, rivers and other water bodies unless another pipe material is specified by City of Goldsboro Engineering Department.
 - 6) It is installed within a casing pipe.
 - 7) Crosses through storm sewer interference junction boxes.

8) Sewer Manholes

- a) Manhole diameters:
 - 1) Minimum diameter four (4) feet.
 - 2) Inside drop manholes: minimum diameter five (5) feet per NCDEQ/DWQ rules.
- b) Extended bases are required on manhole base sections – see Standard Details.
- c) Maximum manhole spacing: (400) feet standard – other spacing as requested and approved by City of Goldsboro Engineering Department in accordance with NCDEQ/DWQ regulations.
- d) Minimal angle between sewer mains intersecting at manhole: (90) degrees or greater to the downstream side – variances allowed by approval of City of Goldsboro Engineering

Department.

- e) Manhole top elevations:
 - 1) Shall be at or above finished grade elevation.
 - 2) Set to match finished pavement grade if located in paved areas.
- f) Use inside drop manholes where the difference in incoming and outgoing pipe invert elevation is 30 inches or greater.
- g) Eccentric manhole cones on all manholes with 24-inch clear opening on the ring and cover.
- h) Use watertight ring and covers in flood plain areas or areas subject to flooding.
- i) Use shallow precast manholes with flat tops where necessary and approved by City of Goldsboro Engineering Department.
- j) Provide 0.1-foot elevation fall through all manholes except straight through manholes.
- k) In outfall areas and upstream from a wet well, manholes shall be Armorock Polymer Concrete Manholes or approved equal.
- l) Use vented manholes as required per NCDEQ/DWQ requirements.
- m) For applications requiring the use of plastic polypropylene or polymer concrete manholes refer to City of Goldsboro Technical Specification 0026: Gravity Sanitary Sewer System.

6.8.9 SEWER FORCE MAIN UTILITY DESIGN STANDARDS

1) General Information

- a) The following sewer force main design standards are based on Federal, State and local health requirements and City of Goldsboro Engineering Department design criteria.
- b) These design standards are applicable to all developments including, but not limited to, residential, commercial and industrial developments, subdivisions and/or parks requiring sewer service from the City of Goldsboro.

2) Sewer Force Main Design Criteria

- a) Minimum pipe size shall be four (4) inches.

NOTE: Under conditions that arise from time to time, where normal installations cannot be implemented, City of Goldsboro will review submittals for a grinder station installation. Minimum pipe size for grinder pump station force mains is two (2) inches.

- b) Design velocity shall be a minimum two (2) feet per second scouring velocity.
- c) Maximum pipe size:
 - 1) Provide to maintain a minimum of two (2) feet per second scouring velocity and minimize pump discharge head.

d) Hazen and Williams design coefficient:

- 1) PVC: C = 130.
- 2) Ductile iron pipe: C = 120.
- 3) HDPE: C = 130.
- 4) Fusible PVC: C = 130.

3) Combination Air and Vacuum Release Valves

- a) Provide at high points in the force main or as required by the DWQ Minimum Design Criteria for Pump Stations and Force Mains. Combination air/vacuum valves shall be installed where the distance between the low point and high point in the force main exceeds ten (10) vertical feet and at all localized high points in the force main.
- b) Maintain minimum forty-eight (48) inches cover over force main at location of air release valves. Design force main to minimize the number of air release valves.
- c) Provide at one thousand (1,000) foot intervals where force main is installed at no slope.
- d) Refer to City of Goldsboro Standard Details for additional information.

4) Plug and Check Valves

- a) Force mains greater than (5,000) feet in length shall have a plug valve at the halfway point or as directed by the Engineer and/or City of Goldsboro staff.
- b) An initial isolation valve shall be installed on the sewer force main within one hundred and fifty (150) feet from the sewer pump station valve vault.
- c) Refer to City of Goldsboro Technical Specification 0019: Wastewater Force Mains and the City of Goldsboro Standard Details.

5) Force Mains Entering Manholes

- a) Force main to enter at the receiving manhole's flow line if possible.
- b) Force mains that do not enter at the receiving manhole's invert must be constructed as an inside drop per City of Goldsboro Standard Sewer Details.
- c) Existing gravity manholes that have sewer force mains entering them shall be polymer concrete or plastic polypropylene to protect against hydrogen sulfide corrosion per City of Goldsboro Technical Specification 0026: Sanitary Sewer & Appurtenances. If the existing manhole is concrete, it will be required to either replace the existing concrete manhole with a plastic polypropylene or precast polymer concrete manhole or add an additional polymer concrete or polypropylene transitioning manhole.
- d) New gravity manholes and transitioning manholes installed to allow a new force main to connect to an existing sewer system, shall be plastic polypropylene or precast polymer concrete sections.

6) Materials and Requirements for Restrained Joints, Pipes, and Fittings on Force Mains

- a) Restrained joints are required to prevent movement of system piping caused by forces in or on buried piping tees, valves, branches, bends, plugs, etc.
- b) Restrained joints shall be installed as shown on the approved plans, standard details, or as directed by City of Goldsboro staff or the Engineer.
- c) Concrete thrust blocking shall be installed as shown on the approved plans, standard details, or as directed by City of Goldsboro staff or the Engineer.
- d) All carrier pipe installed inside a casing shall be pressure class 350 ductile iron pipe per City of Goldsboro standard details with restrained joints.
- e) All restrained joint systems shall have a pressure rating equal to or greater than that of the pipe on which they are installed.
- f) Restraint type gaskets that provide internal restraint by means of stainless-steel inserts embedded within the gasket are not permitted for use in the City of Goldsboro.
- g) Ductile Iron Pipe (DIP)

The use of ductile iron pipe on public sewer is only allowed with express written consent of City of Goldsboro Public Utilities or Engineering. If ductile iron pipe with sanitary sewer is allowed the following must be followed:

- 1) Install restraints in strict accordance with the manufacturer's recommendations.
- 2) All ductile iron horizontal directional drill and bore-and-jack installations shall use boltless, integral, positive locking restraint systems that allow for joint deflection and disassembly should the need arise. The restrained joint system shall be a manufacturer's standard restrained joint system such as American (Flex-Ring or Lok-Ring), U S Pipe (TR-Flex), or Griffin (Snap- Lok), or approved equal.

Note: the aforementioned boltless, integral, positive locking restraint systems are also acceptable for use in open cut pipe installation locations.

- 3) External bell restraint harness shall have ductile iron glands. The dimensions of the gland shall be such that it can be used with the standard mechanical joint bell. Twist off nuts with preset factory torque setting shall be used to ensure proper actuation of the restraint device. All nuts, bolts, and fasteners shall be high strength alloy steel.

Mechanical joint restraints shall conform to ANSI/AWWA A21.11/C111 and ANSI/AWWA A21.53/C153, latest revision.

The restrained joint system shall be a manufacturer's standard restrained joint system manufactured by EBAA Iron, Inc., Smith-Blair, Inc., JCM, Inc., or approved equal.

- 4) Restraint for valves and fittings shall have ductile iron glands.

Twist off nuts with preset factory torque setting shall be used to ensure proper actuation of the restraint device. All nuts, bolts, and fasteners shall be high strength alloy steel. Mechanical joint restraints shall conform to ANSI/AWWA A21.11/C111 and ANSI/AWWA A21.53/C153, latest revision.

The restrained joint system shall be a manufacturer's standard restrained joint system manufactured by EBAA Iron, Inc., Smith-Blair, Inc., JCM, Inc., or approved equal.

- 5) Stainless steel rodding and fasteners, Type 304 minimum, is acceptable per City of Goldsboro standard details. Manufacturer's restraint system and/or glands are preferred in lieu of rodding.

h) Polyvinyl Chloride Pipe (PVC)

- 1. Install restraints in strict accordance with the manufacturer's recommendations.
- 2. External bell restraint harness shall have ductile iron glands. The dimensions of the gland shall be such that it can be used with the standard mechanical joint bell. Twist off nuts with preset factory torque setting shall be used to ensure proper actuation of the restraint device. All nuts, bolts, and fasteners shall be high strength alloy steel. Mechanical joint restraints shall conform to ANSI/AWWA A21.11/C111 and ANSI/AWWA A21.53/C153, latest revision.

The restrained joint system shall be a manufacturer's standard restrained joint system manufactured by EBAA Iron, Inc., Smith-Blair, Inc., JCM, Inc., or approved equal.

- 3. Restraint for valves and fittings shall have ductile iron glands. Twist off nuts with preset factory torque setting shall be used to ensure proper actuation of the restraint device. All nuts, bolts, and fasteners shall be high strength alloy steel. Mechanical joint restraints shall conform to ANSI/AWWA A21.11/C111 and ANSI/AWWA A21.53/C153, latest revision.

The restrained joint system shall be a manufacturer's standard restrained joint system manufactured by EBAA Iron, Inc., Smith-Blair, Inc., JCM, Inc., or approved equal.

- 4. Stainless steel rodding and fasteners, Type 304 minimum, is acceptable per City of Goldsboro standard details. Manufacturer's restraint system and/or glands are preferred in lieu of rodding.

7) Separation of Sewer Force Mains and Water Mains

a) Horizontal and Vertical Separation:

- 1) Minimum horizontal separation between water mains and sewer force mains shall be ten (10) feet. The distance shall be measured from edge of pipe to edge of pipe.
- 2) Should ten (10) foot separation not be feasible, then the water main may be located closer to the force main provided that:
 - a) It is laid in a separate trench,

- b) It is laid in the same trench with the water main located at one side on a bench of undistributed earth,
 - c) In either of the above cases, crown elevation of the force main shall be at least eighteen (18) inches below invert elevation of the water line.
 - 3) Force mains crossing water mains shall be laid to provide a minimum vertical separation of eighteen (18) inches between the invert of the water main and the crown elevation of the sewer force main.
- The crossing shall be arranged perpendicularly so that the sewer main joints will be equidistant and at least 10 feet from the crossing in each direction.
- 4) If it is impossible to maintain the required horizontal and vertical separation as described above or anytime sewer must be laid above a water main, then both the water main and sewer main must be encased in ferrous sleeves. Sleeves shall have sealed ends. If the water main is ferrous with joints equivalent to water main standards, then the water main does not have to be encased within an additional sleeve.
 - 5) Mechanical joints will be required for the transition in the sewer main at water main/sewer main crossings. Fernco couplings are not permitted to be used. Special structural support for the water and sewer mains may be required.

8) **Cover**

- a) Provide suitable cover on all sewer force mains. Minimal cover depth for PVC pipe shall be thirty-six (36) inches – if thirty-six (36) inch depth of cover cannot be obtained for PVC then ductile iron pipe shall be used.
 - 1) 4" diameter through 24" diameter mains shall have thirty-six (36) inches minimum cover.
 - 2) 30" diameter and larger mains shall have forty-eight (48) inches minimum cover.
- b) All piping located within a public right-of-way shall be constructed in accordance with applicable permits and City of Goldsboro's minimum requirements. All force mains located within NCDOT rights-of-way shall be minimum DR-18 rated.
- c) Special conditions other than those listed above may be approved if requested in writing and approved by City of Goldsboro Engineering Department.

9) **Ductile Iron Pipe (DIP) usage**

- a) Use ductile iron pipe where a sewer force main:
 - 1) In accordance with Section (6) for water/force main crossings.
 - 2) Crosses beneath storm drainage pipe with less than twenty-four (24) inches of clearance – refer to City of Goldsboro Standard Details.
 - 3) Crosses above storm drainage pipe with less than two (2)

feet of clearance.

- 4) Cover is less than the depth prescribed in Part (8) above.

10) Existing Driveways

- a) For new utility lines crossing existing concrete or asphalt drives, concrete driveways to be removed and reinstalled to nearest expansion joint and asphalt drives to be saw-cut and replaced to minimum three (3) feet from open excavation required to install the force main.

11) Locate Tape and Wire

- a) Marking tape shall be three (3) inches wide, green or purple in color, bearing continuous message "CAUTION SEWER LINE BURIED BELOW" or "CAUTION REUSE LINE BURIED BELOW". Tape shall be made of plastic or other permanent material and shall be buried continuously above the force main at a depth of eighteen (18) inches below finished grade.
- b) All force mains shall have a #12 AWG, high strength copper clad steel conductor (HS-CCS) such as Copperhead Superflex, or approved equal, with HDPE insulation, and rated for direct burial. Listed and approved underground connectors shall be used for all splices. The wire shall be brought up into a valve box at 1,000 feet maximum intervals to provide wire access points. The wire shall be taped to the top of the force-main at a minimum of ten (10) foot intervals.

The contractor shall be required to perform a signal strength test of the tracer wire installed at the end of the project with City of Goldsboro Engineering Department and Public Utilities staff present. Refer to City of Goldsboro Standard Details for tracer wire information.

6.8.10 STORMWATER UTILITY DESIGN STANDARDS

1. General Information

- a) The Legislature of the State of North Carolina has, in Chapter (T15A), Article (02B), Section (.0235), entitled Neuse River Basin-Nutrient Sensitive Waters Management Strategy; Basin wide Stormwater Requirements, designated specific local governments for the development of new stormwater management requirements as part of the Neuse River Nutrient Sensitive Waters stormwater management strategy. The requirements of this Chapter apply to property located within the Neuse River Basin. The Engineering Director or their designee shall be responsible for interpretation and implementation of the stormwater management and design criteria for the City of Goldsboro as is laid out in this UDO, the City of Goldsboro Stormwater Management Plan document, as well as the City of Goldsboro Engineering Department Standard Specifications and Details Manual. Approval from other applicable agencies may be required.

2. Stormwater Management Requirements

All development and redevelopment projects within the City of Goldsboro and its ETJ shall meet the stormwater system design requirements set forth in 15A NCAC 02H .1003, including onsite stormwater, threshold for high density, and offset options for public road/sidewalk. Development and Redevelopment are defined as follows:

- (1) Development. - Any land-disturbing activity that increases the amount of built upon area or that otherwise decreases the infiltration of precipitation

into the subsoil. When additional development occurs at a site that has existing development, the built-upon area of the existing development shall not be included in the density calculations for additional stormwater control requirements, and stormwater control requirements cannot be applied retroactively to existing development, unless otherwise required by federal law.

- (2) Redevelopment. - Any land-disturbing activity that does not result in a net increase in built-upon area and that provides greater or equal stormwater control to that of the previous development.

Project Density Requirements:

A project shall be considered a low-density project if it meets the low-density criteria set forth in 15A NCAC 02H .1017 and contains no more than 24 percent built-upon area or no more than two dwelling units per acre; otherwise, a project shall be considered high density. Low density and High-Density projects shall comply with the requirements set forth in Rule 15A NCAC 02H .1003. Developers or builders will be required to comply with these provisions for any new development which falls under either of the following definitions:

- (1) Single family and duplex residential and related recreational development and expansion of development that disturbs less than one acre is exempt from the provisions of this ordinance.
- (2) Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and does not expand existing structures on a parcel is exempt from the provisions of this ordinance.
- (3) Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and expands existing structures on a parcel but does not result in a cumulative built-upon area for the parcel exceeding twenty-four (24) percent is exempt from the provisions of this ordinance.
- (4) Development that disturbs less than the above thresholds are not exempt if such activities are part of a larger common plan of development or sale and the larger common plan exceeds the relevant threshold, even though multiple, separate or distinct activities take place at different times on different schedules.
- (5) Development of an individual single-family or duplex residential lot that is not part of a larger common plan of development or sale and does not result in greater than five (5) percent built-upon area on the lot is exempt from the provisions of this ordinance.
- (6) A project subject to the requirements of the Falls Nutrient Strategy New Development Stormwater Rule, 15A NCAC 02B .0277 is exempt from the provisions of this ordinance.
- (7) Existing development or redevelopment is exempt from the provisions of this ordinance.
- (8) Activities subject to requirements of the Neuse Watershed Agriculture Rule, 15A NCAC 02B .0712 is exempt from the provisions of this ordinance.
- (9) Development or expansion of development with a vested right per the standards of N.C.G.S. 160D-108 is exempt from the provisions of this ordinance.
- (10) Development or expansion of development for which the permit

application was submitted prior to adoption of this ordinance is optionally exempt from the provisions of this ordinance per the requirements of N.C.G.S. 143-755.

3. Nitrogen Reduction Requirements

Proposed development projects that would replace or expand existing structures and result in a net increase in built-upon area shall meet a nitrogen loading rate target of 3.6 pounds/acre/year. Projects subject to this ordinance shall meet nitrogen loading targets through a combination of the following methods:

Projects may reduce export of nitrogen through any combination of engineered stormwater controls treating runoff on the site, in an approved offsite regional engineered stormwater control, or through the acquisition of permanent nutrient offset credits. The developer shall calculate the nitrogen reduction provided by these controls using the approved state accounting tool or other method approved by the state.

Proposed development undertaken by a local government solely as a public road expansion or public sidewalk project, or proposed development subject to the jurisdiction of the Surface Transportation Board may meet nitrogen reduction needs for the project entirely through the use of permanent nutrients. Offset credits pursuant to the Nutrient Offset Credit Trading Rule, 15A NCAC 02B .0703.

Sufficient permanent nutrient offset credits to meet project nutrient reduction needs not provided by engineered stormwater controls serving the project shall be acquired prior to approval of the development plan. The Stormwater Administrator shall issue an approval letter for the development that documents the needed nitrogen credits and where the development is located relative to the Neuse Watershed Rules' geographic requirements. All permanent nutrients offset credits permitted by this ordinance shall meet the requirements of 15A NCAC 02B .0703.

Permanent nutrient offset credits shall be acquired pursuant to N.C.G.S. 143-214.26 and 15A NCAC 02B .0703 prior to the start of construction of the project.

A developer subject to this ordinance may acquire permanent nutrient offset credits through one of the following methods:

- (1) Through a private nutrient bank.
- (2) Through offsite offset provided by the developer and approved by name of local government.
- (3) Through payment into the Riparian Buffer Restoration Fund established in N.C.G.S. 143-214.21.

Note: Excess permanent nutrient offset credits acquired beyond what is required for the development may not be applied to any other development.

4. Stormwater Management Design

General engineering design criteria for all projects shall be in accordance with 15A NCAC 02H .1008 and the City of Goldsboro Engineering Department Standard Specifications and Details Manual.

In addition to the control measures outlined in 15A NCAC 02H .1008, stormwater management systems consisting of other control options or series of control options may be approved by the Engineering Director on a case-by-case basis. This approval shall only be given in cases where the applicant can demonstrate that the Alternative Design Criteria shall provide equal or better stormwater control, equal or better protection of waters of the state, and result in no increased potential for nuisance conditions. The criteria for approval shall be that the stormwater management system shall provide for 85 percent average annual removal of Total Suspended Solids and that

the discharge rate from the system meets one of the following:

- (1) The discharge rate following the one-inch design storm shall be such that the runoff volume draws down to the pre-storm design stage within five days, but not less than two days: or
- (2) The post development discharge rate shall be no larger than predevelopment discharge rate for the one year 24-hour storm.

All engineered stormwater controls will meet the standards set in the City of Goldsboro Stormwater Management Plan, the City of Goldsboro Engineering Department Standard Specifications and Details Manual, and the State's Minimum Design Criteria, 15A NCAC 02H .1050 through .1062.

5. Riparian Buffers

Riparian Buffers and their requirements are discussed in section 9.3.4 of the Stormwater Management Plan found on the city's engineering webpage.

6. Stormwater Control Measures

Stormwater Control Measures and their requirements are discussed in section 9.4 of the Stormwater Management Plan.

7. Permit Required

No property owner or operator shall commence land disturbing activities, as defined in The City of Goldsboro Stormwater Management Program, before receiving a stormwater management permit and meeting the requirements of this ordinance. A stormwater management permit will also be required for construction, alteration, operation, maintenance, removal, or abandonment of any stormwater management structure (also known as an SCM) that has been, or is planned to be, put into operation after July 1, 2007. However, all SCMs that have been reviewed under The City of Goldsboro Stormwater Management Program prior to the enactment of this ordinance shall be deemed permitted from the date the site development plan was approved by the Engineering Director or their Designee.

8. Application Requirements

Unless specifically excluded by The City of Goldsboro Stormwater Management Plan, any property owner or operator desiring a permit for a land disturbance activity shall submit to the City Engineer a permit application for stormwater management on a form provided for that purpose. A permit stormwater application must be accompanied by the following information in order for the stormwater permit application to be considered:

A site plan showing SCM locations, construction details and specifications, drainage areas and directions, outfalls, and related information.

(a) SCM information, including applicable standards, maintenance and O&M requirements, can be found in section 9.4 of the Stormwater Management Plan.

- For all storm sewer networks, calculations showing it has been sized for a minimum 10-year storm, for culverts under proposed or existing roads, calculations shall be for a minimum 25-year storm. For systems with curb and gutter, use an intensity of four inches per hour to calculate both spread and bypass flow.
- For detention and retention structures, stage routing and storage showing pre and post calculations for the design storm as shown in 6.5.4 as well as the ability to pass the 100-year design storm without overtopping.
- Calculations for reduction of peak runoff and nitrogen loading. The developer

shall calculate the nitrogen reduction provided by these controls using the approved state accounting tool or other method approved by the state.

- A non-refundable stormwater review fee

Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant that must be approved by the Engineering Director or Designee and recorded in the Wayne County Register of Deeds office.

- All stormwater management structures shall be located in recorded drainage easements for the purposes of operation and maintenance and shall have recorded access easements to the nearest public right of way. These easements shall be granted in favor of the party responsible for operating and maintaining the stormwater management structures and shall include access for City Inspectors and Engineering Department Personnel.
- The agreement shall provide access to the facility at reasonable times for periodic inspection by the Engineering Director, a city employee, or agent of the City to ensure that the facility is maintained in proper working conditions to meet design standards and any other provisions established by The City of Goldsboro
- Stormwater Management Plan.

9. Application Review Fees

The fee for review of any land development application shall be based on the amount of land to be disturbed at the site, and the fee structure shall be established by the City of Goldsboro. All of the monetary contributions shall be credited to a City budgetary fund to support and maintain local plan review, inspection, and program administration; the fee shall be paid prior to the issuance of the stormwater management permit for the development.

10. Application Procedure

- a) Applications for land disturbance activity permits may be filed with the Engineering Department on only a regular business day.
- b) Permit applications shall include the following: two copies of the Stormwater management plan, all relevant stormwater and nitrogen calculations, two copies of the draft maintenance agreement of any proposed SCM's, and any required review fees. Digital copies of all required documents are accepted in lieu of physical copies.
- c) Within 30 calendar days of the acceptance of a complete permit application, including all documents as required by this ordinance, the Engineering Director shall inform the applicant in writing whether the application, plan and maintenance agreement are approved or disapproved.
- d) If the permit application, stormwater management plan, or maintenance agreement are disapproved, the applicant may revise the stormwater management plan or agreement. If additional information is submitted, the Engineering Director shall have 15 business days from the date the additional information is received to inform the applicant in writing that the plan and maintenance agreement are either approved or disapproved.
- e) If the permit application, final stormwater management plan, and maintenance agreement are approved by the Engineering Director, the stormwater management Permit shall be issued. Stormwater management permits shall be effective for (2) years from the date they are approved.
- f) Permit applications which are deemed inactive in excess of 6 months shall

require resubmittal of all documents and review fees.

- g) For more information regarding stormwater regulations, please see the city's full stormwater management plan on the city's website.

6.8.11 SAND, OIL AND GREASE INTERCEPTORS' UTILITY DESIGN STANDARDS

1) General Information

- a) Grease, fats and oil interceptors shall be installed and maintained by users operating food cooking establishments. Grease interceptors may also be required in food non-cooking establishments and other industrial or non-domestic users when, in the opinion of the Building Inspector, they are necessary for the proper handling of wastewater containing excessive amounts of grease, fats, and oils; except that such interceptors shall not be required for residential users. Interceptors shall be installed and maintained at the user's expense. If no grease is found through investigation by the City Inspector(s) at a food establishment, a grease trap may not be required.
- b) No user shall allow any wastewater discharge concentration from the interceptor to exceed 325 milligrams per liter (EPA Method 1664) or 275 milligrams per liter (EPA Method 413) in fats, oils, and greases. These limits shall be consistently maintained.
- c) All interception units shall be of type and capacity approved by the Building Inspector and shall be so located to be easily accessible for cleaning, inspection, and wastewater effluent sampling. Such interceptors shall be inspected, cleaned of grease, sludge, debris and the like and repaired as required in order to maintain minimum design capability of the grease interceptor, but not less often than every 30 days if grease problems are found. This maintenance shall be performed by the user at their expense. The Building Inspector will allow the use of an automatic grease separator system under the following conditions:
 - (1) A food establishment has physical limitations creating a hardship condition which prohibits installing a properly sized in-ground grease trap.
 - (2) The sizing of an automatic grease separator system will be according to the manufacturer's specifications.
 - (3) The food establishment manager/staff signs a log certifying each daily, weekly, and quarterly maintenance of the automatic grease separator system has been done according to the manufacturer's specifications.
- d) Grease and oil traps or other interceptors shall be provided at the user's expense when such user operates an establishment preparing, processing, or serving food and/or food products.
- e) Grease interceptors may also be required in other industrial or commercial establishments when they are necessary for the proper handling of liquid wastes containing oil and/or grease in amounts more than one hundred (100) mg/ liter, or for any flammable wastes.
- f) Sand, Oil, and Grease Interceptors shall not be required for residential users.

2) Definitions

a) Food Service Establishment

Any commercial facility discharging kitchen or food preparation wastewaters including restaurants, motels, hotels, cafeterias, hospitals, schools, bars, etc. and any other facility which, in the City of Goldsboro's opinion, would require a grease trap installation by virtue of its operation. Such a definition normally includes any establishment which is required to have a North Carolina State food service license.

b) **Grease Trap/Grease Interceptor**

The device which is utilized to affect the separation of grease and oils in wastewater effluents from food service establishments. Such traps or interceptors may be of the "outdoor" or "underground" type normally referred to as large grease interceptors, or the "under-the-counter" package units normally referred to as the smaller grease traps. However, for the purposes of this Guideline, the words "trap" and "interceptor" are generally used interchangeably.

c) **Sewer Use Ordinance (SUO)**

City of Goldsboro Public Utilities Department ordinance which covers wastewater treatment and pretreatment as a condition of discharge to the City of Goldsboro owned sewer collection and treatment system.

3) General Requirements

a) The following administrative, operational, and other general requirements are applicable to all food service establishments, new or existing:

- 1) All food service establishments in City of Goldsboro's sewer service area shall have grease handling facilities approved by City of Goldsboro. Establishments whose grease handling facilities are not in accordance with this Standard shall be given a compliance schedule with a deadline not to exceed three (3) months from the initial notification date.
- 2) Grease interceptors that are 50 pounds or larger in size must be cleaned out commercially. The food establishments that clean their own small grease traps (less than 50 pounds) shall put the grease in a sealed container and dispose of it as set forth in state regulations. The grease, fats and oils removed from a grease interceptor must be put in an appropriate container and properly disposed of as solid waste or recycled commercially. The Building Inspection will evaluate and determine the cleaning frequency of under-the-sink traps. Care must be taken to prevent grease, fats, and oils from entering the stormwater system or sanitary sewer system. No non-grease laden sources are allowed to be connected to any sewer line intended for grease interceptor service.
- 3) The user shall maintain a written record of interceptor maintenance for three years. All such records will always be available for inspection by the city. The user shall submit written reports of such maintenance when requested by the city. The user shall refer to the Grease Trap User Guidance Manual for information on permitting requirements, forms, non-compliance fines, and the like.
- 4) Violations of these Grease Trap and Grease Interceptor Guidelines and/or the Sewer Use Ordinance will be considered grounds for discontinuance of water and/or sewer service.
- 5) Food service establishments whose operations cause or allow excessive grease to discharge or accumulate in the sewer collection system are liable to City of Goldsboro for all costs related to City of Goldsboro, such as service calls for line blockages, line cleanings, line and pump repairs, property damages, etc. including all labor, materials, equipment, and overhead. Failure to pay all service-related charges may also be grounds for water and/or sewer service discontinuance.
- 6) Maintenance contracts and/or records of grease removal frequencies for grease handling facilities may be required at the

discretion of the City of Goldsboro Public Utilities Department. These reports are to be submitted periodically to ensure routine and adequate system maintenance.

- 7) In the maintaining of the grease interceptors, the Owner(s) shall be responsible for the proper removal and disposal by appropriate means of the captured material and shall maintain on site records of the dates and means of disposal which are subject to review by City of Goldsboro. Any removal and hauling of the collected materials not performed by Owner(s) personnel must be performed by currently licensed waste disposal firms. Materials removed from Sand, Oil, and Grease Interceptors are not to be discharged to the City of Goldsboro's sewer collection system.
- 8) Any food service establishment whose effluent is suspected of or perceived by City of Goldsboro Public Utilities Department to contain a concentration of greater than 100 mg/liter of oil and grease may be required to routinely sample their grease trap effluent and have it analyzed for oil and grease at the expense of the Owner and furnish a copy of the analysis to the City of Goldsboro.
- 9) All grease traps and interceptors shall be designed, installed and located in accordance with this requirement to allow for complete access to inspection, maintenance, and other required activities.
- 10) All grease traps and interceptors must be installed by properly licensed plumbing contractors and/or licensed utility contractors.

4) Construction Standards

- a) New Food Service Facilities (new construction)
 - 1) All newly constructed (or newly located) food service establishments shall be required to install a grease interceptor approved by City of Goldsboro. Grease interceptors shall be sized at 20 gallons per food service seat with no interceptor less than 1,000 gallons total capacity.
 - 2) New facilities are required to submit plans, specifications, plumbing diagrams, riser diagrams, etc. to City of Goldsboro for review and approval prior to installation. An approval letter for each new installation will be issued by the City of Goldsboro prior to installation.
 - 3) The construction and location criteria for grease interceptors shall be in accordance with the Environmental Protection Agency (EPA) Guidance Document, "On Site Wastewater Treatment and Disposal Systems," Chapter 8. Refer to City of Goldsboro standard details for grease interceptors.
 - 4) All grease interceptors must be directly accessible from the surface and must be fitted with an extended outlet sanitary tee that terminates 6" above the tank floor. The minimum access opening dimensions shall be 24" x 24" or a minimum of twenty-four (24) inches in diameter. Two (2) access openings (inlet and outlet) to underground traps are required and should have a 24" cast iron frame and cover easily removable by one person.
 - 5) All below ground grease interceptors must be two-chambered. The dividing wall must be equipped with an extended elbow or sanitary tee terminating 12" above the tank floor. An extended outlet sanitary tee must also be provided at the outlet of the second

chamber. Both chambers must be directly accessible from the surface. See grease interceptor Standard Details for reference.

- 6) Above criteria (1 thru 5) apply primarily to outdoor type (underground) grease trap units.
- 7) Maintenance of grease traps and interceptors must include thorough pump- out and/or cleaning as needed with a minimum frequency of four (4) times per year. Maintenance contracts may be required to be submitted to City of Goldsboro as called for in this standard. The Owner, however, is ultimately responsible for the proper maintenance of the grease trap facilities.
- 8) No new food service facility will be allowed to initiate operations until grease-handling facilities are installed and approved by the City of Goldsboro.
- 9) For cases in which underground type of grease interceptors are not feasible to install, new food service establishments will be required to install adequate and approved "under-the-counter" grease traps for use on individual fixtures, including pot sinks, mop sinks, pre-rinse sinks, wok ovens, floor drains, and other potential grease containing drains. In such cases, units will be considered acceptable only if approved flow control fittings are provided to the grease interceptor inlet to prevent overloading of the grease trap and to allow for proper interceptor operation.
- 10) Approved manufacturers shall include Zurn, Rockford, Thermaco, or equal as approved by City of Goldsboro. City of Goldsboro approval of flow control devices and grease trap design must be given prior to installation. Dishwashers and garbage grinders shall not be piped directly to under-the- counter or underground type grease traps without prior City of Goldsboro approval.

b) Existing Food Service Facilities

- 1) All existing food service establishments (or renovated or expanded establishments) shall have grease handling facilities approved by the City of Goldsboro.

Food service establishments without any grease handling facilities will be given a compliance deadline not to exceed three (3) months from date of notification to have an approved grease interceptor installed.

Failure to install the required grease interceptor before the compliance deadline will be considered a violation of this requirement and be subject to penalties regarding water and/or sewer service discontinuance.

- 2) For cases in which "outdoor" units are feasible to install, construction requirements will be as specified herein.
- 3) The size of "under-the-counter" grease trap units will be in accordance with (EPA) recommended ratings for commercial grease traps. The grease retention capacity rating in pounds shall be at least two (2) times the GPM flow rate of the type of fixture which it serves.
- 4) Location of "under-the-counter" units must be as close to the source of the wastewater as physically possible while remaining accessible for maintenance.
- 5) Wastewater from dishwashers and garbage grinders should not be discharged to grease traps and interceptors unless approved by City of Goldsboro in advance.

- 6) In the maintaining of existing grease traps and interceptors, the Owner(s) shall be responsible for the proper removal and disposal by appropriate means of the captured material and shall maintain records of the dates and means of disposal which are subject by City of Goldsboro.
 - 7) In the event that an existing food service establishment's grease handling facilities are either under designed, substandard, or poorly operated, the Owner(s) will be notified, in writing, of the required improvements and given a compliance deadline not to exceed three (3) months to conform with the requirements of these guidelines.
 - 8) Exclusive use of enzymes or other grease solvents, emulsifiers, etc. in lieu of physical cleaning is not considered acceptable grease trap maintenance practice.
 - 9) Grease consuming bacteria may be considered for interim approval for grease trap maintenance, provided approval is obtained from City of Goldsboro, and providing that this control method is considered effective and satisfactory to City of Goldsboro's Pretreatment Inspector. Exclusive use of bacteria (in lieu of physical cleaning) may not be sufficient for long-term grease trap maintenance, especially for non-biodegradable waste fractions.
- c) **New Food Service Establishments constructed within Existing Buildings**
- 1) Where practical, new food service establishments located in existing buildings will be required to comply with this requirement as applicable to new facilities, i.e., outdoor type grease interceptors (minimum size 1,000 gallons) shall be installed.
 - 2) Where it is physically impossible to install "outdoor" units, "under-the-counter" units may be allowed as with existing food service establishments provided prior approval of unit type, size, location, etc. is approved by the City of Goldsboro. Flow control fittings and/or automatically cleaned units will be required in all cases. Maintenance contracts and/or clean-out records will also be required.
- d) Refer to City of Goldsboro standard details for grease interceptors for further information.

5) Sand and Oil Interceptor

- a) Provide a precast concrete vault, 3,500 psi compressive strength concrete, usable liquid capacity not less than one thousand (1,000) gallons, six (6) inch diameter inlet and outlet tees, outlet tee to terminate six (6) inches above floor, the dividing wall must have a six (6) inch diameter tee that terminates twelve (12) inches above the floor.
- b) Refer to the City of Goldsboro standard detail for the Sand and Oil Separator.

6) Location and Cleaning of Grease Interceptor

- a) The grease interceptor must be easily accessible for cleaning and solids removal.
- b) Remove solids when approximately seventy-five (75) percent of the interceptor's capacity is reached.

7) Manhole Frame and Cover

- a) Access manholes, with a minimum diameter of 24 inches shall be

provided over each interceptor chamber and sanitary tee. The access manholes shall extend at least to finished grade and be designed and maintained to prevent water inflow and infiltration. The manholes shall also have readily removable covers to facilitate inspection, grease removal, and wastewater sampling activities.

- b) Coat frames and covers with two (2) shop coats of bitumastic paint.
- c) Provide watertight covers, where indicated, conforming to above requirements and with frame tapped for four bolts, countersunk in cover, and provide a rubber gasket between the frame and cover.
- d) Refer to City of Goldsboro standard details for Sand and Oil Separator for further information.

8) **Enforcement**

- a) Failure to comply with these guidelines may be grounds for penalty imposition and/or discontinuance of water and/or wastewater service. Additionally, failure to comply may result in notification to the City of Goldsboro Public Utilities for request of enforcement action which may lead to revocation of food service permits.
- b) For new food service establishments, City of Goldsboro may elect to request from the appropriate building official that certificates of occupancy be withheld until compliance with City of Goldsboro’s requirements, including grease interceptor compliance is fully met by the business owner.

9) **Recommended Ratings for Commercial “Under the Counter” Package Unit Grease Traps and Grease Interceptors**

Type of Fixture	Flow Rate (GPM)	Grease Retention Capacity Rating (LB)	Recommended Maximum Capacity per Fixture Connected to (GAL)
Restaurant kitchen sink	15	30	50.0
Single compartment scullery sink	20	40	50.0
Double-compartment scullery sink or triple compartment sink	25	50	62.5
(2) single compartment sinks	25	50	62.5
(2) double compartment sinks	35	70	87.5
Wok ovens	15	30	50
Other fixtures	*	*	*

Note: For multiple fixtures served by one tap, the required grease trap capacity will be additive

* As determined by City of Goldsboro

6.8.12 CROSS-CONNECTIONS AND BACKFLOW PROTECTION POLICY

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A. **GENERAL.** This regulation shall apply to all users connected to the City of Goldsboro's public water system. This ordinance will comply with the Federal Safe Drinking Water Act (SDWA) (P.L. 93-523), the North Carolina Administrative Code (NCAC) (Title 10, Chapter 10, Subchapter 10-D, Subparagraph .1006), and the North Carolina Building Code (Volume II) as they pertain to cross- connections with the public water supply system and will apply the principle that the degree of protection should be commensurate with the degree of the hazard or potential hazard to the public water supply system.

B. **PURPOSE.** The purpose of this cross-connection and backflow protection policy for the City of Goldsboro’s Public Utilities Department are as follows:

1. Protect the City of Goldsboro’s public potable water supply against actual or potential contamination (i.e., cross-connections, backflow, back-siphonage) by isolating and containing, within the Consumer's premises or private property, contamination or pollution that has occurred or may occur because of some uncontrolled (i.e., undiscovered or unauthorized) cross-connection on the Consumer's premises or private property back into the public water supply.
2. Eliminate or control existing cross-connections, both actual and potential, (backflow, back-siphonage or any other source of water or process water used for any purpose whatsoever) which may jeopardize the potability of the City of Goldsboro’s public water supply system.
3. Establish and maintain a continuing program of cross-connection control and inspection which will systematically and effectively prevent the contamination or pollution, either actual or potential, of all potable water

systems connected to the City of Goldsboro's public water supply system.

4. Control cross-connections (i.e., backflow and back-siphonage) through cooperation between the City of Goldsboro and the City of Goldsboro's customers (Consumers). Responsibilities and duties of each will be set forth in this policy and their applicable regulations.

C. RESPONSIBILITIES. The Public Utilities Director or his designee shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow or back-siphonage of contaminants or pollution through the water service connection. If, in the judgment of the Director, or his duly appointed representative, an approved backflow prevention assembly is required (at the Consumer's water service connection; or, within the Consumer's private water system) for the safety of the water system, the Director, or his authorized representative, shall give notice, in writing, to said Consumer to install such an approved backflow prevention assembly(s) on his or her premises. The Consumer shall install, or have installed, within a period of time defined in this policy, such an approved backflow prevention assembly(s) at the Consumer's own expense. Failure, refusal, or inability on the part of the Consumer to install, have tested, and maintain said assembly(s), shall constitute grounds for enforcement (i.e., stipulated penalties, disconnection of water service, etc.) until such requirements have been satisfactorily met. Enforcement of this policy shall be administered by the Director or an authorized representative of the City of Goldsboro.

D. DEFINITIONS.

1. Air Gap (Separation). The term "air gap" shall mean a physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non- pressure receiving vessel. An approved "air gap" shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the vessel, but in no case less than 1-inch (2.54 cm).
2. Approved. (1) The term "approved" as herein used in reference to water supply shall mean a water supply that has been approved by the North Carolina Division of Environmental Quality (NCDEQ), Public Water Supply Section. (2) The term "approved" as herein used in reference to an air gap, a double check valve assembly, a reduced pressure backflow prevention assembly or other backflow prevention assemblies or methods shall mean approval by the Public Utilities Department based on a favorable report by an approved testing laboratory (i.e., FCCCHR-USC, Underwriters Laboratory, Factory Mutual, etc.).
3. Auxiliary Water Supply. Any water supply on or available to the premises other than the purveyor's (City of Goldsboro) approved public water supply will be considered as an auxiliary water supply. These auxiliary waters may include, but not limited to, water from another purveyor's public potable water supply or any natural source(s) (i.e., well, spring, river, stream, pond, lake, re-use waters, or industrial fluids, etc.). These waters may be contaminated or polluted, or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.
4. Backflow. The undesirable reversal of flow of waters or mixtures of water and other liquids, gases, or other substances into the distribution lines of the potable supply of water from any source(s). See the terms Back-pressure and Back-siphonage (see D.9 and D.10, respectively).
5. Backflow Prevention Assembly (Approved). An assembly or means designed to prevent backflow into the potable water supply system. These assemblies shall be reviewed and approved by the City of Goldsboro and

shall have been shown to meet or exceed the design and performance standards of the American Society of Sanitary Engineers (ASSE), American Water Works Association (AWWA), and/or the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California (FCCCHR-USC). The approval of backflow prevention assemblies by the Public Utilities Department is based on a favorable report by an approved testing laboratory (i.e., FCCCHR-USC, Underwriters Laboratory, Factory Mutual, etc.), recommending such an approval. The following are approved methods for backflow prevention:

- a. Air Gap (AG) (see D.1).
 - b. Reduced Pressure Principal Assembly (RP or RPZ) (see D.41).
 - c. Double-Check Valve Assembly (DCVA) (see D.23).
 - d. Double-Check Detector Assembly (fire system) (DCDA) (see D.22).
 - e. Reduced Pressure Principle-Detector Assembly (fire system) (RPDA) (see D.42); and
6. Backflow Prevention Assembly Technician (Certified). A person that has proven his or her competency to the satisfaction of the State of North Carolina and is certified to make competent tests, or to repair, overhaul and make reports on backflow prevention assemblies shall be knowledgeable of applicable laws, rules, and regulation; shall be a licensed plumber or have had at least two (2) years' experience under a licensed plumber or plumbing contractor, or have equivalent qualifications acceptable to the State of North Carolina; and must hold a certificate of completion, from an acceptable training program (i.e., NC AWWA) in the testing, repair, and reporting of backflow prevention assemblies.
7. Back Pressure. Backflow caused by a pump, elevated tank, boiler, or other means that could create pressure within the system greater than the supply pressure.
8. Back-siphonage. A reversal of the normal direction of flow in the lines due to a negative pressure (vacuum) being created in the supply line with the backflow source subject to atmospheric pressure.
9. Customer/Consumer. Any person, firm, or corporation responsible for property at which water from the City of Goldsboro public water supply system is received. In the absence of other parties or the failure of other parties to accept the responsibilities herein set forth, the owner of record shall be ultimately responsible.
10. Containment. Preventing the contamination/pollution of the public potable water supply by installing an approved backflow prevention assembly and /or method at the service connection. The term "service protection" shall mean the appropriate type or method of backflow protection at the service connection, commensurate with the degree of hazard of the consumer's potable water system.
11. Contamination. An impairment of the quality of the water which creates an actual hazard to public health through poisoning or through the spread of disease by sewage, industrial fluids, waste, etc.
12. Cross-Connection. Any unprotected, actual or potential connection or structural arrangement between a public or a Consumer's potable water system and any other source or system through which it is possible to introduce into any part of the potable system any used water, industrial fluids, gas, or substance other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections,

removable sections, swivel or change-over devices and other temporary or permanent devices through which or because of which backflow can or may occur are considered to be cross-connections. (1) The term "direct cross-connection" shall mean a cross-connection which is subject to both back-siphonage and back pressure. (2) The term "indirect cross-connection" shall mean a cross-connection which is subject to back-siphonage only.

13. Cross-Connection (Controlled). A connection between a potable water system and a non-potable water system with an approved backflow prevention assembly properly installed and maintained so that it will continuously afford the protection commensurate with the degree of hazard.
14. Cross-Connection, Direct. Any arrangement of pipes, hoses, fixtures, or devices connecting a potable water supply to a non-potable source which is permanent (i.e., a boiler feed line connected directly to potable water line, etc.). This definition does not apply to any City of Goldsboro, municipal or volunteer personnel engaged in public fire protection.
15. Cross-Connection, Indirect. Any arrangement of pipes, hoses, fittings, or fixtures that may be temporary in nature (i.e., garden hose; hose connected directly to a fire hydrant for filling a tank, etc.) connecting to a potable water supply to a non-potable supply.
16. Director. City of Goldsboro, Public Utilities Director, his successor or designee(s).
17. Double-Check Valve Detector Assembly (DCDA) (Approved). A double-check valve assembly, with a specific bypass water meter and a meter-sized approved double-check valve assembly. The meter shall register in U.S. gallons accurately for only very low rates of flow (up to 3-gallons per minute) and shall show a registration for all rates of flow. The unit shall include tightly closing shut-off valves located at each end of the assembly and each assembly shall be fitted with properly located test cocks. This assembly shall be used to protect against non-health hazard on fire line systems.
18. Double-Check Valve Assembly (DCVA) (Approved). Any assembly composed of two (2) independently acting, approved check valves, including tightly closing resilient seated shut-off valves located at each end of the assembly and suitable connections for testing the water tightness of each check valve.
19. Dwelling Unit. A single unit provides complete, independent living facilities for one (1) or more people including permanent provisions for living, sleeping, food preparation and sanitation, per Article 2 of the City of Goldsboro's zoning ordinance.
20. Fire System. A system of piping which may include sprinklers, hose connections, hydrants, or fixed spray nozzles that may be wet or dry, open or closed for the use of suppressing fires.
21. Hazard, Degree of. Either pollution (non-health) or contamination (health) hazard and is derived from the evaluation of conditions within a system. (1) Health - An actual or potential threat of contamination of a physical or toxic nature to the public potable water system or the Consumer's potable water system that would be a danger to health. (2) Plumbing - An internal or plumbing type cross-connection in a Consumer's potable water system that may be either a pollution or a contamination type hazard. This includes, but is not limited, to cross-connection to toilets, sinks, lavatories, wash trays and lawn sprinkling systems. Plumbing type cross-connections can be located in many types of structures including homes, apartment houses, hotels, and commercial or industrial establishments. Such a connection, if permitted to exist, must be properly protected by an appropriate type of

backflow prevention assembly. (3) Pollution - An actual or potential threat to the physical properties of the water system or the potability of the public or the Consumer's potable water system but which would not constitute a health or system hazard, as defined. The maximum degree or intensity of pollution to which the potable water system could be degraded under this definition would cause nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances. (4) System - An actual or potential threat of severe danger to the physical properties of the public or the Consumer's potable water system or of a pollution or contamination which would have a protracted effect on the quality of the potable water in the system.

22. Industrial Fluids. Any fluid or solution which may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration which would constitute a health, system, pollution, or plumbing hazard if introduced into an approved water supply. This may include, but not limited to, polluted or contaminated used waters; all types of process waters and "used waters" originating from the public potable water system which may deteriorate in sanitary quality; chemicals in fluid form; plating acids and alkalis; circulated cooling waters connected to an open cooling tower and/or cooling waters that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, streams, rivers, ponds, lakes, irrigation canals or system, etc.; oils, gases, glycerin's, paraffins, caustic and acid solutions and other liquid and gaseous fluids used industrially, for other processes, or for firefighting purposes.
23. Industrial Piping System (Consumer's). Any system used by the Consumer for transmission of or to store any fluid, solid, or gaseous substance other than an approved water supply. Such a system would include, but not limited to, all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances to produce, convey, or store substances which are or may be polluted or contaminated.
24. Interconnection. A connection between the City of Goldsboro's potable water supply system and an uncontrollable source of water, such as a private well. Interconnections are strictly PROHIBITED by this policy and State codes.
25. Isolation. The act of confining a localized hazard within a Consumer's water system by installing approved backflow prevention assemblies, or devices. The City of Goldsboro may make recommendations, upon facility inspection, as to the usage of isolation devices/assemblies, but does not assume or have responsibility whatsoever for such installations.
26. Laboratory, Testing (Approved). Refers to the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California (FCCCHR-USC) or another lab having the equivalent facilities for both the laboratory and field evaluation of the assemblies approved by the AWWA and/or ASSE.
27. Non-Potable Water. A water supply which has not been approved for human consumption by the North Carolina Division of Environmental Quality (NCDEQ), Public Water Supply Section.
28. Pollution. An impairment of the quality of the water to a degree which does not create a hazard to public health, but which does adversely and unreasonably affect the aesthetic qualities of such waters for domestic use.
29. Potable Water. Any public potable water supply which has been investigated and approved by the State of North Carolina Division of Environmental Quality, Public Water Supply Section. The system must be

operating under a valid health permit. In determining what constitutes an approved water supply, the NCDEQ, Public Water Supply Section has final judgment as to its safety and potability.

30. Premises. A building, complex, golf course, median, or any other location that receives water provided by the City of Goldsboro.
31. Pressure Vacuum Breaker (PVB) (Approved). A backflow prevention assembly suitable for continuous pressure, to be used to provide protection against back- siphonage.
32. Public Potable Water System. Any publicly or privately owned water system operated as a public utility, under a current permit, to supply water for domestic purposes. This system will include all sources, facilities, and appurtenances between the source and the point of delivery (service connection) such as valves, pumps, pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, treat, or store a potable water for public consumption or use.
33. Purveyor, Water. Owner or operator of a public potable water system, providing an approved water supply to the public and permitted by the State of North Carolina to do so.
34. Reduced Pressure Principal Prevention Assembly (RPZ or RP) (Approved). An assembly containing two (2) independently acting approved check valves together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located resilient seated test cocks and tightly closing resilient seated shut-off valves at each end of the assembly. This assembly is designed to protect against a non-health (i.e., pollutant) or a health (i.e., contaminant). This assembly shall not be used for backflow protection of sewage or reclaimed water.
35. Reduced Pressure Principal Detector Assembly (RPDA) (Approved). A specially designed assembly composed of a line-sized approved reduced pressure principal backflow prevention assembly with a specific bypass water meter and a meter-sized approved reduced pressure principal backflow prevention assembly. The meter shall register in U.S. gallons accurately for only very low rates of flow (up to three gallons per minute) and shall show a registration for all rates of flow. This assembly shall be used on fire protection systems.
36. Service Connection. The terminal end of a service connection from the public potable water system, (i.e., where the water purveyor may lose jurisdiction and sanitary control of the water at its point of delivery to the Consumer's water system). If a water meter is installed at the end of the service connection, then the service connection shall mean the downstream end of the water meter.
37. Thermal Expansion. Expansion is attributed to heating water in an enclosed container such as a water heater.
38. Unapproved Water Supply. A water supply which has not been approved for human consumption by the State of North Carolina.
39. Used Water. Any water supplied by a water purveyor from a public potable water system to a Consumer's water system after it has passed through the service connection and is no longer under the control of the water purveyor (City of Goldsboro).

E. WATER SYSTEM.

1. The water system shall be considered as made up of two (2) parts: The

City of Goldsboro's (water purveyor) System and the Consumer's System.

2. The City of Goldsboro is permitted as a treatment and supply system by the State of North Carolina since the City of Goldsboro does treat water from a natural source (i.e., well, spring, stream, river, pond, lake, etc.). The City of Goldsboro sells some portion of its water to other State-permitted water purveyors. The City of Goldsboro's System shall consist of treatment facilities, pumping, storage and distribution including all those facilities of the water system under the complete control of the City of Goldsboro, up to the point where the Consumer's System begins (service connection).
3. The source shall include all components of the facilities utilized in the treatment, storage, and delivery of water to the City of Goldsboro's distribution system.
4. The distribution system shall include the network of conduits used for the delivery of treated water from the source to the Consumer's System.
5. The Consumer's System shall include those parts of the facilities beyond the termination of the City of Goldsboro's distribution system (service connection) which are utilized in conveying potable water to points of use.

F. RIGHT OF ENTRY.

The Director, or his assigned representative, or his authorized representative(s), shall have the right to enter any building, structure, or premises during normal business hours to perform any duty imposed upon him or her by this policy. Those duties may include sampling and testing of water, or inspections and observations of all piping systems connected to the public water supply. Refusal to allow entry for these purposes shall result in enforcement action (disconnection of water services, stipulated penalties, etc.). On request from the Director, or his assigned representative, the Consumer shall furnish to the City of Goldsboro any pertinent information regarding the water supply system on such property where cross-connections, either actual or potential, and backflow are deemed possible. The Consumer's system should be open for inspection at all reasonable times to authorized representatives from the City of Goldsboro to determine whether unprotected cross-connections or other structural or sanitary hazards, including violations of this policy, exist. Refusal to allow entry for these purposes shall result in enforcement action (disconnection of water services, stipulated penalties, etc.). When such a condition becomes known, the Consumer shall be notified, in writing, to disconnect the unprotected cross-connection(s) within a time period established in this policy. The degree of protection required, and the period of time required for conformance shall be commensurate with the actual or potential degree of hazard to the public potable water supply system.

1. Cross-connection with private wells or other unapproved auxiliary water supplies require immediate disconnection of unapproved sources.
2. Cross-connection requiring correction through: (1) elimination; (2) air gap separation. (3) reduced pressure principal backflow prevention assembly (RP) or double check valve assembly (DCVA) for sizes 3/4" through 2" require thirty (30) day maximum conformance period.
3. Cross-connection requiring correction through reduced pressure principal backflow prevention assembly (RP) or double check valve assembly (DCVA) for sizes greater than 2" require one hundred twenty (120) day maximum conformance period.
4. Upon completion of the above requirements, the Consumer shall be required to submit, in writing, notification of compliance to the Director, or his assigned representative.

G. BACKFLOW ASSEMBLY INSTALLATION. An approved backflow prevention assembly shall also be installed, in accordance with manufacturer's installation instructions, on each Consumer's water system at or near the property line or immediately inside the building being served; but, in all cases, before the first branch line leading off the service line wherever the following conditions exist:

1. In the case of premises having an auxiliary water supply which is not or may not be of safe bacteriological or chemical quality and which is not acceptable as an additional source by the State of North Carolina, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line commensurate with the degree of hazard.
2. In the case of premises on which any industrial fluids or any other objectionable substance is handled in such a manner as to create an actual or potential hazard to the public water system, the public system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line commensurate with the degree of hazard. This shall include the handling of processed waters and waters originating from the water purveyor's system which have been subject to deterioration in quality.
3. In the case of premises having: (1) internal cross-connections that cannot be permanently corrected or protected against, or (2) intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not dangerous cross-connections exists, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line commensurate with the degree of hazard.

Ownership, testing, and perpetual maintenance of the backflow prevention assemblies shall be the responsibility of the Consumer. All reduced pressure principal assemblies (RP) and double check valve assemblies (DCVA) shall be installed above ground in a protective enclosure or inside the building, if the building is less than 200 linear feet from the water main serving the Consumer. Pit and/or below grade installations are PROHIBITED. The installer shall be responsible for ensuring that the assembly is installed and working properly and shall furnish the following information to the Director, or his assigned representative within five (5) working days after a backflow prevention assembly is installed:

- a. Owners' name, address, phone number, and responsible contact.
- b. Assembly location (specific).
- c. Date of installation.
- d. Installer's name, address, and phone number.
- e. Installer's certification number.
- f. Type of assembly.
- g. Manufacturer.
- h. Model number.
- i. Serial number.
- j. *Test results/reports.

*All reduced pressure principal assemblies (RP) and double check valve assemblies (DCVA) are required to be tested following installation by a certified backflow prevention

assembly technician (tester).

All commercial and industrial Consumers connected to the public potable water system of the City of Goldsboro on or before the effective date of this policy, upon notification from the City of Goldsboro, shall install or have installed an approved backflow prevention (containment) assembly, commensurate with the degree of hazard. The period allowed for this installation shall not exceed the following:

<u>Degree of Hazard</u>	<u>Time Frame, days</u>
<u>2" Service or Smaller:</u>	
Low	60
Medium	60
High	30
<u>Service Greater Than 2":</u>	
Low	180
Medium	180
High	120

Submit plans and specifications sealed by a registered engineer to the Director, or his assigned representative for review and approval. Acquire all necessary permits prior to installation. Upon satisfactory installation of approved backflow prevention assembly and appurtenances, forward a certificate of completion to the Director, or his assigned representative.

H. TYPE OF BACKFLOW ASSEMBLY. The type of backflow prevention assembly to be installed to protect the public potable water supply required by this ordinance shall be commensurate with the degree of, either actual or potential, hazard. Any backflow prevention assembly required herein shall be a make, model, and size approved by the City of Goldsboro. The term "approved backflow assembly" shall mean an assembly that has been manufactured in full conformance with the standards established by the American Water Works Association (AWWA) entitled:

AWWA/ANSI C501-92 (or subsequent revisions) Standard for Double Check Valve Backflow Assemblies.

AWWA/ANSI C11-92 (or subsequent revisions) Standard for Reduced Pressure Principal Backflow Prevention Assemblies and have met completely the laboratory and field performance specifications of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California (FCCCHR-USC) established in:

Specifications of Backflow Prevention Assemblies - Section 10 of the most current edition of the Manual of Cross Connection Control.

I. TESTING & MAINTENANCE. It shall be the responsibility of the Consumer at any premise where backflow prevention assemblies are installed to have a field test performed by a certified backflow prevention assembly technician (tester) upon installation and at least once per year for the life of the assembly. Irrigation backflows only have to be tested once every three (3) years. In instances where the Director, or his assigned representative, deems the hazard to be great enough, he may require field tests at more frequent intervals. These tests shall be at the expense of the Consumer (water user) and shall be performed by a certified technician (tester) approved by the State of North Carolina. It shall be the responsibility of the Director, or his assigned representative, or his authorized representative, to see that these tests are conducted in a timely manner.

All tests must be completed on or before December 31 of each year. If problems are detected with the backflow prevention assembly(s), it is the responsibility of the

Consumer to report these discrepancies to the Director, or his assigned representative within five (5) working days of detection. These assemblies shall be repaired, overhauled, or replaced at the expense of the Consumer whenever said assembly(s) are found to be defective. Records of such tests, repairs, overhauls, and replacements shall be kept by the Consumer and shall be made available to the City of Goldsboro.

All presently installed backflow prevention assemblies which do not meet the requirements of this ordinance but were approved devices for the purposes described herein at the time of the installation and which have been properly maintained, shall, except for the testing and maintenance requirements, be excluded from the requirements of this policy as long as the Director, or his assigned representative is assured that the affected backflow prevention devices/assemblies will satisfactorily protect the City of Goldsboro's water supply system. Whenever the existing device/assembly is moved from the present location or requires more than minimum maintenance or when the Director, or his assigned representative determines that the maintenance constitutes a hazard to health, the device/assembly in question shall be replaced with an approved backflow prevention assembly meeting or exceeding the requirements of this policy at the Consumer's expense.

If it is not possible to interrupt the water service, provisions shall be made for a "parallel installation" of backflow prevention assemblies. The Director, or his assigned representative shall not accept an unprotected bypass around a backflow prevention assembly when the assembly is in need of testing, repair, or replacement.

When repair work is required on any approved backflow prevention assembly, whether determined through testing or routine inspection by the Consumer (owner) or by the City of Goldsboro (water purveyor), these repairs shall be completed within a specified period of time commensurate with the degree of hazard at the Consumer's expense. In no case shall this period of time exceed thirty (30) days.

J. CATEGORICAL FACILITIES. Approved backflow prevention assemblies shall be installed on the service connection to any premises that the City of Goldsboro has identified as having potential for backflow, including but not limited to, the following:

1. Amusement Parks.
2. Automotive Plants.
3. Automotive Service Stations (dealerships, repair shops, etc.).
4. Auxiliary Water System:
5. Private Water Supply.
6. "Used Water", "Re-Use Water" and "Industrial Fluids".
7. Bakeries.
8. Beauty Shops/Barber Shops.
9. Beverage Bottling Plants.
10. Breweries.
11. Buildings (hotels, motels, apartments, public and private buildings or other structures having unprotected cross-connections).
12. Buildings of Five (5) or more stories above ground level.
13. Canneries, Packing Houses, and Rendering Plants.
14. Chemical Plants (manufacturing, processing, and compounding or treatment).
15. Chemically Contaminated Water System.
16. Commercial Car Washing Facilities.
17. Commercial Greenhouses.
18. Commercial Laboratories.
19. Commercial Sales Establishments (department stores, malls, etc.).
20. Concrete/Asphalt Plants.
21. Dairy and Cold Storage Plants.
22. Electroplating Processes.
23. Film Laboratories.
24. Fire Systems.
23. Hospitals, Medical Buildings, Sanitariums, Morgues, Mortuaries, Autopsy Facilities, Funeral Homes, Nursing & Convalescent Homes, Medical Clinics

- and Veterinary Hospitals.
24. Industrial Facilities.
 25. Irrigation Systems (lawn, commercial, etc.).
 26. Laundry and Dye Works.
 27. Metal Manufacturing, Cleaning, Processing, and Fabricating Plants.
 28. Mobile Home Parks.
 29. Motion Picture Studios.
 30. Oil and Gas Production, Storage or Transmission Properties.
 31. Painting and Staining Operations Related to Finished Woods and Metals.
 32. Paper and Paper Product Plants.
 33. Pest Control (exterminating & fumigating).
 34. Pharmaceutical Manufacturing.
 35. Plating Plants & Facilities.
 36. Plastic Molding Facilities.
 37. Power Plants.
 38. Radioactive Materials or Substances (plants or facilities handling).
 39. Restaurants.
 40. Restricted, Classified, or Other Closed Facilities.
 41. Rubber Plants (natural & synthetic).
 42. Sand and Gravel Plants.
 43. Schools and Colleges.
 44. Swimming Pools.
 45. Water Treatment Facilities.
 46. Waterfront & Port Facilities & Industries.
 47. Wastewater Treatment and Storm Drainage Facilities.
 48. Weaving, Spinning Operations.
 49. Other premises specified by the Director, or his assigned representative, or his authorized representative, can be shown that a potential cross-connection hazard, not enumerated in the above list, exists.

All backflow prevention assemblies and installations shall be subject to approval and inspection by the City of Goldsboro.

K. CONNECTION TO UNAPPROVED WATER SUPPLIES. No person shall connect or cause to be connected any supply of water not approved by the State of North Carolina to the public potable water supplied by the City of Goldsboro. Any such connection allowed by the City of Goldsboro must be in conformance with the backflow prevention requirements set forth in this policy.

L. FIRE PROTECTION SYSTEMS. All connections to fire sprinkler systems hereinafter connected with the public water supply system shall be protected with an approved backflow prevention assembly (i.e., double check valve detector assembly, etc.) in conformance with specific standards established by the American Water Works Association (AWWA) (or subsequent versions) and the National Fire Prevention Association (NFPA) (or subsequent revisions). All fire systems using toxic additives or booster pumping facilities shall be required to be protected with an approved reduced pressure principal detector assembly (RPDA) at the main.

Except for an eminent health hazard as defined herein, as determined by the Director, or his assigned representative, or his authorized representative, any fire sprinkler system connected with the public potable water system of the City of Goldsboro on or before the effective date of this policy, shall have twenty-four (24) months to get into conformance with the provisions of this policy.

M. CONTROLLED CROSS-CONNECTIONS (TEMPORARY). The purpose of this section is to describe an acceptable use of a controlled cross-connection (temporary) between the City of Goldsboro's water supply system and a non-potable source (i.e., filling a tank or tanker from a fire hydrant for use other than fire protection). This shall be accomplished through the use of an approved meter and a reduced pressure principal assembly (RP) or an air gap properly installed and maintained so that it will continuously afford the required protection. At no time shall this temporary cross-connection be unprotected.

N. ENFORCEMENT. Any person, firm, or corporation responsible for an installation or action found not to be in compliance with this policy shall be issued a Notice of Violation (NOV) specifying corrective action, if required, enforcement action to be taken by the City of Goldsboro, if required, and a specified period of time to achieve compliance, if required.

As provided herein, termination of water service is a remedy available to the City of Goldsboro to enforce any of the provisions of this policy. A violation of any of the provisions of this policy shall constitute a misdemeanor, punishable as provided in G.S. Section 14-4, with a fine not to exceed five hundred dollars (\$500).

1. Direct Cross-Connection - Any installation which remains in noncompliance after notice is given, and the time prescribed in Section G.3 shall be considered in violation of this policy and shall realize the disconnection of water service(s) until compliance is achieved and/or possible legal action. In addition, any person who shall continue any violation beyond the time limit provided for in the aforementioned NOV and Section G.3 shall be subject to a penalty in the amount not to exceed one-hundred dollars (\$100) for each violation. Each day on which any violation continues after the offender has been notified of the violation shall be deemed a separate offense.
2. Indirect Cross-Connection - Any installation or action found to be in noncompliance of this policy shall be considered in violation of the same. In addition, any person found to be in violation of this policy shall be fined in the amount not to exceed one-thousand dollars (\$1000) for each violation. If the installation or action involves the theft of water, said offender shall be charged according to state and local law and shall pay, in full, the cost for the estimated usage (See rate schedule currently in force) to the City of Goldsboro.

Enforcement of this program shall be administered by the Director, or his assigned representative or by an authorized representative.

The City of Goldsboro Manager, or his/her authorized representative, is authorized to make all necessary and reasonable rules and policies with respect to the enforcement of this policy. All such rules and policies shall be consistent with the provisions of this policy and shall be effective upon the date of adoption by the City of Goldsboro City Council.

O. INSTALLATION OF RAIN SENSOR DEVICES REQUIRED ON NEW AUTOMATIC IRRIGATION SYSTEMS.

a. **Definitions.** The following terms, when used in this section, shall have the meanings indicated below.

1. Automatic irrigation system means a device or combination of devices having a hose, pipe, or other conduit installed in the landscape which transmits potable water from City of Goldsboro, through which said device or combination of devices potable water supplied by City of Goldsboro is drawn and applied to residential or commercial lawns, landscapes, or greenspace.
2. Rain sensor means an automatic device that will override the irrigation cycle of an automatic irrigation system, thus turning it off, when a predetermined amount of rain has fallen. To meet the requirements of this section, a rain sensor shall be adjusted to shut off irrigation systems when up to one-fourth inch of rain has fallen.

b. **Required installation.**

1. New installation. From and after May 1, 2008, rain sensors shall be

required on all automatic irrigation systems that will receive City of Goldsboro potable water.

2. Existing systems. Property owners with existing irrigation systems installed prior to May 1, 2008, are encouraged but not required to install a rain sensor.
- c. **Required maintenance.** All rain sensors shall be adjusted and set so that they automatically shut off the irrigation system after not more than one-fourth inch of rainfall has occurred. All rain sensors shall be installed according to manufacturer's instructions in a location that will provide full exposure to rainfall such that accuracy of operation is assured and shall be maintained in good working condition. No person shall, with the intent of circumventing the purpose of this section, adjust either the rain sensor or irrigation system so that the rain sensor is not able to override and turn off the irrigation system after one-fourth inch of rain has fallen.
- d. **Enforcement.** The Public Utilities Director, or his assigned representative or designee shall be responsible for enforcing this section. Whenever the Director, or his assigned representative determines that a violation of this section exists, the Director, or his assigned representative shall issue a written citation identifying the date, location, and nature of the violation, the person cited, and specifying the penalty and the date by which the penalty must be paid.
- e. **Penalties.** Penalties for violation of this Section of the Cross Connection and Backflow Protection Policy are included in Section N of this policy.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and City Council of the City of Goldsboro, North Carolina:

1. That City of Goldsboro Unified Development Ordinance is hereby amended to add Section 6.8 Engineering Design Manual.
2. The above amendment is effective on June 1, 2026.

Adopted this 2nd day of March, 2026.

Charles Gaylor, Mayor

Attested by:

Laura Getz, City Clerk

UDO TEXT AMENDMENT APPLICATION

Applicant Name*:

Address:

Phone:

Email:

Zoning District:

Parcel Identification Number:

UDO Section proposed for Amendment:

Explain the reason for your request:

Proposed Language of Text Amendment: (Use Exact language) (Attach additional pages if necessary.)

Proposed Language of Text Amendment: (Continued, if needed.)

APPLICANT ACKNOWLEDGEMENT

By submitting this application, you agree to the following statement:

I certify that I have read the instructions to this application and that the information I have included, and any accompanying documentation, is complete and accurate to the best of my knowledge.

SIGNATURE REQUIRED

Applicant – Printed

Applicant Signature

Date

~~Application Fee: \$ 500 (Includes advertisement fee)~~

Fee Type: ☐ Cash ☐ Check # ☐ Credit Card

Application Number: UDO-2-26 Date processed: _____ Initials: _____

**CITY OF GOLDSBORO
AGENDA MEMORANDUM
FEBRUARY 4, 2026 PLANNING COMMISSION/BOARD OF ADJUSTMENT
MEETING**

TITLE: UDO-03-26 Unified Development Ordinance amendment to remove the sidewalk fee in lieu money

DEPARTMENT: Planning

BACKGROUND:

As development activity continues to grow within the jurisdiction, the need for consistent, high-quality engineering design standards has become increasingly important. Allowing for sidewalk fees in lieu is an obsolete practice that has resulted in gaps in the sidewalk network, limiting connectivity and safe pedestrian access throughout the community.

DISCUSSION:

The fee-in-lieu of sidewalk provision is being removed to ensure that pedestrian infrastructure is constructed at the time of development rather than deferred. Requiring direct sidewalk installation ensures consistent implementation of the municipality's transportation and pedestrian plans. This change promotes walkability, enhances public safety, and protects long-term infrastructure planning goals.

BUDGET RELATIONSHIP:

N/A

STRATEGIC PLAN RELATIONSHIP:

N/A

STAFF RECOMMENDATION:

Planning Staff recommends that the Planning Commission approve these ordinance changes to better the future of development in and around the city. If approved, the recommended changes will be taken to a public hearing at the March 2, 2026 City Council Meeting.

MANAGER'S RECOMMENDATION:

APPROVERS

Kenny Talton
Mark Helmer

ORDINANCE NO. 2026 -

AN ORDINANCE AMENDING THE CITY OF GOLDSBORO UNIFIED DEVELOPMENT ORDINANCE TO AMEND SECTIONS 5.6.11 AND 7.1.6

WHEREAS, after notice duly given according to law, a public hearing was held before the City Council at a regular meeting held in the City Council Chambers, 214 N. Center St. in the Historic City Hall building, on **Monday, March 2, 2026**, at 5:30 p.m., for the purpose of considering and discussing the passing of an ordinance amending the City of Goldsboro Unified Development Ordinance; and

WHEREAS, City of Goldsboro Engineering Department, has submitted a petition to amend the text of the City of Goldsboro, North Carolina, Unified Development Ordinance Sections 5.6.11 C. Sidewalks and 7.1.6 Sidewalks, to remove references to sidewalk fees in lieu; and

WHEREAS, the applicant is proposing for a comprehensive text amendment that will remove language from the City of Goldsboro Unified Development Ordinance, Sections 5.6.11 C. Sidewalks and 7.1.6 Sidewalks, to remove references to sidewalk fees in lieu; and

WHEREAS, the proposed amendment would remove language pertaining to the requirement for sidewalk fees in lieu of installing sidewalks; and

WHEREAS, after completion of said public hearing the City Council of the City of Goldsboro deems it advisable and for the best interest of the City and those residing within its zoning jurisdiction that the City of Goldsboro Unified Development Ordinance be amended; and

WHEREAS, the City Council further deems it advisable and for the best interest of the City and those residing within its jurisdiction that the following City of Goldsboro Unified Development Ordinance amendment for the City of Goldsboro, North Carolina, be **adopted**.

5.6.11 NONCONFORMING FEATURES

C. SIDEWALKS

Properties that are nonconforming in regards to having sidewalks installed along the property frontages shall be required to install sidewalks ~~or pay the fee in lieu as allowed by Section 7.1.6~~ when an existing structure or use is expanded, enlarged, or intensified, and the property is located on a roadway designated as recommended for sidewalks as shown on Figure 21 entitled “Existing & Proposed Pedestrian Facilities”, and Figure 22 entitled “Inset of Existing & Proposed Pedestrian Facilities” ~~adopted in conjunction with the Goldsboro Urban Area 2050 Metropolitan Transportation Plan, 6.4 entitled “Recommended Pedestrian Facilities” adopted in conjunction with the current Goldsboro Urban Area Long Range Transportation Plan Update~~ and as follows:

- If the existing building or parking is expanded more than fifty percent (50%) of the original building or parking area, collectively or separately, sidewalk construction is required;
- Repairs and renovations collectively costing more than fifty percent (50%) of the tax value as recorded in the Wayne County Tax Record at the date of application shall require sidewalk construction.

7.1.6 SIDEWALKS

Sidewalks, walkways and other pedestrian ways shall be provided by the developer within and/or adjacent to any major subdivision. All sidewalks shall be located within the public right of way, be installed to City standards and shall be approved by the City Engineer in coordination with the Administrator.

Sidewalks required by street type are as follows:

1. Sidewalks shall be provided along both sides of all major thoroughfares as shown on the official Thoroughfare or Transportation Plan.

2. Sidewalks shall be provided along one side of all minor streets, including cul- de-sacs.

~~When sidewalk construction is required by this the Administrator may allow the developer the option of paying a fee in lieu for sidewalk construction. The fees acquired from this ordinance shall be used for sidewalk projects within the City of Goldsboro and its planning and development regulation jurisdiction. The City of Goldsboro reserves the right to require sidewalk construction and not allow a fee in lieu. The fee for sidewalk construction shall be \$18.00 a lineal foot. Driveways shall be subtracted from the lineal frontage of the property.~~

The design and arrangement of all sidewalks shall be in accordance with City standards, provide for extension to adjoining properties and be shown on the preliminary plat.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and City Council of the City of Goldsboro, North Carolina:

- 1. That City of Goldsboro Unified Development Ordinance Sections 5.6.11 C. Sidewalks and 7.1.6 Sidewalks, be amended to remove references to sidewalk fees in lieu.
- 2. The above amendment is effective on June 1, 2026.

Adopted this 2nd day of March, 2026.

Charles Gaylor, Mayor

Attested by:

Laura Getz, City Clerk

UDO TEXT AMENDMENT APPLICATION

Applicant Name*:

Address:

Phone:

Email:

Zoning District:

Parcel Identification Number:

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Explain the reason for your request:

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Applicant – Printed

Applicant Signature

Date

~~Application Fee: \$ 500 (Includes advertisement fee)~~

Fee Type:

☐

Cash

☐

Check #

☐

Credit Card

Application Number: UDO-3-26

Date processed: _____

Initials: _____