

Exhibit C

RA-25002, Stormwater Regulation Zoning Ordinance and Subdivision Regulation Amendments

**** *DRAFT* **** Amendment

Version 1

Presented to PC 3/13/2025

****CURRENT ARTICLE 12 AS AMENDED THROUGH ORD 1057****

ARTICLE 12. EROSION AND SEDIMENT CONTROL

12.01 EROSION AND SEDIMENT CONTROL

Persons engaged in land-disturbing activities shall take all reasonable measures to protect all public and private property, including roadways, from damage by such activities. In addition, owners shall comply with all applicable laws, rules and regulations, including Federal and State regulations regarding the discharge of storm water. For all projects required by the Alabama Department of Environmental Management (ADEM) to obtain a national pollutant discharge elimination system (NPDES) permit, a copy of said permit shall be provided to the City Planner and Building Official prior to the land disturbance activities. For projects requiring an NPDES permit, owners shall prepare a Construction Best Management Practices Plan (CBMPP) in accordance with ADEM requirements. It shall be the responsibility of the owner to design, install and maintain an ADEM-approved CBMPP. Where required by ADEM, owners shall provide the City Planner and Building Official with a copy of its CBMPP prior to land disturbance activities.

****DRAFT ARTICLE 12, VERSION 1****
PRESENTED TO THE PLANNING COMMISSION
MARCH 13, 2025

ARTICLE 12. STORMWATER MANAGEMENT AND EROSION CONTROL REGULATIONS

12.01 STORMWATER MANAGEMENT

The main objective of drainage design shall be the safety of the public with the protection of City and private property consistent with good engineering practices.

12.01.01 General Requirements

The responsible Design Engineer shall not submit any plat of a Subdivision or Commercial Development which does not make provisions for stormwater runoff as required by these regulations. The stormwater drainage system shall be separate and independent of any sanitary sewer system.

The Applicant shall submit a design narrative, delineated drainage maps, summary table, and complete drainage calculations, including but not limited to assumptions, maps, and computations for each inlet, pipe, or ditch section. The design data and calculations shall be prepared, sealed, and submitted by a Professional Engineer licensed in the State of Alabama. The design narrative shall summarize the assumptions, calculations, and results of the design for the whole project as well as each drainage basin.

12.01.01.01 Restriction of Stormwater Flow

Fill may be used to alter the existing grades, provided that proposed fill does not restrict the flow of water from adjacent properties or unnaturally redirect stormwater to adjacent properties.

12.01.01.02 Securing Drainage Rights

When a proposed new drainage system will increase runoff rate or point intensity into an unnatural water system or onto private land adjacent to the Development, drainage rights must be secured by the Applicant and indicated on the Final Plat.

12.01.01.03 Accommodation for Spring or Surface Water

The Applicant shall be required to carry away by pipe or open ditch any spring or nuisance surface water that exists either previous to, or as a result of, the Development. Such drainage facilities shall be located in the road right-of-way where feasible, or in common areas with perpetual unobstructed drainage easements of sufficient width.

12.01.01.04 Disposal of Stormwater

Provision shall be made for the disposal of stormwater into existing channels, pipes, or waterbodies.

12.01.01.05 Accommodation of Upstream Drainage Areas

The Design Engineer shall provide for the accommodation of offsite drainage from upstream properties. The method(s) used to accommodate the Development from the upstream properties must be identified in the design calculations.

12.01.01.06 Effect on Downstream Drainage Areas

The Design Engineer shall review the effect of the Development on existing downstream drainage facilities outside the area of the Development. Where it is anticipated that the additional runoff incident to the development will overload an existing downstream drainage facility, the City Engineer or designee may withhold approval of the Development until provisions have been made for the necessary downstream improvements.

Stormwater discharges from the proposed Development must be routed to an existing natural or manmade stormwater channel with adequate capacity. Calculations must be submitted that shows the capacity of the receiving stormwater channel to handle the required design storms. The routing calculations must extend, at a minimum, as far as the second downstream street crossing or to a named water body. Routing calculations must extend further downstream if the City has reasonable concerns about the capacity of a downstream stormwater channel based on scientific or engineering evidence. Analysis of the downstream system shall include flow capacity and velocity for existing and proposed flow conditions.

12.01.01.07 Pre & Post Developments

Post-development discharge from stormwater facilities shall be equal to or less than pre-development conditions for a 2-, 5-, 10-, 25-, 50- & 100-year storm event. In no case shall the discharge from a drainage basin exceed the hydraulic capabilities of the downstream drainage structures and facilities.

12.01.01.08 Stormwater Outfalls

Stormwater management facility outfalls shall be installed a minimum of twenty-five feet (25') from the property line and shall include velocity dissipaters as required by the City to prevent offsite erosion and allow for future maintenance. Exceptions may be approved by the City.

12.01.02 Stormwater Management Facilities

12.01.02.01 Developments which produce an increase in the amount of stormwater runoff will be required to construct stormwater management facilities. The Design Engineer shall submit detailed engineering calculations and plans to the City including historical runoff, developed runoff, developed runoff with detention/retention, stormwater facility details, method of discharge, and other information as required for review. Post development release rates shall not exceed pre-development rates.

12.01.02.02 The Developer and Design Engineer shall also include the method of Operation and Maintenance (an O&M Plan) for the stormwater management facilities and all Low Impact Development (LID) methods with the Final Plat application. Retention/detention facilities shall be owned, operated, and maintained by development entities and shall not be accepted for maintenance by the City of Bay Minette. No Drainage Facilities, other than those within the Roadway Rights-of-Ways accepted by the City will be subject to maintenance by the City. Provisions shall be made to address catastrophic events including, but not limited to, emergency overflow spillways.

12.01.03 Minimum Requirements for Stormwater Facilities (Detention/Retention) and Design Criteria

12.01.03.01 Liability

The design criteria establish minimum elements of design which must be implemented with good engineering and good workmanship. Use of the information contained herein for placement of any structure or use of land shall not constitute a representation, guarantee, or warranty of any kind by the City of Bay Minette, its offices or employees, of the practicability, adequacy or safety, and shall not create liability upon or cause action against any such public body, office, or employee for any damage that may result pursuant thereto.

12.01.03.02 Engineer's Seal

All plans, specifications, and calculations submitted for review and/or approval shall be prepared and signed by a licensed engineer and shall meet the minimum standards and requirements of the City, and other applicable authorities. Each of the plan, profile, and special drawing sheets for a project shall bear a legible stamp of the Professional Engineer in charge. If the name or license number is not clear, the signature and number shall be added. It is imperative that the

professional Design Engineer be qualified in the area of drainage per the State of Alabama registration laws.

12.01.03.03 Method of Calculation

For drainage basins less than twenty (20) acres, the Engineer shall use the Rational Method for determining sizing of stormwater facilities, inlet spacing, roadway spread, and the sizing of opened and closed pipe network and collection basins. For drainage basins twenty (20) acres or greater, the Engineer shall use Regression Equations (rural or urban) or SCS Method.

12.01.03.04 General Location

Retention/detention facilities shall be located within the parcel limits of the project under consideration.

- a. No retention/detention or ponding will be permitted within public road rights-of-ways or within the Highway Construction Setback Line as per *Act No. 94-572* of the Legislature of Alabama. Location of retention/detention facilities off site will be considered by special request if proper documentation is submitted with reference to practicality, feasibility, and proof of ownership or right-of-use of the area proposed.
- b. No retention/detention facility shall be located in jurisdictional wetlands.
- c. Any existing onsite areas that currently retain stormwater shall be preserved within common areas and in their current state. If approved by the City, a Developer may fill in said areas if there are no jurisdictional wetlands involved, and if similar storage capacity is provided onsite and in the same drainage basin.
- d. In locations where the discharge from a development will flow into a tidally influenced body of water the City may consider waiving the stormwater management requirement, upon request by the design engineer. The Design Engineer will be required to control the velocity of stormwater leaving the site.

12.01.03.05 Common Areas and Stabilization

Stormwater management facilities and open swales (ditches) along with access to those facilities shall always be in common areas. Projects developed under these procedures shall establish (in the recorded plat) common areas for the retention/detention facilities and include provisions for maintenance in the covenants and restrictions.

- a. All drainage swales, detention and retention ponds, ditches, or similar stormwater conveyances shall receive solid sod and shall be fully established and stabilized before Final Plat approval.
- b. On wet ponds, sod shall be placed on the slope down to the water level.
- c. On dry ponds, sod shall be placed on the entire slope.
- d. An established solid stand of permanent vegetation may be accepted in lieu of solid sod if it is documented that fully established permanent vegetation and stabilization has been achieved.
- e. Disturbed common areas outside of the drainage system that do not discharge offsite can be seeded and mulched with an ALDOT-approved seeding mix. The seeds shall be germinating and the area moving towards permanent stabilization.

12.01.03.06 The entire reservoir area of the open channel shall be seeded, fertilized and mulched sodded, paved, or lined prior to Final Plat approval. Landscaping requirements may be located within common areas at the top of berms and provide access for ease of maintenance. Any landscaping within drainage features shall not impede flow paths or storage.

12.01.03.07 The hydraulic elevations resulting from channel retention/detention shall not adversely affect adjoining properties.

12.01.03.08 All existing stormwater culverts within the City's right-of-way shall not be permanently surcharged (submerged). Proposed stormwater systems can be pressurized and contain surcharged culverts and pipes if approved by the City. The volume of the surcharged culverts and pipes cannot be used to meet stormwater detention requirements. Conditional approval of surcharged systems may be required depending on site conditions and specifics of the proposed design.

12.01.03.09 Permanent Ponds/Lakes

Permanent ponds (wet ponds) or lakes with fluctuating volume controls may be used as retention/detention areas provided that the limits of maximum ponding elevations are no closer than thirty (30) feet horizontally from any building and less at least two (2) feet below the lowest sill elevation of any building.

- a. Maximum side slopes for the fluctuating area of permanent ponds/lakes shall be one (1) foot vertical to three (3) feet horizontal (3:1) unless proper provisions are included for safety, stability and ease of maintenance.
- b. Special consideration is suggested to safety and accessibility for children in design of permanent ponds/lakes in residential areas.
- c. Viability of the permanent impoundment shall be considered. An acceptable guideline is to make the area of the permanent pool no greater than one-tenth the size of the tributary drainage area. It is suggested that the minimum depth of twenty-five percent (25%) of the permanent pool area be no less than eight (8) feet. Allowances for silting under denuded soil conditions (during construction) for a period no less than one (1) year, is also recommended.
- d. The entire fluctuating area of the permanent reservoir shall be sodded or paved prior to Final Plat approval. Any area susceptible to or designed as overflow by higher design intensity rainfall, as indicated previously, shall be sodded or paved.

12.01.03.10 Other Methods

Other methods of retention/detention such as seepage pits, french drains, etc. are subject to approval by the City. If other methods are proposed, the Design Engineer shall submit documentation, including but not limited to soils data, percolation data, geological features, maintenance procedures, etc. for review and consideration.

12.01.03.11 Verification of Adequacy

Analysis of all elements of design is always performed by the Design Engineer. The following outline is provided to ascertain that certain critical elements of design are in workable compliance with the aims of design:

- a. Proof of adequacy of volume of retention for each drainage basin
- b. Tributary (Q) peak runoff to basin
- c. Balanced maximum outflow rate from the low-flow structure
- d. Ratios of inflow to outflow
- e. Sizing of the overflow facilities
- f. Stability of dikes
- g. Safety features
- h. Maintenance features
- i. Routing calculations in legible tabulated form
- j. Pre-development, Post-development, and Post-development with detention intensity/duration graphics shall be submitted to illustrate compliance.
- k. Projects involving complexity of design may require more documented verification.

Calculations shall be submitted that demonstrate the adequacy of the system for a 2-, 5-, 10-, 25-, 50- & 100-year storm event. Features of stability and safety may also need to be documented if the scope of the project requires special attention in this area of design.

12.01.03.12 Control Structures

Retention/detention facilities shall be provided with obvious and effective control structures. Plan view and sections of the structure with details shall be included in plans. In no case shall the discharge from a drainage basin exceed the hydraulic capabilities of the downstream drainage structures and facilities. Care should be taken in evaluating the following items in the design of the outlet control structure.

- a. The maximum overflow opening or emergency spillway shall be designed to accept the total peak runoff of the improved tributary area during the base flood.
- b. Proper engineering judgment shall be exercised in analysis of secondary routing of discharge of greater intensity than the basic design storm to avoid economic losses or damage downstream. Review of the maximum probable precipitation event is recommended.
- c. When existing downstream pipe sizing, outside the Developer's control jurisdiction, is inadequate, an evaluation for under sizing of pipes may be performed by the Developer and evaluated by the City. In no case shall the discharge from a drainage basin exceed the hydraulic capabilities of the downstream drainage structures and facilities.

12.01.04 Stormwater Management Conveyance Structures

12.01.04.01 Inlets shall be provided so that surface water is not carried across any intersection, or for a distance of more than 600 feet in the gutter. When calculations indicate that curb capacities are exceeded at a point, catch basins shall be used to intercept flow at that point. The spread of surface water carried in the gutter shall not exceed one half ($\frac{1}{2}$) of the design lane width. For storm event criteria, see the Baldwin County Commission Design Standards for New Road Construction.

12.01.04.02 The following storm event criteria shall be used for drainageways, drainage systems, bridges and box culverts.

- a. Side Drains or Lateral Storm Sewer: Minimum 10-year event
- b. Cross Drains: Minimum 25-year event*
- c. Bridge or Bridge Culvert: 50-year event*

*FEMA Flood Zone Requirements may require 100-year Design and FEMA Coordination.

A Bridge is defined as any Structure greater than twenty (20) feet of longitudinal length measured parallel to the roadway centerline. In all cases the Design Engineer must analyze the backwater that is produced and verify that no upstream property is being flooded or otherwise adversely affected.

12.01.04.03 Where the proposed Development has open ditches, a maximum of 3:1 side slopes and flat bottom ditch is required. V-bottom ditches or other special designs will be permitted in special cases as approved by the City Engineer or designee. Calculations shall show the volume and velocity for each different ditch section. Ditch lining shall be designed based on the stormwater velocity calculations. The longitudinal grade shall not be less than 0.5%. Where proposed lots will gain access across an existing or a proposed roadside ditch, calculations shall be submitted that show the required size of future driveway culverts. These culvert sizes must be shown on the Final Plat.

12.01.04.04 The Design Engineer shall use the Rational Method for determining sizing of stormwater facilities, inlet spacing, roadway spread, and the sizing of opened and closed pipe network and collection

basins for drainage basins less than twenty (20) acres. For drainage basins twenty (20) acres or greater, the Engineer may use Regression Equations (rural or urban) or SCS Method.

12.01.04.05 Calculations shall include a scale map of the off-site and on-site drainage areas; and the slope, type, size, flow, velocity, and the headwater and tailwater elevations for each pipe and structure.

12.01.04.06 Headwalls and Riprap

A minimum 3:1 concrete sloped paved headwall shall be required on all pipe culverts; 4:1 concrete sloped paved headwalls are required on pipe culverts that are parallel to traffic flow. Special types of headwalls, riprap, and other materials may be required by the City Engineer or designee when deemed necessary for erosion control, protection of existing downstream drainage facilities, and roadside safety. All headwalls and riprap installed pursuant to these regulations shall comply with the standards imposed by ALDOT.

12.01.04.07 When utilizing the Rational Method ($Q=cia$) for small basins (up to 20 acres), recommended values for “c” may be found in the *Alabama Department of Transportation Hydraulics Manual*; rainfall intensity, “i”, for a design storm derived from the time of concentration (t_c) can be obtained from the Intensity Duration-Frequency curves for Baldwin County (or any City within) produced by the National Weather Service: time of concentration (t_c) shall be calculated as specified in the *Alabama Department of Transportation Hydraulic Manual*.

12.01.05 Stormwater Management Preliminary Application Plan Sheet Requirements

A drainage Plan must be submitted at the time of Preliminary Plat Application, in the case of a Subdivision, or with the Submittal of a Commercial Site Plan Application. This Plan shall, at a minimum:

- a. Be on a sheet the same size as that submitted at the time of Preliminary Plat application and be at the same scale;
- b. Show the layout of the proposed lots and common areas;
- c. Show the existing one (1) foot contours of the subject property and all adjacent rights-of-ways;
- d. Show the location of all existing drainage structures within one hundred (100) feet of proposed development;
- e. Show the proposed flow direction of all stormwater;
- f. Show the proposed location of stormwater management facilities;
- g. Detail the stormwater facility's pre-construction and post construction development calculations and stormwater facility sizing;
- h. Show design Q at each outfall structure;
- i. Show FEMA flood zones;
- j. Show all wetlands and label as jurisdictional and non-jurisdictional. A thirty (30) foot wide buffer shall be maintained between the jurisdictional wetlands and all land disturbance.

12.01.06 Stormwater Management Construction Plan Requirements

The Design Engineer shall submit detailed drainage plans and calculations to the City for review and approval. Said plans and calculations shall be prepared, signed and sealed by a Professional Engineer licensed in the State of Alabama and shall contain the following information:

12.01.06.01 Topographic map of proposed developed areas showing existing and proposed contours at 1-foot intervals of the entire property and full width of all adjacent rights-of-way. Topographic information shall be based on the NAVD 88 datum. Elevations must be field verified. Greater intervals may be allowed, if approved by the City Engineer or designee;

12.01.06.02 Existing drainage system, including, but not limited to pipes, culverts, inlets, ditches, and ponds;

12.01.06.03 Proposed drainage facilities, structures, and conveyances, including pipes, culverts, junction boxes, inlets, ditches, retention/detention facilities, and an outline of the on-site drainage areas for

each inlet and ditch cross-section. All proposed pipes, culverts, junction boxes and inlets shall be labeled and presented in tabular form on the overall drainage plan, and the plan view of all Plan/Profile sheets;

- 12.01.06.04 Structure location, type, and size of all drainage structures, and the Inlet and Outlet Flowline Elevation;
- 12.01.06.05 Cross-section of each ditch section;
- 12.01.06.06 Detailed drawings of the control structure(s);
- 12.01.06.07 Typical sections of each stormwater facility;
- 12.01.06.08 As part of the subdivision design for lots less than 40,000 square feet in area, or when deemed necessary by the City, the Design Engineer shall set a finished floor elevation and ground elevations at the adjoining lot lines for each lot in the subdivision based upon the subdivision drainage plans. These elevations shall be adhered to when the lots are developed unless higher elevations are required due to flood zone requirements
- 12.01.06.09 Master Lot Grading Plan, when required. A plan drawn to a scale not less than 1:100 showing the proposed overall drainage and grading in a plan of Subdivision or Commercial Development. This plan must show:
 - a. Directions of stormwater flows within the limits of the development;
 - b. Existing and/or proposed roadway centerlines and grade elevations;
 - c. Proposed minimum elevation of the lowest floor;
 - d. Proposed drainage culvert size and location, if applicable;
 - e. Swale locations and an indication of the proposed drainage flow directions of the site including outfall locations from the property;
 - f. Elevations must be based on the NAVD 88 datum;
 - g. Each lot must be labeled to identify one of the grading types shown in *Figure 12.1* and *Figure 12.2*;
 - h. Finished floor elevations must be labeled for each lot and note when elevation certificate is required. Finished floor elevations must be a minimum of twelve (12) inches above the finished lot grade as shown in *Figure 12.3*;
 - i. For projects within a designated floodplain, the lot grading plan must depict the location and zoned designation of the special flood hazard area(s), the elevation of the proposed minimum lowest floor in AE zones, or the elevation of the proposed lowest horizontal structural member and V zone certification in VE zones;
 - j. Additional information may be required, such as topographic and wetland information as warranted by specific site conditions and project characteristics; and
 - k. Other pertinent information necessary for review of the drainage plans as may be required by the City Engineer, or designee.

Figure 12.1

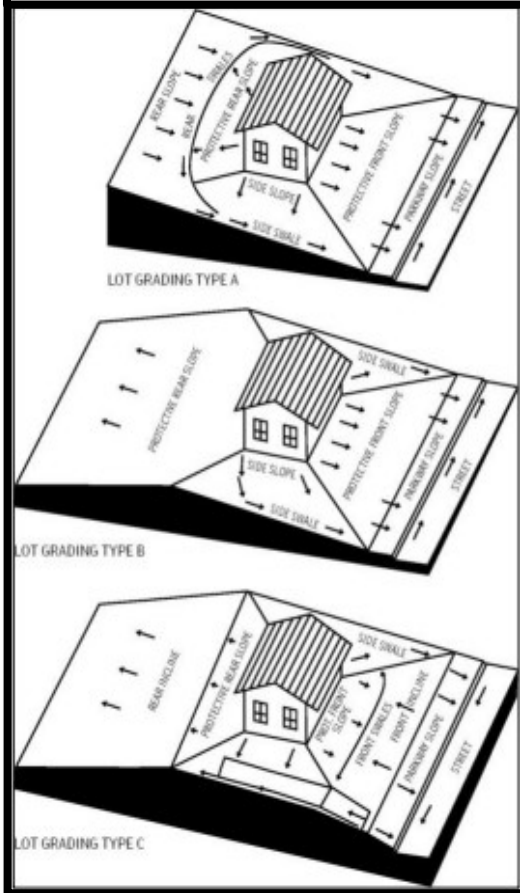


Figure 12.2

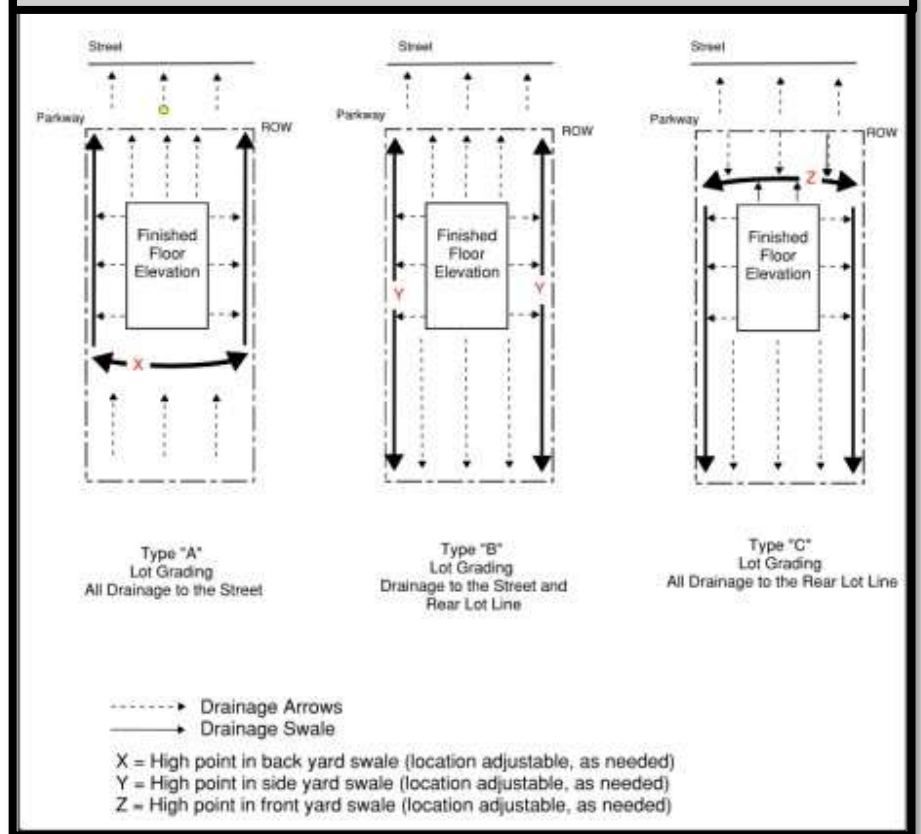
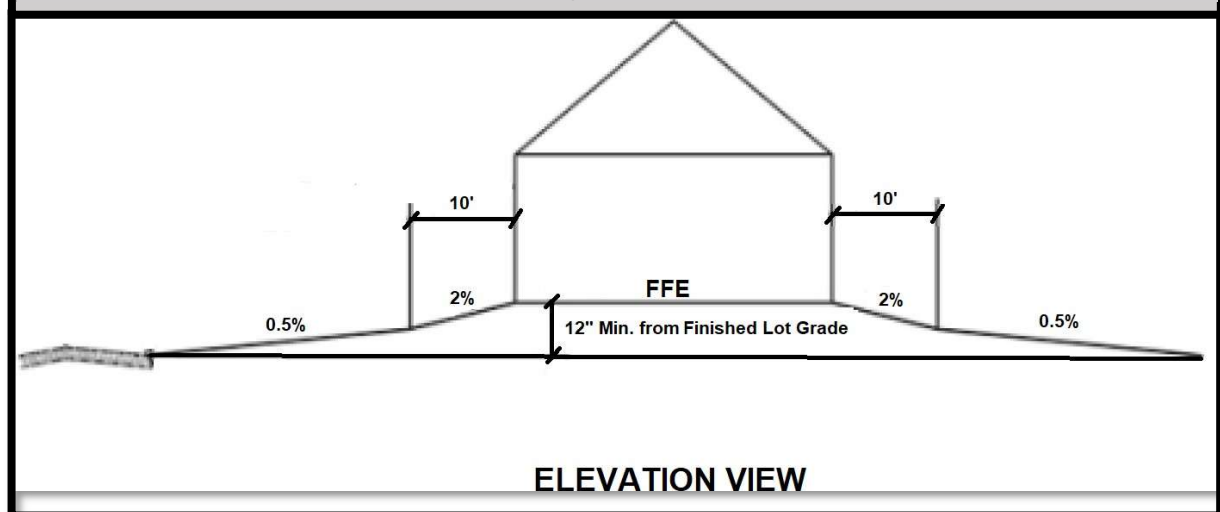


Figure 12.3



12.01.07 Stormwater Management Easements

12.01.07.01 General Requirements

Where a Development is traversed by a watercourse, drainage way, channel, or stream, there shall be provided a stormwater or drainage easement conforming substantially to the lines of such water course, and of such width and construction or both as will be necessary for the purpose as determined by the City or designee. Easement width must allow for maintenance access.

12.01.07.02 Drainage Easements

Where topography or other conditions are such as to make impractical the inclusion of drainage facilities within road rights-of-way, common areas with perpetual unobstructed easements at least twenty (20) feet in width for such drainage facilities shall be provided across property outside the road lines and with satisfactory access to the road.

- a. All existing and proposed easements shall be clearly indicated in the plan view of the proposed subdivision as depicted in the application for Preliminary Plat and Final Plat. Such easements will vary in width according to depth of structure.
- b. Where drainage facilities are adjacent to public rights-of-way or public property, no fence, hedgerow or other obstruction may be placed in such a manner as to obstruct access to the drainage facilities from such public right-of-way or public property.
- c. A note shall be added to the Final Plat that specifies the maintenance responsibilities of any drainage easements and common areas. The note shall also include a statement that the City of Bay Minette will not be responsible for maintenance of said common areas or drainage easements.

12.01.07.03 Side and Rear Lot Lines

A minimum fifteen-foot (15') (total width) drainage easement along all exterior side and rear lot lines, and a minimum ten feet (10') on each side along interior side and rear lot lines shall be provided to allow for the proper drainage of stormwater from both rear yards and off-site areas. Drainage easements should generally be indicated on Preliminary Plats and Final Plats exclusively with a note similar to the following:

DRAINAGE/UTILITY EASEMENTS

EXTERNAL REAR AND SIDE BOUNDARY LOT LINES: 15 FEET

INTERIOR REAR AND SIDE LOT LINES: 10 FEET

Unless requested by City Staff for clarity purposes, drainage and utility easement boundary lines generally should not be displayed in the plan view on Preliminary Plats and Final Plats.

12.01.08 Stormwater Conveyance Construction Requirements

12.01.08.01 All pipes shall be placed in excavated trenches to the line and grade shown on the plans.

12.01.08.02 All methods and materials used to construct and install all drainage pipes and structures shall adhere to current *ALDOT Specifications and Standard Drawings*. Structures proposed under traffic must be poured in place or precast concrete as per *ALDOT Standard Drawings*.

12.01.08.03 Plastic pipe with less than twenty-four inches (24") of cover will require anchor details.

12.01.08.04 For cross drain pipes, common driveway culvert pipes, or other stormwater pipes located under the driving surface or curbing, and for all other side drain pipes and pipes located outside of the right-of-way, a junction box suitable for maintenance and inspection access shall be provided at least every 300 feet and at each angle point and at each change in grade. All roadway cross drain pipes and common driveway culvert pipes shall be reinforced concrete and have a minimum size of eighteen inches (18") in diameter, or an equivalent arch pipe. Only pipe that meets

specifications equaling ALDOT Specifications will be acceptable. Pipes outside the travel way may be other ALDOT approved materials.

12.01.08.05 Where type “S” inlets are used in conjunction with valley gutters, construction plans must show a smooth and gradual transition from gutter to inlet not less than sixty inches (60”).

12.01.08.06 Unless otherwise approved by the City Engineer, all junction boxes shall be poured-in-place concrete or pre-cast concrete as per *ALDOT Standard Drawings*.

12.01.09 Maintenance

12.01.09.01 Stormwater management facilities, and conveyances, are to be built in conjunction with the storm sewer installation and/or grading. Since these facilities are intended to control increased runoff, they must be partially or fully operational prior to the clearing of the vegetation and subsequent construction. Silt and debris connected with early construction shall be removed periodically from the retention/detention area and control structure to maintain design storage capacity.

12.01.09.02 Responsibility for maintenance of the stormwater management facilities, conveyances, and other drainage structures within designated drainage easements shall remain with the Developer until such time as responsibility is transferred to a property/homeowner’s association. The Developer (and after the transfer of responsibility, the Property Owners Association) shall keep such stormwater facilities free of silt, debris, undergrowth and any vegetation which would interfere with the proper function thereof. The association shall clearly and explicitly accept responsibility for maintenance. These maintenance requirements do not imply that any drainage structures or systems are, or will become, the maintenance responsibility of the City of Bay Minette.

12.01.09.03 An Operation and Maintenance Plan (O&M) for the long-term operation and maintenance of all common areas including stormwater management infrastructures, retention and detention facilities, shall be submitted with the Final Plat application. The plan shall include:

- a. The approved as-built drainage plan;
- b. The chain of responsibility for maintenance of all drainage structures or systems along with a copy of the proposed instrument of organization for the Property Owners Association;
- c. Continued Inspection and Maintenance. The long-term maintenance plan within the O&M Agreement contains the inspection priorities and schedule for the stormwater facilities.
- d. The City Planner or authorized representative must be notified of any change in ownership.

12.01.10 Periodic Inspections and Maintenance General Requirements

12.01.10.01 Erosion Control Plan (ECP)

The Design Engineer shall submit an Erosion Control Plan as part of the Development Plans. Said plan shall be prepared by a Professional Engineer licensed in the State of Alabama. If the City Engineer or designee determines, upon review of such plan, that additional erosion control items are required, the Applicant shall include such requested items on the erosion control sheets in the Construction Plans.

12.01.10.02 Best Management Practices (BMPs)

BMPs shall be required for all land disturbing activities. It shall be the sole responsibility of the Contractor or Permittee to promptly implement effective BMPs in accordance with the Permittee’s Approved Permit prior to commencing the Land Disturbing Activity. The Permittee shall be solely responsible for ensuring that all BMPs are implemented and maintained for the duration of the Land Disturbing Activity. The Permittee shall also be solely responsible for ensuring that the BMPs are shown and detailed in the plan in accordance with established industry standards, good engineering practices, and all standards as set out in the current *Alabama Handbook*.

12.01.10.03 Design Criteria

All Best Management Practices including but not limited to erosion and sediment control measures, concrete washout, trash, etc. during and after construction shall meet the design criteria, standards and specifications given in the most current version of the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas*. The ECP shall be a part of the Construction Plans and shall meet the requirements of the ADEM General NPDES Permit prior to the commencement of any land-disturbing activity including but not limited to tree cutting and root removal.

12.01.10.04 Protection of Stormwater Structures

The Permittee shall provide the necessary measures to ensure that drainage structures important to overall stormwater management and control are not adversely affected by clearing, grading, or any other land disturbing activities and shall permanently stabilize with solid sod rights-of-ways disturbed during construction.

12.01.10.05 Site Stabilization

All drainage swales, detention and retention ponds, ditches, or similar stormwater conveyances shall receive solid sod and shall be fully established and stabilized before Final Plat approval. On wet ponds, sod should be placed on the slope to the water level. On dry ponds, sod will be placed on the entire slope. An established solid stand of permanent vegetation may be accepted in lieu of solid sod if it is documented that fully established permanent vegetation and stabilization has been achieved. Disturbed common areas outside of the drainage system that do not discharge offsite can be seeded and mulched with an ALDOT-approved seeding mix. The seeds shall be germinating and the area moving towards permanent stabilization.

12.01.10.06 ADEM NPDES General Permit

Land disturbance that results in a total land disturbance of one (1) acre or greater shall have permit coverage under the ADEM NPDES Construction General Permit prior to the issuance of the Development Construction Permit.

12.01.10.07 Protection of Property

Persons engaged in land-disturbing activities shall take all measures to protect all public and private property, including roadways, from damage by such activities.

12.01.10.08 More Restrictive Rules Shall Apply

Whenever there is a conflict between Federal, State, or local laws, ordinances, rules and regulations, orders, and decrees the more restrictive provision shall apply.

12.01.11 Periodic Inspections and Maintenance

12.01.11.01 Notification

The Applicant shall notify the City as soon as the initial BMPs have been installed so that an inspection of the BMPs can be made. Such an inspection shall be made within two (2) working days of said notice. No land disturbing activities, except those necessary to install the BMPs, shall take place until after the inspection is completed and approved.

12.01.11.02 Inspection

The Permittee shall ensure proper implementation, daily observation, regular inspection, and continual maintenance of effective Best Management Practices to prevent offsite impacts and impacts to downstream water quality.

The City may perform periodic inspections of the BMPs on the job site. Upon finding that erosion and sedimentation is taking place; or that the proposed BMPs are not installed, installed incorrectly, or not operating properly, the Applicant will be notified verbally and in writing that all

work affecting the BMPs in question shall be suspended until functioning BMPs are installed. ADEM monitoring reports may be requested by the City from time to time.

12.01.11.03 Responsibility for Maintenance

The Permittee shall be responsible for maintaining all temporary and permanent best management practices during the development of the site. In the event the BMPs are found to be in need of maintenance or improvements, the Permittee shall commence and implement all necessary remedies to ensure their intended function.