## ARTICLE IV. DESIGN STANDARDS

## A. General Requirements

1. <u>Conformance to Regulations</u>. All subdivisions shall conform to all applicable Federal, State and Local regulations.

2. <u>Land Subject to Flooding</u>. Land within the hundred-year floodplain shall be clearly marked on all subdivision plats. Such areas shall not be developed in any way that reduces the floodplain's capacity to store and convey storm water.

Base flood elevation data shall be provided for subdivision proposals.

3. <u>Natural Features</u>. Consideration shall be given to the natural scenic features of the land, such as streams, and the design of the subdivision should protect and utilize such natural scenic features.

4. <u>Trees</u>. Because of their value in soil conservation, health, and community appearance, trees shall be preserved wherever possible. No tree shall be planted in the neutral ground within 40 feet of the intersecting property lines at a street intersection.

Street trees placed within the public right-of-way shall not be of a low, bushy species that might obstruct vision. No such trees shall be planted unless approved by the Town Engineer, who shall determine whether they pose a threat to public safety or the efficient use of public facilities. Trees shall not be placed in any location where they may damage or impede access to buried utility lines, sidewalks or streets.

5. <u>Subdivision and Street Names.</u> The name of the subdivision and new street names shall not duplicate nor closely approximate phonetically the name of any other subdivision or street within the city limits or planning jurisdiction of the Town of Elmore. Where new streets are obviously in alignment with existing streets the new street shall continue the name born by the existing street. Street names shall be subject to approval by the Planning Commission, and in accordance with the Elmore County E911 Master Street Address Guide. In the Planning Jurisdiction streets shall also be numbered in accordance with the Elmore County Street Numbering System.

6. <u>Waivers for Conservation Subdivisions</u>. The Commission may consider waivers from these standards for conservation subdivisions, which are designed and built in such a way that the impact of development upon the natural environment is substantially minimized.

## B. Streets and Circulation

1. <u>Street Layout</u>. The street layout of a subdivision shall provide for the continuation and connection of streets between adjacent properties whenever such continuation and connection is necessary for the convenient movement and circulation of traffic, effective police and fire protection, access by public service vehicles, and efficient provision of utilities.

Existing streets that abut a subdivision shall be continued, and the continuations shall be in alignment with, and at least as wide as, the existing streets unless the Planning Commission approves a reduction in width. The subdivision street layout

shall also provide stub-outs for the future continuation into unsubdivided lands adjoining a sufficient number of streets to meet the purposes stated above.

If the adjacent property is undeveloped, the right-of-way of a street to be continued shall be extended to the property line. A temporary turnaround, or a T or L shaped turnabout, shall be provided, with a notation on the subdivision plat that land outside the normal right-of-way shall revert to the abutting properties whenever the street is continued and connected to the adjacent property. The Planning Commission may limit the length of such temporary dead-end streets in accordance with the design standards of these regulations.

The paving or improvement of right-of-way to the boundary with the adjoining property may not be required. The intention is that the paving and utilities be extended far enough to serve the lots in the subdivision; and the right-of-way and/or easements extended so that the streets and utilities can be extended into the adjoining property as needed.

2. <u>Street Classification</u>. The streets in a subdivision shall be classified according to their function into major streets and local streets. Major streets consist of arterials and collectors. All other streets are local streets.

3. <u>Major Streets</u>. Wherever a subdivision abuts or contains a major street, such major street shall be platted in the general location and width of the major street; and, to the extent that the right-of-way for such major street is embraced within such subdivision, shall be dedicated for public use.

4. <u>Restriction of Access</u>. Where a subdivision abuts or contains an existing or proposed major street, the Planning Commission may prohibit direct access, require marginal access streets, or specify such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.

5. <u>Arterial Streets</u>. Arterial streets shall be provided to convey traffic between collector streets and important generators of traffic, such as schools and shopping centers.

6. <u>Collector Streets</u>. Collector streets shall be provided to collect traffic from local streets and feed it into major streets or to important generators of traffic, such as schools and shopping centers.

7. <u>Local Streets</u>. Local streets shall be so arranged that their use by through traffic will be discouraged. Four-way intersections of local streets shall be avoided wherever possible.

8. <u>Half-streets and Half-alleys</u>. Wherever there exists a dedicated or platted halfstreet or half-alley adjacent to the tract to be subdivided, the other half shall be platted. Hereafter, no new half-streets or half-alleys shall be platted.

## C. Street and Sidewalk Design

1. <u>Minimum Street Widths</u>. Minimum right-of-way (ROW) widths, measured from lot line to lot line; minimum street width, measured from back-of-curb to back-of-curb and sidewalks, shall be as follows:

Classification	Street and Sidewalk Configurations					
	B/C to B/C Width	Pavement Width	ROW	Sidewalk Location		
Cul-de-sac	26	22	50	1 side*		
Local	28	24	50	1 side*		
Collector **	35	31	60	1 side		
Collector	31	27	60	Both sides		
Collector @ Intersections	40	36	60	Both sides		
Arterial	52	48	80	Both sides		
* Town Engineer shall determine location of sidewalk.						
** Permitted at the option of the Planning Commission.						

If the lots served by a local street are greater than two (2) acres in area, or if the street is a cul-de-sac serving no more than 20 dwelling units with lot sizes of 20,000 square feet or greater and minimum lot widths of 90 feet, the street width may be reduced to twenty-six (26) feet from back-of-curb to back-of-curb and sidewalks may not be required. If the lots are three (3) acres or more in area, the pavement width may be reduced in accordance with Section V-B-2 of these Regulations. In no case shall a right-of-way be less than fifty (50) feet in width.

2. <u>Additional Width on Existing Streets</u>. Subdivisions that adjoin existing streets shall dedicate additional right-of-way as necessary to meet the minimum standards specified in Section C-1. When any part of the subdivision is on both sides of the existing street the entire additional ROW shall be provided. When the subdivision is located only on one side of an existing street, one half of the required ROW, measured from the center line of the existing ROW, shall be provided. In rolling or hilly terrain, construction easements may be required to ensure that appropriate front and back slopes are developed.

3. <u>Construction Requirements.</u> Construction of all roads shall meet the following minimum requirements and conform to the Alabama Department of Transportation's "Standard Specifications for Highway Construction". Best Management Practices for erosion control shall be used throughout construction and development. The developer shall be responsible for all erosion control in accordance with ADEM regulations and for securing any permits required by ADEM.

- a. *Notification of Work:* It shall be the duty and responsibility of the developer or contractor to give <u>written</u> notice to the Town Engineer or his authorized agent, one working day prior to starting any phase of construction. The developer or contractor shall notify the Town Engineer or his authorized agent in writing the day work is resumed after a delay of more than five (5) working days. This includes all phases of construction, clearing, grading, drainage, gutters, inlets, base, surfacing and any work that pertains to the street, road or development. FAILURE TO NOTIFY AS SPECIFIED SHALL BE GROUNDS FOR NONACCEPTANCE.
- b. *Testing:* The Town Engineer shall determine which tests shall be scheduled and performed. The tests normally consist of, but are not limited to:

gradation; moisture; compaction; and asphalt analysis of road building materials. The developer shall notify the Town Engineer, or his designee, twenty-four hours prior to any required tests. The Town Engineer shall select a testing firm to complete all necessary tests. The developer may employ its own testing company, but all testing costs performed on behalf of the Town shall govern acceptance and shall be reimbursed to the Town before final plat approval is given or considered. All testing shall be conducted by an independent testing laboratory selected and employed by the Town Engineer and the Town of Elmore. Copies of all test reports are to be provided to the Town Engineer before additional construction occurs. In the event problems exist that require remedial actions or design, the developer shall be required to submit appropriate engineering plans to the Town Engineer before construction will be allowed to proceed.

- c. *Clearing and Grubbing:* All roads shall be graded to their full right-of-way width. All areas shall be cleared of all vegetation, trees, stumps, large rocks and other objectionable or unsuitable material prior to grading or filling unless otherwise approved, in writing, by the Town Engineer.
- d. *Slope Paving:* Slope paving shall be required in ditches as determined necessary by the Town Engineer. Other alternatives must be approved by the Town Engineer.
- e. *Embankment Sections:* The Town Engineer will have the right to approve all borrow sources; however this does not relieve the developer from full responsibility for the quality of material used. Roadway fill or embankment of earth material shall be placed in uniform layers, full width, and not exceeding eight inch thickness (loose measurement). Each layer shall be compacted so that a uniform specified density is obtained. Compaction tests shall be run at the frequency and location as directed by the Town Engineer. Additional layers of fill shall not be added until directed by the Town Engineer. For all density requirements refer to Section 210 and Section 306 of the "Alabama Department of Transportation Standard Specifications for Highway Construction".
- f. Sub grade: The sub grade shall be compacted and properly shaped prior to the placing of base materials. Developer shall submit a profile at the sub grade before approval will be considered for placing any base materials. The top six (6) inches of the roadbed shall be modified, with the work being performed under Section 230 Roadbed Processing, of the "Alabama Department of Transportation Standard Specifications for Highway Construction". It shall be full width of regular section and extend eighteen (18) inches outside of curb and gutter and/or valley gutter sections. Both sections are twenty-eight (28) feet in width. The embankment or sub grade shall be inspected by proof rolling, under the supervision of the Town Engineer or his/her designee, with a fully loaded tandem axle dump truck to check for soft or yielding areas. Any unsuitable materials shall be removed and replaced with a suitable material compacted to density requirements in accordance with Section C-3-e of this Article. Suitable materials shall be determined by the Town Engineer.
- g. *Roadbed Width:* The minimum roadbed width shall be twenty-eight (28) feet for standard sections and twenty-eight (28) feet for curb sections.
- h. *Base:* Base course shall meet the requirements for crushed aggregate as set forth in 301 type 825 A or B, plant mixed with water, according to the Alabama Department of Transportation Standard Specifications for Highway Construction. Base course shall have a minimum thickness of six (6) inches compacted thickness, full width of regular section and shall extend eighteen

(18) inches outside of curb sections. Both sections are twenty-eight (28) feet in width. The density requirements for compaction shall be in accordance with Section 306 of the Alabama Department of Transportation Standard Specifications for Highway Construction. Developer/Engineer may submit an alternate base design method for approval by the Town Engineer. Design should be based on a proven and accepted engineering test or method.

- i. *Roadway Pavement:* All roads and/or streets shall be paved and comply with the following:
  - 1. Prior to the placement of pavement, a bituminous treatment A (prime) shall be placed and approved by the Town Engineer.
  - 2. the minimum pavement width shall be not less than twenty (20) feet on standard sections and twenty-four (24) feet for curb sections. Type of curb to be used shall be approved by the Town Engineer.
  - 3. bituminous pavement requirements shall be two hundred pounds per square yard (200 lbs/sy) of bituminous concrete plant mix, binder, 429, or 424, and one hundred pounds per square yard (100 lbs/sy) of bituminous concrete plant mix, wearing surface, type 429, 424 or a double bituminous surface treatment of AKG or AJG as covered in Section 401 of the ALDOT Standard Specifications for Highway Construction. The mix shall be approved by the Town Engineer and be covered in the latest memorandum recommendation from the office of the ALDOT County Transportation Engineer or as specified by the ALDOT Standard Specifications, latest edition. The placement of this bituminous pavement does not relieve the developer of meeting the current policy for acceptance of roads and streets by the Elmore Town Council. As covered in Article III, Section F of these regulations.
- j. *Storm Drainage:* An adequate storm drainage system based on a minimum twenty-five (25) year design storm including curb, pipes, culverts, headwalls, and ditches shall be provide for the drainage of surface water. All cross drains shall have sufficient length for required typical section and shall be installed according to ALDOT specifications. Minimum diameter of cross drain pipes shall be fiftteen (15) inches. Cross drains shall be Class III, wire reinforced concrete pipe and shall meet or exceed the current ALDOT specifications.
- k. Installation of Utilities: After grading is completed and approved by the Town Engineer and before any roadbed processing of the sub grade is performed all of the underground utilities within the roadway prism shall be installed completely and approved by the Town Engineer throughout the length of the street and across the section. Once pavement is placed, it shall not be open cut except with written permission of the Town Engineer. Any utility desiring to cross the road shall dry bore under the road. All water lines located under pavement shall be encased. Backfill placed in utility trenches shall be as covered in Section C-3-e of this Article.
- I. *Topsoil and Grassing:* When all construction is completed, all slopes and shoulders shall be covered with a sufficient amount of topsoil and shall have a stand of permanent grass to prevent undue erosion, either by sprigging, seeding, mulching, or sodding. The developer shall implement Best Management Practices to prevent erosion.

3. <u>Street Grades</u>. In general streets shall be designed to conform to the topographical conditions of the site and to provide adequate surface drainage. The maximum grade for streets shall be as follows:

Type of Street	Maximum Grade		
Minor Arterial	8 percent		
Collector	12 percent		
Local	15 percent		

Street grades shall be a minimum of one (1) percent. The maximum street grade from the centerline intersection of two streets shall be five (5) percent for a minimum distance of one hundred (100) feet.

4. <u>Vertical Curves</u>. Every change in grade of a street shall be connected by a vertical curve constructed in accordance with the current standards established by the American Association of State Highway and Transportation Officials. Profiles of all streets showing natural and finished grades drawn to a scale of not less than one (1) inch equals one hundred (100) feet horizontally and one (1) inch equals ten (10) feet vertically shall be required.

5.<u>Horizontal Curves.</u> The minimum radius of curvature of streets on the centerline shall be as follows:

# Arterial550 feet\*Collector350 feet\*Local/Cul-de-sac100 feet\*Super elevation where in the opinion of the Town Engineer the radius warrants it.

A tangent of at least one hundred (100) feet in length shall be introduced between curves on all streets.

6. <u>Intersections</u>. Street intersections shall be at right angles or as close to right angles as possible. Where, for topographic or other reasons acceptable to the Planning Commission, an intersection cannot be at right angles, such intersection shall be designed to ensure safety; shall be as close to right angles as possible; and in no case shall be less than sixty (60) degrees.

Property line radii at street intersections shall not be less than twenty (20) feet, and where the angle of street intersection is less than seventy-five (75) degrees, the Planning Commission may require a greater curb radius. To permit the construction of a curb having a desirable radius without curtailing the sidewalks at a street corner to less than normal width, the property line at such street corner shall be reduced or otherwise set back sufficiently to permit such construction.

Street jogs with centerline offsets of less than one hundred and twenty five (125) feet shall not be permitted.

Roundabouts shall be designed in accordance with the standards established by the FHWA.

7. <u>Cul-de-sac Streets</u>. A cul-de-sac street shall have a maximum length of seven hundred (700) feet, measured from the center line of the street from which the cul-de-sac takes access to the center of the turnaround at the end of the cul-de-sac; except

that where there are no more than twenty (20) lots and the net density does not exceed two (2) lots per acre a maximum length of one thousand (1,000) feet shall be allowed. All cul-de-sac streets shall be provided at the closed end with a turnaround with a minimum right-of-way radius of fifty (50) feet, and a minimum driving surface radius of forty (40) feet. Any sidewalk on a cul-de-sac street may terminate at the beginning of the radius.

8. <u>Dead-end Streets</u>. Streets designed to be extended at a future date shall provide a paved turnaround approved by the Town Engineer at the end of the street if such street extends more than four hundred (400) feet beyond a street intersection. Such streets shall not exceed six hundred (600) feet in length unless they are to meet requirements as set forth in Section IV-B-1.

9. <u>Reserve Strips</u>. Reserve strips controlling access to streets, alleys, and public grounds shall not be permitted unless their control is placed with the appropriate governing body under conditions approved by the Planning Commission.

10. <u>Easements</u>. Except where alleys are provided for the purpose, easements with a minimum width of twenty (20) feet -- ten (10) feet on each side of rear lot lines and side lot lines -- shall be provided for utilities and sewers (sanitary and storm) as needed and as determined by the Town Engineer.

11. <u>Driveway Curb Cuts</u>. Turnouts shall be a minimum of ten (10) feet wide and a maximum of twenty-five (25) feet wide. All driveway curb cuts shall be constructed in accordance with standards approved by the Town Engineer. Corner and double frontage lots shall take access from the minor streets unless otherwise approved by the Town Engineer. Where narrow street widths are allowed, the Town Engineer will require wider driveway radii to avoid lane encroachment by entering or exiting vehicles.

There shall be a minimum spacing of 300 feet for driveways and other curb cuts on arterial streets and 150 feet on collector streets. The following table summarizes required distances between curb cuts and street corner property lines:

Development Type	Street Type			
	Arterial	Collector	Local	
Non-Residential	125′	100′	100′	
Multiple Unit Residential	125′	100′	100′	
All Other Residential	125′	100′	25′	

Where an intersection contains a left-turn stacking lane, and driveway opposite such lane shall be designed to permit entrance and exit by right turn only. Such right turn only entrances shall be constructed with raised islands to prevent left-turn movements. No left turns shall be permitted where such turning motions would cross an acceleration or deceleration lane in proximity to an intersection.

Required distances between curb cuts and between curb cuts and street corner property lines shall be measured from the edge of the curb cut.

12. <u>Alleys</u>. Alley intersections and sharp changes in alignment shall be avoided, but where necessary, corners shall have a five- (5) foot minimum cut-off at all acute angle intersections.

Dead-end alleys shall be avoided where possible, but if unavoidable, shall be provided with adequate turnaround facilities at the dead-end, as determined by the Planning Commission.

13. Bikeways. The Commission strongly encourages developers to design their subdivisions with provisions for connecting to adjacent built or planned bikeways and/or greenways.

# D. Blocks

1. <u>Size and Shape of Blocks</u>. The lengths, widths and shapes of blocks shall be determined with consideration of the limitations and opportunities of topography; the provision of building sites suitable to the intended uses; and the need for convenient access, circulation, control of, and safety from street traffic. In general, block lengths shall not exceed 1,400 feet and shall not be less than 600 feet except where site conditions make longer blocks necessary or desirable.

2. <u>Block Width</u>. Blocks shall be wide enough to provide a minimum of two tiers of lots of minimum depth, except where abutting upon major streets, limited access streets, or railroads, or where other situations make this requirement impracticable.

Where the proposed subdivision is adjacent to or contains a major street, the long dimensions of the blocks should wherever feasible be parallel, or approximately parallel, to the major street.

3. <u>Blocks for Commercial or Industrial Use</u>. Blocks intended for commercial or industrial use shall be designed specifically for such use, with consideration of off-street loading and unloading, and off-street parking facilities, and access thereto.

# E. Lots

1. <u>Size and Shape</u>. The size, shape, and orientation of lots shall be determined with consideration of the need for convenient access, circulation, control of, and safety from street traffic. Lot dimensions shall be determined by the requirements of the Town of Elmore Zoning Code. In the absence of zoning regulations or covenants establishing more restrictive requirements, the minimum lot width permitted under these regulations shall be 60 feet at the public right-of-way. In cases where lot lines are not parallel and the lot fronts on a curved right-of-way, minimum width at road frontage shall be thirty-seven and one-half (37.5) feet. Lots fronting upon a cul-de-sac shall have a minimum width at road frontage of twenty-five (25) feet.

For the purposes of applying this regulation, a horizontal curve must exceed the required minimum radius by an amount no greater than or equal to a fifty (50%) percent increase of the required minimum radius to qualify for a reduced street frontage.

# 2. Minimum Lot Area.

a. The minimum lot size property within the Town Limits shall be set by the Zoning Ordinance.

b. The minimum lot size for any subdivision within the Planning Jurisdiction, which is not served by a public sewage collection and treatment system, shall not be less than that required by Elmore County Health Department regulations.

3. Lot to Abut on a Street. Every lot shall abut upon a dedicated public street.

4. <u>Property lines at corners</u>. Where necessary by reason of curb radii, property lines at street intersection corners shall be arcs having radii of at least twenty (20) feet, or shall be chords of such arcs.

5. <u>Side Lines of Lots</u>. Side lot lines shall be approximately at right angles or radial to the street line.

6. <u>Double Frontage Lots</u>. Double frontage lots will be permitted only where necessary to provide separation of residential development from major streets or to overcome specific disadvantages of topography and orientation. A planting strip at least 10 feet wide and across which there shall be no right of access shall be provided along the line of lots abutting such major street or disadvantageous use.

7. <u>Flag Lots</u>. Flag lots, as defined in Article II, shall be permitted subject to the following conditions:

a. A flag lot may be used within a subdivision to provide a lot fronting on an arterial or collector road with access to an internal subdivision street. In such cases, vehicular access to the lot from the arterial or collector shall be prohibited.

b. Except as provided in this paragraph, flag lots accessing arterial or collector roads shall be prohibited. A nonconforming lot of record having no frontage on any public right-of-way may be established as a flag lot connecting to an arterial or collector if

1. no other lot is rendered nonconforming by size and/or width through loss of property to create a flag lot access strip;

2. no hazardous situation is created due to traffic volumes, curves or changes in elevation in the road;

3. all other requirements of this Section are met; and

4. in the opinion of the Planning Commission, there is no alternative that is in greater harmony with the intent of these Regulations.

c. Flag lot "stems" or access strips shall be at least 25 feet in width as measured at the road frontage. The land area within the access strip shall not count toward any required minimum lot size.

d. Where otherwise consistent with the provisions of this Section, flag lots may be created in groups not exceeding two (2); in such cases, access strips shall be adjacent to each other and form a total width of 50 feet. A distance of 500 feet shall separate non-adjacent flag lot access strips on the same side of the road. All access strips shall be at least 50 feet from an intersection.

e. No more than ten (10) percent of the lots in a subdivision may be flag lots. Subdivisions approved administratively under Section III-J of these regulations shall be excluded from this limitation.

f. The Subdivision Committee shall identify the front, side, and rear lot lines of a flag lot for determining yard requirements, allowable locations of accessory structures, and other purposes.