

ARTICLE V. IMPROVEMENTS REQUIRED

A. General Requirements

1. General. Streets, utilities, and other improvements shall be installed in each subdivision in accordance with the standards and requirements specified, or referred to, herein. Improvements required by these Regulations shall be made in accordance with the specifications, and under the supervision of, the Town Engineer. As appropriate, such specification shall also include the requirements of the Water Board or other duly authorized agent, the Elmore County Engineer, the Elmore County Health Department, and other appropriate authorities.

2. Construction Plans. It shall be the responsibility of the subdivider to have a complete set of construction plans prepared by an engineer registered in the State of Alabama. A set of such plans on mylar-sepia shall be furnished to the Town Engineer. Such plans shall include profiles, cross-sections, specifications, and other supporting data for the public improvements required herein. No construction activity of any kind, including grading, installation of improvements, and buildings, shall begin on any land subject to these Regulations without prior approval of the Preliminary Plat by the Planning Commission and issuance of all required Building and Engineering Permits.

All improvements required under these Regulations shall be constructed in accordance with Town of Elmore construction specifications and under the supervision of the Town Engineer or other duly authorized agent appointed by the Town Council. Agreement shall be reached between the subdivider and the Town Engineer in providing for the inspection of the various public improvements as they are being constructed.

Upon completion but before acceptance by the Town Council of Elmore, an "as built" set of plans shall be supplied to the Town Engineer. These plans shall meet the following standards:

- a. All as-builts shall be on 18" x 24" or 24" x 36" Mylars.
- b. An electronic copy on two (2) diskettes or CDs, in a format compatible with Elmore County software, must be submitted along with the required Mylar(s).
- c. Each utility line feature, such as water valves, sanitary sewer manholes, storm water manholes, sewer lines, water lines, fire hydrants, etc. must be located in a separate layer.
- d. All flood zone information shall be included.
- e. All digital coordinates must conform to the Alabama East State Plan (0101) Coordinate system referenced to the NAD83 Datum. All measurements must be recorded in US survey feet (Northing & Easting).

Prior to the final wearing surface being applied to streets in residential subdivisions, as-built plans must be submitted. The final wearing surface shall not be applied for two (2) year after the placement of the asphalt base or until 70% build-out of the subdivision, whichever comes first.

B. Required Improvements

1. Streets. All local and collector streets within a subdivision shall be provided with a paved roadway by the developer.

All roadway pavements shall be constructed to meet the specifications of the Town, and shall be approved by the Town Engineer. All such roadways shall be surfaced for their entire width; shall be provided with curb and gutter at each edge, except as provided in Section V-B-2; and shall be provided with all necessary catch basins and cross drains.

2. Curb and Gutter. The requirements for curb and gutter may be waived for local streets if the gradient of the street does not exceed five (5) percent, the street serves lots which have a minimum area of three (3) acres, and the traffic potential is less than 1500 Average Daily Traffic (ADT). Where roadways are allowed to be constructed without curb and gutter, the following requirements must be met:

- a. The roadway pavement shall be a minimum of 20 feet in width.
- b. Graded shoulders of at least six- (6) feet width shall be provided on each side.
- c. All driveway turnouts shall be paved and drainage diverted.
- d. Improved turnout shall be provided for access of mail trucks to mailboxes.
- e. If necessary, as determined by the Town Engineer, additional right-of-way may be required.
- f. If considered appropriate, and approved by, the Town Engineer a street consisting of a 20 foot wide paved roadway with a two- (2) foot valley curb on each side may be installed in lieu of items A through E above.

3. Water Supply. Where a public water supply is reasonably accessible, as determined by the Town Engineer and/or the governing Water Authority or Board, the Subdivider shall provide a water supply system consisting of appropriate mains and a stub-out for each lot in the proposed subdivision. To avoid cutting the paved roadway when connections are made, stub-outs shall extend from the main to convenient points outside the paved roadway. Water mains shall meet or exceed the following standards:

- a. The minimum diameter for a water main with a fire hydrant shall be eight (8) inches.
- b. Water mains shall be of sufficient size to provide at least one (1) standard fire hydrant within a 500-foot fire hose lay of each residence and/or other structure. The maximum space between hydrants shall be 800 feet.
- c. Where structures are one (1) and two (2) family residences not more the two (2) stories in height, the following fire flows should be available to each such structure:

Potential Exposure Distance in Feet	Gallons per minute	Duration in Hours and Total Gallons
11-30	Equal to or greater than 1,000	2 hours 120,000 Gallons
31-100	750-1,000	2 hours 90,000-100,000 Gallons

When adequate fire flow from the water system is not available due to pipe size and/or pressure limitations, the developer will consult with the water system and under the water system's rules and regulations make the necessary improvements to insure adequate fire flow.

- a. Residual pressure shall be not less than 20 pounds per square inch during the required fire flow.
- b. All hydrants shall be of three- (3) way design with at least one (1) 4.5-inch or larger discharge. All discharges shall be fitted with NST threads.
- c. All water valves and services shall be etched in the curb with a "V" or "W" as appropriate.

These requirements presume ordinary construction, noncombustible roofs, and no extraordinary environmental or access conditions. Unusual finishes or construction materials or techniques; or changes in a subdivision, such as from residential to nonresidential uses; might require additional fire flows as required by the fire department serving Elmore.

When a public water supply is beyond a reasonable distance, or will not be accessible within a reasonable period of time, the Subdivider may provide a central water system according to standards set forth by the Town Engineer and/or the Water Works Board, and approved by the Elmore County Health Department and the Alabama Department of Environmental Management. Such a system shall comply with all the standards set forth herein for domestic and fire fighting use.

4. Fire Hydrants. No new water system or addition to an existing water system shall be constructed or developed within the Town of Elmore's city limits or its police jurisdiction unless each new system and/or addition is served by fire hydrants installed in accordance with the following requirements:

- a. Fire hydrants shall be placed at each street intersection with intermittent hydrants between intersections, spaced not more than 500 feet apart with additional fire hydrants located as necessary to permit all portions of buildings to be reached by hose lay of no more than 400 feet.
- b. For all new water systems installed within the Town of Elmore and its police jurisdiction, the following requirements apply:
 1. Fire hydrants must conform to the specifications for national standard fire hydrants for ordinary water work service of the American Water Works Association.

2. Fire hydrants must be installed in accordance with National Fire Protection Association Standard Number 24. The barrel of the fire hydrants shall be set perpendicularly with the ground, with the lowest discharge not less than 15 inches above grade and the larger pumper connection facing the street.
3. Fire hydrants shall be equipped with not less than one 4 ½ inch outlet and two 2 ½ inch outlets.
4. All fire hydrants must be connected to and supplied by water mains of not less than eight inches in size. Water mains shall meet specifications established by the American Water Works Association.
5. Where possible water mains shall be interconnected or looped at intervals not exceeding 600 feet on eight inch mains. Where it is necessary to make dead-end extensions from the water system, such extensions shall be capable of providing an adequate fire flow at a static pressure of not less than 40 pounds per square inch and a residual pressure of not less than 20 pounds per square inch and such extension shall not exceed 1,500 feet on an eight-inch main.
6. The location of fire hydrants, hydrant fittings, valves, threads, and direction of openings shall be uniform, and shall be approved by the fire chief.
7. All fire hydrants shall be properly maintained as required by the fire chief.

c. All existing water systems shall conform to the specifications as set forth under b-1 through b-7 above on additions to existing water systems unless it is not economically feasible to meet the standards due to the placement and size of pre-existing water lines.

5. Sanitary Sewage. Where a public sanitary sewer is reasonably accessible as determined by the Planning Commission, the Subdivider shall connect with such sanitary sewer and provide a sewer service connection to the property line for each lot. Location of each sewer service lateral shall be scribed or imprinted on the curb at the proper location with an "S" and the end of each sewer lateral shall be marked by a two (2) inch treated post.

Where a public sanitary sewer is not reasonably accessible, the provider may provide a private sewage collection and disposal system in accordance with the requirements of the U.S. Environmental Protection Agency, the Alabama Department of Environmental Management, the Elmore County Health Department, and the specifications of the Town of Elmore. Such a system must at least meet the following standards:

- a. The minimum diameter of a public sewer shall be eight (8) inches, except in certain cases when the Town Engineer can approve stub-outs and special runs of pipe of six (6) inch diameter.
 - b. All sanitary sewer shall be designed to carry peak flows of 300 gallons per capita per day with a minimum velocity of flow of 2.5 feet per second.
 - c. The maximum distance between manholes shall be 400 feet.
- As an alternative the Subdivider may, by restrictions, require the disposal of sewage by the installation of septic tanks or similar on-site systems, which are designed and

installed in accordance with the standards of the State Department of Health and the Elmore County Department of Health.

6. Storm Sewers and Drainage. Storm sewers, drains, and catch basins shall be provided in each subdivision to carry not less than the storm water from a rainfall expected to occur once in twenty-five (25) years. These storm drains shall be connected to or spilled into existing drains or ditches as approved by the Town Engineer. Where existing area drainage ditches, creeks, branches, swales, etc. occur through or alongside the proposed subdivision, the subdivider shall furnish paved bottoms and sloped masonry or concrete sides where required by the Town Engineer. Routing or rerouting of ditches, and filling of depressions and wetlands, shall not be allowed unless permitted by the appropriate federal and state agency and approved by the Town Engineer.

Culverts and bridges shall be constructed by the subdivider over all watercourses and be approved by the Town Engineer. Whenever and wherever conditions, caused or aggravated by reason of the subdivision of land hereunder, adversely affect the proper drainage of streets, pedestrian ways, slopes, or natural watercourses; or adversely affect the public health, safety, or welfare; the following improvements shall be required and shall be installed by the subdivider:

- a. Drainage structures necessary for the proper drainage of streets, pedestrian ways, slopes, or natural watercourses, or for the public safety;
- b. Necessary erosion and/or sedimentation control measures.

7. Monuments. ½-inch diameter or grater rebar, 18 inches long or according to the latest edition of the Standards of Practice for Land Surveying in the State of Alabama shall be set at all street corners and at all points where the street lines intersect the exterior boundaries of the subdivision. All other lot corners shall be marked with rebar not less than ½-inch in diameter and 18 inches long and driven so as not to be more than three (3) inches above finished grade.

8. Street Name Markers. Street name markers shall be placed at the corners of all street intersections both inside and outside the corporate limits of the Town. Said markers shall be of a standard design in current use, and placed at locations the Town Engineer or another duly authorized agent of the Town may direct. The cost of such markers shall be borne solely by the developer.

9. Utilities. Unless otherwise approved by the Planning Commission, due to unusual circumstances, all utilities shall be placed underground.

10. Utility Easements. Easements shall be provided for public utilities, and shall be at least 20 feet wide, 10 feet on each side of the property lines of lots. The width of easements shall be increased, or they shall be extended, where necessary, to provide space for utility pole bracing or other construction, when approved by the Planning Commission. Utility easements can be combined with drainage easements subject to approval by the Town Engineer.

11. Drainage Easements. Easements for water courses, drainage ways or streams shall conform substantially with the lines of such water course and shall have such further width for construction, maintenance, or both, as will be adequate for the purpose. Drainage easements can be combined with utility easements subject to

approval by the Town Engineer.

12. Erosion Control. An erosion and sediment control plan (ESCP) shall be submitted in the construction plans to the Town Engineer. Erosion and sediment control measures shall be installed and inspected prior to work beginning. Measures shall be maintained throughout the development and be the responsibility of the developer.

C. Dedications

1. Streets and Alleys. The rights-of-way for existing and new streets, which is embraced within the subdivision, and the rights-of-way for public alleys shall be platted to the minimum widths called for by these regulations and dedicated for public use.

2. Major Streets. The rights-of-way for existing and for new major streets, which are embraced in whole or in part by the subdivision, shall, to the extent of that part that is embraced by the subdivision, be platted to the minimum widths called for by these regulations and dedicated.

3. Easements. Easements for utilities, drainage, or other purpose shall be provided as required herein; and shall be dedicated with the right of access.

4. Open Space. Whenever a subdivision includes open space, either as a part of the overall design or in conformance with the provisions of the Zoning Ordinance, such open space shall be platted and dedicated for public use.