

# ARTICLE X: REQUIRED UTILITIES AND IMPROVEMENTS FOR SUBDIVISIONS

## SECTION 10.1: General

### 10.1.1 Adequate Public Facilities and Construction

No Subdivision Plat shall be approved unless the City Council determines that public facilities will be adequate to support and service the area of the proposed subdivision. It is the responsibility of the owner of the development to construct improvements in accordance with the requirements set forth in this Article and other applicable state and federal regulations that govern the development of land.

### 10.1.2 Industry Standards

Where no City standard exists governing the design or construction of required public improvements, the City Consulting Engineer shall determine the requirements for design and/or construction predicated on the following:

- A. Streets: Latest edition of "A Policy of Geometric Design of Roadways and Streets," AASHTO; and the latest edition of the Mississippi Department of Transportation Standard Specifications for Road and Bridge Construction
- B. Water: American Water Works Association Standards
- C. Sanitary Sewers: Mississippi Department of Environmental Quality Standards
- D. Storm Drainage: Latest Edition of MDOT Design Manual and Specifications to Roads and Bridge Construction

## SECTION 10.2 Classification of Residential Development

For the purpose of determining appropriate public improvements and widths of right-of-way and pavement, two (2) types of development types have been identified in accordance with proposed lot sizes and other criteria. Specific requirements for each type of development including the types of stormwater drainage, water systems, width of street and rights-of-way are enumerated in Table No. 19.

Table No.19: Development Types and Required Improvements		
Development Type	Description of Type	Required Improvements
Type A	Lots up to 20,000 square feet in size	Public water and sewerage systems, curb and gutter, underground storm drainage.
Type B	Lots larger than 20,000 in size	Public water and sewerage systems, culverts for driveway crossings ditches. Lots with less than 100 foot frontage require curb and gutter.

## **SECTION 10.3: Lots**

### **10.3.1 General Requirements**

The following general standards shall apply to lots:

- A.** The lot size, width, shape and orientation, and the minimum building setback lines shall be appropriate for the location of the site for the type of development and use contemplated and in compliance with the Unified Development Ordinance requirements for minimum lot size and minimum frontage.
- B.** Depth and width of properties reserved or laid out for multi-family, commercial and industrial purposes shall be adequate to meet the needs of this type of use and the development contemplated to properly provide for off-street loading and unloading and parking facilities.
- C.** Lot arrangement and design shall be such that all lots shall provide building sites except for those lots which are designated open space or designated parks or other public facilities. Such lots shall be so indicated on the plat.
- D.** All lots shall abut a public street.
- E.** Residential lots shall not front, or have direct access to arterial streets, except where unavoidable because topographical constraints. In such cases the subdivision shall be so designed to minimize the number of lots fronting on arterial streets.
- F.** Residential development abutting or containing proposed arterial streets, may utilize reverse frontage lots. A landscaped buffer and a wooden or masonry fence shall be required along the rear lot lines which abut arterial streets in accordance with *Article XI*.
- G.** Commercial or industrial development should be oriented toward arterial streets or have direct access to collector or arterial streets.
- H.** All lot lines shall be at right angles to straight street lines or radial to curved street lines, except where a variation to this provision will provide a better street and lot layout.
- I.** Double frontage and reverse frontage lots should be avoided except where essential to provide separation of residential development from traffic arterials or to overcome specific disadvantages of topography and orientation.
- J.** The lot line common to the street right-of-way shall be the front line. All lots shall face the front line and a similar line across the street. Whenever feasible, lots shall be arranged so that the rear line does not abut the side line of an adjacent lot.
- K.** Where platted lots and lands of a development are subject to inundation in tidewater bottoms or along lakes, streams, bayous, or uncontrolled lakes the limits of such areas subject to inundation shall be clearly indicated on the Preliminary and Final Plats.
- L.** Lots shall be laid out so as to provide positive drainage away from all buildings, and individual lot drainage shall be coordinated with the general storm drainage pattern for the area. Drainage shall be designed so as to avoid concentration of storm drainage water from each lot to adjacent lots.

## **SECTION 10.4: Blocks**

### **10.4.1 General Requirements:**

The following general standards shall apply to blocks:

- A.** The length, width and shape of blocks shall be determined with due regard to:
  - 1. Provision of adequate building sites suitable to specific needs of the type of use contemplated
  - 2. Zoning requirements as to lot sizes and dimensions
  - 3. Needs for convenient access, circulation, control and safety of street traffic
  - 4. Limitations and opportunities of the topography
  - 5. Property fire and police protection
- B.** No residential block shall be shorter than three (300) feet nor longer than twelve hundred (1,200) feet unless the subdivision being platted is a part of a PUD, a conservation subdivision or a subdivision which applies alternative design standards throughout the development. Block lengths of six hundred (600) feet or longer may require a ten (10) foot easement for pedestrian traffic through the middle of the block to provide for access to schools, playgrounds, and other facilities.
- C.** The width of blocks should be arranged so as to allow two (2) tiers of lots, with utility easements.

## **SECTION 10.5: General Grading**

The City Consulting Engineer shall, in accordance with plans and profiles, approve grading and centerline gradients.

### **10.5.1 General**

- A.** Areas to be graded by cutting or filling shall be rough-graded to within 0.5 of a foot of the accepted elevation after necessary allowance has been made for the thickness of topsoil, paved areas and other installations.
- B.** Final cross-sections and profiles of streets and other installations shall conform to grades approved by the Street Manager. Elevations shall be based on mean sea level.

### **10.5.2 Disposal of rubbish**

All timber, logs, trees, brush, vegetation waste and other rubbish shall be removed or otherwise disposed of so as to leave the areas that have been disturbed with a neat and finished appearance. Measures shall be taken to prevent erosion as deemed necessary by the Building and Zoning Administrator and/or the Economic Development Director.

## **SECTION 10.6: Monuments**

Monuments shall be placed at all corners or changes in alignment along the boundary of the development and at all block corners, angle points, or points of curves in street right-of-way lines. These monuments shall be an iron rod or pipe three fourths inches (3/4) to one and one-fourth (1-1/4) inches in diameter and at least eighteen (18) inches long, driven flush with the

surface of the ground. Concrete monuments shall be placed in strategic locations and these monuments shall consist of four (4) inch by four (4) inch concrete posts not less than thirty (30) inches in length, reinforced with a single one-half (1/2) inch steel rod extending not less than one-fourth (1/4) inch or more than one-half (1/2) inch above the top of the concrete.

Markers shall be placed at all lot corners or changes in alignment in lot boundaries. These markers shall consist of iron pipe not less than one-half (1/2) inch in diameter and not less than twenty-four (24) inches in length.

All monuments or markers shall be set with the top thereof flush with finish grade. Where farming operations or other land uses might destroy or disturb the monument, it shall be sunk underground and referenced to permanent landmarks.

## **SECTION 10.7: Streets**

The arrangement, character, extent, right of way and pavement width, grade and location of all streets shall be considered in their relation to existing and planned streets, to the size of adjacent lots, to topographical conditions, to public convenience and safety, and in appropriate relationship to the proposed uses of adjacent land which is to be served by such streets. For the purpose of this Ordinance the term "streets" shall be interchangeable with the word "roads."

### **10.7.1 General Regulations**

No subdivision shall be approved unless the area to be subdivided has frontage on and access from an existing street with adequate capacity to handle the increased traffic generated by the new development.

- A.** The design of streets shall conform to the minimum criteria below, and shall be considered in their relation to existing and planned streets, to topographic conditions, to public convenience and safety and their appropriate relation to the proposed uses of the land to be served by such streets. The arrangement of arterial and collector streets in a subdivision shall:
  - 1.** Provide for the continuation of or appropriate projection of existing principal streets in surrounding areas
  - 2.** Conform to the Comprehensive Plan, including the transportation plan for area development adopted by the City Council
  - 3.** Conform to the long-range transportation plan prepared by the Metropolitan Planning Organization
- B.** All thoroughfares shall be properly related to special traffic generators such as industries, business districts, schools, churches and shopping centers; to population densities, and to the pattern of existing and proposed land uses.
- C.** Access from properties zoned industrial or commercial in terms of driveways to state maintained roadways shall require an access permit from the Mississippi Department of Transportation.
- D.** Where a residential subdivision contains thirty (30) or more houses, such subdivision shall provide two (2) separate entrances. Where only one (1) entrance is physically achievable, the City may require that the entrance roadway be designed as a divided road for a length of not less than two hundred fifty (250) feet to better insure accessibility by emergency vehicles.

### **10.7.2 Horizontal and Vertical Alignment**

- A.** Reverse curves shall be avoided; however, if reverse curves are necessary, a tangent of at least one hundred (100) feet shall be introduced between curves or as necessary to provide sufficient super elevation run-off.
- B.** Street centerline offsets, or street jobs with centerline offsets, of less than one hundred twenty-five (125) feet shall be avoided.
- C.** The horizontal alignment for all streets shall not be less than those enumerated in Table No. 20, except in cases of unusual topographical conditions.

<b>Table No.20: Horizontal Alignment—Centerline Radius</b>	
Arterial and major street	500 feet minimum
Collector Street	300 feet minimum
Minor Street	100 feet minimum
In case of any minor street with a delta angle within the range of 65 degrees to 115 degrees, the centerline radius shall be such as to provide a minimum turning radius of 25 feet at the inside curb line.	

- D. The vertical alignment for all streets shall not be less than those shown in Table No. 21, except in cases of unusual topographical conditions. All changes in street grades shall be made with vertical curves that provide minimum sight distances of not less than the following, except in cases of unusual topographical conditions.

<b>Table No. 21: Vertical Alignment</b>	
Arterial and major streets with median	500 feet minimum
Arterial and major streets without median	800 feet minimum
Collector Street	300 feet minimum
Minor Street	200 feet minimum
Sight distances for vertical alignment shall be determined by measuring from a point 4.0 feet above the roadway surface along a line of sight to a point 4.0 inches above the roadway surface.	

- E. Streets shall be laid out so as to intersect as nearly as possible at right angles and no street shall intersect any other street at less than sixty (60) degrees.

### 10.7.3 Street Width and Categories

- A. Requirements for street widths and paving widths are enumerated below.

<b>Table No. 22: Required Street R. O. W. Widths and Paving Widths</b>			
<b>Streets</b>	<b>Minimum ROW</b>	<b>Pavement Width (Back to Back of Curb)</b>	
		<b>Type A Development</b>	<b>Other Types of Development</b>
Arterial	120 feet	2- 25' lanes & median	2- 24" lanes & median
Major	80 feet	49 feet	48 feet
Collector	60 feet	40 feet	20 feet
Minor	50 feet	27 feet	20 feet
Frontage or service	50 feet	27 feet	20 feet
Cul-de-sac	50 feet	27 feet	20 feet

<b>Table No. 22: Required Street R. O. W. Widths and Paving Widths</b>			
		<b>Pavement Width (Back to Back of Curb)</b>	
<b>Streets</b>	<b>Minimum ROW</b>	<b>Type A Development</b>	<b>Other Types of Development</b>
Street			

- B. All streets shall have curb and gutter except those streets located in Type A developments with individual lot frontages of one hundred (100) feet or greater.
- C. Half Streets shall be prohibited.
- D. Cul-de-sacs shall be provided at the closed end with a turning radius of ninety-six (96) feet. The maximum length of cul-de-sac streets shall be seven hundred (700) feet.

**10.7.4 Traffic Calming and Connectivity**

- A. Local residential streets shall be designed whenever possible to avoid conformity of lot appearance.
- B. Local streets shall be laid out in such a way as to discourage use by through traffic and to permit efficient and drainage systems.
- C. In districts where strict adherence to grid pattern street systems is not required nor appropriate, the creative use of loop streets, eyebrow streets and other alternatives to cul-de-sac streets shall be used.
- D. Dead-end streets are prohibited, except where a street is planned to continue beyond the boundary of a subdivided property, in which case a temporary dead end stub out may be allowed provided sufficient turning radius is provided for emergency vehicles.
- E. Streets, which are, or will become extensions of existing streets, shall be given the same name as such existing streets. New street names shall not be the same as existing streets and shall not sound like the names of existing street names.

**10.7.5 Street Construction Standards**

- A. The Base and sub-base shall be proof rolled in the presence of the appropriate city staff person or representative.
- B. The developer shall construct streets, including all grubbing, grading, laying of sub-base, base, pavements, curbs and gutters, culverts, bridges and other structures in accordance with the standard specifications for road and bridge construction, State Aid Road Division, Mississippi State Highway Department. A qualified professional engineer employed by the developer shall do design and supervision of all work. The design of the work shall be submitted to the appropriate city staff person prior to the initiation of construction.
- C. All pavement or surfacing design plans must be approved by the city before any construction is undertaken to insure adequate design for the existing soil conditions and proposed use to which it is to be subjected.

- D. Asphalt surface course shall be hot bituminous pavement – surface cores No. SC-1, two inches (2”) minimum thickness, Mississippi Department of Transportation, State Aid Specifications.
- E. Concrete pavement will be allowed only by special permission of the City Council, and the base shall be limestone or treated, Mississippi Department of Transportation, State Aid Specifications.
- F. The base course shall be six (6”) inch minimum thickness, crushed limestone, size 610, or ten (10”) inch treated base in accordance with the Mississippi Department of Transportation specifications. Clay gravel and mechanically stabilized base courses are not acceptable. Design data for treated bases shall be stamped and signed by Professional Engineer, registered in the State of Mississippi and provided to City.
- G. Specifications for all materials and street work shall conform to the appropriate provisions of the Standard Specifications for Road and Bridge Construction, State Aid Division, Mississippi Department of Transportation.

**10.7.6 Intersections**

- A. Street intersections and approaches shall be designed on as flat a grade as possible. Street gradients within one hundred (100) feet of intersections shall not exceed two (2) percent.
- B. The minimum curb radius permitted at intersections shall be twenty (20) feet for residential streets, and twenty-five (25) feet for collector streets, and forty (40) feet for streets serving industrial developments.
- C. Two streets intersecting the same street (T-intersection) shall be offset a minimum of one hundred fifty (150) feet (centerline offset).
- D. Turning lanes shall be provided at heavily traveled intersections as determined by the City Consulting Engineer.

**10.7.7 Street signs and traffic control**

- A. Regulatory signs shall be in compliance with the current MUTCD manual and shall be installed accordingly.
- B. Street Names or road name markers shall be placed at the corner of all street or road intersections. Said marker shall be of a standard design in current use and placed at appropriate locations.

**10.7.8 Street Lights**

Street lights shall be installed by the developer and shall be maintained for one (1) year at the developer’s expense. This includes the monthly expenses of operation. This one (1) year period shall begin at the time final approval is granted or for a period of one (1) year if a deferred installment is deemed feasible by the developer. The portion of the bond will remain in effect until installment.

**10.7.9 Alleys**

**A. Alleys Required**

Alleys shall be provided in commercial and industrial developments, unless alternative service access elements such as off-street loading, unloading and parking can be provided for in alternative locations. Residential alleys are not required; but may be

allowed for vehicular access from the back of a lot when such lots are a part of a PUD, Planned Residential Subdivision or a Mixed Use Development.

**B. Alley Arrangement and Standards**

1. Dead-end alleys shall be avoided whenever possible, but if unavoidable, shall be provided with adequate turn-around facilities at appropriate places.
2. Alley intersections and sharp changes in alignment shall be avoided, but where necessary, corners shall be cut-off sufficiently to permit safe vehicular movement.

**C. Specific Standards for Alleys**

1. The minimum width of residential alleys shall be twenty (20) feet.
2. The minimum width of commercial and industrial alleys shall be thirty (30) feet.

## **SECTION 10.8: Storm Drainage Systems**

The design of storm water drainage systems shall insure adequate control of storm water runoff through the use of properly sized and positioned drainage structures including but not limited to curb and gutter, curb and grate inlets, stormwater sewer pipe, box culverts, intersectional drains, open ditches and bridges. Storm drainage systems shall be designed to carry not less than the storm water from the maximum twenty-four (24) hour rainfall expected to occur once in twenty-five (25) years with a run-off factor of ninety (90%) percent for pavements and buildings and a variable run-off factor for ground areas, dependent upon topographic conditions and other characteristics in accord with accepted engineering practices. A culvert or other drainage facility shall be large enough to accommodate potential runoff from its entire upstream drainage area, whether inside or outside the subdivision.

### **10.8.1 Types of System Required and Design Criteria**

- A.** In Type A subdivisions streets shall be drained by curbs and gutters with drop inlets and storm drains underground.
  - 1.** Vertical
  - 2.** Roll Curb
- B.** Type B subdivisions with lot areas greater than twenty thousand (20,000) or street frontage greater than one hundred (100) feet open ditches may be used.
- C.** A gravel base on shoulders shall be required.

### **10.8.2 Open Ditches**

- A.** In the case of surface drainage, the full width of the street between property lines shall be utilized in the graded section in order to permit easy maintenance and grassing of the section from the edge of the shoulders to the property lines.
- B.** Driveways crossing side ditches shall be constructed to a minimum width of fifteen (15) feet with head walls at both ends or twenty (20) feet or more without head walls at both ends of the culvert pipe drains laid to the profile of the ditch invert. Fill material shall be Class nine (9) or better with a minimum of four (4) inches compacted thickness of clay gravel or other suitable material. Driveway culverts of proper size shall be installed at each lot by developer prior to the issuance of a building permit.
- C.** All drainage pipes, culverts, structures and ditches shall be sized by determining a volume of flow in cubic feet per second using known drainage areas and generally accepted engineering formulas, but in no case shall any culvert be less than fifteen (15) inches in diameter. All open drainage ditches other than swales and existing waterways that exhibit a constant natural flow shall have adequate erosion controls. All open ditches shall have a maximum side slope of two-to-one (2.1) and shall be sprigged, seeded or soil sodded from the invert to the natural ground line. Any deviation whatsoever from the above requirements must be approved by the City Consulting Engineer or appropriate staff person.
- D.** Piping of ditches will not be allowed unless plans are submitted for review by a professional engineer registered in the State of Mississippi. Also, a permit or approval letter by the Mississippi Department of Environmental Quality to the City of Gautier Street Manager shall be provided.

## **SECTION 10.9: Easements**

Adequate easements shall be appropriated for the purpose of providing for utilities and underground and above ground stormwater facilities. Easements shall be shown on both the Preliminary and the Final Plat.

### **10.9.1 Utility Easements**

Easements across the front of lots or if needed centered along the rear and side lot lines shall be provided for utilities and/or stormwater.

- A.** Utility facilities, including, but not limited to, water, sewer, gas, electric power, telephone and telecommunication cable shall be located underground throughout Type A Developments. Certain types of overhead utilities are permitted in Type B Developments.
  - 1.** Easements for utilities shall be at least twenty (20) feet wide at ground level with an additional six (6) feet wide overhang on each side from twelve (12) feet above the ground and up.
  - 2.** Whenever possible, easements shall be equally divided between abutting lots.
  - 3.** Where easements intersect or sharp changes in alignment are necessary, corners shall be cut off sufficiently to permit equipment access, subject to the approval of the Utilities Division Manager.
  - 4.** Crossing of overhead telephone and power lines shall provide for a vertical clearance of at least eighteen (18) feet above the pavement, or a minimum vertical clearance adopted by the National Electric Safety Code and the Mississippi Public Service Commission.
  - 5.** Underground utilities shall be installed prior to the application of the final surface course on the roads of said subdivision. All utility trenches shall be thoroughly tamped upon being backfilled and maintained by refilling the retamping and settlement.
  - 6.** Underground utilities paralleling the final surface course and said roads shall be located no closer than three (3) feet to the edge of said surface course and shall have a minimum cover of thirty-six (36) inches.
  - 7.** After installation of final surface course on roads or streets is made, no underground crossing under said roads or utilities shall be made without first obtaining a permit from Economic Development Department.
- B.** Stormwater and Drainage Easements: Where a development is traversed by a water course, drainage way, channel or stream or where topography of other conditions require natural drainage swells or underground drainage facilities along the front side or rear of lots, perpetual, unobstructed easements shall be required.
  - 1.** Drainage easements of not less than twenty (20) feet in width, conforming substantially to the alignment of such water course, drainage way, channel or stream shall be provided.
  - 2.** Stormwater easements for drainage may be of greater widths as determined by the Street Division Manager to accommodate anticipated storm flows, future construction and channel maintenance.

3. No building, fence, pole, or other obstruction shall be permitted within the drainage right-of-way. Bulkheads, concrete paving of drainage channels or other appropriate methods to prevent erosion of drainage channel banks may be required by Economic Development Department and the Street Division Manager.
  4. Whenever possible, easements shall be equally divided between abutting lots.
  5. Low-lying lands along watercourse subject to flooding or overflowing during storm periods shall be preserved and retained in their natural state as drainage ways. Such land or lands subject to periodic flooding shall not be computed in determining the number of lots to be utilized for computing the area requirements of any lot.
- C. Widths Required for Utilities and Drainage Easements shall be:
1. 20 feet for utilities
  2. 20 feet for drainage
  3. 30 feet for a combination of utilities and drainage

## **SECTION 10.10: Sidewalks**

Sidewalks shall be required with the development of two or more adjoining lots, and in all subdivisions with typical lot widths of less than 100 feet unless otherwise approved by the Planning Commission. All sidewalks shall be concrete and a minimum of four (4) inches in thickness, sloped toward the roadway and have a minimum of two (2) foot grassed or landscaped median area (amenity area) separating the sidewalk and the adjacent curb, unless otherwise approved by the city. Sidewalks abutting arterial streets shall be a minimum of five (5) feet in width. All other sidewalks shall be a minimum of four (4) feet in width. All sidewalks shall be handicapped accessible.

## **SECTION 10.11: Recreational Areas, Open Space, Lakes and Ponds**

### **10.11.1 General**

Reservations for common ground, open spaces, conservation areas, or playgrounds shall be shown and marked on the plat in an appropriate manner such as "Reserved for Park and/or Recreational Purposes," or "Common Ground."

### **10.11.2 Maintenance**

The maintenance of such areas shall be the responsibility of the developer and/or the Home Owners Association. Responsibilities for perpetual maintenance shall be a part of the Restrictive Covenants of the subdivision. Articles of agreement of the Home Owner's Association and/or Restrictive Covenants shall be submitted for review by the City Attorney prior to Final Plat approval.

If and when problems arise with parks, lakes or any other type of recreational facility due to inadequate maintenance, the ED Director or his designee may inspect the improvements and compel the correction of the problems by written notice. Should required corrective action not be completed by the responsible party, the City shall have such situations corrected and a lien shall be placed on the property by the City Attorney equal to the cost of the corrective action plus any administrative expenses incurred.

### **10.11.3 Playgrounds and Parks**

- A.** Parks and playgrounds shall be improved and landscaped consistent with other development within the subdivision, contain park benches or other related equipment certified by the Developer's Engineer and approved by the appropriate City official.
- B.** Existing natural areas may be used to meet the open space requirements, provided they are not unusable due to flooding, steep slope or for other reasons.

### **10.11.4 Lakes or Ponds Within or Adjacent to Development**

- A.** Any lakes or ponds included within any development shall be designed in accordance with accepted engineering practices for containment and outlet structures. All lakes or ponds shall be developed to Natural Resources Conservation Service (NRCS) minimum standard and have all DEQ or Army Corps of Engineers Permit where required.
- B.** Outlet control structures shall operate automatically and designed to limit discharges into existing or planned downstream channels or conduits so as not to exceed predetermined safe capacities.

## **SECTION 10.12: Water Supply System**

The subdivider shall provide suitable water mains and provide a water connection in accordance with the City minimum design standards for required improvements for each lot to a water supply approved by the Mississippi State Board of Health and City of Gautier Utility Division. The water mains shall be of sufficient size to adequately supply the requirements of the subdivision for domestic use and fire protection in accordance with the standards of the Mississippi State Rating Bureau and the Mississippi State Board of Health, and shall conform to the following requirements:

### **10.12.1 General Requirements**

- A.** The applicant shall extend the existing water-supply district for the purpose of providing a water-supply system capable of providing domestic water use and fire protection.
- B.** The subdivider shall install adequate water facilities (including fire hydrants) subject to the specifications of the City of Gautier Utility Division and system shall be designed in accordance with the city minimum design standards for required improvements.
- C.** Water main extensions shall be approved by the City of Gautier Utility Division and the Mississippi State Board of Health.
- D.** To facilitate the above, the location of all fire hydrants, all water supply improvements, and the boundary lines of proposed districts, indicating all improvements proposed to be served, shall be shown on the preliminary plat, and the cost of installing same shall be included in the performance bond to be furnished by the developer.
- E.** Materials shall conform to the City minimum design standards for required improvements.

### **10.12.2 Individual wells and central water systems**

Within the discretion of the Public Works Director and/or Economic Development Director, if a public water system is not available, individual wells may be used or a central water supply system shall be provided in such a manner that an adequate supply of potable water will be available to every lot in the subdivision. Water samples shall be submitted to the Mississippi State Board of Health for its approval. All design requirements and acceptance of individual wells and central water systems shall be approved by the Mississippi State Board of Health. Orders of approval shall be submitted to the Public Works Director and/or Economic Development Director.

- A.** Based on a schedule from the City of Gautier Utility Division, if the Public Works Director and/or ED Director determines that public water may be provided within five (5) years, as a condition to approval of an individual well or central water system, the applicant shall provide the design and approvals for future water service at the time the plat received final approval. Performance or cash bonds shall be required to insure compliance.
- B.** There shall be no physical connection between public and private potable water supply systems.

### **10.12.3 Future water system:**

To eliminate street openings for future water systems, the Public Works Director and/or ED Director shall require any of the following:

- A.** The entire water system to be constructed and capped for future connections;  
or
- B.** Pipe casings to be installed at all street crossings; or
- C.** Boring methods.

In all cases the design engineer shall be required to design and furnish design drawings of the complete water system to be installed.

### **10.12.4 Fire Hydrants**

Fire hydrants shall be installed in accordance with local fire prevention codes. Fire hydrants shall be required for all subdivisions. Fire hydrants shall be located no more than one thousand (1000) feet apart and within five hundred (500) feet of any residential structure and within four hundred (400) feet of any commercial structure. Fire Hydrants shall be designed and installed per requirements of the Mississippi State Rating Bureau. To eliminate future street openings, all underground utilities for fire hydrants, together with the fire hydrants themselves and all other supply improvements shall be installed before any final paving of all streets shown on the subdivision plat. Hydrants shall be served by a minimum size water main of eight (8) inches or six (6) inches if lines are looped or as supported by engineering calculations.

## **SECTION 10.13: Sanitary Sewer System**

The developer shall provide a sanitary sewer system, complete with treatment facilities that will adequately meet the needs of the development and shall provide sewer connection for each lot within the development. The developer shall submit to the City a letter of approval by Mississippi Air and Water Pollution Control Commission for plans for such system prior to the initiation of construction.

### **10.13.1 Sanitary sewers; general requirements.**

- A.** The subdivider shall provide a sanitary sewer system. Connections for each lot within the subdivision shall be made. The sanitary sewer system shall be designed in accordance with the city minimum design standards for required improvements and shall be approved by the Mississippi Department of Environmental Quality, Office of Pollution Control and the City of Gautier Utility Division. The developer shall furnish the Public Works Director and/or ED Director with a certificate from each agency that they have made a physical inspection of the subdivision and approved such system. The City Consulting Engineer shall also make such a physical inspection and shall submit his recommendations to the Public Works Director and/or ED Director for their approval or disapproval.
- B.** Materials shall conform to the city minimum design standards for required improvements.