Chapter 78

SUBDIVISIONS*

* **Cross References:** Buildings and building regulations, ch. 18; flood damage prevention, § 34-31 et seq.; manufactured homes and trailers, ch. 50; planning, ch. 66; zoning, app. A.

State Law References: Subdivision control, R.S. 33:101, 33:106.1, 33:111 et seq.

Article I. In General

Article II. Plats and Plat Approval

Article III. Design Standards and Requirements

Division 1. Generally

Division 2. Streets

Article IV. Required Improvements

Division 1. Generally

ARTICLE I.

IN GENERAL

Sec. 78-1. Title of chapter.

This chapter may be cited and otherwise referred to as the city subdivision ordinance.
(Code 1976, § 23-1)

Sec. 78-2. "Subdivision" defined.

(a) For the purpose of this chapter, a subdivision of land is:

(1) The division of land into two or more tracts, sites or parcels of three acres or less in area; or

(2) Resubdivision of land heretofore divided or platted into lots, sites or parcels.

Any sale or contract of sale or agreement to purchase any lot or division of land either by lot description or by metes and bounds as defined in this subsection shall constitute a subdivision of land and require, prior to any sale or contract of sale or agreement to purchase and before the recordation of a deed, the submission of a plat to the board of trustees. The term "subdivision" does not include those subdivisions of land exempted in R.S. 33:106.1.

(b) This chapter shall not apply to:

(1) Land in subdivisions legally recorded previously, except in the case of resubdivisions.

(2) The subdivision of land to be used for orchards, forestry or the raising of crops, provided the board of trustees certifies upon the plat that such land is to be used only for orchards, forestry or the raising of crops.

(3) The subdivision of land that has been dedicated to recreational uses, and restricted against residential, commercial or industrial uses, by act executed by the owner of the land and filed for record in the public conveyance records of Iberia Parish. This exception shall no longer apply, and the subdivision approval shall be necessary, in the event that the dedication is revoked to

allow residential, commercial or industrial uses.
(Code 1976, § 23-2; Ord. No. 2000-577, § 1, 9-19-00)

Sec. 78-3. Applicability of chapter.

This chapter shall govern all subdivision of land within the limits and jurisdiction of the city.
(Code 1976, § 23-3)

Sec. 78-4. Penalty for sale or transfer of lots prior to approval and recording of plat.

Whoever, being the owner or agent of the owner of any land located within a subdivision, transfers or sells or agrees to sell any land by reference to or exhibition of or by other use of a plat of a subdivision, before such plat has been approved as provided in this chapter and recorded or filed in the office of the clerk of court of the parish, shall forfeit and pay a penalty of $500.00 for each lot or parcel so transferred or sold or agreed to be sold. The description of such lot or parcel by metes and bounds in the instrument of transfer or other documents used in the process of selling or transferring shall not exempt the transaction from the penalty provided in this section.
(Code 1976, § 23-29)

State Law References: Similar provisions, R.S. 33:114.

Sec. 78-5. Figures and diagrams.

All figures or diagrams referenced in this chapter are adopted by reference as if set out at length in this chapter.

Secs. 78-6--78-30. Reserved.

ARTICLE II.

PLATS AND PLAT APPROVAL

Sec. 78-31. Generally.

(a) Any owner of land within the limits of the subdivision jurisdiction of the city wishing to subdivide land shall submit to the board of trustees a plat of the subdivision, which shall conform to the minimum requirements set forth in Article III of this chapter.

(b) Before approving a subdivision plat, the city shall submit it to the planning commission for recommendation and report. Failure of the planning commission to report within 60 days shall be deemed an approval of the plat.

(c) No plat of a subdivision lying within such territory or part thereof shall be filed or recorded in the office of the clerk and recorder of the parish, and no subdivider may proceed with improvement or sale of lots in a subdivision, until such subdivision plat has been approved by the board of trustees and such approval entered in writing on the plat by the board of trustees.

(d) Notwithstanding other provisions of this article or other law to the contrary, the director of planning, with the concurrence of the mayor, may grant approval and certify plats involving minor modifications of existing parcels of land. Such approval and certification shall not require submission to the planning commission and board of trustees and shall have the same effect as approval of the plat by the board of trustees as provided herein. The categories of such modifications qualifying for such administrative approval or

certification are:

(1) The realignment or shifting of lot boundary lines, including removal, addition, alignment, or shifting of interior lot boundary lines, or the redesignation of lot numbers provided the application meets the following requirements:

a. Does not involve the creation of any new street or other public improvement.

b. Does not involve more than two acres of land or ten lots of record.

c. Does not reduce a lot size below the minimum area or frontage requirements established by ordinance.

d. Otherwise meets all the requirements of the subdivision regulations and zoning ordinances.

(2) Parcels of land where a portion has been expropriated or has been dedicated, sold, or otherwise transferred to the parish or municipality, thereby leaving a severed portion of the original property which requires a redesignation of lot number and establishment of new lot boundary lines.

(e) All plats approved or certified by an administrative procedure provided for herein shall designate such fact on the plat and the plats shall be recorded in the conveyance records of the parish. Any plat so approved shall have the same force and effect and legal status of a subdivision application approved as otherwise provided herein.
(Code 1976, § 23-4; Ord. No. 2000-575, § 1, 8-15-00)

State Law References: Plat approval, R.S. 30:113.

Sec. 78-32. Preliminary plat.

(a) *Required; contents.* To prevent undue hardship on the subdivider through possible required plat revisions, a preliminary plat of the proposed subdivision, at a scale not smaller than 200 feet to the inch, shall first be submitted to the board of trustees in duplicate and shall give the following information:

(1) The subdivision name, and the names and addresses of the owners and of the designer of the plat, who shall be a competent engineer, architect, landscape architect or land surveyor.

(2) The date, approximate north point and a graphic scale.

(3) The location of existing and platted property lines, streets, buildings, watercourses, railroads, sewers, bridges, culverts, drainpipes, water mains and any public utility easements, both on the land subdivided and on the adjoining land, and the names of adjacent subdivisions and the names and addresses of record owners of adjoining parcels of land as they appear on the current tax records.

(4) The names, locations, widths and other dimensions of proposed streets, alleys, easements, parks and other open spaces, reservations, lot lines and building lines.

(5) A statement of proposed street improvements, including a contour map where terrain might affect the location of streets, and profiles of all streets showing natural and finished grades, drawn to a scale of not less than one inch equals 100 feet horizontal and one inch equals 20

feet vertical, when required by the board of trustees.

(6) Preliminary sketch plans or proposed utility layouts for sewer, water and electric service, showing feasible connections, where possible, to existing and proposed utility systems.

(b) *Review and approval.* Upon receipt of this preliminary plat, the board of trustees shall transmit the plat to the planning commission, the parish health unit and any other interested city or parish department for review and recommendation in relation to specific service problems. The approval or disapproval of the preliminary plat shall be by the board of trustees, and approval of the preliminary plat shall not be deemed final acceptance but rather an expression of approval of the layout as submitted on the preliminary plat. Such approval shall not be noted on the preliminary plat. One copy of the preliminary plat shall be retained in the files of the board of trustees.
(Code 1976, § 23-41)

State Law References: Preliminary plat authorized, R.S. 33:112.

Sec. 78-33. Final plat.

(a) *Submission.* The final plat shall be submitted to the board of trustees in triplicate, of which one copy shall be the original drawing, and, unless this is done within one year of the board of trustees's approval of the preliminary plat, such approval shall lapse.

(b) *Minimum public improvements.* It is the intent of this chapter that the sale of building lots should be contingent upon at least a minimum of public improvements being made within the dedicated streets of the plat, as follows:

(1) Streets graded and improved to provide an all-weather driving surface;

(2) Sufficient storm drains to adequately drain the streets; and

(3) Water and sanitary sewer mains when these facilities are practicable;

and all these should be installed to the size and quality acceptable to the city department or agency having jurisdiction.

(c) *Certification of installation of improvements or bond required.* With the provisions of subsection (b) of this section in mind, the board of trustees will consider approval of the final plat only after receipt of:

(1) Certification by the board of trustees that all improvements have been installed in accord with the regulations of this chapter and with the action of the board of trustees giving conditional approval of the preliminary plat; or

(2) Certification by the clerk to the board of trustees that a bond has been posted, available to the city and in sufficient amount to ensure the completion of the required improvements.

(d) *Form; contents.* The final plat shall be drawn on tracing cloth or paper on sheets not larger than 17 inches by 28 inches and shall be at a scale of 200 feet to one inch or larger. Where necessary the plat may be on several sheets accompanied by an index sheet showing the entire subdivision. The final plat shall show the following:

(1) The township, range and section in which the subdivision is located. If a section corner, township line or range line falls within the subdivision, it shall be shown.

(2) Primary control points, or descriptions and ties to such control points, to which all dimensions, angles, bearings and similar data on the plat shall be referred.

(3) Tract boundary lines, right-of-way lines of streets, easements and other rights-of-way, and property lines of residential lots and other sites, with accurate dimensions, bearings or deflection angles, and radii, arcs and central angles of all curves.

(4) The name and right-of-way width of each street or other right-of-way.

(5) The location, dimensions and purpose of any easements.

(6) A number to identify each lot or site.

(7) The purpose for which sites, other than residential lots, are dedicated or reserved.

(8) The minimum building setback line on all lots and residential sites.

(9) Any areas which have been flooded within a period of ten years prior to the date of the final plat.

(10) Location and description of monuments.

(11) The names of record owners of adjoining unplatted land.

(12) Reference to recorded subdivision plats of adjoining platted land by record name, date and number.

(13) Certification by a surveyor or engineer certifying to the accuracy of the survey and plat.

(14) A statement by the owner dedicating streets, rights-of-way and any sites for public uses.

(15) Title, scale, north point and date.

(16) Certificate of approval by the board of trustees.

(e) *Disposition of copies following approval.* Upon approval of the plat, the original drawings shall be returned to the subdivider, and one copy shall be retained in the files of the board of trustees.

(f) *Effect of failure of board to take action; notice of disapproval.* Failure of the board of trustees to approve or disapprove the final plat within 15 days after receipt of the recommendation and report from the planning commission shall be deemed to be concurrence with the recommendation of the planning commission, be it for approval or disapproval of the plat. If the plat is disapproved, the grounds for disapproval shall be stated upon the records of the board of trustees and a letter transmitted to the subdivider stating the reasons for such disapproval.
(Code 1976, § 23-43)

Secs. 78-34--78-55. Reserved.

ARTICLE III.

DESIGN STANDARDS AND REQUIREMENTS*

* **State Law References:** Design standards authorized, R.S. 33:112.

DIVISION 1.

GENERALLY

Sec. 78-56. Conformance with city plan.

All proposed subdivisions shall conform to any city plan which has been officially adopted by the planning commission. Whenever a tract to be subdivided embraces any part of a highway, major street, secondary street or parkway so designated on any city plan which has been officially adopted by the planning commission, such part of such proposed public way shall be platted by the subdivider in the same location and at the same width as indicated on such city plan.
(Code 1976, § 23-16)

Sec. 78-57. Variances.

Where a subdivider can show that a provision of the general requirements and minimum standards of design set out in this chapter would cause an unnecessary hardship if strictly adhered to, and where, because of topographical or other conditions peculiar to the site, in the opinion of the planning commission a departure may be made without destroying the intent of such provisions, the planning commission may recommend that the board of trustees authorize a variance. Any variance thus authorized is required to be entered in writing in the minutes of the planning commission, and the reason which justified the departure shall be set forth. No variance shall be authorized without the recommendation of the planning commission; provided, however, that the failure of the planning commission to report within 30 days from and after the date of official submission by the board of trustees to the planning commission shall be deemed approval by the commission.
(Code 1976, § 23-28)

Sec. 78-58. Lots.

(a) *Arrangement.* As far as practical, side lot lines shall be at right angles to straight street lines or radial to curved street lines. Except as otherwise provided, each lot must front upon a street which is not less than 50 feet in width and which is connected with the public street system.

(b) *Minimum size.* Within the subdivision jurisdiction limits of the city, the size and shape of residential lots shall be such as the board of trustees deems appropriate for the type of building development contemplated. Building plots shall have a minimum width of 50 feet at the building setback line, and a minimum area of 6,000 square feet, except that each proposed new lot located in a zoning district designated R-1, R-2, R-3, R-4, R-5 or R-6 shall only be required to have the minimum width and minimum area specified for the zoning district in which the proposed new lot is located. Corner lots shall have extra width sufficient to permit establishment of a building line at least 15 feet from the side street property line. The distance from the side street property line shall be measured from the street right-of-way paralleling the long dimension of the lot. Townhouses or condominiums may be built on lots having less street frontage and area, provided that the plans are approved by the city zoning commission after public hearing and that the plans comply with criteria adopted by the commission.

(c) *Exception.* The lot measuring 140 feet along the front on the easterly side of Duperier Avenue by a depth of 160 feet in city block 120, bounded on the north by Veazey, on the south by Oubre, on the east by Veazey and Berard and on the west by Duperier Avenue, may be subdivided into three equal 46 1/2A front

parcels, each fronting on Duperier Avenue, with each parcel having a minimum of 6,000 square feet of area, and may be used for single-family residences only.
(Code 1976, § 23-24; Ord. No. 2002-616, § 12-17-02)

Sec. 78-59. Public use areas; easements.

(a) *Reservation of land for public use.* Where a park, neighborhood recreational open space, school site or other area for public use shown on a plan which has been officially adopted by the planning commission is located in whole or in part in a proposed subdivision, the board of trustees shall seek to secure the reservation of the necessary land for such use. Special consideration shall be given to schools and parks in subdivisions larger than 25 acres or 100 lots.

(b) *Utility easements.* Except where alleys are provided for the purpose, the board of trustees will require easements not exceeding four feet in width for poles, wires and conduits, or where feasible for storm and sanitary sewers and gas, water or other utility lines, on each side of the common rear lot lines, and may require easements along side lot lines where necessary unless the utility company certifies this to be impractical or unless it is not feasible in the opinion of the board of trustees.

(c) *Dedication of right-of-way along drainage courses.* Whenever any stream or improved surface drainage course is located in an area that is being subdivided, the subdivider shall dedicate an adequate right-of-way along each side of the stream for the purpose of widening, deepening, sloping, improving or protecting the stream, or for drainage maintenance. For all drainage courses having a bottom width of five feet or more, the subdivider shall dedicate a right-of-way having a width of five feet for every one foot of bottom width. For example, a 25-foot right-of-way shall be dedicated for all drainage courses having a bottom width of five feet, a 50-foot right-of-way shall be dedicated for all drainage courses having a bottom width of ten feet, etc.

(d) *Dedication of reserve strips.* There shall be no reserve strips except those which are conveyed to the government having jurisdiction.
(Code 1976, § 23-25)

Sec. 78-60. Building restrictions and building setback lines.

(a) No final plat of land within the force and effect of a zoning ordinance shall be approved unless the building restrictions to be established conform with the minimum requirements of such zoning ordinance.

(b) Minimum building setback lines shall be provided for all lots designated as residential lots. Such building setback lines shall be not less than 20 feet.
(Code 1976, § 23-26)

Sec. 78-61. Comprehensive group housing developments.

A comprehensive group housing development including the construction of two or more buildings together with the necessary drives and ways of access and which is not subdivided into the customary lots, blocks and streets may be approved by the board of trustees if in the opinion of the board of trustees any departure from the regulations of this chapter can be made without destroying the intent of the regulations. Plans for all such developments shall be submitted to and approved by the board of trustees whether or not such plat is to be recorded, and no building permits shall be issued until such approval has been given.
(Code 1976, § 23-27)

Sec. 78-62. Subdivisions with private gated (controlled access) streets.

Notwithstanding any contrary provision in this chapter, a subdivision as defined herein may contain private gated street(s) not dedicated to public use or accepted for public maintenance, provided that:

(1) The subdivision and the street improvements must conform to all requirements of this chapter, including section 78-103, except that private gated (controlled access) streets established in compliance with this section need not be dedicated to public use; and

(2) Prior to the recordation of a plat of survey of a subdivision with a private gated (controlled access) street, the subdivider shall cause the surveyor to clearly denote the following language on said plat:

> "Private ownership of the street(s) as shown herein is hereby reserved and the city has no responsibility or liability for maintenance, use or failure of said streets, and does not warrant that said streets will be accessible or open. All use, maintenance and liability therefor shall be subject to the rules and regulations set forth in an agreement among the owners of the property fronting on said street(s). Any purchaser is placed on notice that some public services may not be available on private streets. Said plat does not comply with R.S. 33:5051(B) (6) and (7)."

(3) Prior to approval of a subdivision with a private street the owners of the property fronting on said private street must execute and file of record an agreement providing for maintenance of the private street and payment of the cost of maintenance of the private street.

(4) Any private gated (controlled access) street established under this chapter must at all times remain open to emergency and public safety vehicles.

(Ord. No. 98-536, § 1, 5-19-98)

Sec. 78-63. Effective date.

The preceding section shall become effective upon adoption and publication as provided by law, but shall have no retroactive application to any unfinished phase of any existing subdivision within the city.
(Ord. No. 98-536, § 1, 5-19-98)

Secs. 78-64--78-70. Reserved.

DIVISION 2.

STREETS

Sec. 78-71. Relation to adjoining system.

Proposed new streets shall extend existing streets or their projections at the same or greater width, but in no case less than the minimum required width, unless variations are deemed necessary by the board of trustees for reasons of topography or design. Where, in the opinion of the board of trustees, it is desirable to provide street access to adjoining property, proposed streets shall extend to the boundary of such property. Half streets along the boundary of land proposed for subdivision will be permitted.
(Code 1976, § 23-17)

Sec. 78-72. Width.

The minimum width of proposed streets, measured from lot line to lot line, shall be as shown on the

major street plan, or, if not shown on such plan, not less than 80 feet for major streets and 50 feet for other streets, provided, however, that the board of trustees may permit a width of not less than 40 feet for a cul-de-sac street.
(Code 1976, § 23-18)

Sec. 78-73. Intersections.

As far as practical, acute angles at street intersections shall be avoided. Where an acute angle of less than 75 degrees occurs between streets at their intersection, the board of trustees may require the property lines to be rounded or otherwise set back to permit curb construction of a desirable radius without curtailing the sidewalk at the street corner to less than normal width. Submission of a grading plan showing existing and proposed contours at one-foot intervals and a detailed design for the intersection may be required by the board of trustees.
(Code 1976, § 23-19)

Sec. 78-74. Dead-end streets.

Streets designed to have one end permanently closed (cul-de-sacs) shall be provided at the closed end with a turnaround with a minimum right-of-way radius of 50 feet and a minimum driving surface radius of 35 feet. A cul-de-sac shall not be more than 500 feet in length unless otherwise approved by the board of trustees for specific reasons of topography or design.
(Code 1976, § 23-20)

Sec. 78-75. Names.

Proposed streets obviously in alignment with existing and named streets shall bear the names of existing streets. In no case shall the name for the proposed streets duplicate existing street names, irrespective of the suffix used.
(Code 1976, § 23-21)

Sec. 78-76. Improvements.

Street improvements shall be required as set forth in article IV of this chapter.
(Code 1976, § 23-22)

Sec. 78-77. Blocks.

Blocks shall not be more than 900 feet in length, unless there is provided a public crosswalk with not less than a ten-foot right-of-way. If such crosswalk is provided, blocks may not be longer than 1,500 feet.
(Code 1976, § 23-23)

Secs. 78-78--78-100. Reserved.

ARTICLE IV.

REQUIRED IMPROVEMENTS*

* **State Law References:** Authority to require improvements, R.S. 32:112.

DIVISION 1.

GENERALLY

Sec. 78-101. Installation or posting of bond required prior to approval of final plat.

The improvements listed in this article shall be installed prior to approval of the final plat; provided, however, that, in lieu of installation of these improvements, the subdivider may post a bond to cover the cost of improvements as provided in section 78-33(b)(2).
(Code 1976, § 23-42(a))

Sec. 78-102. Monuments and markers.

(a) Wherever improvements are constructed under this article, all subdivision boundary corners and the four corners of all street intersections shall be marked with permanent monuments. A permanent marker shall be deemed to be a steel pipe which extends a minimum of two feet below the ground line. Should conditions prohibit the placing of monuments, on-line offset marking will be permitted provided that exact offset courses and distances are shown on the subdivision plat.

(b) For all subdivisions larger than five lots, a permanent benchmark shall be accessibly placed, the elevation of which shall be based on the gulf level datum as determined by the U.S. Geological Survey, and accurately noted on the subdivision plat. Such permanent benchmark shall be of concrete with a minimum dimension of four inches and shall extend a minimum of two feet below the ground line.
(Code 1976, § 23-42(b))

Sec. 78-103. Street improvements.

(a) *Surfacing.* All streets shall be surfaced in accordance with one of the following methods, except that major arterial streets shall only be surfaced according to subsection (1) of this section and streets surfaced according to subsection (2) of this section shall only be used in residential subdivisions.

(1) All streets shall be surfaced with type F, class A Portland cement concrete pavement, six-inch uniform thickness, minimum 30 feet concrete pavement with eight-inch curbs, in compliance with General Specifications for Street Improvements, prescribed by the city, April 1946, as amended; or

(2) All streets shall be surfaced with asphaltic concrete having a two-inch uniform thickness, placed between concrete curbs and gutters and upon a ten-inch thick soil cement base course with a minimum riding surface width of 30 feet and eight-inch wide curbs and constructed in accordance with the Louisiana Standard Specifications for Roads and Bridges, latest edition, as published by the state department of transportation and development, office of highways, Baton Rouge. The work shall be performed as follows:

a. *Base course.* Base course work is to begin only after all trenching for utilities has been completed and backfilled. All trench backfill is to be compacted to 95 percent of the maximum density as determined by the Modified Proctor Test. All soil to be used for the base course shall be tested to determine its classification. If the base course is to be constructed from off-site material it shall conform to the requirements for Selected Soils. If the base course is to be constructed from existing on-site materials and its plasticity index is greater than 15, it shall be treated with the appropriate amount of lime in

accordance with the state department of transportation and development standard specifications. Soils having a plasticity index greater than 35 shall not be used for the base course. After the base course material has been corrected, if necessary, it shall be brought to the required grade and section. The outer six feet of road bed shall be compacted to 95 percent of maximum density as determined by the Modified Proctor Test and the inner area shall be stabilized with ten inches of soil cement constructed in accordance with the state department of transportation and development standard specifications.

b. *Concrete curbs and gutters.* After the perimeter base course work and subsurface drainage are complete but before the soil cement base course is started, the concrete curbs and gutters are to be constructed as described in the state department of transportation and development specifications. If the concrete for the curbs and gutters is poured monolithically, no reinforcing will be required. If the curb is poured separately, no. 4, grade 60, deformed bars, two feet long and bent into a U shape located on two-foot centers are to be continuously placed between the base slab and the curb. The concrete gutter shall consist of a concrete slab six inches thick and two feet, eight inches wide placed at a transverse slope of 0.08 foot per foot. The roll-over type curb shall be eight inches wide placed on the outer side of the concrete gutter. Its transverse section shall begin with a one-inch vertical rise; then a three-inch vertical to six-inch horizontal slope; then a two-inch horizontal surface; then a four-inch drop to the outside edge of the gutter slab. If a barrier-type curb is to be used, its section begins with a six-inch vertical to two-inch horizontal slope; then a six-inch horizontal surface, then a six-inch drop.

c. *Asphaltic concrete.* After all base course, curb and gutter work has been completed and the prescribed curing time has elapsed, the two-inch thick by 26 feet wide asphaltic concrete surface is to be applied in accordance the state department of transportation and development standard specifications. Note that the asphalt is to have a thickened area along all curb and gutter concrete and along any areas that abut existing pavements. The thickened areas are to be two feet wide and eight inches thick. The transverse slope of the asphalt riding surface is to be 0.025 foot per foot. Any areas where the new asphaltic concrete is to be in contact with existing asphaltic concrete will be appropriately coated with a tack coat.

d. *Testing.* Prior to acceptance by the city, the developer shall submit copies of all testing data covering all phases of the work. Testing shall be conducted in accordance with the state department of transportation and development standard specifications. Along with the test data will be a certification by a civil engineer licensed in the state verifying that all work and tests were performed in accordance with the above-described requirements.

e. *Warranty.* The developer will supply a warranty to the city guaranteeing the project to be free of defects for a period of one year after acceptance.

(b) *Grading.* The full right-of-way shall be graded.

(c) *Ditches.* If curbs and gutters are not provided, ditches shall be provided having at least 3:1 fore slopes, or side slopes on the street side having at least three feet of horizontal distance for each one foot of vertical drop, and 2:1 back slopes on the property side having at least two feet of horizontal distance for each one foot of vertical drop.

(d) *Sidewalks.* Sidewalks of concrete or equivalent surface shall be provided on all streets designated as major streets on the plan adopted by the planning commission.

(e) *Markers.* Street markers bearing the names of the streets shall be provided and installed at each street intersection in the subdivision.

(f) *Roadway lighting.*

(1) All roadways and/or streets shall have roadway lighting. The purpose of street lighting is to promote safety and convenience for vehicular and pedestrian traffic through adequate visibility during darkness. All roadway lighting systems shall be designed per the latest requirements of the Illuminating Engineering Society (IES) in conformity to the roadway classification per the IES definitions, of the roadway for which the lighting is being installed.

(2) The local franchised utility company shall design all roadway lighting systems. Equipment used shall be manufactured specifically for streetlight application and repair parts shall be available for the projected life of the installation. Any standard equipment and any equipment other than the standard equipment used by the franchised servicing authority shall require that utility's approval prior to that utility's accepting the installation for connection to its system. The franchised utility company upon acceptance of any installation for connection to its system shall at that date forward be fully responsible, including but not necessarily limited to the proper operation, maintenance and replacement of the installation. All component parts, including but not necessarily limited to poles when replaced, shall match and be equal to the existing installation in performance, design, pattern and color. The utility company shall ensure that the degree of illumination in divided or boulevard-type streets is consistent with the degree of illumination required by this subsection for undivided streets.

(3) In addition to all requirements of the provisions of this chapter, all effort shall be employed in the design of the roadway lighting system to locate light poles on property lines where possible, to use the highest efficiency components as practical and to use reasonable care to utilize lighting sensitive to the environment that it illuminates whenever practical and possible.

(4) The provisions of this chapter shall not be construed to impose a duty on either the city or a franchised servicing utility as to the public regardless of the activity in which the public or any member thereof is engaged.

(5) No roadway lighting facilities shall be installed by any person, or by any utility company, within dedicated rights-of-way in any approved subdivision until and unless an application therefor has been submitted to and approved by the department of planning under the conditions and circumstances provided in this subsection.

(6) If any person or any utility company shall install roadway lighting facilities in any subdivision in violation of the provisions of this chapter, the director of planning shall give such person or utility company, as the case may be, ten days' written notice to remove the roadway lighting facilities from the dedicated rights-of-way, and upon failure of such person to remove such facilities, the director of planning is authorized to remove same without further notice. All costs of such removal shall be chargeable to the owner of such facilities or to the person installing same, as the case may be.

(Code 1976, § 23-42(c); Ord. No. 455-93, § 1, 10-5-93; Ord. No. 466-94, § 2, 4-19-94)

Sec. 78-104. Sewage disposal system.

(a) If the subdivision is located where a public sanitary sewer is accessible, the subdivider shall connect with such sanitary sewer and provide adequate sewer lines accessible to each lot. Sewer connections and subdivision sewer systems shall comply with the regulations of the state board of health, and shall be constructed under the supervision of and approved by the parish health unit and engineer for the city.

(b) If no sanitary sewer is accessible, sewage disposal facilities shall be approved by and constructed under the supervision of the parish health unit. If sewage disposal is to be by septic tank or other similar individual means, the plat shall carry the notation that such individual means of sewage disposal shall be constructed according to the specifications of and under the supervision of the parish health unit.
(Code 1976, § 23-42(d))

Sec. 78-105. Water supply; fire hydrants.

The subdivider shall connect with a water supply approved by the parish health unit and the engineer for the city and make it available for each lot within the subdivided area. Fire hydrants shall also be installed by the subdivider in accordance with requirements of the fire underwriters per the review and approval of the city fire department. All fire hydrant installations shall further comply with the current fire rating for the city.
(Code 1976, § 23-42(e); Ord. No. 466-94, § 1, 4-19-94)

Secs. 78-106--78-115. Reserved.

DIVISION 2.

DRAINAGE

Sec. 78-116. Drainage plan.

(a) Storm sewer design may be considered to consist of two separate phases. The first deals with the entire upstream area and involves the determination of the watershed and the amount of runoff it produces. The second phase deals with the development, its internal drainage facilities and its effects on the areas downstream.

(b) The design engineer shall submit these two phases combined in the subdivision drainage plan, detailing the runoff flowing into, through and exiting the subdivision. The primary purpose of this map is to indicate the size, shape and direction of flow of all drainage areas which will affect drainage in regard to the development of the proposed subdivision. This drainage map shall be plotted at a scale no smaller than one inch equals 100 feet. The information shall extend a sufficient distance downstream on all drainage courses and easements to determine the adequacy of all proposed outlets on downstream areas.

(c) Hydraulic calculations and drainage area maps (example quad sheets) shall be submitted to clarify these two phases of the storm sewer design. The calculations will show how any runoff resulting from construction will affect downstream areas. The calculations must answer the following questions, showing computations in each case:

(1) How much will runoff increase?

(2) Will existing waterways and road ditches and existing structures handle this increased flow?

The size of all existing drainage structures under all existing roadways and railroads in the vicinity should be included, along with any other pertinent drainage information such as information on areas where flooding is

actually occurring.
(Code 1976, § 23-42(f)(1))

Sec. 78-117. Discharge determination.

(a) Two methods will be used in determining the discharge in the subdivision and outside the subdivision, the Rational Method and the Soil Conservation Department Method.

(b) For drainage areas less than 400 acres in size, the design engineer shall use the Rational Method (Q=ciA) procedure for determining runoff rates.

Where:

Q	=	Peak runoff rates, CFS
c	=	Runoff coefficient
i	=	Average rainfall intensity in inches per hour at the time of concentration
A	=	Drainage area in acres

(c) For drainage areas between 400 and 2,000 acres in size, the design engineer shall use the Soil Conservation Service (SCS) procedure for determining runoff rates.
(Code 1976, § 23-42(f)(2))

Sec. 78-118. Design criteria.

(a) Storm sewer systems for subdivisions less than 50 acres in size shall be designed for a minimum storm of five-year recurrence interval. Storm sewers for main collectors for subdivisions between 50 and 200 acres in size shall be designed for a ten-year storm minimum. Outfall channels and major collector systems for subdivisions between 200 and 400 acres in size shall be designed for a 25-year recurrence interval.

(b) Pipes shall be designed for surcharged full flow conditions and sized to carry 100 percent of the runoff. The following general rules apply to the design of all storm sewer systems:

(1) Pipes or pipe arches should be sized to operate full with a minimum self-cleansing velocity of three feet per second with the exception of initial pipes in the system. Initial pipes in the system may be designed with full flow velocities of two feet per second. However, in actuality these pipes will flow part full with velocities higher than their full flow velocities. Velocities higher than 20 feet per second should also be avoided. Outlet protection will possibly be required for velocities above ten feet per second and may be required for lesser velocities in highly erodible soils.

(2) In progressing downstream, pipes sizes should never decrease.

(3) Acute turns should be avoided between the inflow line or the lateral line and the outflow line. When necessary to do so, the box will be built with a brick diversion that will channelize the

waters into the outflow line.

(4) Unless it is not possible due to lack of cover, flow line elevations should be set so that pipe centerlines in a manhole or box will be approximately in the same plane.

(5) The most desirable location of the trunk lines is outside the pavement area, to facilitate future repairs. The next choice will be under the curb, and the last choice would be under the driving lane.

(6) Inlet boxes may be constructed of the same material as the culverts. The size of the box shall be dictated by the drainage design.

(7) A minimum diameter, or round equivalent diameter for pipe arches, of 15 inches should be used for trunk lines and principal laterals. Crossings should not be less than 12 inches.

(8) Culverts shall be of reinforced concrete, metal or high density polyethylene provided that they have a 70-year design life and meet the requirements of the Louisiana Department of Transportation and Development (LA DOTD).

(9) Joint material for culverts shall meet the requirements of both the culvert manufacturer and the LA DOTD.

(c) Values of Manning's Roughness Coefficient used in design of pipe conduits are:

Reinforced concrete pipe or pipe arch, all sizes	N=0.012
Reinforced concrete box, all sizes	N=0.012
Corrugated metal pipe or pipe arch, all sizes:	
2 2/3" × 1/2" corrugation	N=0.024
3" × 1" corrugation	N=0.027
6" × 2" corrugation	N=0.031
Smooth lined	N=0.012

(d) Pipe lengths for storm sewers shall be rounded off to the whole foot.

(e) In order to be able to maintain the system properly, the maximum length of pipe without a manhole or other structure with access shall be regulated by the following table 1:

TABLE 1

Maximum Length for Given Velocity			
Pipe Diameter (inches)	3--7 feet per second	8--12 feet per second	13--20 feet per second
15	150	250	300

18	250	350	400
24--36	350	450	500
42 and larger	500	600	700

(f) Except as otherwise provided, locations which will require a manhole, assuming a catchbasin is not appropriate, are:

(1) Wherever necessary to keep maximum lengths in agreement with the table in subsection (e) of this section.

(2) At points of conflict with utility lines which cannot be moved.

(3) At all angles in sewers.

(4) At points where the grade of a sewer changes.

(5) At points where the size of a sewer changes.

(6) At junctions of sewer lines.

(g) Locations which will not require a manhole at the junction of sewer lines are as follows:

(1) When grate inlets outside the pavement are used, 15-inch reinforced concrete pipe may be connected to the trunk line by a wye fitting if the trunk size does not exceed 24 inches and the length of the 15-inch reinforced concrete pipe between the grate inlet and the wye fitting does not exceed 20 feet. Fabricated conduit wye fittings will be noted on the plan-profile sheets.

(2) When a yard drain is used, eight-inch concrete sewer pipe may be stubbed into the trunk line, with the length limitation described in subsection (1) of this subsection. Such stubbing of conduits will be noted on the plan-profile sheets.

(h) A minimum clearance of six inches shall be maintained between the top of the pipe and the lowest part of the subgrade. Minimum clearance should be increased to 12 inches for pipes 90 inches and greater in diameter. If this minimum cannot be met, the entire trench shall be backfilled with fillcrete with two bags of cement for every cubic yard of sand and with a water-cement ratio of 32:1 to the top of the pipe. Approximately one foot of clearance should be maintained between storm sewers and underground utilities. Where it is necessary for a sanitary sewer line to pass through a manhole, at least one foot of clearance should be maintained between the bottom of the sanitary sewer line and the flow line of the manhole. Cast iron sewer pipe of sufficient length to ensure approximately two feet of bearing on compacted soil beyond the walls of the manhole should be required in such cases. Figure 1 may be referred to for guidance in dealing with conflicts between storm and sanitary sewer lines.
(Code 1976, § 23-42(f)(3); Ord. No. 473-94, §§ 1--3, 7-19-94)

Sec. 78-119. Design calculations.

(a) *Generally.* The design engineer shall use the applicable method given in section 78-117 in determining the discharge rate according to the procedures outlined in the state department of transportation and development hydraulics manual (November 1984).

(b) *Runoff coefficients.* The allowable runoff coefficients to be used in the Rational Method are as

follows:

Description of Area	Runoff Coefficient
Business:	
Downtown areas	0.70--0.95
Neighborhood areas	0.50--0.70
Residential:	
Single-family areas	0.30--0.50
Multiunit dwellings, detached	0.40--0.60
Multiunit dwellings, attached	0.60--0.75
Residential (suburban)	0.25--0.40
Apartment dwelling areas	0.50--0.70
Industrial:	
Light areas	0.50--0.80
Heavy areas	0.60--0.90
Parks and cemeteries	0.10--0.25
Playgrounds	0.20--0.35
Railroad yard areas	0.20--0.40
Unimproved areas	0.10--0.30

(c) *Time of concentration.* Time of concentration is defined as the flow time from the most remote point in the drainage area to the point under consideration. Usually it is considered to be composed of time of concentration to drainage inlets plus time of flow in pipes. Figure 2 (adapted from Elwyn E. Seelye, Databook for Civil Engineers, volume 1, Design, second edition, New York, John Wiley and Sons, Inc., 1951) is provided to assist in estimating the overland flow time, which will be considered the time of concentration to the drainage inlets. Time of concentration for drainage inlets shall not be less than five minutes.

(d) *Rainfall intensity and duration.* Frequency tables for storm durations of five minutes to 60 minutes have been prepared for storms with return periods of two, five, ten, 25, 50 and 100 years. Table 2, showing return periods of two, five, ten and 25 years, was prepared from data presented in National Oceanic and Atmospheric Administration (NOAA) Technical Memorandum NWS Hydro-35 (Five- To 60-Minute Precipitation Frequency for the Eastern and Central United States, June 1977).

TABLE 2. RAINFALL INTENSITY
(INCHES PER HOUR)

	Return Period			
Duration (minutes)	2 years	5 years	10 years	25 years
5	6.6	7.5	8.1	9.2
6	6.4	7.2	7.9	8.9
7	6.2	7.0	7.6	8.6
8	6.0	6.8	7.4	8.4

9	5.9	6.6	7.2	8.1
10	5.7	6.4	7.0	7.9
11	5.5	6.2	6.8	7.7
12	5.4	6.0	6.7	7.5
13	5.3	5.9	6.5	7.3
14	5.1	5.8	6.4	7.2
15	5.0	5.7	6.2	7.0
16	4.9	5.6	6.1	6.9
17	4.8	5.5	6.0	6.8
18	4.7	5.4	5.9	6.6
19	4.6	5.3	5.8	6.5
20	4.5	5.2	5.7	6.4
21	4.4	5.1	5.6	6.3
22	4.3	5.0	5.5	6.2
23	4.3	4.9	5.4	6.1
24	4.2	4.8	5.3	6.0
25	4.1	4.7	5.2	5.9
26	4.0	4.7	5.1	5.8
27	3.9	4.6	5.0	5.7
28	3.9	4.5	5.0	5.6
29	3.8	4.4	4.9	5.6
30	3.8	4.4	4.8	5.5
31	3.7	4.3	4.7	5.4
32	3.6	4.2	4.7	5.4
33	3.6	4.2	4.6	5.3
34	3.5	4.1	4.6	5.3
35	3.5	4.1	4.5	5.2
36	3.4	4.0	4.4	5.1
37	3.4	4.0	4.4	5.1
38	3.3	3.9	4.3	5.0
39	3.3	3.9	4.3	4.9
40	3.2	3.8	4.2	4.9
41	3.2	3.8	4.2	4.9
42	3.1	3.7	4.1	4.8
43	3.1	3.7	4.1	4.7
44	3.0	3.6	4.0	4.7
45	3.0	3.6	4.0	4.6
46	2.9	3.5	3.9	4.5
47	2.9	3.5	3.9	4.5
48	2.9	3.4	3.8	4.4
49	2.8	3.4	3.8	4.4
50	2.8	3.4	3.7	4.3
51	2.8	3.3	3.7	4.3
52	2.7	3.3	3.7	4.3
53	2.7	3.3	3.6	4.2
54	2.7	3.2	3.6	4.2
55	2.6	3.2	3.5	4.1
56	2.6	3.1	3.5	4.1
57	2.6	3.1	3.5	4.1

58	2.5	3.1	3.4	4.0
59	2.5	3.0	3.4	4.0
60	2.5	3.0	3.4	3.9

(e) *Computation of design flow.* Having determined the drainage area in acres, the runoff coefficient C, and the rainfall intensity in inches per hour, the design flow for a given drainage area is equal to the product of the three factors. In computing pipe flows, however, it must be noted that, even though a given pipe is collecting flow from several individual drainage areas, the pipe flow is not equal to the sum of the peak discharges of the respective drainage areas. For every inlet or junction box, the new drainage area, the runoff coefficient C, and the rainfall intensity will have to be computed.
(Code 1976, § 23-42(f)(4))

Sec. 78-120. Inlets.

(a) *Construction of inlets.* Inlets may be constructed of the same material as the culverts providing that the grates and frames are structurally capable of HS-20 loadings.

(b) *Spacing controls.* A maximum spacing of 170 feet is to be used between inlets or between a high point in grade and an inlet, provided that maximum spacing of greater than 150 feet shall be allowed if the subdivider applies to the board of trustees for a variance from this rule, and the board of trustees finds that the proposed spacing is consistent with drainage requirements needed to limit the flooding of the pavement to half of the width of the travel lane as described in subsection (c). Other areas that will require inlets are:

(1) At all points in gutter grade.

(2) Upstream of street intersections.

(3) Upstream of driveways, where practical.

(4) On both sides of street intersections where water would flow towards the project (water will not be carried across intersections in valley gutters).

(5) Behind curb, shoulder or sidewalk to drain low spots.

(c) *Design.*

(1) The primary design control for spacing of inlets is the width of flooding of the travel lane. It is general policy that the system be designed so that at least half of the lane remains free of inundation during the design storm. Figure 3, Flow Capacity of Street and Gutter, is to be used to determine the actual width of lane that will be flooded for a certain calculated runoff. Figures 4 and 5 will be used to determine the distance between inlets in order to avoid floodings of the lane beyond the design width. These capacity curves were developed from experimental data based on a study conducted by Louisiana State University for the department of transportation and development (W. A. Wintz, Jr. and Y. H. Kuo, A Study of Storm Water Inlet Capacities, 1970).

(2) Inlet spacing should be designed to limit the flooding of the pavement to half of the width of the lane. If drainage areas that feed the respective inlets are so large that they generate runoffs that would cause the pavement to be flooded beyond this limit, then the inlets should be brought closer together until the runoffs generated by respective drainage areas are more in agreement

with the capacity of the gutter, with half of the travel lane inundated.

(3) If this procedure results in inlets being spaced unreasonably close together for a significant length of roadway, then the designer may elect to set the inlets at some minimum spacing, for instance, 100 feet. He would then investigate to see what width of flooding is being produced by the resulting drainage areas and apply engineering judgment to decide if such flooding is tolerable, or if it is economically or practically feasible to reduce the limits of flooding by other means, such as intercepting behind the curb, providing a gutter section with greater conveyance capacity, utilizing double inlets, etc.

(4) To space inlets on a grade, the capacity of the gutter section, in conjunction with up to half of the outer travel lane, is determined first. Having determined the amount of runoff necessary to bring the gutter to capacity flow, the next step is to determine the width, measured parallel to the roadway, of the drainage area which will have a peak discharge equal to that flow. This is basically a trial and error procedure. A width of drainage area is assumed, and the runoff from the drainage area so defined is computed according to section 78-117. If the runoff computed from this drainage area is equal to or slightly less than the desired amount, then the location of the inlet is set. If, however, the computed runoff is greater, then the width of the drainage area must be reduced by moving the location of the inlet.

(5) The idea is to know how much runoff can be allowed to accumulate in the gutter before placing an inlet to intercept it. On very flat grades or for the first inlet on a grade, this value is equal to the gutter capacity. However, considering inlets on a moderate grade, a certain amount of water may be expected to bypass any given inlet and continue on in the gutter. Considering this fact, the permissible accumulation becomes gutter capacity minus residual gutter flow, or bypass, from the last inlet upstream. A conscientious design should allow for this bypass flow, which may range from negligible on grades of less than one-half of one percent to as much as 40 to 60 percent of total gutter flow for grades of three percent or greater.

(6) Figures 4 and 5 provide a method of predicting the bypass flow at various grades for the two inlet types which are most commonly used by the city. These graphs are a representation of empirical data which were collected in research of these inlet types only, and they should not be used for any other inlet types.

(7) When the appropriated interception ratio chart (figure 4 and figure 5) is aligned with the righthand side of the appropriate gutter flow capacity chart (figure 3), the gutter flow and interception ratio for a given grade may be determined simultaneously. The procedure is as follows:

a. Begin by locating the desired longitudinal roadway grade on the horizontal axis of the lefthand chart, and from that point draw a vertical line which will intersect with the curve representing the desired width of flooding.

b. Carry a horizontal line from this point until the vertical axis (ordinate) is intersected, indicating the flow capacity of the gutter under the specified limits of flooding.

c. Extend the horizontal line into the righthand chart until the curve representing the appropriate longitudinal grade is intersected, and from that point draw a vertical line which intersects the horizontal axis (abscissa) of the righthand chart, indicating the fraction of the total gutter flow which will be intercepted by the inlet.

(Code 1976, § 23-42(f)(5); Ord. No. 473-94, §§ 4, 5, 7-19-94)

Sec. 78-121. Roadway slopes.

(a) Roadway slopes should have a minimum longitudinal grade of 0.0025 foot per foot, and preferably a grade of 0.003 foot per foot.

(b) The cross slope shall be the standard 0.025 foot per foot.

(c) As long as it is possible, low points shall not be at street intersections.
(Code 1976, § 23-42(f)(6))

Sec. 78-122. Detention areas.

(a) When green areas are involved in the design of subdivisions or any other private or public facility, the use of detention areas is encouraged. This technique is also encouraged for large parking areas in new commercial developments. Properly designed, these areas could serve as amenities providing small ponds or recreation areas that will improve the aesthetic value of the development. In many instances this alternative will reduce the developer's costs by allowing the use of smaller size pipes. This practice of using detention areas will also benefit the city by reducing the need to constantly improve existing drainage systems in order to accommodate increases in runoff.

(b) Although this practice is highly desirable, a written explanation and calculations must be submitted to the city for its approval. The explanation shall include but not be limited to the following areas:

(1) The drainage area to be involved in the detention area.

(2) The predicted runoff for the area involved.

(3) The size of pipes required if no detention were involved in the design.

(4) The size of the detention area and the anticipated capacity.

(5) The size of the pipes that are recommended for the proposed detention area.

(6) What will happen to the overflow once the design storm is exceeded.
(Code 1976, § 23-42(f)(7))