

VILLAGE OF JAMAICA BEACH
P. O. BOX 5264
GALVESTON, TEXAS 77551

ORDINANCE 84-1, AN ORDINANCE ESTABLISHING
SUBDIVISION REGULATIONS FOR THE VILLAGE
OF JAMAICA BEACH

SUBDIVISION REGULATIONS
VILLAGE OF JAMAICA BEACH, TEXAS

Sec. 1 Short Title

This article shall be known and may be cited as the "Subdivision Regulations of the Village of Jamaica Beach".

Sec. 2 Scope

All plats and subdivisions of land within the corporate limits, or within the extraterritorial jurisdiction, of the Village of Jamaica Beach shall conform to the requirements of this chapter.

Sec. 3 Definitions

For the purpose of interpreting this ordinance, certain words used herein are defined as follows:

- (A) Subdivision. The term "subdivision" means the division of a parcel of land into two (2) or more lots or parcels for the purpose of transfer of ownership or building development, or, if any portion is intended for public use, any division of a parcel of land. The term includes resubdivision and when appropriate to the context, shall relate to the process of subdividing or to the land subdivided. The term includes resubdivision and the alteration of parcels or lots by the modification of existing property lines.
- (B) Shall. The word "shall" wherever used in this ordinance will be interpreted in its mandatory sense.
- (C) Building Lines. A line beyond which building must be set back from the dedicated street right-of-way line.

- (D) Thoroughfare. Principal arterial street which serves to connect remote parts of the city, and provides for free movement of traffic between neighborhoods, districts, or communities.
- (E) Collector Streets. Collector streets are those which carry traffic from minor streets to arterial streets and highways, including the principal entrance streets of a residential development and streets for circulation within such a development.
- (F) Local Street. A street intended primarily to serve traffic within a limited district and provide access to building sites.
- (G) Street Width. Street width is the shortest distance between the lines which delineate the right-of-way of a street.
- (H) Alleys. Alleys are minor ways which are used primarily for secondary (service) access to the back or the side of properties otherwise abutting on a street.
- (I) Preliminary Plat. The plat of any lot, or parcel of land not intended to be recorded or of record.
- (J) Replattting. Replattting is the resubdivision of any part of a previously platted subdivision.
- (K) Improvements. Improvements as used herein includes the improvements required by this ordinance and does not refer to dwelling houses or buildings to be constructed within the subdivision.
- (L) Final Plat. The final plat is the division of any lot,

tract, or parcel of land that is to be recorded of record.

- (M) Private Streets. Streets which are not dedicated to public use.

Sec. 4 General Requirements

- (A) Street Arrangements. Unless otherwise approved by the planning commission, provision shall be made for the extension of arterial streets, and collector streets shall be provided for the circulation of traffic through the subdivision and the connection thereof to the arterial streets. Other streets shall be provided within the subdivision as necessary to accommodate anticipated traffic demands and provide access to all building sites. All arterial streets shall be continuous or in alignment with existing streets of which they are a logical extension.

- (1) Boundary Streets. In cases where the proposed subdivision is partially or totally bounded by existing streets or rights-of-way having width less than that specified in this ordinance, the subdivision shall be laid out so as to provide the street width required.
- (2) Street Intersections. More than two (2) streets intersecting at one point shall be avoided. All street intersections shall be at ninety (90) degrees. A waiver of up to ten (10) degrees may be granted by the Planning Commission for sufficient cause. Corners at intersections shall be rounded

with a minimum radii of ten (10) feet. Street intersections shall be aligned so as to avoid off center intersections.

- (3) Dead-End Streets. Dead end streets may be platted where the Planning Commission deems desirable and where the land adjoins property not subdivided, in which case the streets shall be carried to the boundaries thereof. Dead-end streets, designed to be so permanently, shall not be longer than six hundred (600) feet, except on special approval of the Planning Commission, and shall be provided at the closed end with a "turn around" having an outside street right-of-way radius of not less than fifty (50) feet.
- (4) Street Spacing. Streets shall generally be platted to allow two (2) tiers of lots with such alleys or easements as may be required. Lots having double frontages may be permitted by the Planning Commission if necessary or desirable due to site considerations. Streets intersections shall have a minimum frequency of one hundred twenty-five (125) feet. The maximum interval between street intersections shall be one thousand three hundred twenty (1,320) feet.
- (5) Relation to Adjoining Streets and Land. The system of streets designated for the subdivision, except in unusual cases, must connect with streets already dedicated in adjacent subdivisions; and where

adjacent property is not platted, adequate street connections should be extended to the common property line to insure proper traffic circulation when said property is platted. Reserve strips of land to prevent access from other property shall not be permitted.

- (6) Street Elevations and Grade. All street crown elevations shall in no case be less than elevation 5.0 (U.S.C. & G.S. datum plane), without the written specific approval of the Planning Commission.
- (7) Street Widths. Street width shall conform with the following:
 - (a) Arterial streets shall have minimum right-of-way width as required by the Planning commission to accommodate the ultimate traffic volumes anticipated.
 - (b) Collector streets shall have a minimum right-of-way width of fifty (50) feet.
 - (c) Local streets shall have a minimum right-of-way width of forty (40) feet.
- (8) Sight Distance and Curve Geometry. The Planning Commission may set such standards for sight distances and curves as are appropriate to the anticipated speeds and volumes of traffic. The following standards shall be conformed with:
 - (a) For thoroughfares:

- (1) The minimum tangent between reverse curves is 100 feet.
- (2) The minimum radii for horizontal curves is 150 feet.
- (3) The minimum radii for vertical curves is 100 feet.
 - (a) The minimum tangent between reverse curves is 40 feet.
 - (b) The minimum radii for horizontal curves is 50 feet.
 - (c) The minimum radii for vertical curves is 100 feet.

(9) Private Street. Private streets shall generally comply with the standards for an equivalent public street. Such traffic control devices as are installed shall conform to the standards of the "Manual on Uniform Traffic Control Devices". The City Administrator may require the installation of such traffic control devices as are appropriate on private streets at the expense of the developer.

(B) Street Names. New streets shall be named so as to provide continuity of names with existing streets. Otherwise similar or identical street names to streets already existing or platted in other parts of the city shall be avoided. The maximum length of any street name shall be eighteen (18) characters. The Planning

Commission may reject any name which is deemed inappropriate.

- (C) Alleys. Alleys may be required in blocks used for commercial purposes. Alley width shall not be less than twenty (20) feet and shall be paved full width. No business or dwelling shall face or have its main entrance on an alley. Dead-end alleys shall not be permitted.
- (D) Easements. Except where alleys are provided, utility easements not less than five (5) feet wide at the ground level and ten (10) feet wide from a plane twenty feet above ground and upward shall be provided on each side of the rear lot lines and each side of side lot lines, if necessary. If the easement on the rear of said lot does not total the ten (10) feet and twenty (20) feet above a twenty foot plane, the single lot easement shall be ten (10) feet at ground level and fifteen (15) feet from a plane twenty-feet above ground and upward. Down-guy easements will be required where needed. Every effort shall be made to locate pole utilities at the rear of lots and avoid poles along the streets. Drainage easements may be required with sufficient width to accomodate the construction and maintenance of the facility.
- (E) Lot Arrangement and Elevation. In general, lot size, shape, and orientation shall be appropriate for the location, the type of development, and use contemplated, and in conformance with requirments of the Zoning

Ordinance.

- (1) Lot Lines. All side lines of lots shall be at right angles to straight street lines or radial to curved street lines, unless a variation from this rule would provide for a more desirable building site.
- (2) Access. Each lot shall be provided with adequate access to a public street.
- (3) Remnants. No remnants of land shall be left in the subdivision which do not conform to lot requirements or are not required or suitable for utility service. Areas in cluster or planned unit developments shall be of such area, shape, and configuration as to have utility for service or other recreational purposes. Common areas should adjoin several lots and be situated and designed so as to increase the likelihood of use.
- (4) Elevation. No lot shall be lower than the center line elevation of the adjacent street at any point unless the lot adjoins a body of water or a drainage easement. In no case shall the outfall from the street drain across any portion of a private lot. The building site shall be not less than one foot above the center line of the street or be at least one foot above all elevations six (6) feet from the building site.
- (5) Grading. All lots shall be graded in a manner so that surface water will flow to the street gutters

or to public drainage outlets. They shall not drain toward private property wherein no drain easement exists.

(F) Miscellaneous Requirements.

- (1) The description and location of all permanent survey monuments, block corners, and other markers shall be shown on the plat and meet the following standards:
 - (a) Each lot must be accurately surveyed and suitable corner markers located.
 - (b) Every change of direction on the perimeter survey shall be permanently marked.
 - (c) Permanent bench marks, based on mean tide (U.S.C. G.S. datum) shall be set, not more than one thousand (1,000) feet apart along all street lines. Elevations on fire hydrants, manhole rings, and spikes in utility poles will not be acceptable.
- (2) Accuracy of Survey. The allowable error of closure for all survey work shall not be greater than one in seven thousand (1/7000).
- (3) Physical Improvements. Construction of all streets, sidewalks, drainage structures, utilities and other improvements shall be in accordance with current city ordinances or other design standards of the Village of Jamaica Beach at the time of submission of the plat.

Sec. 5 Platting Procedure

(A) Departmental Review (Stage One)

There shall be a three stage process for plats required to be submitted to the commission for approval, consisting of a departmental review (stage one), preliminary approval (stage two), and final approval (stage three). The number of copies of the development plan required to be filed at the appropriate times shall be fifteen (15) copies for Stages Two and Three, (Preliminary and Final Approval).

- (1) Departmental Review. The owner or his authorized agent, shall submit to the City Administrator a plot plan, drawn to scale not less than 1" = 100' (preferably the scale of 1" = 20' or 1" = 60'). The developer and the planning staff shall meet together and determine whether the applicable requirements of this Code of Ordinances have been complied with. If there is disagreement on this issue, the applicant, by request, or the staff, may take this pre-preliminary information to the commission for their determination. If the staff and applicant reach a satisfactory agreement, the applicant may proceed to prepare data for Stage Two - Preliminary Approval.
- (2) Preliminary Approval Application. Applications for Preliminary Approval shall be made by the owner or his authorized agent of all affected

property and shall be filed on a form prescribed by the City Planning Staff and filed with said department. Applications shall be accompanied by a fee prescribed in the Fee Schedule and accompanied by the following information:

- (a) Copies of the preliminary development plan of the entire development drawn to scale and showing streets, utility easements, building lines, relevant operational data, drawings and/or elevations clearly establishing the scale and open space. Such development plan shall include a location map showing information on the surrounding area within four hundred (400) feet of the development. A boundary survey or a certified boundary description by a registered engineer or licensed surveyor, plus contour information shall also be submitted. The elevation of all points used to determine the contours shall be indicated on the preliminary plan and said points shall be given to true elevation above mean sea level as determined by the U.S.C. & G.S. The base data shall be clearly indicated and shall be compatible to City datum if bench marks are not adjacent. The following intervals are required:

- (i) One-foot contour intervals for ground slopes up to five (5) percent.
- (ii) Two-foot contour intervals for ground slopes between five (5) percent and ten (10) percent.
- (iii) Five-foot contour intervals for ground slopes exceeding ten (10) percent.

All elements listed in this paragraph shall be characterized as existing or proposed and sufficiently detailed to indicate intent and impact.

- (b) A tabulation of the land area to be devoted to various uses, and a calculation of the average residential density per net acre.
 - (c) A development schedule demonstrating that the developer intends to commence construction within one year after the approval of the final development plan, and will proceed diligently to completion.
 - (d) If it is proposed that the final plan will be executed in stages, a schedule thereof shall be required.
- (3) The required data shall be submitted to the City Administrator not less than seven (7) days prior to the Commission meeting at which preliminary approval is sought.

(B) Preliminary Approval (Stage Two)

- (1) The application for preliminary approval shall be considered by the Commission in a public meeting. The developer or his Engineer shall be present.
- (2) The Commission shall determine whether the proposal conforms to City and other applicable regulations, and may approve or disapprove the application and the accompanying preliminary development plan or require such changes therein or impose such conditions of approval as are in its judgment necessary to ensure conformity to said regulations. Should positive or negative action not be taken within thirty (30) days after filing, the application and preliminary development plan shall be deemed approved unless said time has been extended by the developer.
- (3) Preliminary approval does not constitute acceptance of the plat by the city, but it merely authorizes to proceed with preparation of the final plat. It shall be unlawful for any work to be done on the ground until the final plat has been approved, except basic site clearing may commence at the developer's risk.

(C) Engineering Report (Stage Two)

Developers shall file three (3) copies of the engineering plans with the City Administrator after preliminary approval for review approval. The City

Engineer may forward copies of the plans to County agencies, if appropriate, for review of public improvements, including streets, utilities and drainage. When the development lies outside the City limits, the plans shall be forwarded to the County Agencies. The Commission shall not act on a final plat until it has first received a report from the City Administrator outlining drainage improvements or written approval from County Agencies, if appropriate.

(D) Final Approval (Stage Three)

(1) Within one hundred eighty (180) days after preliminary approval and within thirty (30) days of submission of the final plan, the Commission shall examine such plat and determine whether it conforms to all applicable criteria and standards and whether it conforms in all substantial respects to the previously approved plat. The developer or his Engineer shall be present at the meeting.

When submittal of engineering data is required to a county agency and when it can be shown that the county agency required a longer time for approval of engineering plans, the Planning Staff may extend the one hundred eighty (180) days by ninety (90) days but not more than two hundred seventy (270) days from

preliminary approval action by the Planning Commission.

- (2) The final plat shall be submitted to the City Administrator at least seven (7) days prior to the Commission meeting at which final approval is sought and accompanied by the final filing fee as prescribed in the Fee Schedule.
- (3) Three sets of plans and specifications for water, sewer, paving, and drainage prepared by an engineer registered in Texas as approved in writing by the City Administrator shall be submitted prior to the beginning of any construction of the subdivision.
- (4) The final plat shall show or be accompanied by the following data:
 - (a) Plats shall be drawn upon sheets 24 x 36 inches to the scale of one hundred feet to the inch, unless another scale is approved.
 - (b) A title including name of subdivision, owner or owners, and the certification of licensed land surveyor, registered engineer, or registered public surveyor responsible for the plat, and the scale and location of the subdivision with reference to original land grants or surveys, the future data and north point.
 - (c) A certificate of ownership and dedication of all streets, easements, parks, and

Sec. 6 Guarantee of Construction Improvements.

Approval of any plat or replat shall be deemed an acceptance of the proposed land dedication. It shall not, however, impose a duty upon the Village of Jamaica Beach concerning the maintenance or improvements of any such dedicated parts until such improvements are made by the subdivider and accepted by the Village of Jamaica Beach. Prior to final approval by the Planning Commission of a plat or replat, together with all dedications of lands for public use, the developer and/or owner shall formally agree in writing to provide necessary improvements, in accordance with prevailing requirements of the Village of Jamaica Beach. Unless and until any plat or replat shall have been first approved in the manner and by the authorities provided for in this ordinance or unless the application is withdrawn, no building permit shall be issued and no service or connection shall be made with any public utility.

Sec. 7 Recommendations to City Council

After reviewing the plat or replat, the Commission shall forward same to the City Council for final approval or disapproval. The commission shall furnish to council their recommendations regarding approval or disapproval for revision. Council shall at a regular or special meeting consider the referred plat or replat and act on same.

Sec. 8 Expenditure of Public Funds

The acceptance of a final plat by the Village of Jamaica Beach does not in any manner obligate the Village to finance or furnish any improvements within the approved subdivision.

playgrounds to public use forever, signed and acknowledged before a notary public by the owner and lienholder of the land.

- (d) An accurate on-the-ground boundary survey of the property with bearings and distances and showing the lines of all adjacent land, streets and easements with their names and width. (Streets and lot lines in adjacent subdivisions shall be shown dotted.) All necessary data to reproduce the plat on the ground must be shown on the plat, including building lines.
- (e) Certificate of approval, to be signed by the Mayor and Secretary of the City, shall be placed on the face of the plat after approval by City Council.
- (f) All construction shall be inspected while in progress by the City and must receive final approval upon completion by the City Administrator. A letter by such officers stating that the construction conforms to the specifications and standards contained in or referred to herein must be presented to the Planning Commission prior to filing of the final plat.

Sec. 9 Schedule of Fees

The following fees shall be collected by the Village of Jamaica Beach when any preliminary plat, replat, or final plat, as the case may be, is tendered to the Village. Fees shall be paid in advance and no action of the Planning Commission or City Council shall be valid until the fee herein provided for shall be paid:

- (a) Preliminary Plat: Five (5) lots or less, a fee of twenty dollars (\$20.00)
- (b) Preliminary Plat: Six (6) lots or more, fifty dollars (\$50.00) per plat, plus the appropriate of the following:
 - (1) Twenty-five cents (\$0.25) per lot multiplied by the number of lots in excess of nine (9);
or
 - (2) For multiple-dwelling and other areas not divided into lots, the sum of three dollars (\$3.00) multiplied by the number of acres or fraction thereof in excess of one acre.
- (c) Final Plat:
 - (1) Five (5) lots or less, a fee of twenty dollars (\$20.00).
 - (2) Six (6) lots or more, fifty dollars (\$50.00) per plat plus twenty-five cents (\$0.25) per lot for the number of lots more than nine (9);
or three dollars (\$3.00) per acre for multiple-dwelling and other areas not divided

into lots for each acre or fraction thereof in excess of one acre.

(d) Replats: Same as for preliminary plats.

A certificate shall be obtained by the director of planning showing that all fees provided herein have been paid to the city prior to submission of the plat to the Planning Commission.

(e) The cost of review of an application by the Village Consulting Engineer shall be paid by the applicant. A deposit of \$250.00 for such costs shall be paid at the time of filing and the balance paid by applicant prior to approval.

Sec. 10 Exceptions

The Planning Commission may authorize a variance of any requirement of this article if it deems strict compliance with the requirement of this article is not in the best interest of the general public. In permitting such variance, the commission shall take into consideration the existing and proposed land use of the general vicinity and the probable effect of such variance upon traffic, public health, safety, convenience, and welfare in the vicinity. The Planning Commission when granting such variance, shall cause to be incorporated in the official minutes of the Planning Commission meeting the specific variance or exception granted. In considering such variances, the Planning Commission shall give consideration in particular to the need to minimize the impact and damage of floods.

Sec. 11 Engineering and Construction Standards for Subdivisions

(A) Streets

All streets will be reinforced concrete pavement on a compacted stabilized subgrade. Concrete pavement in storm sewered subdivisions shall be provided with either an integral curb poured with the pavement or a separate curb constructed on top of, and doweled to, the concrete pavement.

(1) Grade and Width

(a) Grade: Gutter gradients shall be a minimum of one quarter (1/4) of one percent. Crown sections shall slope not less than one-eighth (1/8) inch per foot. The minimum drop around curb return will be one-tenth (1/10) of one (1) foot. All gutter grades shall be above the design water surface of ditches and storm sewers. All grade changes with algebraic differences of one (1%) one percent or more shall be connected with a vertical curve.

(b) Width: Minimum width of curb of streets and right-of-way shall be as follows:

	<u>Street Width (Open)</u>	<u>Street Width (Curbed)</u>	<u>Right-of-Way Width</u>
Major Streets	24	39' (b-b)	60'
Collector Streets	24	29' (b-b)	50'
Residential or Minor Streets	20	29' (b-b)	40'

(2) Pavement Design

Pavement design shall conform to the following general requirements. References are made to Texas Highway Department "Standard Specifications for Road and Bridge Construction" adopted by the State Highway Department of Texas, January 3, 1972.

(a) Concrete Pavement: Concrete pavement shall conform to the requirements of Item 360 Texas Highway Department, Standard Specification. Concrete pavement shall have a minimum thickness of six (6) inches for residential and residential collector streets and a minimum thickness of seven (7) inches for commercial collections, and major streets. Concrete pavement shall be reinforced with 3/7-inch deformed bars for 6" concrete pavement and 1/2" deformed bars for 7" concrete pavement and twenty-four (24) inches center to center each way.

(b) Subgrade for Concrete Pavement: All subgrades for concrete pavement shall be at least 6" in depth and compacted to or meet the requirements of 95% standard proctor density. The subgrade shall be lime stabilized when the plasticity index of the subgrade exceeds 19. The rate of application of lime should be 22 pounds per

square yard. Compaction shall be accomplished by the use of approved and acceptable compacting equipment and testing shall be performed by a testing laboratory as approved by the City Administrator.

(3) Curb and Gutter: Curb and combination curb and gutter shall be constructed of reinforced concrete.

(B) Drainage and Storm Sewers

Adequate drainage shall be provided within the limits of the subdivision. The protection of adjoining property will be considered in the review of the plans submitted.

(1) Size: Sizing of inlets, storm sewers, outfalls, culverts (minimum size 12 inches), and drainage ditches will be in accordance with Village's Master Drainage Plan and based on the following:

(a) Design storm: The design storm will be based on recognized rainfall intensity-frequency data. The interior drainage system will be designed for a storm with a frequency of occurrence of once in two years. The minimum acceptable intensity of a 60-minute rainfall on this frequency is 2.80 inches.

(b) Runoff Computation: To determine the runoff rates for various areas, the standard rational method will be used, utilizing the

Formula $Q = CIA$, where Q = rate of runoff in cubic feet per second, C = runoff coefficient, I = rainfall intensity for the particular duration in inches per hour, A = drainage area in acres. Drainage areas will be arrived at by considering location of high and low points on street grades, drainage divides in area, and general configuration of existing and finishing grades. Calculations for each major storm sewer line shall be shown on a "drainage data sheet" and shall be included in the proposed plans. All pertinent information (i.e., drainage areas, time of concentration, rainfall intensity, runoff coefficients, etc.) shall be listed on the data sheet.

- (c) Sizing of Storm Sewers: Sewers shall be sized to carry the discharge (Q) derived from the above formula. Capacity of storm sewers will be determined by the use of Mannings formula on the basis of hydraulic gradients rather than the physical slope of the pipe.
- (d) Sizing and Spacing of Inlets: Inlets shall be spaced so that maximum travel distance of water in a gutter will not exceed 600 feet unless otherwise approved at all low points in the gutter gradient. Inlets will be sized using an allowable capacity of one (1) cubic

foot per second per foot of opening for a throat height of five inches.

(2) Design: Design of storm sewers, outfalls, culverts, and drainage ditches will conform to the following requirements:

(a) Manholes: Manholes (inlets or junction boxes) shall be provided at all changes in grade or alignment, sewer intersections, street intersections, and at a minimum of 1,000 feet on straight lines. Design of manholes shall follow acceptable engineering practice, and shall be constructed of reinforced concrete sections in accordance with ASTM C-32, Grade MM, and/or concrete brick conforming to the latest revision of ASTM C-55, Grade G-11.

(b) Pipe: Pipe for storm sewers shall be concrete pipe in sizes as shown on the approved plans. All pipe shall be reinforced concrete pipe (RCP) conforming to the latest revision of ASTM C-76, Class III. Where, in the opinion of the City Administrator, added strength of pipe is needed for traffic loads over minimum cover or for excessive height of backfill, concrete pipe shall be ASTM C-76, Class IV or V. Abestos bonded or bituminous coated

corrugated galvanized metal pipe (CGMP) may be used in the place of reinforced concrete pipe, provided such use is in accordance with the Texas Department of Highways and Public Transportation Standard Specifications for Construction of Highways, Streets, and Bridges, Item 460. The gauge of the pipe used, however, shall be the next heavier gauge than the minimum required by Item 460. The use of corrugated galvanized metal pipe under streets is prohibited except for culverts and design load calculations which must be submitted with construction drawings. Pipe shall have a minimum cover of not less than one (1) foot over the top of the pipe.

- (c) Ditches: Drainage ditches, when required, may be used for outfalls to natural or major drainage channels. The City Administrator may require that drainage ditches be used for outfalls to natural or major drainage channels when the use of such ditches will improve drainage of the development.

Ditches shall have a minimum grade of not less than 0.10 percent and side slopes not steeper than 3.1

- (d) Outfalls: Outfalls from sewers and ditches into natural drainage ways shall enter at a

grade of the natural drainage channel. If necessary, drop-type outfall structures shall be used to prevent erosion.

- (3) Construction: Construction of all storm sewers, outfalls, culverts, and drainage ditches will conform to drawings approved by the Administrator.

(C) Water and Sewer System

The developer shall be required to submit a letter to the City Administrator from the Department of Health Resources approving the water and sanitary sewerage systems. The developers of the subdivision shall provide all water and sewer lines necessary to properly serve the subdivision.

(1) Sanitary Sewer System

- (a) Materials: Sanitary sewer lines shall be of the following materials:

- (i) Vitrified clay pipe and fittings conforming the latest revision of ASTM C-700, with compression joints conforming to the latest revision of ASTM C-245. Extra strength shall be used.

- (ii) Acrylonitrile - Butadiene - Styrene (ABS) composite sewer piping and fittings conforming to the latest revision of ASTM D-2680.

- (iii) Polyvinyl Chloride (PVC) and fittings conforming to the latest revision of ASTM D-3034, and ASTM D-1784, having a cell classification of 12454-B and SDR-35 pipe shall have flexible elastomeric gasket joints as approved by the City.
- (b) Construction: Sanitary sewers shall be constructed according to the latest revision of ASTM C-12 (vitrified clay), ASTM D-2321 (PVC and ABS) as to trenching, bedding, alignment, grade, installation, backfill, and compaction.
- (c) Manholes: Manholes shall be spaced a distance not to exceed 500 feet and shall conform to the City Engineer's specifications. Manholes shall be constructed of precast reinforced concrete manhole sections in accordance with the latest revision of ASTM C-478 or of fiberglass as approved by the City Administrator. Manhole rings and covers shall be 23-1/2" in diameter, be constructed of cast iron, and have a minimum of two 3/4" holes in the covers.
- (d) Force Mains: Force mains shall be constructed of the following materials:
 - (i) Asbestos-cement pipe conforming to the latest revision of AWWA C-400, Class

100, with cast iron fittings conforming to the latest revision of ASA A-21.11, and ASA A-21.10, pressure class.

(ii) Polyvinyl Chloride (PVC) Class 160 SDR-26, conforming to the latest revision of ASTM D-2241.

(e) Lift Stations: Lift stations should conform to minimum design criteria of the Department of Health Resources. An all-weather access road, three phase service, and potable water shall be provided. All structures located above ground shall be enclosed.

(f) Testing: All sanitary sewer lines shall be tested in accordance with the Texas Department of Water Resources, except that allowable leakage shall not be less than 50 gallons per inch of inside diameter per mile of pipe per twenty four hours for entire test section including manholes. All material, labor, and equipment necessary for testing shall be provided by the developer. The City Administrator shall be notified 24 hours prior to a test. All test results shall be submitted in writing to the City Administrator.

(2) Water System

(a) Materials: All pipe and fittings shall be

approved by the American Water Works Association for carrying potable water. Water lines shall be constructed of the following materials.

- (i) Asbestos cement pipe and fittings conforming to the latest revision of AWWA C-400, Class 150, and ASTM C-296.
 - (ii) Polyvinyl Chloride and Fittings conforming to the latest revision of AWWA C-900, Class 160.
 - (iii) Cast iron fittings shall conform to the latest revision of ASA A-21.10 and ASA A-21.11.
- (b) Valves: All valves shall conform to the latest revisions of AWWA C-500 and open left. All valves shall be provided with an approved adjustable valve box and cover. At intersections of water distribution lines, the number of valves will be one less than the number of radiating lines.
- (c) Hydrants: All fire hydrants shall be Mueller improved or approved Equal meeting latest revision of AWWA 502. Hydrants shall be three-way with National Standard threading. Hydrants shall be located on six (6) inch or larger lines, looped with (6) inch or larger lines. Hydrants shall be spaced every 300 feet along access ways in

600 feet along streets in residential areas in a manner acceptable to the fire department so that every building within the city limits will be within 500 feet radius of a standard city fire hydrant. There shall be a gate valve between the main and the fire hydrant.

- (d) Size: All water mains shall be a minimum of six (6) inches in diameter except where approved by the City Administrator.
- (e) Construction: Water lines shall be constructed according to the City Administrators specifications as to trenching, bedding, alignment, grade, installation, backfill and compaction, but no less than 3 feet of cover with 6-inch sand wrap backfill.
- (f) Testing: Bacterial analysis samples shall be taken by the City before the new water system is connected to existing city lines. All water lines shall be tested in accordance with Texas Health Department requirements. No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{ND\sqrt{P}}{7400}$$

in which L is the allowable leakage, in gallons per hour; N is the number of joints in the length of pipeline tested; D is the nominal diameter of the pipe in inches; and P is the average test pressure during the leakage test in pounds per square inch gage. All materials, labor, and equipment necessary for testing shall be provided by the developer. All tests shall be submitted in writing to the City Administrator.

(D) Street Lights

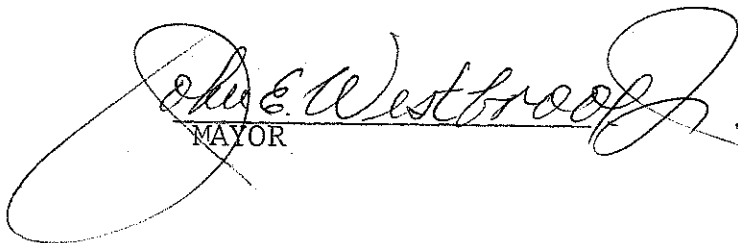
Developers shall be required to install ornamental metal standard and high pressure sodium vapor lamps on public streets in subdivisions within the city limits as follows:

- (1) The location and minimum number of street lights shall be determined by the City Administrator.
- (2) Underground installation charges for the subdivision shall be based on cost to Houston Light & Power and shall be paid to the City by the developer. Any other charges related to the installation of street lights shall be paid by the developer. Upon payment of all installation charges, the City will pay the monthly service for the street light.
- (3) Street lights shall be located so as to be of general benefit to the surrounding neighborhood.

(4) A developer commits an offense if he intentionally or knowingly fails to pay for street lighting as required and approved by the City Administrator within 30 days after notice by the City Administrator that electrical power service is available for street lighting.

(E) Street Name Signs

Street name signs approved by the City Administrator shall be provided and installed by the developer for all intersections in the subdivision.


MAYOR

ATTEST:


CITY SECRETARY

APPROVED:

CITY ATTORNEY